

IJACT 18-4-18

## Lesson for New Urbanism from the Traditional Space in East Asia

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### Abstract

*Industrialization has accelerated the expansion of mobility to the urban areas, land use for function of residence and consumption. With the urbanization, the management and distribution of the physical space of the city and rational design have also become major issues. Rapid and widespread urbanization has consistently accumulated problems of natural, physical, environmental, and psychological circumstances, and most of urban areas have begun to focus on restoring an efficient, safe and healthy urban environment to improve of the quality of life since the latter half of the 20th century,*

*New-Urbanism is a new urban development paradigm that resembles the practical implications of a shared economy for social, economic and environmental cost reduction.. The geographical significance of the sharing city's concept of the alleys is to revitalize sustainable cities while restoring the attractive elements of the city. This study examines the lessons of New-Urbanism in those traditional urban space comparing with each East Asia's cities such as golmok (alley or backlane) in Seoul, Huton in Beijing, Lilong in Shanghai, and Roji in Japan. This study diagnoses whether main principals of New-Urbanism such as development of good community and walkable pedestrian route, restoration of regional identity and sense of the place, and mitigation of climate change strategy can be practiced in the community of alley as well..*

**Keywords:** *New Urbanism, traditional space, community, golmok, restoration of inner city.*

### 1. Background and Purpose of the Study

North American and Western European cities that experienced industrialization and urbanization, based on the urban decline, suburbanization, and sense of placelessness felt by metropolitan sprawl in the late twentieth century, pursued a systemization of new development principles as a countermeasure to the ruinous environmental effects. The core of North American developmental principles produced the term "new urbanism", while Britain aimed to restore tradition through the "urban village" movement. Tasks with the utmost priority were solutions to the division of communities based on income, spatial disunion of immigrants, surge of childcare and other welfare-related issues as a result of labor expansion, and pollution that was exacerbated by the increasing reliance on cars. Contrary to previous policies that emphasized linear development and economic growth, subsequent fundamental guidelines focused on the interrelation of aforementioned issues. Peter Calthorpe, Andrés Duany, Elizabeth Moule, Elizabeth Plater-Zyberk, Stefanos Polyzoides, and Daniel Solomon are among the pioneering figures of the formulation of new urbanism principles and community formation mode [1] They pointed to several factors of elementary causes of issues regarding the transformation of community development process, which encompasses usage-based zoning system that ignores regional and cultural composition, shifting of family makeups, land use that ignores natural

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Manuscript Received: November 17, 2018 / Revised: November 21, 2018 / Accepted: November 25, 2018

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and materialistic limits for the sake of demands, decreasing density effects from urban sprawl, and standards that is independent of human scale.

Foundational structure of community that is based on new urbanism and urban environmental reforms requires a location delineated by a unique city core, as well as geographical boundaries which are defined by the topography, water system, and natural environment as expressed in precedent research<sup>ii</sup>[2]. Furthermore, development patterns are ideal in the form of neighborhoods and districts that best preserves the grain of the existing city, marked by its environment, locality, and societal structure. In the case of South Korea, China, Japan, and other East Asian countries, old major cities can provide reference to historical patterns and boundary, and thus preservation or restoration are ideal approaches to this matter.

Krigen J.L. and others suggested nine components of city building as paradigm of new urbanism as follows: sustainability, accessibility, diversity, public spaces, harmony and balance, urban regeneration and brownfield utilization, applicability, compactness and density design, and identity. With regards to these, academic references were made to certain cities in East Asia [3]<sup>iii</sup>.

. Throughout the twentieth century, Shanghai and other Asian cities were swept by governmental pressure to expedite urbanization and growth with minimum cost and time. Although major cities in North America and others have coexisted with urban development, some Asian cities faced urban crises such as the lack of infrastructure during large scale expansion and development. These cities have been developing alternative approaches to urban planning with new philosophies in order to find solutions to industrial suburbanization, inefficient cost in undeveloped areas, and pollution; one example of this is Chongming Island, across the bay from Shanghai. With a reminder of the limitations of agricultural production, a history of famine, and the rise of transportation costs, rural preservation was suggested as part of the guideline of urban planning; in this case, the focus were on the functions of Shanghai being increased, while communities and groups were organized in the manner of traditional lifestyles. Ho Chi Minh, Vietnam demonstrated diversity and the maximization of its geographical localities by pledging and implementing waterfront development utilizing the local waterway, as well as expanding footpath and open space. Shanghai, centered around Fudan University, restored accessibility to historical sites and successfully achieved connecting walkways throughout the city. Seoul, after 2010, aimed to restore historical presence and revive the communal identity through regional projects, while tackling issues regarding recycling of industrial-period material and brownfield utilization.[4]<sup>iv</sup> Unorganized urban expansion and static growth, automobile dependence and high cost of accessibility, and decrease in social and communal activity are issues to be solved; the components that cities considered for countermeasures were historical and cultural value, human-scale community, rekindling of local spirit and environmental restoration.

Unlike North American cities, Seoul as well as several other major East Asian cities experienced urbanization during a periodical evolution. These cities are delineated naturally by preexisting castle walls from the past, and have a locational function based on the human scale accessibility. Since dawn, commercial functions and population concentration centered around the marketplace, and districts were comprised of various roles such as producers, vendors, residents, and consumers; as a result, this would have made for a diversely vibrant and appealing.[5]<sup>v</sup> Peter G. Rowe observed that, given the living functions that the cities such as Seoul, Beijing and Tokyo derived from their perspective agrarian culture, what is left remaining as local and unique structures in a street grid morphing into a settlement, specifically through networks of alleys. Rowe was able to foresee the future of cities through traditional spatial functions.[6]<sup>vi</sup> Safety and biodiversity that emphasizes the human scale in a traditional space, enhancement of communal spaces and other new urbanistic approach in neighborhood archetypes that allows for better accessibility and walking, sustainability, and the strengthening of personal and communal bond that is essential to coexistence are all factors that satisfy this vision.

Among East Asian cities, Seoul's 'golmok', Beijing's 'hutong', Shanghai's 'lilong', and Tokyo's 'tori' and 'roji', and their spatial traditions and characteristics are reviewed to drive geographical and social implications. This study is to identify the ecological restorability, sustainability, and diversity that each city carries, and to suggest a new urbanistic model.

## 2. Study on Traditional Space in East Asian Cities

### 2.1 Traditional urban elements of Chinese cities

The major components of a city are diversity, the pluralistic structure based on the community's identity, and the efficient distribution of various services.[7]<sup>vii</sup>

The spatial elements that protect residential environment (largely excluded from the rapid functional urbanization process) can be found preserved in Seoul 'golmok' and other East Asian cities. This can be recognized as an external element of a residential space, and also be compared as a culturally traditional space. Particularly in architecture, the types and systems of the early traditional cities' residential areas and their outer spaces were examined. In the case of Korea, China and Japan, these residential areas from the traditional cities remained shape throughout the years or have transformed in shape or components.

Generally, the urban Beijing's enclosed residences show a rectangular structure centered around a courtyard. The residences are surrounded by large roads, which make up the north-south arterial avenues that derived from the parcel classification system of the Yuan Dynasty.[8]<sup>viii</sup> Siheyuan, as these arteries are called, are interconnected through a transverse alleys of hutong, creating a residential system around it. Hutongs connect villages like a chessboard, and can be seen as the most traditional forms of alleys. They allow space for residence, childcare, leisure, and other communal activities.

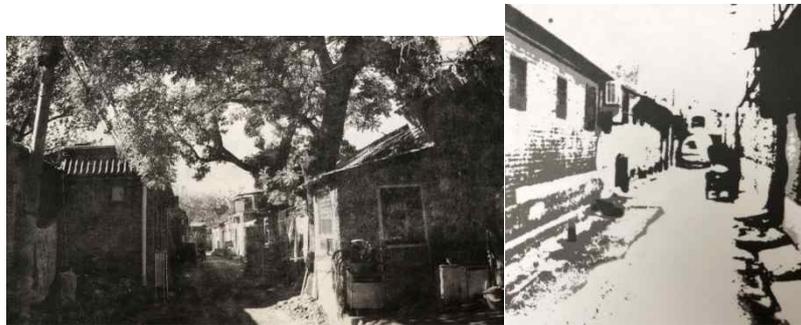


Fig 1. The Contemporary Hutong in Beijing. [9]<sup>ix</sup>.



Fig 2. Diagram of Siheyuan, Public Space in Hutong [10]<sup>x</sup>

Shanghai, in similar nature, demonstrates a cross-stitching pattern based off its avenues. Rectangular outline of roads and avenues generally define shape the structure, are intertwined through a network of long and narrow alleys called 'lilong'. The traditional residential area of Shanghai is formed by the 'shikumen' intensively constructed between 1870 and 1930. The residential communities that are lined up along the wall are divided into basic residential areas of zonglong, and are further divided into individual entrance ways in intervals called zhilong. Lilongs act as an exclusive yet protective divider between a community and its private homes. A place of community sharing occurs at the communal well, and the zonglong installed at the front door indicates a distinct boundaries, while zhilong distinguishes each units of residence while sharing a communal space for hygiene and cooking outside. This was a mimic of the parallel structure of English townhouses, and was built for upper class landowners and bureaucrats in society. Multi-story houses shifted from wood to bricks to prevent the spread of fire, and became the norm by early 20th century. The interior was renovated to

accommodate the traditional Chinese lifestyle, and demonstrates a unique concoction of European facade and Chinese culture.

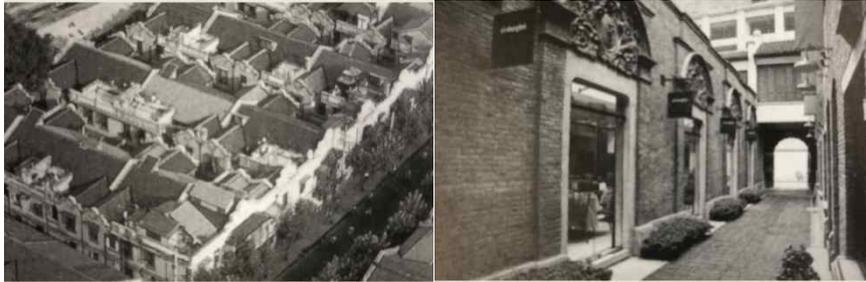


Fig 3. Lilong Restoration, 1996, 2001 [11]<sup>xi</sup>

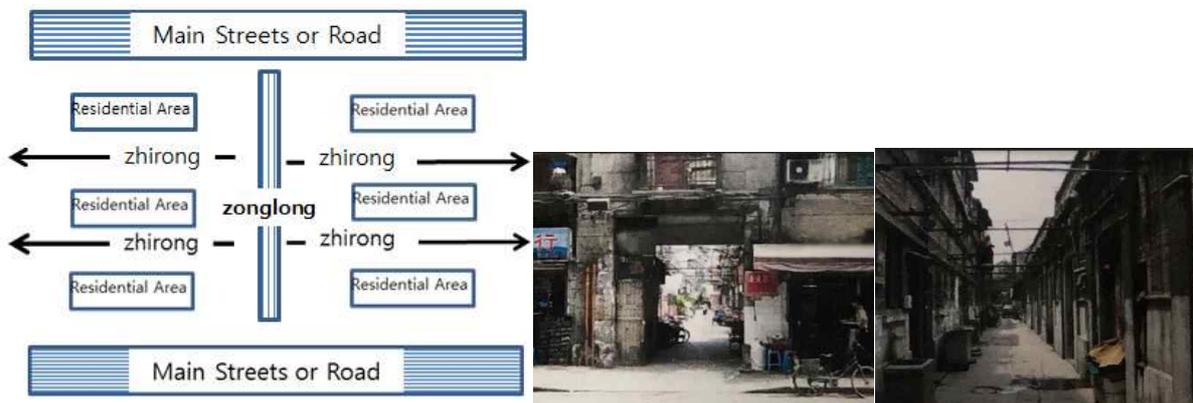


Fig 4. Diagram of Lilong, Entrance of Zonglong, and Zhilong

## 2.2 Traditional urban elements of Japanese cities

Elements of traditional urban spaces preserved in Tokyo can be found in the linear structure of roji. Roji was the common settlement first constructed in the Edo-Tokyo Shogun era that indicated the division of social hierarchy. It survived the modern urban restoration in the aftermath of the Kanto earthquake, and while commerce and restaurants are embedded in the current layout, the traditional village-shape residential environment remain to be seen today. Rojis lead to major avenues called the tori, and its urban structure is comprised of narrow alleys that outline districts and areas from within. Most rojis are two meters in width with a dead end on one end, which raises risk of fire hazards as well as evacuation challenges. Though informal, there are norms in place that creates a safe communal environment. This traditional village unit demonstrates enhanced interaction; for example, children can play safely due to the vantage point setup so that residents can monitor the outside and visitors from the inside. Roji is a cluster of residences, in which a chain of rojis gather in neighboring toris. Rojis are developed by residents similar in socioeconomic standings, and thus each roji can be seen a unit of a particular climate, local environment and commercial outputs characterized over time. For example, during festivals that recognize the communal harvesting and output, residents of each roji gather in toris as a common space to celebrate. This later becomes defined as the basis of machizukuri, a concept of independently participatory community.



Fig 5. Roji in the Tsukishima District, and Tori-no-Ichi Fair in Asakusa [12]<sup>xii</sup>

The oldest form of village of Machiya is located in the grid patterned site of ancient. [13]<sup>xiii</sup> Inspired by the checkerboard model of Chang'an city of Tang Dynasty, its residences are aligned in lattice-shaped structures. The square-shaped network is compartmentalized for efficient use of land. The densely built structure is surrounded by ring roads, with alleys that divide residential areas in a vertical north-south direction. The first floor is conventionally made up of commerce and shops along the streets, and the six-meter width of the roads are relatively wide compared to the height of the buildings. Outside monitoring is always feasible for residents inside, and is sustainable even outside the stores' hours of operation when foot traffic is at its height. Tori-niwas are pathways leading into the building that constitute a unique form of ancient Kyoto structure. This alley is disparate from other conventional paths, as it allows pedestrians to enter a house from the outside while keeping their shoes on. Tori-niwa is a functionally dynamic place that can be used to move loads between areas of the home without removing footwear, and its communal spaces are characterized by a gathering of laborers that dine in these alleys.



Fig 6. Form of the Formative System in Kyoto, Machiya, and Toriniwa

### 2.3 Traditional urban elements of Korea

Korean golmok entails traditional elements that are different from those of China and Japan. Golmok served as a pathway for commoners that is unbound by social rank, though the concept of a community that shares common socioeconomic elements is not different in nature. Unlike in China and Japan, where narrow alleys were constructed under a specific urban design aimed to connect residences and districts, Korean golmok was a voluntary diffusion of participatory composition of the urban areas. The development of communal villages and the construction of urban areas suggested a cooperative spirit in modern urban regeneration and town development.

An example of a location with traditional Korean spatial elements is the pimat-gol. Aligned parallel to the Jongno-1 ga to Jongno-6 ga in the backstreets that lead to Changdeokgung and Donhwamun is where the pimat-gol network is located. It was originally designed for commoners that wanted to avoid the parading of

bureaucrats and their wagons while maintaining foot traffic and commercial activity. The spirit and the essence of its derivation are fossilized in the namesake pimat-gol which is still used to this day. The backstreets of Jongno still utilize the moniker in its official address, while the back alleys of Changdeokgung and Donhwamun is now referred to as Ikseon-dong. The backstreets of Jongno 1-ga to 6-ga is known to be designed in consideration of the commoners by Jeong Do Jeon, a people-oriented philosopher, during the Hanyang design. This area was left unscathed during the Korean War, and was utilized by citizens as escape routes and hiding spaces during the demonstrations that took place in the industrialization of modern Korea. Due to its close ties with the essence of the common people for centuries, this district is naturally characterized by low cost of business and a high concentration of restaurants.[14]<sup>xiv</sup>



Fig 7. Locatoin of the Pimat-gol, traditional and contemporary landscape on Jong-ro.[15]<sup>xv</sup>

Pimat-gol of Ikseon-dong derived from the Taejo, Yi Bang Won era, who attempted to avoid scrutiny of the legitimacy of this throne by moving the king’s palace from Gyeongbok-gung to Changdeokgung. After parts of Gyeongbokgung was destroyed in the 16th century Japanese Invasion succeeding Gwanhaegun, to 250 years later during Daewongun’s restoration initiative, Changdeokgung was used as the main king’s palace. As a result, during this time, the king’s parade would take place along the road from Donhwamun leading up to Changdeokgung. Thus, Ikseon-dong’s pimat-gol likewise originated from the foot traffic of commoners that sought to maintain privacy and separation from the bureaucrats away from a major road. The existence of pimat-gol backroads trace back over 900 years to the Koryo dynasty. Currently, there are clusters of traditional Korean music industry, related institutes, practice rooms, and office spaces in this district. At the end of the Japanese occupation, one of the passageways designed to prevent fire spread in Seoul was located in present-day Kwangwon-dong. During the redevelopment of unauthorized shacks, the “Pagoda Arcade” construction plan was introduced as part of a larger Pagoda Park modernization project. After its completion in 1967, the Pagoda Arcade was demolished in 1983 as a result of a lawsuit, and soon after music-and-related stores replaced this area that is now known as Nakwon Sanga (Paradise Mall). This regional development shows a phenomena of small cluster of related personnel coming together to create a larger cluster of community; thus, the alleys of Ikseon-dong can be considered as a valuable traditional spatial heritage that was preserved to demonstrate the value of history and local culture.



Fig 8. Historical Background, and Contemporary Pimat-gol in Iksun-dong.[16]<sup>xvi</sup>

Urban golmok that was formed in residential developments are the Bukchon (Gahoe-dong area) district where the upper class residential areas expanded to after the Chosun era, and the Bomun-dong alleys where large-scale modern grid network plan of land compartment project took place. Gahoe-dong was formed in the 1930's by a filing-type development housing, where large-scale parcel was divided into T-shaped residential areas and north-south alleyway networks. Bomun-dong was a site of Japanese settlement at the time of land consolidation in Japan, and thereafter, traditional Korean residences expanded and created a need for alleys as a form of entry. Most of the Gahoe-dong alleys are open-faced and oriented southbound, thus presenting a north-south row village. Depending on subsequent development processes, some of these alleys evolved to become dead ends. In regards to the open-faced alleys, the outside can be monitored through the windows, and a network of alleys connect residents from the roads that create an open space for pedestrians. Bomun-dong generally features horizontally long and narrow alleys. Rather than considering this as an effect of road planning, the result of expansion of new homes in existing residential areas were numerous dead ends in the alleys. The increase in dead ends led to a strengthening of district characters, as these closed-ends allowed for children recreation and community congregations that accentuated their local function.

### 3. Discussion and Conclusion

#### 3.1 Geographical consideration ally on New Urbanism

Korean golmok as well as Chinese and Japanese cities demonstrate a traditional spatial element of combining accessibility and residential areas through passageways of alleys. Accrued over new regional development paradigm and alternatives to urban problems during the process of urbanization, alleys can be considered a foundation of community space of which its main function is to provide pedestrian traffic, as well as to monitor the surrounding areas. The paradigm for new urbanism is summarized as a community-based urban recovery device on a human-scale. It encompasses a wide breadth of buildings, development processes, and mixed-layer communities, and at the heart of the principle are the development of efficient and environmentally friendly footpaths, mixed land use, diversity of functions and forms of residences, enhancement buildings and urban design, density adjustment, sustainable ecosystem conservation, and improved quality of life.

Typical alley in Seoul and other East Asian cities are characterized by the way they connect the residential areas through its alleyways to main roads. Residences that are accessed through alleys are naturally circumscribed from the outside. It serves to connect a neighborhood, and offers a friendly space for residents to gather outside of their homes. This is a spatial form of counteractive measures to the issues of rapid and unruly urban growth and industrial development that sociologists have pointed out. For example, this applies to the 'separate and safe from outside' community that was advocated by Ebenezer Howard's "garden city movement" that entails diversity, appropriate density scale, and acceptance of necessary urban functions. Alleys are an ideal and feasible site for new urbanism as it already carries ecological conditions that safely manages and maintains traffic and residences.

The geographical implications of the alley are firstly found in the planning elements of the physical and urban forms community and network. While being the remaining space left in the process of urban construction, it also is the standard unit of practical living functions due to its formation of pathway, connection, and community. The second is its significance as a social space. The urban alleys in Seoul carries a sense of both recollection and generation, in cases such as pimat-gol. Gahoe-dong, Bomun-dong, hutong, and roji all demonstrate their abilities to provide a sense of safety and belonging as a common ground for human interaction and communityship. It serves as a buffer between the private spaces and major roads, while intentionally and unintentionally promoting constant interaction between businesses and individuals. Furthermore, it allows for vigilance and monitoring, and constitutes a ecologically safe environment for residence. Third, the alley is marked by its particular identity that defines a city, through a long period of accumulation of people, lifestyles, and cultures that spans over historical periods. Its symbolic presence as a place that can accommodate the change of the urban concepts, as well as being considered a rational solution that meets the healthy concept of the community, satisfies the elements needed for a robust, resilient and

sustainable community design charrettes Condon P.M., 2008, Design Charrettes for Sustainable Communities, Springer.

### 3.2 Conclusion and suggestions

Since the idea of a “shared economy” was announced, it has been generally agreed that its practice would take place in a shared space. The Sharing City strategy is seen as a solution to the economic, social, and environmental aspects of urban issues, and many cities are probing ways to plan and design accordingly. The “sharing of life environment” aspect of Asian alleys can be referenced to as a lesson for the Sharing City which aims to connect transportation methods as a means to combat social costs, climate change, and depleted resources.

The most important commonality of the alley is its ecological stability, connectivity based on walking, and deep-rooted cultural heritage that enhances the appeal of the urban space. France had many narrow and long passages, like those in Korea, until Napoleon III. However, Ottoman-led urban renovations of large roads eroded the alleys, erasing the citizens’ freedom and the flame of democracy along with it. United States adopts a policy that maximizes the preservation of historical buildings by prohibiting changes to its original form and permitting only partial modifications at a time. The most important aspect of the traditional space is that its accessibility created allows for a natural separation of function and areas where the basic terrain and waterways of the region are appropriate on a human-scale, and the stability and safety, ecological diversity, and a sense of charm are rediscovered and sustained over time.

In the process of urban regeneration and redevelopment, overlooking the historical and local connotations and erasing cultural significance will serve as a debilitating impediment in restoring the vitality of the city. Restoring the essence and traditions and ensuring its sustenance will stimulate the city’s vibrance and competitiveness. The alley is a fulcrum component in conservation and evolution efforts. The long and narrow pathways that compose alleys in traditional areas have a limitation in fire and accident response methods. Safety diagnosis, fire truck access and evacuation system must be designed, and inspection and fortification of old infrastructure such as electricity and gas pipelines should be prioritized. Pedestrian walkways, separation from automobiles, and other issues regarding sharing of a community space should not be compromised for visitor attraction and the appeal of cultural diversity. Guidance and management is a task that needs to be pursued under cooperation of its local residents.[17]<sup>xvii</sup>

### Acknowledgement

This study was supported by the support program of the research fund of Sungshin Women’s University. (2016-2-11-028-1)

### References

- [1] <sup>i</sup> Congress for the New Urbanism, 2000, Charter of the New Urbanism, McGraw-Hill.
- [2] <sup>ii</sup> Lee J., 2018, Rurban Design and Improvement of Urban Environment, JCCT, 4(1), pp.7-15.
- [3] <sup>iii</sup> Kriken J.L., Enquist P., and Rapaport R., 2010, City Building : Nine Planning Principles for the Twenty-First Century, Princeton Architectural Press.
- [4] <sup>iv</sup> Lee J., 2014, “The study of environmental cognition for 20th Century,” The Geographical Journal of Korea, 48(4), 493-505.
- [5] <sup>v</sup> Lee J., 2017, The City Image, Sungshin Women’s Univ. Press.
- [6] <sup>vi</sup> Rowe P.G., 2005, East Asia Modern : Shaping the Contemporary City, Reaktion Books.
- [7] <sup>vii</sup> Sharpe J., 1970, “Theories and values of local government,” Political Studies, 18(2).
- [8] <sup>viii</sup> Lim C.B., et. als., 2006, “A comparative study on the exterior space structure of traditional urban housing in Korea, China, and Japan,” Korean Architectural Society, 22(2), 59-66.
- [9] <sup>ix</sup> Liu Yue, 2009, Peking Hutong 66, Zhonggongdangshi Publishing Company.
- [10] <sup>x</sup> [http://www.chablow.com/xe/beijing\\_facility/152239](http://www.chablow.com/xe/beijing_facility/152239) ; <http://image.baidu.com>

- [11]<sup>xi</sup> op. cit., 2005.
- [12]<sup>xii</sup> [www.flickr.com/photos/fixedfocal/](http://www.flickr.com/photos/fixedfocal/)
- [13]<sup>xiii</sup> Kim K.H., 2006, "A comparative study on the exterior space structure of urban housing in Korea, China, and Japan," Master Thesis of Sungkyunkwan University.
- [14]<sup>xiv</sup> Jeon J.H., 2009, "Place Memories of the Urban Backlane : In case of the Pimat-gol of Jongno, Seoul", *The Korean Geographical Society*, 44(6), 766-796.
- [15]<sup>xv</sup> <https://www.google.co.kr/search&newwindow>
- [16]<sup>xvi</sup> <http://www.pressian.com/news/article>  
Kim K.M., 2013, *Kim's City Story* (5).
- [17]<sup>xvii</sup> Condon P.M., 2008, *Design Charrettes for Sustainable Communities*, Springer.