

Trend of Parks and Open Spaces:  
Comparison of New York City and Seoul

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### **Abstract**

Open green space is a significant feature in urban areas, as it contributes to public health, recreation, amenities and property values through its location, accessibility, proximity and serviceability. This thesis examines the trends of parks and open space in New York City and Seoul, Korea. Through analyzing historic documents and case studies, notions of urban parks in the two cities are shown to have been changing in different streams and motivation from their modern historic backgrounds. As open space is a broad term, this paper will point to mostly urban parks. In this case, the study sites include Central Park, Highline Park, and Bryant Park in New York City, and Namsan Park, Olympic Park, Han Riverside Park, and Cheong Gye Cheon in Seoul.

In New York City since the 19<sup>th</sup> century, parks have been increasing their function to promote greater participations and to encourage implementing open space. In Seoul, there were several wars and a colonial era that impeded the development of parks but after the 1970s, urban parks started to be form according to their function in the area. Nowadays, these two cities' patterns of open green space is converging in to green neutral ways and forming ecological cities. This research explains the meanings of parks and open space through how they have formed, functioned and evolved over time in urban areas. Also it recommends how urban parks are facing the future for a sustainable city.

## **Introduction**

Sustainable urban forms contain high density, diversity, mixed land uses, and feasible transportation, but also contain green designs that can build ecological cities (Jabareen, 2006). In advance, a general urban framework incorporates people, environment, structures, and economy with capable density, development, land use, and a supply chain, which becomes more complicated and needs to support dynamic changes. For sustainable cities, planning open spaces in compact cities is an issue as these spaces compete with additional developments, but open space is a crucial amenity (Smith et al., 2002), and an urban environment brings livability and an ambient atmosphere to cities.

Open space is a spatial framework that interacts with nature and landscape structures in urban areas (Ahern, 1990). Defined broadly, open spaces include greenways, parks, rivers, gardens, plazas, and waterfronts, where the area is not covered by any structures and the dominant area is exposed. As open space is an important component in planning, there are several models, such as the garden city, which focus on it (Maruani & Amit-Cohen, 2007).

Previous studies on open space indicate its function; small areas of green open space, such as parks and playgrounds, relieve congestion, while larger scale parkways, rivers, and stream valleys connect green networks (Walmsley, 1995). Gobster (2001) classifies open space into several types, including interspace, neighborhood boundary parks, and greenways. Even though implementation of urban open space is costly compared to profitable developments that could be placed, people tend to live near open spaces and greenways. The location of open spaces can drive residents toward desired areas and encourage more

development (Wu & Plantinga, 2003). Through hedonic valuation, which is an assessment tool that can be used to estimate economic benefits associated with environmental factors, the value of open space increases (More et al., 1988) and affects rent values around large urban parks (Hammer et al., 2007). In addition, amenity values are higher in urban forests than in rural areas (Cho et al., 2008).

The modern ecological framework concerning open space in urban areas has recently been focused on these spaces' interaction with the public. A number of previous studies have looked at the positive impact on public health. Urban green parks in cities enhance quality of life and create positive emotions (Chiesura, 2004). They contribute to reducing illnesses caused by stressful living (Grahn & Stigsdotter, 2003). Furthermore, having open green space in neighborhoods increases their walkability and positive interactions among residents and park users. Neighborhoods that encourage walking and physical activity help to lower obesity rates and improve air quality (Frank et al., 2006). Thus, people who live near green spaces have a tendency to be healthier than others, and urban areas close to green spaces tend to have a stronger focus on healthy living (Maas et al., 2006).

Combining open green spaces with green infrastructure improves public health and the relationship between health and the ecosystem (Tzoulas et al., 2007). There are maturing greenway movements such as New Urbanism and Transit-Oriented Development (TOD) that prevent and resolve urban sprawl by planning smart growth with integrated open-space systems (Walmsley, 2006). The TOD paradigm encourages pedestrian-friendly patterns to manage growth and bring vitality with green infrastructure and greenway network planning, which creates access to open spaces (Sung, 2011).

To examine open space in particular urban areas, this paper will concentrate on two cities: New York City in the United States, and Seoul in South Korea. New York City is the most populated city in the United States, with an area of 1200 km<sup>2</sup> that is packed with over eight million individuals. In comparison, nearly 21% of the total population of South Korea lives in Seoul, with 10.6 million dwellings in an area of 605 km<sup>2</sup>. While New York City was urbanized by the 1850s, Seoul was an agricultural city until the 1970s, after the Korean War. As these two cities are both megacities with highly compact structures and developments, it will be interesting to see how open space has been planned in both areas.

This paper aims to examine the trend of open space in New York City and Seoul from the modern era. As open space is a broad term, this paper will focus mostly on urban parks. American park trends are homogeneous and New York is the city that had the first public park, which led the urban park movement into a variety of park-planning methods (Cranz, 1982). Seoul followed park planning methods from Western countries in the early modern years, which is the early 1900s, but adapted their own ways and now has taken the lead in park and open space planning. Through analyzing historic documents and case studies, notions of open space will be analyzed chronologically from different time periods when urban parks were first implemented in each city. The study sites include: Central Park, Highline Park, and Bryant Park in New York City, and World Cup Millennium Park, Seoul Forest, Han Riverside Park, and Cheong Gye Cheon in Seoul. New York will be analyzed from the late 1700s and Seoul from the early 1900s. The research will deliberately look into the motivations of park and open space planning, urban park patterns, and usage, and conceptualize the common

functions in a time series for each city. In this way, the meaning of parks and open spaces will be explained through examination of how they have formed, functioned, and evolved over time in urban areas. For the future, park and open space planning is forming a common conversion framework for sustainable cities.

### **Literature Review**

There are considerable precedents regarding open space in urban areas that discuss accessibility. Urban parks are analyzed for spatial distribution, such as the relationships of proximity, density, and social need (Talen, 2010) that visualizes equitable access to urban parks (Talen, 2007). In Europe, usage of open space varies through its design, so stakeholders and designers should be aware that accessibility to open spaces brings activities, and therefore proper size is vital (Golicnik & Thompson, 2010). In addition, depending on socio-economic status, the youth population is least affected by the accessibility of parks when it comes to health and quality of life (Cutts et al., 2009).

This paper is confined to two cities, Seoul and New York City. Seoul, one of the megacities in Asia, has adapted several concepts of Western city planning, such as green belts around the city to control urban growth (Yokohari et al., 2000). In the 1960s, greenbelt policy reserved environmental aspects but regulated development and increased densification and congestion (Bae & Jun, 2003). While most open green spaces were located on the outskirts, the city began to plan open green spaces in the center of the city around the 1980s. Open space designs began to combine multiple functions and create theme parks; for example, an amusement park and a river were positioned together, and a swimming pool was placed in a riverside park.

Currently, urban parks are distributed unevenly with insufficient park space and low-quality amenities (Oh & Jeong, 2007). In the current rapid development phase, urban parks in Seoul are being transformed into more eco-friendly parks to bring biodiversity and nature into the city. For instance, the Cheonggyecheon (CGC) Project demolished a freeway and converted it to a greenway. Based on surrounding property values, commercial and residential areas saw both advantages and disadvantages (Kang et al., 2009).

In comparison, open green space in New York City is distributed equitably. However, previous researchers examined urban parks and found that discrimination can be seen based on social access, which determines size and the quality of amenities (Weiss et al., 2011).

Historically, conventional urban parks in New York City, such as Central Park, Prospect Park, and Bryant Park, were planned during the mid-1800s. At that time, the city Board of Commissioners established a new agency to manage open green space, the Department of Public Parks. Parks, playgrounds, and open green spaces remained in shape and were encouraged to be improved. Nonetheless, urban open spaces are becoming privatized and strengthening safety (Cybriwsky, 1999).

At present, 14% of the land in New York City, approximately 29,000 acres, is covered with parks, including greenways. There are several studies on community gardens in New York (Amstrong, 2000). Recently, New York City Metropolitan Area (NYCMA) adopted a modern ecological perspective on open green space systems, based on five principles: content, context, dynamics, heterogeneity, and hierarchy (Flores et al., 1998).

## **Methodology**

Urban trend is difficult to define, as it appears at different times and varies around different regions. However, this paper assumes there are distinct open space forms and concepts that reiterate and compose a general notion. Using qualitative methods, open space planning will be identified based on its history and background. As open space is a broad term, this paper will focus mostly on urban parks. In this case, the study sites include Central Park, Highline Park, and Bryant Park in New York City, and World Cup Millennium Park, Seoul Forest, Han Riverside Park, and Cheong Gye Cheon in Seoul.

This analysis uses historical research to examine past events and movements in terms of what has happened over time. Historical research involves documents, case studies, and literature reviews. In chronological order, New York City and Seoul's experiences of different cultural events, and the steps of urban development, will be explored.

This research is conducted to identify urban patterns related to open space and urban park development, and will synthesize the historical background information in order to understand the trends. Also, the research indicates open space forms that can represent and support the trend of each period.

According to Cranz (1982), open spaces are not simply static environments, but in fact change over time.

Parks themselves are still important today in different ways, emphatically not just part of the parenthetical history of gardens or landscape design. From the point of view of understanding society, they are an excellent example of how social forces shape and are shaped by the physical world.



Social, economic, political, and psychological processes influenced park location, size, shape, composition, and equipment and landscaping. (p. 7)

Another notion of urban parks is that parks and green spaces interact with people and their lives.

Parks and green spaces form an essential environment. Parks, which allow people to escape their busy daily work activities and take a break to recharge their batteries and green spaces, which prevent or reduce air pollution and the effects of natural disasters, provide a “natural environment and public resource...Previous reconstruction and redevelopment rested only on economic values, but now development must set down cultural, historical, and ecological values so that it can become sustainable...thus make possible a beautiful city where people want to live. (Hwang, 2003, pp. 367, 420)

Comparing the two cities, in New York City and Seoul different historical backgrounds and notions of green space formed the cities and environment, and analysis of this urban framework can predict the future of urban green space and parks.

## **Findings**

### *NEW YORK CITY*

American urban parks did not follow the European urban models, but were designed as great pleasure grounds introducing trees, lakes, meadows, fresh air, grassland, and sunshine into the city (Cranz, 1982). The earliest parks in New York City were built in the late 17<sup>th</sup> century on empty leftover lands as market sites or for general public use. Bowling Green Park, Battery Park, and City

Hall Park were designated as common ground. Later, trees and grass were planted in Battery Park, and gates and walls were constructed in the late 18<sup>th</sup> century to allow easy access.

In the early 1800s, New York City set the boundaries of Manhattan, which excluded Brooklyn and Staten Island. The city was crowded with immigrants and inhabitants and had little open space. The city grid planned in 1811 set aside a few open spaces for reservoirs and for parades and markets. These spontaneous activities could only take place outdoors. Union Square was used for parades, Madison Square as an arsenal, and Bryant Park as a reservoir that was converted into open space during the early 1800s.

After the American Civil War and Western Industrial Revolution, New York City had several public squares but there was no large park. Therefore, the city planned the creation of large parks, starting with one in the center of the city named Central Park. Parks were placed on sites unsuited to cultivation or construction; for example, Central Park had poor, rocky soil, and Morningside Park was too rocky. As the city was considering a great public park, Frederick Law Olmsted, an architect, won the contest to design the great public Central Park in 1857 based on his pictures. The state legislature appointed the Board of Park Commissioners to manage and organize the project from design to construction. The park was designed as a large and unstructured pleasure ground. When New York City was consolidated into the five boroughs of Manhattan, Bronx, Queens, Brooklyn, and Staten Island in 1897, large parks similar to Central Park were planned, including Prospect Park in Brooklyn, and Bronx Park, Pelham Bay Park, and Van Cortlandt Park in the Bronx. In 1870, the Board of Park Commissioners was replaced with the Department of Public Parks,

which finished the construction of Riverside Park along the Hudson River. Throughout the neo-classical revival in the 1890s, natural scenery in parks was valued more than buildings (NYC Park Report, 1914). During this period, the total acreage of parks in New York City increased.

Starting in the 1890s, new interest in athletics led to the systematic and formal organization of park areas to support programming for a wide range of activities (Cranz, 1982). In 1887, the state legislature passed the Small Parks Act, which authorized the acquisition of land for small parks in congested neighborhoods. This law encouraged park commissioners to anticipate the population growth and to increase open space and parks, including children's playgrounds, in crowded areas near schools and other buildings. This change reflected progressive ideas that aimed to transform urban parks into recreational areas. While Central Park had an ice-skating rink, sheep meadow, and municipal zoo before this legislation, by 1895 public recreational facilities had been opened throughout New York City, including the first bike path, the Prospect Park and Coney Island Bicycle Pathway, and the first municipal golf course, Van Cortlandt Park Golf Course in the Bronx. Later, in the early 1900s, the Small Parks Act promoted the creation of playgrounds and small parks with gyms and running tracks and the overall number of playgrounds increased to 70 by 1915 (Carr, 1987). People used the parks to take rides and walks and for recreation in general rather than enjoying scenery and green space. At this time, the term 'leisure' was defined. This trend contributed to urban renewal and the city's beautification. As a 1914 report by the Park Department states, the modern playground is a complete area in itself and is most successful when separated

from a park. New playgrounds therefore cannot be safely carved out of existing small parks (NYC Report, 1914).

New York City continued to grow quickly and became one of the most urbanized and popular cities in the world in the 1920s, with more than 10 million inhabitants. After World War I, an economic boom brought an additional population influx, encouraging the constant construction of parks, such as Cunningham Park and Alley Pond Park in Queens, and Wolfe's Pond and La Tourette Parks on Staten Island. Based on population pressures and demand for parks, New York City divided responsibilities among three park commissioners by area; Manhattan and Staten Island, Brooklyn and Queens, and the Bronx. Around 1900, these commissioners were organized into the Department of Parks of the City of New York, which still operates in the present.

While ideology initially guided park planning, the modern concern for the physical system of parks emerged in the 1930s. Population growth created more demand for parks, open spaces, and services to connect parks and recreational facilities. Thus, officials sponsored more support systems and public parks projects. Some projects focused on transportation, including resolving traffic problems by constructing Grand Central Station and the Henry Hudson Parkway. Led by Robert Moses, who in the late 1920s had predicted the need to plan more parks in New York City, many architects, engineers, and designers worked to expand, rehabilitate, and modernize New York's parks in the 1930s. The number of workers at the Department of Parks substantially increased reaching approximately 70,000 in 1934. During this time, hundreds of playgrounds, 53 recreational buildings, 10 golf courses, and 3 zoos were built (Carr, 1987). Additionally, parkways, which serve as modern highways, appeared as new

parks systems. The Flushing Meadow Park was built in Queens and Robert Moses constantly added new playgrounds, outdoor swimming pools, beaches, and parkways, doubling the city's acreage of parks by 1960. The construction of many parks and the acquisition of much open space became possible after World War II, when New York included \$22.5 million dollars for parks in its budget. In addition, the World's Fair fueled the billion dollar development of the Van Wyck Expressway (Cranz, 1982).

After the economy crashed in the 1960s, a fiscal crisis affected the park and recreation programs in the 1970s. In the midst of the urban crisis, people found parks less attractive and became willing to promote such innovations as the new term "open space", which views space as a safety measure. Private agencies took over maintenance of some park facilities, such as golf courses and zoos, and many responsibilities for park maintenance were transferred to or shared with other groups or federal organizations. In 1965, the Landmarks Preservation Commission was established to increase public involvement in parks. The community was willing to support new playgrounds and plan more small parks. Not only the Parks Department, but also the community held a variety of cultural and artistic events and activities in parks. The New York Philharmonic Orchestra and Metropolitan Opera started performing in Central Park in the mid-1960s, and Central Park also hosted the first New York Marathon. In the 1970s, an amendment to the Landmark Preservation Law made parks eligible for designation as city landmarks, and 16 parks in New York were placed into historic districts.

While unofficial groups spontaneously organized the early playgrounds, in the mid-1980s the Department of Parks and Recreation divided up park

administration by borough. The Urban Park Ranger force was established to guard and protect the natural environment of parks, and the Natural Resource Group to protect undeveloped park areas, natural forests, and wetlands and to restore natural ecology, habitats, and biodiversity. Park administration increased in the 1980s, as 22 city agencies provided 70 services to improve and maintain parks and playgrounds.

Later in the 1980s, New York provided funds to rebuild parks and develop environmental awareness programs. Green policies were established, as “green spaces and trees were given new consideration and protection in an effort to revitalize the city’s only living infrastructure: parks” (Carr, 1987). Additionally, playgrounds built in the 1930s were restored. The Neighborhood Park Restoration program increased access to and distribution of facilities among parks and playgrounds. Preservation and comprehensive restoration of parks are important for future generations, so New York has constantly invested and solicited private donors for parks and managed environmental and safety concerns such as pollution and vandalism in parks and open spaces.

In the 1990s, non-profit organizations, such as the City Parks Foundation and Historic House, were created to raise private funds for parks. These public-private partnerships have increased the number of workers cooperating on many projects. The Partnerships for Parks and City Parks Foundation seek to increase community participation in local management. Urban greening became a substantial area of cooperation. The planting of trees and creation of green streets, which are paved streets converted into pervious streets, flourished in this decade. By 1998, New York had more than 100 green streets. As part of this trend of tree management, the number of trees throughout New York was

counted in 1995. In addition, urban park rangers concerned about the urban ecology protected animals, plants, and their natural habitats.

### SEOUL

Planning parks and open spaces was treated as Western-style urban planning in Seoul around the beginning of the 19<sup>th</sup> century (Hwang, 2003). Given the significant distance between Asia and North America, Korea developed their own patterns of development for parks and recreation spaces, based on their history of modernization. Korea was modernized and civilized decades later than Western countries and began to experience modernization during the 1900s. However, there are many arguments as to when Seoul started to modernize; technically the first modern-style parks, such as Namsan Park, were made by the Japanese in late the 1800s to early 1900s.

Before the capital city of Korea was named Seoul, its name was Gyeongseong Bu. This city confined its boundaries within four walls with four entrances, which were called gates. There were only three open spaces called parks in that city in 1900. There was Independence Park, for the Korean patriots and government, Pagoda Park, designed by an English architect, and Hwaseongdae Park. These parks had no designated green spaces and were partially restricted to the public. At that time, parks and green spaces were not purposely planned. Green spaces were natural features such as mountains, rivers, valleys, and grassland that surrounded the city. The parks were all planned by the Japanese and for the Japanese, which was also intended to weaken and control Korea.

During the Japanese colonial domination, parks were defined through legislation. A city plan called “Gyeongseong Municipal Improvement Plan” was established by the colonial government in 1912. This project was intended to straighten up roads and broaden traffic networks. Until 1934, this solitary project planned the construction of urban areas in Korea.

Then the city officials of Gyeongseong Bu and economic experts gathered to create Seoul’s first informal-modern city plan, the “Gyeongseong Bu City Plan” in 1926, which was updated two years later as the “Gyeongseong Bu Urban Park Plan Notice”, which was a survey report. This noted that there were seven parks in Seoul, occupying about 1.2 million m<sup>2</sup> of land. Gyeongseong City Plan’s basic concept and structure was similar to Western city planning. It was created in 1929 and held up until 1959 when it was revised.

At this time, the first park plan was designated as a park district, which occupied more than one million m<sup>2</sup> of land. However, the park project was not easily implemented till it passed the inefficient processes of legislation and authorization. In 1940, the first park planning was announced, the Gyeongseong Bu Urban Park Plan Notice, when the colonial government approved the city planning decree. At this time, several types of parks, such as grand parks, neighborhood parks, and boulevard parks were categorized with the goal of implementing small parks in the city and avoiding the difficulties of arranging large lots. Also, ‘scenic district’ was designated as a new concept to protect scenery areas. More than one hundred parks were planned, but only ten were actually constructed because Japan was concentrating more on war than on developing colonial land.



Japan had a policy of using parks and green spaces as shelters and refuges in the case of earthquakes and disasters. This was practically implemented in Korea during World War II. In the Park Law of 1940, there is an additional phrase emphasizing that open spaces be used for protection from war-related destruction and to halt fires spreading.

World War II ended Japan's dominance over Korea, but park planning still remained passive. After the Japanese colonial period in the early 20<sup>th</sup> century, the capital city of Korea was renamed Seoul and there were about ten parks left after the independence in 1946. Then the Korean War was declared in 1950 and parks were destroyed and used as refuges. Parks and open spaces were utilized as protection areas for citizens who lived in dense areas to evacuate from war-related destruction and prevent fires spreading.

Three years later at the end of the war, the liberation of Korea brought about an unexpected growth in population, economy, and physical structures. The government of Seoul planned to rebuild and reform the city to accommodate refugees and manage the uncontrolled developments. Most of the open spaces were destroyed as they lost their war-time functions. Park and open space planning actions began with the destruction of unusable waste spaces, which were rezoned to implement the new plans at the end of the 1950s. Namsan Park, Hannam Park, and Cheonggryang Park were replaced with residential areas, and Sajik Park, Ahyeon Park, Jangchungdan Park and several other parks were replaced with schools.

Seoul parks and open space planning resumed its initiative to create a modern city in earnest in the 1960s. Initially these plans were based on the

Gyeongseong Bu Urban Park Plan Notice, but this was revised and set as a new city planning law that became law in 1968. The Park Law states:

A park protects natural landscapes, and contributes to the improvement of public welfare, recreation, and mental health.

As noted, parks and green spaces were first defined as a category of city planning and recognized as a broad concept of green space which brings improvements to the people. However, there was lack of resources and facilities to bring what was planned twenty years ago into existence. There was lack of open space in the central city; most of the sites for parks were located on the edge or outer city, where there was natural green space or historical territory. Passive movements while legislating the park and open space law redesigned some open spaces in Seoul. This created neighborhood parks on old historical landmarks with open spaces. Scenic woodlands that were zoned for scenic districts continued to be managed by a government authority. As the notion of parks and open spaces was not important, several playgrounds in the middle of the city were removed to build public buildings.

In the 1970s, the city continued to deconstruct and use spaces for useful buildings, such as offices or apartments. More so than in the 1960s, parks and open spaces were not literally planned but pushed out by law. The various categories of parks were condensed into four: neighborhood parks, memorial parks, natural parks, and playgrounds. In this way, Seosomun Park, Dosan Park, Nakseongdae Park, Dongmyo Park, and several others were constructed and some previous park areas were replaced with buildings for public authorities, like the Korean Institute of Science and Technology, which was built on Cheongryang Park. Even though the number of parks decreased, the total area

zoned for parks and open spaces increased. Parks and open spaces were finding more meaning and support systems in the city.

Additionally, to control the growth of urban population and economic development, the Greenbelt Policy was instituted in 1971 by the government. It has been extended four times and is still in effect today. The conserved area bounded by the greenbelt is used to protect agricultural land and a few parks, and contains urban features by restricting growth (Bengston et al., 2004).

In the later 1970s, Seoul Metropolitan Government and administrations put a lot of effort into organizing facilities and constructing parks, and making these spaces useful to the public. The government shortened the system for authorizing parks and open spaces projects and implemented comprehensive park areas. The majority of projects were on a large scale and located near the edge of Seoul. For example, Seoul Grand Park was created with a zoo and botanical garden near the boundary of Seoul. Also, various functions and themes were applied to parks, and children parks and amusement parks first emerged in the city. For instance, Lotte World, Seoul Land, and Everland were opened for amusement and recreation, and are also located on the outskirts of Seoul. Other open spaces included multi-functional areas such as swimming pools, ice skating rinks, zoos, playgrounds, and botanical gardens on extensive fields.

While many infrastructure projects had been built in 1970s, parks and open green spaces began to dramatically increase in number when Seoul hosted the Olympics in the 1980s. The city created many green streets, parking lots, and extensive parks, such as Olympic Park and Han River Park. Olympic Park is located on a large historical site which restores and preserves the Mongchon Fortress. An expansive area, this park includes museums, sports facilities for

recreation, and green areas with trees and gardens. Local government initiatives to develop athletic facilities and sports centers to meet people's recreation needs started to be built. These were considered as theme parks.

Also, Han River was cleaned up and terraced along the river to create green open spaces. Similarly, waterways in Seoul such as Yangjaecheon and Tancheon were reformed and designated as green open spaces.

The Park Law legislated in 1980 defines the park concept as:

A city planning source created in accordance with the city planning laws, and contributing to improve public welfare, recreation and mental health, and by providing spaces for city residents to utilize in their leisure activities, with the aim of soundly developing urban areas and maintaining public peace, order and welfare, they are the main green spaces created by local governments.”

This indicates how parks and open spaces have changed based on demand and accommodation. Also at this time, large-scale park projects were based on the Natural Parks Law, which was separate from the City Planning Law.

In the 1990s, after the Olympics, Seoul vigorously and systematically planned parks and open spaces. As Seoul experienced economic growth and quality of life improved, people become more concerned with parks and green spaces, which necessitated many changes to facilities and the planning of more open spaces. As demand increased, smaller parks appeared in gardens, pocket parks, mineral springs, and community squares. The Seoul metropolitan government built many mini-parks in small, narrow areas and connected them as a scattered, green network throughout the city. The government sponsored a

contest to create these small parks, called MaeulMadang, and make them into Seoul Village Squares.

The Seoul government restored parks destroyed during the wars and neglected over the years, including Namsan Park and Independence Park. Namsan Park was planned by Japanese colonial powers during the turbulent early 1900s when the Japanese empire ruled Korea. After the Korean War, Namsan was handed over to refugees from North Korea, and in the 1990s the government started restoring the park. Independence Park has retained its historic prison and surrounding grassland. After the prison was made into a museum and nearby monuments rebuilt, the area was designated as a park around 1990. These multi-functional parks have cultural and historical significance, so they must be managed in an organized and systematic way.

In addition, as part of South Korea's participation in global conferences, the country agreed to encourage environmental movements and legislation at the United Nations Conference for Sustainable Development during the Rio +20 Summit in 1992. This agreement led in the late 1990s to planning open spaces and adopting an ecological approach to park management, which emphasized conserving natural landscapes. Seoul Forest, the city's central park, was changed to reflect the area's natural habitat and biodiversity. In 2002, the government transformed a 15-year-old landfill called Nanji-do into the ecological World Cup Park, also called Sang-Am Millennium Park.

Recently, streetscapes were changed into green open spaces. Many streets near historical sites and neighborhoods were widened, and trees and grass were planted to create pedestrian-friendly streets. For instance, Doldam-gil, a stonewall alley next to Deoksu-gung Palace, Garosu-gil, a walkway in the

popular area of Gangnam, the traffic square in front of Seoul City Hall was transformed into the grassy Seoul Plaza in 2004, and a huge traffic intersection in the main center of Seoul was replaced with Gwanghwamun Public, a plaza with water fountains.

## **Conclusion**

Based on the history of urban development, Seoul was approximately a century behind New York City. New York City first designated a park about 200 years before Seoul did. While New York City consistently implemented new forms of parks and open spaces during the phase of urban development, Seoul experienced colonization and war that destroyed the city. Existing parks in Seoul had to be renewed by city planning, including park planning, after the wars. However, since modernizing, Korea has rapidly grown its economy, technology, infrastructure, quality of life, and human welfare. Urban forms have been designed to meet population needs and to follow global trends in planning. Seoul is forming parks and open spaces in a similar manner to New York City. In the beginning, big parks were formed in the city, then new park features and open spaces were added. Later, parks became smaller but increased in number and green open spaces became commonplace. Currently, both cities have integrated mechanisms of open green spaces that should emphasize sustainability and landscape ecology (Ahern, 1990).

New York City and Seoul plan to create green cities in the future. Rather than dense and developed modern urban forms, people prefer to create and live near green nature in the cities. While New York City adopted this approach in the 1980s, Seoul has recently started to take steps to become a green city. In the 21<sup>st</sup>

century, both cities have sought to coexist with their ecological and natural environments. People have planted trees, grass, and flowers in cities and become concerned with the natural environment functioning in built-up environments. Like Seoul Plaza in South Korea, transformation of urban squares into green areas is seen in Herald Square and many small neighborhood parks all over the city. Open green spaces should not be just green, but also provide a healthy environment for natural species. Restoring natural habitats and rehabilitating the ecological environment are significant points in open green space planning. Many exotic species are dominating the urban environment and rebuilding biodiversity. Although there are some controversial arguments regarding urban ecology, people are focusing on ecological restoration to create a healthy environment and natural biodiversity.

In green cities, green and open spaces are planned not only on the ground, like traditional parks, but also on rooftops and in leftover infrastructure. Such projects include Cheong Gye Cheon(CGC) in Seoul and Highline Park in New York.

Since 2005, the innovative CGC project has gained attention throughout the world. A river near the center of Seoul was restored after deconstructing a highway. This project removed a massive piece of infrastructure to create green nature in the middle of a dense, urban area. Before the Korean War in 1950, the river was filled with trash and contaminated water, so the government built a concrete highway on the top of the river to conceal it. This highway connected the Central Business District hub and surrounding commercial zones. However, as air pollution caused serious problems and environmental campaigns pushed for decreasing greenhouse gas emissions and restoring green areas, the CGC project converted this infrastructure into a green park. Not only has the park

been planted in green, but there has also been attempts to bring back biodiversity among the trees, plants, and the stream, which is connected to Han River. In New York City, Highline Park, which was completed in 2012, is built on an elevated railroad abandoned in 1980. Used by trains transporting food and manufactured goods, this structure was almost demolished, but in 1999 a non-profit organization and the city collaborated to redevelop it into a greenway. Although most of the plants are dominated by invasive species, there are enough species to survive and create a new environment which is elevated from the ground level.

Additionally, another current trend in open green space planning is creating new forms, which means adding new functions to parks and open spaces. Bikeways and pedestrian walkways are expanding in open green spaces, like the playgrounds which were built in the early 1900s in New York City and post-war era in Seoul. Recently, as Transit Oriented Development (TOD) prospers, new pathways for bikes are being implemented and pedestrian walkways have been widened in parks and also on streetscapes. Widening pedestrian walkways are local projects, and an example can be seen on Broadway near Columbus Circle on the Upper Westside, where partial vehicle streets have been blocked for pedestrians. In Seoul, many riverside parks have been designated as bikeways with tracks added for pedestrians, such as Yangjae-Cheon and Han River Park.

Both Seoul and New York City are planning sustainable, urban development integrated with conservation and environmental initiatives. As cities both cause and solve global environmental problems, they are becoming



green-neutral cities, in which parks and open spaces serve as deliberate efforts to create a healthier, more sustainable environment.

If the old city was “a city in nature”, the new city has to pledge itself to be “nature in the city” (Hwang, 2003).

While some global trends in park and open space planning can be predicted, the limitations on this research include a lack of focus on political and economic factors that influence the development of urban parks. Planning public spaces in cities involves several political powers and can be dependent on economic and/or social interactions. Also, research should consider policy implications and land use constraints. Nowadays, transportation development and open space planning correlate as many transportation projects aim to create or moderate open spaces.

Future studies should discuss other cities’ park and open space planning to define global trends. Additional research using quantitative data could support or suggest some other aspects of the trend. Statistics related to total open green space by acre and other factors, such as economic growth, population growth, or city growth over the years could explain the relationship between urban development and green space. Also, privately owned spaces should be considered and compared to public spaces. Recently, there is an increasing number of studies about the relationship between open green space and public health; there could be an analysis of health and open space in chronological order.

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