

## Article

# Urban Sustainability *Versus* Green-Washing—Fallacy and Reality of Urban Regeneration in Downtown Seoul

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**Abstract:** This paper examines the planning paradigm shift related to the contested “urban renaissance” mega-project in Downtown Seoul (Korea). Similar to other global cities, over the last few decades, different mega-projects have been successfully implemented in Seoul. These projects have been considered engines for urban renewals and transformation. This paper builds on the analysis of the failure and re-framing planning strategy for the Green Corridor (GC) mega-project, part of the “Urban Renaissance Master Plan for Downtown Seoul”. The GC case reveals various critical insights for urban sustainability: (i) the current mega-projects’ sustainability fallacy, related to top-down, technocratic densification, and greening practices; and (ii) the untapped potential of Asian traditional and irregular small scale urban patterns, and their related socio-cultural value in addressing the renaissance of the long term urban sustainability. In particular, the discussed research findings point out that urban renaissance enabling sustainability principles requires integrated, small scale, incremental, and adaptive (stepwise) urban planning and design processes that go well beyond general strategies following the so-called “green growth” paradigm.

**Keywords:** urban regeneration; sustainability fallacy; gentrification; industrial district conservation; Seoul; Seun district

## 1. Introduction

Our Planet’s sustainability challenges are mainly related to urbanization processes and related resource flows that shape and challenge the world today as well as in the future. The most dramatic urban growth is occurring in Asia [1]. Among the mega cities in the Asia-Pacific region, Seoul in the Republic of Korea is an emerging global city that has experienced the fastest growth rate in the world, gaining 9 million inhabitants in only 40 years [2]. Becoming a first-class global city in only half a century has meant the massive development of polycentric districts performing critical economic functions within national and international networks of productions and markets [3]. Since the early 1980s, decentralization policies in Seoul have led to the creation of industrial and business districts outside of the center of the city of Seoul. Such economic nodes were created from the development of different metropolitan sub-centers (such as Yongsan, Gangnam, Yeoido, and Sangam). The creation of such sub-centers induced a concurrence and competition with the production and business activities, and the economic activities in the original industrial and business districts in the city center. The business activities in the new sub centers resulted in the decline of business activities in some of the historical city districts, which then underwent radical restructuring processes [2]. In the last decade, a series of

successful urban mega-projects and plans have attempted to reshape and regenerate such historical city districts by enhancing urban environmental quality and the quality and functionality of public spaces [4–6]. In contrast to these mega-project approaches, it is suggested that urban regeneration should be regarded as a stepwise participative and integrated process, dealing with urban problems in an integrated way, and using long term development perspectives [7]. However, in practice, urban regeneration was, and still is, particularly in the Republic of Korea, mainly driven by top-down megaprojects, considered to be the engine for the economic and spatial transformation of declining neighborhoods [8–10]. The bias of such strategies relies on the transformation of large areas and the implementation of megaprojects with their usually negative social impacts [11–13]. Accordingly, urban regeneration has been commonly associated with gentrification processes [5]. Cities are prone to intra-urban social inequalities, and the increasing global competitiveness of cities is unfortunately fostering these differences [14]. Examination of European cases has shown that a growing disconnection between social and physical aspects of urban renewal projects has been occurring since the 1970s [15]. Barcelona for example is one of the European emergent capital cities, which in the last two decades built its success upon a series of urban renewal megaprojects. Its governance model, based on the private-public partnerships for developing such large infrastructure city remodeling, was better known as the Barcelona Model [16]. This model has been highly criticized for its top down planning approach and with a lack of public participation and for its missing social implications [10]. Comparing European experiences of large-scale urban regeneration projects with urban renewal projects in emerging global cities in Asia, similar approaches, patterns, and implications can be identified. In Seoul, for example, only a “few efforts have specifically focused on linking social structural changes within the city to its increasingly intense participation in the global economy” [17] (p. 145). Since the beginning of the 21st century, urban regeneration strategies in Seoul have mainly emphasized the quality enhancement of the built environment. In practice, these strategies have resulted in the construction of spectacular infrastructures and the creation of public open spaces. The realized projects have improved the image of the city and its attractiveness for investors and the so-called creative-class. The main evidence for investor-driven urban renewal processes is that 100% of the new housing built within the designated urban renewal areas in Seoul are high-rise apartments [18]. The outcome of such urban renewal projects is regarded as successful, at least from an investment driven and economical point of view. Seoul has also developed into a first-class global city and is an example for many successful growing cities in emerging Asian economies. However, three main problems related to such a large-scale regeneration strategy have been identified. Such large-scale investor driven urban renewal and redevelopment projects are generally associated with (i) important social gentrification processes [18]; (ii) displacement of clusters of smaller enterprises [19]; and (iii) the perception that traditions and cultural heritage have often been perceived as a factor inhibiting modern development [20]. Based on the realization of the main problems associated with conventional large-scale urban renewal and redevelopment projects, this paper discusses sustainability aspects beyond the large scale, top-down, technocratic driven greening proposed from the Green Corridor (GC) megaproject, which is part of the Urban Renaissance Master Plan for Downtown Seoul. This megaproject is a very good example to illustrate the tensions between the broad (and mainly un-addressed) meanings of urban sustainability transformation [21], versus the most common “business as usual” urban greening practices [22]. The tensions between sustainability and green-washing [23] are discussed in line with the last decade’s critiques on eco-cities, which are regarded as laboratories where complex partnerships of private corporations and public entities test the latest design principles and technologies for future so-called green and sustainable (or zero-emission) cities [24–26]. It seems indeed that the green-washing strategies of corporations, rooted back into the 1970s (when “green” advertising campaigns were denying industrial production’s environmental impacts), have generally not changed much. Green-washing strategies changed from corporative greening in the past to nowadays development of green urban utopias, which serve for the mainstreaming of corporations’ business as usual market interests supporting the recent global urbanization processes [23]. Furthermore, green-washing is practiced in the framework of

urban renewal, redevelopment, and regeneration projects. An emerging literature is exploring the gentrification processes induced from greening practices [22,27] when green-washing takes place in already existing cities [28]. Accordingly, this paper explores the tensions between green-washing and a broader meaning of urban sustainability [21] in addressing urban renewal using the example of the development plan for the Seun district, located in the historical city center of Seoul.

## 2. Methods

### 2.1. Theoretical Framework: Definition and Challenges of Sustainable Urban Development and Design

The urban development patterns of Asian global cities have followed the traditional global models of cities such as New York or London, which have been setting the quality standards for urban normativity and design [29]. With their growth rate and ongoing renewal programs, these cities have assumed sustainability as one of the normative principles in urban design, assuring attractiveness in the city environment. However, a precise definition for sustainable urban development and design has not been offered. Indeed, for around 30 years, while green urbanism has been promoting conceptual models and practices toward urban design according to the principles of zero-emissions and zero-waste, different critics have shown compact and sustainable city imperatives [30–32]. Many efforts have been made to build a strong corpus of principles and indicators for urban sustainability [33,34]. However, less attention has been paid to how to prepare urban sustainability performance in society across cultures and classes, addressing social responsibility and economical aspects on different levels of urban scales [35]. According to over 200 different definitions for sustainability, it is challenging to understand urban sustainability going beyond the promotion of compact and energy efficient urban design [36]. However, specific criteria have been recognized as important in enhancing social sustainability [11]. Accordingly, the following criteria should be taken into account within urban regeneration processes: (i) cultural heritage conservation; (ii) accessibility of facilities, (iii) satisfaction of welfare requirements; and (iv) availability of open spaces [11].

In order to better frame sustainable urban development and design within regeneration projects, not only should the implication for building sustainability be clearly understood, but also the meaning of urban regeneration as well as the differences between “urban regeneration”, “urban renewal”, and “urban redevelopment”. Roberts defines urban regeneration as the “comprehensive and integrated visions and actions, which lead to the resolution of urban problems and which seek to bring about a lasting improvement in the economic, physical, social and environmental conditions of an area that has been subject to change” [7]. Roberts clarifies the evolution of urban regeneration, which in the early 1950s (after the second world war in Europe), was better identified as “urban reconstruction”, evolving during the 1960s into more participatory and decentralized approaches being recognized as urban “revitalization practices” [7]. These approaches were followed by a process essentially focused on built environment improvements, characterized in the 1970s under the term “urban renewal”. The term “urban redevelopment” was introduced during the 1980s. With clear general missions but less well-defined purposes, the term “urban regeneration” practices emerged in the 1990s. The described practices and examples of urban “regeneration”, “renewal”, or “redevelopment” imply that any approach to tackle a specific problem should be constructed within systemic views, as well as with long-term, strategic plans, visions, and purposes in mind. However, as explained from the case study of the Seun district in Seoul discussed in the subsequent sections of this paper, the concepts “urban renewal” and “urban regeneration” are also still used interchangeably in both policies and academic international literature. The less participative approach associated with “urban renewal” is often poorly differentiated from the more intense community participation approach relating to the concept of “urban regeneration”.

Nevertheless, both concepts are unfortunately often beset with negative social implications, such as the destruction of the existing social networks and the expulsion of vulnerable groups *etc.* [11,13,37].

It is worth noting that in this paper, we decided to illustrate the Seoul downtown “renaissance” plan in order to individuate the elements of such besetting and the sustainability criteria used to promote it.

## 2.2. Research Design

This paper on urban sustainability fallacies emphasizes that urban redevelopment megaprojects generally address sustainability by building “green utopias” from the scratch, and result therefore in urban and social emptiness, which are reflected in the experiences with many current eco-city experiments [23,26,38]. The presented research uses the example of the urban regeneration plans of the Seun district in Downtown Seoul.

This research is based mainly on secondary data, obtained from extensive review, analysis, and evaluation of published discussions, reports, and plans. The analyses and discussions on sustainable urban development are based on the definition that urban sustainability is a co-evolution among the great sub-systems making up a city (economic, social, physical, and environmental), which guarantees the local population a non-decreasing level of wellbeing in the long term, without compromising the possibilities of development of surrounding areas [39,40]. In addressing such integrated dimensions of urban sustainability, this paper introduces the recent patterns of development in Seoul (Section 3.1. Development and decline of Seun district within the rise of Seoul as a global city). Furthermore, this paper deepens the understanding of some key megaprojects by critical analysis of the Downtown Seoul “Urban Renaissance Master Plan” (Section 3.2. The Urban Renaissance Master Plan for Downtown Seoul). This paper also critically discusses the fallacy of the current renewal model (Section 3.3. The fallacy of a green utopia). Finally new lines and philosophy of interventions fostering the existing culture and structures within the sustainable urban regeneration plan are suggested by re-framing the sustainability renaissance of the Seun district (Section 4. Discussion). The method applied in the research discussed in this paper is an analysis and review of multidisciplinary literature on the critical discussion of urban sustainability and redevelopment issues. Furthermore, redevelopment plans from different periods have been analyzed and evaluated as well as public discussions, interviews, and results of workshops with local residents, retail owners, workers, business people and artists living in the Seun Sangga building and in the surrounding neighborhoods of the Seun district. An onsite physical analysis executed in the framework of the fieldwork has been used in order to validate the findings from the previous analysis and the critical perception of the Seoul Downtown Renaissance Plan and the Green axis redevelopment proposal.

## 3. Results

### 3.1. Development and Decline of Seun District Within the Rise of Seoul As a Global City

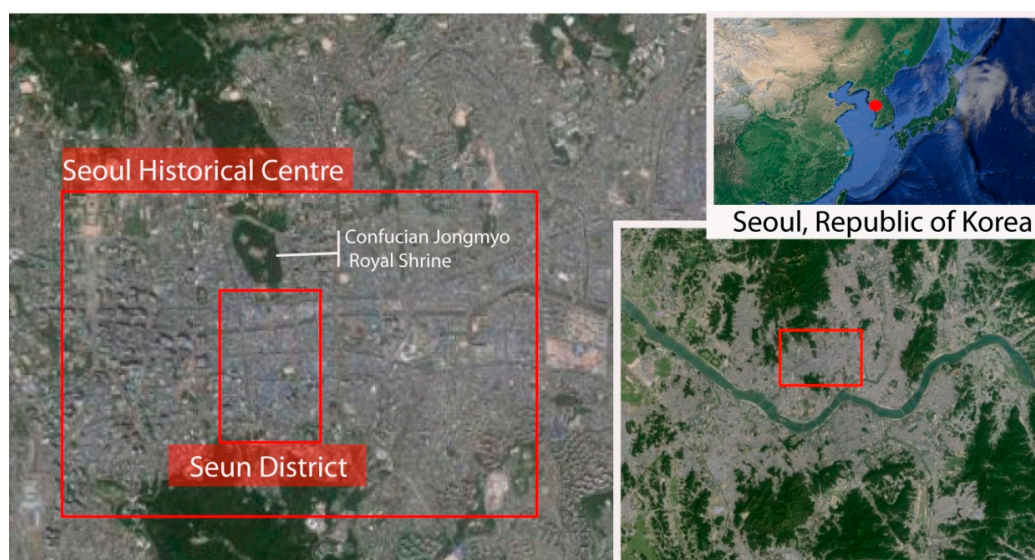
In order to understand the evolution and current challenges associated with the urban renewal of the Seun area located in the historical city of Seoul, it is necessary to explore the historical patterns of Seoul in terms of its growth and the development of regional decentralization policies.

Today, Seoul is considered a leading and rapidly increasing global city [41] as a result of the economic boom known as the “Miracle on the Han River” that occurred during the period from 1961 to 1996, in which the city was transformed from the ashes of the Korean War to become Asia’s fourth and the world’s thirteenth largest metropolitan economy [42]. Seoul is a very dense city, with more than 10.4 million inhabitants (roughly a quarter of the population of the Republic of Korea) concentrated in less than the 1 percent of the country’s land area. The very nature of Seoul as a high-density global city should be considered in the framework of development plans, and in terms of its regional influence on the Seoul Metropolitan Area (also referred to as Seoul Capital Area, SCA). SCA includes the surrounding Incheon metropolis and Gyeonggi province and, after Tokyo, is the world’s second largest metropolitan area with over 25.6 million people [43]. The population of SCA is expected to grow by more than 17% before 2030, with a growth rate of nearly 1% per year [44]. The Capital Region Readjustment Act was endorsed in 1982 to control the Seoul city center’s growing population by



decentralizing urban development through sub-centers such as Yeoido (a district on a 8.48 km<sup>2</sup> big island in the middle of the Han River) and Gangnam (a district which has been developed to high density residential and commercial areas in the 1990s, and became the district with the most expensive residential areas, the most dynamic business areas, and the most active entertainment areas in Seoul). Since then, almost 50% of Seoul's total employment in 2008 was found in the districts of Yeoido and Gangnam. While urban land use in the SCA increased 1.6 times from 673 km<sup>2</sup> to 1092 km<sup>2</sup> in the period between 1980–2000 [2], the population growth stopped and has since decreased in the Seoul city center since 1990. This development can be explained by the urban renewal policy that aims at redevelopments, which are based on the destruction and replacement of built up areas with high population density, with apartment complexes with lower population density [45].

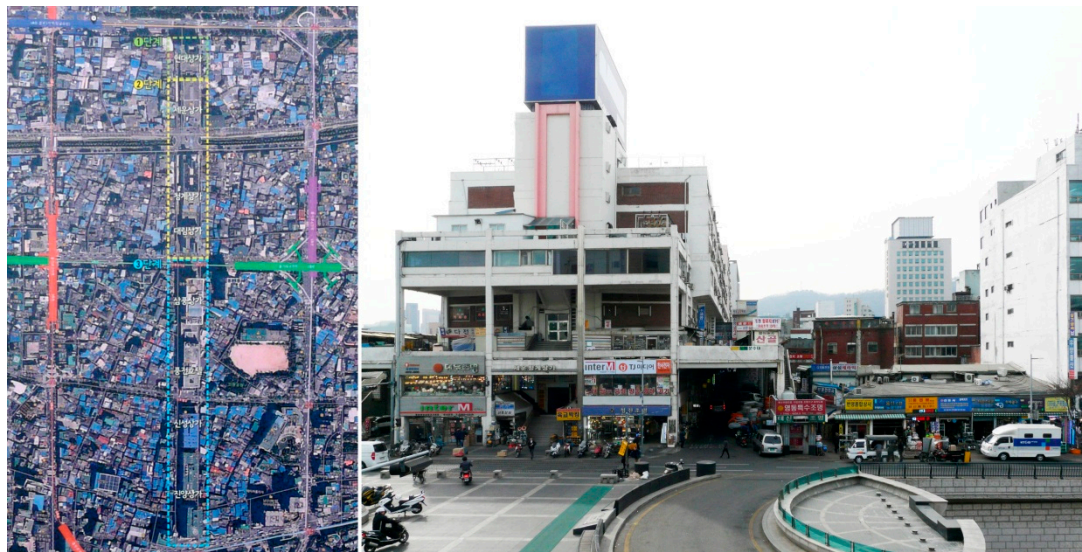
The Seun district is located in the historical part of central Seoul (Figure 1) and consists of a large number of historical urban patterns. The area is located east of the city center, south of the Jongmyo Royal Shrine (UNESCO World Heritage site since 1995), and north of the Cheonggye Cheon creek. The creek had been covered up with concrete, serving as an elevated urban highway for more than 30 years, before being completely restored and reopened as a liner public park opened in 2005 [5]. Furthermore, the identity of the Seun district is also shaped significantly by the “Seun Sangga” (also known as Sewoon Sangga) building, a 1 km long and 8 to 17 stories tall multipurpose residential and commercial center (see Figure 2), completed in 1967. This long north-south corridor of the urban area, intersecting the traditional urban pattern, and crossing the Cheonggye Cheon creek in the northern part, was designed by the prominent architect Kim Swoo-Geun. The building was designed and constructed in an area that had been completely demolished during the Second World War, when Korea was still under Japanese occupation. The existing buildings in that corridor had been demolished in order to create free open space for military purposes within the built up urban fabric. After the Korean War (1950–1953), the area was occupied by illegally constructed residential buildings. In the same period, informal settlements were also being built in many other open spaces in Seoul, such as the riverside of the Cheonggye stream. The informal settlements and illegally constructed buildings in the Seun area were finally demolished for the construction of the Seun Sangga building and the Cheonggye highway in the 1960s.



**Figure 1.** Map of Seoul downtown and the location of Seun district. Source: authors from Google maps.

Seun Sangga was the first official urban redevelopment project in Korea, and had been planned to fulfill the demand for the accommodation of urban growth and to symbolize the Korean nation's development progress. It was the first of many large-scale urban projects promoted by the Korean

government to showcase the country's success in the pursuit of modernization. Significantly influenced by contemporary Western urban design, the Seun Sangga building brought modernity to central Seoul [46]. In fact, the meaning of Seun Sangga could be translated as "Concentration of the world spirit in one site". The Seun Sangga building complex consists of eight rectangular elongated single buildings, stretching from North to South. The buildings are divided by crossroads, but were originally linked by pedestrian bridges on the upper levels. The first four floors of the building complex were designed as a commercial area to house electronic markets, while floors 5 to 17 were designed as apartments for residential use. From the beginning, the building was well accepted by the users and completely fulfilled the designated purposes.



**Figure 2.** Aerial view of Seun area with Seun Sangga building and location of subway lines and stations (left) [47]; View of Seun Sangga building from North to South, with a bridge crossing the restored Cheonggye stream (in the middle of 2—the yellow rectangle—on the aerial view) in the foreground (right) Source: authors.

Most of the original residents left Seun Sangga twelve years after its construction, in 1979, and moved to other housing areas. The cause for this migration was the specific urban development policy in Seoul, a lack of amenities in the Seun area, and the focus of the cities' housing policy on large-scale apartment development projects in the southern part of Seoul. Another eight years later, from 1987, a new very large electronic and digital market area was set up in the Seoul Yongsan district, which resulted in competition with the original market in Seun Sangga, and in the political will to completely relocate the electronic market to Yongsan. In 1995, the city government published a plan to demolish the Seun Sangga building completely. However, these plans were not realized and until today, the Seun area consists of the largest area that houses the same building structure as that during the completion of the Seun Sangga building in 1967. The City of Seoul has stated that the main barriers for regeneration have been fire safety issues and the high building density of very old low-rise buildings (72% of the total buildings stock) in the Seun area [47]. Due to the traditionally narrow structure of the public streets, 36% [47] of the area is not accessible by cars and there is a considerable amount of neglected and vacant buildings. Currently, the upper floors of the Seun Sangga building are occupied and are no longer used for residential purposes. These floors house commercial functions, such as offices, small workshops, and small-scale industrial production. These uses also support businesses in the area around the building and the huge electronic market, which is still present and doing successful business in the lower floors of the Seun Sangga building. Today, the Seun area is at the same time central and residual, accommodating diverse activities such as small and medium



enterprises, workshops and industries, an electronics market, outdoor gaming areas, and street stalls for food and goods (Figure 2).

### 3.2. The Urban Renaissance Master Plan for Downtown Seoul

Since 1995, the demolition of the Seun Sangga building and the urban regeneration of the Seun district have been repeatedly discussed by the city council and mayors. However, to date, only a relatively small portion of the most northern part of Seun Sangga was demolished 2009. The demolition was intended to be the starting point for the implementation of the “Urban Renaissance Master Plan for Downtown Seoul” in the Seun area, which is a visionary urban regeneration plan for the entire Seoul Downtown launched in 2006. The development plan affects an area of around 7.2 km<sup>2</sup> (as illustrated in Figure 3), with a population of 303,400, more than 2241 buildings, and a daily traffic flow of more than 1 million vehicles (inflow + outflow) per day. According to the Urban Renaissance Master Plan, the vision for the downtown regeneration is to build a “competitive international center embedded with dignity of a 600-year-long history and the vitality of a dynamic culture at the heart of Global Seoul” [48]. The goals of the Urban Renaissance Master Plan are to (i) increase the international competitiveness of Seoul by promoting the design and fashion industry; (ii) attract tourists; (iii) create a pleasant urban environment and cityscape by the creation of north-south green networks; (iv) foster the presence of cultural heritage; and (v) establish a substantial infrastructure by utilizing Korea’s advanced IT. The strategy was adopted in order to put in practice the visions of strengthening and re-designing the four north-south axes crossing the downtown area, with each enhancing one particular identity of the downtown districts [49].



**Figure 3.** “Urban Renaissance Master Plan for Downtown Seoul” highlighting the four strategic corridors. Source: authors elaboration from [49].

According to the Urban Renaissance Master Plan for Downtown Seoul, the four north-south axes (Figure 3) are assigned specific themes. Axis 1 is assigned with history, axis 2 is assigned with digital media, axis 3 with green areas, and axis 4 is associated with design and creativity. Axis 1, the Historic Corridor, includes Gwanghwamun Square, the King Sejong statue, different restored historic sites, renovated Namdaemun Traditional Markets, and a pedestrian network of green walkways connecting different touristic attractions including the restored Cheonggye stream. Axis 2, the Digital Media Corridor, encourages the creation of a new urban culture shaped by digital media technology, the creation of the “Digital Media Art District”, and the Downtown U-City project. Axis 3, the Green Corridor, includes the demolition and replacement of the Seun Sangga building with a newly created almost 100 m wide green corridor connecting the southern Mt. Namsan to the northern Changgyeong Palace. Axis 4, the Creative corridor, implies the promotion of design and fashion industries within the cultural landmark Dongdaemun Park with Dong Daemun Design Plaza (DDP) designed by Zaha Hadid Architects. The creation of the strategic four corridors should be driven by the inception given by different urban megaprojects, which should confer each district the identity and attractiveness for further self-development. One of these megaprojects is the successful and world renowned restoration of the Cheonggye Creek, resulting in the enhancement of spatial quality and livability in the concerned neighborhoods, but consequently also a criticized plan that engendered a significant increase of real estate values and important gentrification processes [5].

### 3.3. *The Fallacy of a Green Utopia*

One of the most extreme urban transformations within the four north-south development axes proposed by the Urban Renaissance Master Plan for Downtown Seoul is the extremely large regeneration process completely reshaping the Seun district. The project is part of “Axis 3: Green Corridor” and includes the construction of a green north-south axis, the “Restoration of NS-Green Network” (Figure 4), which aims for “strengthening competitiveness by redeveloping deteriorated and stagnant areas” [47]. The aim of the complete demolition and remodeling of all of the existing built up areas was the implementation of the following four main measures:

- Replacement of the 1 km long Seun Sangga building with an urban void in the form of a linear park.
- Reservation of 13%–15% of the total area for traffic infrastructure.
- Increase of the overall floor area ratio (FAR) in the redevelopment area. Implementation of an average FAR of 7, by implementation of different FAR between 6, 8, and up to 8.5 in specific development areas.
- Increase of the maximum building height to 90 m and in some areas to 125 m.

According to these redevelopment indexes, the green axis plan would result in a significant densification of the area, which is currently mainly occupied by single-story and low-rise buildings with less than 10 floors. The historical urban tissue surrounding the Seun Sangga and existing structures would be completely obliterated.

Since the publication of the “Urban Renaissance Master Plan for Downtown Seoul” in 2007, none of the measures related to the “Restoration of NS-Green Network” in the Seun area have yet been implemented. This is mainly due to the challenges related with framing an appropriate consortium of enterprises supported by an institutional network with financial capacities that can afford the high initial investment costs of such a green urban megaproject. Also many other plans for urban megaprojects and green-driven speculations in Asia [38] suffered the consequences of the 2009 economic crisis [23] and have been accordingly not realized. In the case of Seoul two main elements justifying the project failure can be identified: (i) competition with another urban mega-project, which is the construction of the smart eco-city of Songdo in Incheon (see Figure 5) and (ii) the rise of local protest against the Seun NS-Green Network Plan proposal. Referring to (i): New Songdo City is a 1500-acre project, started in the year 2000, and located within a new Free Trade Zone in Incheon, on a man-made island about 40 miles South-East from Seoul city centre. This smart eco-city project



has an estimated cost of \$35 billion. Morgan Stanley has been the financial institution to make a first direct cash investment among a group of other 26 financial institutions, while Cisco emerged as the major technology player developing its “Cisco Global Center for Intelligent Urbanization”, meaning its control room will be the brain of the new city [50]. Songdo is therefore one of the most ambitious global smart-eco city projects [24], and its financial platform could have entered in competence with other megaproject proposed in Seoul.



**Figure 4.** Illustration of the vision for Seun Sangga redevelopment through the “Restoration of NS-Green Network”. Source: author’s elaboration from [47,49].

While from another point of view, and at the same time, the redevelopment plans for the Seun district have been also highly criticized by citizens and particularly by local stakeholders. Entrepreneurs, consisting of local shop owners, as well as small and medium enterprises doing business (mainly manufacturing and selling) in the Seun Sangga building and in the surrounding areas, are neither interested in the realization of the plan for the Restoration of the NS-Green Network, nor in the demolition of Seun Sangga building [47]. Their negative perceptions about the project are based on the already suffered consequences of the previous Cheonggye Creek renaissance project, which induced a real-estate value increase of up to 100,000,000 Korean Won per Pyong (20,000 Euro/m<sup>2</sup>) within the project surrounding areas in Seun [5]. The social bias of such projects, and the induced gentrification, is not to be perceived as an isolated phenomenon in space and time, but nested within the ambition of increasing Seoul’s global cities ranking. Indeed, as mentioned in the case introduction, while property prices in Seoul remained quite stable in the 1990s, an increase of up to the 28% between 2001 and 2003 and by 57% between 2004 and 2007 transformed Seoul from being considered a developing country, to being within the top ranked global cities [52].

At the same time, Seun current entrepreneurs and inhabitants also complain about the proposed densification, regarded as problematic since before the implementation of the plan, 300 people occupied 30,000 m<sup>2</sup> of ground area (100 m<sup>2</sup>/person), while after the implementation of the plan, 500 people

would occupy 3000 m<sup>2</sup> ground area (6 m<sup>2</sup>/person). Such densities confirm the nature of the green utopia plan in Seun and that regulations of UNESCO for the Jongmyo Royal Shrine World Heritage site (Figure 1), according to which the maximum building height may not exceed 62 m in the northern part of the Seun area, was perceived as a barrier for investments in real estate developments [47]. While from our perspective, the increasing imbalance in business opportunities and social conflicts (that will emerge between the redeveloped and existing surrounding urban areas), jointly with the displacement of traditional smaller enterprises and the cultural heritage of the Seun area will contribute to the long term barrier to a sustainable and renewed Downtown.



**Figure 5.** New Songdo City in Incheon. Songdo Eco City—Masterplan [51] and photos of the state of development in June 2015. Source: authors.

#### 4. Discussion

Beyond its technocratic and energy efficiency indicators, an urban redevelopment project is also said to be sustainable when it creates a harmonious living environment, reduces social inequality, and improves quality of life in general [7,9,53]. Factors enabling socially sustainable projects include: preservation of local characteristics, ability to fulfill psychological and physiological needs, townscape design, provision of social infrastructures, availability of job opportunities, and good accessibility [11]. Unfortunately, Asian experience in dealing with urban sustainability has been generally based on new urban development projects, lacking integrated policy guidelines to tackle the socio-economic (“behind greenwashing”) perspectives of urban sustainability [23,38,54].

Both because of the competency of building the new smart-eco New Songdo City in Incheon, and the failure to address a proper partnership network for its financing while facing local oppositions, the Seun Green Corridor megaproject faced years of delay in its development. In 2013, the Seoul Metropolitan Government, specifically the Department of Managing Historical City, presented a new proposal, for an Alternative Seun Development Plan [47]. This proposal is the result of a long participatory process, consisting of 14 workshops, specialist consultations, a citizen symposium, and face-to-face talks with local residents. In contrast to the large scale projects-based planning



perspectives of the Urban Renaissance Master Plan for Downtown Seoul and the Restoration of NS-Green Network, the Alternative Seun Development Plan focuses on comparable small-scale redevelopments, strengthening the specific characteristics of the Seun district and the surrounding areas [47]. Such a paradigm shift has been also influenced by the regulations of UNESCO for the Jongmyo Royal Shrine World Heritage site (see Figure 1), according to which the maximum building height may not exceed 62 m in the northern part of the Seun area. Furthermore, the redevelopments should be based on mixed residential and commercial use and also include different housing sizes, including a considerable number of small apartments with less than 60 m<sup>2</sup>. The original city structure (roads and historical streams) should be conserved, the building height should be limited (see above), and the development of green areas should be considered within a small-scale development, avoiding the complete demolition of larger areas, and facilitating flexible upgrade and stepwise development. The average FAR should be 6, but depending on the area it might be 100%–200% higher or lower [47].

According to the City of Seoul [47], the main challenges for a successful future redevelopment of the area can be summarized and assigned to the following strategies, which are in contrast to the previous large scale redevelopment plans:

- Strengthening rather than weakening of the existing small and medium downtown businesses network.
- Respect the value of historical downtown structures instead of destroying the existing historic urban tissue.
- Minimization of the burden for local businesses and residents to acceptable degrees instead of stimulating social conflicts due to the relocation of existing workplaces and residences.
- Comparable small-scale redevelopments with limited building heights instead of large-scale developments with high building heights.

Due to a system of economic incentives, such a bottom-up and small scale stepwise urban renaissance could facilitate major longer term changes, attracting new businesses and tourists, and revitalizing the district while maintaining its cultural and historical identity. Such an incremental change of the neighborhood's functional and environmental quality, could be seen as a new and key learning experience for all the Asian cities. In the light of last decade Asian urbanization trends [55,56] megacities investments went through the experimentation and technology driven eco-smart cities prototypes, in search of the scalable, replicable and zero-emission ideal urban habitat for the future [25]. Such an increasing experience in modelling, planning, and building from an almost blank sheet leads to a blind faith in urban design and technology. The gap here is, among others, the assumption that the (Asiatic) traditional irregular small scale urban pattern and cultural heritage could inhibit future development. However, European cases teach how urban regeneration has not to be only framed through demolition and reconstruction practices, but recognizing the key role of places, culture, and identities [57,58]. Aware that also European regeneration policies presented gaps and social stigma because of their market driven approaches [59,60], the challenges posed decades ago from (urban) sustainability have to be addressed not only through new green design, but retrofitting existing cities and urban patterns.

## 5. Conclusions

This paper discussed some emerging issues within urban regeneration strategies through megaprojects, and the interpretation of urban sustainability in Downtown Seoul. In the light of recent Asian eco-cities projects, Seoul Metropolitan Area could be considered a leading example due to the development of the New Songdo City in Incheon [24]. However, it has to be considered on the one hand that the ambitious green and smart settlement New Songdo City has been planned and built on land reclaimed from ecologically valuable tidelands. On the other hand, areas in Downtown Seoul, such as the Seun district, suffer from aging built environments and the competency of new centers within Seoul Metropolitan Area. The Seun Renaissance Master Plan has been analyzed and the



NS-Green Network restoration has been illustrated in order to tackle the greening imperative which legitimates business as usual market-driven urban re-development practices. Charged of representing an unsustainable greenwashing practice, potentially inducing social and economic gentrification processes, the Seun Renaissance Master Plan has not been adopted and the hidden value of the traditional irregular small scale urban pattern and its nested cultural heritage emerged as a new driver for the incremental redevelopment of Seun. The Seoul City—Historical Town Centre Management Department, presented a new proposal for an Alternative Seun Development Plan [47], emerging from a long participatory process.

This paper builds on the emerging body of literature on gentrification induced by urban greenwashing practices [27,61–63], or blind technocratic smart city solutions [64], in order to demonstrate the need of a paradigm shift in Seoul planning practices when addressing urban regeneration from the perspective of true sustainability. Aware of the current urban sustainability fallacies [31,65,66], this case study calls on the need of integrated, complex, and stepwise urban planning and design processes, avoiding the oversimplification of the “economic growth” through greening paradigm. Indeed, social, cultural, and local economic sustainability must play a key role within urban regeneration projects, and even more so in growing Asian cities.

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