

**Reintegrating urban waterways:
a critical examination of Cheonggyecheon's tributary
restoration and the spatial transformation of
Baekundongcheon**

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Abstract

This research explores South Korea's largest urban stream restoration project: the 2005 restoration of Cheonggyecheon. Once a natural stream, Cheonggyecheon was buried in 1977 during rapid modernization, and by the 1980s, most of Seoul's tributaries had similarly been covered by roads or highways.

Nearly 30 years after it was buried, the 2005 project reopened Cheonggyecheon to the public but focused primarily on macro-scale physical restoration, overlooking the micro-scale spatial connections that once integrated the stream with its urban surroundings. As a result, the restored stream remains visually prominent but spatially disconnected, raising questions about more meaningful forms of urban reintegration.

This study argues that urban stream restoration should go beyond reconstructing physical features to re-evaluating the streams' historical and spatial roles in Seoul. Rather than restoring streams to a past state, it is crucial to examine how they functioned and interacted with surrounding architecture and infrastructure.

Content

Chapter 1 - The lost waterways of Seoul: Buried waterway

- 1.1 The lost waterways of Seoul
- 1.2 The continuity from lost waterways
- 1.3 Persistence in transition from small urban networks

Chapter 2 - Critical examination of Cheonggyecheon restoration

- 2.1 Macro-scale analysis
- 2.2 Micro-scale analysis

Chapter 3 - Opportunities of buried waterways: the case of Baekundongcheon

- 3.1 Streams without water
- 3.2 Macro analysis: Spatial transformation through stream coverage
- 3.3 Micro analysis: Historical continuity through analysis of alleys and architecture

Conclusion

List of Figures

Bibliography

Introduction

In October 2005, the Cheonggyecheon restoration project recreated the historical stream as a representative space in Seoul. However, despite restoring this iconic waterway, controversies emerged regarding surrounding local development. After completion, the project evolved into the "Cheonggyecheon Tributary Revival," planned to continue until 2050. This initiative emphasizes the enduring importance of Seoul's waterways through ecological corridors and ancient stream restoration. Many tributaries, covered during the Japanese colonial period and subsequent modernization, were displaced beneath roads or converted into sewers. Restoring these buried streams is seen as vital to revitalizing the urban fabric and preserving historical identity. Yet, while Cheonggyecheon's restoration achieved macro-scale goals, such as reintegrating the stream into infrastructure, it failed to reconstruct adjacent architecture and micro-scale historical relationships. The stream now exists in isolation from the finer connections that once defined its character.

This study identifies a paradox within the Cheonggyecheon restoration. While the stream remained buried, surrounding urban fabric and spatial networks adapted and intensified, forming new connections. However, post-restoration, these connections weakened. Despite the stream's return, it was not truly reintegrated into the urban structure. Restoration remained largely visual, without functional or spatial integration. This suggests a focus on hydrology and landscape, while architectural and socio-spatial networks were overlooked.

Reassessing the restoration requires three perspectives: first, tracing spatial continuity through the coverage process and the transformation of the waterways' original nature; second, identifying limitations in reconnecting the stream with adjacent buildings and public space; and third, analyzing tributaries like Baekundongcheon, still buried today, to understand how their continued marginalization has shaped land use, hydrology, and the built environment. This allows deeper inquiry into how a buried stream continues to influence spatial logic in its absence.

This study argues that restoring tributaries like Baekundongcheon is not merely about exposing buried streams, but about reconstructing their spatial and functional roles in the city. By reintegrating architecture, re-establishing pedestrian flows, and reinterpreting historic spatial dynamics, it proposes a micro-scale perspective to address spatial gaps left by macro-scale projects and integrate small-scale interventions into urban renewal. In doing so, it presents a new approach to waterway restoration that connects stream recovery with architectural and public space redevelopment.

Chapter 1 -The lost waterways of Seoul: Buried waterway

1.1 The lost waterways of Seoul

South Korea is composed of approximately 70% mountains, which creates a number of valleys and rivers. Seoul, the capital of South Korea, is also surrounded by many mountains that create varied elevations across the city. As a result, streams descending from the mountains naturally follow the contours of the land and become integrated into the city's hydrological system.

The city of early Seoul was formed in response to the natural mountain system and stream network that shaped the terrain and defined early urban organization (Lee & Yang, 2022, p. 1759). As they descend, these waterways merge with smaller tributaries, forming larger stream networks. In early Seoul, streets developed alongside these water routes, meaning the urban layout was fundamentally shaped by the flow of water. Following the stream across the city often leads to key public spaces and communal gathering points. This spatial logic is evident in historical maps (see Figures 1.1 and 1.2).

Furthermore, large roads and narrow alleys developed along the stream, facilitating both movement and exchange between the two sides. As a result, many commercial and cultural zones emerged near the stream due to its geographical advantage, making Cheonggyecheon an economic axis in the city.

This illustrates how old Seoul expanded organically along the natural flow of water. Along these streams, alleyways emerged; along the alleys, residential structures appeared; and over time, these localized configurations accumulated into the larger urban fabric.



Figure 1.1
Map of Hanyangdoseong (1770s).
Ho-Am Art Museum.

The original map (128.7 × 103.2 cm) features red-coloured roads rendered like blood vessels, vividly contrasted against the blue-toned mountains and waterways in old Seoul.

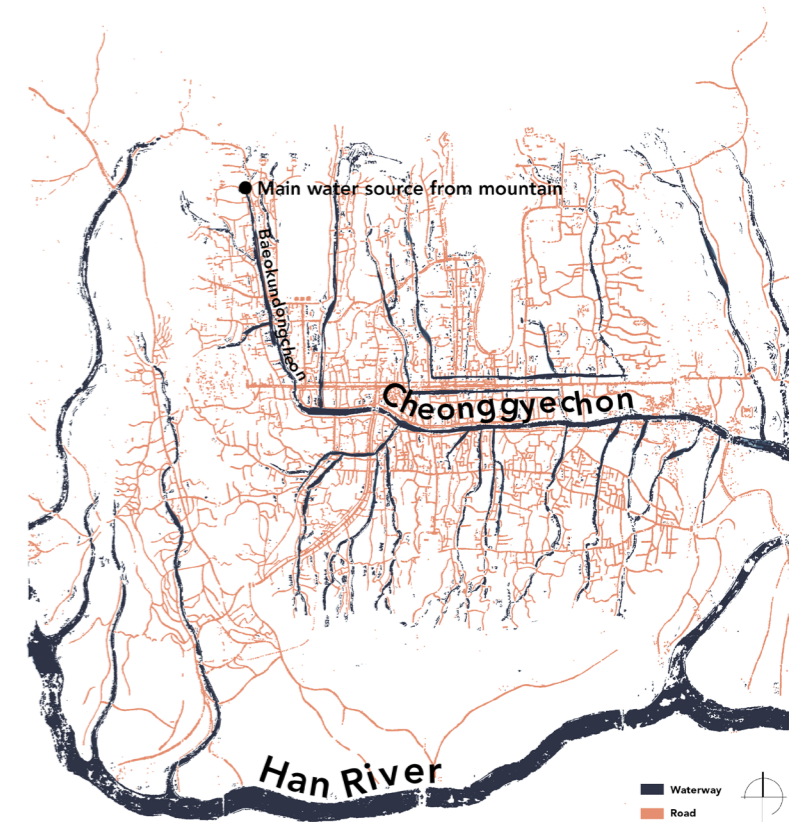


Figure 1.2
Reinterpretation of the map of Hanyangdoseong (2025).
Digital drawing by the author.

Redrawing based on the 1770s map, illustrating how infrastructural roads and the natural stream intertwine through an updated visual language.

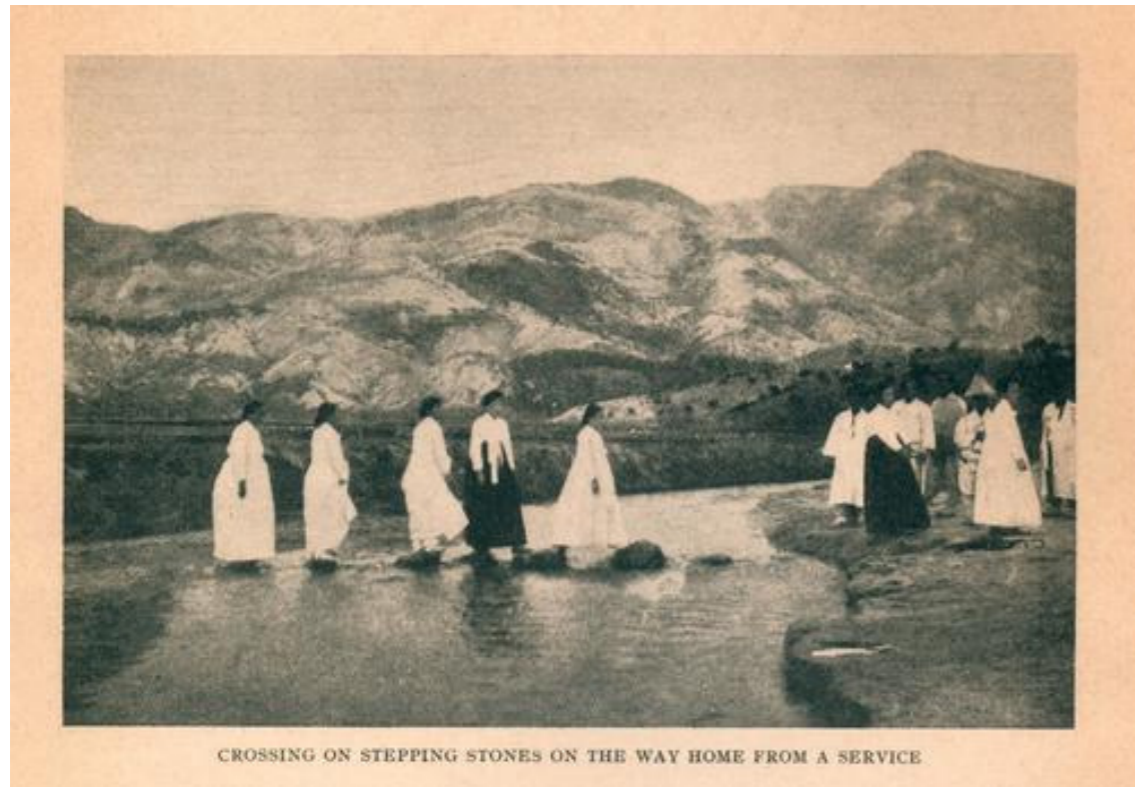


Figure 1.3
Stone stepping bridge in Seoul, with women crossing after service (1916). Seoul Museum of History Archive.

Beyond the city's infrastructure, waterways were closely tied to everyday life. Streams served as transitional corridors, facilitating overlapping circulations across different parts of the city. Figure 1.3 illustrates how these waterways supported everyday circulation, creating fluid connections between different parts of the city.

On a smaller scale, the stream functioned as a threshold that organically connected the three spatial domains of architecture–alley–stream. For example, the scene of women washing laundry by the water (see Figure 1.4) illustrates how a private domestic act extended into the public sphere through the stream as an intermediary space. In this configuration, the three seemingly distinct zones were brought into a continuous spatial sequence. Everyday activities carried out in this interconnected environment blurred the boundaries between the private and the communal, forming a unique socio-spatial intersection where domestic practices were naturally shared in public settings.

Even when dry, the stream bed retained its spatial presence. As shown in the photograph of a tributary beside the palace wall (see Figure 1.5), the empty waterway temporarily expanded the usable ground plane, transforming into a walkable surface that adapted to seasonal conditions. Due to its flexibility, the streambed not only existed as a corridor for water but also functioned as a spatial extension of its surroundings, capable of supporting multiple uses depending on the ebb and flow of the stream.

As evidenced in these examples, streams in early Seoul were not merely natural features but flexible spatial elements at the micro scale that supported daily activities and connected domestic routines with communal space. The spatial configuration responded at the body scale, supporting everyday behaviours such as washing, walking, and crossing. These actions often took place within small, adjacent plots and alleys, where thresholds like courtyards, alleys, doorsteps, and low stairs created micro-scale transitions between domestic and communal space.

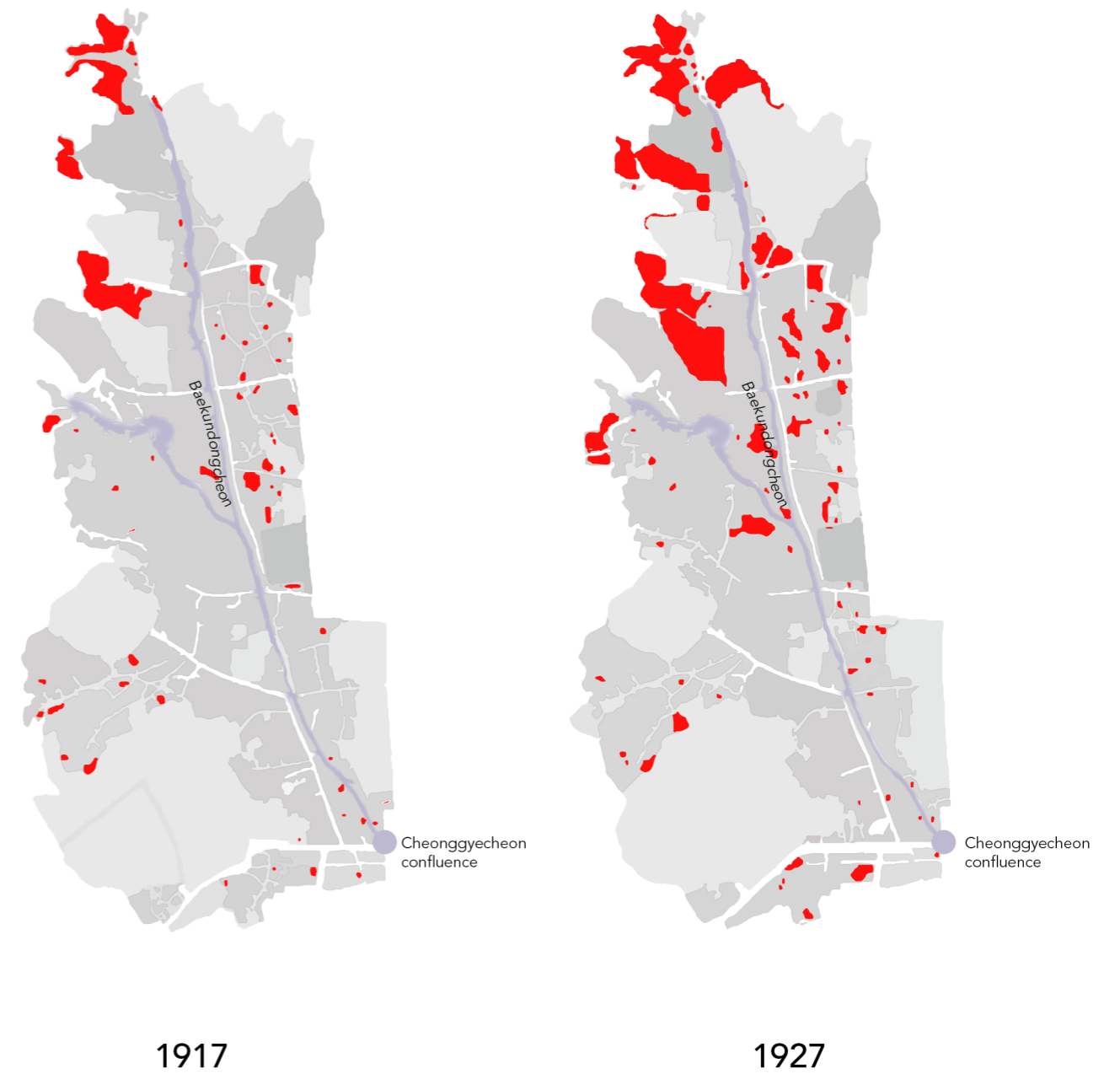


Figure 1.4
Women washing laundry in stream (ca. 1890–1923). Library of Congress.



Figure 1.5
Photograph of tributary beside royal palace fortress wall (ca. 1920s). Cultural Heritage Administration.

In this photograph, the stream appears as a riverbed. During dry periods, it was used as a walking path and served as a community area.



From 1925 onward, tributaries such as Baekundongcheon (the primary water source of Cheonggyecheon) began to be covered. Rather than preserving spatial relationships, the process involved the installation of square-shaped concrete conduits, turning natural streams into underground sewers. This aligned with changes in the urban landscape around the Korean Royal Palace, particularly in its western neighborhoods, where Baekundongcheon was located, underwent rapid demographic and infrastructural shifts (See Figure 1.7). The strategy employed by the colonial government in city planning was to design a controlled cityscape, as part of broader aims of urban governance and modernization. In this process, the streams of Seoul, once integral to the city's natural and social fabric, became targets of extensive modification.

Figure 1.7. Redrawing of colonial-era land registry highlighting Japanese government ownership (2025).

Digital drawing by the author, based on Land ownership record of Gyeongseong-bu, 1917–1927, in Baekundongcheon Stream: A stream turning at every corner and into the clouds (2017), Cheonggyecheon Museum.

The rapid expansion of Japanese-owned land illustrates the increasing colonial control over Seoul's urban fabric, reflecting the systematic transfer of property from Koreans to Japanese authorities.

However, despite colonial interventions and the destruction caused by the Korean War, spatial traces of the stream's former role remained legible in the urban fabric. Much like the earlier examples from old Seoul, the stream continued to connect everyday domestic life, communal practices, and the surrounding urban structure.

In Figure 1.8, the photograph taken in 1953 shortly after the Korean War shows children playing near the frozen stream. It vividly reflects the patterns of daily life that existed around the stream prior to Japanese colonization, demonstrating a sense of continuity despite the disruptions of the colonial period and war. The streambed, having frozen in winter, temporarily transformed into a playground and extended public space for the neighborhood. The photograph also illustrates how this space organically accommodated local use. The elevation difference between the streambed and the adjacent buildings is minimal, allowing for easy access and visual continuity.

Also shown in Figure 1.9, this photograph, taken in 1957, four years after the end of the Korean War, shows a lively urban scene where numerous small shops line the stream in the background, suggesting that community life and commercial activity gradually reassembled around the water. The stream is flanked by a narrow pedestrian corridor that runs directly alongside a dense strip of small-scale commercial units. The spatial configuration allows for immediate access between the water edge and the storefronts, creating a threshold where circulation, commerce, and leisure converge.

Its spatial influence persisted, shaping how these areas related to one another and adapted over time. Rather than disappearing, the stream persisted as a flexible spatial threshold that accommodated changing uses and supported the continuity of lived space.



Figure 1.8
Children sledding below the bridge in Cheonggyecheon, winter 1953 (1953).
Photograph by In-Sik Lim. Seoul Museum of History, That Seoul of Those Days special exhibition.



Figure 1.9
Woman selling iced tea on the sandy banks of the Han River (1957).
Photograph by In-Sik Lim. Seoul Museum of History, That Seoul of Those Days special exhibition.

1.3 Persistence in transition: small urban networks

From the 1970s, as part of Seoul's modernization, the full covering of Cheonggyecheon began, marking the transformation of the once-open waterway into an underground drainage system. With the stream fully covered, the scale of development escalated to a drastically larger dimension, as a highway was constructed above the stream (see Figure 1.10). This shift pulled existing micro-scale structures and spatial connections such as street vendors, shantytowns, and small-scale manufacturing industries, into the orbit of massive infrastructure and large-scale urban redevelopment.



Figure 1.10
Informal structures along Cheonggyecheon (1972).
Photograph, archive no. 24620894. Retrieved from Seoul Open Data Plaza: <https://opengov.seoul.go.kr/photocollection/24620894>

However, a diverse network of small-scale manufacturing and informal industries that had existed along the stream was not erased but absorbed into the emerging large-scale urban system. According to the Seoul Museum of History (2010), the Cheonggye Elevated Highway played a key role in attracting these industries. Rather than disappearing, many practices adapted to and coexisted with the transformed urban landscape.

Although the stream is no longer visible, these practices persist in the spatial routines of local life, maintaining a sense of continuity amid urban change. As forms of micro-scale urban life, they acted as agents negotiating coexistence with larger systems, showing that urban transformation often involves subtle absorption and layering rather than complete replacement.(See Figures 1.11 & 1.12)

This suggests that the relationship between macro- and micro-scale urban processes cannot be reduced to a simple binary. Even within the framework of large-scale development, both formal and informal small-scale networks continued to operate in various interstitial spaces of the city. Thus, large-scale urban interventions, whether covering or restoring streams, should be approached not as projects reinforcing rigid divisions between macro and micro scales, but rather as opportunities to foster a new form of integration, allowing diverse spatial practices and scales to coexist and mutually reinforce each other within the evolving urban landscape.



Figure 1.11

Aerial view of Sewoon Sangga.

Photograph courtesy of Professor Chung-Gi Lee, published in *Kukmin Ilbo* (2020). Retrieved from <https://www.kmib.co.kr/article/view.asp?arcid=0014371459>

Sewoon Sangga, constructed after the covering of Cheonggyecheon, was known as an “everything market” in the 1970s and 1980s, where one could find nearly all consumer goods except food ranging from electronics and machinery to clothing and miscellaneous items.

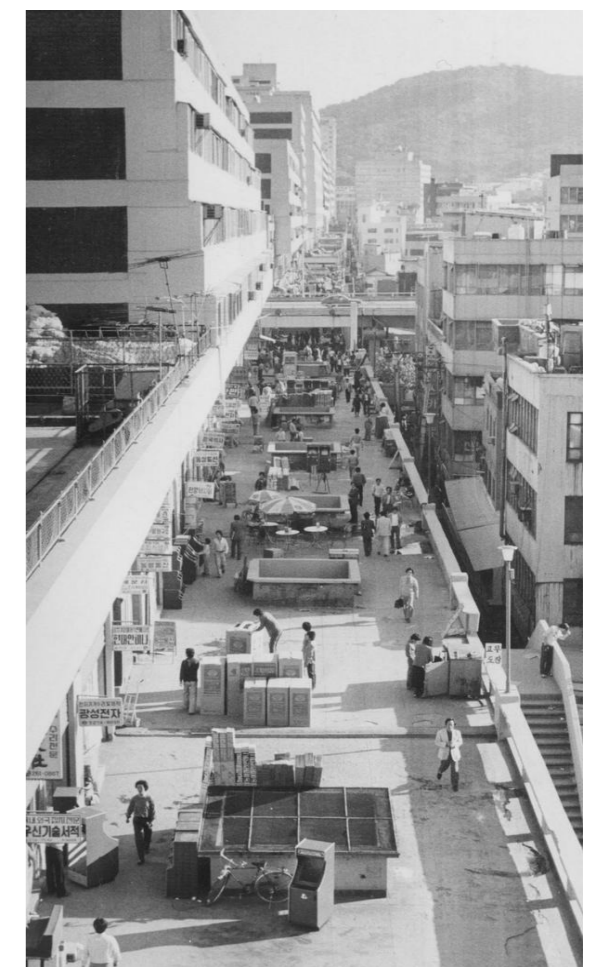


Figure 1.12

Sewoon Sangga in the 1980s.

Archival photograph from *Kyunghyang Shinmun* (2018). Retrieved from <https://www.khan.co.kr/article/201812180010001>.

The photograph captures a dense line of small local vendors operating beneath the massive overpass that had replaced the open stream, highlighting how urban infrastructure physically and economically redefined the area.

Chapter 2 - Critical examination of Cheonggyecheon restoration

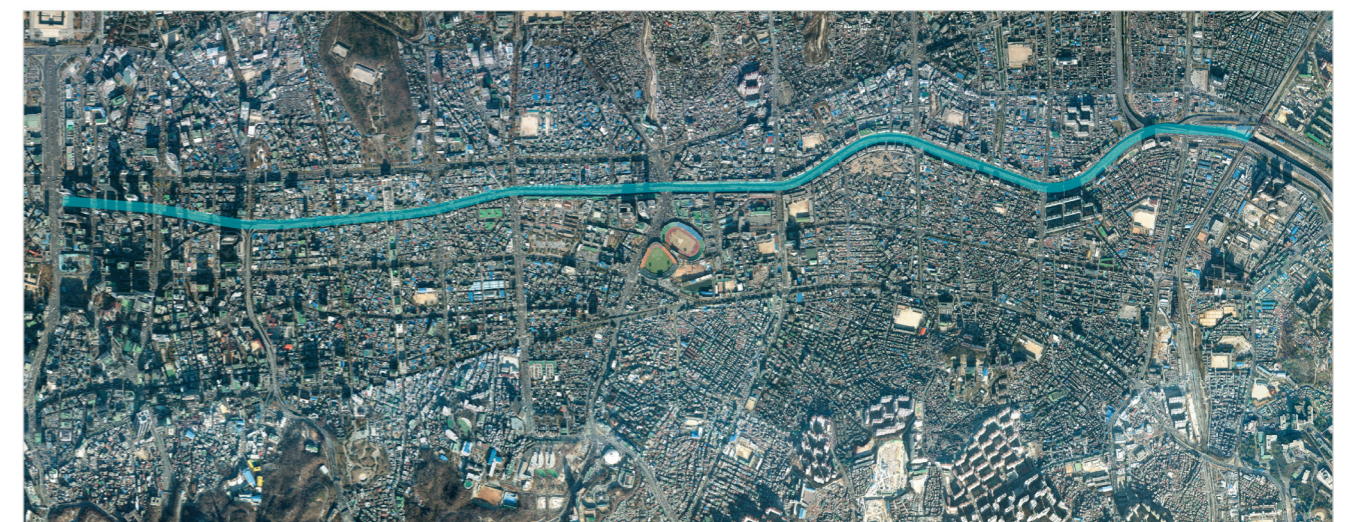
The Cheonggyecheon Restoration Project, initiated by then-Seoul mayor Lee Myung-bak, aimed to revitalize the historic city center and improve environmental conditions. Launched in July 2003 and completed in September 2005, the project uncovered 5.94 km of the stream previously buried under road and elevated highway infrastructure since 1977 (see Figure 2.1).

While the project successfully reintroduced the waterway and upgraded major infrastructure, it failed to address how the stream historically interacted with its surrounding spaces. According to Seon-Hae Baik et al. (2006), although the project was expected to boost the local economy, it instead weakened traditional sectors such as local markets, as benefits were unevenly distributed (p. 172). Even nearly two decades later, criticism persists regarding its neglect of traditional industries. While traditional industries have been vital to the urban economy, the design prioritizes visual representations of nature (Kim, 2020). The project prioritized large-scale infrastructure but overlooked historical building reconstruction and fine-grained connections between the stream and adjacent structures. As such, the integration of the stream into its historical context remains contested.

To fully assess these challenges, this chapter examines the project's limitations across multiple scales, from urban planning to micro-scale architectural relationships, with the goal of revealing gaps in spatial cohesion and functional connectivity between the waterway and its surrounding environment.



Figure 2.1.
Cheonggyecheon before and after restoration (2015).
Wonjoo Kim, from Seoul's Park & Green Space Policy Changes.



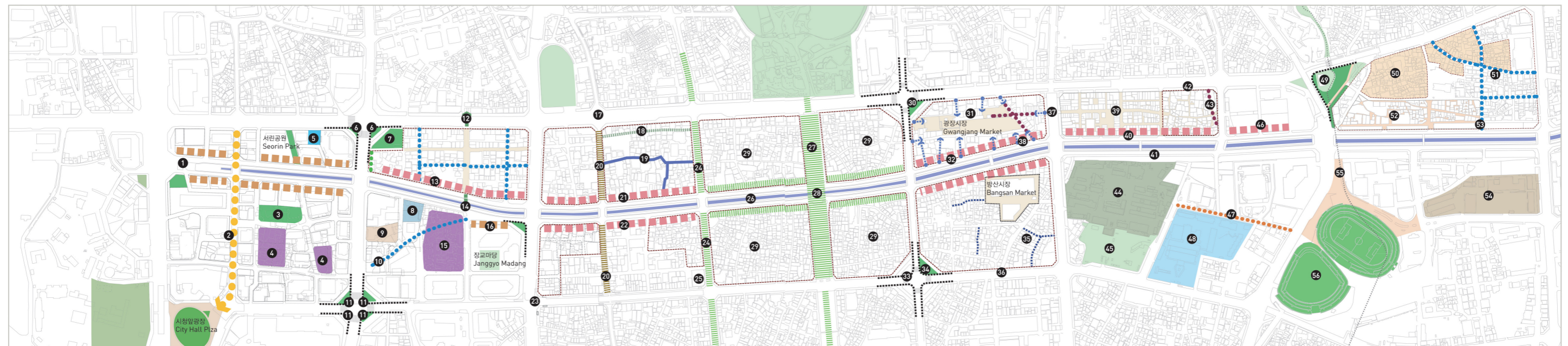
Scale 1:37,000

Figure 2.2.
Cheonggyecheon Restoration from July 2003 to September 2005. (2007).
Published by The Seoul Institute.

2.1 Macro-scale analysis

At the macro scale, the Cheonggyecheon Restoration Project successfully reintegrated the waterway into Seoul's contemporary urban structure (See Figure 2.3). To better understand the priorities within this restoration effort, it is necessary to categorize the implemented programs into broader themes. The project elements will be analysed under six overarching categories:

Mobility & Streetscape
 Urban Redevelopment
 Economic Revitalization
 Public & Green Space
 Site & Facility Reorganization
 Cultural Assets.



- | | | | | |
|---|--|---|--|---|
| <ul style="list-style-type: none"> 1. Open space in front of Cheonggyecheon 2. Improvement of streets in Mugyodong-gil 3. Builds Dadong Park 4. Drives redevelopment project in Dadong area 5. Parking lot 6. Forms corner cut-off 7. Builds a park in the neighbour Jonggak 8. Readjustment of redevelopment business district 9. Preserves Gwangtonggan 10. Marks waterway of Samgakcheon 11. Adjusts corner cut-off 12. Drives a project that improves the streets of residents-led stores | <ul style="list-style-type: none"> 13. Revitalizes streets along Cheonggyecheon 14. Builds rest space near Cheonggyecheon 15. Promotes redevelopment project in Samgak-dong 16. Drives private-public partnership project in Cheonggyecheon 17. Encourages renewal led by the private sector 18. Maintenance of Pimatgil 19. Builds fire-fighting roads 20. Repairs streets in Supyogyo-gil 21. Revitalizes streets along Cheonggyecheon 22. Builds commercial roads along Cheonggyecheon 23. Induces the urban residential function in Janggyo redevelopment district 24. Improves walking environment in Donhwamun-gil | <ul style="list-style-type: none"> 25. Reviews designation of redevelopment areas 26. Secures open space along Cheonggyecheon 27. Builds green network 28. Builds a pedestrian plaza 29. Integrated redevelopment 30. Adjusts corner cut-off, Builds a crossroads plaza 31. Expands market improvement project 32. Introduces street-friendly uses on the streets of Cheonggyecheon 33. Adjusts corner cut-off on Euljiro streets 34. Adjusts corner cut-off, Forms a crossroads square 35. Secures open streets and improves traffic system 36. Assimilates the influences of Seun arcade and Cheonggye- | <ul style="list-style-type: none"> cheon 37. Transforms the downtown (Meokjagolmok) into a tourist attraction 38. Arranges Gwangjang Market 12 doors and side streets 39. Drives a project to improve the market environment 40. Maintains and reinforces riverside industries 41. Sites of Pyonghwa Market 42. Supports voluntary renewal 43. Maintains and reinforces the characteristics of book stores in Daehakcheon 44. Sites of engineer group 45. Sites of Hullyeonwon Park 46. Builds parking lot/ rest place for citizens | <ul style="list-style-type: none"> 47. Builds commercial streets that connect Dongdaemun Fashion Town and sites of engineer group 48. National Medical Center sites 49. Park development in Dongdaemun neighbourhood 50. Review the redevelopment of decrepit streets 51. Stationery & toys alley 52. Implements the project of improving the traditional shoes market 53. Reviews a redevelopment plan when moving Dongdaemun shoes shop and stationery & toy shop 54. Utilizes the sites of mobile police regiment 55. Improves the walking environment along Heunginmun-ro 56. Sites of Dongdaemun Stadium |
|---|--|---|--|---|

Figure 2.3. Guide on the Management of Cheonggyecheon Neighbourhood. (2007) published by The Seoul Institute.

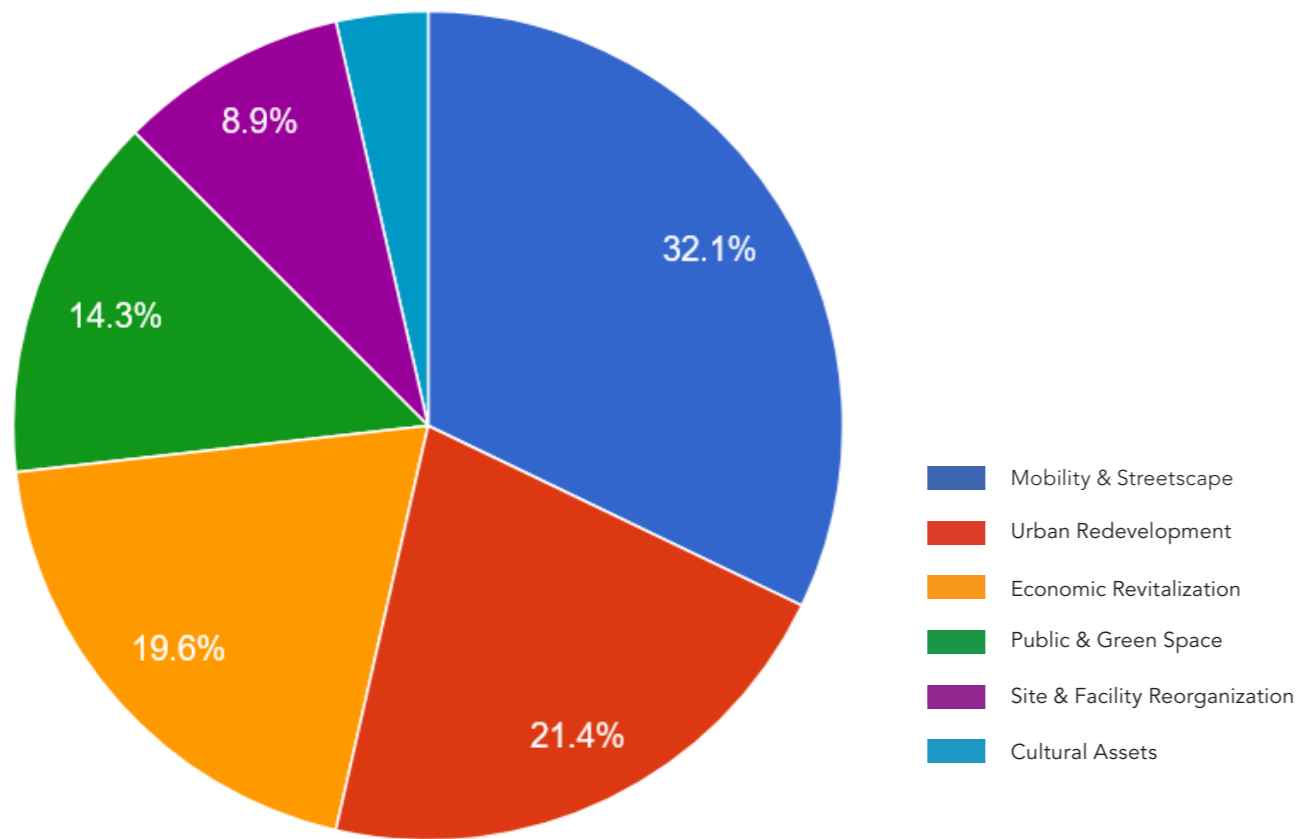


Figure 2.4. Key domains of intervention in the Cheonggyecheon Restoration Project (2025) Created by the author.

Based on the categorization of the Cheonggyecheon Restoration Project's interventions into six major themes, Mobility & Streetscape accounts for the largest share, followed by Urban Redevelopment and Economic Revitalization (see Figure 2.4).

Although macro-scale analysis shows a high concentration of interventions around the stream, this does not guarantee spatial integration. The term itself requires clarification, whether it means physical connectivity, functional linkage, or other forms of micro-scale interaction. As discussed in Chapter 1, the project must be evaluated from both macro and micro perspectives. These interventions should be critically assessed to determine whether they have addressed the disconnections between the restored stream and the historical urban fabric.

Mobility & Streetscape	
2	Improvement of streets in Mugyodong-gil
6	Forms corner cut-off
11	Adjusts corner cut-off
12	Drives a project that improves the streets of residents-led stores
13	Revitalizes streets along Cheonggyecheon
18	Maintenance of Pimatgil
19	Builds fire-fighting roads
20	Repairs streets in Supyogyo-gil
21	Revitalizes streets along Cheonggyecheon
22	Builds commercial roads along Cheonggyecheon
24	Improves walking environment in Donhwamun-gil
30	Adjusts corner cut-off, builds a crossroads plaza
32	Introducing street-friendly uses on the streets of Cheonggyecheon
33	Adjusts corner cut-off on Euljiro streets
34	Adjusts corner cut-off, forms a crossroads square
35	Secures open streets and improves traffic system
47	Builds commercial streets that connect Dongdaemun Fashion Town and sites of engineer group
55	Improves the walking environment along Heunginmun-ro

Urban Redevelopment	
4	Drives redevelopment project in Dadong area
8	Readjustment of redevelopment business district
15	Promotes redevelopment project in Samgak-dong
16	Drives private-public partnership project in Cheonggyecheon
17	Encourages renewal led by the private sector
23	Induces the urban residential function in Janggyo redevelopment district
25	Reviews designation of redevelopment areas
29	Integrated redevelopment
36	Assimilates the influences of Seun arcade and Cheonggyecheon
42	Supports voluntary renewal
50	Review the redevelopment of decrepit streets
53	Reviews a redevelopment plan when moving Dongdaemun shoes shop and stationery & toy shop

Economic Revitalization	
31	Expands market improvement project
37	Transforms the downtown (Meokjagolmok) into a tourist attraction
38	Arranges Gwangjang Market 12 doors and side streets
39	Drives a project to improve the market environment
40	Maintains and reinforces riverside industries
41	Sites of Pyounghwa Market
43	Maintains and reinforces the characteristics of book stores in Daehakcheon
44	Sites of engineer group
45	Sites of Hullyeonwon Park
51	Stationery & toys alley
52	Implements the project of improving the traditional shoes market

Public & Green Space	
1	Open space in front of Cheonggyecheon
3	Builds Dadong Park
7	Builds a park in the neighbor Jonggak
14	Builds rest space near Cheonggyecheon
26	Secures open space along Cheonggyecheon
27	Builds green network
28	Builds a pedestrian plaza
49	Park development in Dongdaemun neighborhood

Site & Facility Reorganization	
5	Parking lot
46	Builds parking lot / rest place for citizens
48	National Medical Center sites
54	Utilizes the sites of mobile police regiment
56	Sites of Dongdaemun Stadium

Historical Assets	
9	Preserves Gwangtonggwon
10	Marks waterway of Samgakcheon

2.2 Micro-scale analysis

As seen in the macro analysis, a more focused examination is needed to reassess the restoration's spatial impact. In particular, the streetscape interventions, one of the most actively implemented components, must be evaluated for their effectiveness at the micro scale. As Kim (2020) notes, elevated roads and commercial infrastructure continue to act as physical and visual barriers, separating the stream from its surroundings and reducing it to an isolated landscape element (p. 17). Survey data also indicates weak integration with adjacent commercial areas and a perception of the space as artificial and disconnected from the city's cultural context (Kwak & Kang, 2008).

Although the project re-established Cheonggyecheon as a prominent urban feature, it lacks spatial and historical continuity, particularly in its failure to reconstruct micro-scale urban relationships. Traditionally, the close proximity between waterways, buildings, and pedestrian paths enabled direct interaction, but the current restoration lacks this integration. A more quantitative assessment of spatial distances is needed to measure this disconnect objectively.

1. Physical Barriers and Spatial Disconnection

One of the most evident issues is the physical distance between the stream and nearby buildings. As illustrated in Figure 2.6, this disconnection is visible both vertically and horizontally. The lowered stream-bed sits around 6 meters below street level, blocking visual and spatial continuity. Horizontally, the distance to adjacent buildings reaches up to 20 meters, eliminating the direct interface that once enabled domestic or commercial interaction. This gap raises critical questions about why such separations were introduced and how they obstruct spontaneous spatial experience. The restored stream no longer supports adaptive uses or architectural connections; instead, it presents a visually maintained water flow, reliant on 120,000 tons of artificially circulated water daily. As a result, Cheonggyecheon offers a fragmented urban experience, more symbolic than functionally integrated.

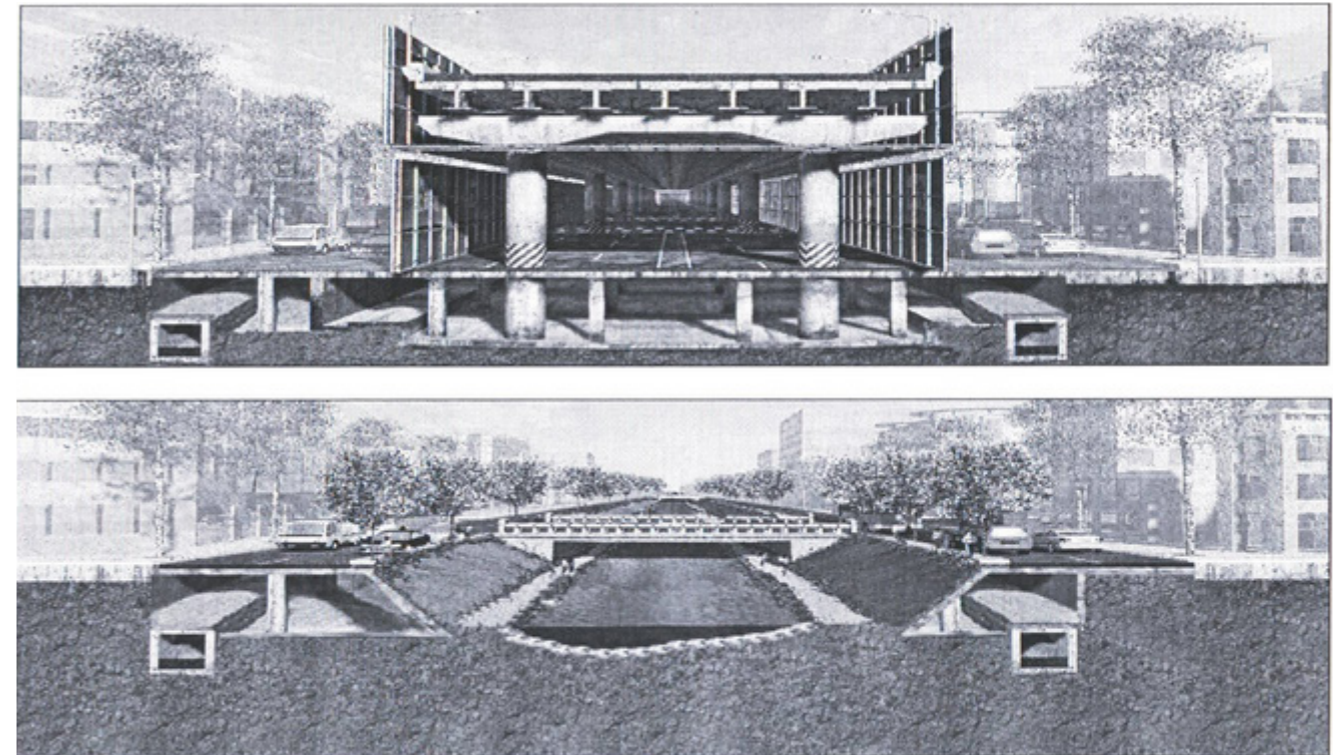


Figure 2.5.

Cheonggyecheon overpass demolition and stream restoration initiative

Section drawing from Report on the implementation of the Cheonggyecheon restoration project (2003), Office for Government Policy Coordination, Economic Policy Coordination Office, Agricultural, Fishery, and Construction Deliberation Division.

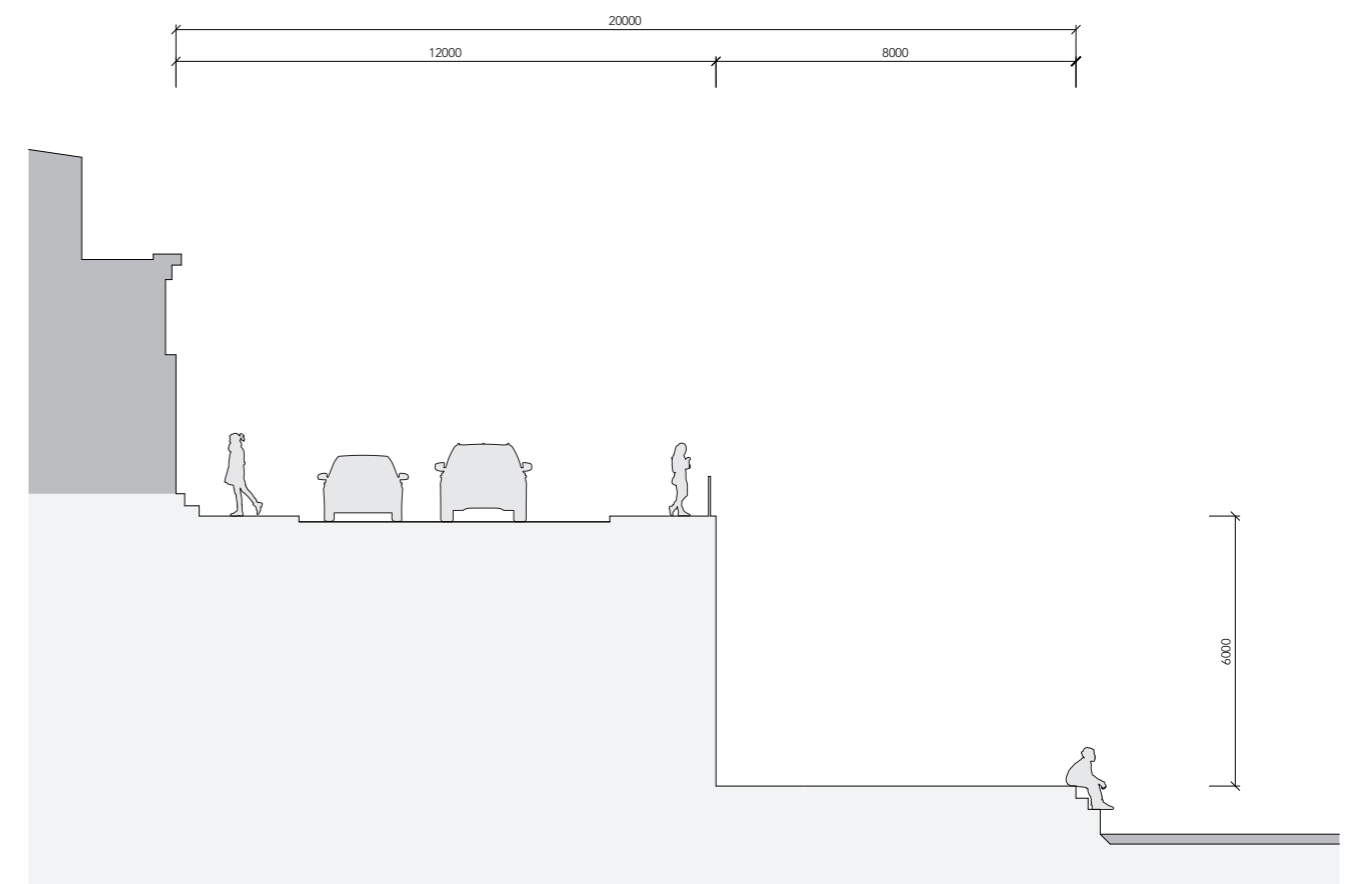


Figure 2.6.

Section Drawing of Cheonggyecheon (2025).

Digital drawing by the author.



Figure 2.7
Buildings being demolished during the Cheonggyecheon restoration. (ca. 2005).
 Photograph by Ingi Choi, from *People of the Cheonggye Stream – Place of Life and Struggle* (2018).

2. Displacement of Traditional Industries and Gentrification

Another key factor in spatial disconnection lies in the redevelopment process itself. As shown in Figure 2.4, Urban Redevelopment and Economic Revitalization together accounted for around 40% of the Cheonggyecheon Restoration Project's interventions. While the restored stream attracted many visitors, these were mostly tourists rather than customers supporting nearby traditional industries (Seoul Museum of History, 2010, p. 129).

This raises the need to examine how redevelopment and commercial revitalization unfolded alongside restoration. The project has been criticized for neglecting equity, particularly through gentrification and the exclusion of local stakeholders (Kim & Jung, 2019, pp. 64–65). Rather than reinforcing inclusive, micro-scale revitalization, the project prioritized symbolic aesthetics, overlooking long-standing working-class industries. The removal of small-scale businesses beneath the overpass, where such activity had endured for decades, ultimately reduced public accessibility and displaced key local functions.

Ironically, many traditional industries that had survived even during the stream's burial were erased in the name of restoration. Although exhibitions and photo archives (see Figures 2.7 & 2.8) have documented these communities, no substantial response has been implemented. This prolonged historical gap risks gradually erasing the spatial memory of the area, and reflects how the absence of micro-scale restoration continues to endanger the historical layers embedded in the site.

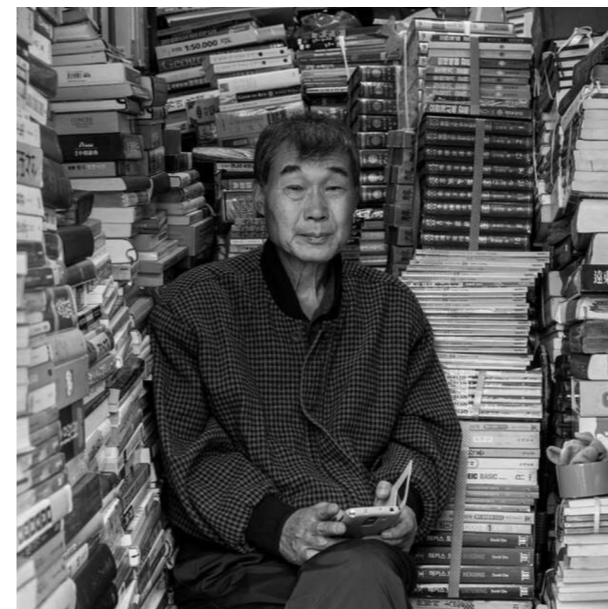


Figure 2.8 *Collection of photograph Small-scale manufacturing shops and production scenes* (2018).

Photograph by Ingi Choi, from *People of the Cheonggye Stream – Place of Life and Struggle*.

Chapter 3 - Opportunities of buried waterways : the case of Baekundongcheon

3.1 Streams without water: architectural and cultural traces of buried tributaries

Cheonggyecheon's restoration is now nearing its twentieth anniversary. As mentioned earlier, there has already been extensive discussion about its implications, ranging from urban planning to cultural heritage. Yet the debate over Cheonggyecheon's historical "authenticity" continues to raise questions about how faithfully this urban stream has been restored.

This chapter takes a closer look at the micro-level changes that occurred under the covering. Specifically, it examines how certain areas managed to survive in modified forms or were replaced altogether along the stream. By interrogating on these lesser-known transformations, it becomes possible to trace the subtle but persistent imprints of everyday life that remain despite large-scale infrastructure projects.

In this context, Baekundongcheon offers a key example. Historically, it provided a major water source for Cheonggyecheon and flowed near Korea's Royal Palace, (See Figures 3.1&3.2) giving it substantial importance both politically and culturally. Even after Baekundongcheon was covered, the surrounding neighborhoods underwent multiple waves of reorganization. This chapter seeks that large construction project does not necessarily erase the spatial aspects from local economies or cultural traditions but rather reshapes them in unexpected ways. It may even be seen as an opportunity to observe which spatial elements managed to survive or were reshaped in the process. To address these questions, it is necessary to pay meticulous attention to the spaces that emerged from local residents, small businesses, and everyday practices as they adapted to massive changes in their immediate environment.

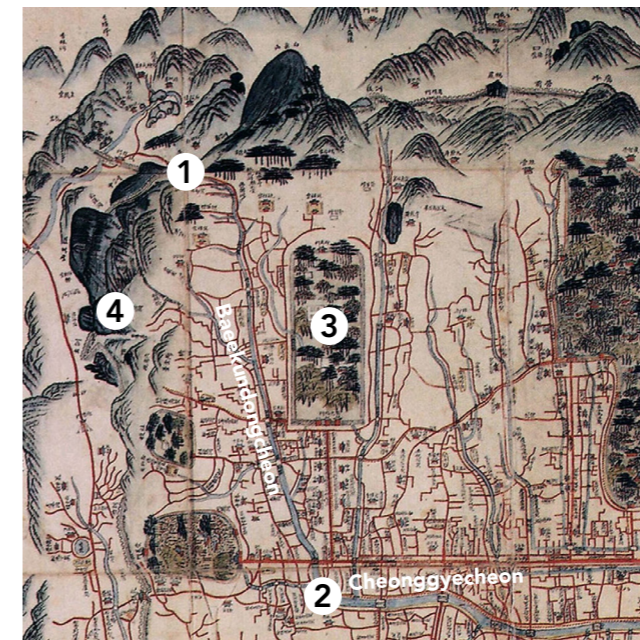


Figure 3.1 Old Seoul map (1770s)

Annotated by the author. Map from the collection of the Leeum, Samsung Museum of Art.



Figure 3.2 Current Seoul map (2025)

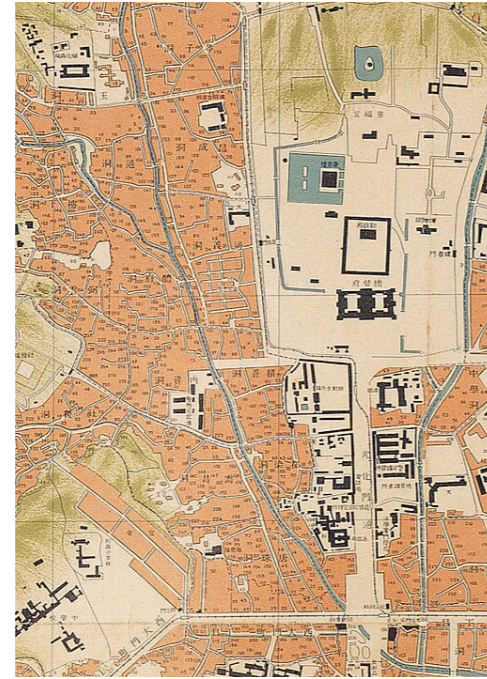
Map data ©2025 Google. Retrieved from <https://www.google.com/maps>

1. Source point of Baekundongcheon
2. Confluence point of Cheonggyecheon
3. Korean Royal Palace
4. Inwang Mountain

3.2 Macro analysis: Spatial transformation through stream coverage



1750s



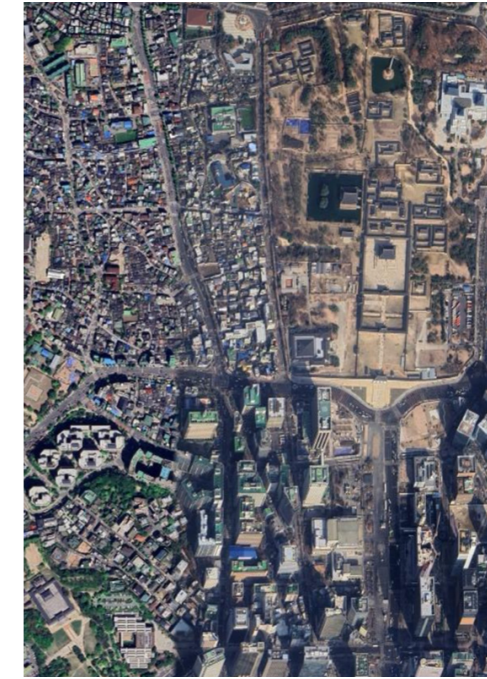
1927
(Coverage)

Figure 3.3

Doseong daejido (partial map 4: Gyeongbokgung and Sajikdan area), 18th century. Archive no. srd-415252, object no. 서14165. Source: Collection of Cultural Relics Vol. 13 – Masterpieces of Hanyang, Seoul Museum of History, 2022.

Figure 3.4

Gyeongseong sigado (Gwanghwamun-ro area, 1927). Archive no. H-TRNS-67565-785, object no. 서253. Source: Seoul maps (2006, p. 163).



2025

Figure 3.5

Satellite image of Baekundongcheon and surrounding area. Image captured from Google Earth, March 2025. © 2025 Google. <https://earth.google.com>



2025

Highlighted area indicates the covered stream

In order to conduct a macro analysis, it is first necessary to examine the spatial configuration of the city both before and after the covering of the stream. This is done through the analysis of the distribution of streets, building layouts, and property boundary structures.

A comparison of maps including a map from the 1750s, a 1927 cadastral map created during the Japanese colonial period when the stream was first covered, and a current map from 2025 demonstrates that the urban fabric surrounding Baekundongcheon has maintained a strong degree of continuity. As can be seen in the cadastral map, many buildings emerged along the stream, and despite the passage of over 275 years, the structure of the city has remained remarkably consistent. Although the area has undergone significant historical events from the colonial era to modern urbanization, the overall urban framework has largely been preserved (see Figures 3.3, 3.4, and 3.5).

3.3 Micro analysis: Historical continuity through analysis of alleys and architecture

The purpose of micro-scale analysis in this chapter is to revisit spatial traces and elements that were previously overlooked during the analysis of Cheonggyecheon's restoration in Chapter 2. Specifically, the investigation examines how local alleyways, buildings, and surrounding architectural configurations have endured over time, revealing subtle yet continuous traces of the stream's historical presence. By closely exploring these spaces, it seeks to uncover how former spatial practices embedded in everyday life still resonate in the current urban fabric.

Figure 3.6 was originally created to illustrate the degree of hanok and alleyway preservation, but in this study, it is reinterpreted through the perspective of water flow to trace hydrological influence on urban form. To support this reinterpretation, historical stream lines from earlier maps have been overlaid in blue onto Figure 3.6. By re-examining the map, it can be clearly observed that many of the streets have developed in close alignment with the course of the stream. This spatial relationship is not coincidental; it reflects how the presence of the waterway fundamentally shaped the formation of pathways. For example, in Figure 3.7, this area highlights a small tributary that boldly curves. This curved waterway directly corresponds to a similarly winding red street line, indicating a well-preserved path shaped by the stream. The area extending along the horizontal axis on the map from this curved section represents a narrow alley market, which has developed linearly along the stream's bend and continues to function today as a small arcade-like marketplace composed of tiny shops (see Figure 3.8). Moreover, the lands shaped by the tributary's contour are visibly preserved along the stream boundary, suggesting that the architectural layout was directly shaped by the flow of water. Around these lots, several small dead-end alleyways have also formed along with a dozens of hanok houses. This example shows the close relationship between the historical waterway, the linear arrangement of micro-scale shops, and the preserved architecture situated along the stream. This implies that the stream's spatial influence shapes not only the built environment but also patterns of preservation, continuity, and community life in the long term.

Area B in Figure 3.6 is where the smallest tributary of Baekundongcheon once flowed. This area is also examined in greater depth to understand how the relationship between the buried waterway, the alleyways, and preserved architecture continues to shape the present-day urban context.

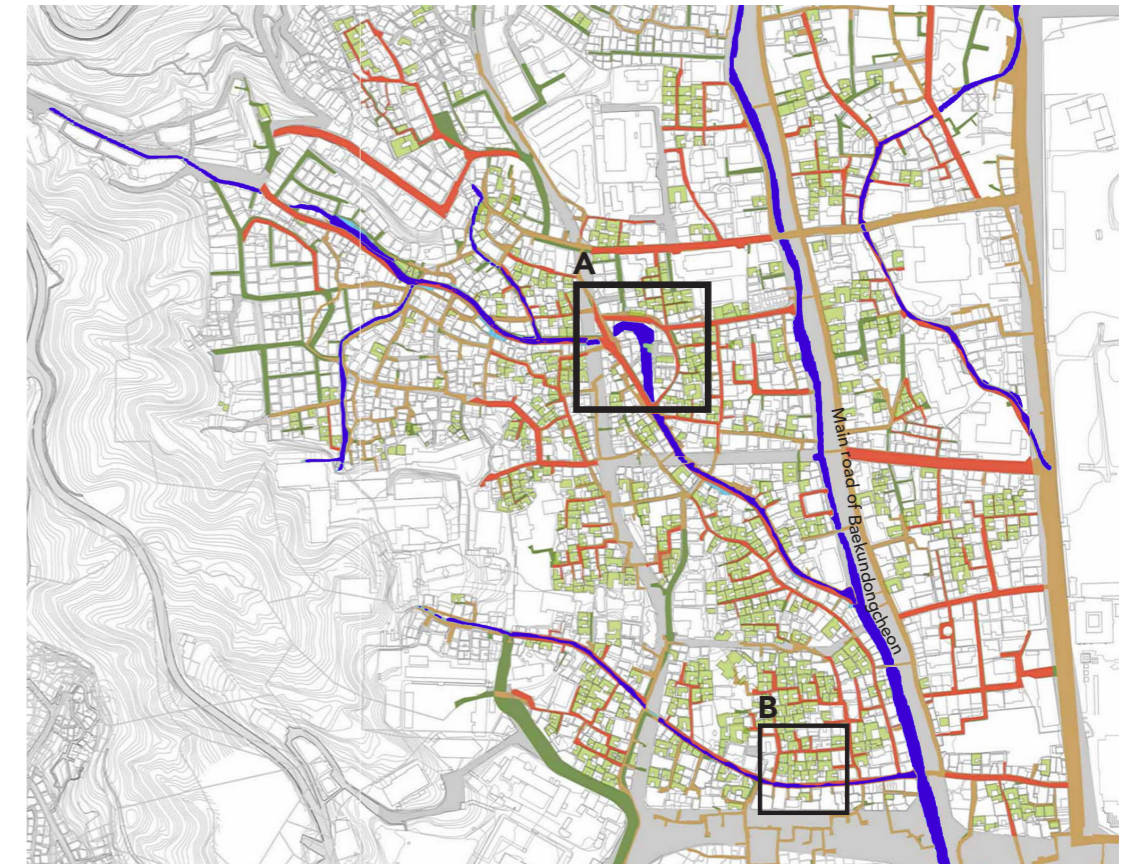


Figure 3.6

Alleyway Condition Survey Map(2010)

Modified from *Seochon: The Transformation of Historical Landscape and Urban Structure* (Seoul Museum of History, 2010).

- Covered stream
- Well-preserved streets
- Hanok (Traditional Korean houses)

The red lines indicate historically well-preserved alleyways, and the light green areas mark zones where hanok (traditional Korean houses) have been preserved, based on a comprehensive evaluation by the Seoul Museum of History. Blue waterway annotations and labels were added by the author to reinterpret the map in relation to hydrological influence on the urban form.

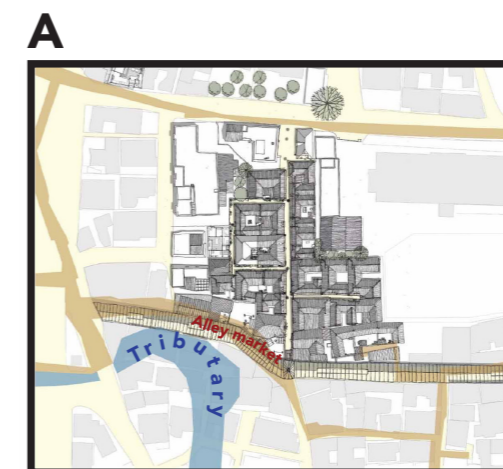


Figure 3.7

Alleyway Map A



Figure 3.8

Photography of alleyway market

Seochon: The Transformation of Historical Landscape and Urban Structure (Seoul Museum of History, 2010). Text annotations added by the author.

Image retrieved from Tongin Market Official Website (<https://tonginmarket.modoo.at/?link=e2k5lpn4>)



Figure 3.9(a)

Figure 3.9(b)

(a) Enlarged view of a selected street segment from the Doseong Daejido (18th century), with the historical road highlighted in red.

(b) Google Earth satellite image of the same area in 2025, with the corresponding street highlighted in red.

The comparison highlights the continuity of the historical road alignment, which followed the path of a stream visible in the historical map and remains embedded in the present-day urban layout.

Sources: Seoul Museum of History (a); Google Earth, captured April 2025 (b). Annotations by the author.

As shown in Figure 3.9, the alleyway appears to have formed along a tributary descending from the ridgeline on the left. A comparison between the 1750s map and the 2025 map shows that this street has consistently remained in place, functioning as a continuous axis of movement over time. It has long served as a main road shaped by the trajectory of the tributary.

The same tributary can also be seen at the bottom of the map in Figure 3.10, highlighted in blue, according to research conducted by the Seoul Museum of History (2010). The current road appears to have developed on both sides of the former streambed even after it was covered. This supports the idea that the waterway continued to influence spatial organization, even after its physical form disappeared. Notably, along north side of the former stream path, a dense row of hanok (traditional Korean houses), marked with hatching on the map, can be observed. This configuration suggests that the waterway not only influenced early residential development but also laid the foundation for the formation of the commercial alley that exists today.

The influence of the stream has persisted beyond its physical presence. The surrounding area shows a clear continuity of narrow alleyways that appear to have emerged organically. These alleys, most of which are dead-end, maintain a width of approximately 2 to 3 meters and are shared by clusters of preserved houses. This spatial arrangement implies a form of community-based living, where the alleys function as semi-public spaces shared among a few neighbours.

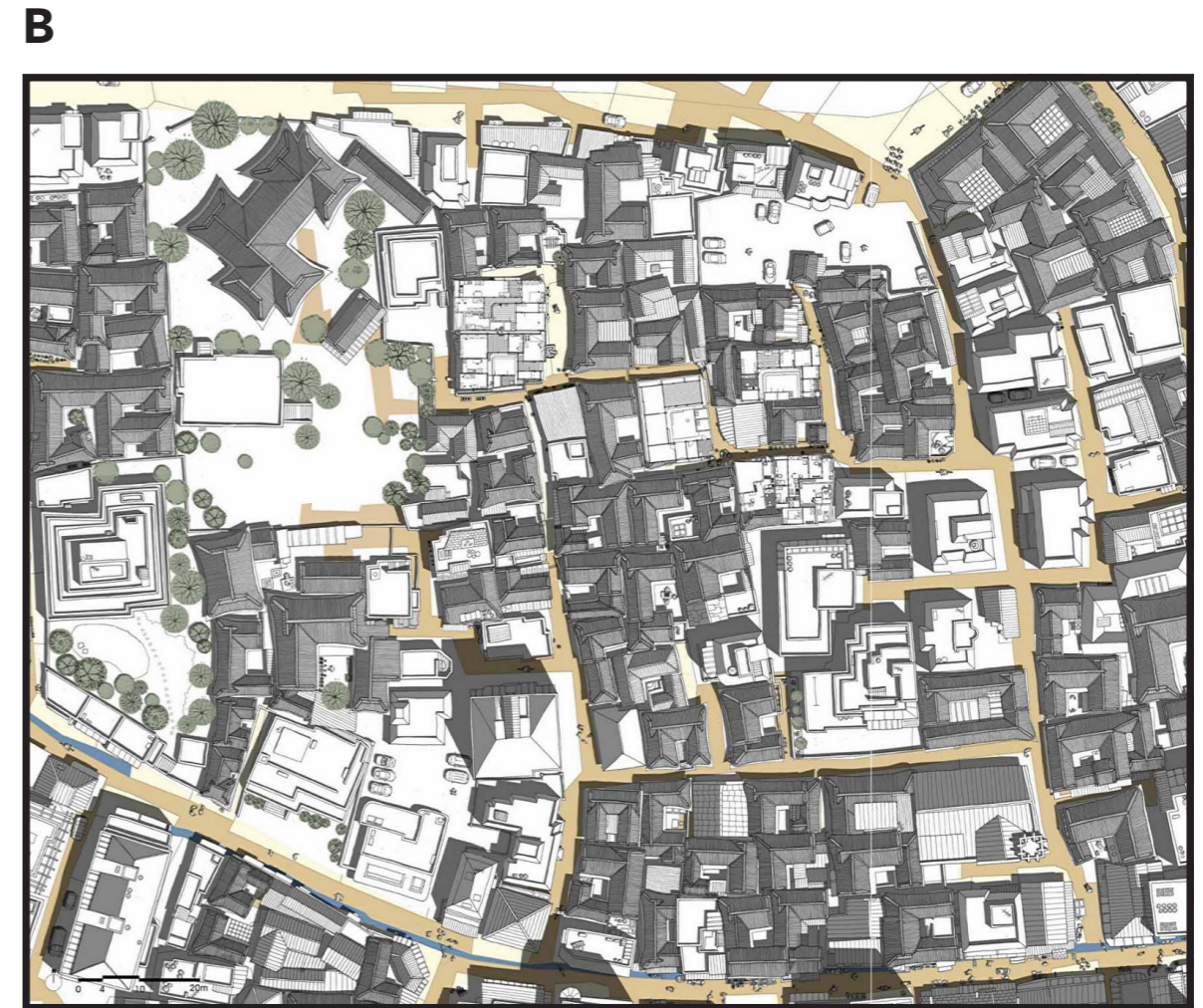


Figure 3.10

Alleyway Map B

Map from Seochon: The Transformation of Historical Landscape and Urban Structure. Seoul Museum of History.



Figure 3.11

Alleyway photo of B area (2021).

Image captured from Road View on Kakao Map. © Kakao Corp.

As shown in Figure 3.11, the path of this former tributary has evolved into a commercial alleyway that is now preserved as the village's designated food culture street. Along this path, long-standing small-scale vendors are densely concentrated, stretching continuously to the end of the street. On the left side of the image, the traditional roof lines of hanok (Korean traditional houses) remain clearly visible, reflecting the area's architectural continuity.

The commercial activities often extend beyond the official property boundaries. Street vendors set up displays, and temporary chairs and tables are placed along the edge of the alley, allowing people to dine or rest in the shared public space. This suggests that the surrounding architecture still reflects an ongoing relationship with the covered tributary through its extended use and spatial connection. In recognition of these spatial practices, the area was designated as a pedestrian-only street in 2023 to support both preservation and communal use (Yonhap News Agency, 2023).

This spatial configuration suggests that the stream once attracted both human movement and informal economic activity. As people gathered along the water's edge, small-scale vendors gradually established themselves, creating a mixed-use environment where residential functions, commercial practices, and pedestrian circulation were closely interacted each other in the same way of old Seoul. The current morphology of the street reflects this layered spatial structure that originated around the stream.

As shown in Figure 3.12, residential zones are located directly behind the commercial alley, indicating a spatial relationship of coexistence between daily life and street-based activity. Many of the hanok in this area are estimated to be around 100 years old, which implies that both the alley and its built environment were shaped prior to the covering of the stream. This supports the idea that the presence of the stream influenced the emergence of diverse urban programs, such as, residential, commercial and circulation, which continue to define the spatial character of the neighborhood today.

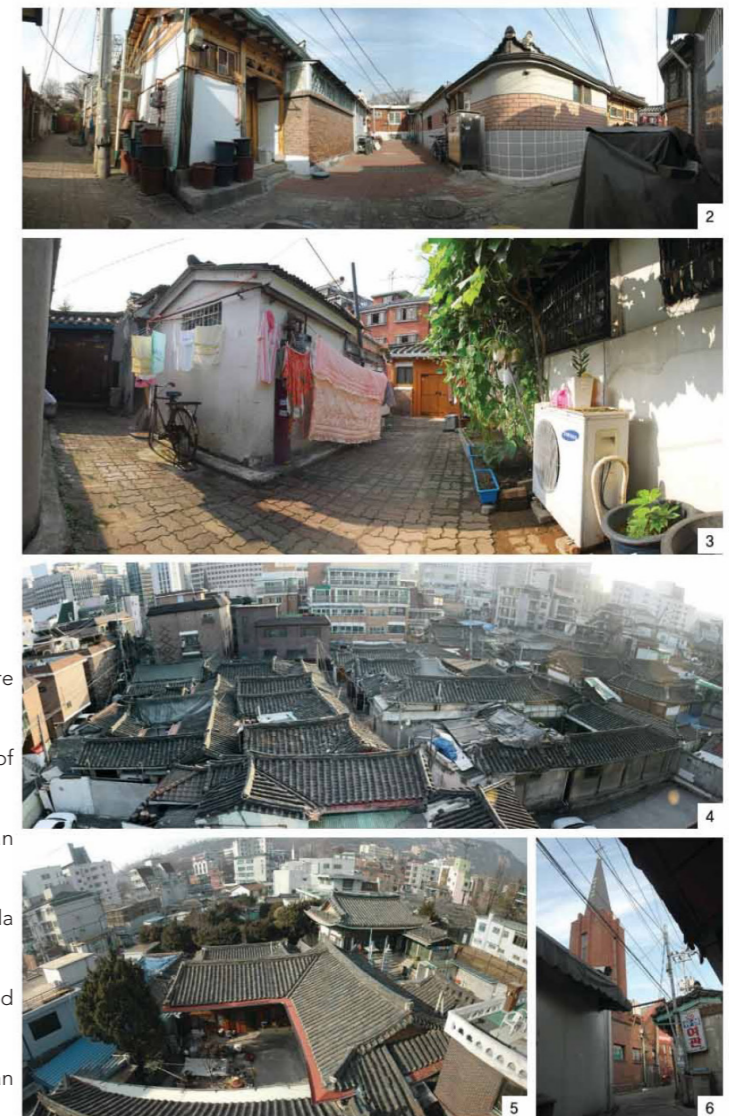


Figure 3.12

Alleyway photos of B area(2010).

2. The dead-end alley is used as a communal space where residents dry red peppers on sunny days.

3. Laundry is hung on lines attached to the wall at the end of the alley.

4. View from above: a cluster of hanok (traditional Korean houses) is visible.

5. View of old temple and the adjacent hanok. A stone pagoda is visible in the courtyard.

6. At the entrance of the alley facing the market, a 90-year-old hanok inn and a red-brick church are located.

Source: The Transformation of Historical Landscape and Urban Structure (2010). Seoul Museum of History.

Conclusion

Urban stream restoration efforts are often recognized for their contributions at a macro scale, yet this research argues that they tend to neglect the smaller-scale spatial dynamics and historical continuities embedded in the urban fabric. As observed through the Cheonggyecheon restoration project, physical revival alone does not necessarily restore the finer spatial relationships and localized architectural characteristics that historically defined urban waterways. While Cheonggyecheon has become a celebrated urban landmark, this research illustrates that its restoration ironically displaced the rich social, cultural, and architectural connections previously embedded in its adjacent spaces.

By examining Baekundongcheon, a significant yet still-buried tributary, this research highlights the subtle but enduring spatial interactions that persisted even after covering the stream. Small-scale urban forms such as narrow alleyways, preserved hanok clusters, and spontaneous commercial activities emerged historically along the water's course and continue to reflect its influence, offering insight into how spatial characteristics associated with the stream have been sustained through everyday practices. Rather than explicitly proposing that restoration must occur, this research demonstrates how recognizing and preserving these micro-scale spatial relationships can potentially lead to more meaningful urban revitalization.

Specifically, the contrast between Cheonggyecheon's large-scale restoration and the micro-scale conditions around Baekundongcheon reveals an important lesson: urban streams historically functioned not merely as hydrological entities but as intricate frameworks interwoven with communal, architectural, and social activities. The restoration of Cheonggyecheon, while symbolically recovering the waterway, missed an opportunity to reconnect with these smaller-scale urban practices, inadvertently isolating the stream from its surrounding context and weakening the historical authenticity of the area.

From this perspective, restoration should be reconsidered as an approach to spatial recovery rather than simply uncovering buried waterways. By paying closer attention to the historically evolved spatial and social structures surrounding streams, future urban projects can achieve greater coherence with their historical environments. This would involve not only recovering physical water bodies but carefully reintegrating architectural forms, communal spaces, and everyday practices into a coherent urban narrative. Rather than advocating prescriptive interventions, this research suggests that observing and documenting these micro-scale interactions could offer a richer foundation for understanding the potential and limitations of restoration efforts.

Ultimately, this research emphasizes that urban streams and their surrounding urban fabrics have always been mutually dependent, shaping and reinforcing one another through continuous spatial interactions. Recognizing the value of this interdependence at a micro scale can enrich the discussion on urban restoration, ensuring that future developments might better preserve historical authenticity, spatial coherence, and cultural continuity.

List of Figures

Museum & Archive

Figure 1.1
Ho-Am Art Museum. (1770s). Map of Hanyangdoseong [Map]. Ho-Am Art Museum.

Figure 1.3
Woman's Foreign Missionary Society, Methodist Episcopal Church. (1916). Stone stepping bridge in Korea, with women crossing after service [Photograph]. Seoul Museum of History Archive. Archive no. H-TRNS-75478-851. https://museum.seoul.go.kr/archive/archiveNew/NR_archiveView.do?ctgryId=CTGRY851&type=D&upperNodeId=CTGRY851&fileSn=300&fileId=H-TRNS-75478-851

Figure 3.1
Leeum, Samsung Museum of Art. (1770). Old Seoul map [Map].

Figure 3.3
Seoul Museum of History. (2022). Collection of cultural relics Vol. 13 – Masterpieces of Hanyang [Map: Doseong daejido, partial map 4, Gyeongbokgung and Sajikdan area, 18th century, archive no. srd-415252, object no. 서14165].

Figure 3.4
Seoul Museum of History. (2006). Seoul maps (p. 163) [Map: Gyeongseong sigado, Gwanghwamun-ro area, 1927, archive no. H-TRNS-67565-785, object no. 서253].

Figure 3.6
Seoul Museum of History. (2010). Seochon: The transformation of historical landscape and urban structure [Map]. Modified and annotated by the author.

Figure 3.7
Seoul Museum of History. (2010). Seochon: The transformation of historical landscape and urban structure [Map]. Modified and annotated by the author.

Figure 3.10
Seoul Museum of History. (2010). Seochon: The transformation of historical landscape and urban structure [Map].

Figure 3.11
Seoul Museum of History. (2010). Seochon: The transformation of historical landscape and urban structure

[Map]. Annotated by the author.

Figure 3.12
Seoul Museum of History. (2010). The transformation of historical landscape and urban structure [Photographs].

Government & Public Institutions

Figure 1.5
Cultural Heritage Administration. (2006). Photograph of Samcheongdongcheon stream beside Dongshipjagak, circa 1920 [Photograph]. https://www.cha.go.kr/cop/bbs/selectBoardArticle.do?nttlId=20809&bbsId=BBSMSTR_1021

Figure 1.10
Seoul Metropolitan Government. (1972). Informal structures along Cheonggyecheon [Photograph, archive no. 24620894]. Seoul Open Data Plaza. <https://opengov.seoul.go.kr/photocollection/24620894>

Figure 2.1
Kim, W.-J. (2015, April 6). Cheonggyecheon restoration (before and after) [Photograph]. In Seoul's park & green space policy changes. SeoulSolution. <https://www.seoulsolution.kr/ko/node/3027>

Figure 2.2
Seoul Metropolitan Government. (2007). Cheonggyecheon Restoration from July 2003 to September 2005 [Internal research report]. The Seoul Institute. <https://data.si.re.kr/data/%EC%A7%80%EB%8F%84%EB%A1%9C-%EB%B3%B8-%EC%84%9C%EC%9A%B8-2007/190>

Figure 2.3
Seoul Metropolitan Government. (2007). Guide on the Management of Cheonggyecheon Neighbourhood [Internal research report]. The Seoul Institute. <https://data.si.re.kr/data/%EC%A7%80%EB%8F%84%EB%A1%9C-%EB%B3%B8-%EC%84%9C%EC%9A%B8-2007/190>

Figure 2.5
Office for Government Policy Coordination, Economic Policy Coordination Office, Agricultural, Fishery, and Construction Deliberation Division. (2003). Report on the implementation of the Cheonggyecheon restoration project [Section drawing]. National Archives of Korea. <https://theme.archives.go.kr/viewer/common/archWebViewer>.

News Media

Figure 1.6
Dong-A Ilbo. (1923, October 26). Koreans are gradually declining in Seoul as the influence of the Japanese continues to grow... [Newspaper clipping].

Figure 1.11
Kukmin Ilbo. (2020, March 18). [Curious about Art] Indoor golf course in the late 1960s... The rise and fall of Korea's first mixed-use residential-commercial complex [Photograph]. <https://www.kmib.co.kr/article/view.asp?arcid=0014371459>

Figure 1.12
Noh, J. (2018, December 18). Goodbye to Sewoon Sangga, the symbol of 40 years of modernization [Photograph]. Kyunghyang Shinmun. <https://www.khan.co.kr/article/201812180010001>

Map Platforms & Satellite Images

Figure 3.2
Google. (2025). Google Maps [Map]. Retrieved from <https://www.google.com/maps>

Figure 3.5
Google. (2025, March). Baekundongcheon and surrounding area [Satellite image]. Google Earth. <https://earth.google.com>

Figure 3.9b
Google. (2025, March). Satellite image of Baekundongcheon area [Satellite image]. Google Earth. Annotated by the author. <https://earth.google.com>

Figure 3.10b
Google. (2025, March). Satellite image of Baekundongcheon area [Satellite image]. Google Earth. Annotated by the author. <https://earth.google.com>

Figure 3.11
Kakao Corp. (2021). Alleyway photo of B area [Road View image]. Kakao Map. Retrieved from <https://map.kakao.com>

Commercial Site

Figure 3.8
Tongin Market. (n.d.). Photograph of alleyway market

[Photograph]. Retrieved April 16, 2025, from <https://tonginmarket.modoo.at/?link=ezk5lpn4>

Exhibition Catalogue / Book

Figure 2.7
Choi, I. (2018). People of the Cheonggye Stream – Place of Life and Struggle [Photograph]. The Stream Publishing.

Figure 2.8
Choi, I. (2018). People of the Cheonggye Stream – Place of Life and Struggle [Photograph]. The Stream Publishing.

Figure 1.8
Lim, I.-S. (1953). Children sledding beside Supyogyo Bridge in Cheonggyecheon, winter 1953 [Photograph]. In That Seoul of Those Days (Special exhibition, Dec 15, 2023–Mar 10, 2024). Seoul Museum of History.

Figure 1.9
Lim, I.-S. (1957). Woman selling iced tea on the sandy banks of the Han River (Ttukseom) [Photograph]. In That Seoul of Those Days (Special exhibition, Dec 15, 2023–Mar 10, 2024). Seoul Museum of History.

Personal Works

Figure 1.2
Yun, S. (2025). Reinterpretation of the map of Hanyangdoseong [Digital drawing].

Figure 1.7
Yun, S. (2025). Redrawing of colonial-era land registry highlighting Japanese government ownership [Digital drawing]. Based on land ownership record of Gyeongseong-bu, 1917–1927, in Cheonggyecheon Museum. (2017). Baekundongcheon Stream: A stream turning at every corner and into the clouds [Exhibition catalogue].

Figure 2.4
Yun, S. (2025). Key domains of intervention in the Cheonggyecheon Restoration Project [Figure]. Created by the author.

Bibliography

- Baik, S.-H., Rha, D.-S., Bae, S.-M., & Lee, B.-K. (2006). *A study on the cultural behavior in Chunggyecheon area*. The Seoul Institute.
- Choi, I. (2018). *People of the Cheonggye Stream – Place of Life and Struggle* [Photograph]. The Stream Publishing.
- Cultural Heritage Administration. (2006). *Photograph of Samcheongdongcheon stream beside Dongshipjagak, circa 1920* [Photograph]. https://www.cha.go.kr/cop/bbs/selectBoardArticle.do?nttlId=20809&bbsId=BBSMSTR_1021
- Dong-A Ilbo. (1923, October 26). *Koreans are gradually declining in Seoul as the influence of the Japanese continues to grow...* [Newspaper clipping].
- Google. (2025). *Google Maps* [Map]. Retrieved from <https://www.google.com/maps>
- Google. (2025, March). *Baekundongcheon and surrounding area* [Satellite image]. Google Earth. <https://earth.google.com>
- Google. (2025, March). *Satellite image of Baekundongcheon area* [Satellite image]. Google Earth. Annotated by the author. <https://earth.google.com>
- Ho-Am Art Museum. (1770s). *Map of Hanyangdoseong* [Map]. Ho-Am Art Museum.
- Kakao Corp. (2021). *Alleyway photo of B area* [Road View image]. Kakao Map. Retrieved from <https://map.kakao.com>
- Kim, E. J. (2020). The historical landscape: Evoking the past in a landscape for the future in the Cheonggyecheon reconstruction in South Korea. *Humanities*, 9(3), 113. <https://doi.org/10.3390/h9030113>
- Kim, H., & Jung, Y. (2019). Is Cheonggyecheon sustainable? A systematic literature review of a stream restoration in Seoul, South Korea. *Sustainable Cities and Society*, 45, 59–69. <https://doi.org/10.1016/j.scs.2018.11.018>
- Kim, H.-S. (2007). Modernity revealed in urban planning in the era of Japanese colonist rule: A review on Chosun planning ordinance for urban areas. *Seoul Urban Studies*, 8(4), 169.
- Kim, W.-J. (2015, April 6). Cheonggyecheon restoration (before and after) [Photograph]. In *Seoul's park & green space policy changes*. SeoulSolution. <https://www.seoulsolution.kr/ko/node/3027>
- Kukmin Ilbo. (2020, March 18). [Curious about Art] Indoor golf course in the late 1960s... *The rise and fall of Korea's first mixed-use residential-commercial complex* [Photograph]. <https://www.kmib.co.kr/article/view.asp?arcid=0014371459>
- Kwak, S. M., & Kang, B. S. (2008). The survey study on ChungGyeCheon users's satisfaction in terms of the utilization aspects of the pedestrian space of the city street. *National Seoul University of Technology, Graduate School of Housing*.
- Lee, K., & Yang, S. (2022). Stream network of Hanyang, a city of water. *Journal of Asian Architecture and Building Engineering*, 21(5), 1754–1761. <https://doi.org/10.1080/13467581.2021.1944164>
- Leeum, Samsung Museum of Art. (1770). *Hanyangdoseongdo* [Map].
- Lim, I.-S. (1953). *Children sledding beside Supyogyo Bridge in Cheonggyecheon, winter 1953* [Photograph]. In *That Seoul of Those Days* (Special exhibition, Dec 15, 2023–Mar 10, 2024). Seoul Museum of History.
- Lim, I.-S. (1957). *Woman selling iced tea on the sandy banks of the Han River (Ttukseom)* [Photograph]. In *That Seoul of Those Days* (Special exhibition, Dec 15, 2023–Mar 10, 2024). Seoul Museum of History.
- Noh, J. (2018, December 18). *Goodbye to Sewoon Sangga, the symbol of 40 years of modernization* [Photograph]. *Kyunghyang Shinmun*. <https://www.khan.co.kr/article/201812180010001>
- Office for Government Policy Coordination, Economic Policy Coordination Office, Agricultural, Fishery, and Construction Deliberation Division. (2003). *Report on the implementation of the Cheonggyecheon restoration project* [Section drawing]. National Archives of Korea. <https://theme.archives.go.kr/viewer/common/archWebViewer>
- Seoul Metropolitan Government. (1972). *Informal structures along Cheonggyecheon* [Photograph, archive no. 24620894]. *Seoul Open Data Plaza*. <https://opengov.seoul.go.kr/photocollection/24620894>
- Seoul Metropolitan Government. (2007). *Cheonggyecheon Restoration from July 2003 to September 2005* [Internal research report]. The Seoul Institute. <https://data.si.re.kr/data/%EC%A7%80%EB%8F%84%EB%A1%9C-%EB%B3%B8-%EC%84%9C%EC%9A%B8-2007/190>
- Seoul Metropolitan Government. (2007). *Guide on the Management of Cheonggyecheon Neighbourhood* [Internal research report]. The Seoul Institute. <https://data.si.re.kr/data/%EC%A7%80%EB%8F%84%EB%A1%9C-%EB%B3%B8-%EC%84%9C%EC%9A%B8-2007/190>
- Seoul Museum of History. (2006). *Seoul maps* (p. 163) [Map: Gyeongseong sigado, Gwanghwamun-ro area, 1927, archive no. H-TRNS-67565-785, object no. 서 253].
- Seoul Museum of History. (2010). *Seochon: The transformation of historical landscape and urban structure* [Maps and Photographs]. Annotated by the author.
- Seoul Museum of History. (2010). *Sewoon Sangga and its neighbours: From the vanguard of industrialization to the electronics market* (Vol. 1). Seoul Museum of History.
- Seoul Museum of History. (2022). *Collection of cultural relics Vol. 13 – Masterpieces of Hanyang* [Map: Doseong daejido, partial map 4, Gyeongbokgung and Sajikdan area, 18th century, archive no. srd-415252, object no. 서14165].
- Tongin Market. (n.d.). *Photograph of alleyway market* [Photograph]. Retrieved April 16, 2025, from <https://tonginmarket.modoo.at/?link=ezk5|pn4>
- Woman's Foreign Missionary Society, Methodist Episcopal Church. (1916). *Stone stepping bridge in Korea, with women crossing after service* [Photograph]. Seoul Museum of History Archive. https://museum.seoul.go.kr/archive/archiveNew/NR_archiveView.do?ctgryId=CTGRY851&type=D&upperNodeId=CTGRY851&fileSn=300&fileId=H-TRNS-75478-851
- Yonhap News Agency. (2023, February 2). *Seoul's Pimatgol alley designated as pedestrian-priority street to preserve historic character*. *Hankyung*. <https://www.hankyung.com/article/202302029678Y>