

Emerging Urban Vernacular: Squatter Settlements in Thailand and their Transformations as Chumchons

Chindarat Malakul

Udon Thani Rajabhat University, Thailand.

chindarat18912@gmail.com

Received	Accepted	Published
02.08.2025	27.03.2026	31.03.2026

<https://doi.org/10.61275/ISVSej-2026-03-02-06>

Abstract

Today, urban slums and squatter settlements are a serious issue in Thailand. In response, the Thai government implements a housing program to address this issue. However, it does not properly incorporate the unique cultural concepts of communities in Thailand known as *the* chumchons. These emerged from the communist movement in the rural areas to encompass both rural communities and the urban slums. This study examines the characteristics of ‘chumchon’ as a unique vernacular Thai community. It proposes ways to incorporate this concept in housing by revealing the similarities among various chumchons and identifying the unique concepts and characteristics

It employs case study as a method, comparing three sites developed through the program located in Khlong Toei. They include an on-site upgrading project, a site-and-service scheme, and a secure housing program. Across these sites, surveys were conducted in 30 plots of land and houses, revealing the patterns of land developments. Patterns of housing in terms of their formation factors and land tenure were also observed. Interviews were conducted with 39 informants to collect personal histories.

The findings reveal that the patterns of land tenure and housing tenure, are similar in many of the sites, and resemble previous patterns in vernacular settlements. It identified that the ways of living in vernacular settlements have been either renewed or maintained by the new developments brought about by redevelopment of housing. They provide insights into the concepts and characteristics of chumchons, derived from the vernacular settlements useful for transforming the slums, into wholesome human settlements.

Keywords: Chumchon, Land, House, Development, History, Similarity

Introduction

Vernacular settlements exist throughout the world, particularly in the developing countries. Similarly, urban slums have also emerged around the world, including Thailand. The United Nations defines “slums” as communities that lack water sources, sanitation, living areas, housing durability, and tenure security. In fact, UN has observed that the numbers of slum dwellers are on the increase and has estimated that the number of them worldwide will exceed one billion, by 2030. Similarly, slums in Thailand have also increased since the 1960s since the public sector has begun to promote urban developments for economic growth.

Unfortunately, however, some of these urban developments have destroyed the rural vernacular settlements and have pushed the rural farmers away from farming, into poverty. They often live in cities. In fact, many farmers have abandoned rural agriculture and have migrated to urban areas searching for work, although they have not been able to lease land or houses. Eventually, they have formed what is now known as squatter settlements by cultivating vacant public land and constructing houses therein. As Pornchokchai (1993) points out, these ‘squatters’ have not been able to reclaim land, pave alleys, or provide infrastructure eventually creating environmentally poor settlements now known as the slums.

Sheng and Wndeler (2010) describe how the public sector has dealt with the slum issue. According to them, the National Housing Authority of Thailand formed in 1973, began to provide flats for the slum dwellers at that time. However, provision of such flats has caused financial shortages and relocations from the cities to the suburban areas. The Housing Authority has shifted such provisions to two developments during the late 1970s. One is the on-site upgrading project that has provided infrastructure without relocation. The other is the site-and-services scheme that has readjusted land with infrastructure. Under this scheme, the dwellers have constructed the houses by themselves almost like it happens in the vernacular settlements. Nevertheless, these developments have not been able to resolve the financial issues, community non-participation, tenure insecurity, and micro policies. The authority has eventually learned from these developments and has founded what is now known as the Community Organization Development Institute (CODI) in 2000.

Currently, this institute is managing the program referred to as the secure housing or ‘*ban mankhong*’ program. Boonyabancha (2005) presents the outline of the program, which is based on community-driven principles. According to her, the dwellers organize a cooperative and this cooperative invests in subsidies and loans from the Development Institute, acquires land, designs the community housing, provides infrastructure, and constructs housing. The cooperative grows through this program and empowers its capacity to address various issues. Subsequently, the cooperative repays its loans to the institute. The Institute lends funds to various other cooperatives and the process continues. Moreover, the institute builds networks between the communities and their supporters for citywide upgrades. Interestingly, this is a highly complex and sustainable program. In fact, it has been sustained for quite some time although through minor revisions.

In this context, this study focuses on the houses built through the housing program and their relations to vernacular settlements in Thailand. The program is a unique slum development hailed worldwide from which lessons can be learnt about both the vernacular settlements and urban squatter housing in cities. Although numerous previous studies have examined slum developments in Thailand, they have often looked at this program from perspectives such as community-driven, cooperative-tenure or management, empowerment, revolving funds, networking, and citywide upgrading (Archer, 2009; Elinoff, 2013; Shelby, 2019).

This research is based on the premise that updating the program is a better way to solve the slum problems. Indeed, the program has improved over the past 20 years through these studies and therefore, it is assumed that studying the program and its outcomes would be immensely useful so that the insights so gained could be shared with the others. In other words, it is assumed that there exists the possibility of improving the slums, including the program sites by means of looking at them as ‘urban vernacular.’ To broaden these perspectives, this study introduces the concept of “chumchon,” which means in the Thai language ‘Thai communities,’ including secure housing program sites.

It is hypothesized that this concept may be useful in improving the Thai communities looking at them the perspective of vernacular communities. The study aims to gain a deeper understanding of the concept of chumchon by answering the following questions:

- What are the similarities among the chumchons in Thailand?
- How are they related to the traditional vernacular settlements?

Indeed, these questions can perhaps be better addressed by comparing the chumchons nationwide and identifying their similarities in comparison to the vernacular settlements. However, such a comparison is unrealistic due to the scale involved. Thus, the objectives of this study are as follows.

1. To identify the similarities among the chumchons in Thailand through selected case studies.
2. To produce a comparison to ascertain the essential characteristics of the concept of chumchon.
3. To propose ways and means of developing chumchons nationwide in Thailand.

For this purpose, this study analyzes the personal histories related to land and houses among several chumchons. They comprise land and houses as physical elements and families and their lives as non-physical elements. Indeed, it microscopically examines the physical aspects to identify their similarities and differences. It also focuses on 'personal histories' where the residents have migrated to different land and houses since birth. As noted by Askew (2002), the personal histories of residents shape their differences.

Theoretical Framework

Chumchon

In Thailand, the concept of chumchon has emerged as an alternative to slums. It is based on the premise that since slums originated in the West, they are unsuitable for the Thai communities, as they carry a negative image that does not align with the Thai context. Slums do not reflect the recognition of the dwellers as their communities. Consequently, the public sector has redefined the slums as 'chumchon eeat,' meaning 'congested communities' in the Thai language. Endo (2014) classifies chumchon into five types as follows.

1. Eeat: chaangmuang in suburban areas,
2. Baanchatsan developed by the private sector,
3. Kheha managed by the Housing Authority, and
4. Muang in the urban areas.
5. Baan mankhong as secure housing program sites and chonnabot in the rural areas (identified by Abe et al.,2024).

This study considers chumchon as the concept employed by the Thai communities in relating the vernacular settlements to the secure housing program. Shelby (2019) does not translate chumchon into English because chumchon is rooted in the Thai context. She explains how chumchon emerged from the communist movement in the rural areas, evolving to encompass both the rural communities and the urban slums. Furthermore, she argues that it was created through dialogue between the various actors involved with the chumchons (Shelby, 2019). While Shelby has introduced chumchon to explain the program, this study uses the concept to compare the Thai communities, including the program sites, and identify their similarities with vernacular settlements.

The meanings of the concept of chumchon is diverse even among the Thai communities. These differences have been clarified through microscopic surveys by the anthropologists. For example, Rabibhadana (1975) explores the differences among the various actors within and outside the communities. In this regard, Askew (2002) documents the

community histories to identify the differences among the residents. In fact, Archer (2009) confirms the distinct characteristics of the residents across the four secure housing programs. Moreover, Elinoff (2013) notes that these differences lead to disagreements among the various actors involved in the program. Furthermore, he highlights the challenge of the programs that assume homogeneous communities. Contesting these however, Shelby (2019) criticizes the program for integrating diverse members into a homogeneous group.

Overall, the theoretical interpretation of *chumchon* is that it is a culturally rich form of houses generated in response to ways of life, climate, availability of materials and the characteristics of sites. Rapoport (1969) points out that these aspects indeed give rise to vernacular: the kind of buildings produced by the people for and by themselves.

Review of Literature

Although there are some studies examining this issue, previous studies have not focused on the similarities of *Chumchons* with vernacular. They also do not examine the personal histories within *Chumchon Khlong Toei*, Bangkok, Thailand. However, Thammasat University (1971) and the Asian Institute of Technology (1973) have explored the living conditions of them from a social welfare perspective. At the same time, ISP-Bangkok (1982) and Aalborg University (2009) have also investigated the physical environments from an urban planning viewpoint. Nevertheless, these studies do not explain the historical developments of the living conditions or the physical environments.

In contrast, Boonyabancha (1988) and Abe et al. (2024) provide detailed architectural descriptions of how the physical environment of *Chumchons* has been formed. Adding to these, the Duang Prateep Foundation (2018), an educational NGO, documents the history of how the residents have been living in such areas until the present days. Interestingly though, these studies take a macroscopic approach to their histories; thus, no study has yet microscopically analyzed the personal histories. There are also no studies that compare their characteristics with those of the vernacular.

It is clear therefore, that there exists a significant gap in research that deal with the squatter settlements in Thailand, particularly looking at them from the perspective of *chumchons* or the vernacular settlements. In this sense, this paper addresses this gap of knowledge so that it can contribute to a greater understanding of the squatter- vernacular – urban settlements in Thailand and devise more appropriate means of planned interventions.

Research Methods

This research employs case study as a method in looking at the urban *chumchons* produced by the urban dwellers in Thailand. In this research, three sites in *Chumchon Khlong Toei* have been surveyed as the case studies. This field comprised 11 sites located around the port. It is noted that its origin arises from the rural farmers who have migrated to this area to provide port labor. In fact, the migrants have formed these sites by cultivating land and constructing the houses. The Housing Authority has provided flats at three of these sites later. They have implemented the on-site upgrading projects at four sites, and have also developed site-and-services schemes at three sites. Adding to this, the Development Institute has attempted to implement a secure housing program at one site.

Among these types, the housing forms have differed between the flats and the other types. Thus, other types were also selected: *Chumchon Lock 4-6* (hereinafter referred to as *Lock*) as a project site, *Chumchon Muban Phatthana 70 Rai* (hereinafter referred to as *70 Rai*) as a scheme site, and *Chumchon Sangsan Phatthana 7-12* (hereinafter referred to as *Sangsan*) as the program sites. *Lock* and *70 Rai* have played central roles in each type. However, according to Abe et al. (2024), *Sangsan* has been the only program site in this field.

In implementing the research, three maps were drawn first, as presented in the Figure 1 by gathering information from the land and houses across all the sites. These maps were created based on aerial photographs from Google Earth. They display all the current plots after the developments. Moreover, the statistics of 1,663 land and houses have been added to these maps, including their forms, areas, stories, structures, and ownership.

In Lock, the houses are made of wood. They are detached houses above squatter land. In 70 Rai, it is mixed, detached houses on the rental lots. In contrast, in Sangsan, the houses are made of concrete. They are also detached houses on rental lots.



Fig. 1: The Three Research Sites
Source: Author

Afterwards, 29 plans of the current land and houses were drawn. They were then presented to the mediators-residents-in-charge-who introduced the 29 case studies. interviews were conducted with the 29 residents around the previous land and houses. The interviews inquired about their personal histories related to previous lands and houses. Once collected, they were organized into timelines. These timelines display the development, tenure, shapes, and plans of the previous land and houses. These data are presented in the Figure 2.

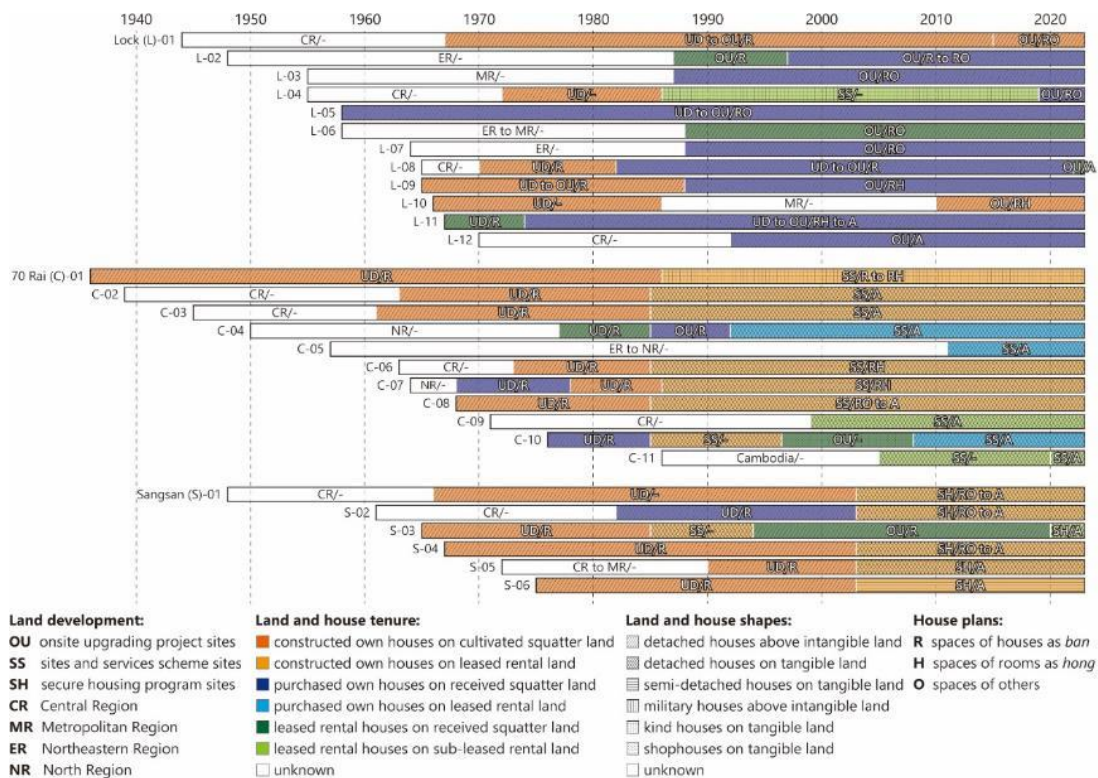


Fig. 2: The Timelines for 29 Informants around Previous Land and Houses
Source: Author

Among the 29 plans of the current land and houses, there were 12 in Lock, 11 in 70 Rai, and 6 in Sangsan. The plans include the building as well as the household goods. They also indicate the shapes of the current land and houses. At the same time, 29 residents were

interviewed about the tenure of their current land and houses, using interview sheets in Thai. These data were integrated into the Figure 2.

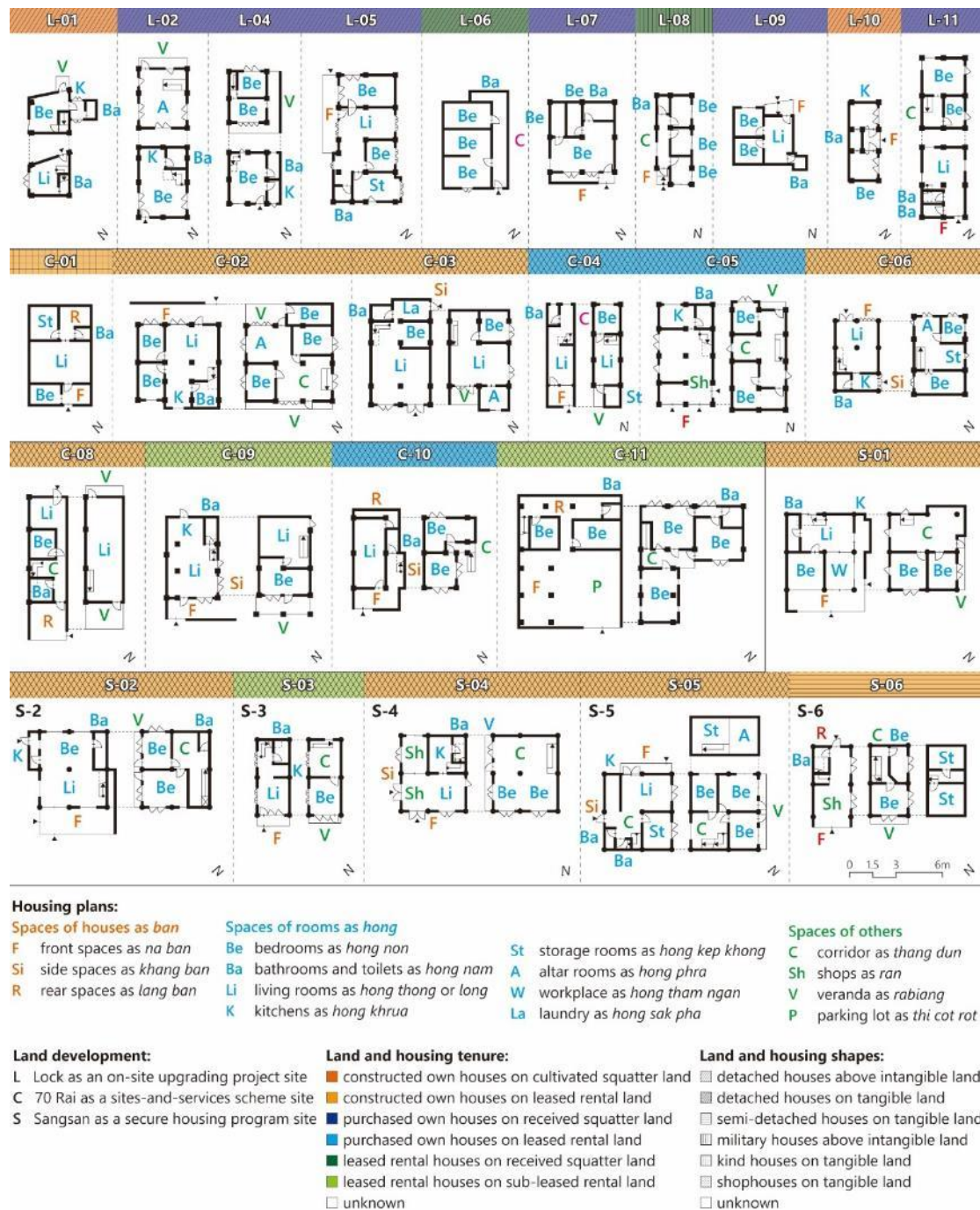


Fig. 2: The 26 Plans of Current Land and Houses

Source: Author

Method of Analysis

This study analyzed the patterns of the current land and houses or courses around the previous ones. Figure 1 and 2 display the current land and houses. From both figures, the current patterns of land development, tenure, and shapes, as well as housing tenure, shapes, and plans at each site were extracted. These patterns are organized in the Tables from 2 to 7. They are then integrated into the Table 8 that classified these patterns into seven categories: Lock, 70 Rai, Sangsan, Lock and 70 Rai, Lock and Sangsan, 70 Rai and Sangsan, and all sites. Based on this table, this study identified different patterns at each site or similar patterns at more than two sites.

On the contrary, the Figure 3 demonstrate the personal histories of the previous land and houses. From this figure, it is possible to understand the courses of land development, tenure, shapes, as well as the housing tenure, shapes, and the plans across all the sites. These courses are organized as presented in the Figures from 4 to 9. They are then integrated into the Table 9. Based on this table, why the current land and houses were similar or different identified

Findings

The Patterns of Current Land and Houses

This subsection explains the current patterns of land development, tenure, and shape as well as housing tenure, shapes, and plans at each site. This explanation is based on the Figure 2 as the primary source of information.

Land development comprises an on-site upgrading project, site-and-service scheme, or a secure housing program at each site, as presented in the Table 2. In Lock, 12 lands were located at the project site. Although this project paved alleys and provided infrastructure, it did not reclaim the ground, readjust the land, or sign leasehold contracts with the Port Authority as a landowner. Thus, the informants regarded the project site as undeveloped.

In 70 Rai, 11 land parcels were at the scheme site. This scheme was implemented by the Housing Authority as a land manager. This authority leased the land through subsidies and loans. Moreover, it reclaimed the ground, paved alleys, provided infrastructure, and readjusted land. The informants signed leasehold contracts with the land manager. Every year, they renew their contracts with the Khlong Toei Housing Cooperative as land managers. In Sangsan, six lands were located at the program site. Dwellers organized the Sangsan Housing Cooperative as a land manager. This cooperative leased land through subsidies and loans. Further, it designed plans, reclaimed the ground, paved alleys, provided infrastructure, and readjusted the land using the Development Institute. The informants signed leasehold contracts with the land manager. They extended their contracts every three years.

Table 1: The Patterns of Land Development

Source: Author

Land Development	Lock	70 Rai	Sangsan
On-site upgrading project	12	0	0
Site-and-service scheme	0	11	0
Secure housing program	0	0	6

Land tenure was composed of cultivating or receiving squatter land, or leasing or subleasing rental land, as presented in the Table 2. In Lock, 2 of the 12 informants cultivated their land based on “cap cong” as a custom. This custom has allowed the cultivators to occupy their land. As the landowner did not approve this custom, land has been recognized as squatter land. The other 10 informants verbally received their squatter land without permission from the landowner. In 70 Rai and Sangsan, 14 of the 17 informants leased rental land after signing leasehold contracts with the land managers. Unfortunately, these contracts have imposed regulations on the lessees.

It was noted that the lessees have observed that they could not sublease the rental land. However, the remaining three participants have deviated from the regulations. Sublessees have

negotiated with the lessees introduced by their relatives and friends. These lessees have indeed, subleased their land verbally without permission from the land managers.

Table 2: The Patterns of Land Tenure
Source: Author

Land Tenure	Lock	70 Rai	Sangsan
Cultivating squatter land	2	0	0
Receiving squatter land	10	0	0
Leasing rental land	0	9	5
Subleasing rental land	0	2	1

Land shapes were classified as intangible or tangible, as listed in the Table 3. In Lock, 12 land types have intangible shapes through cultivation. As the informants did not draw boundaries around their land, they could not measure their land area. In 70 Rai and Sangsan, 17 lands had tangible shapes through readjustment. The informants recognized the boundaries and areas of their land. The land area was approximately 15 tarang waa as 60 square meters.

Table 3: The Patterns of Land Shapes
Source: Author

Land Shapes	Lock	70 Rai	Sangsan
Intangible shapes	12	0	0
Tangible shapes	0	11	6

Housing tenure included the construction or purchase of one's own houses, as well as the lease of rental houses, as presented in the Table 4. In Lock and 70 Rai, 11 informants purchased their own houses. The purchasers received housing contracts from landowners and land managers. They changed the names of housing registrations in the Khlong Toei District Office as a municipality to prove their house ownership. Purchasers did not include informants from Sangsan because they observed regulations prohibiting them from trading their houses. At all the sites, 13 of the 18 informants constructed their own houses. The constructors in Lock received addresses from the landowners. The constructors in 70 Rai and Sangsan observed that land managers had to comply with construction regulations. Constructors at all sites issued housing registrations in their municipalities. The remaining five respondents deviated from the regulations because they could not lease their rental houses. They verbally leased their rental houses without permission from the landowner or land managers, for example, by subleasing the rental land.

Table 4: The Patterns of Housing Tenure
Source: Author

Housing Tenure	Lock	70 Rai	Sangsan
Constructing own houses	2	6	5
Purchasing own houses	8	3	0
Leasing rental houses	2	2	1

Housing shapes were classified into detached or military houses above the ground, as well as detached, kindness, or semi-detached houses on the ground, as presented in the Table 5. In Lock, 11 of the 12 houses were detached houses as "ban diao." This shape was generally wooden, two-story houses and had floors raised above the ground as "ban yok phun sung." The remaining house was a military house as "ban thahan" that was built by the Royal Thai Army. This was a steel, one-story house above the ground. In 70 Rai, 1 of the 11 houses was a kindness house as "ban karun" that was built by the army for the poor. This was a concrete, one-story house on the ground. In Sangsan, one of the six houses was a semi-detached house as "ban fet." This shape was a concrete, three-story house on the ground. In 70 Rai and Sangsan, the remaining 15 houses were detached. This shape was typically a mixed or concrete, two-story house on the ground. However, semi-detached and detached houses in Sangsan were based on

regulations that required the construction of a model of concrete, two-story houses on the ground. Therefore, two of the six three-story houses deviated from regulations.

Table 5: The Patterns of Housing Shapes

Source: Author

Housing Shapes	Lock	70 Rai	Sangsan
Detached houses above land	11	0	0
Military houses above land	1	0	0
Detached houses on land	0	10	5
Kindness houses on land	0	1	0
Semi-detached houses on land	0	0	1

Housing plans comprised housing spaces as “ban,” room spaces as “hong,” and other spaces, as presented in the Table 6. Housing spaces included spaces in front of houses as “na ban,” spaces in the rear of houses as “lang ban,” and spaces on both sides of houses as “khang ban.” Room spaces contained bedrooms as “hong non,” bathrooms including toilets as “hong nam,” living rooms as “hong thong” or “hong long,” kitchens as “hong khrua,” storage rooms as “hong kep khong,” altar rooms as “hong phra,” a workplace as “hong tham ngan,” and a laundry as “hong sak pha.” Other spaces were composed of corridors as “thang dun,” shops as “raan,” verandas as “rabiang,” and parking lots as “thi cot rot.” These spaces can be combined into three types: house and room spaces, room and other spaces, and all spaces. In Lock, the four plans comprised rooms and other spaces. In Lock and 70 Rai, seven plans comprised houses and room spaces. At all sites, 17 plans contained all spaces. However, 10 of the 11 plans in 70 Rai deviated from the regulation that spaces had to be set back 0.5 to 2.0 meters from land boundaries. Five of the six plans in Sangsan deviated from the regulations in that spaces could not be built outside the model.

Table 6: The Patterns of Housing Plans

Source: Author

Housing Plans	Lock	70 Rai	Sangsan
Houses and room spaces	4	3	0
Room and other spaces	5	0	0
All spaces	3	8	6

The patterns of current land and houses could be integrated into the Table 7. This table comprises the categories Lock, 70 Rai, Sangsan, Lock and 70 Rai, Lock and Sangsan, 70 Rai and Sangsan, and all sites.

Table 7: The Patterns of Current Land and Houses

Source: Author

Contents	Different Patterns in each Site			Similar Patterns in more than Two Sites			
	Lock (L)	70 Rai (C)	Sangsan (S)	L&C	L&S	C&S	All Sites
Land development	12	11	6	0	0	0	0
Land tenure	12	0	0	0	0	17	0
Land shapes	12	0	0	0	0	17	0
Housing tenure	0	0	0	11	0	0	18
Housing shapes	12	1	1	0	0	15	0
Housing plans	5	0	0	7	0	0	17
Total	53	12	7	18	0	49	35

The Lock, 70 Rai, and Sangsan categories exhibited different patterns at each site. These categories comprised 72 of the 174 patterns. The Lock category included 53 patterns of land development by an on-site upgrading project, land tenure by cultivating or receiving squatter land, intangible land shapes, housing shapes such as detached or military houses above the ground, and the housing plan of rooms and other spaces. The 70 Rai category contained 12

patterns of land development through a site-and-service scheme and housing shapes such as kindness houses on the ground. The Sangsan category was composed of seven patterns of land development through a secure housing program and housing shapes such as semi-detached houses on the ground.

The remaining categories exhibited similar patterns at more than two sites. These categories comprised 102 of the 174 patterns. The Lock and 70 Rai category included 18 patterns of housing tenure by purchasing one's own house and the housing plan of houses and room spaces. The 70 Rai and Sangsan category contained 49 patterns of land tenure by leasing or subleasing rental land, tangible land shapes, and housing shapes such as detached houses on the ground. The all-sites category was composed of 35 patterns of housing tenure by constructing one's own houses or leasing rental houses, and the housing plans of all spaces.

This subsection provides the following results: The Lock category included more patterns than the 70 Rai or Sangsan category. The 70 Rai and Sangsan category contained more patterns than the other categories. Both categories indicated that most of the current land and houses resembled those of 70 Rai and Sangsan and differed from those of Lock and other sites. In contrast, the Lock and 70 Rai category or all sites exhibited some patterns. Both categories indicated that some of the current land and houses resembled those of Lock and other sites.

The Courses of Personal Histories around Previous Land and Houses

This subsection analyzes the courses of personal histories related to previous land development, tenure, and shapes, as well as housing tenure, shapes, and plans. This analysis is based on the Figure 2 as the primary source of information.

Land development was classified into ten courses, as presented in the Figure 3. These courses pass through undeveloped sites, on-site upgrading project sites, site-and-service scheme sites, and a secure housing program site. In Lock, 6 of the 12 courses stayed at the project sites. Five courses arrived at the project sites after undeveloped sites. One course migrated from land at an undeveloped site to a project site through a scheme site. In 70 Rai, 6 of the 11 courses reached at scheme sites after undeveloped sites. Three courses remained land at scheme sites. Each course moved from land at an undeveloped site to a scheme site via a project site or scheme and project site. In Sangsan, four of six courses arrived at land in project sites through undeveloped sites. Each course was relocated from land at an undeveloped site to a program site via a project or scheme and project site. Among the 29 courses, 26 courses had passed through land at undeveloped or project sites. No course deviated from the regulation of land development because it was not enacted at any site.

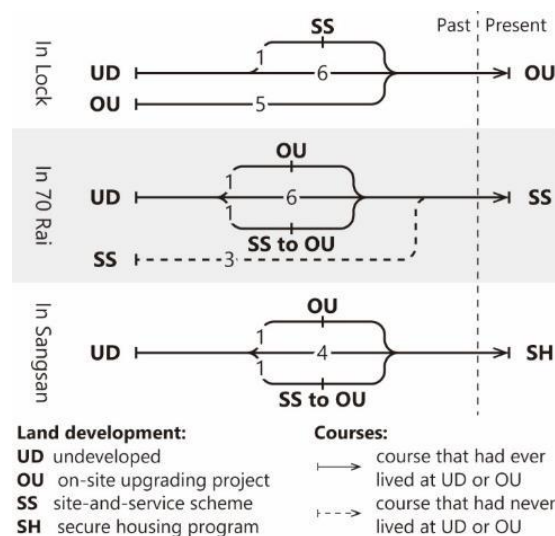


Fig. 3: The Courses of Land Development

Source: Author

Land tenure comprised 12 courses, as presented in the Figure 4. These courses passed through cultivated or received squatter land, as well as leased or subleased rental land. Lessees signed leasehold contracts with land managers. Others did not obtain permission from landowners or land managers. In Lock, 7 of the 12 courses stayed on the received land. Each of the two courses settled on cultivated land or reached received land after the cultivated land. One course migrated from cultivated land to received land through the leased land. In 70 Rai and Sangsan, 9 of the 17 courses arrived at leased land after cultivated land. Both courses were subleased. Each course stayed on leased land, arrived at leased land after received land, moved from received land to leased land via cultivated land, migrated from received land to subleased land via leased and received land, moved from cultivated land to leased land through received land, and relocated from cultivated land to leased land via leased and received land. Among the 29 courses, 26 courses had passed through the land tenure of the undeveloped or project sites. However, 3 of the 29 courses currently deviate from the land tenure regulations.

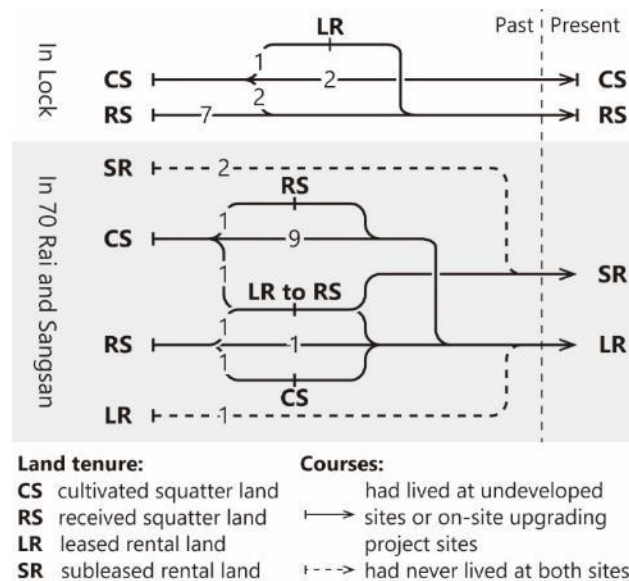


Fig. 4: The Courses of Land Tenure

Source: Author

The land shape comprises five courses, as presented in Figure 5. These courses passed through intangible or tangible land. In Lock, 11 of the 12 courses stayed on intangible land. One course is returned from tangible land to intangible land. In 70 Rai and Sangsan, 12 of the 17 courses reached tangible land after intangible land. The three courses were conducted on tangible land. These two courses repeated the relocation from intangible to tangible land. Among the 29 courses, 26 courses had passed through the land shapes of the undeveloped or project sites. No course deviated from the regulation of land shape because they were not enacted at all sites.

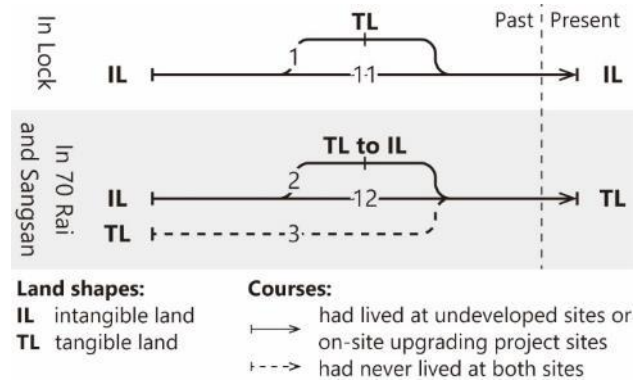


Fig. 5: The Courses of Land Shapes

Source: Author

Housing tenure included nine courses as presented in the Figure 6. These courses passed through constructed or purchased one's own houses or leased rental houses. The informants had previously acquired their houses without permission from landowners or land managers. Currently, they obtained their own houses after applying to landowners, land managers, and municipalities, except for rental houses. In Lock and 70 Rai, 5 of the 11 courses stayed in purchased houses. The three courses arrived at the purchased houses after leasing. The two courses migrated from constructed houses to purchased houses through leased houses. One course reached a purchased house after its construction. At all sites, 11 of the 18 courses settled constructed houses. The three courses remained leased houses. The two courses arrived at constructed houses after purchasing them. One course reached a leased house after the construction. One course moved from a constructed house to a leased house through a purchased house. Among the 29 courses, all courses passed through the housing tenure of the undeveloped or project sites. However, 3 of the 29 courses currently deviate from the regulation of housing tenure.

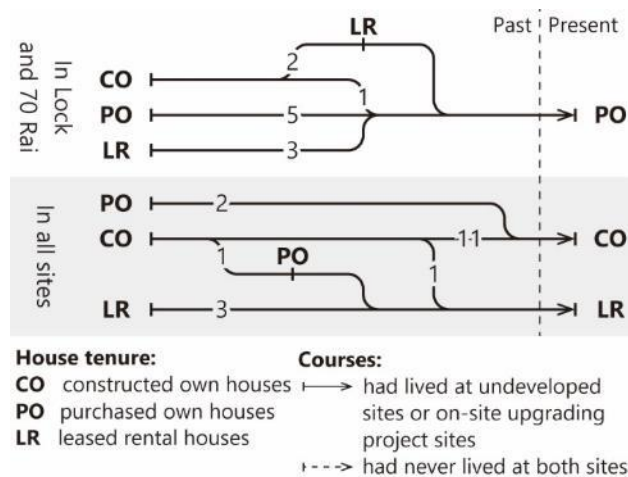


Fig. 6: The Courses of Housing Tenure

Source: Author

The housing shape comprised nine courses, as presented in the Figure 7. These courses went through detached or military houses above land, as well as detached, kindness, semi-detached, or shop houses on the land. In Lock, 10 of the 12 courses stayed in detached houses above land. Each course migrated from a detached house above land to a military house or returned from a kindness house to a detached house above land. In 70 Rai, one course moved from a detached house above land to a kindness house. In Sangsan, one course relocated from

a detached house above land to a semi-detached house. In 70 Rai and Sangsan, 10 of the 15 courses arrived at detached houses on land after those above land. The three courses settled detached houses on the land. Each course migrated from a detached house above land to one on land through one on land and a shop house or repeatedly relocated from a detached house above land to one on land. Among the 29 courses, 26 courses had passed through housing shapes of undeveloped or project sites. However, 2 of the 29 courses currently deviate from the regulations on housing shapes.

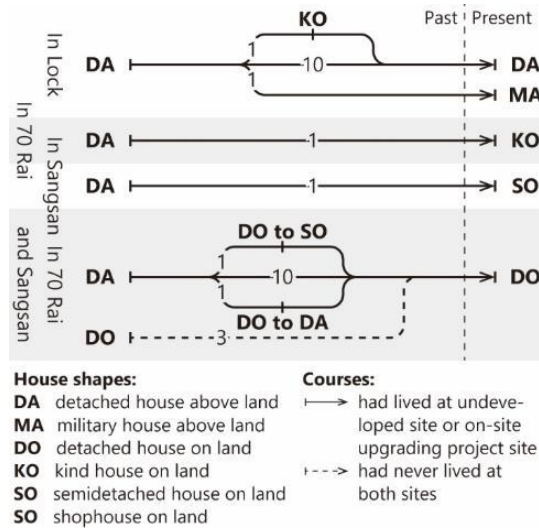
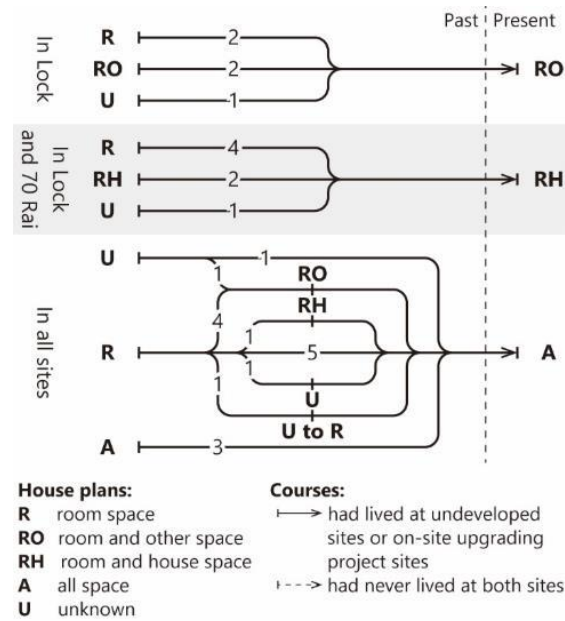


Fig. 7: The Courses of Housing Shapes

Source: Author

The housing plans were classified into 14 courses, as presented in the Figure 8. These courses involved combinations of houses, rooms, other spaces, or unknown spaces. In Lock, 2 of the 5 courses stayed room and other spaces. The two courses arrived at room and other spaces after room spaces. One course reached room and other spaces after unknown spaces. In Lock and 70 Rai, 4 of the 7 courses arrived at room and house spaces after room spaces. The two courses settled room and house spaces. One course reached room and house spaces after unknown spaces. At all sites, 5 of the 17 courses arrived at all spaces after room space. The four courses migrated from room spaces to all spaces through room and other spaces. The three courses remained in all spaces. Each course arrived at all spaces after unknown spaces, moved from unknown spaces to all sites via room and other spaces, relocated from room spaces to all spaces through room and house spaces and unknown spaces, or migrated from room spaces to all spaces via unknown and room spaces. Among the 29 courses, all courses have ever passed through housing plans for undeveloped or project sites. However, 15 of the 29 courses currently deviate from housing plan regulations.

**Fig. 8:** The Courses of Housing Plans

Source: Author

The courses of previous land and houses were integrated into Table 8. This table focuses on whether these courses have passed through land development, tenure, and shapes, as well as housing tenure, shapes, and plans for undeveloped or project sites in each category.

Table 8: The Courses that Had Ever Passed through Land and Houses at Undeveloped or Project Sites

Source: Author

Contents	Different Patterns in each Site			Similar Patterns in more than Two Sites			
	Lock (L)	70 Rai (C)	Sangsan (S)	L&C	L&S	C&S	All Sites
Land development	12 of 12	8 of 11	6 of 6	0 of 0	0 of 0	0 of 0	0 of 0
Land tenure	12 of 12	0 of 0	0 of 0	0 of 0	0 of 0	14 of 17	0 of 0
Land shapes	12 of 12	0 of 0	0 of 0	0 of 0	0 of 0	14 of 17	0 of 0
Housing tenure	0 of 0	0 of 0	0 of 0	11 of 11	0 of 0	0 of 0	18 of 18
Housing shapes	12 of 12	1 of 1	1 of 1	0 of 0	0 of 0	12 of 15	0 of 0
Housing plans	5 of 5	0 of 0	0 of 0	7 of 7	0 of 0	0 of 0	17 of 17
Total	53 of 53	9 of 12	7 of 7	18 of 18	0 of 0	40 of 49	35 of 35

Different patterns comprised 72 of the 174 courses. These courses can be classified into 53 courses in the Lock category, 12 courses in the 70 Rai category, and 7 courses in the Sangsan category. Among these courses, 69 courses had passed through land development, tenure, and shapes, as well as housing tenure, shapes, and plans at undeveloped or on-site upgrading project sites, in contrast to the three courses.

Similar patterns were observed in 102 of the 174 courses. These courses were classified into 49 courses in the 70 Rai and Sangsan category, 35 courses in the all-sites category, 18 courses in the Lock and 70 Rai category, and 0 courses in the Lock and Sangsan category. Among these courses, 93 courses had passed through land and houses at undeveloped or project sites, in contrast to 9 courses. This subsection presented the results. Both patterns contained more courses that had passed through land and houses at undeveloped or project sites than courses that had not.

Discussion

The previous section presented that most patterns of current land and houses resembled those of 70 Rai and Sangsan and were differed from those of Lock and the other sites, although some patterns resembled those of Lock and the other sites (Table 7). Why do these patterns

resemble or differ? This section answers this question based on the result that most courses around previous land and houses had passed through those of undeveloped or project sites (Table 8).

Differences

This section explains the reasons for the developments and ways of living in undeveloped sites. The on-site upgrading project in Lock did not sign leasehold contracts with the landowner, readjust the land, or reclaim the ground. This development maintained the land tenure by cultivating or receiving squatter land, intangible land shapes, housing shapes as detached houses above the ground, and housing plans for rooms and other spaces. In contrast, a site-and-service scheme in 70 Rai and a secure housing program in Sangsan signed leasehold contracts with land managers, reclaimed the ground, and readjusted the land. Both developments transformed the old way into a new one, such as land tenure by leasing or subleasing rental land, tangible land shapes, and housing shapes such as detached houses on the ground. Consequently, the developments formed similar land and houses in 70 Rai and Sangsan or different ones in Lock and other sites.

Similarities

Why were some patterns of current houses similar at Lock and other sites? This section explains this reason from the perspective of the developments and ways. Housing plans were the same as the house and room spaces in Lock and 70 Rai, or all spaces at all sites. These plans were similar to the development that indirectly restricted the construction of other plans. Housing tenure was common in purchasing one's own houses in Lock and 70 Rai or in constructing one's own house and leasing rental houses at all sites. This tenure resembles the persistence of housing tenure at undeveloped sites. Although rental houses deviated from the regulations of the 70 Rai and Sangsan, they persist to the present day. Consequently, the developments and ways resembled housing plans and tenure at Lock and other sites.

This section concludes with the research question: What are the similarities among the three chumchons? Land tenure and shapes, and housing tenure, shapes, and plans resembled those of more than two sites. These similarities were formed by the ways of living in undeveloped sites renewed or maintained by the developments or persisted against them.

Comparison with the Vernacular Thai Architecture

These similarities differences of course exist also in traditional vernacular Thai Architecture. For example, Khammoon (2024) talks about Northern Thai architecture, or Lanna architecture, which she claims represents a regional style deeply rooted in local ways of life. According to her, this region is currently exploring pathways to modernize its vernacular architecture, seeking to balance tradition with contemporary needs. The goal is for modern Lanna to thrive within the currents of change while maintaining its stability and sustainability in the present day. She further says that

“Lanna” signifies a land of abundance—symbolizing a fertile territory capable of supporting vast rice fields across numerous cities and plains, thus creating a thriving civilization. It is a region where agricultural concepts shaped the very naming of the land and its settlements.”

Khammoon,2024:01

However, Vernacular architecture of Chiang Mai differs from that of Phrae; it is not the same as Nan, again differs from that of Chiang Rai. Each city possesses its own selfhood, philosophy, and way of life, that give rise to unique aspects of vernacular. Nevertheless, on the whole, Traditional Thai vernacular architecture is defined by wooden, elevated structures designed to combat floods, heat, and humidity, often featuring steeply pitched roofs, high gables, and pre-fabricated panels for easy disassembly. Some stilt houses, which create covered ground-level

space, are characterized by regional variations and a close, spiritual connection to local environments.



Fig. 9: Borneo Company Office, Louis House
Located in Tha Ma-O Community, Mueang District, Lampang
Source: Khammoon,2024

As seen in this research, Chumchon architecture in Thailand also can be identified as vernacular, because they are often informal built environments of local communities, although characterized by high-density, low-rise residential structures that combine traditional Thai elements with modern, inventive adaptations. These communities are often located along waterways, such as canals (Khleng), or under transportation infrastructure, reflecting a "lived" and evolving architectural style that thrives on flexibility, necessity, and close social ties.

It is this architecture that the state has intervened in, in order, to 'elevate' them from being identified as slums, by means of providing more organized structures and built in settings with organized infrastructure. Since people build them mostly by themselves, they naturally adapt traditional styles that they are familiar with. However, they are distinctly different also from the spontaneous squatter settlements as seen in the Fig. 10.

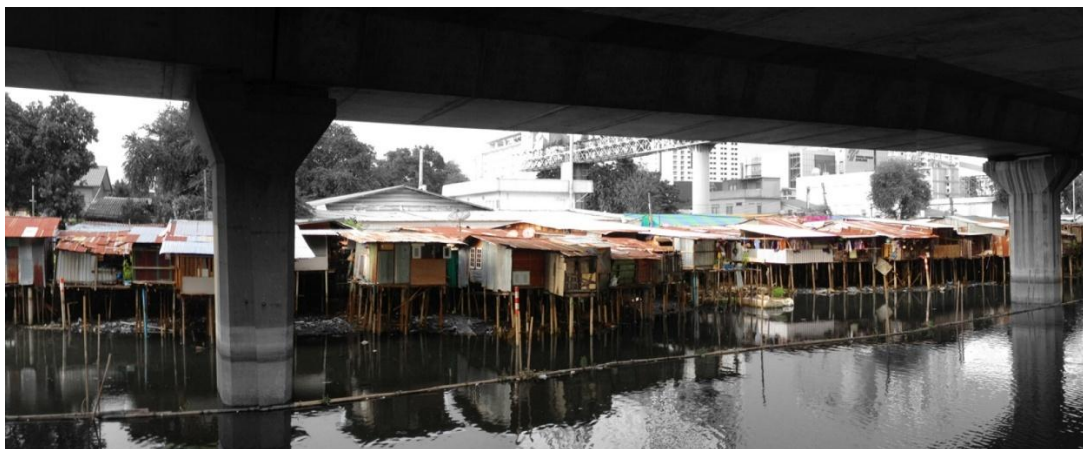


Fig. 10: Spontaneous squatter settlements in Bangkok
Source: 'Bangkok Bastards' available at <https://www.bangkokbastard.com/about>

Conclusions

This paper examined the similarities between the three chumchon settlements in Thailand and also compared them with the traditional vernacular settlements. The study answered the questions posed at the beginning by producing a discussing understanding the concept of chumchon. The research subsequently compared current land development, tenure, and shape, as well as housing tenure, shapes, and plans across three sites, where planned interventions have occurred.

This comparison shows different patterns of land and houses at each site, or similar patterns at more than two sites. Further, the analysis of the personal histories of previous land and houses offer insights into the current patterns some of which are similar and some different. The research presented that most patterns of current land tenure and shapes and housing shapes resembled those of 70 Rai and Sangsan, and current land tenure and shapes and housing shapes and plans differed between Lock and the other sites. However, some patterns of current house tenure and plans resembled those of Lock and the other sites. Moreover, most courses passed through land and houses at undeveloped or project sites.

This research concludes that land tenure and shapes, as well as housing tenure, shapes, and plans resemble more than two sites. These similarities signify the ways of living in undeveloped sites then renewed or maintained by the developments or persisted against them. These similarities it is argued are among the components that created the concept of chumchon.

It also concludes that these similarities and differences are also present in the traditional vernacular settlements. Given the fact that they are produced by the people in response to climate terrain culture and ways of life, they can be considered as emerging urban vernacular. It thus argues that this concept is useful for transforming the negative image of Thai communities which identify them as slums and squatter settlements into a positive image through the identification of them as chumchon: contemporary urban vernacular.

This conclusion is buttressed by the similarities between land and houses across the the three chumchons. These similarities are among the components that define the concept of chumchon. This concept is useful not to analyze secure housing program sites, such as Shelby (2019), but to compare various Thai communities, as have been done in this study. This concept is also useful for avoiding eviction by renewing the negative image of Thai communities such as slums. This concept includes positive patterns of land and houses in serious environments. Image renewal can be applied to programs that aim to convert slums into vernacular wholesome communities.

Indeed, the study found that their patterns differed in Lock and the other sites, indicating that chumchon is not a homogeneous community but diverse, as in Rabibhadana (1975), Archer (2009), and Elinoff (2013) have demonstrated. Khammoon (2024) adds to this from a rural vernacular perspective, Nevertheless, this method is useful for capturing the diversity of chumchons.

Despite these positive outcomes, this study also has weaknesses. The first is that only this research surveyed only a small number of houses: 29. To be more acceptable, more samples should be examined to generate comprehensive knowledge. At the same time, the findings are limited by the focus on the physical aspects of land and houses. Future studies must therefore examine families as a non-physical aspect too.

Added to these weaknesses is the fact that the selection of urban chumchons have been developed by the public sector. It is to be noted that Chumchons are also located in suburban or rural areas and have been developed by the private as well as the public sector. Future research should therefore investigate other types of chumchons to identify the similarities. Although examining specific chumchons from a microscopic perspective has been tremendously useful to generate insights, whether the findings of this study can be applied to other chumchons from a macroscopic perspective remains to be seen. Usually, it is argued that case study findings cannot be generalized and that applies to this study too.

Acknowledgements

The author declares that this research did not receive any external funding. However, the endearing support received from the communities are greatly appreciated.

Statement of Conflict of Interest: The author declares that there is no conflict of interest in carrying out this research.

Ethical Practice: This research followed accepted ethical practices. It did not involve any personal data, nor did it coerce any participants to take part in this research under pressure. No person has been identified.

Availability of Data: Data presented in this research is selected from a larger data set and they are available for scrutiny by any legitimate organization.

References

- Aalborg University (2009) Upgrading and Integration of Khlong Toei Slum, Unpublished Report, Faculty of Architecture and Design, Aalborg University, Denmark.
- Abe, T., Shoji, E., Shimizu, I., Denpaiboon, C., Povatong, B. & Yamada, K. (2024) The Formation of Land and Building Shape and Use in Chumchon Khlong Toei, Bangkok, Thailand. *Journal of Architecture and Planning*, Vol. 89 (820), pp. 997-1008 (in Japanese). Available at: <https://doi.org/10.3130/aija.89.997>
- Archer, D. (2012) Social Capital and Participatory Slum Upgrading in Bangkok, Thailand. Unpublished Ph.D. Thesis, Department of Land Economy, University of Cambridge, United Kingdom.
- Asian Institute of Technology. (1973) Klong Toey 1973: A House to House Survey of the Squatter Slum, Unpublished Report, Department of Social Work, Asian Institute of Technology, Thailand.
- Askew, M. (2002) Bangkok: Place, Practice and Representation. London: Routledge.
- Boonyabancha S. (1988) Struggle to Stay: A Case Study of People in Slum Klong Toey Fighting for their Home, Unpublished Report, Duang Prateep Foundation, Thailand.
- Boonyabancha, S. (2005) Baan Mankong: Going to Scale with “Slum” and Squatter Upgrading in Thailand. *Environment and Urbanization*, Vol. 17 (1), pp. 21-46. Available at: <https://doi.org/10.1177/095624780501700104>
- Duang Prateep Foundation. (2018) Four Decades of the DPF: Education Opportunities for Poor Children and Development for Destitute People. Bangkok: Duang Prateep Foundation.
- Elinoff, E. (2013) Architectures of Citizenship: Democracy, Development, and the Politics of Participation in Northeastern Thailand’s Railway Communities. Unpublished Ph.D. Thesis, Anthropology, University of California, United States of America.
- Endo, T. (2014) Living with Risk: Precarity and Bangkok’s Urban Poor. Singapore: NUS Press.
- ISP-Bangkok. (1982) Plan for the Development of Klong Toey Slum, Unpublished Report, ISP-Bangkok, Netherlands.
- Khammoon, W. (2024) Lanna Vernacular, in *asa journal*. 7(1), 10-19
- Pornchokchai, S. (1993) Bangkok Slums: Review and Recommendations. Bangkok: School of Urban Community Research and Actions Agency.
- Rabibhadana, A. (1975) Bangkok Slum: Aspects of Social Organization. Unpublished Ph.D. Thesis, Anthropology, Cornell University, United States of America.
- Shelby, H. (2019) Never Settled: Community, Land, and the Politics of the Urban Commons in Bangkok. Unpublished Ph.D. Thesis, Division of Global Metropolitan Studies, University of California, United States of America.
- Sheng, Y. K. & Wandeler, K. (2010) Self-help Housing in Bangkok. *Habitat International*, Vol. 34(3), pp. 332-341. Available at: <https://doi.org/10.1016/j.habitatint.2009.11.006>
- Thammasat University. (1971) Klong Toey: A Social Work Survey of a Squatter Slum, Department of Social Work, Thammasat University, Thailand.