Sewoon Sangga: Politics of Urban Reindustrialization

Master of Science in Urban Studies
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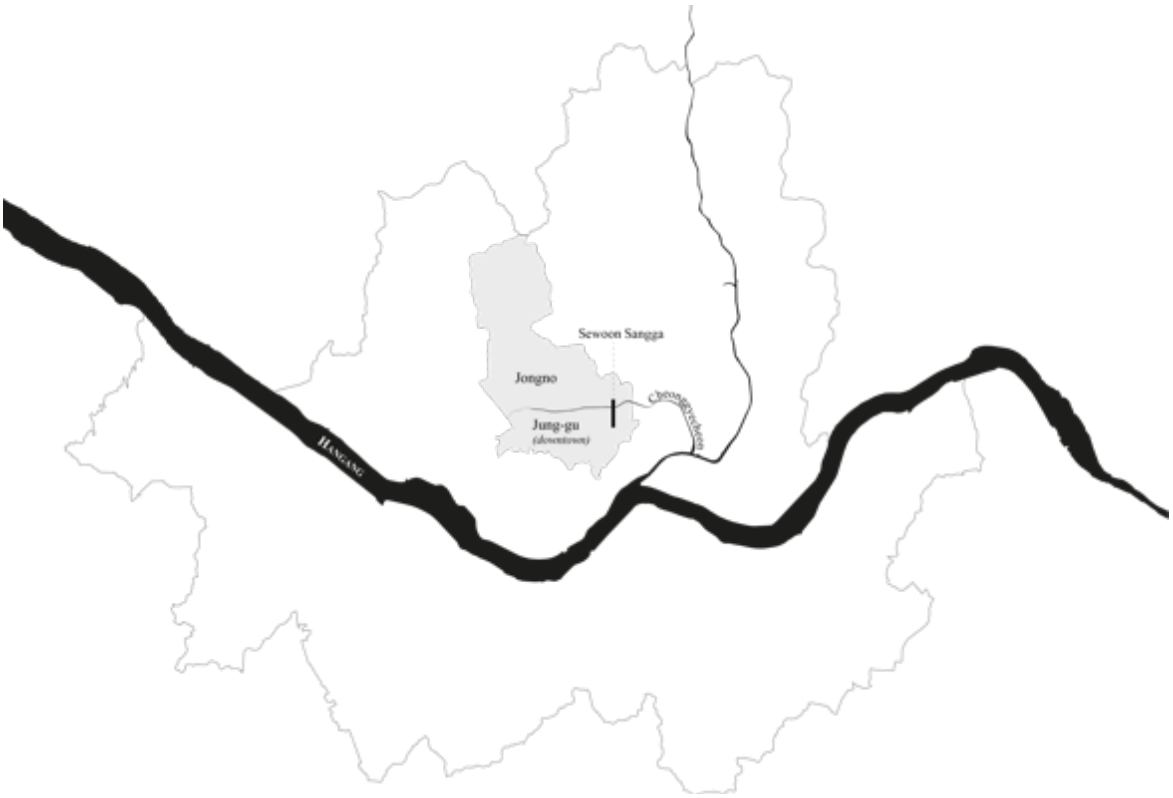

Figure 1: Relevant landmarks in Seoul. South Korea. Author's own. 2020

Abstract

This thesis brings forward, the political, economic, and social conditions in which urban reindustrialization is enforced as an urban revitalization strategy. So far, published studies render reindustrialization as a competitive advantage through innovative technologies to resurrect production industries as an economic pillar in deindustrialized nations. While considering this viewpoint, Sewoon Sangga, a concrete megastructure in downtown Seoul, South Korea, emanates as a place which draws attention to the political magnitude of reindustrialization as a strategic approach in urban planning. In 2017, the Seoul Metropolitan Government (SMG) commenced Dashi Sewoon, a comprehensive urban revitalization plan, aiming to reinvigorate Sewoon Sangga as the once-thriving catalyst of industrial innovation in downtown Seoul. The strategy pursued promulgates as a municipality led activation of bottom-up innovation through makers, manufacturers, and entrepreneurs. With the majority of public funds directed into the quantitative development of the maker culture, valuable industrial potential in the area remained unexploited

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I would like to thank my supervisor Leonard Ma, for constantly providing me with constructive critique, encouragement, and a structure for my thoughts. My husband, Dong-Eun Kim for his tireless support throughout this study and exceptional translation work for this thesis. Janat Sohail Aziz for keeping me sane in time of crisis.

Note on Transliteration

For the romanization of names of Korean sites, projects, and architecture, this thesis follows the “Revised Romanization of Korean” as officially in use in South Korea since July 2000. Korean family names (Min, Park, Kim) are included according to the most commonly used transliteration, listing family name first.

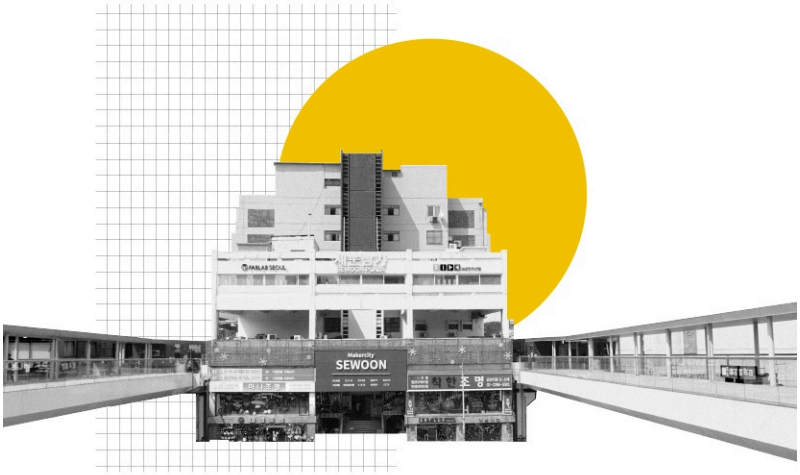

Figure 2: Collage of Sewoon Sangga. Author's own. 2020.

Vignette

In the late 1960s, an electronic science boom captivated Korean students and the so-called "Ore Radio", a simple crystal set radio receiver which was easily assembled with only a few parts, became a Do-It-Yourself sensation. Sewoon Sangga, at the heart of Seoul's electronic manufacturing cluster experienced an economic boom at the same time. Customers seeking for technical know-how, parts, and used items invaded Sewoon Sangga and its commercial districts. Shop keepers who witnessed this, still speak of this time as their hay-da, when only Sewoon was capable of delivering innovative electronic devices to satisfy the domestic markets which were cut off from a global supply chain.

Fast forward, it has been a few decades since Korea opened its markets to the global world, but the vista of Sewoon Sangga has not changed tremendously by 2020. The exterior seems to have received a facelift, and the elevated pedestrian deck has become a decent destination for young Koreans drinking coffee and getting eatery related shots for Instagram. Occasionally, an *Ahjussi* (middle- aged men) passes by pushing some kind of hand cart loaded with boxes, and the constant noise of welding resonates from afar. The program offered by Sewoon is however seemingly the same, consisting of cramped shops in the inside which sell a single product at a time (e.g., knobs, speaker frames), suggests that one has to walk the whole mall to eventually have bought all the pieces to assemble a functioning device.

While almost no people walk the aisles in the upper floors of Sewoon Sangga, on the road level the scenery gets busier. Such as cars, motorbikes, cyclist, and small trucks navigating their way around pedestrians. Shop owners are standing around, drinking mixed-coffee from paper cups or sitting in their shops explaining some technical details to one of their customers. Now and then, the deafening sound of Korean song from the 80s signals someone is testing a karaoke machine.

Supported by the overwhelming clustering of diversity, seemingly unrelated activities illustrate an overall impression of a confusing and unrestrained urban concept. Indeed, after visiting and wandering in Sewoon Sangga repeatedly for serval years now, passages, staircases, and corners remain still unexplored. In that sense Sewoon Sangga is just like Seoul itself, too crowded and too fast in its change to ever be fully comprehended.

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Figure 3: View from Namsan on Sewoon Sangga. Seoul Metropolitan Government. early 2000s.

Introduction

Sewoon Sangga is precisely what contemporary urbanists and architects are aspiring to design, comments Owen Hatherley, a place combining density, reindustrialization, democratic accountability, and complexity (Hatherley 2018). In 2017, Hatherley and other international guests of the first Seoul Biennale of Architecture and Urban Planning were introduced to Sewoon Sangga as a place to showcase the future of the productive city. The diversity of functions seemingly operating autonomously in parallel especially attracted the attention of urbanists dealing with deindustrialized cities curated by neoliberal policies. Sewoon Sangga in South Korea has thus sparked interest as a place to witness theories of urban reindustrialization realized.

Built during the late 1960s, a period of developmental dictatorship in South Korea, Sewoon Sangga was the nation's first mixed-used, industrial residential complex. Hatherley describes the building as "dramatic", its rectangular shape cuts a concrete aisle through a neighborhood of densely interlaced alleyways, reminiscent of Seoul's six-hundred-year long history. Sewoon Sangga originally consisted of four sections, one demolished in 2008, with eight (now seven) buildings equally partitioned from retail (ground level and elevated pedestrian deck), repair and industries (top floors and dense internal alleys), housing (above retail and mainly in the third section), a hotel (*Pungjeon* Hotel), and financial institutions.

Over the past five decades, Sewoon Sangga has served Seoul as a center for commerce and housing, later as an industrial center, and today it forms a base for customized electronics. However, the structural decline has not been prevented and eventually Sewoon ceased as a heavily dilapidated building. This condition can be attributed to the fact that Sewoon Sangga and its immediate neighborhood had been subject to a long-lasting renovation debate since 1979, during which the demolition of the neighborhood as a whole had been the main priority. Consequently, the incentive of landowners for further investments in their properties remained low for a significant period.

The debate lasted until 2011 when the new Mayor, Park Won Soo, demanded the shift of Seoul's urban planning directions, clearly stating his disapproval of the large-scale rampant development his predecessors had pursued. Instead of further development, he sought to resolve eminent issues which have gradually emerged during the periods of rampant industrialization until the global financial crisis of 2008: high unemployment rate among the youth, aging society, lavish spending of public funds (W. Park 2011). In pursuing, what he calls a "community-based revitalization", Sewoon Sangga had been scheduled to be reinvigorated in 2014. Advertised as Dashi Sewoon (Again Sewoon), the initiative proclaims for a return of innovative cutting edge-technologies to the building, by creating a synergy between a young generation of the maker and the established manufacturers.

The presumption is that the new emerging generation of innovative young firms and makers are more than DIY tinkering hobbyist. They are entrepreneurial manufacturers who run independent businesses, employing technologies like artificial intelligence, big data, and the Internet of Things (IoT) to address a range of politically broadcasted challenges from environmental issues, high unemployment rates, or disaster prevention (Ordinance on the Promotion of Future Innovative Technologies 2018). Moreover, unlike DIY production from home, Sewoon Sangga will represent a different form "factory" where diverse small-scale workshops and start-ups expand the virtual market place of shared open data on a global scale by establishing a domestic physical sphere in which skills and knowledge shall generate a cooperative network between businesses. Sewoon Sangga emanates on the junction between national macroeconomic reforms for an innovation based economic growth and municipal urban revitalization strategies stressing for global competitiveness through urban diversity. The field of tension between political growth strategies, urban planning directives, and spatial possibilities renders Sewoon Sangga as a compelling case to be further investigated in association with the emerging debate of urban reindustrialization.

In 2008 when speculations with mortgage-backed-securities in the real estate market in the US triggered a global financial crisis, the neoliberal promise of an economy powered by liberal markets. Consequently, reindustrialization entered the electoral debate as a remedy to back-up domestic industries. Economists and politicians generally debate reindustrialization as a "Fourth Industrial Revolution", signifying a shifting paradigm of the macroeconomic growth engine, characterized by cloud computing merged with physical production (Patnaik 2020, 2). As such, the reindustrialization initiatives dominating urban development in the USA, Germany, Israel, or Korea (to name a few), nurture large science and technology clusters of research, education, and industries (e.g., Silicon Valley: USA, Silicon Wadi: Israel, G Valley: Korea). Corresponding largescale projects, however, do not suit to be implemented as a more general strategy in dense inner-city areas where, for example, high land value and a highly competitive real estate market, pose further challenges. Therefore, large science parks predominantly occur in more peripheral industrial zones (e.g., Silicon Wadi, G Valley) or as separate urban agglomerations (e.g., Silicon Valley). Moreover, the operative structure of businesses established in science and technology parks cater to the globalized network of information and human recourse exchange, and as such promoted reindustrialization on a macroeconomic scale but does not propose a feasible alternative to a circular urban economy, that is local production and local employment opportunities.

At this point, grassroot movements like the "Maker Movement" entered the political field of attention as the ethos to carry an entrepreneurial spirit to the future of urban productivity. In the context of urban reindustrialization, urban production emanates closely linked to urban manufacturing, as the industrial sector in which advanced technological processing tools, like 3D printing and CNC milling, pertain. In contrast to more conventual forms of urban manufacturing that is the limited number of produced items for the domestic consumer, the maker movement is considered to link local knowledge production with global information exchange through open data, and return it to local production. In this assumption, the neoliberal promise of liberal markets freely operating globally are being paired with the benefits of securing production activities as employment opportunities to national markets. Advocates of the maker movement, like Chris Anderson, argue that the technological advancement of production machineries resolve several concerns of inner-city industrial activities at once.
That is the new machinery is more space-efficient and does not require large factories, they are considered environmentally friendly, and affordable to everyone (Anderson 2012). The maker movement is thereafter considered to employ digital technological innovation to promote customized production as an important condition to democratize the mode of production.

Therefore, the maker movement became a powerful political ethos of framing economic transformations as endeavors for equitable employment opportunities in the contemporary cities. A city which is constrained by the repercussions of the creative city theorem and knowledge-based economies favoring highly educated and well-paid white collar labor forces over a labor intensive blue-collar work force.

The framing of Sewoon Sangga as a base of innovative manufacturing, and the ideal work environment for young entrepreneurs refers to the bottom-up development of urban manufacturing as seen in the US (Sewoon Sangga Urban Revitalization Plan 2017). However, Dashi Sewoon is a municipality led revitalization initiative, pursuing to induce grassroot development through politically curated incentives. Therefore, framing Sewoon Sangga as part of a nation-wide shifting economic paradigm from a catch-up type economy, to a leading-type economy through innovation. The act of "Creative Economies" enacted in 2013, especially eased processes for entrepreneurs to set up and operate start-ups. Moreover, governmental institutions promote and support start-up economies to export and cooperate internationally, clearly emphasizing the central government's focus to foster the macroeconomic success of Korean based innovation (UNCTAD 2017). Simultaneously, sector specific tax incentives, including research and development (R&D), and the commercialization of technologies while private investments remained highly regulated (e.g. crowdfunding), which stimulated a considerable participation of corporate companies in Korea's maker culture. Local governments like Seoul, enhance the provided framework from the central government by taking upon the community value of shared knowledge and skills as drivers for industrial innovation. Public funds are thereby predominantly directed to the spatial provision of affordable workspaces in an environment of clustered industries of diverse sectors, to entice interdisciplinary exchange. Additionally, the institutional organization of the maker culture expects the government to enforce and nurture industries related to sectors of advanced technologies (Ordinance on the Promotion of Future Innovative Technologies 2018). However, in prioritizing innovative manufacturing over the preexisting production activities, especially in downtown Seoul, the SMG unintentionally draws an outline to the repercussion urban reindustrialization is posing for the existing urban economies.

Figure 4: Aerial view of Sewoon Sangga and key locations of downtown Seoul. Author's own. 2020.

Research Framework

This thesis attempts to provide an in-depth analysis of how urban manufacturing is rendered as a desirable tool in urban planning pursues, aiming to reindustrialize cities as the new competitive advantage of urban economies. Moreover, with the prevailing Anglo-Saxon academic debate on the matter concentrated on the European or North American post-industrial city, this thesis will offer new insights to dissimilar urban strategies currently established in one of East Asia's metropolitan areas, Seoul.

Unlike other impoverished (South) East Asian nations that were the receiver of mass-production, labor opportunities, and manufacturing industries offshored from deindustrialized cities, Seoul unfolded its economic power predominately reliant on domestic politics, economics, social dynamics, and selective adaption of foreign ideologies from especially America and Europe. Seoul has thus emerged as an accelerator where foreign ideas and governmental strategies are being repurposed and blended with local features. The recent urban revitalization of Sewoon Sangga therefore provides a case to explore the spatial impact of economic and political interdependencies of theory and planning, and an alternative consideration to similar dynamics in the West. It must be noted, however, that the scope if this research is primarily Seoul and Sewoon Sangga, and does not deliver a comparative study of urban reindustrialization initiatives globally. The reason for that is, South Korea and Seoul has been, although well researched in terms of its unprecedented vast economic rise within the last six decades,

has generally been sub-summarized within the Anglo-Saxon architectural and urbanism debate as part of some kind of Asian megapolis phenomena, which leaves much room for sufficient academic research.

Moreover, the academic debate on Sewoon Sangga is chiefly informed by its historic relevance as Korea's first mixed-used building, the political interest behind the construction, or its heritage momentum in contemporary Seoul. While understanding Sewoon Sangga as an ongoing experiment within urban planning agendas described the SMG, this research will serve as a critique, delivering a concise analysis of the political, economic, and social (here labor class) influences steering the project. Hence, the following questions: (1) What are the political implications to urban reindustrialization? (2) What are the possibilities and limits of the maker movement as a new working class? (3) What changes does the case of *Dashi Sewoon* suggest to urban planning?

The methodology to answer these questions was an empirical study of the case Sewoon Sangga. While primary sources, including on-site interviews with key actors and observations serve as an important foothold for this research. The principal method of research was the critical analysis of existing governmental data, such as planning agendas, policies, master plans, speeches, economic action plans and institutional research. The collected material was predominately in Korean, which has been translated into English through cross-referencing online translation tools and dictionaries. Audio and video recordings have been transcribed and translated by a native Korean.

The research findings have been structured in three parts. Starting with situating the case Sewoon Sangga into a broader global perspective. It highlights thereby the allocation of recourses, the governmental restructuring under neoliberal policies, and the advent of the maker culture as a central theme to urban reindustrialization. The second part accentuates the economic, political, social, and spatial precondition in which Sewoon Sangga was constructed and revitalized. The themes are being discussed in chronological order from national economic paradigms, urban planning agenda, and the inner organization of Sewoon Sangga. The time frame span from 1960s, with commencement of industrializing the nation, until 2020. The last part is a concluding discussion of recently emanating the repercussions of the *Dashi Sewoon* on the neighborhood. Which leads to a final consideration of the threads of urban reindustrialization.

Part 1: Central Themes of Urban Reindustrialization

Aiming to set the case study of Sewoon Sangga into broader perspective, this part of the research focuses on the global context in which urban reindustrialization emanates. Above all debate on the specific impact reindustrialization is having on the global community as a whole, it is worth mentioning that each industrial renovation is accelerated by scientific, technological and organizational advancement (Chivu, Ciutacu and Georgescu 2017, 2). This becomes significant when examining reindustrialization not only in light of its changing technologies, but also the processes by which technologies are commercialized involving the cooperation of institutions from politics, economy, and society (Rothwell 1992, 221). Therefore, the changing paradigms of prevailing industrial specifications have not only a direct impact on industrial production and economic markets, but also reconstitute cultural and organizational structures.

Shifting Allocation of Recourses

Historically, each phase of industrial progress has been described as the consequence of a changing mode of production (Patnaik 2020, 3). While the production of intangible assets like knowledge and services have been the most competitive assets of contemporary cities operating accordingly to neoliberal policies, the revolutionary claim of urban reindustrialization is to unite the aforementioned with the reinvigoration of domestic production activities. While politicians and economic organizations, like the world economic forum like to call it a "4th industrial revolution" where advanced technologies are going to revolutionize the everyday life, mode of production, and the way of working (World Economic Forum 2016).

The motivational forces to trigger economic process is usually associated with emphasizing the accumulation of wealth through capital owners. Which has been elaborated predominately by David Harvey and his theory of capital circuits. In this, Harvey investigates the flow of capital and its spatial impact of the past to prove the uneven development in cities (Harvey 1985). In this, industrial progress is majorly portrayed within a capitalist assumption of the owner over capital as the pivotal authority constituting economic change in the aim of gaining profit. However, within the consideration of the owner over capital as a driver for change, the initial force causing a shifting paradigm is not sufficiently elaborated. While such a theoretical framework has strongly informed a contemporary understanding of what and how the contemporary city produces assets. The political dynamics shaping economic transformations remained abbreviated.

Urban reindustrialization, as a relatively recent debate on electoral level, however, is still strongly embedded in a predominantly political debate and public-funded initiatives promoting and funding research and development in industrial sectors summarized under the buzzword of a “4th Industrial revolution”. Therefore, the consideration of the underlying matrix of how industrial change was enabled in the first place delivers the fundamental strategies when aiming to analyze the contemporary efforts to reindustrialize the national economy. For this purpose, Barry Bluestone and Bennett Harrison provided vital insight by explaining the transformation of American cities from an industrialized to a deindustrialized pole of capital accumulation. Thereby, the allocation of financial resources has been identified as the key driver for economic changes. They concluded, although the processes of industrialization and deindustrialization prompt different social, spatial, and economic conditions, their common ground is the strategical allocation of financial resources favoring some industries over others. Industrialization is thereby characterized by the direct "productive investment" into domestic industrial facilities and their technological advancement, including the investment in the modernization of production machineries.

Deindustrialization, on the other hand, is indicated through the loss of global market shares in manufactured goods, a stagnant domestic economy, and high unemployment rates, as the consequence of a systematic disinvestment in essential national production industries (e.g., manufacturing, mass-production). It is further described as the redistribution of capital into "unproductive speculation", capital surplus is thereby redirected in intangible means of production such as bonds, funds, acquisitions and mergers (Bluestone and Harrison 1982, 6). The key conflict here is the redistribution of profit not to assure the continuity of industrial production, but the accumulation of additional capital through unrelated industrial sectors (e.g., real estate, bonds, services). This assumption is consumed by the vantage point of a contemporary dynamic in which developed nations appear as economic powers to steer virtual flows of capital. Within this the city emanates as the administrative pole distributing capital, information, and services on a globally operating market place. Urban production was hence gradually unfolded in terms of virtual and intangible commodities and assets, like knowledge, services, and culture. This assumption was strongly molded by Manuel Castells description of “spaces of flow”, in which the everyday life societies are despite their basic need for a physical space relies chiefly on virtual structures (Castells 2010, 458-459). Consequently, the endowed production activities in cities have evolved in parallel from a physical manifestation of industrialized mass -producing factories to a pole to attract and distribute virtual capital on a global scale.

While the virtual, or rather speculative assets in capital remain pivotal to urban economies, this research approaches production in its more traditional context, as a labor-intensive fabrication process leading to a tradeable commodity. However, one of the key questions of urban reindustrialization remains what such tradeable commodities can be.

Assuming that the strategical allocation of recourses characterizes the impetus behind perpetual growing markets, the increasing allocation of investments in advanced technologies indicates a shifting trend from intangible means of production (e.g., securities). As a significant indicator for this shift is observed in the increasing investment in certain fields of research and development (R&D). Researchers have clarified that emerging trends are representing three waves starting with the increasing publication of academic papers, followed by an increased output of patents and eventually high growth rates among industrial leaders – to all these stages R&D characterizes the precondition. Furthermore, when examining patent families on a global scale, Korea and the US were identified as the global leaders in spending on R&D and the publication of patents, as well as the growth of industrial leader (Innovation Fund Denmark 2018, 11;22). The national spending on R&D in industrial sectors of advances technologies correlates here directly with a process in which: R&D has led to more published research, more released patents, increased registry of market leaders, and in reverse attracted additional investments. Therefore, the rather speculative spending in initially intangible knowledge production (e.g., research and innovation) has ultimately led to the tangible production of patents or products tradeable on a marketplace. As such, reindustrialization can be accounted as productive speculation, indicating the production of intangible assets that shall lead to tangible goods placed on the market place.

Global Imperative: Governance of Neoliberal Policies

Having provided a short summary of the managerial strategies curating industrial processes, it now becomes relevant to consider how this conflicted with the socio-political framework and the redistribution of production activities. As previously mentioned, the deindustrialisation of nations formerly leading the export market of manufactured and mass-produced goods globally (e.g., America, UK) could not maintain their supremacy over emerging market competitors through the 1970's, especially from East Asia (esp., Japan).

This transformation came due to several correlating developments, including rising labor wages that rendered the Fordist mass production method increasingly unprofitable, deindustrialization, and the dissolving of the Bretton Woods agreement in the 1970s (prevention of competitive devaluation of currencies). While the mass production of early industrialized nations became increasingly conflicted and were not able to provide equally qualitative goods as market competitors, domestic mass consumption was increasingly satisfied by international providers (Bluestone and Harrison 1982, 5). The accumulation of conflicts especially pronounced in the rising unemployment rates and stagnated economic growth was considered as the failure of the Keynesian welfare state and thus forced a fundamental restructuring of the relationship between capital and state. Friedrich Hayek and Milton Friedman argued that neoliberal polices were employed in an understanding that unregulated markets free from governmental interventions would provide the optimal mechanism for economic growth (Brenner and Theodore 2002, 350).

Moreover, the deregulation of market disciplines under neoliberal policies is thereby expected to prompt a perpetual economic growth through competing market, the financialization of formerly invaluable assets, including information, culture, or knowledge. Subsequently, state responsibilities were dispensed and institutionalized to generate a greater diversity of marketable functions and actors. Institutions emerged thus as a decentralized instance to govern, distribute, and manage the allocation of recourses to strategically maximize profit margins (Ebner 2008, 2). Additionally, institutions are considered to support industries to convert “uncertainty” into “risk” and as such significantly benefit industries in converting an unpredictable condition into one that can be valorized as a likelihood (North 1991, 106). Therefore, institutions became a pivotal catalyst for shifting economic trends, as well as meditative instances between politic, economy, and society.

In order to profitably harness the potential of the world as a whole, neoliberalism was promoted internationally through economic organizations, like World Trade Organization (WTO), or the International Monetary Fund (IMF). International trading agreements and the requirement of standardization, enforced a perpetual permeability of national borders (Brenner and Theodore 2002, 350). Paraphrased as monetary funds, IMF and WTO provide developing countries in particular with budgetary means to develop their national industrial infrastructure.

In return, however, regulations and standardizations provide financial backers, predominately economic strong countries, with eased access to local markets. Moreover, the active propaganda of neoliberal policies through globally operating organizations has generated a reconfiguration of industrial clusters on a global scale.

Thereby, deindustrialized nations of the global north reset their economies by investments in property and land, while developing countries, especially South-East Asia slowly emerged as the new factories supplying the world with mass-produced goods (Nawratek, et al. 2017, 23). However, along with the offshoring of production to low-wage countries, the learning impact of new products emerging during later design processes, have been likewise outsourced. Essentially, the desired spillover effect to other industries and the subsequent impetus for further innovation has been likewise offshored (Aiginer 2014, 6). Resulting in nations formerly in possession of technological advantages to lose competitive export shares, especially in manufactured goods. Which on a long-term perspective, resulted developed countries to be highly vulnerable within global economic cycles, as their reliance on intangible productivity has been gradually adopted universally.

Urban Industry

The city appears in this debate as the condensed centralization of regulatory processes, the “arena” through which rearrangements of known structures in politics, society and economy occur intensified. The city, site of "regulatory problems" (e.g., unemployment, poverty) and "regulatory solutions" (e.g., experimentation with policy prototypes) (Mayer 2016, 60), is here considered as the spatial representation of such underlying tensions. Expanding this thought further, the motive for the dense locational agglomeration of human activity can be found in the genealogy of production, exchange, and associated forms of social reproduction under capitalism.

In the evolution of cities as the strategic center to cluster capital and labor, aiming to reduce space depends on costs as a pivotal condition of their joint interaction, the main driver for urbanization can be identified as “localized economic growth” (Scott 2008, 27). Additionally, the intensified agglomeration of joint interaction between capital and labor endows various competitive advantages and social benefits: from the specialization of complementary industrial sectors, multifaceted labor markets that link different functional sectors, or the learning and innovation effect that is generally anticipated through the condensed

socioeconomic interaction (Scott 2008, 28). From the early, mercantile city, to the contemporary deindustrial city, urban economies have developed along those paradigms in different complex constellations.

The city as an economic growth pole emerged intensely with the industrialized Fordist mass production and the availability of cheap labor forces, which altered the city layout into a predominantly hub for Western nations to accommodate their large factory facilities. Additionally, their strategic operation was tightly entangled in the political agenda of a Keynesian welfare state, that is the active governmental participation on the economic market by adjusting fiscal policies (e.g., tax and incentives), and social welfare according to economic cycles. With the restructuring order between politics and economy under neoliberal policies and the withdrawal of state regulated economic growth agendas, local and municipal authorities increasingly found themselves confronted to resolve the repercussions of such comprehensive structural changes independently. Exacerbated by the operational offshoring of production industries as the former growth engine of cities, and the pressure to actively build new local institutions to secure their future prosperity, municipal governments had to undergo significant structural changes following the decades after the 1980s.

In consolidation of what other assets the agglomeration of human activity would provide despite blue collar labor capital and mass production, innovation connected with intellectual human capital evolved as the new growth engine of the deindustrialized city (Scott 2008, 36). Moreover, with cities gradually manifesting as financialized centers, land and real estate speculation became vital to the accumulation of capital in urban economies. Therefore, downtown, the former center of production, was increasingly redeveloped as a warehouse to the growing real estate market, supplying the industry with office towers and residential accommodation (Thorns 2002, 22). The city and the desire for perpetual economic growth as a prerequisite, has thus emerged as an influential vendor on the global market itself. As a consequence, deindustrialized cities gradually transformed into centers of linear consumption at a global marketplace, providing specialized financial, informational, and cultural services. On this basis of cities as the center of intellectual knowledge reproduction, they especially emerged as polarizing localities nurturing inequalities between income classes: of highly-educated and well-paid professionals, and fundamentally essential service providers with lower academic degrees. The dialogue of an urban reindustrialization enfolds from here multifaceted as a synergy of the neoliberal agenda of globalization and original characteristics of a city as a wholesome network of diverse production activities.

The New Maker Movement

The most dominant political imaginary of "onshoring" manufacturing back to deindustrialized nations includes grassroot social movements like the "Maker Movement" as the pivotal ethos to rationalize economic transformations (Adams Stein 2017, 10). Although, the spectrum of makers includes passionate DIY hobbyist who do not pursue to become commercially successful, to small boutique manufacturers, and those who envision to establish themselves as entrepreneurial ventures on the global market. It is chiefly the latter case of maker-entrepreneur that has captured electoral attention as the structural opportunity to revive economies on a national scale. Essentially, the maker movement is thereby admired as an apparatus to promise social equity by extending the neoliberal idea of entrepreneurialism to the blue-collar working class. During the processes of deindustrialization, so called white collar working opportunities (e.g., knowledge-based economies, and services) have been favored over the previous main employment sectors of labor-intensive manufacturing work. With the appraisal of additive manufacturing, foremost technological advancements of 3D printers, CNC milling and CAD based production processes, enterprises related to the maker movement have been considered promising sectors in returning production capacities to local communities (Vickery Hill and Reynolds 2016, 3). Moreover, architects like Alejandro Zaera-Polo argue, that the return of production to the deindustrialized city signifies changing structures of work and employment, consumption and production, or even the society as a whole. In this assumption, urban reindustrialization is heralded as remedy to urban conflicts gradually emerging since the 1980s, that is income inequalities, equal opportunities across classes of different educational background, and a return of the consumption of locally produced goods.

Additionally, Zaera-Polo presumes a return of a *Homo Faber* (lat.: man, the maker), as the worker in control of his or her tools in combination with the Marxian critique on the alienation between producer and product under capitalism. This serves as the theoretical seedbed to picture revolutionary possibilities inherent in advanced technologies (Zaera-Polo 2017, 284). The new workforce having the virtue to translate the promised synergy of autonomy of the laborer and their authority over own means production is found in a new maker movement. In doing so, the maker- entrepreneur also contributes to answer a neoliberal interpretation of communism and the commercialized ownership over means of production.

Chris Anderson, North American businessmen and influential voice in paraphrasing the significance of the maker movement and its entrepreneurial power goes as far as claiming:

> "If Marx were here today, his jaw would be on the floor. Talk about "controlling the tools of production": you (you!) can now set factories into motion with a mouse click. The distinction between amateur and entrepreneur has been reduced to a software option. The step from making thousands is simply a matter of what menu option you click […]." (Anderson 2012, 26)

In is his claim resonates, liberation of the working class according to a Marxian pedigree in the worker is likewise the owner of their own means of production. Moreover, the promotion of "amateurs" to become "entrepreneurs" has set free a capacity to revolt conventional industrial supply chains through mass-produced items- as it now seems just a "mouse click" away to become your own mass-producer. However, a quick historical account of the arts and craft movement, serving as a role model for the rejuvenate version of the Maker Movement, instantly raises doubts in the overly pronounced ability of technological advancement as the lone redeemer to bring emancipation to the working class and overthrow well established structures of industrial markets.

Lingering in North America and Europe as a reappearing concept since 1880, the arts and crafts movement was motivated by three guiding principles: the unity of art and crafts, joy in labor, and improving manufactured objects (Krugh 2014, 283). In anticipation that the appreciation of the object would generate demand, the arts and crafts movement in North America and Europe ultimately could not assert a reform to restructure the industrialized society of the early twentieth century genuinely, as the products eventually proved not to be needed and thus did not perform profitably on the marketplace (Krugh 2014, 286).

With the advancement of computer-based technologies, foremost the development of the personal computer during the 1970s, the awaited technological innovation to empower the individual had seemingly arrived once again. While the arts and craft movement had promised liberty and self-fulfillment through artisanal work, the personal computer connected the induvial worker with the borderless information and communication technologies (ICT) world, where institutional rules did not apply.

Although academically well elaborated (e.g., Buckminster Fuller *Whole Earth Catalogue (1968),* or Chris Anderson *Maker (2012))*, the short-lived institutional freedom of the ICT sector was undermined with the financialization of information as a valuable asset. Information readily provided on the world wide web later on, merely transformed the tangible paternalism of an employer to the intangible sovereignty of online platforms grading business opportunities, like Google (Morozov 2014). Evgeny Morozov observes thereby, that the new maker movement and the historical art and crafts movement, as well as the evolution of the personal computer had in common, that either way technological innovation had promised the long-anticipated Marxian pedigree of an emancipated working-class. However, their reluctance to debate real-life institutional and political changes has reduces their efforts to be commercialized eventually. As such, the new maker movement remains vulnerable to promote a counterculture when in practical execution it becomes another source of entrepreneurial commercialization.

This observation is coherent with recent critics brought forward by the Institute of Network Culture at the Amsterdam University of Applied Science. Thereafter, "Making" has become a key concept and a motivational tool, framing the reinvigoration of the practice and expansion of the craftsmen of production capacities through new technologies. The culture of "Making" – from Do-It-Yourself to institutionalized hackathons, has since then entered the neoliberal rhetoric of a generic scenario for economic growth (Critical Media Lab 2019, 48). That is linking innovation with profit-making through the entrepreneurial spirit of some makers. The advocacy of the Fab Lab, further highlights the procession of a bottom-up movement gradually claiming economic relevance on a global scale. Neil Gershenfeld, a physicist at the Massachusetts Institute of Technology (MIT), founded the first "labs for fabrication" (FabLab) in 2002, as a publicly accessible space for affordable production (Walter-Herrmann and Büching 2013, 12). Connected through open source software, each user of a FabLab globally has access to instruction manuals, experiment histories, and most importantly production machineries for digitally designed objects.

Urban Reindustrialization

Supposing the neoliberal city is characterized by the exile of production from the urban core, and urban economies being assimilated by financial services and the commercialization of real estate, then the advent of additive manufacturing indicates the return of production activities to city centers.
Reindustrialization entered the political debate after the 2008 financial crisis exposed the shortfalls of markets heavily relying on the commodification of housing, land, and services (Vickery Hill and Reynolds 2016, 2). Additionally, cities today increasingly face challenges summarized as density, climate change, income disparities and the demand for an inclusive and transparent decision-making process (Friedman 2019). While such disparities became especially evident in the years following 2008, the parallel advancement of computing-based production technologies have seemingly presented an alternative to electoral representatives, eager to reinvigorate the stagnated urban economies.

Former inner-city factories have been polluting large scale complexes, occupying vast areas of nowadays expensive land. With the emergence of new production technologies, primarily 3D printer, CNC milling, and laser cutter, and their comparable minimal spatial requirements and little emission, former prejudice of inner-city factories have seemingly disappeared. Some of the key sectors, additive manufacturing, and Internet of Thing (IoT), replaced the spatial requirements of mass production of large factories, through affordable small size production machinery like a 3D printer. Moreover, the convergence of additive manufacturing and IoT enables the producer to highly customize products efficiently, thus keeping the wage costs relatively low. The integration of individual producers through virtual ICT network, enables the seamless and affordable exchange of knowledge – rendering community exchange as the new growth engine for innovation. As such, urban reindustrialization is marketed as the promised remedy for a variety of urban challenges, from unemployment to climate change, by combining the entrepreneurial spirit with manufacturing as a complement to the dominant service sectors (Nawratek, et al. 2017, 15). Therefore, urban reindustrialization can be determined as a political strategy to retain a city's status quo as a place of production and exchange. It can be argued, however, that urban reindustrialization is handled as the solution to an economic crisis, which entails the risk of being considered as a strategy, to merely relocation factories, or to bring previously neglected society groups in line with the neoliberal commodification.

In doing so, production is primarily brought forward as a collective activity, informed by the narration of customization where the consumer becomes co-producer – thereby excluding the necessity to socially appropriate to means of manufacturing as an imperative (Schneider 2017, 95). Urban growth strategies under neoliberal policies were informed by powerful narrations, such as Global City, Creative City or High-Tech City, which, however, overestimate minor productive activities as prolific (Nawratek, et al. 2017, 26).

Nevertheless, the creation of significant images portraying the economic specification entered a global competitive market as a marketing tool to attract further investments. With this in mind, several globally enforced initiatives considered as urban reindustrialization have been marketed as a terminological combination of the Californian Silicon Valley (e.g., Silicon Wadi: Israel, G Valley: Korea.). In refence to Silicon Valley, such large-scale publicly funded projects primarily emphasize the development of science and technology parks, linking industry, universities, and research centers (e.g., Rhine-Main-Neckar: Germany, Silicon Wadi: Israel, G Valley: Korea).

The agglomeration of R&D in knowledge-based economies and disciplines like IT, robotics, or bioscience, proclaim them as the leading growth engine of the twenty-first century (Thorns 2002, 125). Their scale, oftentimes covering large portions of land make some of them unsuitable for dense and expensive inner-city locations, which leads to the urbanization of peripheral or suburban areas of land. In other cases, the scarcity of land, as in the case of Silicon Wadi in Israel, prompt a spatial dispersal of virtually connected IT clusters, thus enable to establish branch offices in inner-city locations. Nevertheless, Swiss architects Matthias Müller and Daniel Niggli argue, the agglomeration of technology industries and research laboratories as clusters in designated areas, has triggered two major disadvantages: that is the clustering of highly skilled and educated professionals, and the under exploitation of new manufacturing potentials (Müller and Niggli 2017, 109). Unlike heavy industrial production circumvented by large production equipment of the past required equally large production spaces, the new computerized mode of production is spatially and environmentally less invasive, which makes them applicable to several localities from private homes to specified workshops. Moreover, in considering reindustrialization as the trajectory of knowledge-based economies and labor-intensive production, industries have the potential to employ highly educated, as well as skilled workers with decent academic background. For this reason, the convergence of manufacturing and science emanates especially when planning small-scale urban reindustrialization initiatives.

While the development of large-scale technological science parks dates back to well before 2008, and since the reliability on global economic networks has proven to be of high risk to domestic urban economies, political focus is gradually turning attention to revitalize urban manufacturing production. Manufacturing is generally defined as the junction of design and production – the process in which design is translated into an actual product. Moreover, during the manufacturing process value is added to raw material through for instance labor, technology or tools. Furthermore, manufacturing industries expand beyond the sectors' limitation thus facilitates a myriad of binary markets. Urban manufacturing would as such merely determine the environment in which such manufacturing activities take place – it does, however, not immediately define the scale, and the mode of production, or the product range of those activities. Therefore, the term manufacturing and likewise urban manufacturing simply paraphrases a broad range of products, scales, and motivations, each of which generate a distinctive economic network of supply, and demand (Vickery Hill 2019).

Urban manufacturing, as a complementary addition to the service industries, has entered the political discourse as a heralded remedy to diversify urban economies and ultimately reactivate the stagnated local economy after 2008 (Cities of Making 2018). As a facilitator to the myriad of binary industries, urban manufacturing appears to enter the political discussion as the favored go-to tool solving a variety of political, social and economic dilemmas. From high unemployment rate, diversification of inner-city economies, housing, environmental impact of global warming, to name a few, urban manufacturing appears as the developmental niche sector on regional scale. The most heralded narration, however, highlights the environmentally friendly aspects of innovative technologies and their minimal spatial requirements, and production process that theoretically can take place anywhere with little emission during the production process hence stands in line with emission targets. While impressive images are of 3D printers saving the world are drawn (Critical Media Lab 2019). Municipalities in cities like New York, London or Seoul struggle to supply manufacturers with a legal base – leaving those who determine the narration without sufficient legal armory to oppose the legally well-equipped real estate markets.

Urban Revitalization and Industries

In the course of municipal efforts to valorize underused assets as additional income recourses, primarily “run-down” spaces of former production, have been objected to major urban revitalization projects in Western cities. Commonly, within this process of revitalization, buildings of former industrial labor are turned into financialized residential or cultural spaces, as the many cases from factories being turned into galleries, loft apartments, artists districts across nations can prove (Mayer 2016, 56-57). Such design and policy making processes have been heavily informed by doctrines paraphrased with the livability agenda as "an economic imperative." (Gore, Livability Announcement by the Vice President at the American Institute of Architects 1999). The assumption is, that a city that provides more diversity in mixed programs (mixed-used zoning), and visible community participation nurtured through public green spaces, enhances the economic competitiveness of cities. That has been further elaborated by Charles Landry claiming “In the new configuration of cities, creativity is one of the main currencies.”, with which social and cultural defined in economic terms, will provide its legitimacy and rhetorical power (Landry 2008, 6,111). With which he aims to bridge between the neoliberal dogma with cities as the densified agglomeration of underexploited potentials.

In the aftermath, cities have been converted into an "institutional laboratory" of neoliberal experiments of revitalization, that is public-private-partnership, various forms of local boosterism, property led development. Interestingly, urban revitalization initiatives have transpired to be a pivotal agent in the spatialized accumulation of capital through the recycling of former spaces of production (He and Wu 2009, 283). Within this neoliberal catalog of urban revitalization, the creative city has emerged as the major urban growth strategy for municipalities to remain viable participants in the global market place. Within this paradigm, industrial activities of relatively minor productivity, such as arts and culture, have been elevated as the pivotal metaphor driving urban economies (Nawratek, et al. 2017, 26). This approach of urban economies has been gradually revealed as a strategy to promote social disparities in cities by granting access to opportunity and investment especially to the highly-skilled and high-income groups. Urban reindustrialization enters be this debate being the strategic patch between valorizing abandoned factories or underused buildings and income inequalities by nurturing industrial activities attainable to a broader workforce.

However, the valorization of abandoned but architecturally attractive buildings led by young professionals does not address to a full extent the urban issues that arose through urban developments in the Asian context. This includes a low quality of infrastructures, housing emerging from rampant urbanization, or very high density. Metropolitan areas like Seoul experienced very marginal urban decline because of deindustrialization.

Moreover, while in favor of rapid economic growth and vast urbanization traditional low-rise houses, informal settlements, or unmaintained structures remained to be turned into high-rise apartments or office towers, oftentimes employing violent methods to make space for development (Kyung and Kim 2011, 5). While in Europe or North America such spaces sat abandoned, in Asia even delipidated structures remained to be spaces of production of family operated small scale businesses, especially in downtown Seoul.

Nevertheless, for the past two decades the dogma of a livable city informed by urban regeneration exists in Seoul. Which was expressed in the efforts to the replacement of inner city industries and manufacturing with more profitable, higher wage, and cleaner industries (Bäumler 2015, 117). However, while especially small-scale manufacturing in the West is characterized by high-value-added customized products (e.g., design furniture, craft food), with marginal market outlets. Korea has preserved an approach of inner-city manufacturing of qualitative small-scale production. The next chapter of this research thus elaborates on how the described processes have been translated in the Korean context and ultimately led to the regeneration of Sewoon Sangga.

Part 2: Unfolding Urban Reindustrialization in South Korea

Figure 5: Geographic Location South Korea. Author's own. 2020.

In this research, the city has been portrayed as the geographically condensed accumulation of regulatory processes. Aforementioned observation can be further extended through defining cities as likewise political spaces, an assemblage of various strategies developed over time in a spatial setting. Proposed by Henri Lefebvre, the consideration of a "space time axis" provides therefore the analytical base to reveal the genealogy of ideas over time in relation to space (Lefebvre 2003, 24). That becomes especially relevant when considering the transformation of urban industries in Korea. While processes of industrialization, and deindustrialization have evolved in Western cities over centuries, starting with the industrial revolution in Great Britain during the late 18th century. Similar processes have been mobilized in Korea in the last six decades, thrusting the country from being a third world country until 1960, to becoming a member of the OECD in 1996. This delayed but rampant progress to catch up with the world economic leaders, not only in economic standards but also in city competitions, has provided Korea with the benefit to analyze predecessors experiences. Thus, enabled the local government to selectively adopt desired strategies to domestic planning agendas. The following chapter, therefore, explores the urban planning dynamics expressed in Seoul in direct relation to the economic condition prevailing at the time. Moreover, in order to situate the case of Sewoon Sangga within the network of governmental economic, and urban planning objectives, the building as well will be discussed along the same periodic time line.

The Korean Miracle: Industrialization of Korea

Between the 1960s and 1980s, South Korea grew economically under a state-led developmental militarized regime, which stressed the centralized governmental role to mandate and control desired industrial expansion (e.g., heavy industries). During that time, the government took over the centrifugal position of designing economic plans (five-year plans), thus curating the allocation of recourses by controlling all financial institutions and assigning economic plans efficiently. The protagonist of the early economic growth was President Park Chung Hee, who seized power through a military coup in 1961. He secured his electoral victory in the following decades, through a combination of engineered elections, political dexterity, and his public portrayal as the godfather of the nation's economic "miracle" (Chang 2007, 13). For the following decades, the Korean way of converting poverty through industrialization to economic prosperity was a balanced act of flexible protectionism and export-oriented trade curated by the state.

The model is as such not a novelty, as it describes the mode of how most of the more affluent nations have accumulated their wealth a few centuries earlier, so Chang Ha-Joon (Chang 2007, 67). However, during the same time neoliberalism infiltrated the global north as the new prevailing paradigm. Subsequently, the most conventional economic growth strategy among developing countries at that time was budgetary aid agreements with the Foreign Direct Investment (FDI). Korea, however, resisted the inclination to heavily rely on the FDI due to concerns of becoming dependent on multinational corporations - the more conventual economic growth strategy among developing countries at that time (S. Chung 2007, 1). Moreover, Korea opted to steer in precisely the opposite direction of the global paradigm of deregulated markets. Contrarily, the Korean government seized power and influence over financial institutions and economic decision making. The government, in consultation with the private sector selected specific industries to nurture through tariff protection, subsidies and different forms of governmental support (e.g., overseas marketing).

Furthermore, the Korean government as the sole owner of all the banks, retained a direct influence over the capital flow within the nation as well as the allocation of recourses made by enterprises. As long as private companies performed profitably, the governmental intervention was reduced to a minimum. If, however, the capital was invested into deviated purposes from the national industrial growth agenda or performed poorly, the government was eligible to seize ownership by setting up state-owned enterprises (SOFEs).

Another strategy was to retain autocracy over foreign exchange - the violation of these regulations was met with the death penalty. The government thereby classified the spending of foreign currencies as designated for the import of substantial machinery and industrial inputs according to the comprehensive economic development plan. Simultaneously, the regulations and legal reinforcements on the use of foreign patents were eased, nurturing a vibrant domestic market of reversed engineering, and original equipment manufacturing (OEM), and the pirating of patented products (Chang 2007, 20-21). Such informal channels which imported technological knowledge were explored, laying the foundation for a well-educated work force which propelled the continuous industrial growth during the 1970s and 1980s.

State-Led Developmentalism and Downtown Productivity

The industrial development of Korea, as a war-torn country of the 1960s, was materialized in the physical cityscape through a clean slate of top-down urban design led by an authoritarian regime – most significantly in the capital city Seoul where national and municipal interests met. During those decades of regional economic growth, Seoul experienced a rapid change as the administration from the 1960s onwards encouraged to concentrate population and industrial growth in the metropolitan area (S. Kim 2015, 58). The municipality answered the vast and unprecedented urbanization through large-scale urban developments, an approach that persisted from 1961 until the early 2000s. Besides the development of large-scale developments, and infrastructural renovation, it became a political motive to promote Korea as a functional and modern nation to the world.

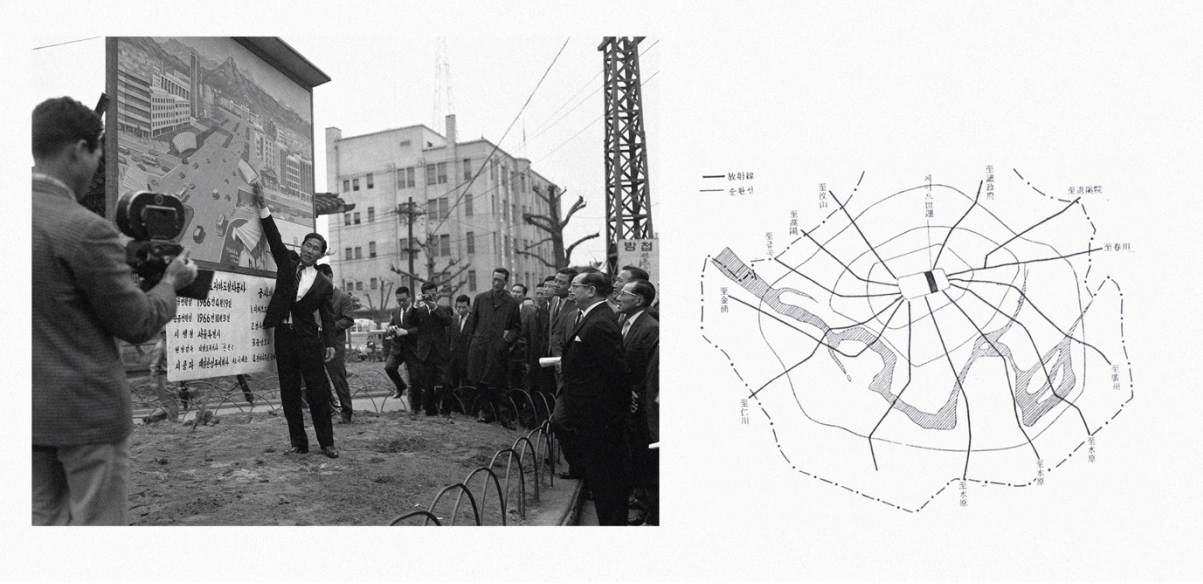


Figure 6: left) Mayor Hyun Ok Kim of Seoul: Groundbreaking ceremony for Gwanghwamun intersection 1966. Seoul History Archive. (right) Mayor Kim Hyun Ok's sketch of Seoul. Kang, Nan-Hyoung. 2011.

The key objective was to concentrate all political, national and municipal administration in the foremost historical city center as a single-core. Additionally, the majority of export oriented light weight industries, including sewing factories which contributed significantly to the national revenue concentrated in downtown Seoul. Accordingly, this further encouraged the immigration of workers from rural areas to the capital. However, besides a concentration of light weight industries, downtown was equally the core of small-scale manufacturing, supplying domestic industries and demand.

The industrial network of the downtown area (Jongno and Jung-gu) is spatially characterized by interwinding alleyways, and clustered industries where manufacturing and information can spread swiftly from alley to alley (Sewoon Collabortaion Support Center 2019). Today, downtown Seoul persists as the last remaining and most complex urban manufacturing clusters in Korea, prolonging a history of highly skilled and professional manual production. The businesses in the area span from metal and tool manufacturing, to jewellery, electronics, precession machinery, movies, printing and gaming. Until now, printing, jewellery, and electronics are considered to be the healthiest of the businesses in downtown.

The electronic cluster of Jung-gu originated in the 1960s with the selling and assembling of radios as well as household appliances, as the demand for home appliances increased with the growing affluence of the middle class during the 1970s. With the construction of Sewoon Sangga in 1968, the industrial clusters gradually gained a reputation as the center base for electronics. Enticed by the flourishing market, numerous radio-television institutes of emerging engineers established around Sewoon Sangga. The agglomeration of a retail base, workshops, and institutes formed a beneficial cycle of education, employment, development, and business startups – a synergy desired for, in carefully curated urban reindustrialization initiatives nowadays (Sewoon Collabortaion Support Center 2019). While the initial market outlet was the repair and servicing of electronic devices, vendors tried to increase their profit through assembling their own products. Favored by the lean legal reinforcement of copy rights of foreign literature and products, engineers increasingly began to educate themselves to improve their product range by studying books, imported machines, or governmentally supported foreign travels to Japan or Taiwan (The Story of Three Generations of Cheonggye Maker 2020).

Consequently, the economic focus shifted gradually from home appliance retail and radio systems to assembling and customizing computer systems, which among others brought forward a successful copy of the Apple 2 computer (Sewoon Collabortaion Support Center 2019). Nowadays, electronic and related industries are predominantly located in and around the northern block of the Sewoon arcade. With the increasing sophistication of computer systems, the majority of the first-generation businesses have shifted their industries towards retail. Moreover, with clients primarily ordering prefabricated devices online, it is argued that the industry has lost its innovative enticement, along with the customers who rely on customized electronic items (Kang and Park 2015, 113). Nevertheless, the agglomeration of small-scale businesses paired with the flexible municipal administration has preserved the economies of downtown Seoul as an alteration to a predestined urban economy under the neoliberal regime, majorly operating according to macroeconomic requirements.

The monocentric concentration of a substantial political and industrial foothold of the nation close to North Korea sparked the first concern when the relationship between the two nations declined during the mid 70s – resulting in the planning of *Gangnam* as an additional economic center (S. Kim 2015, 12). The development of further economic centers *Yongsan* (electronics) and *Gangnam* (housing and finance) redistributed the allocation of public funds unevenly, primarily focusing on the development of the south (Ribadeau-Dumas, et al. 2012, 13). Subsequently, *Gangnam* expanded rapidly while the former industrial centers in the north gradually declined.

The Rise of Sewoon Sangga

Marking the transition of a developing country into an industrialized and wealthy society, Sewoon Sangga was built as an epitome of consumerism, business, and luxurious living on the grounds of unregistered shanty homes and businesses. In the late 1960s until the mid 70s, Sewoon Sangga, which translates to, *hope to gather all the energy of the world* was a center of cutting-edge technologies, business administration, and housing to a nation recovering from poverty.

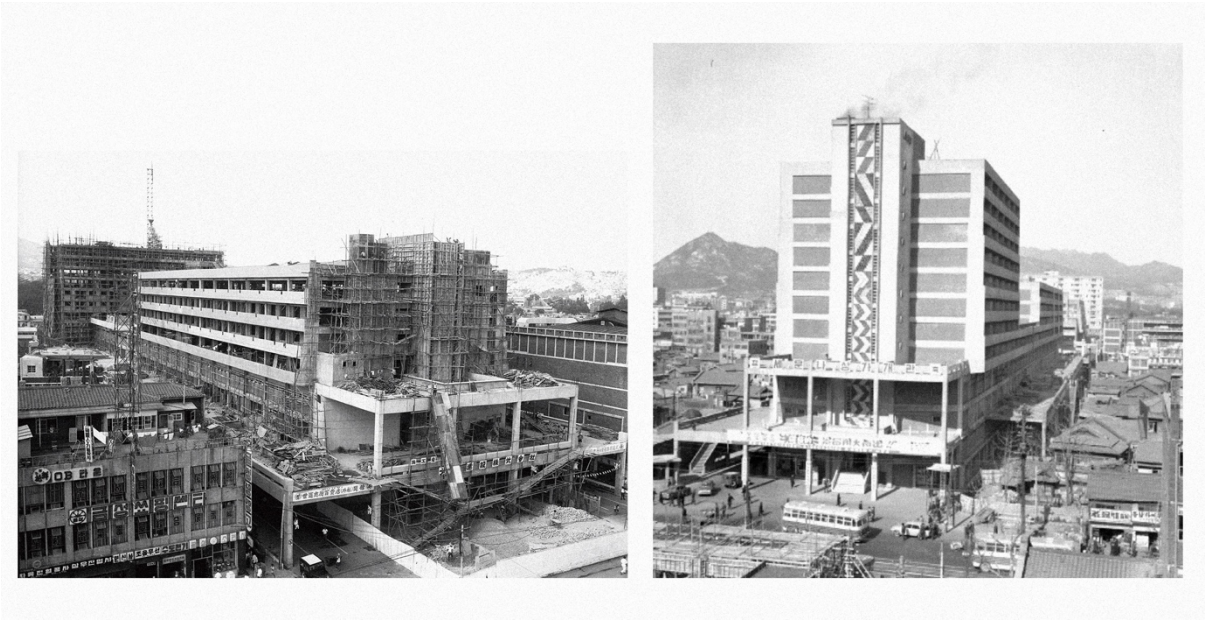


Figure 7: (left) Construction of Sewoon Sangga 1968. (right) Completed Daelim Sangga approximately 1969. Seoul History Archive.

Sewoon Sangga is a one kilometer long and thirty-meter-wide multi complex structure, covering four blocks between *Jongmyeo* shrine and *Namsan* mountain. Each block framed the development of two interlinked buildings of different heights, ranging from eight to thirteen floors. It was built in 1968, after the design of Korean architect Kim Swoo Geun, at that time employed as the lead state architect for the Korean Engineering Consultants Corporation (KECC). The prominent spatial characteristic is the linear arrangement in which each building was positioned in sequence, what is further contrasted by the dense network of small alleyways and low-rise buildings framing Sewoon Sangga. During the Korean War, the site of Sewoon Sangga served as the seedbed for squatter settlements of refugees causing provisionally low rise wooden or metal sheds to spread.

At that time, refugees in the area made a living of selling junk and antiquities, which reformed the area as an economic center within Seoul. Sewoon Sangga emerged amidst this unstructured and chaotic assemblage as a rectangular concrete apotheosis, clearing the site of low profitability and undesired dwellers.

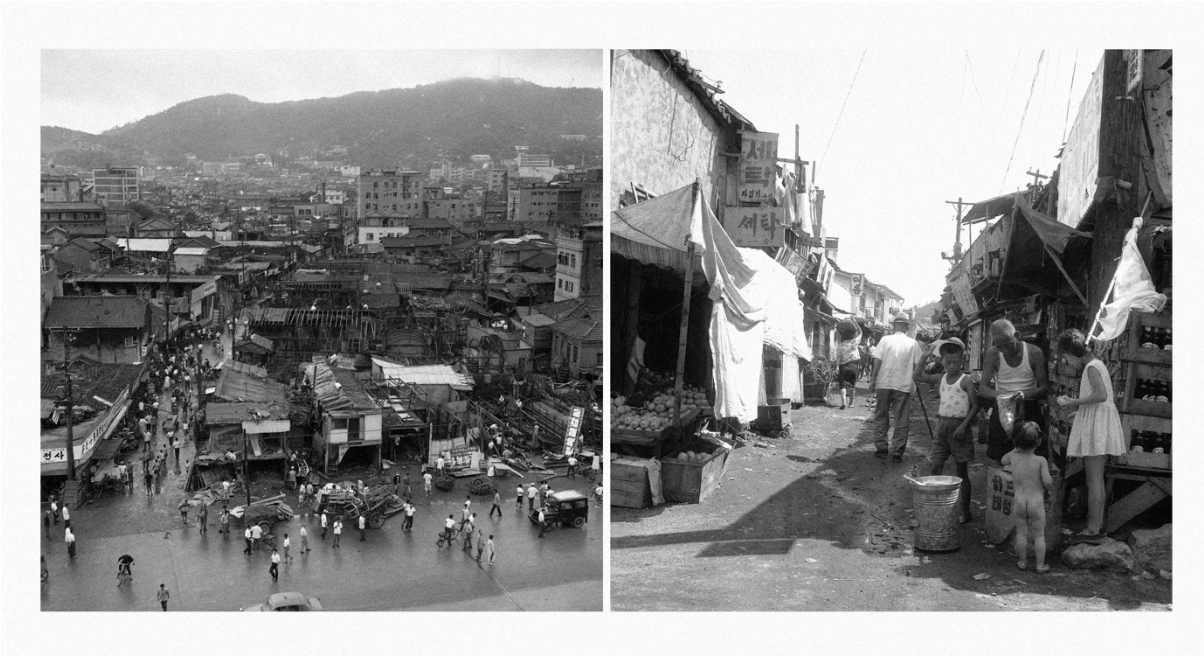


Figure 8: The demolition of Inhyeon Dongjapan Housing (Site of Sewoon Sangga)1966. Seoul History Archive.

Kim Swoo Geun proposed a design in resonance with spatial solutions most similar to projects like Smithson's*' Golden Lane Project* or Kenzo Tange's *Plan for Tokyo Bay* (Kim and De Meulder 2017, 89). In planning the structure as a metabolism, Kim was able to condense a myriad of urban functions vertically, during a time when Seoul was predominately a low rise and horizontally sprawling city. The separate blocks and buildings of Sewoon were planned to be joined through a continuous pedestrian deck on the third floor. During the time of the construction, Seoul experienced a rampant urbanization causing urban infrastructures to be developed slower than the population was rising. Streets, therefore, were heavily congested, without clear separations between motorized vehicles and pedestrians. The design of the pedestrian deck thus proposed a feasible solution to provide efficient infrastructures to the motorized traffic on the ground level and a pedestrian promenade above. Moreover, in connecting the deck to the retail facilities established on the third floor, Kim designed a high street aiming to avoid the creation of mere throughout fare.

However, construction difficulties, and decay resulted in the pedestrian deck never fully connecting the whole range of four blocks (H. Kim 2018, 83). The proposition of a pedestrian commercial district never fully explored its potential.

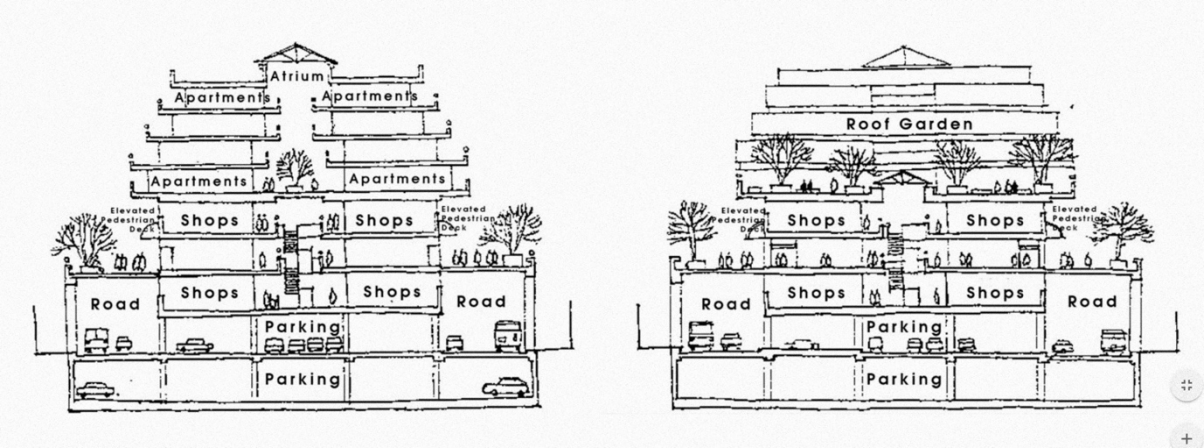


Figure 9: Section Sewoon Sangga, Yoon Seong Joon. 1994.

Likewise manifold to the exterior assemblage of building blocks, is the interior program and structuring. While the ground floor and underground spaces were designated parking areas with connecting driveways, second to fourth floor were retail areas. The retail spaces had been subdivided into small shops and booths for small-scale vendors mostly trading with electronic goods like home appliances. Above the commercial areas, residential units were arranged along a center atrium for another four floors. Upon entering the apartment on the fifth floor, a kiosk, letter box area, and a room for the security guard provides tenants with the necessary tools to run errands, communication, and maintenance inquiries. The entrance to the individual apartments leads to a short entrance way, from which three doors lead to the larger living area, bathroom, and bedroom.

The commercial activities in Sewoon Sangga attracted special attention during the early years as frontiers to imported business strategies, like promotion schemes and a price-tag system that changed the direction of how commercial business was done in Seoul. Moreover, new facilities like conference rooms and an indoor golf course were introduced to the Korean society and were expanded from here later on – in 2015, the indoor golf alone generated an annual revenue of estimated 2 trillion KRW (16 billion USD) (H.-S. Min 2015, 281) (Korea Bizwire 2017). However, the developments of the then-new upscale neighborhoods like *Gangnam* in the late 1970s, motivated residents of the Sewoon Sangga complex to move towards this more promising neighborhood.

The evacuated space was gradually assimilated by manufacturers and small-scale enterprises of electronic sectors, and industries supplying the domestic industrial market through reversed engineering. While Sewoon Sangga a shopping mall for home appliances had first attracted the accumulation of related industries in the vicinity, it was now taken over by them.

Figure 10: (left) "[I might be fat] Almost all female golfers confess they are rich daughters or wives.". (right) "Carts are not awkward. The men are delighted with their help for the wives. In Sewoon Sangga Supermarket 20% of the regular customers are male." Kyuonghyang Newspaper 22 Oct. 1970.

Concurrently, the key preposition for the construction of Sewoon Sangga was the legal reform of landownership, that is the presumption of land in downtown Seoul as national territory – including previously legally purchased land by private individuals. While the state forcibly acquired legal rights to implement large scale redevelopments without much contestation, property owners received commercial and settlement rights (N. Kang 2018, 71). For that reason, former small-scale industries established in downtown Seoul were able to retain their business despite the rampant renovation of Seoul. Sewoon Sangga was hence jointly constructed through construction companies contracted by the state and private landowner unions. The cooperation of public and private institutions of different scales reflected in the building with varying building volumes and urban infrastructure integration. While construction companies had to be able to finance the construction of the allotted section individually, private landowners received settlement and commercial rights upon completion. Therefore, each section was subdivided in two parts, privately owned land, and land owned publicly (but utilized by construction companies). While plots owned privately reached a building height of eight floors, publicly owned developments reached up to thirteen floors (N. Kang 2018, 74-75). In return, the construction companies received the rights to trade the housing units on the real estate market, aiming to generate profit explains the glaring variation in building heights.

The infrastructure space, that is the pedestrian deck and underground spaces were reassigned upon completion to state ownership, contributing to the national revenue through occupation fees. This process was later legally defined as *gibu chaenab* (기부채납) as part of the state property act in 1976. Still in use today, *gibu chaenab* is providing local and municipal governments with legal margins to regulate urban developments by mandating the donation of construction profits as public facilities in a contribution to society.

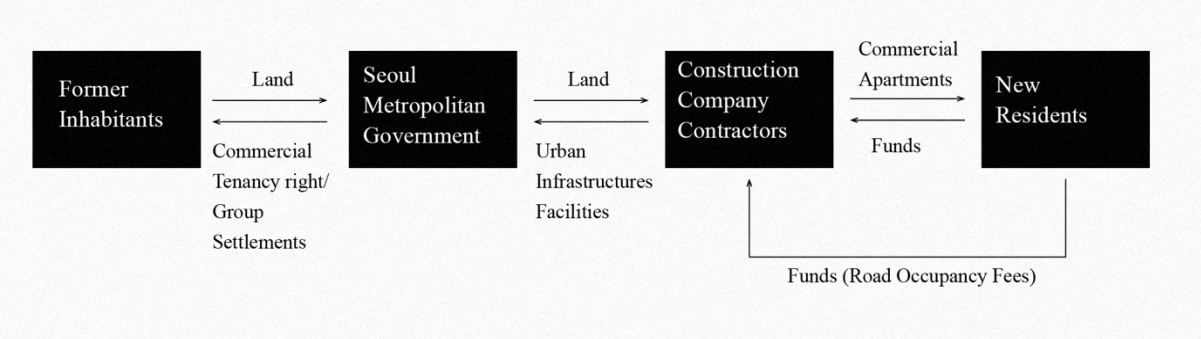


Figure 11: Sewoon Sangga funding scheme in 1968. Kang Nan Hyoung in Spectres of the State Avant - garde. p. 75. 2018.

While the design language of Sewoon Sangga evidently resonates with spatial ideas deriving from a European minded modernism (e.g., Smithson, Tange), the inducement of private capital for development was adopted from strategies employed by American municipal administrations (Kim and De Meulder 2017, 87). Although the architecture of Sewoon Sangga did not become a new norm for Korean urbanism, it commenced a rather a new mode of urbanism where a range of concepts were readily adapted and recomposed in new extraordinary constellations.

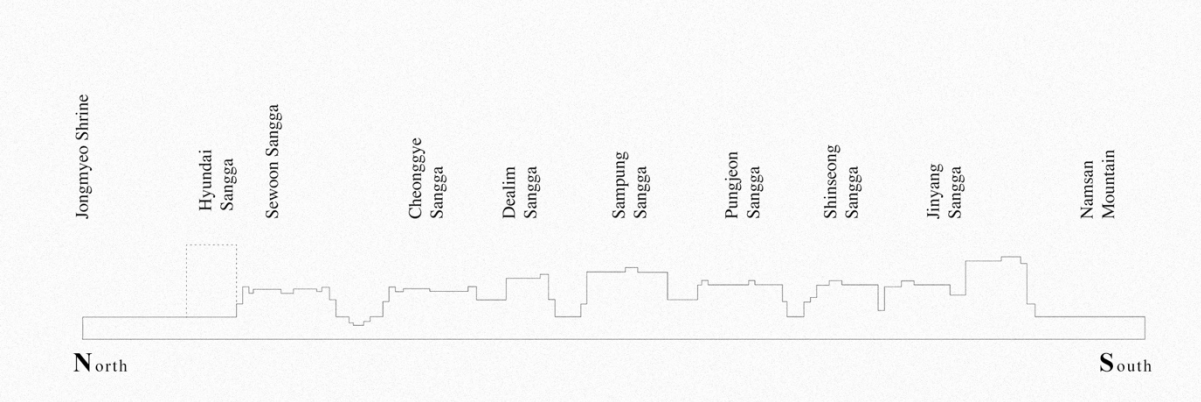


Figure 12: Sewoon Arcade and building names at time of construction late 1960s. Author's own.

While the design language of Sewoon Sangga evidently resonates with spatial ideas deriving from a European minded modernism (e.g., Smithson, Tange), the inducement of private capital for development was adopted from strategies employed by American municipal administrations (Kim and De Meulder 2017, 87). Although the architecture of Sewoon Sangga did not become a new norm for Korean urbanism, it commenced rather a new mode of urbanism where a diversity of foreign and local concepts was readily adapted and recomposed in new constellations.

Counterfeit Liberalism and Conglomerates

The first period of industrialization can be characterized as catching up with more advanced Western nations by governmentally mandating and curating of the allocation of recourses. The second phase meant the shift to stabilize markets through strong fiscal policies (Jwa 2001, 7). The change was due to several economic difficulties, Korea had to face in the late 1970s (e.g., second oil crisis, high inflation, and low profitability of heavy and chemical industry). Amidst this turmoil, President Park Chung Hee was assassinated and General Chun Doo Hwan seized power through yet another military coup. Unlike his predecessor, Chun's presidency initially lacked political legitimacy, and in order to gain public support the government pursued seemingly counter balanced principles for economic growth - as the previous regime was perceived to have caused the distress at that time.

The new government appointed economic advisors who had been educated at major American universities in the mindset of neoclassical economies and the macroeconomic policy objectives of the 1980s (H. Chung 2005, 258). In contrast to a classical economic theory pursued during the initial industrialization, where the cost of production determines the price of a product, in neoclassical terms, the consumer is placed as a paramount determinant in the evaluation of a product's worth. This opened the field of debate as to the influential factors of consideration, but also rationalized the valuation of service activities as profitable industries. A second significant change was the readily adaption of macroeconomic policies, which meant among others, the liberalization of trade, privatization of financial institutions, and retrieval of governmental subsidies from the heavy metal and chemical industries (ibid. 259). In sum, the adaption of neoliberal policies of deregulated markets and privatization strengthened Korea's stand within a global economic network.

However, during the decades of rapid economic growth, little emphasis was paid to the side effects of the state-led interventions in the long-term. One of which is the negligence of developing and enforcing sufficient market institutions, which cumulated with the Asian financial crisis in 1997. It is a well-known fact among economists like Jwa Sung-Hee, that Korea has gladly imported formal institutions, from the National Assembly to the tax system, without sufficient reinforcement (Jwa 2001, 107).

Pressurizing Downtown Industries

Through the unprecedented rapid economic growth and the deregulation of markets throughout the 1980s and 1990s, Seoul planning department faced increasing challenges to meet the spatial requirements of the emerging large corporations, diversified industrial structures, and an evolving strong middle class. Those prerequisites were met with plans to overhaul the city center to supply more space for businesses (S. Kim 2015, 15). For that reason, the former single-core center was extended with additional development centers in Gangnam, and Yongsan.

In consideration of the city center, the interventions meant the radical abolition of informal settlements at large to provide development land for office towers in the growing central business district (CBD) (S. Kim 2015, 15). The large-scale urban developments of office towers in the CBD and Jongno gradually pushed smaller manufacturing enterprises towards the East, especially the Sewoon area. Additionally, the vast network of publishing industries established in the core of Seoul, were envisioned to be relocated to peripheral new towns, in this case the *Paju Book City* on the northern outskirts of Seoul.
During the pre-democratic era, starting with the surrender of the Japanese in 1945 until the late 1980s, Jongno-gu accommodated Koreas major publishing houses – due to heavy restrictions and censorship the publishing industries were centralized in a few larger enterprises. With the change of administration, triggered by the "June Democratic Uprising" in 1987, a flood of small scale, family-run publishing companies appeared throughout the district – resulting in a maze of publishing and book distribution networks. While the urban planning agenda foresaw the relocation of such industries to *Paju,* the increasing agglomeration of new office spaces in direct proximity has motivated local industries to shift their production from book printing to business-related products printing, including brochures, reports and marketing advertisement materials (Kang and Park 2015, 114). While major publishing enterprises were indeed moved to *Paju*, small-scale industries remained strong in the industrial sector in the area as of today.

The flexibility in which the publishing industry shifted their production is inevitably correlated with the structural organization of such small-scale mostly family run businesses. It indicates as well from the responsiveness in which the working class adapts to changing economic and spatial conditions.

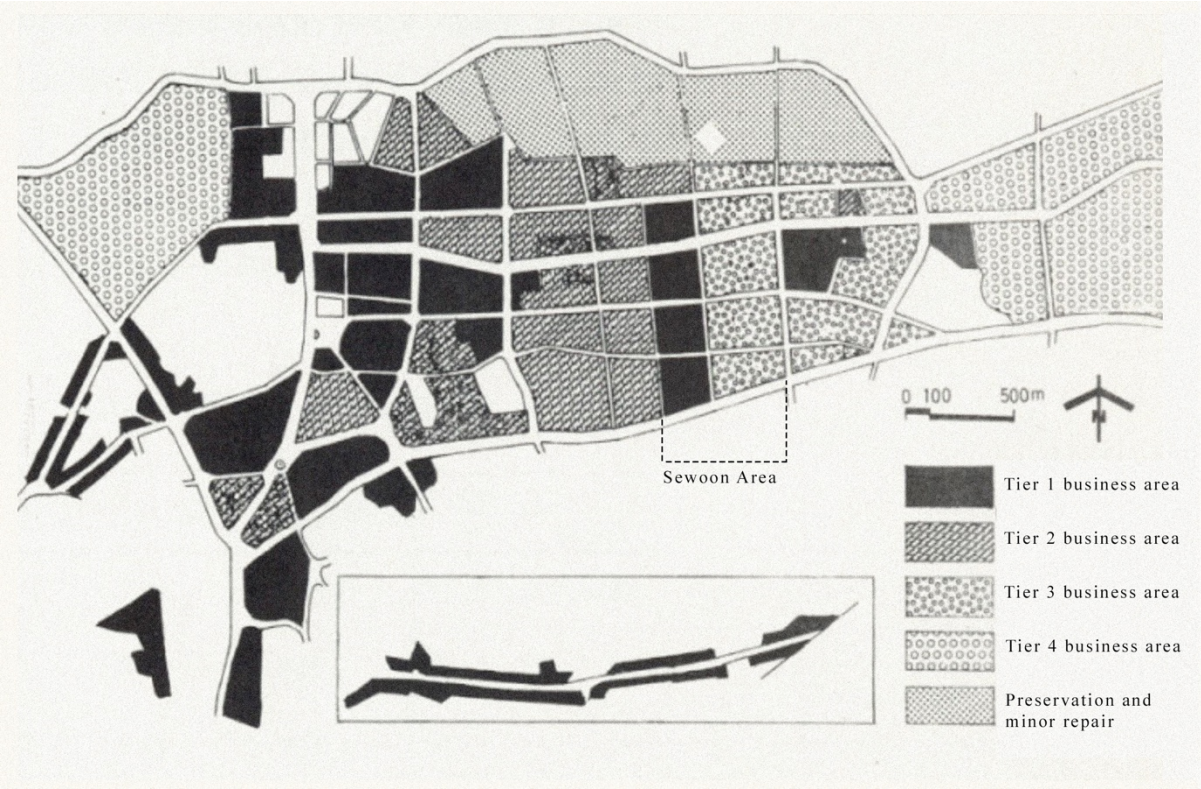
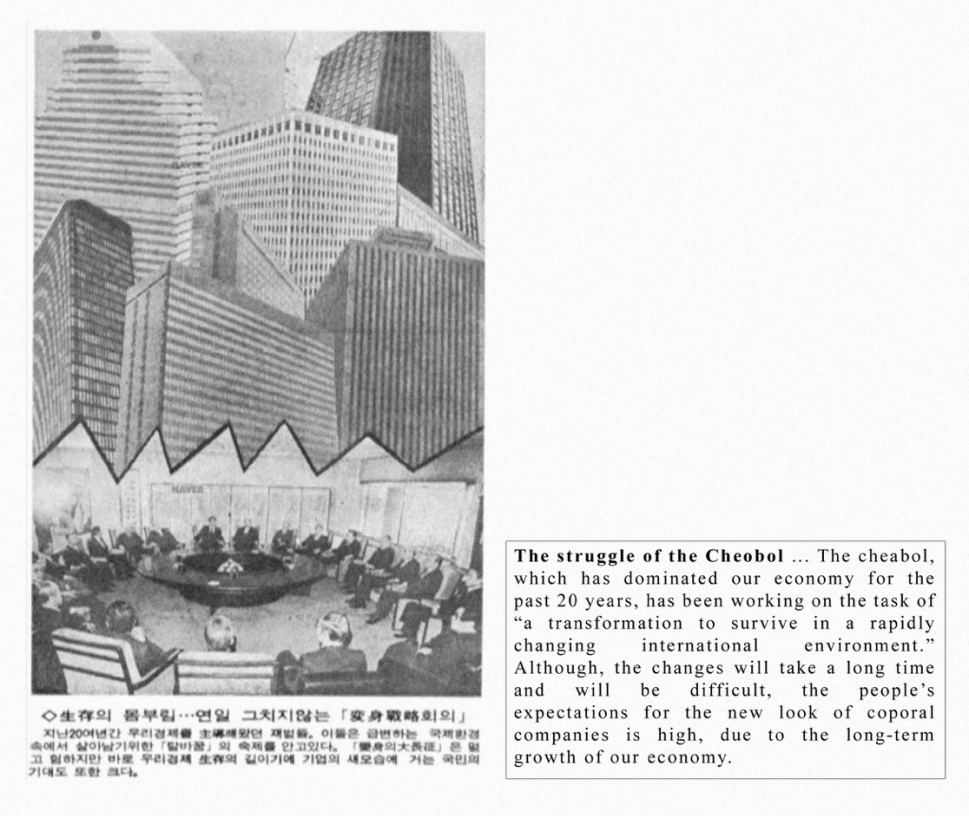


Figure 13: Downtown Seoul development project area. "Plan to induce a certain percentage of the area to be developed as residential use, institutional architecture, large scale development, roadsides, and minor repair". Seoul Basic Plan 1984. Seoul Metropolitan Government "Seoul City Planning History". p.211. 2016.

The Chaebol

The emphasis of policy provisions as well as spatial interventions designed to foster the economic growth and spatial expansion of large conglomerate activities, suggest a brief introduction of the *chaebol*- Korea's family owned multinationals like Samsung, Hyundai, and LG. During the administration of Park Chung-Hee, the *chaebol* occupied the pivotal role to translate the magnitude of Parks vision of an industrialized nation into action. However, while they remained greatly depended on the political goodwill throughout, the gradual assimilation of more deregulated market strategies propelled the *cheabol* with enhanced financial and organizational independence from the government since 1980s.



◇生存의 몸부림…연일 그치지않는「変身戰略회의」

지난20여년간 우리경제를 主導해왔던 재벌들。이들은 급변하는 국제환경 속에서 살아남기위한「밀바꿈」의 숙제를 안고있다。「變身의大義名分」은 멀고 험하지만 바로 우리경제 生存의 길이기에 기업의 새모습에 거는 국민의 기대도 또한 크다。

The struggle of the Cheobol ... The cheabol, which has dominated our economy for the past 20 years, has been working on the task of "a transformation to survive in a rapidly changing international environment." Although, the changes will take a long time and will be difficult, the people's expectations for the new look of coporal companies is high, due to the long-term growth of our economy.

Figure 14: Chaebol Transformation. Maeil Economy. 01.01.1985. p.21.

However, the absence of a fundamental restructuring economic organizations, the *chaebol* maintained the primary generator of national revenue, and thus contributed to their additional leeway. In consequence, the early attempts to liberalize national market economies had merely provided a few large enterprises with the noteworthy financial leverage to influence political decision making (H. Chung 2005, 260).

The time between the 1980s and 1997 signifies thus the rise of the *chaebol* as influential powers circumscribing political decision-making benefitting corporate interests. However, the entanglement between *chaebols* and the ruling elite of Korea remains part of a highly complex and long prevailing corruption debate, which until recently in 2016, seldom lead to an impactful change.

The sentiment opposing the *chaebol* during the 1980s, predominantly resurged from the general public opinion that the state-led developmentalism nurtured solely a few corporate industries. While this had been perceived as the catalyst toward prosperity during the early stages of industrialization, it shifted to being seen as the reduction of industrial diversity and thus weakened competitiveness in industrial sectors. Moreover, the established lobbying power and ostentatious portrayals of the *chaebol* being "too big to fail", had damaged their public

representation significantly and were now perceived as lethargic - resting on the success of a booming economy (Jwa 2001, 8;11;31). Protests arose especially after a prolonged economic downturn, the resurfacing of the democratizing movement, and the prospect of having powerful public lavage in light of the Olympic games held in Seoul in 1988.

Figure 15: (left) June Democratizing Protest Seoul. Dong-A Ilbo. 1987.12.26.p. 7. (right) Funeral of Lee Han Yeol. Tony Chung. Reuter. Seoul, 1987.

The unification of the unemployed, students, political opposition, and members of the church resulted in a nationwide confrontation between protesters and the governmental reinforcement (e.g., police and military). The situation was fueled by a lingering ambition of students and the opposition to overcome Korea's long endurance of military dictatorship (blanketed as democracy), which mobilized considerable masses of people to demonstrate for democracy along with the unemployed and labor union activists (Adesnik and Kim 2008, 9).
Eventually, the turmoil reached dimensions beyond control (the death of protester Lee Han Yeol lead to a funeral in which 1.6 million people participated in 1987), and the government had to propose changes.

Those have been predominantly in the legitimization of labor unions as a protective mechanism for employees over their employers (protests against inhumane working conditions raged since the 1970s), and fundamental financial support for small-scale enterprises aiming to set a counter balance to the oligopoly of the *chaebol* (Jwa 2001, 7). Especially the foundation to consider small-scale businesses in nationwide policy directives, marked a shift for the Korean economy in the long run, also the explosive utilization of such regulations became more pertinent in the years after 1997.

Sewoon in (Prospering)Decline

Despite Sewoon Sangga being able to resist the large-scale redevelopment of downtown catering to the needs of conglomerates, the period in which the arcade was perceived as the destination for well facilitated apartment living, high-end retail, and imported business culture was short lived. Already in 1979, official plans were made to demolish Sewoon and the adjoining neighborhood to give way for more profitable business opportunities (S. Kim 2018, 50). However, due to complex ownership structures, the mere scale of the complex, and the financial crises of 1997, Sewoon remained as a hibernating megastructure in the core of Seoul.

On the other side, benefitted by the aging and deteriorating facilities rent prices were kept considerably. The small-scale businesses preexisting in the immediate neighborhood in printing, electronics, metal and tool manufacturing seized the opportunity to expand their economic activities and moved into Sewoon Sangga. Former apartments were divided into solder workshops or warehouses, and shopping-mall booths occupied by component retailers, parking facilities on the ground floor turned into a luminous retail area specialized in supplying lighting and sound systems for karaoke and gaming rooms. During this time, Sewoon Sangga proliferated as an informal institution hosting enterprises for the assembling, distributing, and servicing of customized technologies. Beyond that, with a remarkably short supply chain, and a myriad of material, and additional services in walking distance, the production time was estimated to be an average of a few hours, which made it a convenient destination for clients seeking fast technological solutions of any kind.

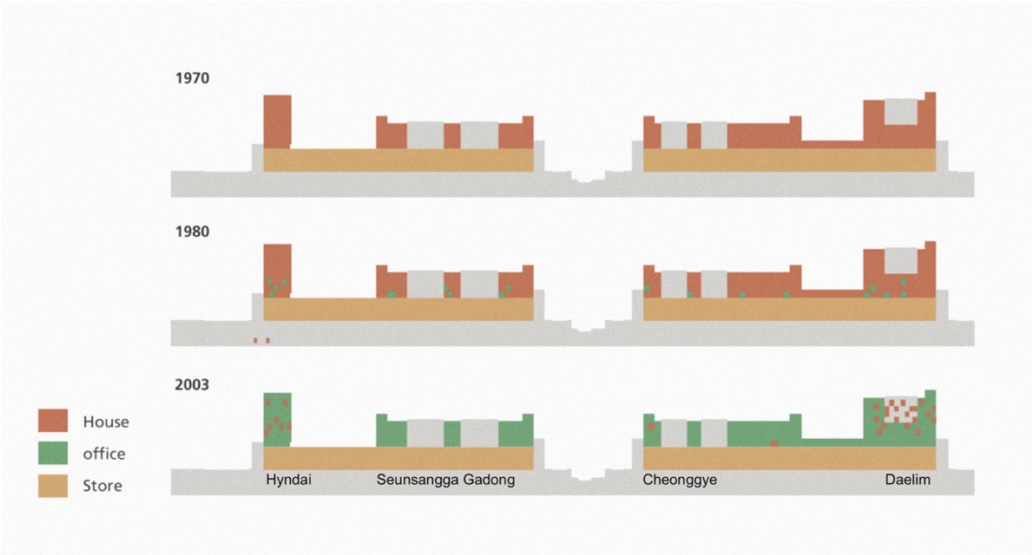


Figure 16: Transformation of Sewoon Apartments. Seoul Metropolitan Government. 2015.

While until the IMF superimposed leaner entrance opportunities to the Korean market in 1997, the domestic Korean markets remained relatively secluded from international influences. Therefore, the domestic market had to sustain themselves through patent pirating and informal business practices. Sewoon Sangga's vendor, accumulated a massive portfolio of technological innovation and knowledge through reversed engineering over the decades. However, the consequences of the IMF requesting greater transparency for business transactions and compliance with international standards meant the criminalization of previously innovative practices reliant on patent pirating, shifting the prestige of Sewoon Sangga from place of innovation to a place of illicit business (Shim 2018). Nevertheless, industries remained viable for most of the time, until the exposure to global market competition and the advent of online shopping malls pressurized sales increasingly since the late 1990s. Consequently, the innovative drive which has foremost been carried to Sewoon by the client's inquiries, translated to a gradually declining innovative output emerging from the Sewoon Sangga.

Figure 17: Absorption of Neighborhood Area: Kim Joon Woo. Apartment Urbanism. Functions on Ground (1980) and (2003). 2016.

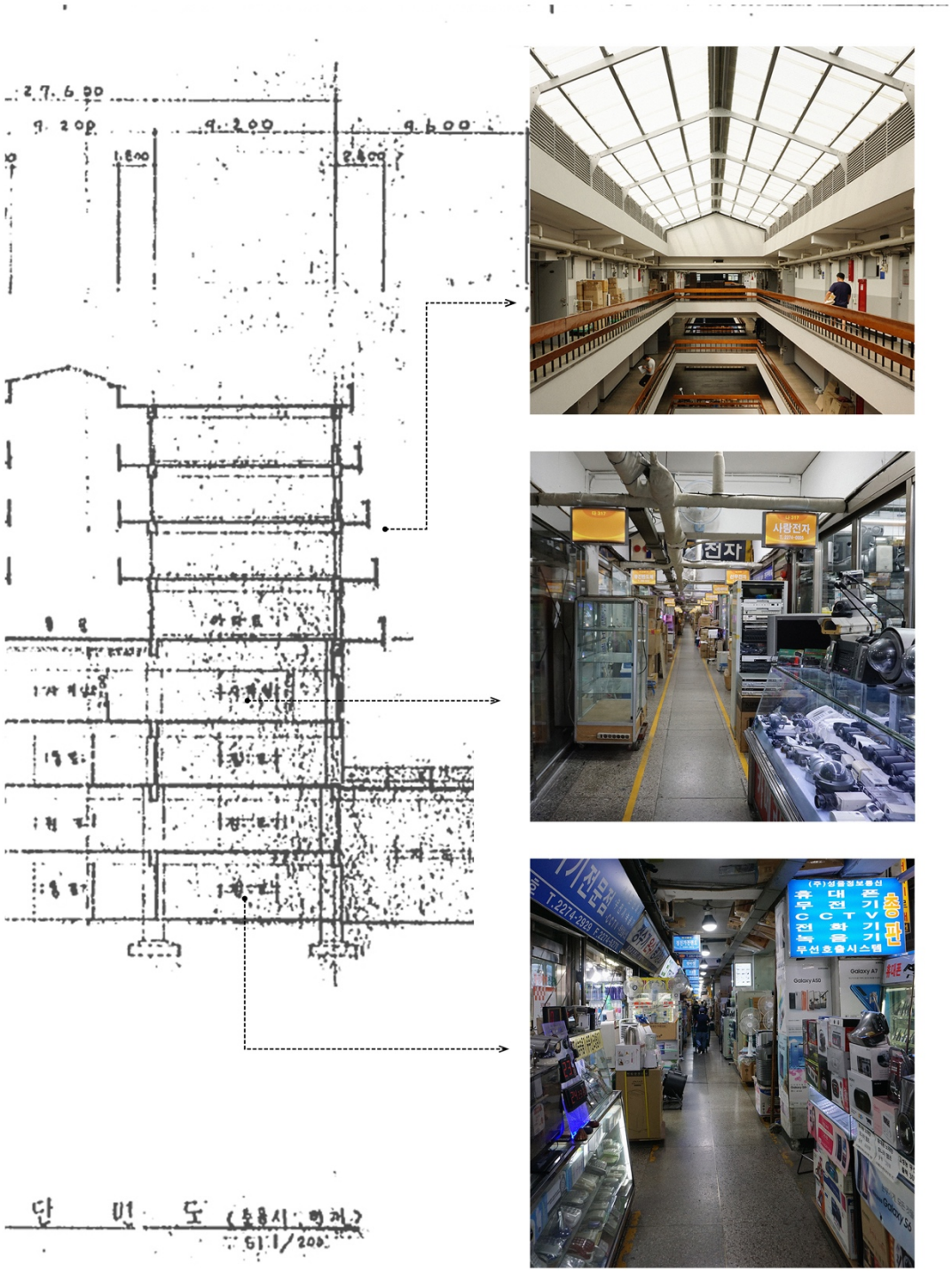


Figure 18: Collage of Sewoon Sangga assimilated by retail and production of electronical sectors. Authors own. 2019.

Cyber Korea: Developmental Neoliberalism

While neoliberal policies of deregulated markets had been partially employed since the 1980s, the earnest onset of neoliberalism in Korea began with joining the World Trade Organization (WTO) in mid 1990s, the financial crisis in 1997 and the subsequential IMF bailout. Around the same time, developed countries increasingly referred to popular ideas coined by Al Gore's speech at UCLA calling for a Global Information Infrastructure (GII) of "Information Superhighways" as the next promising economic growth engine (Gore 1994).

In Korea, such idioms were translated into a Korean Information Infrastructure (KII) masterplan by 1995, planning to funnel the expansion of nationwide broadband network with 44 trillion KRW (44 billion USD), and a subsidized production of telecommunication devices (e.g., pager and later cell phones) (Y. Cho 2012, 8). The backbone of this plan was heavily reliant on governmental cooperation with large conglomerates, the *chaebol*, as the main investors and executors to those plans - leaving little margins for private investors (Oh and Larson 2011). However, in the wake of the Asian financial crisis in 1997, governmental and conglomerate entities found themselves unable to secure the prospective funding of the informationization plans which led to revision under the new government of Kim Dae Joong by 1999. Within the master plan of "Cyber Korea 21", Korea not only pronounced the vision to distinguish itself as the nation with the fastest broadband infrastructure globally, but also proposed comprehensive strategies on how to turn IT into "economy" (Y. Cho 2012, 10). In the first case, it was stated that the quickest way out of the IMF bailout was to compete globally with fast information networks, as it was the identified prevailing economic future trend of that time (NIA 2005). In the latter case, the government would employ aggressive media campaigns illustrating entrepreneurial IT actors as the new equivalent to the *chaebol*, along with heavily investments of public funds flowing into policies and governmental initiatives, including eased access to credit for start-up ventures, technologies, and personnel training. Consequently, by 2002, Korea registered more than 10,000 start-ups with an estimated one million jobs and 4.5 billion USD export revenue (Y. Cho 2012, 10). Although, the dot-com bubble was at its peak at this time, and the prospering IT market in Korea could be easily attributed to the general economic cycle. The administration of Korea positioned an aggressive managerial role in pushing their economic agenda forward. While at the same time encouraging market competition.

For instance, the central government encouraged market competition between private telecommunication companies and the government invested Korean Telecom (KT) – while the government would provide subsidies to private telecommunication companies, they were obliged to provide the infrastructure for KT (Y. Cho 2012, 9).

Unlike the neoliberal doctrine of the government as a spectator or mediator of economic market competition, Korea resurrected norms and logics of the Park Chung Hee developmentalist era, of strong governmental committees, taxes and incentives. Although the IT sector was generally prospering at the time, the Korean government fueled the economic transformation considerably by uniting flexible and fast paced neoliberal policies and developmentalist norms to efficiently drive selected industrial sectors forward.

'국가 정보화' 4년간 28兆 투입

인프라 구축·전자상거래 집중육성

정통부 '사이버 코리아 21' 추진

초고속 정보망 개통
인터넷속도 100배로

100만명 일자리 창출
118조 생산효과 기대

「사이버코리아21」 추진목표

	99년(현재)	2002년
· 통신망 속도(보편적 서비스)	33.6Kbps	2Mbps
· 인터넷 이용자수	3백만명	1천만명 이상
· 인터넷 연결 학교수	346개 학교	1만4백90개 학교
· 조달EDI이용 기관	556개 기관	2만6천개 기관
· 전자상거래 시장규모	5백50억원	3조 8천억원
· 시군구 행정종합정보시스템	4개 시군구	전국 232개 시군구
· PC보급대수(100인당 PC대수)	6백93만대(14대)	1천5백만대(32대)
세계 정보화 순위	22위	10위권 진입

정통부 '사이버 코리아 21' 추진

정부는 앞으로 4년간 정보인프라 구축 등에 28조원을 들여 1백만개의 일자리를 창출하고 1백18조원의 생산유발 효과를 내는 「정보화 뉴딜정책」을 추진키로 했다. 남궁석(南宮晳) 정보통신부 장관은 2일 김대중(金大中)대통령에게 이같은 내용의 「사이버코리아 21」계획을 보고했다. 「사이버코리아 21」은 이달중 대통령 자문기관인 정보화추진위원회의 심의를 거쳐 본격 추진된다.

이 계획에 따르면 2002년까지 초고속기간망을 전국 144개 통화권에 연결해 일반인의 인터넷 사용 속도를 지금보다 100배 빠르게 고속화할 방침이다. 또 학생 1천만명과 공무원 90만명, 군인 60만명에게 컴퓨터 및 영어교육을 시키고 국민 1천만명에게 인터넷ID를 부여, 정보처리 능력을 향상시키기로 했다.

이와 함께 공공기관 및 기업의 문서와 통신표준 등 운영시스템을 세계적인 표준에 맞추기로 했다.

기업정보화를 위한 방안으로 2001년까지 26개 공기업을 포함, 공공부분의 조달업무를 전면 전자화해 납품업체를 비롯한 민간부분의 정보화를 유도할 방침이다.

또 자동차·전자 등 주요 8대 업종을 운영하는 대기업과 중·소하청업체를 정보네트워크(CALS)로 연결, 기업간 정보유통의 효율을 극대화하기로 했다.

이밖에 소프트웨어 타운 조성과 전자상거래 확대를 통해 인터넷 기반산업을 육성하고 정보통신기기 및 장비산업의 활성화로 새로운 비즈니스를 만들어나갈 계획이다. 정보통신부는 필요한 예산 28조원 가운데 10조7천억원은 정부 예산에서 확보하고 나머지 17조3천억원은 민자를 유치해 조달하겠다고 설명했다.

정통부 관계자는 「「사이버 코리아 21」에 따라 지난해 22위였던 세계 정보화 수준이 2002년 10위권에 진입하며 지식기반산업 비중은 경제협력개발기구(OECD) 국가 수준으로 향상될 것」이라고 덧붙였다. 전성철기자

Figure 19: Public announcement of Cyber Korea 21: ['National Informationization' 28 trillion Won investments over the next 4 years. Establishing infrastructure and e-commerce]. Kyeonghyang Shinmun, 03.03.1999.

Clean Green Urbanism: Cheonggyecheon Restoration

Along with the national assimilation of neoliberal policies and the growth of the IT sector, municipalities gained more authority over the central government. Consequently, the pressure to distinguish Seoul as a competitive agent in the global market coincided with the emerging debate of a sustainable city. In Seoul, such controversies met with the increasing awareness of the spatial constrains that rampant industrialization had especially on downtown Seoul as the industrial center. Additionally, the governmental focus shifted towards pouring public subsidies in IT and especially green technology sectors in the early 2000s, generating considerable funding opportunities for development.

Under the marketing of becoming a city of "beauty and class" Seoul embarked on a series of large-scale urban redevelopment projects of public green areas (S. Kim 2015, 20), including the Seoul Forest (서울 숲) and *Cheonggyecheon* (청계천). Especially, the *Cheonggyecheon* restoration program (2003-2005) is among other city-wide initiatives, the most resonating one for the downtown development.

The *Cheonggyecheon* stream, served first as central water artery of the walled city center during the *Joseon* dynasty*,* it has since then been paved as an elevated freeway under Park Chung Hee in 1977, and was eventually restored as a ten-kilometer-long pedestrianized inner-city walkway, connecting commercial centers like *Dongdaemun* and *Jonggak*. Its recovery as a revived green water artery was a prerequisite to the promises made by the SMG to improve the living quality of Seoul through the development of public spaces, which strongly resonates with the livability agenda proposed by Al Gore (Gore, Livability Announcement by the Vice President at the American Institute of Architects 1999).

Additionally, the municipality considered the restoration of the stream as a means to restore the value balance between the northern and the southern industries of the city, by increasing the prestige, commerce capacity, and thus the land value of the meanwhile deficient performing *Cheonggye* locality. The businesses framing the stream operate as financial institutions to the west, restaurants and bars in *Jonggak*, electronics and ironmongery near Sewoon Sangga, and textile markets close to *Dongdaemun*. The size and number of shops ranged from small to medium to large corporations and amount to a number exceeding well over one thousand. With the majority of these businesses generating no more than a moderate income, their contribution to the municipal budget is considerably smaller than the contribution gained through corporate business activities. Moreover, the long-term neglect to maintain the structures though the property owner, resulted in the provisionary repair through tenants. Consequently, tenants mended the structural cost resulting in stores appearing in a profound depilated condition. As such, the location of *Cheonggye* became a byword of the declining downtown industries (Ribadeau-Dumas, et al. 2012, 13-15).

In order to fully recover the stream, the city offered to ease building height restrictions for plots in vicinity to the stream. The regulation was granted under the condition that the lower floors were made publicly accessible. The decision was justified as a necessary and solely financial scheme, trading the public right to the ground directly to otherwise underused air pace (Seoul Urban Regeneration: Cheonggyecheon Restoration and Downtown Revitalization 2014).

More than that, the reasoning to trade public spaces for development profit strongly resonates with policies like *gibu chaenab* (기부채납) first utilized (although not legally termed) during the construction of Sewoon Sangga.

Until 2009, the building height reformation, and the general prestige upgrade of the neighborhood stimulated a sudden increase of the land price of around 30-50% for properties in a 50-meter vicinity to the stream – that is double the rate than in other regions of Seoul (Ribadeau-Dumas, et al. 2012, 12). The strategy and measurements pursued by the SMG in this case of economic restoration of downtown localities exposed a strong focus on possible economic benefits through the project. The regional scale in which the project is reconsidered, balancing the economic power of the north and south, neglects the direct impact for small scale and especially local operating vendors.

Sewoon in Green Danger: Greenbelt Extension Plans

The demolition of Sewoon Sangga and its commercial districts had been part of comprehensive redevelopment plans ever since 1979. Yet another plan was embarked on after the *Cheonggyecheon* restoration officially proved to be successful. In 2006, SMG launched a regeneration plan for entire Seoul, envisioning Sewoon Sangga and its commercial districts to be demolished.

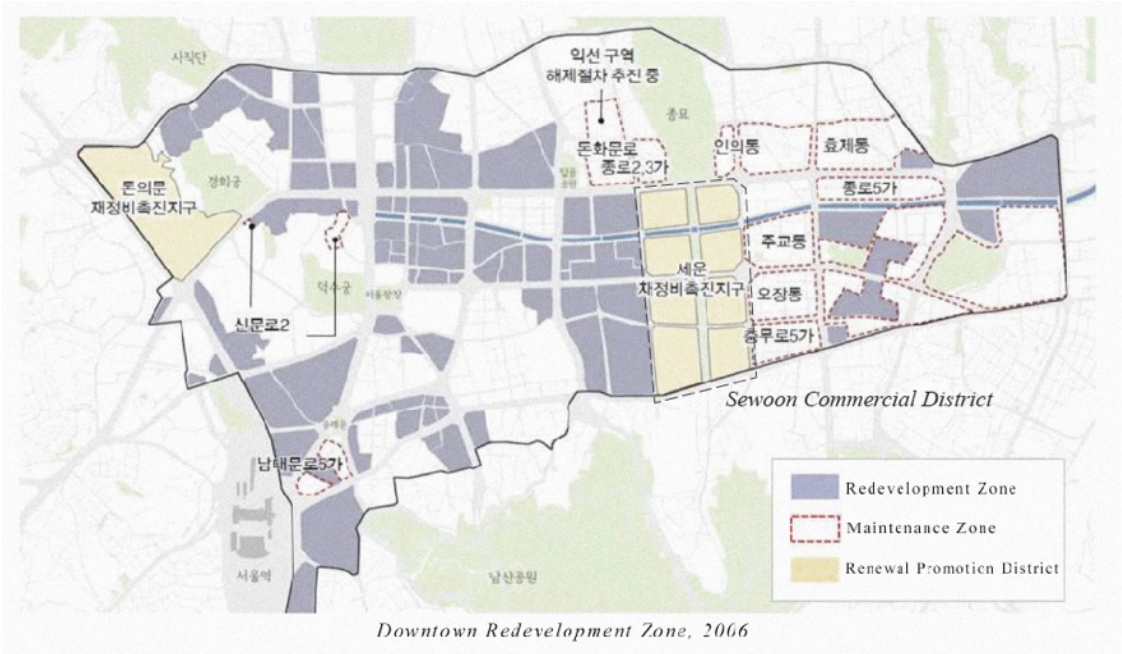


Figure 20: Downtown Redevelopment Zone and designated Sewoon Renewal Promotion Zone. Seoul Metropolitan Government. 2006.

At its place development of a one-kilometer long garden promenade as a greenbelt connection between *Jongmyeo* and *Namsan*, framed by high rise apartments were thought to be designed (H. Min n.d.). As an opening event, the most northern building was demolished in 2009. The demolition was further anticipated to commence the inauguration of the "Urban Renaissance Master Plan for Downtown Seoul", with the goal to: increase international competitiveness trough fashion and tourism, create a pleasant urban environment, foster the presence of cultural heritage, and to establish substantial infrastructures by utilizing Korea's advanced IT (Schuetze and Chelleri 2015, 7). Such visions, however, did not resonate with the interest of stakeholders, especially residents in the Sewoon district. Entrepreneurs and small manufacture shops had witnessed the evictions of thousands of businesses for the *Cheonggyecheon* restoration and thus were highly skeptical towards the solutions the municipality had to offer. Additionally, the land prices already had increased by roughly 20,000 Euro per square meter between 2003 and 2006 (ibd., 9), which created further unrest among the residents.
While the opinion of citizens previously had no legal impetus on the large urban development doctrine, in pursuing to follow the livable city concept, people participation was gradually included in the planning processes and thus had to be considered.

Figure 21: Illustration of the vision for Sewoon Sangga redevelopment as a greenbelt connection, Seoul Metropolitan Government. 2006.

However, the more crucial factor eventually declaring the whole vision void, was its unfeasibility. To demolish and rebuild the whole area, the city would have to compensate all existing enterprises and businesses. According to a first assessment that would have meant 1073 cases, with the entitled compensation sum of 28.5555 billion KRW (23.414 million USD), that was seven times the budget of the regeneration plan in total (Schuetze, Chelleri and Je 2016, 6). If Seoul would have proceeded with the plans anyway, they would have been able to

contract private construction companies for the development. However, the financial crisis of 2008 resulted in the drastic decline of construction activities, and the city was thus not able to find affluent and willing contractual partners to financially carry the project. On site of the single demolished building of Sewoon Sangga, the city opened a public garden, generally underused as citizens had no reasons to grow produce in Sewoon Sangga.

Figure 22: Sewoon public garden. Seoul Museum of History. 2015.

Creative Economies and Urban Reindustrialization

In 2013, President Park Geun Hye launched the “Creative Economy Action Plan”, aiming to create a “Second Miracle on the Han River” through a strategic policy reorientation nurturing the development of the “creative economy (Connell 2014, 3). The tenets of the new economic agenda are to generate new employment opportunities, new industrial markets through creativity, to promote creativity more generally among the Korean society, and to strengthen the country’s global leadership in innovation (OECD 2015). The new strategy aims to convert Korea's economy from "pursuit-growth" characterized through imitation and application as pursued for the past fifty years, to a "leading-type growth" relying on Korea's reputation of a leading innovation country. The foundation for innovative growth and pioneering new markets to compete globally is understood in the field identified as Information and Communication Technology (ICT), technology, and science. The highest priority was given to create favorable working conditions for industries employed in the fields of advanced technologies. More precisely, to simplify the conditions under which new small-scale enterprise can be established

procedures in patenting and copyrights were simplified (UNCTAD 2017, 6). The essential characteristic for the implementation of the national strategies is the "Creative Economy Joint Task Force", institutionalization of the public-private partnership network of venture companies, small and medium-sized enterprises (SMEs), large companies and the government (UNCTAD 2017, 8).

Moreover, the Creative Economy Action Plan further takes a stance in the matter of intellectual property rights (IPRs), acknowledging its importance as an economic infrastructure defining national and corporate competitiveness (UNCTAD 2017, 13). The Korean “Creative Economy Action Plan”, marks the transition of the nation from an information and digitation agenda, to emphasize productivity not through broadband networks but innovative experimentation with advanced technologies. Although, this does not translate directly into the production of certain products, explicit industrial sectors have in the following been gradually been favored over others.

In continuity with the central government’s future economic growth strategy of the Creative Economy Action Plan, Seoul identified industrial sectors summarized as the 4th industrial revolution as the catalyst to overcome several social and economic issues, of low economic growth, high unemployment rate and as you can see here an aging society with which Korea is struggling for several years now. However, Seoul does not predominately invest in technological machinery directly, but the workforce identified in bringing innovation through, knowledge and the use of cutting-edge manufacturing technologies, that is the emerging maker movement as entrepreneurial manufacturers.

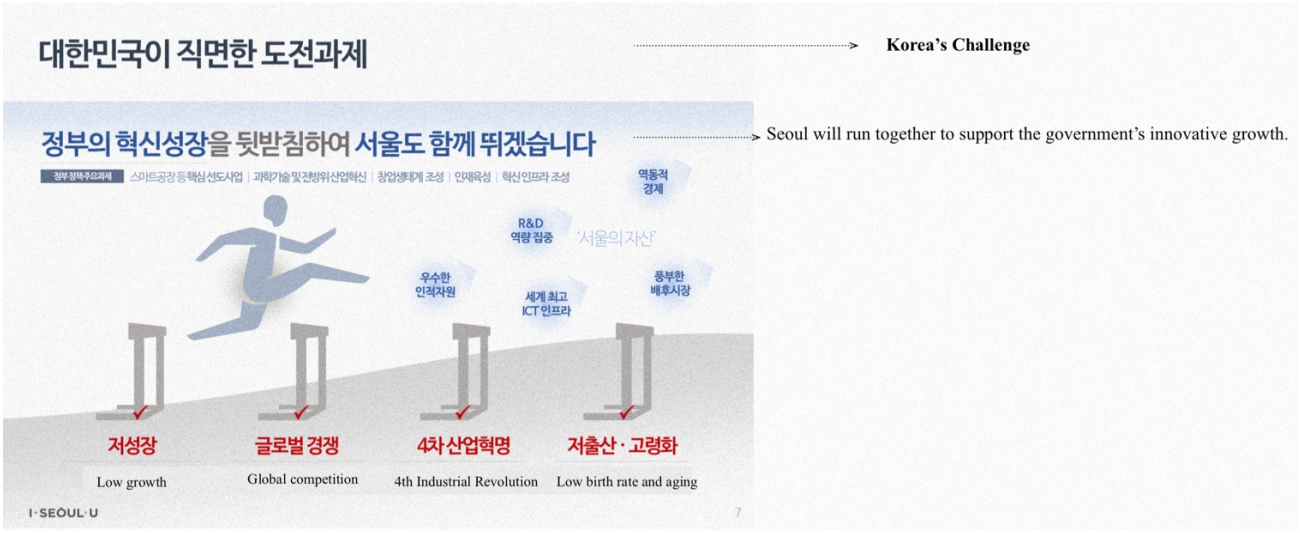


Figure 23: Seoul Innovation Growth Plan (2018-2022). Seoul Metropolitan Government. 2018.

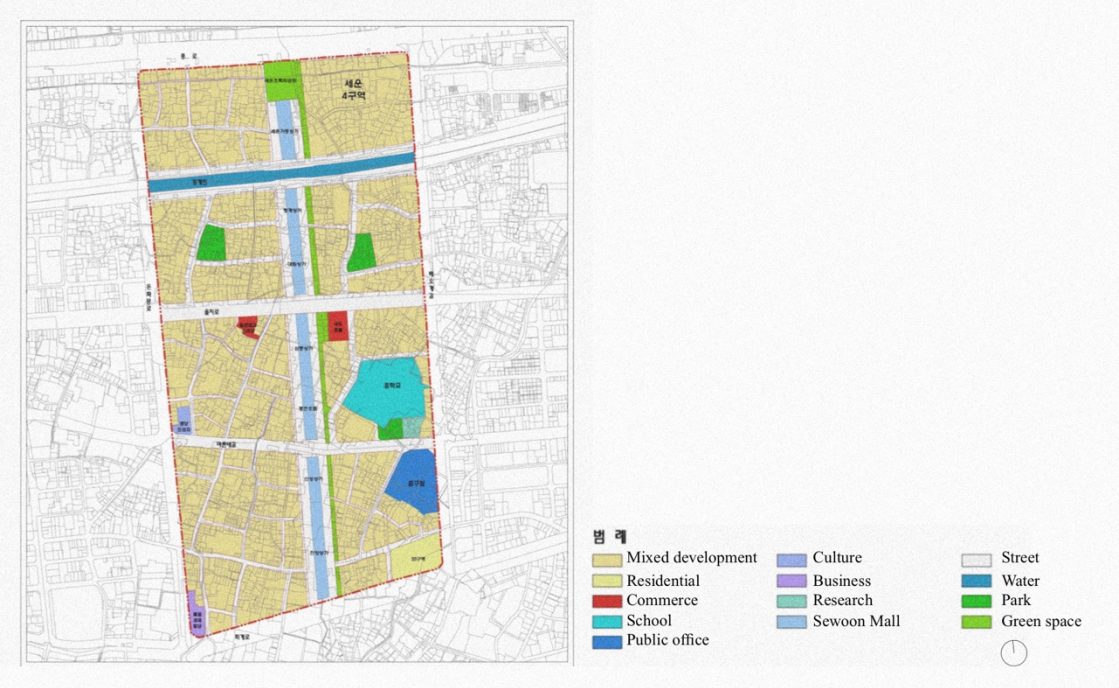


Figure 24: Sewoon Sangga revitalization promotion district. Seoul Metropolitan Government. 2017.

With the changing economic trends promoting advanced technologies and entrepreneurialism as the next growth engine, Sewoon Sangga resurfaces yet again as the object of visionary political interest. In 2016, Mayor Park Won Soon declared Sewoon Sangga would become the center to drive the "Fourth Industrial Revolution" in Seoul forward, by reviving its once innovative drive (Seoul Mayor Park Won Soon announces the "Dashi (Again) Sewoon Project," 2016). The plans had been under debate since 2014, however, through years of evaluation, resident consultation, and architecture competitions they were concluded by 2017.

The most significant shift, was Park's definition to revitalize Sewoon by preserving its functions and structure, which marks a significant contrast to the previous approach of its demolition. As a surprise for the residents, between 2016 (public announcement) and 2017 (published revitalization plan), the city opted to stay true to their pedigree and avoid monotone large-scale development projects. The residents of the whole area believed the promotion would revive the stagnated businesses of downtown Seoul as new innovative technologies would benefit the larger context of Sewoon. Moreover, the "Sewoon Revitalization Promotion Zone" sub organized in regeneration and preservation zone (Sewoon) and maintenance and preservation (commercial districts). Unlike previous redevelopment plans, Sewoon Sangga was thus demarcated as the sole receiver of municipal incentives.

This step was officially justified by the SMG as an "acupuncture therapy" to reinstate Sewoon's purpose as an economic base and serving the neighborhood as a whole by sparking a multifaceted negotiation with local residents (Sewoon Sangga Urban Revitalization Plan 2017, 29). However, while the SMG retained authority over Sewoon Sangga, authority over the neighboring districts were redirected to the jurisdiction of the respective districts Jongno and Jung-gu.

Moreover, the SMG believes this contributes to Seoul's prestige and global competitiveness as a city where history and future coexist by recombining the preservation of historical assets (spatial and industrial) and adding new elements to it through development (Sewoon Sangga Urban Revitalization Plan 2017, 26). The determination of the features to be preserved are given by three overruling master plans for the city as a whole, as previously mentioned, the assemblage of various planning directives was implemented by Park Won Soon in an attempt to generate a greater diversity of urban developments. The basic plan steering the direction of the revitalization is found in the "2030 Seoul Plan", addressing the project in relation to Seoul as a whole. Thereafter, Sewoon Sangga was assessed as an underused industrial asset within the historic center *Hanyang Doseong* (2030 Seoul Plan, 127). As such, the preservation of historical and cultural values is supposed to strengthen industrial diversity by creating employment opportunities. The synergy of preservation and innovation induced to Sewoon Sangga in reverse is believed to increase industrial competitiveness by complementing small-scale diversity to new large-scale developments, including G Valley, Namsan Animation Center, or Seoul BioHub under the "Seoul 5 Year Innovation Plan".

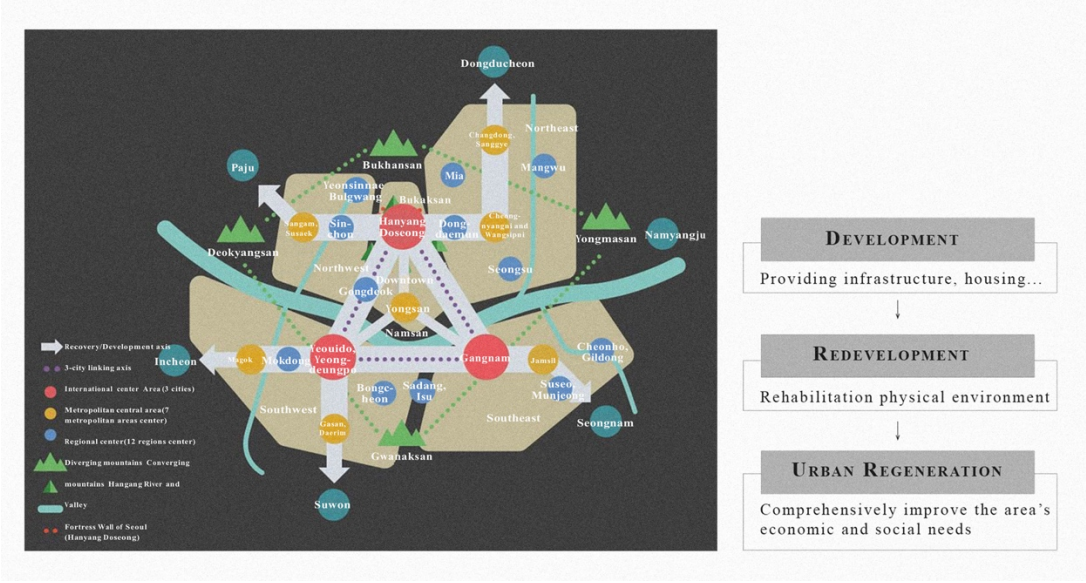


Figure 25: (left) Seoul 2030 Plan, Seoul Metropolitan Government, 2015. (right) Shifting paradigm of Seoul urban development agenda 1960s-2020. Author's own. 2020.

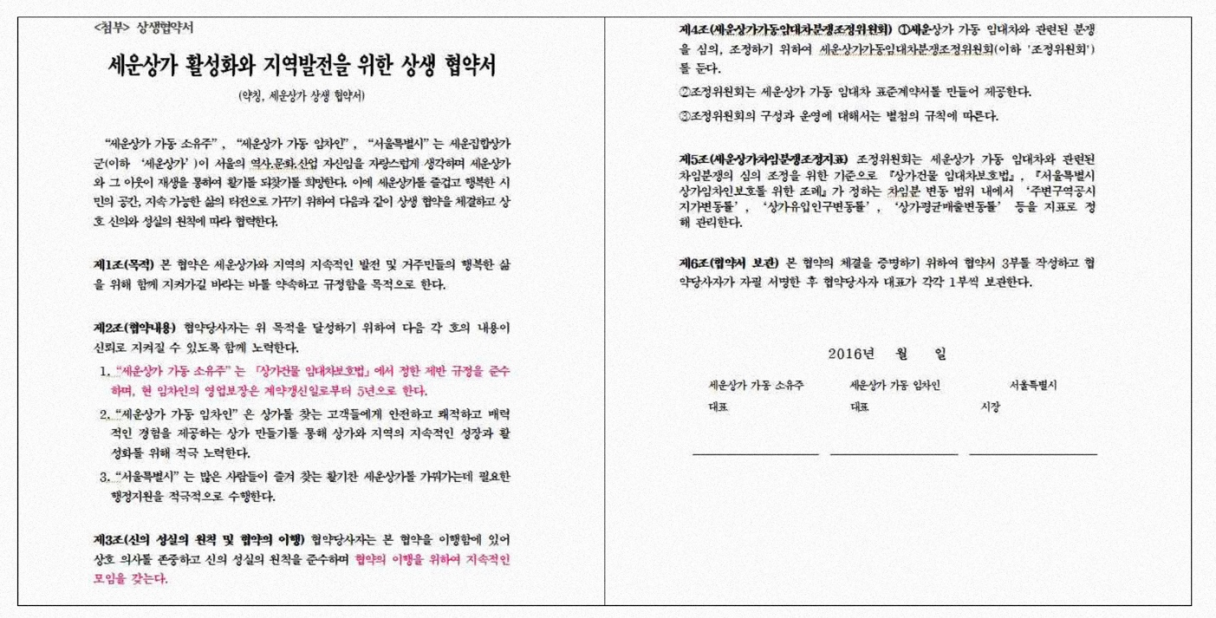
The strategies of reinforcement are further developed with the "2025 Urban Regeneration Plan", and the "Regional Living Zone Plan" for Jong-no and Jung-gu, educating the in-depth development incentives. Thereafter, Sewoon Sangga's historical and cultural potential is highlighted as an asset of modern and contemporary Korean architecture, as well as geopolitical relevance as a KECC project. Additionally, the diversity of the urban landscape is high and thus inviting to greater influx of tourists. Most importantly, the industrial potential of Sewoon Sangga is predominately considered its property as a core for manufacturing-based start-ups. Enriched by the locality as the sole remaining industrial cluster in Korea where technology and manufacturing are integrated into an industrial network of repair, advanced medical and imaging equipment. Simultaneously, the former residential units predominately abandoned serve as suitable workspaces for small-scale industries. The dense concentration of small-scale industries is expected to integrate seamless into the existing industrial network of small-scale manufacturers (Sewoon Sangga Urban Revitalization Plan 2017, 20).

Altogether three principal tenets were identified as: protection of the historic landscape and urban organization (old roads and waterways), maintenance and preservation of existing industries (systematic management and support), creation of a pedestrian oriented street environment (connect green spaces and create a cultural base to attract tourism) (Sewoon Sangga Urban Revitalization Plan 2017, 28). While protection of the historic landscape and pedestrianization foremost address plans to attract more tourism, industries related to the locality, the preservation of existing industries is considered an incremental part to foster urban revitalization. These assumptions rest on the anticipation, that the industrial diversity of manufacturers with different skills and professional knowledge will drive innovation in ICT related sectors.

Platform Cells and Alleyways: Spatial Reconfiguration of Sewoon

The revitalization of Sewoon Sangga has been envisioned in two major categories - a spatial renovation and an institutional overhaul. The spatial renovation foresees Sewoon Sangga predominately as a spatial seedbed, in which makers would be provided with affordable work space in an already existing economic environment. To secure such ambitions, Seoul has launched a pilot program to avoid the setbacks from gentrification in designated revitalization zones through standardized lease contracts, called "win-win-agreement", between landlords, tenants and the city (Sewoon Sangga Urban Revitalization Plan 2017, 68).

With the “win-win-agreement”, registered tenants of the Sewoon Mall, are granted a secured lease term of 5 years with a maximin rent increase of 9% - while all included parties contractually agree to be active participants in the revitalization process of Sewoon Sangga. That includes the structural maintenance as well as participation in project consultations. The majority of contracts have been concluded in 2016. Therefore, only with the end of the first interval in 2021, will the city be able to evaluate if such contracts will prove viable after those temporary measures expired.



<첨부> 상생협약서

세운상가 활성화와 지역발전을 위한 상생 협약서

(약칭, 세운상가 상생 협약서)

“세운상가 가동 소유주”, “세운상가 가동 입차인”, “서울특별시”는 세운집합상가군(이하 ‘세운상가’)이 서울의 역사,문화,산업 자산임을 자랑스럽게 생각하며 세운상가와 그 이웃이 재생을 통하여 활기를 되찾기를 희망한다. 아에 세운상가를 즐겁고 행복한 시민의 공간, 지속 가능한 삶의 터전으로 가꾸기 위하여 다음과 같이 상생 협약을 체결하고 상호 신의와 성실의 원칙에 따라 협력한다.

제1조(목적) 본 협약은 세운상가와 지역의 지속적인 발전 및 거주민들의 행복한 삶을 위해 함께 지켜가길 바라는 바를 약속하고 규정함을 목적으로 한다.

제2조(협약내용) 협약당사자는 위 목적을 달성하기 위하여 다음 각 호의 내용이 신뢰로 지켜질 수 있도록 함께 노력한다.

1. “세운상가 가동 소유주”는 「상가건물 임대차보호법」에서 정한 제반 규정을 준수하며, 현 입차인의 영업보장은 계약갱신일로부터 5년으로 한다.
2. “세운상가 가동 입차인”은 상가를 찾는 고객들에게 안전하고 쾌적하고 매력적인 경험을 제공하는 상가 만들기를 통해 상가와 지역의 지속적인 성장과 활성화를 위해 적극 노력한다.
3. “서울특별시”는 많은 사람들이 즐겨 찾는 활기찬 세운상가를 가꿔가는데 필요한 행정지원을 적극적으로 수행한다.

제3조(신의 성실의 원칙 및 협약의 이행) 협약당사자는 본 협약을 이행함에 있어 상호 의사를 존중하고 신의 성실의 원칙을 준수하며 협약의 이행을 위하여 지속적인 모임을 갖는다.

제4조(세운상가가동임대차분쟁조정위원회) ①세운상가 가동 임대차와 관련된 분쟁을 심의, 조정하기 위하여 세운상가가동임대차분쟁조정위원회(이하 ‘조정위원회’)를 둔다.

②조정위원회는 세운상가 가동 임대차 표준계약서를 만들어 제공한다.

③조정위원회의 구성과 운영에 대해서는 별첨의 규칙에 따른다.

제5조(세운상가차임분쟁조정지표) 조정위원회는 세운상가 가동 임대차와 관련된 차임분쟁의 심의 조정을 위한 기준으로 『상가건물 임대차보호법』, 『서울특별시 상가임차인보호를 위한 조례』가 정하는 차임분 변동 범위 내에서 ‘주변구역공시지가변동률’, ‘상가유입인구변동률’, ‘상가평균매출변동률’ 등을 지표로 정해 관리한다.

제6조(협약서 보관) 본 협약의 체결을 증명하기 위하여 협약서 3부를 작성하고 협약당사자가 자필 서명한 후 협약당사자 대표가 각각 1부씩 보관한다.

2016년 월 일

세운상가 가동 소유주 대표	세운상가 가동 입차인 대표	서울특별시 시장
_____	_____	_____

Figure 26: Win-Win Agreement to prevent gentrification. Seoul Metropolitan Government. 2016.

Additionally, to securing the affordability of the rental options in Sewoon Sangga, new public spaces, titled “platform cells” were designed to foster the collaboration between professional expertise in the fields of electronics and complement it with new ideas of a younger generation. Those so called “platform cells” are distributed along the renovated pedestrian deck of Sewoon Sangga, which therefore became the core of the spatial revitalization. The pedestrian deck had been part of the original plan of 1960s, at that time however, architects were mostly concerned in providing a functional separation between motorized and pedestrian traffic, as well as a creating a commercial promenade in opening the retail spaces with shop windows towards the deck. Within the plans of *Dashi Sewoon* former retail booth have been replaced by permanent new structures housing maker cubes, a library, as well as a museum and lecture hall. The most relevant structural intervention in reconstructing of the dilapidated pedestrian deck.

For the first time, the deck will draw a continuous connection between all four blocks, and in a city wide context. With the renovation of the deck it is believed that this will revitalize the shop fronts on the third floor, attract passengers, and tourists thus returning business to Sewoon Sangga. While the pedestrian overpass mainly acts as a connection between three major recreational and touristic destinations (e.g., *Namsan, Jongmyeo, Cheonggye Cheon*), another presumed purpose is, that it will support business to customer (B2C) interaction. In order to do so, the municipality adapted therefore to a "mixed maintenance method", through which the SMG expects a "customized regeneration" by balancing demolition and preservation within the same development zone (Sewoon Sangga Urban Revitalization Plan 2017, 24).

Figure 27: Pedestrian deck evolution. Kyunghang Newspaper (1980s). Seoul History Archive (2000s). Author's own (today). 2020.

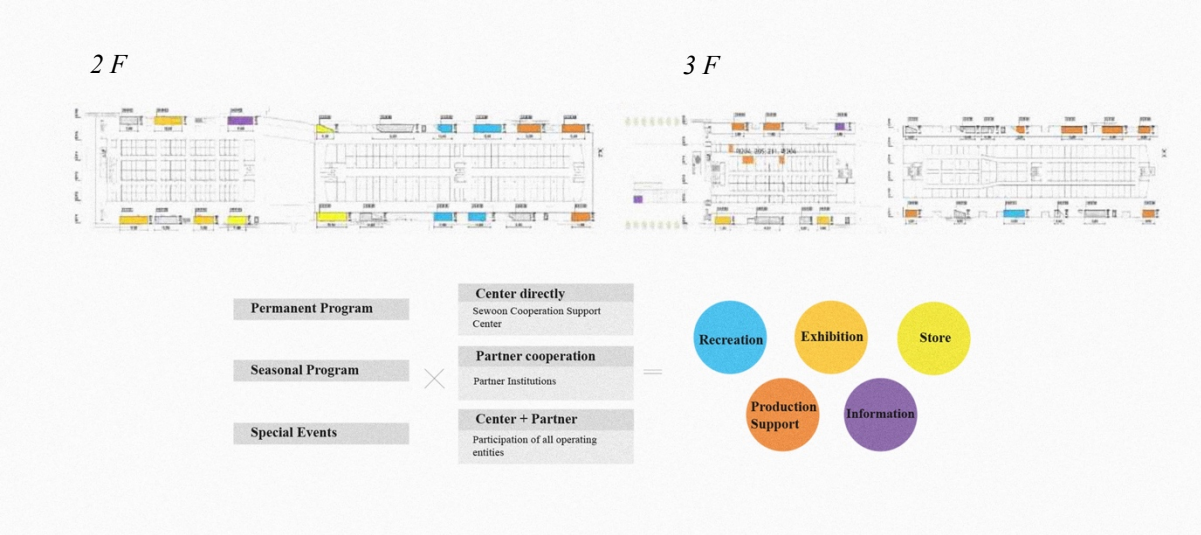


Figure 28: Layout and scheme of the spatial and programmatic organization of the new platform cells along the pedestrian deck. Seoul Metropolitan Government. 2017.

The spatial outcome was a design in which the preserved concrete structure was in contrast with different materials (e.g. glass, steel, wood). Moreover, the uneven distribution of "platform cells" and their vertical as well as horizontal connection to the building is a remark to the irregular but mesh-like interdependencies of the alleyways surrounding Sewoon Sangga (Sewoon Sangga Urban Revitalization Plan 2017, 30-32). Although, the overall direction of preservation before demolition displays a new attempt for Seoul's urban development agenda, retaining the possibility of partial demolition is then counterbalancing a more rigorous protective paradigm. The spatial interventions can thus be considered as the groundwork to host community-based revitalization events, mostly short lived like exhibitions, symposium, or workshops their significance in contributing to the reinvigoration of Sewoon industries is not clear yet. However, they serve as a spatial framework to promote topics relevant to urban manufacturing.

Base Space: Institutional Platforms

Besides the spatial reconfiguration of the building, the SMG envisioned the *Dashi Sewoon* to predominately serve as the strategic organization of institutes to secure the professional planning capacities of young entrepreneurs (Sewoon Sangga Urban Revitalization Plan 2017, 45). While the numerous new institutions encompass a variety of contents, from Sewoon internal governance, municipal maker spaces, connecting industries of different scales (e.g., an entrepreneur with corporate clients), to vocational training, the aim was to curate Sewoon Sangga as a seedbed for start-ups and support them with the necessary framework to operate profitably. The supported disciplines are exclusively technological production start-ups and collaboration initiatives between different scales of manufacturers, from young makers and long established "Meister" (a certificate granted to experienced professionals), or business support centers with larger cooperation. The prominent difference between the spatial and institutional renovation of Sewoon is especially concerned with content creation. While the spatial interventions predominately promote Sewoon as architectural momentum and considering its representation in the international media also a curiosity aiming to attract visitors. The methodical institutionalization of supportive services to sectors related to creative manufacturing is foremost catering to young entrepreneurs seeking affordable workspaces in a favorable environment.

The administrative core was established with the “Sewoon Cooperation Support Center”, as a base to actively support and discover links between industries and innovation. Their key function is thereby to establish partnerships with external innovators, policy makers, and other interest groups (Sewoon Sangga Urban Revitalization Plan 2017, 46). The further investigation on the nature of their operation remained, however, rather unfathomable, leading to a shallow web presence and a few articles concerning the representation of *Dashi Sewoon*.

The majority of involvement of the institution in the operation of Sewoon is thus illustrated more as a kind of event organizer and planner – hosting a myriad of public events. As of today, the Sewoon Cooperation Support Center predominately has brought forward temporary initiatives with an educational, and entertaining objective, which is indicated through the more prominent concentration of exhibitions, performances, and concerts (Dashi Sewoon Project 2020). Sewoon Sangga emanated within this rather as a spectacle attracting passive and temporary observer. Furthermore, without promoting the active engagement of makers with other professional actors of related industries, Sewoon Sangga, and its institutions became questionable in effectively facilitating the cooperation between tenants and external actors relevant to their business requirements. Additionally, after tracing the durability and activity of some of the proposed institutions, including Seoul living lab, makers lounge, or efforts to establish a Sewoon university, a pattern of clustered activities between 2016 and 2018 (sporadic in 2019 during Seoul Biennale of Architecture and Urbanism) became evident. This time frame also marks the retrieval of the construction activities and active involvement of the municipality in the first two blocks of the arcade. The main limitation in the sustainability of such institutions seems to correlate to the centralized efforts of the municipality activating such initiatives. Those observations suggest that it becomes pivotal to monitor and examine the overall operational performance of such institutions and acknowledge their limitations over time.

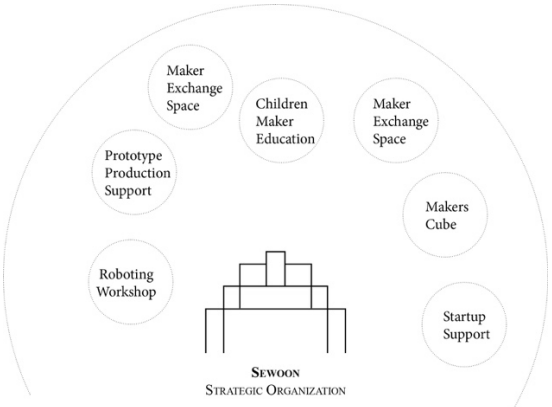


Figure 29: Scheme of Dashi Sewoon planned strategic organization. Author's own. 2020.

While the aforementioned argumentation may render a rather negative positioning towards the institutional realization, it must be noted that the long term effect of such activities cannot be assessed yet. This is further embedded in a consideration of the rhetoric in which those public events are being organized. Although the characteristics resonate with the eventification of Sewoon Sangga in putting much emphasis on promoting experiences, their thematic core remains related to technological experimentation (e.g., a classical concert with vacuum tube amplifiers in 2019), research (e.g., Sewoon Smart Factory Research Forum 2019), or the future of urban manufacturing (e.g., Sewoon Global Forum 2019: Urban Manufacturing Next). Those thematic priorities are embedded in the political imaginary circumscribing Sewoon Sangga as the catalyst of the next "4th Industrial Revolution", rhetoric in which *Dashi Sewoon* has been marketed after 2016. The timing is particularly interesting, as the project had been largely promoted as an initiative to reinvigorate downtown Seoul through community sharing and its historic relevance until 2016. In the years between 2012 and 2016, the predominant political rhetoric justifying the transformations of regional economies had been promoted as the "Sharing City", that is the creation of "[…] activities that create social, economic and environmental values by jointly using resources, such as space, goods, information, talent and experience;" (Ordinance on the Promotion of Sharing 2012). However, during the public announcement of *Dashi Sewoon* in January 2016, mayor Park spent a length to draw imagery of Sewoon as the catalyst of economic revolutions in Korea. Framing Sewoon as the catalyst of a third industrial revolution in the 1980s and future center of the fourth industrial revolution (Seoul Mayor Park Won Soon announces the "Dashi (Again) Sewoon Project," 2016). This shifting narration of Dashi Sewoon became increasingly dominant immediately after Park Woo Soon attended the world economic forum in Davos 2016 - which was titled "Mastering the Fourth Industrial Revolution".

The World Economic Forum in Davos in 2016, dealt with key resolving key questions orbiting how advanced technologies will transform the economy. From the industry sectors, to how technology can be deployed and contribute to inclusive economic growth rather than exacerbate unemployment and income inequality, or how to build new geography of institutions that are capable to manage the fast-changing economic environment (World Economic Forum 2016). Mayor Park used his participation at the forum to encourage his vision of Sewoon Sangga being "reborn" as the driving force of industrial transformation by "attracting" strategic institutions that will enable the young generation to contribute in the revitalization and innovation of Sewoon Sangga (Seoul Mayor Park Won Soon announces the "Dashi (Again) Sewoon Project," 2016).

Additionally, the chronological sequence in which legal specifications on the strategic support of certain industrial sectors had been approved by 2018, indicate a profound impact the forum in Davos had on mayor Park.

In the “Ordinance on the Promotion of the Future Innovative Technology”, the municipality established three major key aspects of supporting and promoting economic transformations towards “future innovative technologies”. That is a support system for the industry-academia-research cooperation, future innovative technologies (artificial intelligence, big data, and IoT), support in marketability through the governmental purchase of new products and services utilizing the above-mentioned criteria (Ordinance on the Promotion of Future Innovative Technologies 2018). Additionally, the ordinance paid special emphasis in circumscribing the establishment of institutions as administrative bodies to execute such objectives. Most importantly, subcommittees to the Seoul Metropolitan Government Innovation Growth Committee”, focusing on industry-academia research to advise the head committee on future strategies and policies. It seems obvious, that cooperation between the “Sewoon Cooperation Support Center” and the “Seoul Metropolitan Government Innovation Growth Committee” could provide fruitful insight in strategies to convey political ambition to small scale developments like Dashi Sewoon. However, this would require an intermediary personal to mediate between the assemblage of diverse manufacturers and young entrepreneurs.

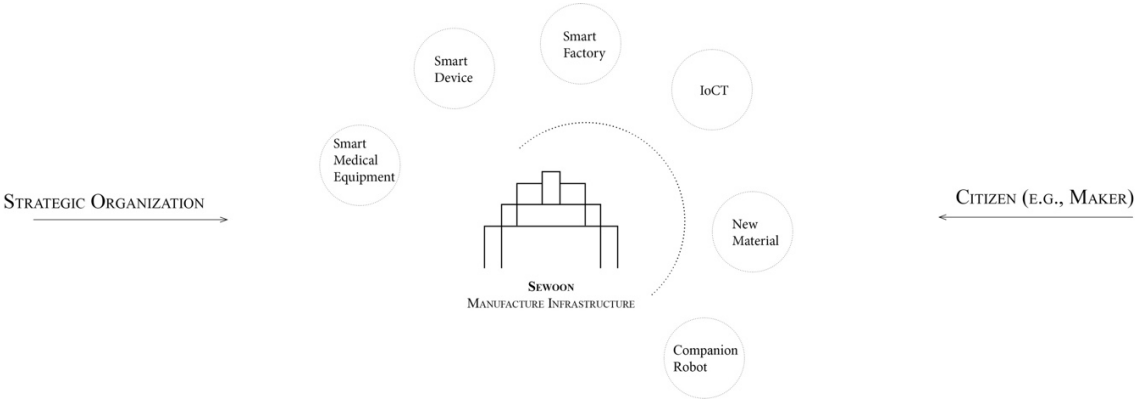


Figure 30: Scheme Dashi Sewoon planned manufacture infrastructure. Author's own. 2020.

Altogether, the governmental initiated institutionalization of industries in Sewoon Sangga provides to this date clear evidence of deficiency in translating a myriad of separate innovation and knowledge production to a market place. Then again, this research had been conducted during a time when the construction work had been just finished, and the remaining development of blocks three and four was still ongoing. In consideration of this time aspect, an evaluation of the institutional development in Sewoon Sangga after several years might provide more insightful evidence of how organizational strategies have been adapted and transformed according to local requirements.

Maker City Sewoon: Political Enticement of a Grassroot Movement

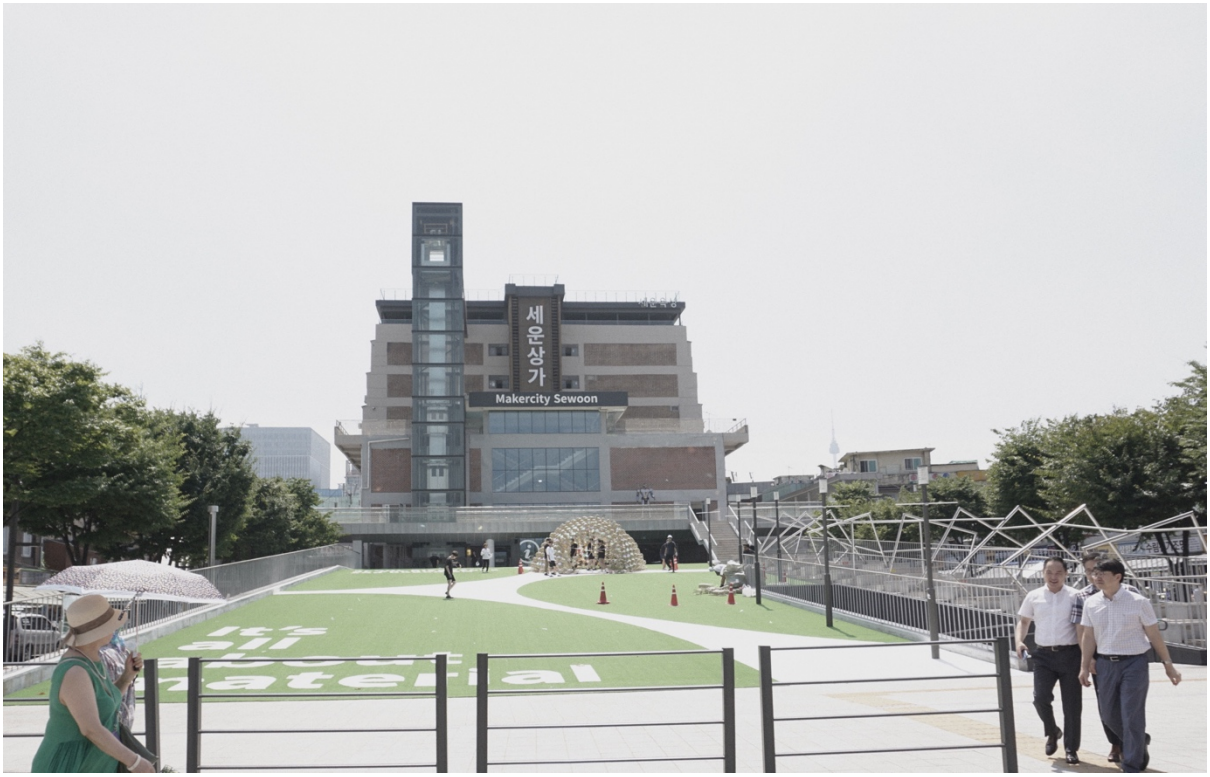


Figure 31: Makercity Sewoon, view from North on the former public garden now Sewoon Plaza. Author's own. 2019.

Having established the spatial and institutional pretext in which SMG aimed to foster innovative manufacturing in Sewoon Sangga, this section directs the attention to the maker movement as the target group for whom such interventions were indented. Hwang You Sun, senior researcher at TIDE institute, claims working at Sewoon Sangga has been beneficial so far. For instance, during production he oftentimes realized he was missing parts, then he just had to go to downstairs to get the missing pieces, without having to wait until they were delivered, like it is the case in American maker spaces.

Moreover, he appreciates being in walking distance to major financial institutions in case he has to join meetings with investors, or when they display design products at the nearby DDP. Above all, the numerous manufacturers, who are something like “patronnes” of their respective disciplines are always keen to interact with the younger generation, and doing something in “harmony between old stuff and future technologies” became a regularity (Hwang 2020). Tex Kang, manager at FabLab Seoul, came to a similar conclusion. He emphasizes that Korea, in comparison to America, does not have hardware stores like Home Depot (or Bauhaus in Europe). Therefore, the first initiative of FabLab Seoul and other maker spaces was to develop an awareness of “blue collar workmanship” among the society, which was used to immediately purchase consumer products online. Kang is optimistic, and asserts that it had been successful and now people start to code their own products (T. Kang 2020).

Figure 32: Fab Lab Seoul, working area “Fab Bio Lab”. Author's own. 2020.

Hwang and Kang are associated to the TIDE institute and FabLab Seoul, the former one was founded in 2011 as a venture capital to financially support hardware start-ups. In 2013 they funded and supported to set-up the first Fab Lab in Korea, today both institutions are sharing working spaces at Sewoon Sangga with equally dispersed administrative borders. At first, Hwang and Kang’s testimony of the working culture in Sewoon Sangga seemed to confirm Mayor Park’s ambition of a community-based reinvigoration of industries through the collaboration of old and new (Seoul Mayor Park Won Soon announces the “Dashi (Again) Sewoon Project,” 2016). However, during the course of the interview, Hwang also admitted that the material he need, especially material suitable for 3D printing, is mostly ordered online.

Moreover, the proximity of manufacturers who can produce items within hours for a very good price, had made the maker lazy as they were not forced to make the item by themselves (Hwang 2020). Both actors agreed that the impetus pushing the development of maker movement in Korea forward is especially driven by governmental institutions. While Kang expresses his general satisfaction in this regard, Hwang is more skeptical, claiming that the top-down approach pursued by the SMG is trying to implement the maker movement "in citizens heads" by prompting quantity over the quality of making and maker spaces. Therefore, Hwang continues, maker spaces in Korea remained indifferent to each other, employing as many machines as possible without developing a certain field of expertise. He identifies this as the most significant difference to the American maker culture, where the development of maker spaces is generally driven as a grassroot movement influenced by people's personal interest (Hwang 2020).

In Korea, the maker movement discourse is politically embedded on two levels. The central government emphasized the economic potential by highlighting the change of industrial structures through entrepreneurship and self-education which is fostered within the "Creative Economy" agenda since 2013. The maker movement was thereby predominantly considered as a potential for economic growth through start-up ventures. On the regional scale, especially the Seoul government construed the maker movement as part of social innovation policies, aiming to solve social problems like the global ecological crisis through science and technology (Choi 2017, 88;97). For instance, in a collaborative workshop between students, makers, and Meister at Sewoon Sangga in 2018, students built drones to measure fine dust pollution (Schmidt 2018, 28). Later the same year, Korea's Ministry of Environment also employed drones to detect sources of pollution and factories violating emission restrictions (Babe 2018). While a direct connection between those two projects is unlikely, educational workshops in which local issues are being resolved with new technologies render the political ambition behind *Dashi Sewoon.* While publicly marketed, Sewoon Sangga inspires younger generations to see their ideas being realized (Schmidt 2018, 28), it also suggests another trend in the Korean maker culture, where unpaid enthusiasts are absorbed in university-sponsored idea contests. Moreover, educational events or workshops are oftentimes hosted by market-dominant companies trying to capture ideas and recourses from the creative work of micro-producers, usually company external (Lee 2016, 3). A likewise educational approach is framing the core of Fab Lab Seoul nowadays.

The income of maker spaces like Fab Lab is hardly generated through utilities fees, which are held intentionally low under the preposition to provide affordable access to advances in technologies. Previously, Fab Lab Seoul generated much of its revenue through advisory work for other maker spaces, suggesting administrative and technological requirements for a successful operation (Hwang 2020). With maker spaces growing exponentially across Korea, Fab Lab Seoul shifted their operational focus to accommodating educational events. For instance, workshops and makerthons for interested individuals or even university courses for students without access to the relevant equipment for prototyping. Most importantly, Fab Lab Seoul is actively working with corporate clients, under the pretext of offering educational support and device testing to corporate employees, who receive training in assembling and using technology-based tool kits. As was the case with Sony, which developed a learning tool kit which will be distributed to underprivileged children in the Korean countryside (Hwang 2020). The maker culture proves thereby as an opportune sector to provide companies with cost efficient ideas and new technological output.

In addition, even more economic advantages are created through tax regulations strategically granting benefits for large companies engaging in R&D, technology commercialization, and human resource support. Between 2016 and 2017, the corporate tax rate was elevated from 22% to 25%. Consequently, the option of saving taxes by investing on one of the designated sectors became increasingly enticing, tax benefits for investments in names sector were 5% in 2016 (Randall and Lee 2018, 16-17). Additionally, while the American maker movement is largely financed through crowdfunding, Korea introduced crowdfunding options to the market only under strict regulations. Through the “Start-up Companies Support Act” offering limits were restricted to an annual maximum of 500.000 USD. It is assumed that this effectively meant the maximum investment amount per issuer of 10.000 USD per year, depending on the income – issuers without income were limited to 2.000 UDS annually (Seong 2013, 15;22). The implication becomes more elucidated as the maximum limits have been elevated by 2016 after which the turnout of the crowdfunding market increased about 64% and the participation of private investors tripled within one year (Hebronstar 2018). The correlation between incentives especially curating industrial sectors of national interest (new technologies, R&D) and private investments in sectors of individual interest through crowdfunding remained constrained, illuminating the magnitude in which public institutions steer the allocation of recourses.
The strategic pattern resonates especially with the Park Chung Hee administration and his steering of industrialization through a flexible protectionism – although the mechanism has become more sophisticated.

Subsequently, the governmental intervention in market economies suggests a position in which public authorities actively try to position themselves as a determined influence of setting the direct future for economic developments. However, the governmental effort on national and regional level prove to be more concerned with the general spreading of the idea to become a maker. Projects like *Dashi Sewoon* turned an urban revitalization plan into a rhetoric for creating a base space of future urban manufacturing, allocating public recourses strategically generating a favorable working environment for micro-producers of ICT related industries.

Although, the strategic management of public recourses in the advancement of production activities in *Dashi Sewoon*, expresses the clear political ambition of Seoul to be recognized as a progressive and future oriented city. However, testimonies on distorted preferences prioritizing quantity over quality as given by Hwang, suggest that *Dashi Sewoon* is not precisely the idolized embodiment of urban reindustrialization theories realized, as claimed by the international architecture community and Seoul themselves. One of the reasons for this rather shallow analysis of Sewoon's industrial regeneration (there critical studies on different aspects of the project), might indicate that the major channel of communication between the international academia and the project is heavily influenced by the imagery SMG is portraying further promoted by much advertised events like the Seoul Biennale of Architecture and Urbanism. Moreover, the repercussions *Dashi Sewoon* is gradually provoking sparked first in 2018, sat idle for over a year and resurfaced during early 2020.

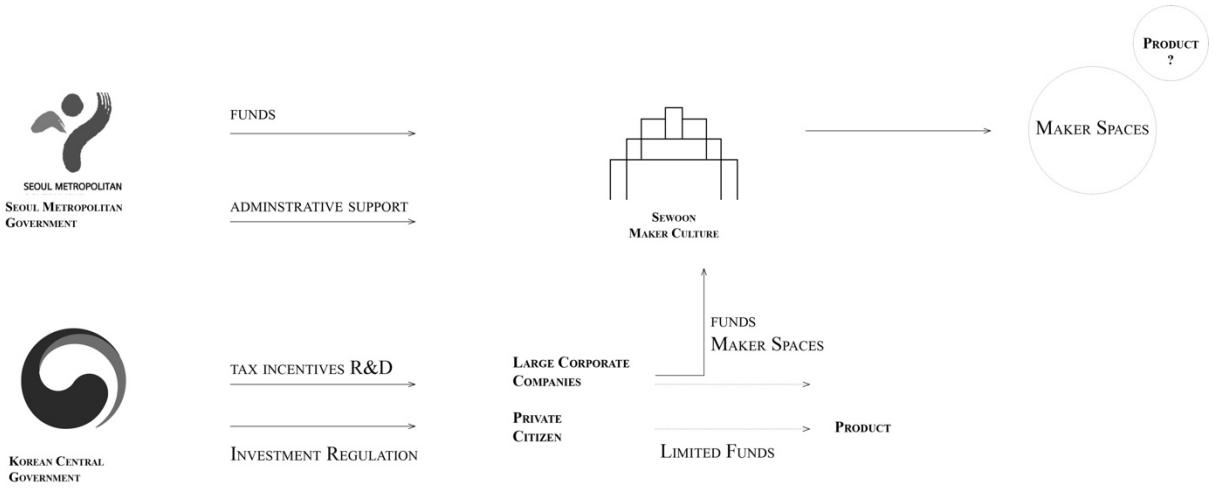


Figure 33: Investment scheme in advanced technology sectors. Author's own. 2020

Part 3: Concluding Discussion

When Mayor Park publicly announced *Dashi Sewoon* back in 2016, he made it sound to the public as if Sewoon area (새운 지역) would be revitalized as a center of innovative manufacturing (Seoul Mayor Park Won Soon announces the "Dashi (Again) Sewoon Project," 2016). Accordingly, manufacturers of the Sewoon commercial district were first euphoric about the promise as they were looking for ways to bring back the once innovative drive. Moreover, the spatial proximity to a range of various industries benefited engineers of Sewoon Sangga over decades by supplying all the materials needed for production – from metal, acrylic, tools, construction material, lights and even sound systems. Additionally, the straightforward cooperation between different engineers and workshops retained the profitability of specialized manufacturing, repair, and production of small size items even after 1997 (Sewoon Collabortaion Support Center 2019). However, the publication of the finalized revitalization plan in 2017, sparked criticism after residents realized that the main incentives would be given to the Sewoon arcade only, and authority over the execution of following developments in the commercial districts was distributed to local authorities under the administration of non-elective technocrats.

Figure 34: Industries Sewoon district. Seoul Metropolitan Government. 2015.

Park Eun Son, PhD. candidate at Yonsei University in Urban Planning and front women for the activist group “Cheonggyecheon Anti Gentrification Alliance”, reported:

> First, we thought the government will revitalize the whole area, then we thought they will only renovate Sewoon but protect the commercial districts, and then suddenly they wanted to build one-hundred-meter-high apartment towers, that is ridiculous. Also, it is usually not allowed to build high-rise buildings in front of *Jongmyeo* because it is a UNESCO heritage site. So, we think there was some kind of corruption but how can we prove it? (E. Park 2020)

Park summarizes here in short, the underlying contradictions emerging since *Dashi Sewoon* had been commenced. In 2018, the first four hundred manufacturers received eviction notification from Hanho construction, a construction company slowly buying off land in the vicinity since 2012. Tenants who resisted the evictions were threatened with lawsuits from Hanho, claiming economic loss in each case of around 200 million to 3 billion KRW (164 thousand to 2 million USD) (E. Park 2020). The indulging tenants were either compensated financially or provided with alternate working spaces. However, the compensation sum paid was not enough for manufacturers to pay the considerably higher premium rates elsewhere in the same vicinity, ultimately, they were forced to relocate to more affordable locations outside of Seoul. Those who had been compensated with new localities have been moved into stacked shipping container raised along the construction site for “Hillstate Sewoon”, an apartment building to be developed.

Figure 35: Construction activities in the Sewoon commercial district. (left and center) author's own 2019. (right) Hyundai Construction 2018.

The demolition of the first four hundred workshops motivated academics and manufacturers to unite as a closed front trying to spark an intervention from Mayor Park to stop the ongoing demolition. However, first request for regulation changes and a revision of the planning agenda for *Dashi Sewoon* had been sent in early 2019. The response came over one year later in March 2020, introducing the fundamental shift of a "maintenance zone" into a "preservation zone", but additionally declared Sewoon Sangga object to the "sunset law" (일몰 법).

Figure 36: (left) Park Eun Son and manufacturers of Cheonggyecheon area protest march. (right) Container installment for evicted tool retailer and manufacturers. Author's own. 2020.

The sunset regulatory was introduced to Korea in 1997 and extended in 2009, the original sunset mechanism declares newly established regulations invalid after deadlines expired (mostly ten years). While the extension of 2009, also integrated the revision of existing regulations under the sunset mechanism (mostly three to five years) which could be declared invalid if lacking feasibility (OECD n.d.). The sunset law is aimed to reduce regulatory burden and create more transparency. The more renowned cases where the sunset regulatory had been employed have been, however, in relation to national economic crisis (S. Yang 2015). This kind of forced regulation requires the release of regulatory requirements of Sewoon commercial districts by October 2020.

In March 2020 Seoul announced plans to shift the zones, once released from “maintenance” into “revitalization” zone (Seoul Metropolitan Government 2020). However, the already planned development projects, remained active and SMG failed to propose effective countermeasures against ongoing evictions or rent increases in the commercial districts. Moreover, only one month later in April 2020, the Urban Regeneration Committee overturned Seoul’s decision and included sixty-three districts more (additionally to first mentioned 152 districts) to be released from developmental restrictions, utilizing the “sunset law”. Thereafter, the larger ratio of the Sewoon commercial district will be released as a development zone this year. The Cheonggyecheon Anti-Gentrification Alliance immediately inquired for the minutes of this meeting to be released, and for SMG to position themselves (Cheonggyecheon Anti-Gentrification Alliance 2020). As of May 2020, the government did not formulate a counter statement. With the ongoing focus of most administrative efforts to control the COVID-19 pandemic, and given that SMG waited over one year to act upon the first inquiries of the tenants from the commercial districts, it is highly questionable that a satisfying solution will be agreed on any time soon. Thereby, is the relocation not the issue per-se, describes Park. Manufacturers of the area did not retain their businesses especially due to the downtown location, but the well-connected business networks that developed into valuable cooperation over time.

In Korea, people say: “If you need anything order at *Cheonggyecheon*!”. That goes back to Korea’s corporal business structure, where large enterprises or institutions do not employ technicians who could produce necessary equipment for product experimentation. While individual manufacturers do not share clients and practically stand in business competition with each other, they concluded unformal agreements over time to share machines and sometimes services. This way, one cluster can also be understood as one large complex where each shop provides one or two needed production machinery, a system that begins to struggle as soon as one part is missing. The city, however, has rendered a bleak image of the Sewoon commercial districts by its exterior appearance as dilapidate sheds, and the continuous decrease of employment opportunities (Sewoon Sangga Urban Revitalization Plan 2017). Park Eun Son, on the other side, was the first researcher to meretriciously analyze the actual businesses, and their connectivity in 2019 (E. Park 2019). Her analysis brought forward, that especially manufacturers of the most endangered districts for development are producing prototype machineries exceptionally suitable for what is defined by SMG as “Fourth Industrial Revolution”, including parts or small-scale machineries to test the production of electric vehicles for the car industries. Other shops are engaged with academic or medical institutions working on the refinement of medical precision technologies, or even personal satellites.

Cho Mu Ho, spokesperson of the precision processing district (정밀 지고) in the *Cheonggye* area, defends the manufacture industries of downtown Seoul:

> This is a place where small and single items in only one or two batches can be made. Currently, we are working on a medical device used in Seoul National University Hospital. […] This place looks messy, but everyone is an artisan here. Also, it's not that I go through all the processing steps myself alone, but with other places. You know, when a sample comes out of here, and if this product is successful, it goes into mass production. Not only we, but also companies, developers, students, and professors need this place. For example, if a machine imported from a foreign country and used by a company breaks down, you can come here to fix it quickly. But if this place is gone, how long will it take to wait a few months to fix it, so will the business continue? (M. Cho 2020)

What Cho describes here is exercising exactly those economic dynamics that cities in the US, Great Britain, or Germany are aspiring to create with urban reindustrialization- flexible, customized, and regional production. Paradoxically, while other nations are trying to generate it, Seoul currently is working rigidly to undermine such already existing dynamics.

Figure 37: (left) Metal worker of Sewoon commercial district making templates and stands from iron and copper. (right) Mr. Cho in his workshop showing a medical device he is working on. Author's own. 2020

Urban reindustrialization is globally sold as the future economic growth engine of the competitive city, a clean green growth engine promising a circular economy of uniting design, production, consumption and recycling locally.
What the case of Sewoon Sangga has illustrated however, is that urban reindustrialization is far more a political rhetoric than economic reasoning. That is especially highlighted through the contradicting dynamics that envelop the municipal initiative *Dashi Sewoon*. Although, it is far too early to come to a final conclusion in this regard, and as the predominant accumulator of funding is not yet generating a feasible output, be it a tradeable product or an innovative achievement, economically *Dashi Sewoon* might be considered a highly speculative project. With a focus not set on developing and refining a specific product but the quantity of possible turnout. Hoping, so to say that a bulk of everything will bring to light at least one considerable advantage. At the same time, the feasible advantages of the locality (e.g., long persisting of local manufacturing) have been actually (although told otherwise) rigorously excluded from the tale of future productivity through advanced technologies. As such, the SMG has deprived themselves from a competitive opportunity over other developed cities, not only in means of product development but also how to deal with a marginalized urban population, including an aging working class, or less profitable but essential supportive labor.

Therefore, maker spaces and entrepreneurial production became with *Dashi Sewoon* the political scapegoat through which substantial urban inequities, including displacement, eviction, or the marginalization of less desired industrial sectors are being rationalized. Despite the claim to revolt such inequalities, especially resolving issues of high unemployment rates and equitable opportunities for labor have been shriveled to solely address a young generation. This is remarkably preposterous as Korea is struggling with a predominately ageing society and an extremely low birthrate – which is not only the consequence of grim working environments (which would justify the endowment of more favorable labor opportunities) but far reaching social struggles of educational pressure, family hierarchies, or women's rights. While the endowment of the future working class in *Dashi Sewoon* can be considered as a reasonable pursuit to nurture a forthcoming labor force. However, urban reindustrialization bears the potential to simultaneously deal with current challenges, if equally reinforced.

The progress in which urban reindustrialization was unfolded in Korea has on the other side illustrated that, Seoul and Korea as a whole will manage to analyze their experience with urban reindustrialization initiatives, like *Dashi Sewoon* and the creative economy strategy, and reassemble the feasible outcome with future revelations to some kind of hybrid transformation. For other nations of an older and longer established democratic organization, on the other hand, this example provides an understanding that urban reindustrialization bears the opportunity to explore a greater versatility of urban economies as a preexisting social, political and economic dynamic.

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