Changes in Thai Vernacular Housing Compounds

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Abstract

Although many Thai vernacular houses, particularly in the central region of Thailand, were originally arranged in compact groupings along the watercourses, modern developments have changed the living habits of the residents, thus changing the characteristics of their dwellings. The aim of this paper is to illustrate morphological changes of Thai vernacular compounds. Material for discussion was derived from observations and interviews with eighty households from eight out of fourteen villages in Tambon Pakkran of Pra Nakhon Si Ayutthaya. The data obtained were analyzed using various analytical approaches and tools. The most important finding is that although the physical appearance of the housing compounds has changed they still retain the traditional spatial configuration.

Key words: Modernity, Thai vernacular house, Housing compound, Pastoral landscape

Introduction

Thai vernacular houses, especially in the central region of Thailand, developed over the course of time along the river courses as elevated wooden houses clustered around a roofless platform, serving different family members (Panin 1997; Jaijongrak 1996; Beek 1995; Piromdha 1995; Paknam 1992; Chumsai 1988). The progression of modernity and urbanization has changed the lifestyles, thus bringing about changes in the characteristics of these vernacular houses (Horayangkura 2001). Few of traditional Thai houses now remain (Panin 1999; Jaijongrak 1997) in their original condition. Nearly all of them have been adjusted and altered to accommodate new expectations generated by this socio-cultural transformation. The alterations in many cases have resulted in changes to the way that the houses of family members relate to each other, with a tendency towards the formation of family compounds. The aim of this paper is to determine the effects that modern developments have had on the formation of such family housing compounds in Thai vernacular houses.

The study was carried out in Tambon Pakkran in the central region of Thailand, the location of a still magnificent collection of traditional Thai dwellings and environments. The paper begins with a discussion of the analytical approach used in this study. This is followed by a description of the physical environment of Tambon Pakkran and changes from *Reun Thai,* the traditional houses, in this locality to contemporary *Reun Thai.*[1] The paper then analyzes the morphological changes associated with the formation of housing compounds in the study area. The intention is not to generalize the outcomes of modern developments, but rather to reflect the physical changes to the pastoral landscape in the locality during the complex socio-cultural transformation of Thailand.

The materials used in this paper were derived from field research conducted in the period 2000–2002 for an ongoing research project on experiences of well-being in Thai vernacular houses. This project involved observations of houses and interviews with eighty households from eight out of fourteen villages at Tambon Pakkran.

Analysis

The intention of this paper is to explain changes of morphological characteristics of housing compounds in accordance with evolving conditions of Tambon Pakkran. This requires a systematic approach for analysis of architectural space. Narratives, photographs, plans and drawings can illustrate changes to the physical appearance of the houses. Such approach, however, fails to make the spatial organization explicit. Therefore, in this study analytical approach also used systematic taxonomy and cross-case analysis (Rapoport 1990; Rossi 1982), together with other tools such as thematic drawings, which was developed by Urhahn (1994) and Gandelsonas (1991), and syntactic analysis. In syntactic analysis (Hillier and Hanson 1984) the plan of each house is transcribed into an analytical diagram. Each habitable space is represented by a circle, and the connection between spaces is represented by a line. Since the objective was to examine the spatial configuration of formation of housing compounds, it is possible in this way to represent the main functions of

[1] In this paper, the term 'contemporary *Reun Thai*' is taken to mean a house type, developed by modification of the traditional Thai houses of the central region, or '*Reun Thai*', which occurred as a consequence of socio-cultural and ecological changes around Tambon Pakkran.

each house and the connection between them (see Figure 8c later in this paper).

Vernacular houses in Tambon Pakkran

Pakkran sub-district or Tambon Pakkran, located on the southern part of the municipal area of Amphor Pra Nakhon Si Ayutthaya(Figure 1), was selected for this study because it still retains some of the best vernacular dwellings and environments in Thailand (Silpakorn 1999). Tambon Pakkran, surrounded by agricultural fields, consists of fourteen villages. The villages are concentrated along the main watercourses (*khlongs*) of Takean and Pakkran and the Ayutthaya–Bang Pa In road (see also Figure 6 later in the paper). Most houses still retain the characteristics of traditional Thai houses. Scattered individual housing units form clusters that are usually occupied by relatives. Each cluster shares single open space, and has one or two access points from the road.

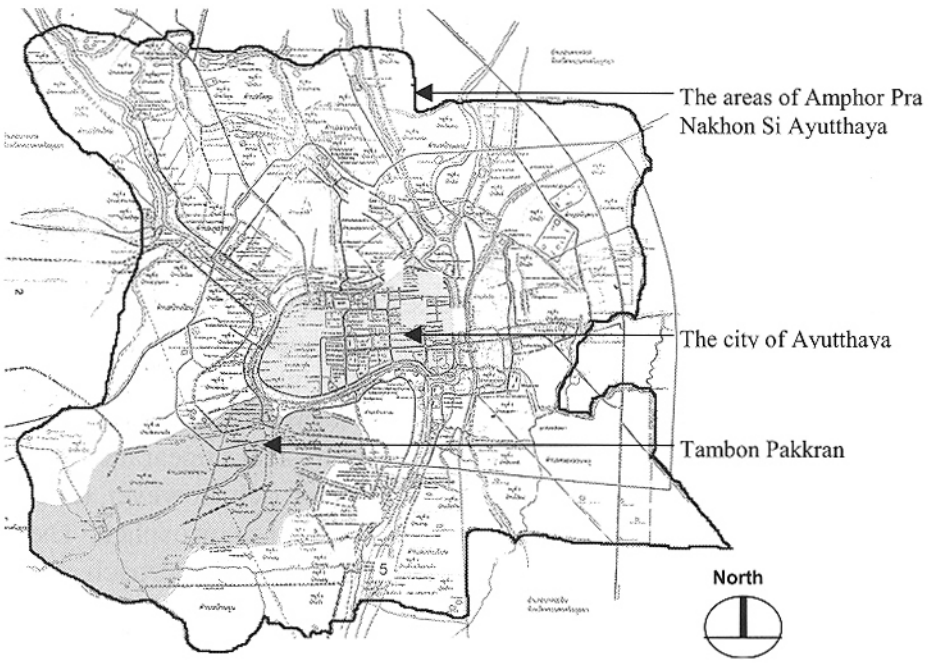


Figure 1 The location of Tambon Pakkran in Amphor Pra Nakhon Si Ayutthaya

Reun Thai

Traditional Thai houses, or Reun Thai, have long been central to the pastoral landscape of Tambon Pakkran (Figure 2). Only a few of the Reun Thai still remain. These traditional houses were located along the watercourses of Takean and Pakkran.

The *Reun Thai* are made of wood, and are elevated above the ground on stilts to avoid flooding and unwelcome animal intruders. The stilts are wooden poles that run right through the structure of the house. The elevated houses usually consist of two separate house components, a house for sleeping and a house for cooking, clustered around a roofless platform, or *Nok Chan*. The house for sleeping is divided into three parts: a verandah, or *Phalai*, leading into a semi-enclosed room and finally the bedroom, or *Nai Reun,* itself (see also Figure 2). The *Phalai* is an intermediary space between the indoor living space and the *Nok Chan*. The floors of *Reun Thai* are divided

vertically into three levels: the indoor living spaces, which are the highest, the verandah in the middle and the *Nok Chan*, which is the lowest. The roofs of the house for sleeping are high-pitched, with long eaves and two gable ends with hornlike finials or *Ngao,* while the roofs of the house for cooking are high-pitched in the *Malila* style, which is slightly lower than the traditional roof with gable ends resembling fishtails, or *Hangpla* (Figure 3). The house components are composed of wooden wall panels attached to the structural members with wooden pegs. Both the walls and structural members incline slightly inwards on all sides, with no interior ceiling. The traditional houses in the villages still remain largely in their traditional forms, structure and details of construction.

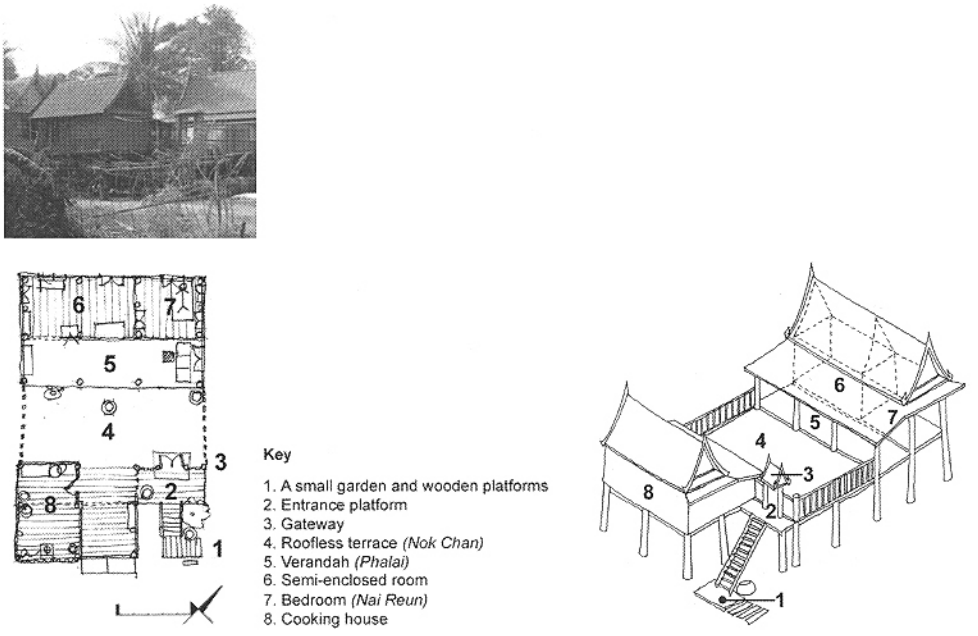
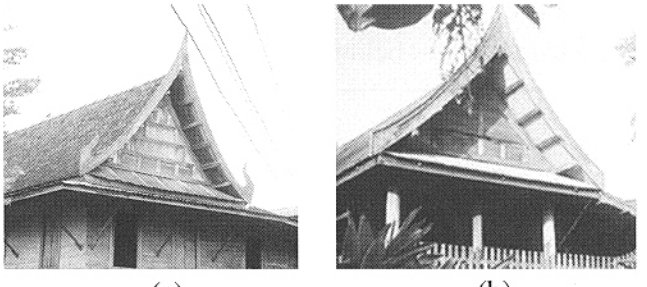


Figure 2 One of the *Reun Thai* in Tambon Pakkran



(a) (b)

Figure 3 Types of roof construction
(a) Traditional high-pitched roof with two gable ends of *Ngao*,
(b) *Malila* roof with two gable ends of *Hangpla*

Contemporary Reun Thai

Contemporary *Reun Thai* began to appear in the 1950s and are now dominant. They are found in many locations of the villages, and are usually clustered among a group of relatives, with one or two access paths from the roads.

These contemporary houses are still wooden and raised on stilts. Most of them are modified from the traditional houses. They include a main house, a house for cooking and a rice barn, together with new elements. Many of the contemporary houses were modified from the traditional houses at their original locations. However, some houses were moved from their previous communal house or were brought from other places to be built as a new house, using traditional styles, at their new locations. The houses were modified and added with new elements, particularly enclosing the main roofless platform or the *Nok Chan* with a roof and walls, thus forming an open interior space, or *Look Thong*.[1]
The modified *Reun Thai* can be categorized into five main types, characterized by the arrangement and the numbers of the previous traditional houses: (Footnotes)

- U-shaped layout, composed of three or four traditional houses. The arrangement of traditional houses forms a U-shaped boundary to the *Look Thong*.
- L-shaped layout, comprising two traditional house units, on two adjacent sides of the *Look Thong*.
- II-shaped layout, composed of two traditional houses with their elongated sides placed in parallel. In most of these houses, the interior spaces are located between the two traditional houses.
- I-shaped layout modified from a single traditional house and found in a significant numbers of single-family units. The I-shaped layout can also be classified into two types: I-shape at a corner (IAC) and I-shape in the middle (IM). In the IAC layout, the traditional house is at one side of the house, while in the IM layout it is located in the middle of the house.
- End to end layout (ETE), modified from two original houses. In this type, the original two *Reun Thai* are placed in line with the *Look Thong* or *Look Thong* is located along the two houses. (This end to end layout was found in only one three storeys high house.)

These are illustrated in detail in Figure 4 below.

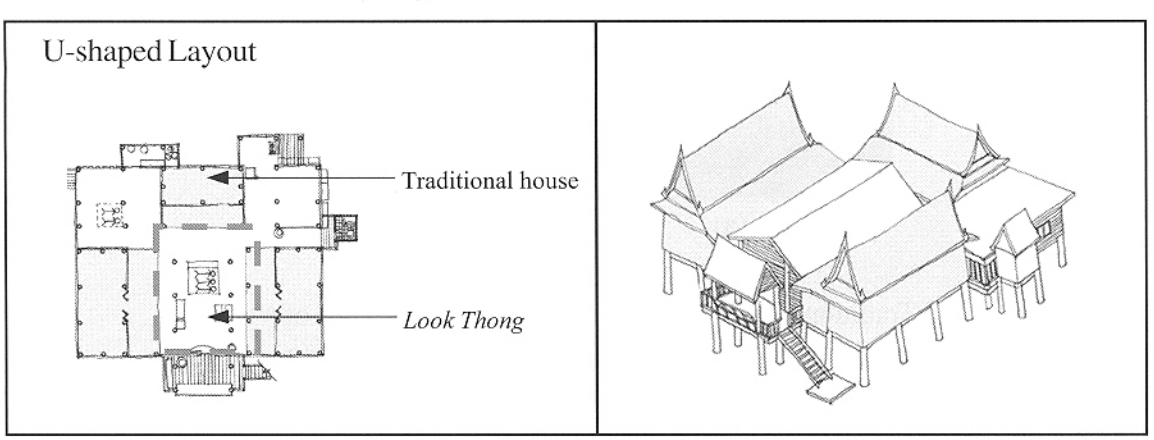


Figure 4 Five main types of the contemporary Reun Thai

[1] 'Look Thong' is widely used among the villagers to describe an open hall, which used to be the Nok Chan.

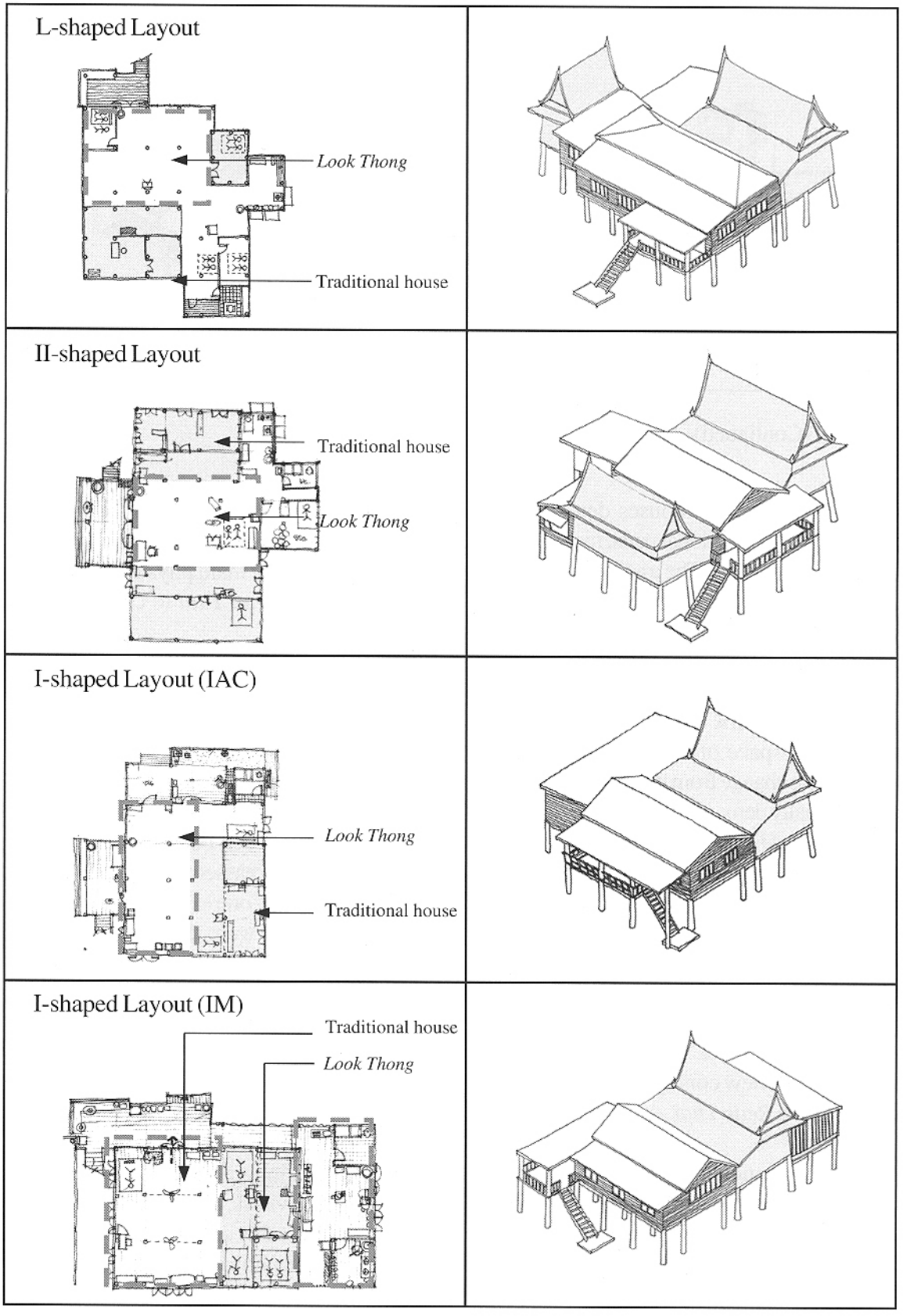


Figure 4 (Continued)

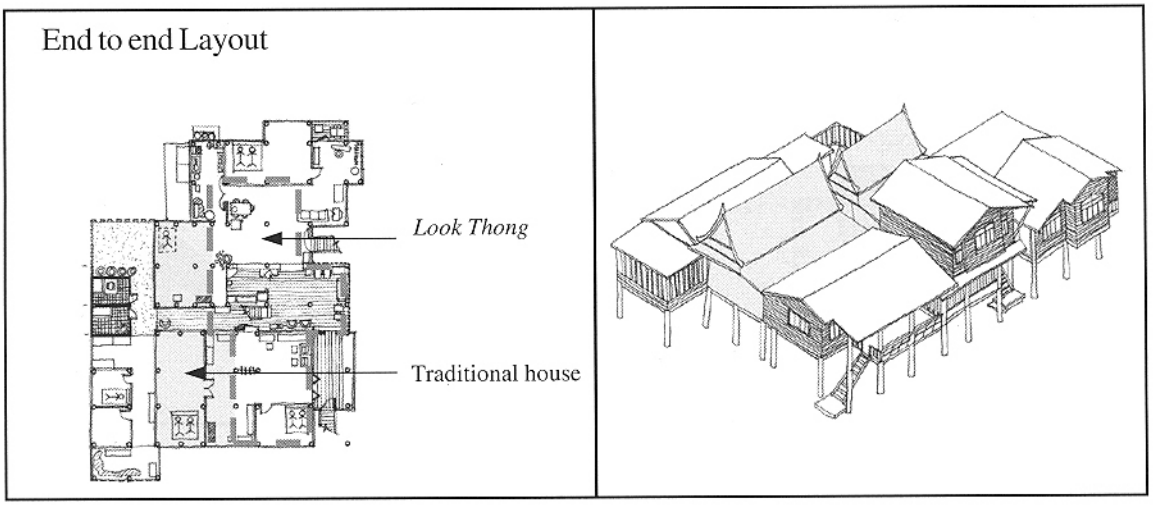


Figure 4 (Continued)

These contemporary houses demonstrate a combination of traditional parts, modified parts and added elements. The traditional parts usually retain the structure of the traditional house and verandah (see also Figure 4). The added and modified parts appear with various elements. The contemporary *Reun Thai* usually appear with the *Nok Chan* roofed over to form the interior space of the *Look Thong*. This was a major change from the traditional houses, which usually demanded further changes to the upper floor of the house, such as the need for a new verandah and changes to interior spaces. In many cases, the platform levels of the various components have been adjusted to a single level. Partitions and furniture have been included to demarcate the interior spaces. The previous verandah, or *Phalai*, of the *Reun Thai* is enclosed within the interior, thus generating the need for a new configuration of *Phalai* in the modified *Reun Thai*.

In addition, in most contemporary houses external and internal toilets have been added to the houses, usually constructed of concrete. There are also significant trends towards modifying and enclosing the space underneath the house with concrete walls and erecting fences using concrete and steel materials.

Changes of housing compounds

Changes of the family housing compound represent one of the main physical changes in evolution from *Reun Thai* to contemporary *Reun Thai*.

In the past, traditional Thai houses of the locality were commonly arranged in compact groupings along the watercourses. Wooden *Reun Thai*, built largely of prefabricated sections and fitted together with wooden pegs and hung on a framework of wooden poles, could be easily disassembled and reassembled. The elevated houses consisted of one to nine separate house units. The units were clustered around a roofless platform, the *Nok Chan,* and placed in a number of arrangements. The *Nok Chan* in the *Reun Thai* formed the spatial organizing core of each clustered house.

The traditional Thai houses reflected the prevailing extended family system (Walipodom 2000; 1994; Jaijongrak 1997; Jumsai 1988). During the interviews, the residents stated that a family in this locality usually began by building a new traditional house for a new couple. A new house was customarily composed of the indoor living spaces, a verandah and a roofless platform. As the number of family members

increased, the original house would be combined with more dwelling units, consisting of the indoor living spaces of the semi-enclosed room leading into the bedroom, or *Nai Reun,* and a verandah, to form an enlarged communal house around the *Nok Chan*. Because they were built largely of prefabricated components, these added houses could also be moved away to form a new house when family members married and arranged to start their own family. Traditionally, the husband had to move and live with the wife's family. The house for newlyweds was customarily constructed within the area of the wife's family, and was usually located along the khlongs of Takean and Pakkran. The khlong Takean, in particular, was the main route for transportation to other places, and physically defined the front of the houses, while agricultural fields and a jungle of many kinds of trees and bamboo were at the rear. Various communal houses focused on the *Nok Chan* extending along the khlongs Takean and Pakkran were one of the most common characteristics of the pastoral landscape of the locality.

A comment of one of the men interviewed illustrates the extended pattern of houses along the khongs:

> This house was the house of my wife's father and was given to us as a present when we married. The house used to be located next to the houses of my wife's aunts [Figure 5]. Our house was simple, and was composed of indoor living areas, a verandah and a *Nok Chan*. It was moved here after the land was divided and given to us in 1959. At that time in our villages we usually divided the land and moved our houses along the khlongs.

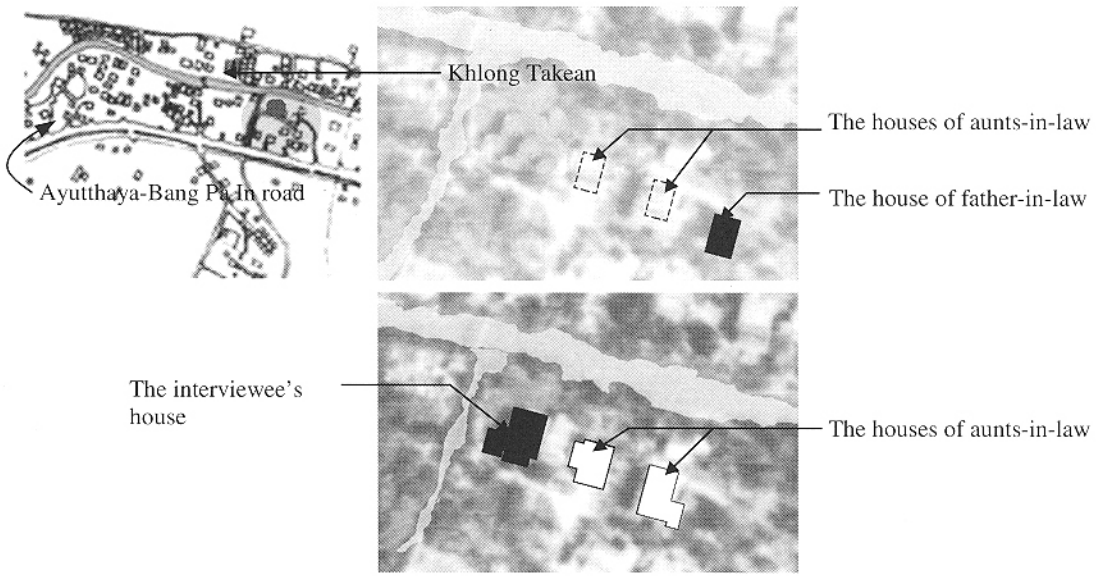


Figure 5 Pattern of expansion of houses along the khlong Takean

In between 1974 and 1975 the Ayutthaya–Bang Pa In road was cut through Tambon Pakkran. This road, cut through the jungle at the rear of the villages, has made all the villages and dwelling units in this locality more accessible. The development of the road and the addition of other roads within the villages have changed the main access to the villages from the khlong to the roads. The following statement of one of the men interviewed illustrates this point:

> Previously we went to other places by walking and by boat. The khlong Takean was our main way of transportation to go to other places, particularly the city of Ayutthaya. Our villages have changed the main way of transportation since the coming of Ayutthaya–Bang Pa In road. The road has become a major route. Nowadays, no one uses khlong Takean for travelling any more.

The introduction of the road also supported the needs for growing family accommodations by occupying land further from the watercourses. This is manifested in the physical growth of dwelling units of the villages during the past three decades, as shown in Figure 6.

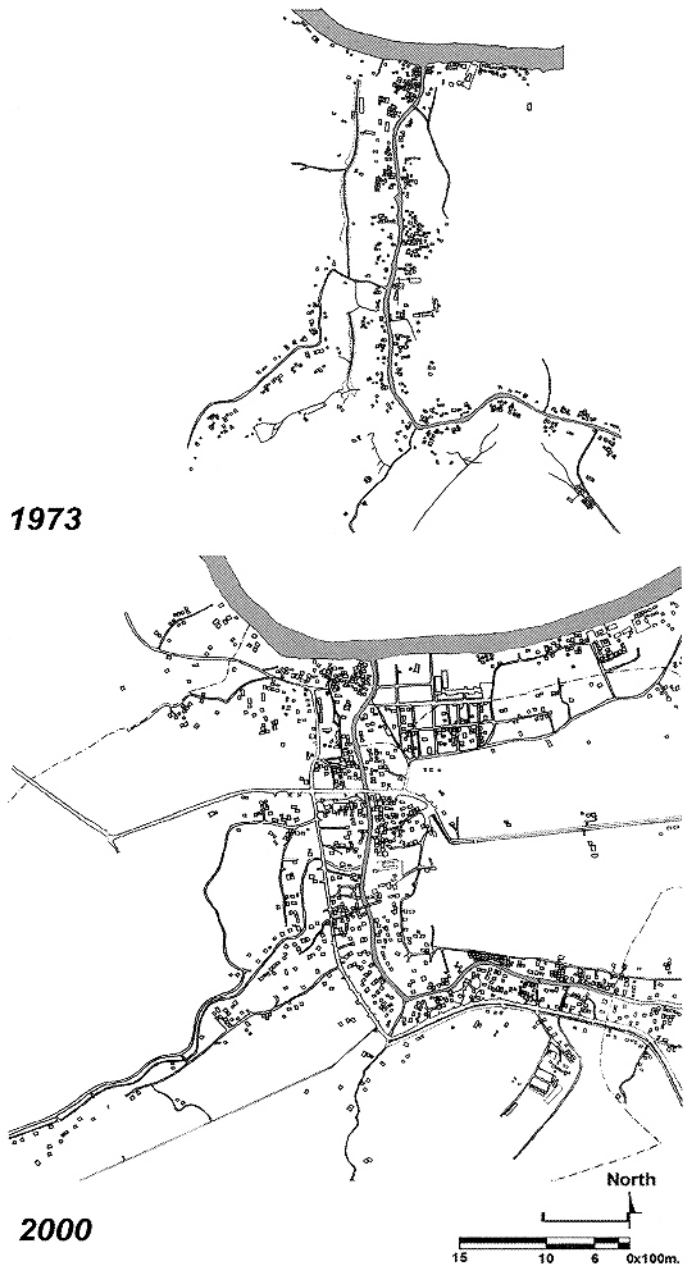
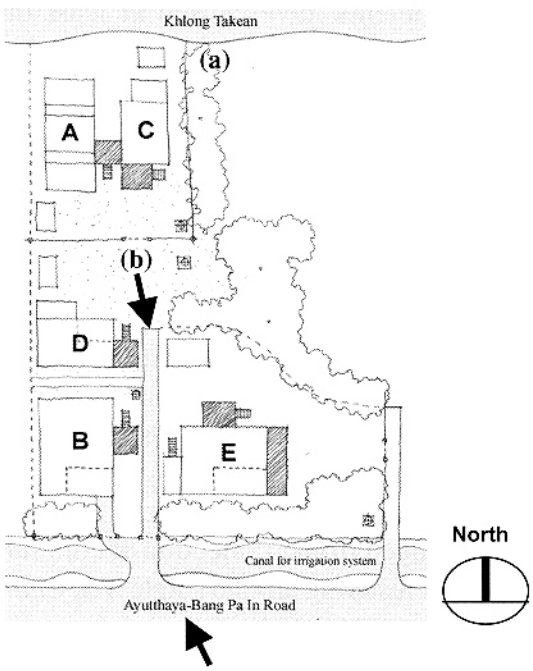


Figure 6 Physical settings of Tambon Pakkran
1973 was the year before building the Ayutthaya–Bang Pa In road

Many houses, especially of the contemporary type, have been moved from their traditional clusters along the khlongs to locations close to the road. This is well illustrated by the statement of one of the women interviewed, about historical development of the houses of her family:

> Our houses were clustered together on the same *Nok Chan,* located along khlong Takean. When the Ayutthaya–Bang Pa In road came, my parent divided the land into individual allotments for everyone in the family. Then, we re-erected our houses on each allotment [Figure 7]. This rearrangement from our previous clustered houses along the khlongs to the roadside occurred not only with my group of relatives but for most houses in our villages too.





(a) View from Ayutthaya – Bang Pa In road



(b) View of open space between the houses

Figure 7 A typical cluster of houses in this interviewee's family along the Ayutthaya–Bang Pa In road

Since the pattern of expansion of dwelling units from the khlong towards the road of Tambon Pakkran has common characteristics, the houses of the group of relatives (as illustrated in Figure 7) can be regarded as representative of the changing formation of housing clustered group orientated towards the Takean watercourse as the main access. With the establishment of the Ayutthaya–Bang Pa In road in 1974, however, the land was divided for each family member and the houses of the family group were progressively compounds. Figure 8a illustrates the physical expansion of the houses in this group. The family began with three elevated houses (A, B and C), or the parent's houses, clustered on the Nok Chan close to the khlong Takean. Even though a new house, D, was built for the first newlywed of the family in 1950 and located further back from the khlong, this house, consisting of indoor living spaces and a verandah, was still linked to the Nok Chan of the parent's houses, which was subsequently enclosed to form an interior space, or Look Thong in 1953. Another new house, E, was then constructed in 1966 when another of the family members married. House E was physically separated from the parent's houses but was still in the compound of the parent's houses. All the houses still formed a clustered group orientated towards the Take an

watercourse as the main access. With the establishment of the Ayutthaya–Bang Pa In road in 1974, however, the land was divided for each family member and the houses of the family group were progressively moved out from their original locations to each individual property. During relocation, the houses were rebuilt and modified, usually by adding a Look *Thong* and a new verandah. Because of the changes of main access, the parents' house was also modified, and its entrance was reoriented toward the road. Each house now appears as an individual house, but the way they are set out defines an open space between them. The entrance of all house units of this group of relatives focuses on this defined open space, with only one access from the road.

Figure 8b shows changes of the core of activities of all houses since before 1950 until present, and Figure 8c is a syntactic analysis of the evolution of the spatial configuration of the houses in this family. These illustrate that before the coming of the road the *Nok Chan* (which later became the *Look Thong*) originally formed the core of all the house units of the family. Even though later two new houses D and E were built, and the house E had its own access separated from the parent's houses, the core of activities and the spatial organization of the units still focused on the *Look Thong* and was concentrated along the khlong. After 1974 when the houses B, D and E were relocated to their assigned allotments, with individual entries to each of the houses, the spatial configuration of these houses expressed a shifting of the core of activities of the dwelling units from the *Look Thong* to the defined open space at ground level, and a disconnection with the khlong Takean. The physical appearance of the housing compound of this group of relatives has changed. The syntactic analysis, however, illustrates that the clustering features of this group of the relatives in 1950 and at the present day are similar in their morphological organization, with the open space between the houses acting as a new centre among this group of relatives.

Conclusions

During the past three decades, modern developments have caused at least three significant changes of the characteristics of housing compounds in Tambon Pakkran. The first is a loss of the relationship between the houses and the watercourses through physical growth of the houses of the villages. The second is that the small houses once clustered around the *Nok Chan* and extended along the khlongs have become larger, forming compact containers for individual family units and enclosed from the environment. Such houses have spread throughout the villages. The third significant change is that the physical formation of the houses in particular groups of relatives has changed from a collection of communal houses clustering around single *Nok Chan* to housing compounds defining open space on the ground between them. Despite these changes of the housing compounds in Tambon Pakkran, however, they still retain the characteristics of the traditional spatial configuration.

This paper has described changes of the physical characteristics of housing compounds resulting from changes from *Reun Thai* to contemporary *Reun Thai* in Tambon Pakkran. The findings raise two more general questions to be considered in further research. First, to what extent could this analysis be generalized and provide some insight into changes in other localities of Thailand? Second, because built environments are significantly ordered by the uses and meanings attributed to them, how do morphological changes of housing compounds affect changes to use and meaning of both houses and the associated spaces?

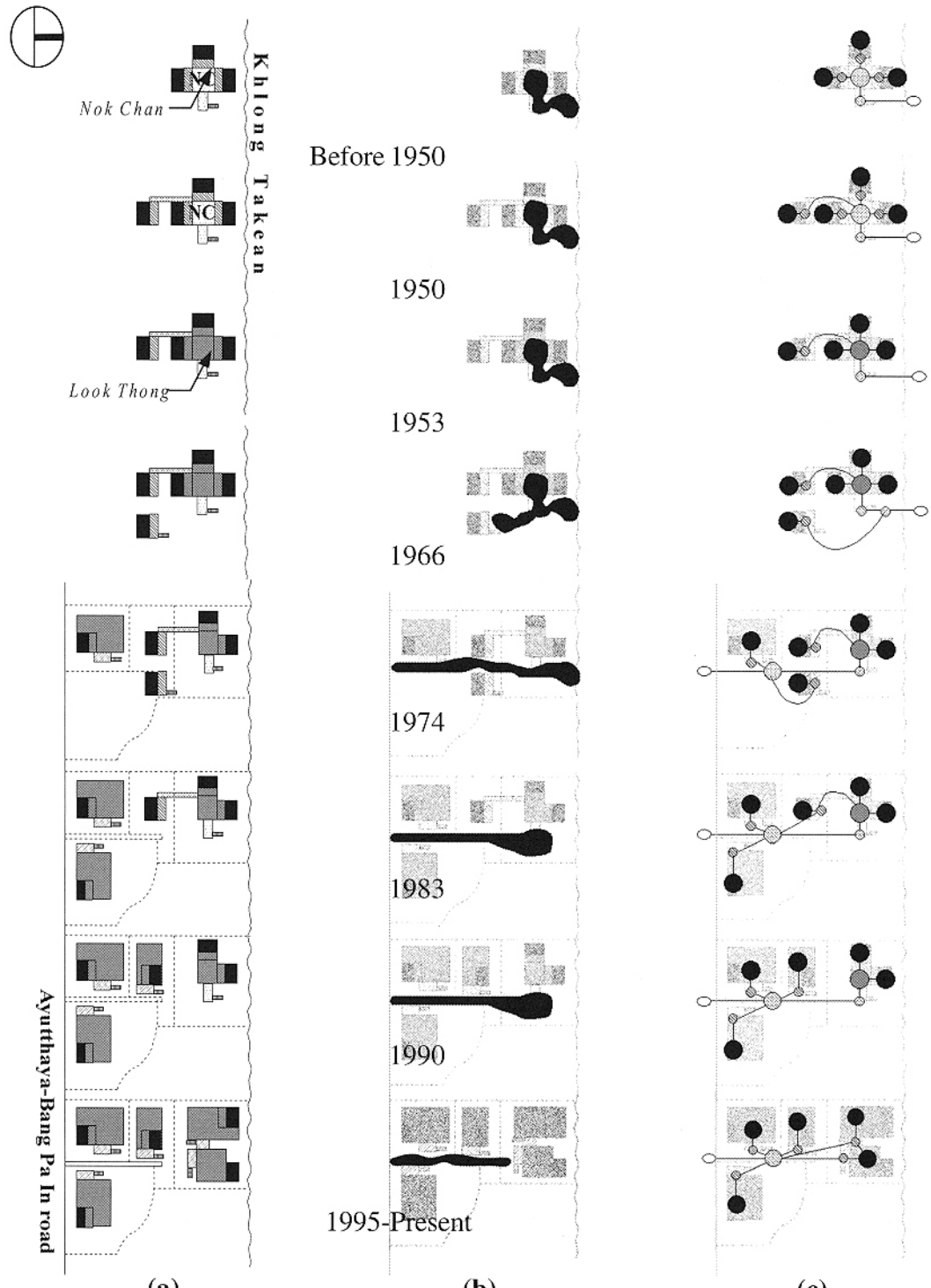


Figure 8 The historical development of the houses of this group of relatives
(a) Physical growth of the houses, (b) Core of activities of the family
(c) Evolution of morphological characteristics
Location of main transportation, Open spaces between houses, Verandah, Indoor living spaces, Transition between spaces

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