

Social constructions through everyday activities in external spaces: a case Study of Khlong Toei community, informal settlements in Bangkok

Eisuke Shoji

M.A. candidate in Vernacular Architecture and Built Environment Program,
Faculty of Architecture, Silpakorn University
Email: shoishoji0909@gmail.com

Supitcha Tovivich

Assistant Professor, Faculty of Architecture, Silpakorn University
Email: supitcha.tovivich@gmail.com

Takuya Abe

Ph.D. candidate, Philosophy in Design, University of Tsukuba, and M.Eng.
Email: abetaku.kt@gmail.com

Abstract

This study explores the construction of social relations within external spaces in informal settlements by focusing on daily activities. The rapid increase of informal settlements, often characterized by substandard living conditions, is a global challenge. In this research, we do not merely view these areas as spaces lacking adequate housing but as dynamic settings where social relations flourish. We aim to explore how such social bonds are established, specifically within external spaces, such as alleyways and front areas of residences, by examining the daily interactions, sharing, and negotiations. While previous architectural studies have adopted similar perspectives, this research stands out by tracing the process of building social relations through in-depth qualitative investigations.

This study was conducted in the Khlong toei community in Bangkok, which is one of the largest informal settlements, with a focus on alleyways and surrounding houses where strong social relationships are seen as case studies. The research was conducted qualitatively, mainly through participant observation, with simultaneous interviews, measurements, 3D scan, and photography.

By analysing the survey data, we assessed the daily activities crucial for fostering social relations and living environments that underpin these interactions. Furthermore, our findings indicate the potential formation of neighbourhood clusters. Continuing to examine the tangible living environment shaped by daily activities at the neighbourhood level may offer valuable insights for the enhancement and development of these regions.

Keywords: Everyday Activities, Socio-Spatial Fabric, Exterior Spaces, Neighborhood Cluster, Qualitative Survey, Informal Settlements, Thailand.

1. Introduction

Informal settlements are often characterized by their lack: a shortage of economic, infrastructure, proper housing, and social services. As of 2015, approximately 25% of the global population was estimated to reside in informal settlements, including slums, encompassing roughly one billion individuals worldwide. This population is estimated to double by the year 2030 (UN-Habitat, 2016). Developing these areas poses a common challenge for countries worldwide. To address this challenge, it is essential to focus on the multi-layered and dynamic realities of informal settlements, and to formulate settlement development strategies accordingly.

This survey aims to provide an in-depth exploration of social relations, grounded in architectural studies. These social relations are believed to be created through daily practices in exterior spaces. These outdoor areas are not mere alleys; instead, they serve as vital social spaces where social relations gradually formed through the daily activities of residents. While there have been architectural studies examining residents' behaviors in exterior spaces from a similar perspective, they generally lack a comprehensive understanding of social relations. While the importance and density of social relations within informal settlements have previously been acknowledged and investigated as crucial aspects of daily life, these studies were often conducted in isolation and have not been integrated with spatial analyses.

Khlong toei is one of the largest informal settlements in Bangkok and the focus of this study. The Lock456 community, which is the target community of this research located in Khlong toei, emerged in 1937 through unauthorized occupation and has endured without significant evictions or relocations. Over the years, it is assumed that living environments are created by residents to meet the demands of daily life. Against the backdrop, this survey utilizes the Lock456 community as a case study to explore the deepening of social relations, with a specific focus on daily behavior in exterior spaces. Our examination will center on the alleyways and residences, where strong social relationships are seen. We aim to clarify the nature of the behaviors and social interactions that occur in these locations on a daily basis, concurrently seeking to comprehend the physical environment and social relations that underpin these behaviors. Naturally, this complex and dynamic residential situation cannot be fully researched within this paper alone. As previously mentioned, we adopt a case study approach, zooming in on the micro-level of individual dwellings, alleyways, and individual residents. This micro-level perspective, which has been somewhat neglected in previous research, allows us to qualitatively and comprehensively examine the phenomena occurring there.

This paper is structured as follows: Introduction, Literature review, Methodology, Findings and discussion, and Conclusion. In the review part, we describe the need to focus on the everyday behavior of external spaces from previous studies targeting informal settlements. In the Methodology section, we describe the qualitative research methods employed in this study and their advantages and disadvantages, as well as the Khlong toei targeted as case studies. The Findings and discussion section offers insights into daily activities from each dwelling unit situated around the exterior space. Furthermore, we analyze the survey results in terms of 1) daily activities, 2) physical environment, and 3) social environment, exploring the potential for linking these elements to a non-autonomous dwelling framework within the

neighborhood context. In the conclusion part, we summarize the discussions and describe the limitations and future prospects of this study.

2. Literature Review

2.1 Informal Settlement as Part of a City

Perceptions of informal settlements have undergone significant transformations in recent decades and continue to be a prominent global concern. Consequently, it has been widely assumed that conditions in informal settlements, such as inadequate shelter, are indicative of poverty. Despite the negative stigma attached to informal settlements and their recognition as urban policy challenges, they play a crucial strategic role in urban development. They provide affordable housing, land, and financial opportunities to low-income groups, and they contribute essential labor to industrial, construction, public sector, and service sectors within the formal city. Moreover, it is now evident that these settlements are integral components of many cities, and their elimination without addressing the underlying reality is not a sustainable solution. It is necessary to view informal settlements as a part of the modern city without falling into prejudice.

2.2 Everyday Activities in External Spaces

In the realm of architectural studies, recent research has focused on the dynamic transformations of space and its utilization.(Dovey:2012, Jones;2020) This perspective, while potentially carrying a hint of romanticism, has the capacity to uncover a multi-faceted reality not previously unveiled by earlier research endeavors. In particular, researchers have actively explored the domain of outdoor spaces because dynamic changes in society and space are taking place there, and human behavior is concentrated there(Boonanan;2010, Jaime;2011, Thai; 2022).

A lot of terms exist for urban external spaces, ranging from 'public spaces' and 'semi-public spaces' to 'open spaces,' 'communal spaces,' and more. These spaces embody human-scaled, highly mixed, walkable, and fine-grained urbanism. Defining these spaces beyond mere ownership and accessibility; it should be evaluated by how they are used. In essence, such spaces are places where social relationships are formed. Urban outdoor spaces serve as places to meet others, to play, and to rest. While these open spaces are accessible to the public and owned collectively, they belong to the local residents. These spaces facilitate family, small-group, and community-based interactions, enhancing social cohesion among co-residents. This idea also encompasses patterns of activities aimed at fulfilling daily objectives and the resources necessary to support them. These practices foster routine encounters and shared experiences within these compact urban spaces. External spaces within informal settlements play pivotal roles in physical and social dynamics. These spaces facilitate socialization, social bonding, intergroup interactions, and social inclusion. Consequently, it is vital to recognize that beyond physical elements, the content of these transitional spaces plays a significant role in influencing social construction.

Despite the insightful studies in this field, there is a noticeable gap in research that focuses on the micro-level of everyday actions and how social relations are created in minute detail. While the use of space and appropriation, which have been the focus of previous studies, are also important in this study, this study looks at everyday activities, including appropriation,

from the perspective of social construction. In addition, the physical and social environment that forms the basis for such activities will be investigated as much as possible, including the interior of the residence.

3. Methodology

To address this gap, it is necessary to conduct a qualitative examination of everyday behaviors over an extended period by taking one alley as a case study. Given the research's focus on exploring processes, interpretations, and relationships, these methods were suitable. We employed participant observation, interviews, measuring, 3D scan, and fixed-position photography. The research primarily concentrated on the Lock456 community in the Khlong toei as a case study. In this part, we will discuss each of such methodologies and target sites.

3.1 Participant Observation

In this section, we will detail the procedures employed for participant observation, discuss the advantages and disadvantages of this methodology, and outline our efforts to mitigate its limitations.

Observations were scheduled to cover weekdays and weekends, mornings, afternoons, and evenings whenever possible. This broad coverage ensured a comprehensive understanding of daily life in the community. During the survey, interactions with residents were facilitated using basic Thai and Google Translate, and occasional photographs were taken to document specific observations. Throughout these observations, our focus was directed towards four key aspects. The first is to record what type of behavior is being observed. Specifically, social activities, activities of daily living, earning activities, etc. Second, we focus on where these activities take place. The activities are recorded by linking them to the maps created by measurement and 3D scan, which will be described later. Third, we will focus on who is doing such activities and with whom. Fourth, we will look at how such behavior varies with the time of day.

The significance of qualitative studies is that they provide profound insights into how urban spaces are perceived and utilized by residents. As Thai (2022) mentioned, qualitative data gathered through direct observation of everyday activities and firsthand feedback from users offers insights that cannot be captured through simplified diagrams, urban morphology assessments, building typology studies, or space syntax mapping. Furthermore, in this survey, we observed the social activities that take place in this alley, while actually participating in them ourselves (Figure 1). This leads to a more detailed understanding of the relationships and usage of space that are formed in this external space.

However, it is important to acknowledge the limitations of participant observation. Firstly, the observer's presence may have influenced existing relationships and the residential environment. To minimize this impact, much effort was made to fit into the neighborhood as seamlessly as possible. by making repeated visits over an extended duration. Secondly, when conducting research in a sensitive area with pressing evictions, establishing trust within the local community is essential. Various steps were taken to foster trust, including voluntary work with the Duan Prateep Foundation, an organization deeply rooted in the region.



Figure 1: Picture which author participates in communal dining
Source: Author

3.2 Measuring, 3D Scan

This approach facilitated a more profound understanding of the urban physical environment and served as a foundation for studying residents' activities within the spatial constraints defined by micro-scale architectural elements such as stairs, corridors, awnings, and courtyards. In this study, we also measured and scanned as much as possible inside the dwellings. This is because the spatial arrangement of the interior of a dwelling greatly influences behavior in the exterior space. In the survey, while confirming basic dimensions, openings, etc., by measurement, we aimed to record the objects by 3D scanning. The measurements were taken at four houses, and 3D scans were taken at six houses, including alleys. The 3D scan was conducted with an iPad Pro (3rd generation) and an app called SiteScape by FARO Technologies, Inc.

3.3 Interview

The interviews in this study comprised semi-structured interviews and informal conversations. Interview topics centered on the utilization of space and social relationships with neighborhoods. In addition, we asked as many questions as possible about the living conditions inside each residents, family structure, occupation, and so on. We interviewed two residences, and conversations were conducted whenever we noticed anything of interest during the observations.

3.4 Fixed-Position Photography

Fixed-position photographs were systematically captured to document daily activities, spatial utilization, roles of spaces, and changes over time. These photographs were consistently taken from the same position and angle. These photographs were taken in front of HOUSE-A and B, where most of the activity was observed, and from HOSUE-A toward HOSUE-F, which overlooks the alley.

3.5 Neighborhoods Cluster in Lock456 Community, Khlong Toei, Bangkok

This study focuses on the Khlong toei area in Bangkok, Thailand, and more specifically, the Lock456 community within it. The choice of the case study method was guided by its ability to provide profound insights into complex social phenomena and real-life contexts. In this section, after presenting an overall picture of the Lock456 area in Khlong toei, the reasons for the selection of the subject alley are explained.

The Khlong toei community emerged around 1937 along the Chao Phraya River, with its large-scale development coinciding with the construction of the Khlong toei port in the same year. This development attracted people from across the country in search of employment opportunities due to the rising income levels in Bangkok and the challenging living conditions in rural areas. Khlong toei community was established through the informal occupation of wetlands owned by the Port Authority, due to the extraordinarily high cost of land in Bangkok. Within the larger Khlong toei, this study narrows its focus to the Lock456 community. The Lock456 community was created for the illegal occupation of land owned by the Port Authority. Since its formation, various developments have occurred, including the concrete paving of existing alleyways, the installation of water and utility poles, and more. There, gradual and autonomous transformations in spatial order and social dynamics can be observed through house construction, extensions, renovations, and the subleasing of houses and rooms. The selection of this community for study was based on several factors. It is a longstanding informal settlement in Bangkok, and the spatial organization created by residents has been maintained without government-led rezoning or large-scale relocations. Furthermore, it is crucial to examine the current residential situation in this area due to impending clearance plans.

In Lock456 area, chumchon Lock456 alley runs through the central east side and a railway track runs through the upper part of the road. The alley connects the northern part to the At Narong road and the southern part to various communities in Khlong toei, making it one of the few roads that connect the inside and outside of the communities day and night, with active traffic of cars and motorbikes. Several goods trains pass on the railway line each day. These chumchon Lock456 alley and tracks are connected to narrow alleys of about 1.5 meters wide. The narrow alleys are irregular in shape, with bends and dead-ends in places, and are used not only by passers-by but also by motorbikes. It is bounded on the east side by the Port Authority fence and on the west side by a direct link to Lock123 community.

In this study, social relations (relatives and friends) are used as selection criteria in order to identify external spaces where everyday activities are actively observed. Specifically, the selection was made in areas where several dwellings with social relations are clustered together at a closer distance (next door, opposite each other, one house over the other, etc.). Although such areas can be found in other locations, the subject site was selected as a case study because of the large number of dwellings clustered relatively close to each other.

The site of this study is shown in **Figure 2**.

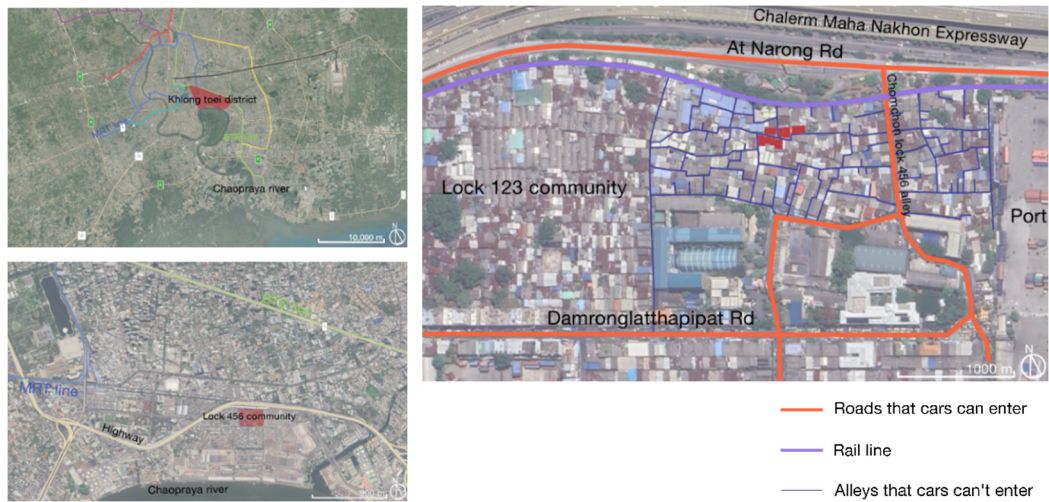


Figure 2: Khlong toei, Lock456 community
Source: Google Earth

4. Findings and Discussion

Findings: Life between Housings

In this chapter, we present the data collected through observation and interviews, accompanied by maps and photographs. After providing an overview of the alley as a whole, we will explain each residence, which serves as the focal point for understanding behaviors within the outdoor space. The site map including the interior of the dwelling obtained by 3D scanning is shown in **Figure 3**. **Figure 4** shows the site plan obtained by measurement. The dwellings are numbered in **Figure 4**, and the locations of openings are also noted to show the connections between the interior and exterior of the dwellings.

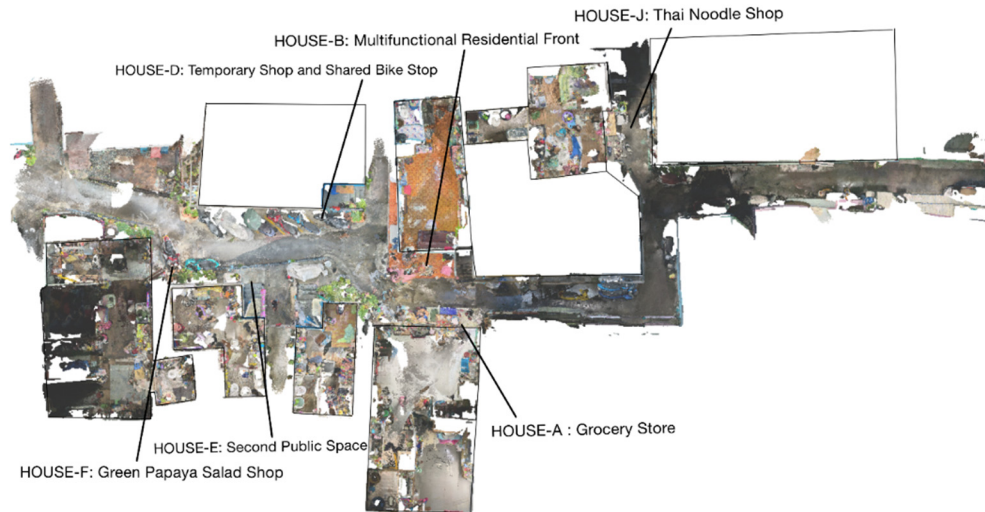


Figure 3: Site map made by 3D scan
Source: Author

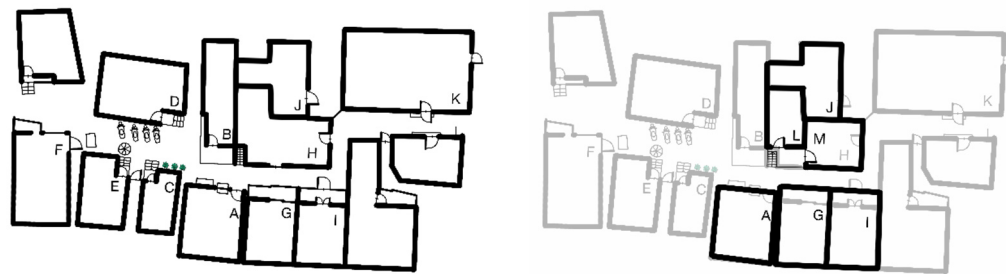


Figure 4: Site map made by measurements, First floor(left) and second floor(right)
Source: Created by the third author, edited by the author.

The Alley

The alley exhibits active utilization of outdoor space throughout the day and night. (Figure 5) On the weekdays, during the daytime, a few individuals remain to work or share meals in front of their residences. In the evening, children and the younger generation return home, while the older generation often gathers to share meals, play music, and engage in lively activities in front of their houses. On weekends, these activities extend into the daytime, with cheerful music and dancing occurring at night. The community members also display a sense of communal dining, often sharing their dishes with both neighbors and passersby. Occasionally, neighbors in close proximity relate to these shared meals without a formal invitation. It is also observed such as residents getting haircuts or enjoying cigarettes in front of their homes. In essence, the outdoor space is actively utilized for a lot of social and

domestic activities. Local children frequently gathered and played in the alley and inside the residences.

The history of this alley unfolds as follows: Initially, an uncle of HOUSE-A from Sakaeo Province in Northeast Thailand settled here. The owner of HOUSE-A and his wife were called to this place for work by his uncle. Subsequently, his brother(HOUSE-F) and sister(HOUSE-J) came to the neighborhood. Over time, they had more children, and now their children live in households (HOUSE-E, K, and M). **Figure 6** shows the family tree and the place of residence. HOUSE-B is one notable member of this neighborhood, a close friend of HOUSE-A, who originally resided elsewhere in Khlong toei. However, HOUSE-A purchased her house, and she inflexed to this location.

In the subsequent sections, we will shift our focus to each individual residence and explore how their activities are involved with outdoor behaviors, emphasizing their ways of living and involvement in economic activities, such as store management.



Figure 5: Utilization of this alley in the daytime (left) and nighttime(right) on weekends from the position of HOUSE-A to HOUSE-F

Source: Author

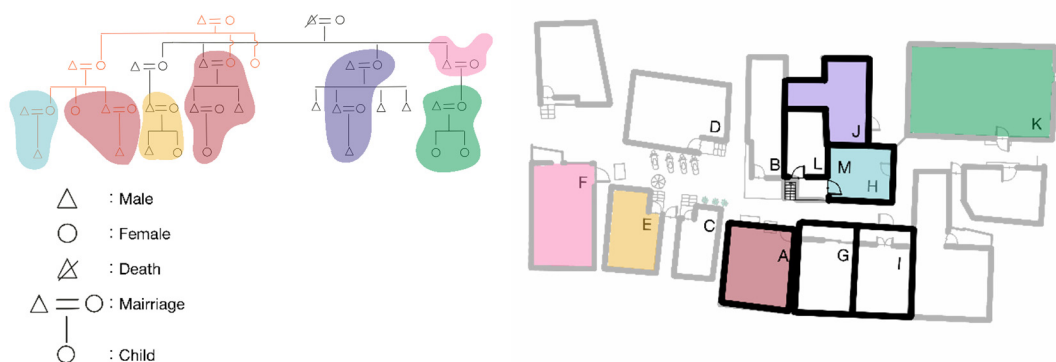


Figure 6: Family tree and the place of residence (Colors correspond in the left and right pictures.)

Source: Created by the third author, edited by the author.

HOUSE-A Grocery Store

This two-story residence comprises a living room, bedroom, water room, and a kitchen on the first floor. The front-facing side of the house serves as a general store, displaying an array of products. The age of the owner is 54 years old, and the age of the owner's wife is 50 years old. They sleep in a bedroom on the first floor. The second floor comprises three bedrooms. The owner's son and his two sons and their families, as well as the owner's wife's niece and her family live there. Their son is 33 years old and 28 years old. Their children are 8 and 2 years old. In total, there are three generations and ten people living in HOUSE-A.

In front of the house, amenities like running water, benches, and a washing machine facilitate various activities such as relaxation and dining. Laundry is often hung out to dry next to HOUSE-B. Cooking takes place both inside the house and in front of HOUSE-B,C, often involving interactions with neighbors. Notably, individuals engage in personal activities like napping and childcare in front of HOUSE-B, alongside more communal activities like dining and drinking, even after HOUSE-B residents have backed to her rooms.

The grocery store remains open almost every day, from early morning to late night, typically managed by the owner's wife. However, on holidays and weekday evenings, her niece, who also lives in HOUSE-A, sometimes takes care of the store. The store offers a variety of items including snacks, soft drinks, cigarettes, and alcoholic beverages. Products are abundantly displayed, both in front of the house, on interior shelves, and within the refrigerator. Occasionally, when the front door is left open, customers enter the store to buy stuff. The owner also engages in a shoe repair business in front of HOUSE-A,B, collaborating with the husband of his wife's niece who also lives in HOUSE-A, another niece of his wife who lives in HOUSE-M. Additionally, the owner operates a craftsman business with another relative, HOUSE-J,M, and a friend, HOUSE C.



Figure 7: In front of HOUSE-A in the daytime (left) and night(right)
Source: Author

HOUSE-B: Multifunctional Residential Front

This dwelling is situated at the front of HOUSE-A and accommodates only one resident, a friend of the owner of HOUSE-A. This residence was initially acquired by the owner of HOUSE-A. She is about 70 years old. The dwelling is located on the first floor. When outside, the occupant frequently leaves the door open, utilizing the area for cooking, communal dining, relaxing, shoemakers and other occupations are operated with neighbors(**Figure 8**). On occasions, the occupant prepares multiple dishes. She used to prefer beer and drink it in the morning, but due to recent health issues, she doesn't drink alcohol and just enjoys food. Notably, the residence also functions as clothes drying area, utilized by both HOUSE-A and HOUSE-F residents. The occupant is currently not employed, and often stays at home all day. And also, she generously purchases items from the general store. It also observed that she lend money to HOUSE- F and M, paying HOSUE-H to clean her room, and buying food from other neighbors.

HOUSE-C: HOUSE-A Friend and His Wife

This couple resides in a supported dwelling, the same as HOUSE-D,E. The husband actively utilizes the front space of HOUSE- A. B, with the husband engaging in daily cooking, dining, and relaxation activities. The wife alternates between the interior and the front of the house, smoking cigarettes and taking care of the plants. Drying of foodstuff is occasionally seen in front of the entrance, although it may be nibbled by the owner of HOUSE-A. The husband works as a bike taxi driver, specializing in food delivery. Occasionally, he assists the craftsman business of HOUSE-A in his work. In the front of the dwelling, motorcycles are placed and fires are sometimes started for cooking.



Figure 8: Utilization in front of HOUSE-A and B, making shoes (left) and eating dinner (right)
In each photo, HOUSE-A is on the left and HOUSE-B is on the right.

Source: Author

HOUSE-D: Temporary Shop and Shared Bike Stop

Similar to HOUSE-C, this supported residence is located next to HOUSE-B, housing two residents, with their son and his wife residing nearby. The front of their house serves as a motorcycle parking area, rented by neighborhood residents for 100 THB(Thai bath, THB below) per month per bike. Primarily, they spend most of their time indoors, although occasional days setup of a dining area in front of their house, facilitating communal meals with neighbors. Periodically, they establish a store in front of their house, showcasing an ever-changing meal menu. During these times, they often leave the door open and sit nearby. Transactions are observed with local residents, and opening hours vary between day and evening.

HOUSE-E: Residential Front Used as a Second Public Space

This supported dwelling, HOUSE-A nephew and his wife and their two children live there. His age is about 30s. Occasionally talked in front of the house but rarely shared communal meals. The door is often kept closed. Children frequently interact with the youth of HOUSE-A. They occasionally brought chairs outside for talking with HOUSE-F,J residents and other activities. Both husband and wife engage in daytime employment, with their children attending school. As far as the author's observations confirm, they have only once opened a snack store in front of the store.

HOUSE-F: Green Papaya Salad Shop

The husband, who is the brother of HOUSE-A's owner, resides in this dwelling with his wife. The residence was constructed by the couple. The husband is 45 years old. During the day, the wife is often seen sharing meals in front of HOUSE-B.

Previously, his wife managed a green papaya salad shop in front of their house. However, the shop could not continue due to financial reasons and because her daughter started running her own restaurant. However, she occasionally reopened their store, with desks and chairs placed on a main street, outside of neighborhood. Periodically, they also set up stores in front of the house. Furthermore, a shared clothes drying area exists between HOUSE-E and HOUSE-F, which both households utilize. In cases where this space is insufficient, laundry is hung next to HOUSE-B. The husband runs a repair business, frequently conducting repair work in front of the residence.

HOUSE-J: Thai Noodle Shop

This two-story building accommodates the HOUSE-A's owner's sister and her husband on the first floor, with her son and his wife residing on the second floor. She is 51 years old and her husband is 48. Her son is 33 years old. The first floor also houses of her 5 year old grandchild. The house was acquired by the owner of HOUSE-A, she continues to pay rent. They used to live in another area within the Khlong toei area for 25 years, but were evicted and moved to this area about 19 years ago. They initially lived in the HOUSE-H, but later moved to their current location. The residence was purchased and built by the owner of HOUSE-A for 80,000 THB and she continues to pay him 1,700 THB per month.

They are also doing shoemaker business. Although their incomes differ, cooperative relationships such as lending and borrowing of tools were observed. Initially, they operated a Thai noodle store in front of their house on Saturdays and Sundays, from morning until around 3 p.m. The shop attracted a lot of neighborhood residents who would either enjoy their noodles at home or in front of the HOUSE-B. However, they have since relocated their noodle business to the main street, where a larger customer exists, leading to increased prosperity. Also, in the past, she has set up a store in front of HOUSE-F and along the nearby railroad tracks. The husband also manages a bike taxi business, occasionally assisting with the craftsman business at HOUSE-A.

HOUSE-K: Gapao Shop

This residence is inhabited by four residents: the daughter of HOUSE-F, her husband, and their two daughters. While they frequent the grocery store, communal meals are infrequent. The wife previously assisted at HOUSE-F (her mother's house) but has now established her own store. Although the store is flourishing, a significant portion of orders is received through food delivery services rather than from local residents.

HOUSE-M: Second Floor Residents

HOUSE-A's owner's wife's niece and her husband are residents of this house, frequently utilizing the front spaces of HOUSE-A and B for communal cooking and dining. The husband works as a food delivery, while the wife is engaged in the shoemaking and craftsman business with HOUSE-A, as previously mentioned.

Others

HOUSE-G,H,I located nearby, is relatively less engaged in communal dining and related activities. However, both households maintain actively buy goods at the grocery store. HOUSE-H also contributes to the neighborhood by performing chores such as food shopping and cleaning clothes for HOUSE-B and other neighboring residences. In addition, HOUSE-L is a rental unit and is currently being renovated by the owner of HOUSE-A.

5. Discussion

5.1 Everyday Activities Construct Social Relationships

Store Operation

The development of stores within and outside dwellings is traditionally recognized for its economic significance. However, our survey highlights its social relevance from three distinct angles.

Firstly, store management becomes an integral part of residents' daily lives, with an expectation of regular and frequent utilization. For instance, during gatherings in front of HOUSE-A, HOUSE-B residents, including themselves, commonly purchase alcohol and snacks from the general store.

Secondly, stores are also important to the lives of neighborhood residents. The sale of Thai noodles, which are popular for breakfast, attracted more than half its customers from the local neighborhood when sold in front of residences. HOUSE-A residents often enjoy Thai noodles in front of HOUSE-B. The grocery store also has many regular customers. These shops serve a pivotal role in sustaining community life. While some customers promptly purchase

items, they visit repeatedly, contributing to social interactions and reinforcing neighborhood bonds. Hence, stores play a pivotal role in nurturing and preserving interpersonal relationships, effectively generating social capital within the community.

Moreover, in all these stores, the presence of merchandise, either placed outside or within the dwelling, renders the space communal. Especially in general stores, open windows and accessible interiors invite customers in, fostering conversations with the shopkeepers, often resulting in extended stays. This extension of the home is particularly significant when residents engage in income-generating activities within their homes, drawing people and goods from the street into homes and transforming private spaces into semi-private ones (*Figure 7*).

Communal Dining

Meal preparation and consumption in the neighborhoods are key elements in shaping social connections. Various interactions take place informally, and relationships are established. Food is frequently purchased by the members who participate in the communal meals, but the members who purchase the products change from day to day: one day the owner of HOUSE-A, another day HOUSE-B, and so on. Cooking is also done in front of or inside the HOUSE-A, B and C, by several people. The meals prepared are often shared with or received from the neighbors, and sometimes even shared with passersby.



Figure 9: Making dinner together, fish are chopped (left) and then fried (right). After completion, they were distributed to neighborhood residents and passers-by.
Source: Author



Figure 10: Dinner in one day. Each dish is shared from various dwellings (Colors correspond in the left and right pictures. Pink is from a dwelling a short distance from this location).

Source: Author

Occupation

The front areas of dwellings serve as occupational spaces within the neighborhood. Shoemaking (*Figure 8, left picture*), a dominant occupation observed in front of houses, significantly contributes to household incomes. Additionally, though not carried out in external spaces, HOUSE- C, M, J residents assisted HOUSE- A' s craftsman business, exemplifying the importance of such work-related relationships in income generation. It could be said that the neighborhood relationship functions as a kind of production cooperative.

Sharing Spaces

Several practices extend to shared external spaces, illustrating how daily life functions are expressed in external spaces through social ties. For example, the front of HOUSE-D is used by neighbors as a motorcycle parking lot, for which they receive 100 THB per month. The side of HOUSE-B is used by neighbors to dry their laundry. HOUSE-J Thai noodles used to be sold together in front of HOUSE-F. These actions taken to meet the needs of daily life will ultimately help build relationships. These activities can be said to be one of the acts that form relationships.

Financial Transactions

Frequent financial exchanges and negotiations in external spaces were documented. These included borrowing or lending money, sometimes facilitated by daily loan providers, and negotiations regarding loan amounts and interest rates. For example, HOUSE-M, lacking funds for a broken cell phone, engaged in such discussions while relaxing with neighbors in front of HOUSE-A. He then managed to borrow money from HOUSE-B and the money lenders there. Similarly, HOUSE-F secured funds from HOUSE-B to establish a store and later returned the amount. They stay in the exterior space for multiple purposes, but their long stay may facilitate these actions.

5.2 Physical Environment: Foundation for Everyday Activities

Proximity of Interior and Exterior Spaces

In most residences, the living room offers immediate access to the outdoors upon opening the door. The relationship and exchange between dwelling places and open spaces represent another critical characteristic of these settlements. Doors and windows serve as connection points, often left open, acting as transitional elements through which open space merges with the house and the house extends into the street. For example, in HOUSE-B, while residents watch television inside the house, neighbors outside can also view the same content. HOUSE-A even serves meals and delivers goods through windows (*Figure7*). In addition, while sitting in front of the HOUSE-B, one can check the front of HOUSE-F and activities inside the residence. On the contrary, when eating a meal ordered in the front of HOUSE-F, one can see the people eating in the front of the HOUSE-B. These examples may indicate that the open residential plan and zoning to the outside and to the alley is one of the elements that cause activities.

Irregular Alleys

The winding alleys, shaped by varying dwelling layouts, significantly contribute to the formation of social relationships. In this study site, activities can be concentrated between two corners, with this area offering visibility into the daily lives and activities of others. In addition, 3-year-old children in HOUSE-A walk from HOUSE-A to HOUSE-E by herself, and other children also play games around this area (*Figure5, Fig,11*). One of the factors that create such a situation is that these corners naturally compel slower speeds, facilitating community activities, although motorcycles serve as the primary mode of transportation in Southeast Asia, including this area.

These alley shapes also create environmental disparities. Factors such as sunlight and ventilation vary across the neighborhood, leading to shared usage of spaces like clothes drying areas or cooler spaces where they can stay longer.

Diverse External Spaces

The utilization of the space in front of dwellings significantly influences activities in that area. For instance, HOUSE-B is characterized by frequent gatherings, while in HOUSE-A, a general store is present, overflowing with merchandise (*Figure7, Figure8*). The presence or absence of openings or roofs, seating space, etc., would be connected to these activities. In fact, when I inquired about the designation of the front area of HOUSE-B, the response was "*San Saan*." This Thai term signifies lively dining and drinking among close friends, underscoring the importance of the front space as a social hub.



Figure 11: Activities in the alley, watching from HOUSE-B
Source: Author

5.3 Social Environment: Foundation for Everyday Activities

Land Ownership

Notably, HOUSE-A owns multiple plots, including the purchase of HOUSE-H,J,M,L's land and participation in constructing the residence. This likely encouraged the active use of HOUSE-B's residential frontage by HOUSE-A residents and others. They would contribute to the negotiation and exchange of money, as well as to the entry and exit of the house for repairs, etc., to the residence.

Blood Relations

The scattering of blood-related residences throughout the neighborhood (**Figure 6**) serves as a primary catalyst for activity within this alley space. As Askew (2002) points out, residents seldom enter the area as solitary individuals, with most households maintaining interconnection. Networks of relationships, whether familial, friendly, or work-related, form a cohesive social fabric. These networks foster mutual assistance in homebuilding, facilitate job searches, and enable money borrowing, childcare support, and home surveillance, further enhancing the communal atmosphere.

Friendships

Close friendships within neighborhoods, referred to as "*puanbaan*" in Thai, significantly influence daily life, manifesting through shared spaces, communal dining, mutual financial transactions, and unrestricted space usage. In fact, HOUSE-B and C are not blood relatives, but are deeply involved in the social activities of this place. Or it could be said that the various activities in the external space, such as the use of the storefront space and communal dining, make the neighborhood relationship of this place more open to the outside blood relations.

Age Differences

The presence of multiple generations within the neighborhoods promotes mutual aid and the distribution of tasks that may be challenging for individual residents to handle independently. For example, HOUSE-K (daughter) helps HOUSE-F (mother) in her store, HOUSE-A' owner's wife takes care of her grandchildren when her children are out of work, neighborhoods buy meals for HOUSE-B residents because she is elderly, and so on. Including

HOUSE-B, there are four generations living in the neighborhood, which is probably one factor in creating social relationships through diverse activities.

Income Inequality

The practice of borrowing and lending money, as detailed in everyday activities fostering social relationships, reflects existing income disparities within the community. For example, in this area, HOUSE- A has more money than other dwellings. Thereby, they will buy surrounding spaces, bring in relatives and friends, and build houses. They open a general store that serves as the hub of their lives. HOUSE-B also lends money to the HOUSE-F and M, pays neighbors to do the chores for her, and frequently purchases goods at the general store.

5.4 Non-Autonomous Dwellings: Communal Living in Neighborhood Cluster

This paper reveals that social relationships rooted in daily activities expressed in external spaces. Through the survey and analysis, it becomes evident that various spatial and social functions are essential for daily living, such as dining and income-generation activities. Therefore, within this area, each dwelling is not autonomous. They are coping with the limitations of individual houses, and creating a communal way of life. This underscores the necessity of considering the living environment at the neighborhood level, accounting for clusters of around ten residences while the space is open to the outside world through actions such as opening a shop.

6. Conclusion

This paper is founded on a qualitative investigation into everyday practices within the external space involving informal settlements, with the objective of clarifying the processes underlying the formation of social relations. Through qualitative analysis, this study has explored how social relations evolve in external spaces. By observing and actively participating in the social dynamics, we identified practices that foster social connections. These activities include communal dining in front of residences and within alleys, collaborative occupational endeavors, and the establishment of stores connected to enhance social interactions. Furthermore, we have identified key elements within the residential environment that either serve as the foundation for these practices or are molded by them. The analysis underscores the significance of external spaces in shaping neighborhood social relations. Simultaneously, these social relations have developed in response to the necessities of daily life, with social functions and spaces lacking within individual dwellings. Such interdependent relationships were prominently observed within the study area, suggesting the potential classification of this neighborhood as a distinct living community. These non-autonomous dwellings, involving approximately 10 households and significantly contributing to daily life, may constitute a critical social unit for comprehending and advancing the understanding of informal settlements in this or other regions in the future. However, this study has several limitations. First of all, although this study aimed to investigate the subject site as qualitatively and in-depth as possible, there are aspects that may not have been captured. For instance, the language barrier, particularly in comprehending conversations and narratives, posed a significant disadvantage when analyzing relationships. In addition, the phenomena documented in this study may not necessarily mirror those found in different locales. For example, while this study pointed out

that dense social relationships were formed in the neighborhood, some residents did not form many social relationships even in this location. Furthermore, the younger generation tends to eat and drink inside their dwellings. The importance of these neighborhood relationships to the residential life of this area will need to be examined further.

In the future, the neighborhood relationships formed elsewhere should be investigated qualitatively. Furthermore, while we have primarily focused on physical and social conditions, a comprehensive analysis should encompass environmental, economic, and psychological dimensions. It is crucial to adopt a broader perspective to investigate the daily practices, and the construction of the living environment including the social constructions.

Acknowledgement

This paper represents an ongoing outcome of a master's thesis within the M.A. in Vernacular Architecture and Built Environment courses at Silpakorn University. Future analysis and research endeavors are imperative to deepen our understanding. This paper acknowledges the invaluable cooperation of the residents in Khlong Toei and Pratheep Foundation in conducting the research. This paper would also like to acknowledge Associate Professor Kreangkrai Kirdsiri and Professor Ikuro Shimizu for their invaluable advice and assistance in conducting research. K.MATSUSHITA FOUNDATION financially supported the research.

References

- Askew, M. (2002). Bangkok: Place, practice and representation, London: Routledge.
- Boonanan, N.(2010). Collective near-home space appropriation: a case study of Baan Mankong, participatory slum-upgrading project, Bangkok.
- Dovey, K. (2012). Informal urbanism and complex adaptive assemblage, International Development Planning Review, 34 (3).
- Jaime, H.G.(2011). Open spaces in informal settlements in Bogotá, expressions of attachment and identity, in The Role of Place Identity in the Perception, Understanding, and Design of Built Environments, 123-141.
- Jones, P. (2020). Distance and proximity matters: understanding housing transformation through micromorphology in informal settlements, International Journal of Housing Policy.
- Karrar, H.A. & Dheah H. B. (2023). Urban Resilience as a Mitigating Mechanism of Urban Change: Insights from Two Case Studies, ISVS e-journal, Vol. 10(8), 162-178
- Nattika, N. & Sasima, C. (2019). Market as Social Space: A Study of Everyday Socio-spatial Practices in Thailand, 7th Annual International Conference on Architecture and Civil Engineering.
- Okyere, A.S., Diko, K.S., Hiraoka, M., Kita, M. (2017). An Urban "Mixture": Spatial Dynamics of Social Interactions and Human Behaviors in the Abese informal Quarter of La Dadekotopon, Ghana, Urban Science, 2017, 1, 13.
- Thai, H.M.H., Stevens, Q. and Rogers, J. (2022). Mapping and measuring spatial connectivity of the pathways to home-based businesses within informal urban contexts, International Journal of Architectural Research, Vol. 16(1), 90-111.