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ARCHITECTURAL HISTORY AND THEORY

Government planning meets spontaneous adaptation: a study of post-Korean War refugee settlements

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ABSTRACT

This study examines the evolution of four post-war refugee settlements constructed by the South Korean government: Jeongneung-dong in Seoul, Pyeonghwa-dong in Gimcheon, Yukdan-ri in Cheorwon, and Changyong-ri in Asan. Approximately 165,000 permanent houses were built through the "National Housing" and "Resettlement Housing" projects to stabilise refugees and support their integration as productive citizens. This study highlights the differences between these projects, examining how distinct policy objectives, geographical settings, and socioeconomic conditions shaped unique characteristics in individual settlements. Furthermore, it traces how government-led plans gradually intersected with residents' spontaneous adaptations. Through methods including a literature review, geographical analysis, fieldwork, and in-depth interviews, this study explores the spatial, architectural, and social changes that these settlements have undergone over the past 70 years. The findings show that urban areas have increasingly integrated into metropolises, gaining more infrastructures, while rural areas have experienced slower development and stronger spontaneous modifications. The intersection of government planning intervention and user-led adaptation has resulted in hybrid landscapes where formal planning and informal adaptation coexist. It reveals both resident resilience through improved living conditions and economic benefits, as well as challenges, including disorderly growth and a weakened community identity.

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Korean War; refugee housing; resettlement; government housing policy; user-led adaptation

1. Introduction

The Korean War was not simply a military conflict but a broader challenge for national reconstruction and development. The war led to massive refugee movements and destroyed 20% of housing in the country, severely affecting Korean society (Korea National Housing Corporation 1978). The escalating number of displaced refugees intensified socioeconomic instability, jeopardising both national reconstruction and economic revival. In response, the government made residential stability a national priority and introduced extensive housing policies to help these refugees settle permanently. Scott (1998) argues that high-modernist planning restructures space and society in a way as to impose a state-defined order and that the state attempts to create citizens who conform to its ideals by transforming landscapes and environments. The Korean government employed similar spatial strategies to establish a modern nation (Cho and Kwon 2021). In this context, Korean housing policy can be understood as an attempt to embed social order and ideals into residential spaces, beyond simply providing housing (Shin 2021).

The government's response to this housing crisis took shape through several major initiatives that exemplified these broader social and political objectives. For example, from 1951 to 1956, approximately 165,000 permanent "refugee housing" units were constructed through the "National Housing Reconstruction Project" and "Refugee Resettlement Project", supported by the United States and the UN (Korea Housing Bank 1975; Yu and Kim 2024b). Through large-scale refugee housing construction, the government aimed to transform "moving refugees" into "settled citizens". Although both projects shared the objective of providing refugee housing, they differed in their target population and intended direction. The "Resettlement Housing" initiative focused on settling refugees in rural areas as part of the Refugee Resettlement Project. This project aimed to help refugees by leasing undeveloped land for cultivation and providing nearby housing, while simultaneously supporting their livelihood and housing needs (A. Kim 2023). Meanwhile, the "National Housing" initiative targeted refugees who lost their homes due to the war, focusing on providing quality and affordable housing to address the housing shortage; thus, the housing was built relatively close to urban centres (Combined Economic Board 1956; Ministry of Social Affairs 1951).

After nearly 70 years, these differences are even more evident now. Residential environments have

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evolved differently from the government's intentions, intertwining with residents' self-initiated actions. In this process, the physical order set by the government and the spontaneous order created by residents have coexisted or conflicted, forming new spatial orders. According to Turner (1976), residents can change their environment by exercising autonomy to meet their needs, creating informal spaces that contrast formal planning. Furthermore, Roy (2005) and McFarlane (2012) explain that formality and informality are not mutually exclusive but rather closely connected and negotiable values. Informal space does not simply mean a lack of planning but presents a dynamic environment created based on autonomy.

This dual spatial mechanism observed in the settlements sheds light on post-war Korean reconstruction and its inherent socio-spatial implications. Korea has undergone dramatic transformation from post-war devastation to rapid economic development. Understanding these historical processes provides valuable insights for regions undergoing significant social transformations, where rapid urban growth or forced displacement occurs. Furthermore, discussions surrounding the formal-informal continuum have gained prominence in global urban studies (McFarlane 2012; Roy 2005; Soto 2000). By focusing on post-war Korea's unique environment, this study enriches our understanding of how social and spatial trajectories evolve over time through a dynamic interplay of government and grassroots activities.

This study analyses the formation and evolution of refugee housing and settlements in the post-Korean War 1950s by examining specific cases from the National Housing and Resettlement Housing projects. The study aims to identify the mechanisms of change and their long-term impacts on these settlements. To achieve this, the following research questions are addressed:

(1) How did these government-led housing projects unfold differently across urban and rural areas with distinct regional environments and social conditions? How did they subsequently impact settlement patterns and residents' lives?
(2) How did residents' spontaneous actions influence the spatial and social structure of settlements? How did the government's political intentions interact with everyday practices?
(3) What is the relationship among residential environments, social relationships, and community identity?

Accordingly, this study seeks to identify the points where political goals and actual residents' lives meet, and to discuss the lessons and values for community identity and regional development today.

The structure of this paper is as follows. Section 2 examines the historical background of refugee housing and settlement policies after the Korean War. Section 3 explains the research methodology and case selection. Section 4 presents results and interpretation through a comparative analysis of actually constructed cases. Section 5 synthesises the findings to discuss the practical implications for policy implementation, spatial transformation, and community identity.

2. Historical background

After the Korean War broke out on 25 June 1950, the conflict intensified, with battle lines shifting north and south, eventually reaching a stalemate with fixed front lines by June 1951. Only then did the government initiate the "Five-Year National Housing Reconstruction Plan" to address the housing crisis (Ministry of Social Affairs 1951). This project aimed to construct standardised "National Housing" (also called "National Welfare Housing") rapidly in urban and rural areas for war refugees and displaced low-income residents. This project involved multiple organisations: the Korean government; the Korea Housing Corporation (KHC, a specialised government housing agency that was the predecessor to the Korea National Housing Corporation [KNHC]); the United Nations Civil Assistance Command in Korea (UNCACK); and the United Nations Korean Reconstruction Agency (UNKRA). They tested various materials and methods for low-cost and rapid construction, and prepared standard designs for urban and rural housing types. These efforts were influenced in part by the administrative and technical experience from the United States military government period (1945 – 1948) after Korea's liberation (Yu and Kim 2024a). Building materials provided by the United States and the UN were supplied free of charge, and the KHC and local governments were in charge of construction (Combined Economic Board 1956). Aside from the freely provided materials, construction costs had to be borne by the residents, and these costs could be repaid through government loans over 3 – 8 years (Ministry of Social Affairs 1951). Approximately 30,000 National Housing units were constructed nationwide from 1951 to 1956 (Yu and Kim 2024b). It would be interesting to notice that during the time the United States also needed to urgently develop mass housing to accommodate returning veterans from World War II, in which private companies played a significant role and the Korean floor heating principle indirectly influenced them (H. S. Kim 2023).

In 1952, the Refugee Resettlement Project began as refugees started returning to their hometowns. This nationwide reconstruction program supported various initiatives, such as farmland improvement, irrigation, mine development, land reclamation, salt farm

creation, forest cultivation, and industrial facility construction, to help refugees secure their livelihoods and become economically self-sufficient. It actively supported the establishment of residential areas for stable settlement by providing building materials. The resulting houses came to be collectively known as Resettlement Housing. Beneficiaries were selected from refugees struggling with their livelihood or those who returned to rural areas for farming. It was important for refugees to be able to cultivate the land themselves (A. Kim 2023). While building materials were free of charge, unlike National Housing, refugees had to construct their houses themselves. This approach would have been a practical solution for rapid, large-scale housing provision. Some used rural-type standard plans of the National Housing initiative, while others built the houses according to occupant preferences (Mills 1959). Between 1952 and 1956, approximately 135,000 Resettlement Housing units were constructed, each requiring fewer materials and incurring lower costs than the National Housing initiative (Yu and Kim 2024b).

As free aid decreased after 1957, the housing policy shifted from emergency relief centred on direct government investment to a more general approach based on housing loans. Consequently, government-led refugee housing construction gradually decreased (Korea National Housing Corporation 1978). From 1951 to 1956, approximately 165,000 permanent housing units were constructed, comprising 30,000 National Housing units and 135,000 Resettlement Housing units (Korea Housing Bank 1975). This large-scale effort not only significantly alleviated the housing shortage but also led to broader national reconstruction. With 10% of the total population being refugees at the time of the armistice (Ministry of National Defense 1953), stabilising this population became a national priority. The government utilised these housing projects to rebuild the devastated nation into a modern state by providing stability and fostering "productive citizens" who could contribute to national development.

3. Research methodology: a systematic approach to identifying unrecorded cases

Although the government constructed refugee housing nationwide, their exact locations are not documented in official records. This study aimed to address this absence through a systematic methodology, involving systematic literature review, multi-criteria evaluation, and case analysis using a six-stage framework. These methods were applied to identify suitable cases and

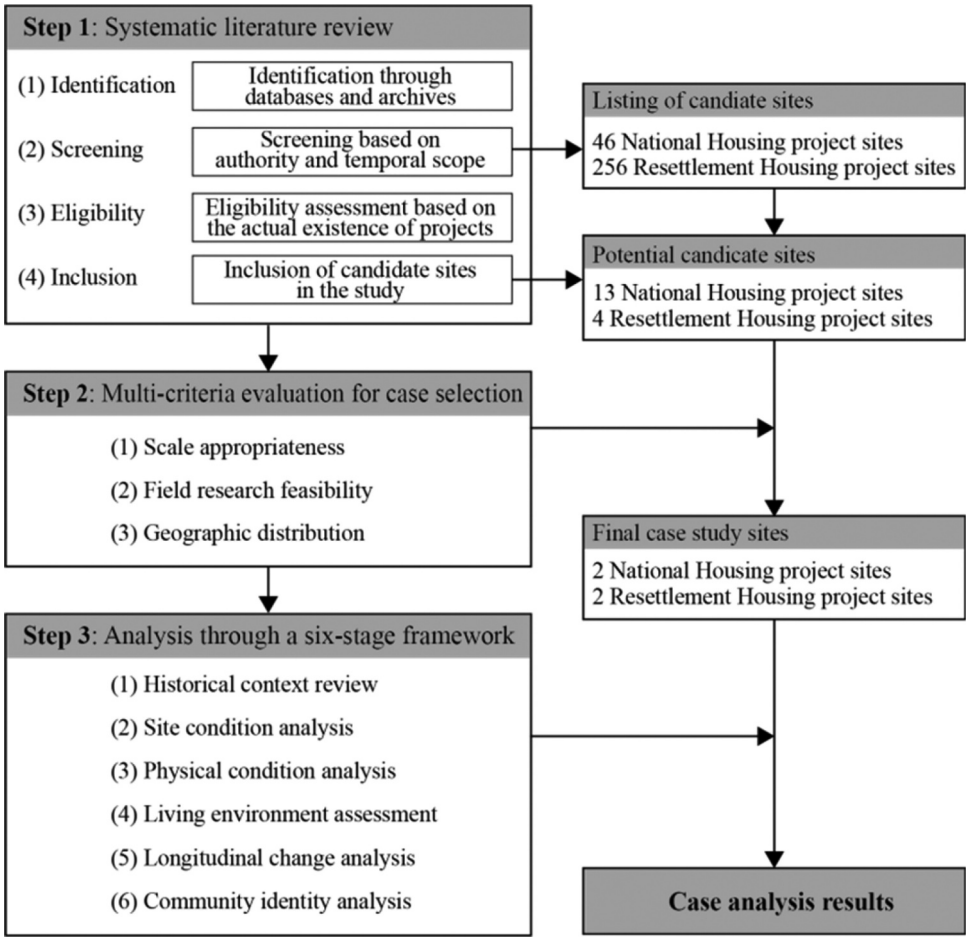

Figure 1. Research methodology and case sites selection diagram. Source: Authors.

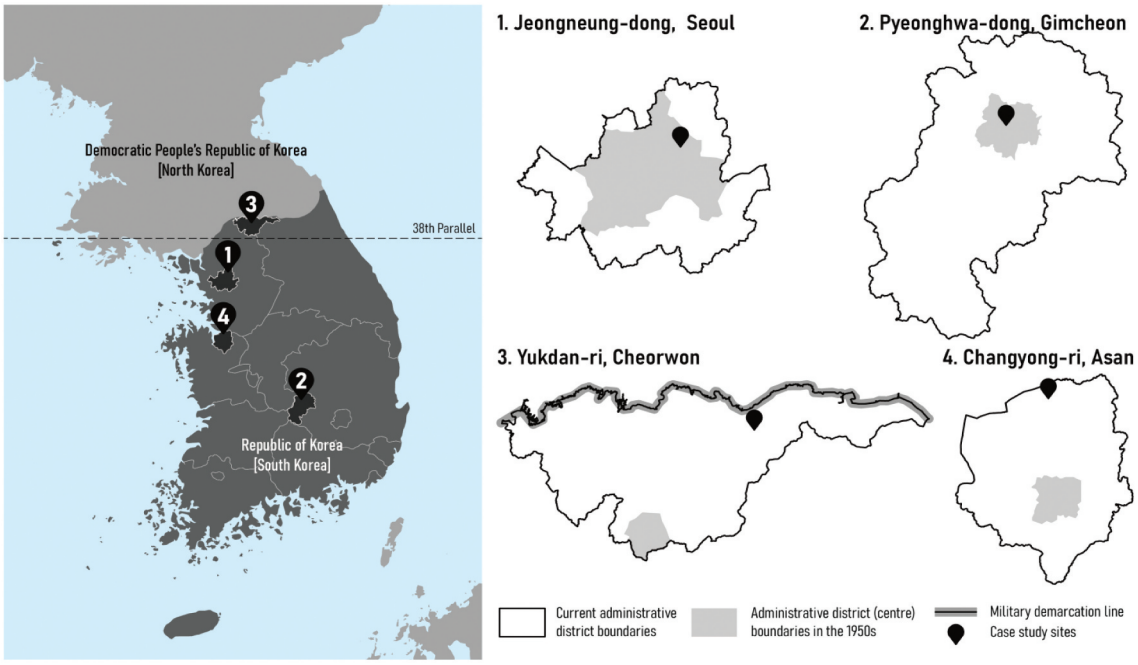

Figure 2. Location of case study sites. Source: Authors.

conduct an in-depth analysis of refugee settlements (Figure 1).

The systematic literature review followed a four-phase structured approach widely used in systematic reviews: (1) identification, (2) screening, (3) eligibility, and (4) inclusion (Senadheera et al. 2024; Takkouche and Norman 2011).

During the identification phase, data collection was conducted using key search terms such as "refugee," "settlement," "housing," and "US aid" to retrieve relevant materials from official archives and academic databases both internationally and domestically. Government historical records were obtained from the National Archives and Records Administration (NARA), UN Archives, Archive of Korean History, and National Archives of Korea. Research articles were accessed through Scopus, Google Scholar, and RISS (Korea's largest academic search platform).

The screening process was conducted based on two primary criteria: construction authority and temporal scope, focusing exclusively on government-led projects and historical records produced between 1950 and 1960. From this review, potential candidate sites were identified. This process confirmed National Housing projects in 16 areas within Seoul and 30 provincial cities (Combined Economic Board 1956; Korea National Housing Corporation 1979), while Resettlement Housing consisted of 259 project sites in rural areas (Office of the Economic Coordinator 1957; U.S. Operations Mission to Korea 1960; Kim 2022; A. Kim 2023).

The eligibility assessment involved reviewing the full texts of selected sources. This phase cross-verified whether the candidate sites were indeed implemented, using local historical records and confirming their present-day existence. Based on the assessment results, 17 sites were included: National Housing projects in 11 areas within Seoul and 2 provincial cities, and Resettlement Housing projects in 4 rural areas.

The identified candidate sites were evaluated using multi-criteria to determine their suitability for field research and alignment with research objectives. The final case selection was based on three criteria:

(1) Scale appropriateness: Medium to large-scale settlements were prioritised as they typically demonstrate more distinctive settlement patterns and allow for clearer observation of transformation processes.
(2) Field research feasibility: The preservation state of original structures and research accessibility were evaluated to ensure empirical analysis of physical changes and collection of resident testimonies.
(3) Geographic distribution: A balance between urban and rural areas was considered to enable comparative analysis of various patterns.

Based on these criteria, four cases were selected, with 2 from National Housing and 2 from Resettlement Housing projects. While refugee housing construction began during the war, all cases analysed in this study were constructed immediately post-war. The final selected case areas are presented in Figure 2 and Table 1.

Table 1. Case study sites.

Type		Regional characteristics		Location of villages	Common village names	Number of households	Year of construction	Primary references
1	National Housing	Urban	Capital city	Jeongneung 1-dong, Seongbuk-gu, Seoul	Reconstruction village	355	1954–55	KHNC (1979)
2			Provincial city	Pyeonghwa-dong, Gimcheon-si	Welfare village	99	1954	Lee (1989)
3	Resettlement Housing	Rural	Recovered territory	Yukdan 1-ri, Geunman-myeon, Cheorwon-gun	Relief village	80	1955–56	Kim (2022)
4			North Korean refugee settlement	Changyong 3-ri, Yeongin-myeon, Asan-si	Pioneering group	127	1956	OEC (1957)

Table 2. Key elements examined in the study.

Phase		Investigation items		Analysable contents	Methodology
1	Historical context	Historical background, rationale for site selection, development period, policy changes		Historical context of development	Literature review
2	Site conditions	Topographical condition, village location, scale, accessibility		Geographic, spatial, and social characteristics	Historical map and aerial photo analysis
3	Physical conditions	Layout of village	Street system, plot size, housing arrangement, public space	Urban planning, spatial structure	Official documents and drawings analysis, field survey, interview
		Physical elements of housing	Housing size, structure, materials, construction methods, interior and exterior spaces	Architectural style, residential quality, habitability	
4	Living environment	Urban services	Infrastructure, amenities	Economic self-sufficiency potential, commuting patterns	Literature review, field survey, interview
		Economic condition	Resident characteristics, occupations and livelihoods	Residential convenience and preference	
5	Longitudinal changes	Spatial change	Extension, renovation, demolition and construction of housing	Spatial and environment changes, maintenance and repair approach	Drawings, geographic information system (GIS), and aerial photo analysis, field survey, interview
		Social change	Resident population, resident turnover	Social stability	
6	Community identity	Community formation, resident interaction, perception of living environment		Community building, social interaction	Interview

This study developed and applied a six-stage framework to conduct a comprehensive analysis of refugee settlements, covering aspects from historical context to community identity. Each phase integrated various research methods, including literature review, geospatial imagery analysis, administrative data analysis, field surveys, and interviews (Table 2). To ensure research credibility, the triangulation method was applied. For example, oral records were cross-referenced with multiple sources such as local documents and field measurements for validation (Li, Tang, and Chau 2019). All interviews were conducted with prior consent from participants in accordance with research ethics.

This study followed an interconnected and sequential approach. Phase 1 identified the historical background of the sites and their implemented projects, establishing a foundation for the geographic and spatial analysis in Phase 2. Phase 3 built upon this site analysis to examine patterns of physical conditions through additional field data collection. Phase 4 documented residents' living environment and daily life patterns. Interviews with first-generation residents during Phases 3–4 provided valuable insights into historical features and conditions of the past. Phase 5 tracked changes over 70 years, investigating how physical transformations had influenced social relationships. Finally, Phase 6 examined how these changes contributed to the formation of community identity.

However, this study also has several methodological limitations. The scarcity and fragmentation of historical materials, such as documents, photographs, and drawings, made it difficult to fully reconstruct the initial settlement process. Due to resource constraints, the analysis of historical photographs relied primarily on visual inspection, restricting the application of advanced analytic techniques (Song, Li, and Wareewanich 2023). Oral history offered valuable insights but faced limitations such as memory bias and selective recall, as well as practical challenges due to the relocation or death of first-generation residents. Despite these challenges, this study highlights the value of systematically integrating diverse evidence sources to construct a more comprehensive understanding of refugee settlement processes, demonstrating how researchers can work effectively within the inherent constraints of historical investigation.

4. Analysis results and settlement characteristics: comparative study of National Housing and Resettlement Housing projects

4.1. Jeongneung-dong: new residential areas in the expanding periphery of Seoul

As the population in Seoul increased significantly from the 1930s during the Japanese colonial period, villages began to form in Jeongneung-dong, then a peripheral

area. In particular, as nearby Donam-dong actively developed into an urban residential area, Jeongneung-dong saw the introduction of electricity and new road infrastructure (Seoul Historiography Institute 2018). In the early 1950s, Jeongneung-dong was still a quiet rural area but was beginning to face development pressure. After the war, the UNKRA planned to construct approximately 3,000 housing units in Seoul as part of the aforementioned National Housing Reconstruction Project. The first phase included National Housing in Jeongneung-dong, known as "Reconstruction (*Jaegeon*) Housing". The MSA, KHC, and UNKRA cooperated to plan housing construction, and 355 houses were built from 1954 to 1956 (Combined Economic Board 1956; Korea National Housing Corporation 1978).

The Seoul city government owned the site, and the KHC leased it free of charge for development into a residential area (Korea National Housing Corporation 1978). The area had favourable transportation conditions owing to its proximity to the large residential district of Donam-dong and its connection through newly constructed roads. The KHC developed a total site area of 75,800 m^2 into 355 housing plots, constructing 299 housing units between 1954 and 1955 and an additional 56 housing units between 1955 and 1956 (Korea National Housing Corporation 1979). The village layout faces an arterial road to the north and a rotary at its centre. The village features a grid pattern with elongated horizontal blocks, where plots are arranged in 1 – 3 rows. The blocks facing the arterial road are arranged in two rows with relatively larger individual plot areas, whereas the blocks around the rotary consist of three rows of smaller plots (Figure 3). Each plot ranges from approximately 100 m^2 to 160 m^2, and the area of each unit is approximately 30 m^2 (Korea National Housing Corporation 1979). The street widths range from 4 m to 7 m, with some streets being relatively narrow compared to the village size.

The UNKRA aid materials were used for construction, and the KHC executed the work (Combined Economic Board 1956). The KHC and UNKRA designed the standard plans, and this project adopted the urban housing type. Adobe bricks formed the main structure of the housing and the roof was finished with site-manufactured tiles on wooden truss structures. These bricks were manufactured on-site using a "Landcrete" machine imported from South Africa by the UNKRA (Park 2016). Ondol – a traditional Korean under-floor heating system that uses heated stones – was installed using briquettes as fuel, and toilets were positioned inside the houses (United Nations Korean Reconstruction Agency 1954). This urban-

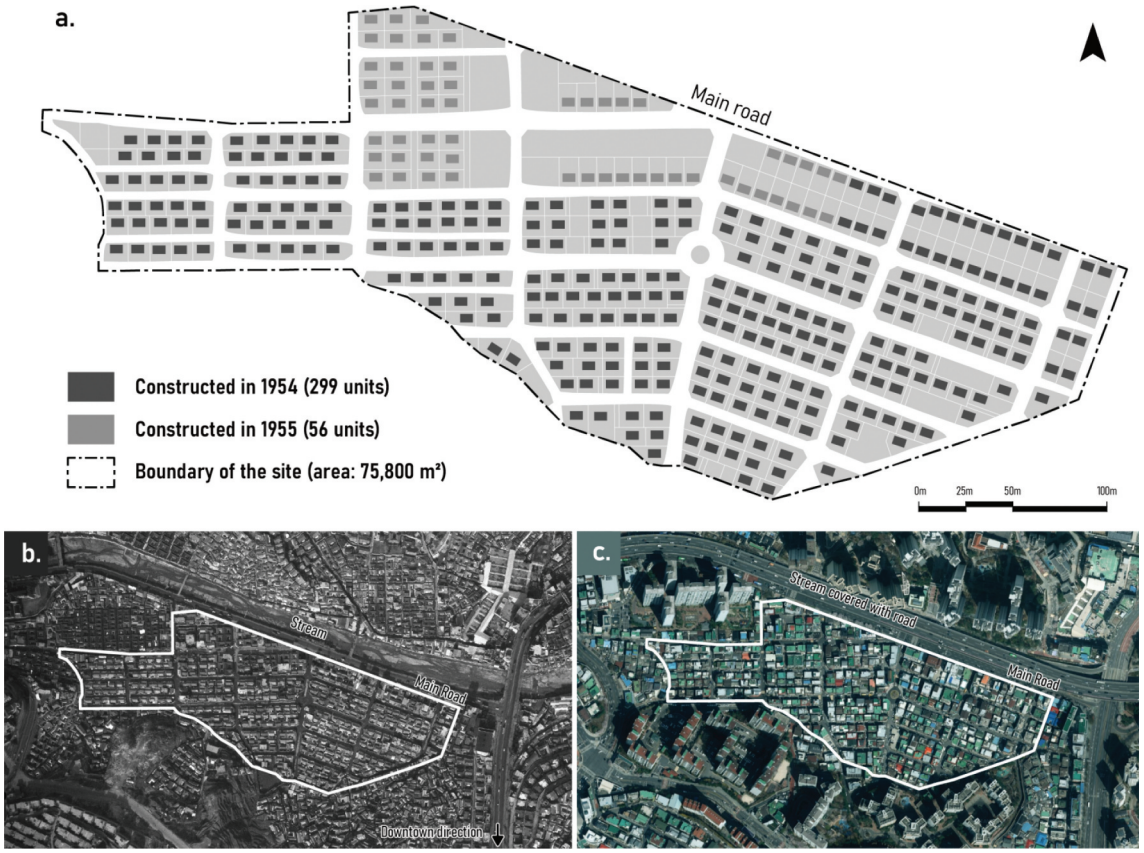

Figure 3. (a) Reconstructed site layout plan of the Jeongneung-dong National Housing; (b) aerial photograph (1972); (c) aerial photograph (2024). Source: (a) Authors' drawing based on Korea National Housing Corporation (1979); (b), (c) National Geographic Information Institute, Korea.

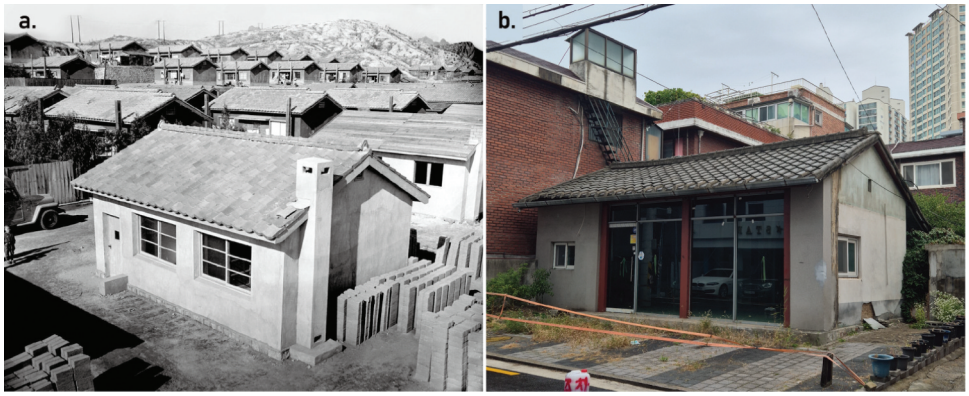

Figure 4. Typical urban-type National Housing units built by the UNKRA: (a) housing under construction by the UNKRA (December 1953); (b) remaining house in Jeongneung-dong (11 October 2024). Source: (a) UN Archives; (b) Authors.

type housing featured Western design elements, such as a separate entrance and standing-style living spaces (Park 2021). Figure 4a presents the appearance of the housing at the time of construction, while Figure 4b shows the exterior of a building that has maintained its original form today, although the internal structure has been modified. The Jeongneung-dong National Housing was sold for 240,000 hwan including the land, which was similar to or slightly cheaper than the general housing prices of that period (Yu and Kim 2024b). Electricity was available from its initial development, and water supply was installed around the year 1957 (Seoul Historiography Institute 2018).

The National Housing project targeted vulnerable groups such as homeless people who lost their houses during the war or families of meritorious persons. The MSA delegated the resident selection process to the Seoul city government, which conducted a lottery system for these groups (Chosun Ilbo 1954a). Although the lottery system was introduced to enhance fairness, it may have excluded some vulnerable groups, particularly those without administrative support or access to information. Additionally, newspaper reports revealed cases of administrative incompetence and corruption, such as individuals receiving multiple units or unqualified applicants being selected (Chosun Ilbo 1954b). Despite these shortcomings, the lottery system established an important precedent for systematic housing allocation when demand far exceeded supply.

Despite its location on the outskirts of Seoul and limited indoor living space (30 m^2), the village attracted high occupancy demand owing to its newly constructed housing with complete water and sewage systems and improved transportation access through new bus routes (Seongbuk Cultural Center 2013). Moreover, living conditions were favourable due to convenient amenities: an elementary school within 400 m, the nearby Donam market, and the adjacent Jeongneung stream, which provided water for daily use. During the 1960s and the 1970s, as residential development continued in the surrounding area, Jeongneung-dong emerged as one of Seoul's representative residential districts.

Immediately after the establishment of the village, residents began to individually modify and maintain their houses. A photograph (Figure 5) of the settlement from 1956 shows that annexes had already been added to the sides of the main buildings. In 1957, novelist Yongmuk Kye, a resident of Jeongneung-dong, described the village landscape as follows:

> Even these small houses, as humble as wooden barns, are precious to war victims who desperately needed homes. Moreover, since these are nominally Western-style houses, residents feel compelled to uphold a sense of dignity befitting them and are wholly absorbed in beautifying their homes, as if in a competition. Houses painted blue, houses gleaming white, and others covered in various colours, each reflecting the owner's unique taste. Gardens bloom with flowers, evergreen trees, and even curious rocks are placed. They have created a village of rare and unusual homes. (Kye 2017, 5)

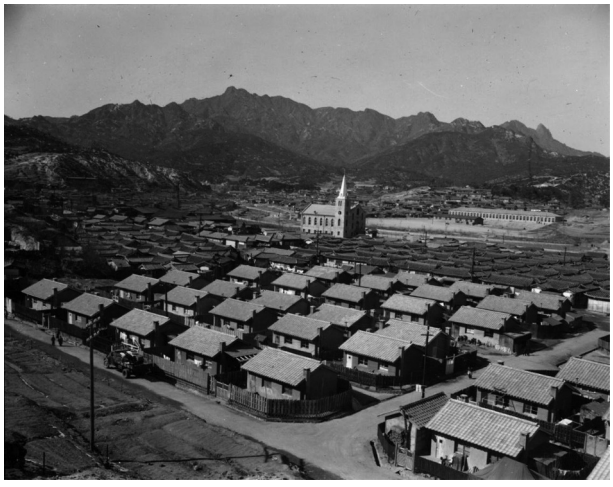

Figure 5. Jeongneung-dong refugee settlement (1956). Source: Seoul Metropolitan Archives.

Figure 6. Remaining refugee houses in Jeongneung-dong: (a) original volume maintained with a fence; (b) eaves extended to the fence; (c) annex expanded vertically with additional entrance; (d) maximum plot usage using various materials. Source: Authors.

Over time, residents expanded or reconstructed their houses to meet evolving needs, leaving only five or six houses in their original form. Even the houses that appear to maintain their original form today have been expanded by building fences and maximising land use (Figure 6). A notable characteristic observed in the remaining houses is their conversion of single detached units into dual-household units, complete with separate entrances. These modifications typically involved expanding the original structure, partitioning the space, and converting portions into rental units. The addition of annexes to the main building also became a typical adaptation pattern (Figure 6c). These expansions continued over time, with various building materials applied to the extended parts across different periods (Figure 6d).

The original urban fabric remained relatively intact until the early 1980s. However, widespread demolition and redevelopment began in the mid-1980s, triggered by the introduction of multi-family housing policies in 1984 and the relaxation of building regulations in 1989 (Park and Choi 2003). This area also underwent rapid transformation, with 54% of its buildings newly constructed between 1985 and 1999. After 2000, there was an increasing trend of large-scale developments achieved through plot consolidation. Essentially, plots along arterial roads were actively converted into neighbourhood commercial facilities. In contrast, the inner areas exhibited slower development, particularly in the middle plots of three-row arrangements. Consequently, buildings of various heights and volumes – single storey (20%), 2 – 3 storeys (62%), and four or more storeys (18%) – and various materials coexist (National Geographic Information Institute 2024). As different building types have become mixed over time, the area has formed a multi-layered and complex urban structure.

Indeed, it is now difficult to recognise this area as a former refugee settlement. Most buildings have been rebuilt, leaving no trace of their original appearance. As H. Shim, who has lived here for over 20 years, stated, *"I had no idea this was a refugee settlement."* (personal interview, 9 October 2024). Nevertheless, the original street structure has been preserved, and a few houses still retain traces of the refugee settlement era. Furthermore, as a significant residential development site in Seoul, this area continues to be studied in local and regional historical research, with ongoing efforts to document its history (Seongbuk Cultural Center 2013; Seoul Historiography Institute 2018).

4.2. Pyeonghwa-dong: affordable residential area for urban workers

Gimcheon was a site of fierce battles during the Nakdong River defence line battle in August 1950. The North Korean army's front command headquarters was once located there, leading to large-scale bombing by U.S. military aircrafts. This combat devastated

over 80% of Gimcheon's urban area, making it one of the most severely damaged regions in the country. After the war, the U.S. military supported the construction of various facilities in Gimcheon, and along with establishing schools and government offices, residential reconstruction was also pursued (Lee 1989). In 1954, with support from the UNKRA, the Gimcheon city government built housing for 99 households in Pyeonghwa-dong, west of Gimcheon Station, to resettle war refugees (Combined Economic Board 1956). National Housing was initially called "National Welfare Housing", but this area was referred to as "Welfare (*husaeng*) Housing" instead of "National Housing", and it retains the place name "*Husaeng-ro*" even today.

The Pyeonghwa-dong settlement village is adjacent to Gimcheon Station, established in 1905, and directly faces the railway line. The cadastral map from the Japanese colonial period and the land registers show that the area was owned by the Railway Bureau of the Government-General of Korea and was later transferred to the Gimcheon city government (Ministry of the Interior and Safety 2024a). The UNKRA's 1953 aid plan established a project to construct approximately 7,000 houses nationwide, allocating 100 units to Gimcheon (Combined Economic Board 1956). The Gimcheon city government designated an 18,700 m^2 vacant site for a refugee residential area. The village layout faces the railway to the north and is close to an arterial road to the south. The village follows a grid pattern, with blocks consisting of two-row plots (Figure 7). This layout reflects the typical pattern of large-scale residential development during that period, characterised by its centralisation, simplicity, and efficiency (Korea National Housing Corporation 1979). Based on an analysis of historical aerial photographs and archival cadastral map, the settlement comprised 55 detached houses and 22 semi-detached houses (44 households), totalling 77 buildings with 99 households. The individual plots ranged from 160 m^2 to 200 m^2, and the area of each housing unit was approximately 38 m^2. Detached houses were placed in the south, near the main arterial road, whereas smaller, semi-detached houses were located in the north, facing the railway (National Geographic Information Institute 1954). Street widths range from 3.5 m to 5 m, somewhat narrow, but the high road ratio ensures smooth traffic flow even today. The two-row housing arrangement also provided good road accessibility for each house.

The UNKRA provided the building materials, and the Gimcheon city government managed the construction (Combined Economic Board 1956). Similar to Jeongneung-dong, it is presumed that the houses were built using adobe bricks based on the National Housing plan. Figure 8 shows the exterior of housing units that have maintained their original form.

While National Housing projects were intended to follow standard floor plans – urban and rural, each with an area of 30 m^2 (Figures 9a,b) – the houses in Pyeonghwa-dong exhibited differences observed on-

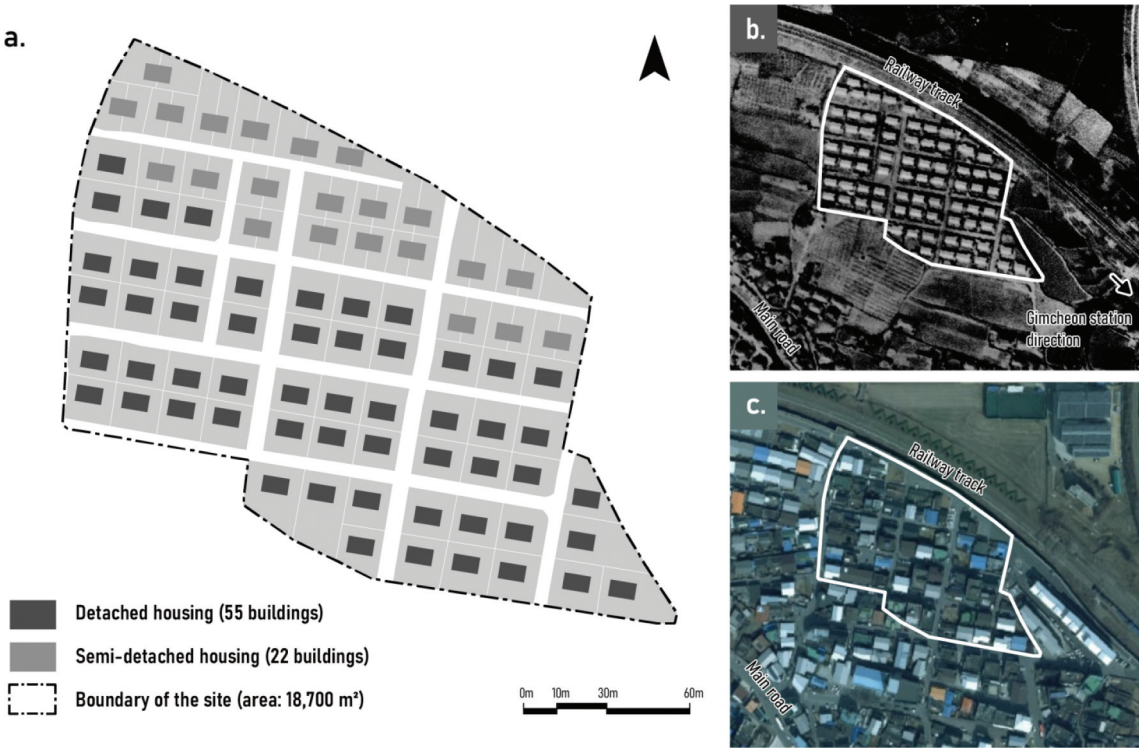

Figure 7. (a) Reconstructed site layout plan of the Pyeonghwa-dong National Housing; (b) aerial photograph (1954); (c) aerial photograph (2024). Source: (a) Authors' drawing based on National Geographic Information Institute (1954); (b), (c) National Geographic Information Institute, Korea.

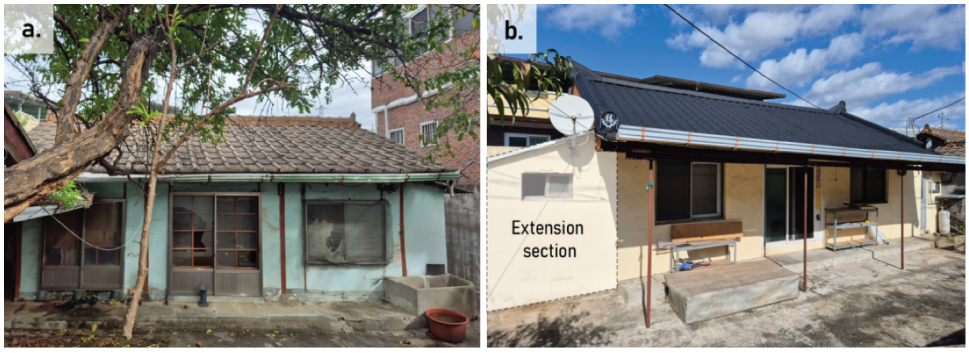

Figure 8. Remaining refugee houses in Pyeonghwa-dong: (a) original structure relatively well preserved; (b) extensions added on both sides with renovated roof. Source: Authors.

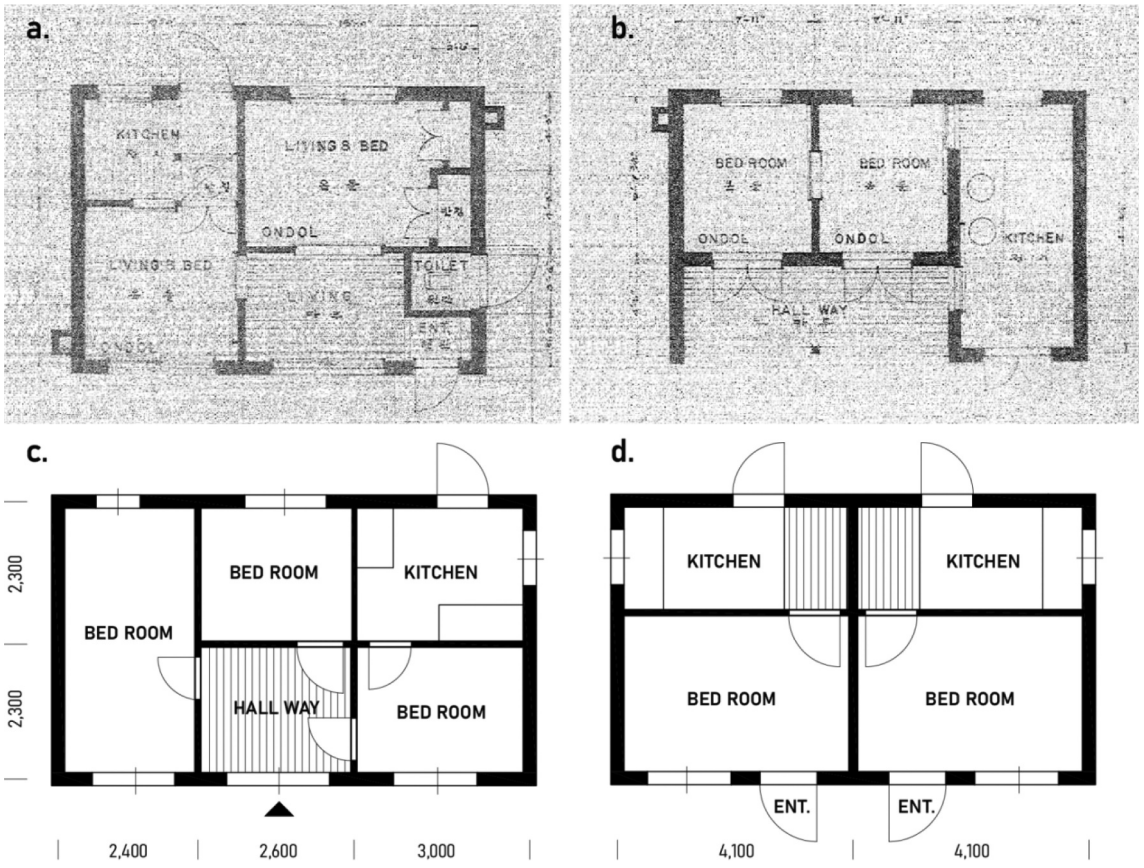

Figure 9. Floor plans of National Housing: (a) standard urban-type plan, applied in Jeongneung-dong; (b) standard rural-type plan; (c) plan applied to detached houses in Pyeonghwa-dong; (d) plan applied to semi-detached houses in Pyeonghwa-dong. Source: (a), (b) UN archives; (c), (d) Authors' drawing based on field measurements and interviews.

site. The urban housing type featured a double-bay layout with a separate entrance, whereas the rural housing type incorporated traditional design principles, with rooms accessed through a daecheong – a wooden-floored hall serving both ventilation and communal functions. The urban housing type placed the toilet indoors, whereas the rural housing type positioned it outdoors. The houses in Pyeonghwa-dong exceed the standard plan by approximately 8 m^2, consisting of one wooden-floored hall, a kitchen, three rooms, and an exterior toilet. The centralised double-bay layout reflects the Japanese architectural influence, while the entry through the wooden-floored hall without a separate entrance demonstrates traditional Korean spatial features (Figure 9c). This type can be seen as a compromise between the rural and urban housing types. Most semi-detached houses underwent modifications that obscured their original features. The initial floor plan was estimated through a house survey and an interview with W. Yang (Figure 9d; personal interview, 23 October 2024), though this estimation may be limited by its reliance on a sole oral account. The construction cost, excluding subsidised materials and land costs, was approximately 110,000 hwan (United Nations Korean Reconstruction Agency 1954).

In the case of Pyeonghwa-dong, the exact land costs were not documented. Given that Pyeonghwa-dong had been equipped with electricity and water supply systems since the Japanese colonial period (Lee 1989), it can be inferred that this infrastructure was available from the inception of the settlement. W. Yang, who moved in 1970 and has lived in the area for 54 years, confirmed that electricity, water utilities, and briquette heating systems were already installed (personal interview, 23 October 2024). It is noteworthy that substantial infrastructure was provided from the beginning, presumably due to the UNKRA's development plan and accessibility to the urban centre. In 1963, the government divided the lots and assigned land lot numbers; from 1971, it transferred ownership to individuals (Ministry of the Interior and Safety 2024a).

With first-generation residents having moved out or passed away, verifying their backgrounds and occupations through interviews was impossible. However, according to G. Song, director of the Gimcheon Cultural Center, the area was primarily inhabited by people of lower socioeconomic status (personal interview, 23 October 2024). These socioeconomic characteristics appear to persist to this day, with field surveys revealing significant building deterioration.

Meanwhile, the proximity to Gimcheon Station made it an attractive residence for urban workers. Most residents were day labourers or urban workers who commuted to nearby textile and electronics factories (W. Yang, personal interview, 23 October 2024). The area appears to have been popular for residential use due to its proximity to commercial districts and an elementary school within 600 m. Field surveys confirmed that there were no convenience or welfare facilities in the village, except for a single senior centre.

This village has relatively more remaining original houses than Jeongneung-dong, allowing the observation of various housing transformation patterns. During expansion, different approaches were attempted around the existing houses: some residents opted for a centralised expansion method, extending in all directions from the central building (Figure 10a–c), while others created courtyards by placing annexes against property boundaries (Figures 10d–f). Both approaches maximised land use with fencing, and these changes occurred in non-unified ways within individual plots. In particular, expansions focused on adding residential rooms. As mentioned previously, the area was popular among urban workers, creating a high demand for rental rooms. Securing rental rooms through expansion became a significant source of income for homeowners. According to W. Yang, *"Around the late 1970s, people started adding rooms for rental income, as more factory workers came to Pyeonghwa-dong looking for cheap housing. Back then, as long as it had heating, people would take it, no matter how rough it was."* (personal interview, 23 October 2024).

This expansion has continued steadily, with various materials applied to the expanded sections (Figure 10). While building registers indicate that approximately 30% of the original houses still remain (National Geographic Information Institute 2024), only 3–4 houses on site retain their original form and materials. Cement roof tiles help identify the original building volume (Figures 10c,f). Major new constructions began in the late 1980s, with 27% of all buildings converted

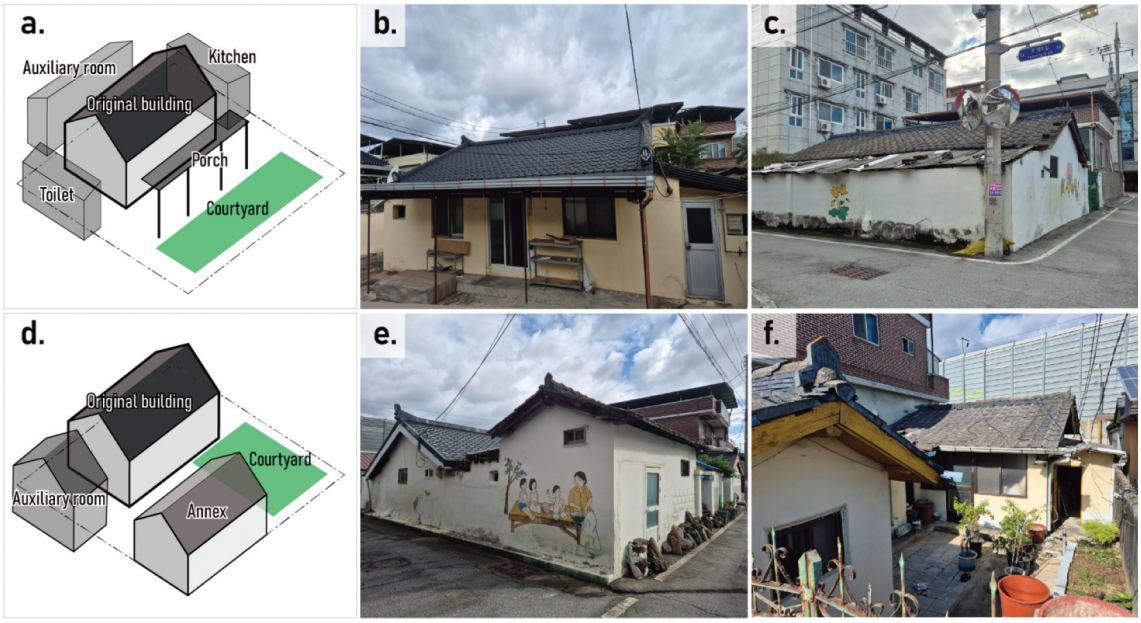

Figure 10. Houses expanded in various ways: (a)–(c) extended in all directions from original structure; (d)–(f) annexes added along plot boundaries. Source: Authors.

to two-storey multi-family houses between 1989 and 1999 (National Geographic Information Institute 2024). In particular, areas near main roads experienced relatively active development and conversion to neighbourhood commercial facilities. Areas near the railway, especially semi-detached houses, remained undeveloped because of the small plot size, receiving only minimal renovations, and many are currently vacant. Despite undergoing various changes over a long period, the village still faithfully serves its role as an urban residential area for the working class.

Owing to limited information about the initial residents, it was difficult to confirm the original community formation patterns. J. Go and W. Yang, who have lived there for over 50 years, were unaware that this was a refugee settlement built by the U.S. military. They stated that they chose the location in the 1970s purely for its proximity to the downtown area and affordable housing costs, showing no interest in the area's history (personal interview, 23 October 2024). Moreover, while most Gimcheon citizens know the name "Husaeng Housing", many do not understand the meaning of "husaeng(厚生, welfare)", which is now a rarely used Chinese character term (Gimcheon City official, personal interview, 4 October 2024). These findings suggest that residents chose this area based on housing conditions without specific historical and community connections. There appears to be little historical awareness of its past as a refugee settlement or any strong sense of community solidarity.

4.3. Yukdan-ri: refugee resettlement in a divided border region

After Korea's liberation from Japan in 1945, Cheorwon was under North Korean control above the 38th parallel. However, following the Korean War, it was reclaimed by the South Korean government and became known as a "recovered territory" (*Subokjigu*). During the Korean War, this region experienced frequent shifts in local governance as both South and North Korean forces advanced and retreated and recaptured the territory. Despite stabilising the front line in June 1951, Cheorwon remained a crucial battle zone with intense hill warfare until the 1953 armistice (Cheorwon Historical and Cultural Institute 2013). Yukdan-ri in Geunnam-myeon is one of the refugee settlements established closest to the military demarcation line within Cheorwon. While the Refugee Resettlement Project started as refugees returned home from 1952 onwards, the establishment of Yukdan-ri village was delayed until 1955 – 56 due to its proximity to the military line. The refugee housing by the government during this period was referred to as "relief (救護, *guho*) housing" locally, which, over time, was sometimes misheard as "old (舊, *gu* or 古, *go*)" housing due to the similar pronunciation of the terms (Kim 2022).

Field surveys revealed that Yukdan-ri was a mountainous area with limited farmland. Its topography, with mountains to the north and south, provided natural defences against northern threats, and a nearby stream offered easy access to water for daily use (Y. Kim, personal interview, 25 October 2024). Meanwhile, land ownership in the recovered territory remained unclear. Land reform began in 1956, using ownership principles based on the time of liberation. If landowners could not be verified, the land reverted to the government (Cheorwon Historical and Cultural Institute 2013).

In 1956, as the Civilian Control Line (CCL) gradually shifted northward and previously restricted areas began to open, the local government designated 9,000 m^2 of land in Yukdan-ri as a refugee settlement and developed a residential area. Most settlers in Yukdan-ri were former residents of nearby Geunnam-myeon who had evacuated south during the war and returned after the armistice to re-join their community (Park 2022). The government prioritised the development of housing and residential facilities to address post-war confusion and promote stability in the recovered territory. Because these reconstruction achievements were actively used in government ideological propaganda (Kyunghyang Shinmun 1955), Refugee Resettlement Projects in the recovered territory were implemented earlier and more intensively than in other regions (A. Kim 2023). Soldiers of the 29th Division built the Resettlement Housing in Yukdan-ri, and the local government distributed houses free of charge to returning refugees on a first-come, first-serve basis (Park 2022). The Ministry of National Defense's unique management of construction and free distribution was a special benefit granted to the recovered territory, unlike other regions where refugees had to purchase or build their own houses.

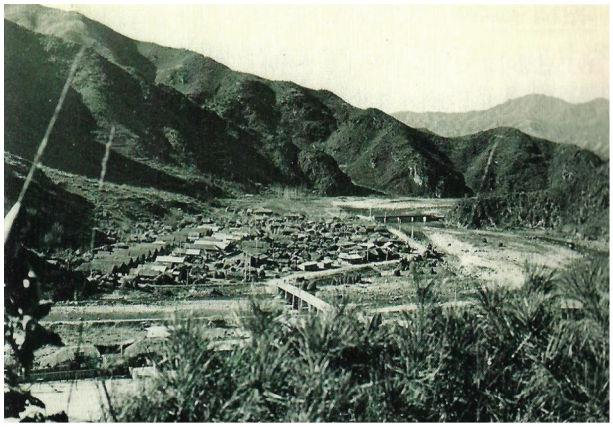

Figure 11. View of the Yukdan-ri settlement (1972), showing the orderly arrangement of refugee houses on the left. Source: Cheorwon County.

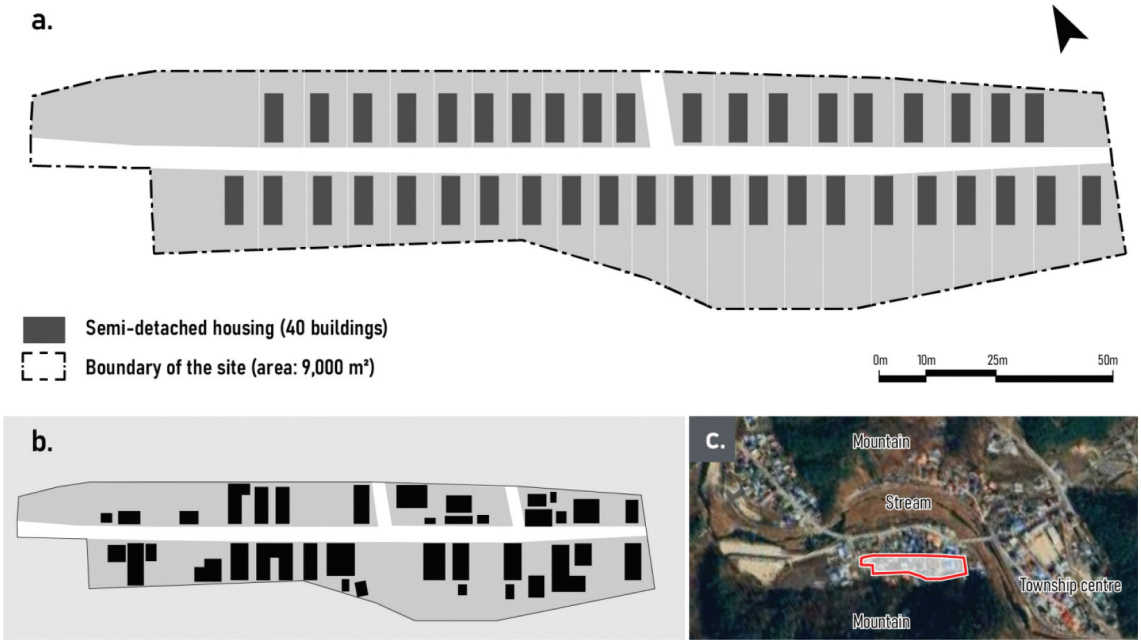

Figure 12. (a) Reconstructed site layout plan of the Yukdan-ri Resettlement Housing; (b) current site layout (2024); (c) aerial photograph (2024). Source: (a), (b) Authors' drawings based on official cadastral map obtained from Cheorwon County, Kim (2022) and field survey; (c) Google Maps, ©2024 Google.

Based on the archival cadastral map of Yukdan-ri, the village exhibited a linear pattern, with houses arranged in single rows along both sides of an east-west arterial road. Twenty houses were positioned perpendicular to the road on each side (Figures 11, 12). The residential area comprises semi-detached units accommodating 80 households, with each building allocated approximately $120 - 150\,m^2$ of land (Ministry of the Interior and Safety 2024a; Park 2022). The 6 m-wide central road, relatively broad for the settlement scale, ensures good accessibility to all residences.

Construction materials, including wood and cement, were sourced from U.S. military aid.

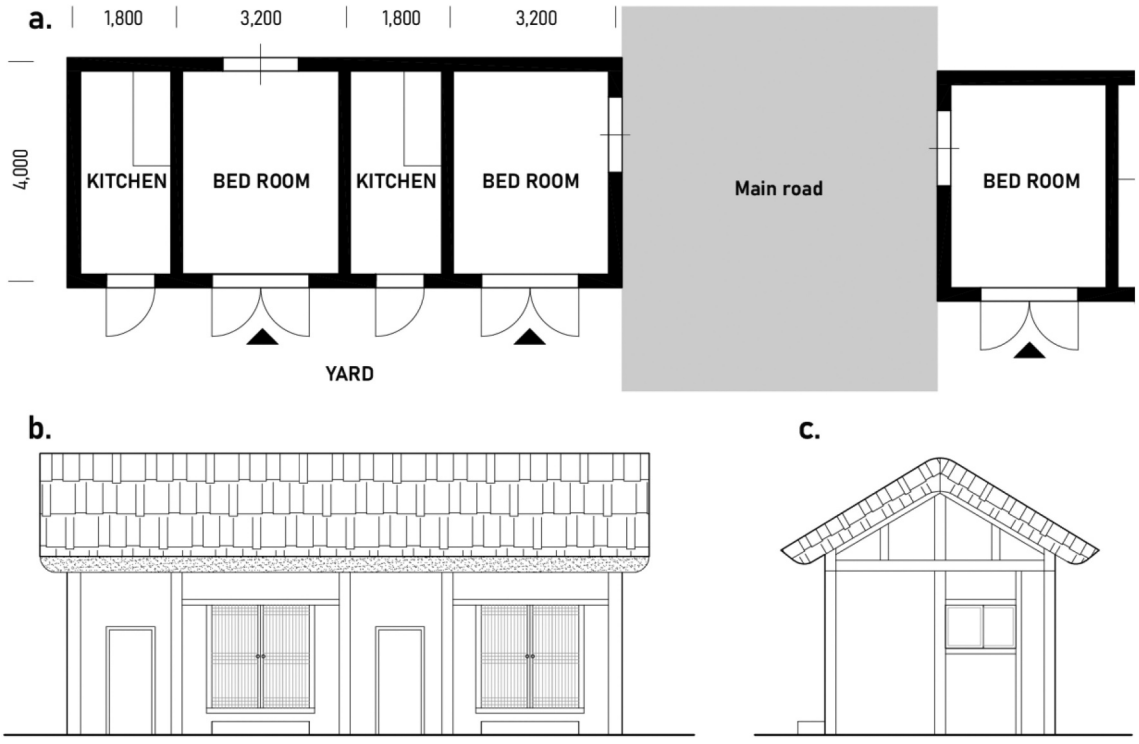

Figure 13. Yukdan-ri refugee housing drawings: (a) floor plan; (b) front elevation; (c) side elevation. Source: Authors' drawing based on Kim (2022), Park (2022), and field survey.

Traditional construction methods were employed for the wall structure, where bamboo lattices were woven between timber post frames and filled with mud, while incorporating a modern adaptation through cement rendering as the surface finish. The houses featured a thatched roof and no separate wooden floor (Park 2022). Through inspection of the remaining houses, it was possible to verify these original materials and structural methods. Each household unit consisted of one 13 m^2 room and one 7 m^2 kitchen, totalling 20 m^2, with two households combined into a 40 m^2 building arranged perpendicular to the street (Park 2022), which was partially verified through on-site measurements. Figure 13 shows a simplified adaptation of the typical traditional rural housing format – similar to Figure 9b with one kitchen and two rooms. It also differed from Pyeonghwa-dong's urban-type semi-detached units (Figure 9d). While Pyeonghwa-dong houses allowed direct entry from the road through individual entrances, Yukdan-ri houses required passing through the street-facing unit to access the inner unit. This arrangement might have resulted in less residential independence compared to Pyeonghwa-dong. While the builder's intent is unclear, this layout could be reflective of the communal living characteristics of rural areas and their traditional housing construction practices. Several remaining houses retain their original structure and materials, enabling the verification of initial construction methods despite expansion and interior renovations (Figure 14). Other expanded houses show clear visual distinctions between the original and added sections, enabling initial volume estimation. (Figures 14b,c). Land registers show that the residents received ownership in 1977, indicating earlier rental-based operations (The Court of Korea 2024; Ministry of the Interior and Safety 2024a).

The initial residents were primarily farmers, with many owning farmland within the CCL. Residents received daytime passes (8 AM–5 PM) to work their fields, although time restrictions hindered peak farming seasons (Park 2022). Living conditions improved with the opening of Geunnam Elementary School in 1956 and township facilities in the early 1960s (The Academy of Korean Studies n.d.). The nearby stream and groundwater served as water sources until utilities were modernised; electricity arrived in the 1970s and pipe water in the 1990s (Cheorwon Historical and Cultural Institute 2013). These developments provided favourable living conditions in the area.

After the launch of the "Saemaul Undong" (New Village Movement), a state-led rural development initiative in the 1970s, thatched roofs were replaced with slate roofing materials (Park 2022). Some residents expanded their properties by purchasing neighbouring houses (Park 2022), and most houses have since been expanded or renovated. Residents generated extra income by renting rooms to soldiers (Kim 2022). Another distinctive feature of this area is the absence of fences. Unlike urban areas such as

Figure 14. Remaining refugee houses in Yukdanri: (a) original structure preserved; (b) house expanded around the original building; (c) house extended along the length of the original structure; (d) original construction materials visible. Source: Authors.

Jeongneung-dong and Pyeonghwa-dong, which maximised land use with fences, this area lacks fences and features houses extended lengthwise, preserving front yard spaces (Figure 14c). During the field survey, houses with low or no walls were observed throughout the village, and residents were frequently seen conversing on the streets or in their front yards, or working in their yards. In such an environment, natural conversations with residents working in their yards were possible. The absence of fences and preservation of yards maintained the village's original structure, enabled by its wide streets, generous spacing between houses, and available land for expansion beyond the village boundaries. Recent construction in this area consists mainly of detached houses with no multi-family housing development (National Geographic Information Institute 2024). Approximately 20% of the properties are vacant, and most of the remaining homes are occupied by older residents (Park 2022). This situation indicates a declining housing demand in the village.

Cheorwon, which was formerly under North Korean control, became a significant refugee resettlement area because of its high concentration of North Korean refugees. This village was initially formed by returning pre-war residents from similar backgrounds. After the CCL shifted northward, some residents returned to their original hometowns while North Korean refugees settled here (Park 2022). According to local researcher Y. Kim, *"Cheorwon's history is deeply tied to war, evacuation, and displacement. Almost every family here has at least one story about the war. Being a border area is what really shapes the identity of this place."* (personal interview, 25 October 2024). This suggests that regional identity is shaped more by Cheorwon's status as a border area than by individual villages or hometown-based ties. The strong imprint of refugee resettlement history indicates that residents identify more with the broader Cheorwon region rather than viewing Yukdan-ri as distinctly separate.

4.4. Changyong-ri: resettlement for North Korean refugees based on land reclamation projects

Because of its geopolitical location on a major north-south route, Asan served as a critical transit point for refugees during the war. Changyong-ri in Yeongin-myeon, located near the southern part of Asan Lake, was established when the government settled refugees for the Asan Bay reclamation project. In December 1956, 250 refugee households settled in Changyong 3-ri and 4-ri, tasked with reclaiming approximately 1,983,000 m^2 of tidal flats in Asan Bay (Asan City 2016). Initially called a "refugee resettlement", the area was soon renamed "Gaecheokdan" – literally meaning "pioneer group", but used as a village name in this region. Several refugee settlements, including Changyong-ri, Unyong-ri, and Guseong-ri Gaecheokdan, remain in Asan today (Asan City 2016; H. Jang, personal interview, 21 October 2024).

Changyong-ri village constituted vacant land with only 2 – 3 households before the war, consisting of nearby farmers' property and government-owned land (H. Jang, personal interview, 21 October 2024; Ministry of the Interior and Safety 2024a). After the Refugee Resettlement Projects were officially approved in 1955, the government designated Changyong-ri as a site and developed it into a refugee settlement (U.S. Operations Mission to Korea 1960). Although Changyong 3-ri and 4-ri are both refugee settlements, this study focuses on Changyong 3-ri, which has a distinct village structure. Initially, 127 refugee households had been developed in an area of 14,300 m^2 in Changyong 3-ri, with additional refugees settling in Changyong 4-ri, located 500 m away, totalling 250 households and 1,793 residents (U.S. Operations Mission to Korea 1960). Early settler H. Jang mentioned that most of the initial residents were North Korean refugees, mainly from Hwanghae Province (personal interview, 21 October 2024).

The village layout consisted of 127 houses arranged in four blocks around a central cruciform street pattern. Within each block, houses were arranged in 3 – 5 orderly rows, showing a higher density than in the other areas examined in this study (National Geographic Information Institute 1969; Figures 15, 16). H. Jang recalls the village back then, *"This was a really small village, but there were over a hundred houses lined up in a row. When I was a kid, every house would hang a national flag, and seeing all those flags waving together was quite a sight."* (personal interview, 21 October 2024). This concentrated, high-density arrangement contrasted with the dispersed layouts of traditional Korean villages and differed from that of nearby villages. Each plot area was approximately 80–100 m^2, and all the houses were detached. Homeowners were permitted to use the land for house construction after paying a specified fee to the landowner (H. Jang, personal interview,

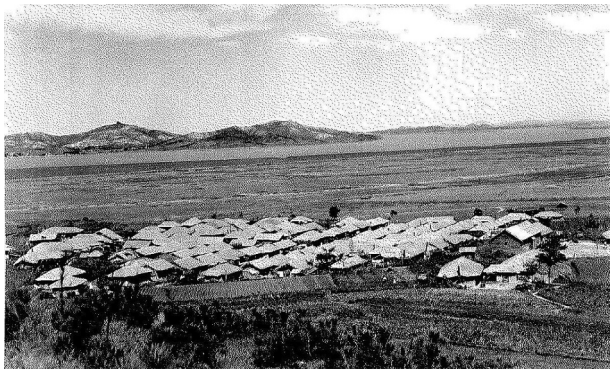

Figure 15. View of the Chanyong-ri settlement; dike built by the reclaiming land (1960). Source: National Archives and Records Administration.

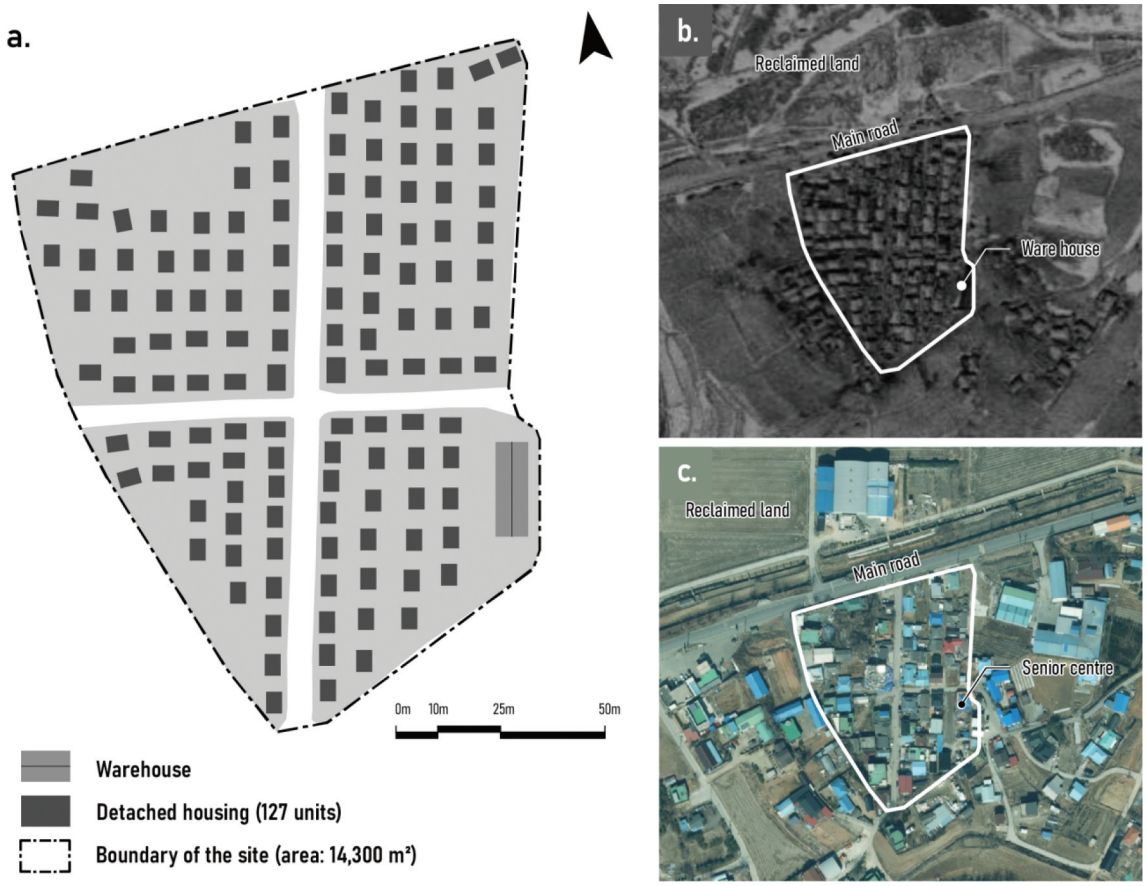

Figure 16. (a) Reconstructed site layout plan of the Changyong-ri Resettlement Housing; (b) aerial photograph (1969); (c) aerial photograph (2024). Source: (a) Authors' drawing based on National Geographic Information Institute (1969); (b), (c) National Geographic Information Institute, Korea.

21 October 2024). The cruciform central streets were observed to be relatively wide at 6 m, but the blocks lacked clear internal streets, resulting in poor road accessibility for some houses.

Houses were built with U.S. military aid materials. A storage warehouse, now the senior centre, stood to the southeast of the village (Figure 16). Residents used different construction methods according to their circumstances: those with carpentry skills used wooden structures with mud walls, while others minimised timber use using adobe bricks. Without professional builders, people with relevant skills collaborated to construct houses. Based on measurements of one remaining house from that period, the house was approximately 20 m^2 with one room and one kitchen (Figure 17). Each house was occupied by one family, with up to 10 people living in a single room. The houses had thatched roofs and ondol floors, without wooden floors; instead of proper toilets, waste was collected in dirt piles in the corner of the yard. Residents used firewood for heating, but they struggled with frequent shortages. Initially, the houses had no fences. The village had approximately six shared wells, but the water supply was insufficient (H. Jang, personal interview, 21 October 2024). Changyong-ri village exemplifies a case where the government provided only basic building materials, while refugees built the housing and village through voluntary labour. This case illustrates the challenging process through which residents autonomously developed their community environment despite limited resources.

The Refugee Resettlement Project aid provided grain in exchange for labour, and residents could receive relief supplies and food rations by participating in land reclamation projects (A. Kim 2023). Most residents worked in the reclamation project, and each participating household received approximately 4,300 m^2 of land. Men mainly worked as labourers in the reclamation project, while women caught and sold fish or worked in agriculture. After land distribution, most families focused on farming, although some had to undertake additional labour due to financial constraints. Electricity was installed in the 1970s and water supply in the 2000s. Initially, there were no amenities or welfare facilities, and the elementary school was over 5 km away. Owing to the large initial population, five neighbourhood stores provided daily conveniences and served as informal gathering spaces. However, none of these stores remain today (H. Jang, personal interview, 21 October 2024).

Figure 17. Remaining refugee house in Chanyong-ri: (a) floor plan; (b) interior (kitchen); (c) exterior showing façade; (d) wall with exposed adobe bricks. Source: Authors.

A problematic aspect of the Changyong-ri case is that while refugees paid to purchase residential plots, most transactions relied on verbal agreements, making land ownership transfer difficult, with many cases still unsolved. According to local researcher I. Kim, *"Back then, all land deals were just by word of mouth. Same plot got sold twice sometimes – caused lots of trouble. Bet some folks still don't have proper papers."* (personal interview, 21 October 2024). Such experience illustrates how the absence of systematic oversight hindered formal ownership and contributed to ongoing management difficulties. Land division and ownership transfer occurred gradually from 1963 to the early 2000s, resulting in complicated property rights (Ministry of the Interior and Safety 2024a). This situation worsened due to inadequate legal measures and a lack of systematic government management. Consequently, verifying the original urban structure in official documents is difficult, and many buildings remain unauthorised, causing maintenance difficulties (Ministry of the Interior and Safety 2024b).

While the Changyong-ri housing expansion followed patterns similar to those of other cases, such as expanding around existing houses or adding annexes, informal characteristics were more prominent. Under the Saemaul Undong in the 1970s, the village's original structure changed significantly, demolishing existing houses and rebuilding with cement blocks and slate roofs (H. Jang, personal interview, 21 October 2024). In particular, amid unclear land ownership, residents expanded their houses to maximise allowable land use. As houses expanded irregularly, the original grid system was lost, and streets within the blocks became irregular and narrow. Internal streets have narrowed to barely allow pedestrian passage due to residents' randomly built fences. Over 40% of the buildings are illegal with inadequate building management, and many vacant houses exist (Ministry of the Interior and Safety 2024b; National Geographic Information Institute 2024). The case of Changyong-ri demonstrates the characteristics and limitations of informal practices where residents formed and maintained villages through voluntary efforts and community strength, in the absence of official support and infrastructure.

H. Jang and his family evacuated to South Korea during the war as refugees, moving across various southern regions before settling in Changyong-ri after hearing about a community of Hwanghae

Province people in Asan. Despite having over 1,700 residents, he recalls that no strong community organisation existed. Since the 1970s, many original residents moved to nearby cities. Nearly 70 years after the village's founding, only three natives of Hwanghae Province remain, including himself (H. Jang, personal interview, 21 October 2024). The weak community bonds might have stemmed from difficulties in forming organised communities as people focused on survival during the initial settlement. Additionally, community ties further weakened due to outward migration and generational changes. This weakening contrasts with common perceptions of North Korean refugee settlements (Kim 2017; Kim 1999), and is attributed to specific economic and environmental conditions. Those unable to properly utilise the distributed reclaimed land sold it and moved to urban areas for economic opportunities (H. Jang, personal interview, 21 October 2024). Compared to other settlements, the living conditions were poor. These factors limited the community's ability to maintain or strengthen its collective identity, gradually disappearing the region's historical memory over time.

4.5. Summary

The four settlement cases of Jeongneung-dong, Pyeonghwa-dong, Yukdan-ri, and Changyong-ri demonstrate the complex interplay between government-led initiatives and residents' spontaneous modifications. Jeongneung-dong developed as a suburban residential area during Seoul's expansion, while Pyeonghwa-dong emerged as an affordable settlement in an urban area. These two National Housing projects featured standardised plans, relatively durable materials, and grid village layouts – characteristics supported by the UNKRA. Moreover, they were equipped with basic infrastructure from their inception, and residents actively developed rental spaces based on their residential preferences. This opportunity allowed them to respond appropriately to urbanisation and continue to function as attractive residential areas

By contrast, the two Resettlement Housing cases exhibited opposing characteristics. Yukdan-ri, located in a recovered territory, was established with military support and featured spacious outdoor areas. Although the residents continuously expanded and renovated their houses, the original village layout remained. However, Changyong-ri, a dense residential area for North Korean refugees, underwent the most significant informal transitions. Among the four cases, it demonstrates the most severe lack of initial infrastructure, legal inadequacies, and absence of management, leading to poor settlement conditions.

5. Conclusion

This study explored how government-led refugee housing and resettlement policies were implemented and transformed in specific regions following the Korean War, analysing changes in each settlement's social and spatial characteristics. The four case studies demonstrate varied outcomes based on government policies and regional characteristics, and they indicate that settlement identity, housing forms, and social connections evolved in diverse ways over time. The key results and main points of discussion are as follows.

First, the government's refugee housing policies manifested differently across regions. National Housing was implemented in relatively urban areas, offering convenient transportation and easy access to amenities. These areas had essential infrastructure (electricity, water supply, etc.), providing favourable living conditions. In contrast, Resettlement Housing implemented in rural areas demonstrated a dual approach, simultaneously pursuing housing provision and economic self-sufficiency. For instance, in Yukdan-ri and Changyong-ri, agriculture near residential areas was crucial for sustenance. The initial settlement conditions were poor compared with those in urban areas, and residents faced challenges in establishing their livelihoods. These differences highlight that policy objectives should extend beyond mere housing provision to reflect each region's environmental and social characteristics. This study demonstrates how the housing initiatives served as vital tools for social reconstruction and economic independence, with National Housing aimed at providing quality living environments for vulnerable groups, while Resettlement Housing supported economic self-reliance.

Second, all four cases exhibited spontaneous housing expansion and renovation over time, leading to social and spatial transformations distinct from their initial establishment. Notably, individualised structures emerged, differing from the initial standardised designs. This represents an intersection between planned spatial order and user-led adaptation, as residents modify their homes to meet their needs. These informal responses had both positive and negative effects. On the positive side, the residents demonstrated resilience by actively adapting to their environment to improve residential functionality. For instance, Jeongneung-dong and Pyeonghwa-dong saw increased development owing to urban growth, development pressure, and regulatory changes. Simultaneously, residents utilised informal development to expand their own spaces for rental purposes and generate economic benefits. Consequently, a complex landscape of mixed architectural types emerged.

However, these informal modifications also had negative effects. In Yukdan-ri and Changyong-ri,

changes were initiated by external pressure from the government-led Saemaul Movement in rural areas during the 1970s. Although housing exteriors were improved and renovations occurred, systematic management was lacking. In particular, in Changyong-ri, the absence of clear property ownership led to disorderly housing expansion and illegal construction. While these spontaneous modifications met residents' economic needs, they also created unstable environments that were difficult to maintain. This interaction between formal institutional changes and informal resident responses produced distinct spatial orders, demonstrating that residential areas are not fixed spaces but are continuously reconstructed according to residents' needs and policy shifts.

Third, the study reveals the formation of community identity and loss of social memory in refugee settlements. Initially, refugees with similar socioeconomic backgrounds formed collective identities in the settlement areas. However, in urban areas such as Jeongneung-dong and Pyeonghwa-dong, this initial identity faded with the influx of new residents. For example, while Pyeonghwa-dong residents recognise the place's name, they show limited awareness of or interest in its historical context. Changes in the physical environment often coincided with the erosion of historical memory. In rural areas such as Yukdan-ri and Changyong-ri, collective bonds have largely disappeared despite shared regional origins, as first-generation residents relocated or passed away. This indicates the difficulties of maintaining a long-term collective identity.

Today, many settlement areas are disappearing due to urban development, and those that remain often fail to preserve their historical identity. The cases in this study are rooted in an intense history of war and refugee resettlement. As Hirsch (2008) noted, traumatic past experiences powerfully connect individual and collective memories, with impacts as effective as direct experience. Therefore, new approaches to preserving historical memory during urban development could be valuable. Efforts to document local history and identity, as in Jeongneung-dong, help inscribe historical significance in public consciousness. Areas with challenging backgrounds, such as refugee settlements, require sensitive and balanced approaches. Their historical significance should not merely emphasise positive memories but also address the diverse, multi-faceted aspects and resident experiences in a balanced manner. It is crucial to reinterpret the social meaning and role of refugee settlements, establishing them as a broader social heritage and developing strategies for positive community impact.

This study reveals the dual mechanisms in refugee housing and settlements implemented by the South Korean government. Initially planned as economic housing solutions, these settlements evolved uniquely through socioeconomic changes, policy shifts, and user-led modifications. Each case demonstrates the interaction between initial government planning and subsequent spontaneous transformation led by residents, creating distinctive landscapes where formal planning coexisted with informal adaptation. Today, traces of refugee settlements are largely obscured. While some evidence remains in urban-rural structures and surviving houses, most memories have faded among the residents. Recognising these settlements as evolving communities continuously reconstructed through state policies, socioeconomic changes, and resident resilience is essential. In this respect, the systematic documentation and preservation of their history is crucial. Preserving the history of these settlements and the memories of the residents extends beyond heritage conservation, offering valuable lessons for modern urban development and community sustainability.

Nevertheless, it needs to be mentioned that this study also has several limitations. First, examining only four settlements among numerous post-war refugee housing projects limits generalisability while providing specific case insights. Second, limited historical documents and fragmented data sources hinder a complete verification of contextual factors – a difficulty intensified by the passage of time, impacting the collection of thorough oral histories and documentation of original environments. Finally, while the qualitative approach addressed research questions effectively, quantitative analyses remain underexplored. Despite these limitations, the study contributes valuable findings to understanding post-Korean War refugee settlements. Future research could expand the sample size, incorporate newly discovered archives, and employ diverse analytical methods to build upon this foundation.

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References

The Academy of Korean Studies. n.d. "Encyclopedia of Korean Local Culture: Cheorwon." Accessed November 3, 2024, from https://cheorwon.grandculture.net/cheorwon.

Asan City. 2016. *Asan History 5*. Asan: Asan City.

Cheorwon Historical and Cultural Institute. 2013. *60 years of Local Administration in Cheorwon*. Cheorwon: Cheorwon County.

Cho, W., and Y. Kwon. 2021. "The Era of Seoul's Rapid Growth (1960s–1970s): The Role of Ex-Military Elite Mayors." *Cities* 110:103073. https://doi.org/10.1016/j.cities.2020.103073.

Chosun Ilbo. 1954a. "Selection of Residents Through a Lottery." May 26.

Chosun Ilbo. 1954b. "Two Units Were Awarded to a Single Person." November 20.

Combined Economic Board. 1956. UNKRA Housing Project [Report]. *Decimal Files, 1956-1959, Entry UD 1277DK(Box 3), RG 469*. National Archives and Records Administration. Held by the National Institute of Korean History. October 11.

The Court of Korea. 2024. "Certificate of All Registered Matters, 276-78 Yukdan-Ri, Geunnam-myeon, Cheorwon-Gun, Gangwon-Do [Property registration document].

Hirsch, M. 2008. "The Generation of Postmemory." *Poetics Today* 29 (1): 103–128. https://doi.org/10.1215/03335372-2007-019.

Kim, A. 2023. *Refugees, Life on the Border*. Seoul: Yeoksa Bipyeongsa.

Kim, A. R. 2017. "Evacuation of the West Coast During the Korean War and Settlement of the North Korean Refugees in the 1960s." *The Journal of Korean Studies* 180:141–175.

Kim, H. S. 2023. "Korean Heat Radiated: From Frank Lloyd Wright's Usonian Houses to Postwar Mass-Produced Houses in America." *ARQ: Architectural Research Quarterly* 27 (2): 109–128. https://doi.org/10.1017/S1359135523000167.

Kim, K. O. 1999. *Life Experiences and Identity of North Korean Refugees*. Seoul: Seoul National University Press.

Kim, Y. 2022. *The Story of Cheorwon Relief Housing Village*. Cheorwon: Cheorwon County.

Korea Housing Bank. 1975. *The Comprehensive Directory of Housing Construction in Korea*. Seoul: Korea Housing Bank.

Korea National Housing Corporation. 1978. *20 years of the Korea National Housing Corporation*. Seoul: Korea National Housing Corporation.

Korea National Housing Corporation. 1979. *The Comprehensive Directory of Housing Complexes in Korea, 1953-1970*. Seoul: Korea National Housing Corporation.

Kye, Y. M. 2017. "The Surroundings Where I Live." In *Essays by Kye Yongmuk*. Seoul: Hear and Now. (Original work published 1956).

Kyunghyang Shinmun. 1955. "One Year in the Recovered Areas." November 15.

Lee, G. G. 1989. *Gimcheon History*. Gimcheon: Gimcheon City.

Li, R. Y. M., B. Tang, and K. W. Chau. 2019. "Sustainable Construction Safety Knowledge Sharing: A Partial Least Square-Structural Equation Modeling and a Feedforward Neural Network Approach." *Sustainability* 11 (20): 5831. https://doi.org/10.3390/su11205831.

McFarlane, C. 2012. "Rethinking Informality: Politics, crisis, and the City." *Planning Theory & Practice* 13 (1): 89–108. https://doi.org/10.1080/14649357.2012.649951.

Mills, J. E. 1959. *Evaluation Report* [Report]. *Unclassified Subject Files, Ca. 1955-11/03/1961, Entry P 319(Box 7), RG 469. National Archives and Records Administration*. Held by the National Institute of Korean History. June 30.

Ministry of National Defense. 1953. *The Third Year of the Korean War*. Seoul: Ministry of National Defense.

Ministry of Social Affairs. 1951. "Financing Plan for the Construction of National Housing." National Archives of Korea.

Ministry of the Interior and Safety. 2024a. "Land Register for Pyeonghwa-Dong, Yukdan-Ri, and Changyong-Ri." Accessed November 3. https://www.gov.kr.

Ministry of the Interior and Safety. 2024b. "Buildings Register for Changyong-Ri." Accessed November 3. https://www.gov.kr.

National Geographic Information Institute. 1954. "1954 Historical Aerial Photograph of Pyeonghwa-Dong." Accessed November 3, 2024. https://map.ngii.go.kr.

National Geographic Information Institute. 1969. "1969 Historical Aerial Photograph of Changyong-Ri." Accessed November 3, 2024. https://map.ngii.go.kr.

National Geographic Information Institute. 2024. "GIS Data for Seoul, gimcheon, cheorwon, and Asan." Accessed November 3, 2024. https://map.ngii.go.kr.

Office of the Economic Coordinator. 1957. *Resettlement & Assimilation Program in Korea*. *Unclassified Subject Files, Ca. 1955-11/03/1961, Entry P 316(Box 21), RG 469*. Report. National Archives and Records Administration. Held by the National Institute of Korean History.

Park, C. S. 2021 *Genes of Korean Housing 1*. Seoul: Mati. https://scholar.google.co.kr/scholar?cluster=15007559526661145618.

Park, D. 2016. "Free World, Cheap Buildings: US Hegemony and the Origins of Modern Architecture in South Korea, 1953-1960." Ph. D. dissertation, UC Berkeley. https://scholar.google.co.kr/scholar?cluster=13964627293894356057.

Park, J. 2022. "Interview " Kim, Y. In *The Story of Cheorwon Relief Housing Village* (Cheorwon: Cheorwon County). 128–130.

Park, K. B., and C. H. Choi. 2003. "A Study on the Characteristics of Multifamily Housing in Accordance with the Change of Building Code." *Journal of the Architectural Institute of Korea* 19 (4): 75–82. https://scholar.google.co.kr/scholar?cluster=16788990023140011219.

Roy, A. 2005. "Urban Informality: Toward an Epistemology of Planning." *Journal of the American Planning Association* 71 (2): 147–158. https://doi.org/10.1080/01944360508976689.

Scott, J. C. 1998. *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*. New Haven: Yale University Press. https://scholar.google.co.kr/scholar?cluster=5064154830066739266.

Senadheera, S., T. Yigitcanlar, K. C. Desouza, K. Mossberger, J. Corchado, R. Mehmood, R. Y. M. Li, and P. H. Cheong. 2024. "Understanding Chatbot Adoption in Local Governments: A Review and Framework." *Journal of Urban Technology* 32 (3): 1–35. https://doi.org/10.1080/10630732.2023.2297665.

Seongbuk Cultural Center. 2013. *The Story of Neungmal outside Dongsomun*. Seoul: Seongbuk Cultural Center.

Seoul Historiography Institute. 2018. *The History of Seoul's Neighborhoods: Seongbuk-gu*. Seoul: Seoul Historiography Institute.

Shin, W. K. 2021. "A Study on the Discourse and Concept of National Housing in the 1950s and 1970s." *Journal of the Architectural Institute of Korea* 37 (4): 105–116. https://doi.org/10.5659/JAIK.2021.37.4.105.

Song, L., R. Y. M. Li, and T. Wareewanich. 2023. "The Cultivation Effect of Architectural Heritage You Tube

Videos on Perceived Destination Image." *Buildings* 13 (2): 508. https://doi.org/10.3390/buildings13020508.

Soto, H. 2000. *The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else*. New York: Basic books. https://scholar.google.co.kr/scholar?cluster=219922287385336381.

Takkouche, B., and G. Norman. 2011. "PRISMA Statement." *Epidemiology* 22 (1): 128. https://doi.org/10.1097/EDE.0b013e3181fe7999.

Turner, J. F. C. 1976. *Housing by People: Towards Autonomy in Building Environments*. New York: Pantheon Books. https://scholar.google.co.kr/scholar?cluster=6127977066662998053.

United Nations Korean Reconstruction Agency. 1954. *Statement by the Agent General of UNKRA for the Information of Senator Knowland* [Report]. *Records Pertaining to United Nations Korean Relief Organizations, 1950-1960, Entry ud-07D 78(Box 320), RG 59*. National Archives and Records Administration. Held by the National Institute of Korean History. February 20.

U.S. Operations Mission to Korea. 1960. *Pictures of Two Land Reclamation Projects* [Pictures]. *Unclassified Subject Files, Ca. 1955-11/03/1961 Entry P 319(Box 12), RG 469*. National Archives and Records Administration. Held by the National Institute of Korean History.

Yu, I., and H. S. Kim. 2024a. "Exploring US Military government's Refugee Housing Efforts in Korea." *Journal of the Architectural Institute of Korea* 40 (8): 159–170. https://doi.org/10.5659/JAIK.2024.40.8.159.

Yu, I., and H. S. Kim. 2024b. "Refugee Housing by the South Korean Government During and After the Korean War, 1951-1956." *Journal of the Architectural Institute of Korea* 40 (11): 155–166. https://doi.org/10.5659/JAIK.2024.40.11.155.