

# An Introduction of Park-Based Mixed Use District around Urban Large Parks and Green Spaces - With Special Reference to the Application of Landscape Urbanism to Mixed-Use Development -

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## ABSTRACT

The 21st century is currently undergoing an era of urban regeneration. The purpose of this research is to secure and expand the green infrastructure with zoning regulation in the context of urban regeneration. This objective also seeks a way of urban regeneration through the use of existing large parks by employing park-based mixed use districts around the periphery of large urban parks and green spaces. This research examines the limits, problems of existing single- and mixed-use zoning districts for securing of green infrastructure by book review. This research finally advocates introducing a another type of urban mixed-use districts, namely park-based mixed use district and its characteristics and functions, by using landscape ecology and landscape urbanism as a theoretical basis.

The results of this research suggested that large parks and green spaces should be considered as one of patch in landscape ecology. This research also discusses the possibility that, as patches have ecotones with greater biodiversity in the peripheral areas of it, the green infrastructure can be constructed around the periphery of large urban large parks and green spaces by introducing cultural ecotone of nature's convergence with the city. As a result, the green infrastructure and high density of land use and using behaviour can be increased. Park-based mixed use districts encourage the convergence of parks and the city, with the park being used as the main function; residential, commercial, business and cultural uses etc. are partial functions. In order for the park-based mixed use districts to be designated, the size of large urban parks and green spaces, as well as location, city function and condition of the peripheral areas all need to be considered. The necessity to examine the designated width of the park-based mixed use districts and the form of the peripheral area was also discussed. This research, which is based on investigative research results, suggests that further in-depth and comprehensive analysis of the actual condition of urban large parks and peripheral areas needs to be completed. Specialists and other interested parties, analysis and investigation on related plans and designs are also needed for the institutional practice.

*Key Words: Landscape Ecology, Cultural Ecotone, Mixed-Use, Green Infrastructure, Urban Regeneration*

## I. Introduction

Contemporary cities in 21st century are advancing the idea of urban regeneration from the city of the 20th industrialized

society (Cho, 2007: 29-60). While the city of the industrialized era increased the function of pure land use with characteristics of divisions and separations according to land use districts, the city of an information and knowledge- based

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society promotes the increase of density, rather than the increase of right function, through the notions of hybrid and convergence (Valeur, 2005). To accomplish the goal of the using diversity and density, the notion of mixed-use districts is suggested by Kim and Lee (2009: 139-167).

In the late 20th century, city parks were criticized based on the perspective of communication with the city (Corner, 1999), because parks were frequently separated from the city and was considered to be disconnected green islands. This perspective has evolved and a new direction for large urban parks and green space developed. Cities began to search for new possibilities<sup>1)</sup> of urban regeneration that were more consistent with the flow of the city. Generally, large urban parks are defined as parks greater than 500 acres. The magnitude of this size significantly affects the revitalization of the city and has cultural, ecological, and environmental implications (Czerniak and Hargreaves, 2007).

How does the design of large urban parks and green spaces, such as La Vilette Park of Paris, Downsview Park of Toronto, Fresh Kills Park and the Great Park of Orange County, fit into this new pattern of present urbanization? The notion of 'communication with the city' is one of the core design strategies used to design urban large parks. This strategy attempts to create urban revitalization through the dynamic introduction of the city culture in the parks. The parks communicate with the city, rather than being separated and severed from the city. However, the strategies used to limited to the designs of interior parks<sup>2)</sup>.

The concept that convergence by fusion of different substances is essential for the production of complex property (Lee, 2008) act as a justification for the convergence of large parks and green spaces with urban.

Landscape urbanism which has its root in landscape ecology (Hill, 2005), settles the contemporary environmental problem by converging the notion of the city and of ecology. It is also a paradigm that pursues the economic, cultural and social revitalization of a city, and is also currently being used as a practical strategy and practical method (Cho, 2010: 109-118).

Given this background, this research first assesses the applicability of urban land use district for the theoretical framework of landscape urbanism. Secondly, this research proposes the introduction of park-based mixed use districts around peripheral areas as an aggressive strategy to build green infrastructure and help revitalize<sup>3)</sup> the areas of the peripherals of

large parks and green spaces.

## II. The Problems of Mixed-Use District in the Context of Parks and Green Spaces Securing in Korea

### 1. Backgrounds and Concepts of the Beginning of Mixed-Use District

The main reason why the modern definition of urban land use district became legislated in the early 20th century began with the protection of property value through the prevention of contradiction of urban land use occurring from the chaotic mixture of multiple uses (Gang, 1997). In other words, Euclidean zoning was aimed at division of land use. With the advent of the 21st century information and knowledge-based society, the flow of persons, materials, informations, capitals, mediums, and organisms have been escalated. With this escalation, the zoning system evolved into a paradigm of mixed-use because of preference of convergence and hybrid rather than that of divisions separations.

Mixed use zoning is centered on the three major functions of the city: residence, commerce, and industrial activity. It appropriately divides the land by function in order to prevent severance of function and use of land from extreme separation. Land use district is employed as the designing rationale for land use. Also, mixed-used zoning is defined as a large scale area that plays a supporting and reconciliatory role in physically integrating the various functions of more than three of the land uses. Mixed land use can be generally explained as in the speculations of mixed-use, ratio of mixed-use, and spacial organizations of mixed-use. Therefore, in city planning, mixed-use districts are defined as the functionally and physically coexisting states of the city's functions and its three activity elements: residential, commercial, and industrial activity (Kim and Lee, 2009: 139-167).

In America, although mixed-use was considered as a development method that focused on the complex development of large scale buildings, there are movements to introduce mixed-use zoning into the current zoning system by establishing mixed-use zoning to help a devise mixture of residential and commercial functions. On the other side, as can be seen in Japan, the term of mixed-land use is defined in another way. These terms are either understood as a con-

trasting concept to specialization of land use or defined as a unified state which is a result of combining two or more kinds of functions (Kim and Lee, 2009: 139-167).

## 2. The Problems of Mixed-Use District from the Perspective of Parks and Green Spaces Securing

In regards to mixed-use zoning, the main points of dispute are deciding on the sorts of mixed-use, distribution of space of mixed-use and the degree of mixed-use. In our country, there have been many negative evaluations that have reported the operation results of the mixed-use zoning in diverse dimensions. The research related to mixed-use zoning mostly justified the use of mixed-use zoning and deduced the characteristics of mixed-use zoning; however, this the mixed-use zoning that applies to planned control and deregulation in the form of special planning has not been researched (Kim and Lee, 2009: 139-167).

The first problem with mixed-use zoning is that, except for the heavy industry zoning, only the semi-residential district, which is mixed with residence and commercial work, is relevant to mixed-use zoning. Analyzing the designated form, designated site, mixed-use, and operation condition in regards to the operation of mixed-use of semi residential districts yielded an interesting result. Due to the fact that the designated form of the semi-residential district is located on the roadside in a small scale, it does not perform the role of mixed-use as a region itself. Considering the present development condition of land use of the semi residential district, green space occupies 0.34% and public outdoor space occupies 2.62% of the land uses. This is lower than 36% of residence, 39% of commerce and 7.8% of business (Kim and Lee, 2009: 139-167). These results show that the securing of parks and green spaces has not been accomplished absolutely.

Secondly, the commercial and residential development of skyscrapers is accomplished in specially planned districts at the district scale dimension and is carried out in areas where public transportation is easily accessed and the pressure to develop is high. This is because these buildings are close to station influence areas and principle roads. More specifically, the average ratio of the accumulated building area to floor is at 520%, building ratio to floor is 67%, and commerce and business is 32%. The mixed-use centered on the commercial and residential uses were introduced as a way to increase the

ratio of accumulated building area to floor in the specially planned districts.

As can be seen from the above analysis, the mixed -use development in our country is primitively developed based on the resident-based mixed-use. The green and park-based mixed-use, which corresponds to a new paradigm of green growth and securing of green infrastructure, cannot even be discussed, in existing semi-residential area or mixed-use districts showing the only 0.34% of parks and green spaces. Secondly, such mixed-use is established as a tool for the physical development, rather than for urban regeneration aspects manipulating, of economical, social, cultural and environmental improvements.

## III. The Relationships between Landscape Urbanism and Park-base Mixed Use District

### 1. Landscape Ecology and Landscape Urbanism

Generally, landscape ecology reveals natural features of the landscape which have undergone processes, changes, and evolved as a result of the interaction of nature with living and non-living organisms (Dramstad and two others, 1996). Landscape ecology can interpret the landscape by applying the analysis of processes, changes, and evolutions. It can also effectively preserve, restore and manage nature's damaged landscape inversely through such algorithms. Landscape urbanism is theoretically based on landscape ecology. Professor Hill of Washington State University defines landscape urbanism as a urban design applying the theory of landscape ecology to the city (Hill, 2005). The major concept of landscape urbanism that is related to the zoning system is surface (Wardheim, 2006). This, in turn, is related to the concept of a patch and ecotone in landscape ecology(Dramstad and two others, 1996). Richard Forma suggested that the minimum shape for the patch (park) should be an overall spaceship with a round core in order to protect the natural resources. There should also be a partial curve for the ecotone area and a finger shape for the dispersion of organism (Czerniak and Hargreaves, 2007). When this patch is viewed in relation to the system of zoning used in the city, the patch can be compared to mixed-use district as a surface.

## 2. Mixed-Use District from the Patch Perspective

A patch is a unit of a landscape. It could either be a forest or a plain etc.. A patch is classified according to its size, horizontal and vertical structure, and the organisms living in it. The bigger the size of the patch, the more diverse of small and big organisms inhabit in it. Also, the kinds and density of the organisms differ according to each location of the horizontal structure, ranging from the center of the core to its extension to outward of ecotone.

It is significant to note that the extension of the patch's ecotone when it is interpreted from the context of the relationship with the mixed-use district in the context of landscape urbanism. Ecotone is an area that encompasses a certain width that a habitat meets with another habitat. This is a peripheral concept that is beyond simply the edge or boundaries of the patch. The ecotone has different horizontal and vertical structures than the core area. It is a place where diverse organisms inhabit with higher density compared to any other patches; in addition, there are organisms that inhabit only in this specific ecotone. This causes a more diverse and complicated inhabitation of living organisms being displayed.

The movement and inhabitation of living organisms in each area shows a tendency to freely move horizontally and vertically in the patch of landscape ecology. The free flow of persons, materials, capital, organisms, information, and mediums are also considered important in landscape urbanism. The patch of landscape ecology is displayed as surface in landscape urbanism. A reciprocal relationship and flow of an organization of organisms, rather than individual organisms, is promoted through the structure of this horizontal and vertical surface. The exterior of such surface complexity overlaps the different functions as cultural ecotone<sup>4)</sup>. More diverse kinds and functions of city activity exist and, as a result, form an area with higher use-density.

## 3. Landscape Urbanism and Park-Base Mixed Use District

According to an analysis of relevant essays and works, there are three main problems in implementing a strategy for landscape urbanism (Waldheim, 2006; Almy, 2007). The first problem is how to establish the nature (green infrastructure) to the city as the substance of the operating nature. The second problem is how to design the established green infra-

structure that corresponds to the concepts found in landscape ecological point of view so that the infrastructures communicate with the city. The third question is how to introduce and implement the concept of landscape to the infrastructure which is as a different substance of the landscape (Cho, 2010: 109-118). For these two problems and a question, the paradigm of landscape urbanism is ultimately to practice establishing a systematic relationship by cooperation of nature with city. Although it will be mentioned later in the paper, the park-based mixed use districts introduce parks as the main function and defines other uses, of residence, commerce, culture, and business as subordinate. The park-based mixed use districts can be said to be another expression of implementation tool of landscape urbanism in city planning. Such a designation of park-base mixed use districts establishes a certain void in the city space by constructing the green infrastructure as the main land use that becomes the means to give elasticity and adaptability to future society (Hester, 2006). Landscape urbanism does not limit the concept of landscape to only the empty spaces between the buildings, green spaces, and parking lots etc.. Considering that all of the factors, such as roads, buildings, utilities, open spaces, communities, and natural habitats that are fixed and also change, the activities of the cities are defined as the surface (Almy, 2007) that comprehensively supports and organizes them. The park-base mixed use districts both frames the means for city planning and the implementation of landscape urbanism.

## IV. An Introduction of Park-base Mixed Use District around the Peripheral Areas of Urban Large Parks and Green Spaces

### 1. The Concepts and Functions of Park-base Mixed Use District

Park-base mixed use districts explains the district that is the mixture of land use of park with other land use of residence, commerce, culture and business etc. in the peripheral of large parks and green spaces. But, park is becoming a main function and others of residence, commerce, business etc. are subordinate functions to it in this district.

In other words, the existing large park is extended to the exterior of the boundary of it by introducing park-based

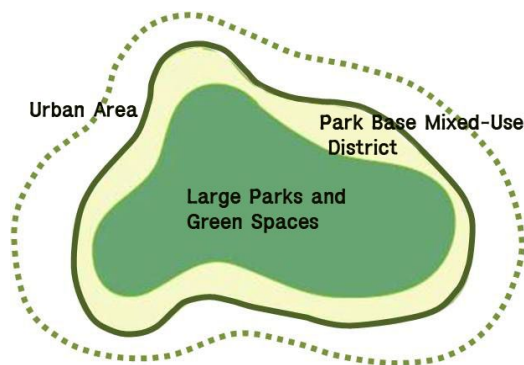


Figure 1. Concept of park-base mixed use district

mixed use district (Refer to Figure 1). The district still maintains its main function of park and other subordinate function of residence, commerce, and industry. It's concept above all focuses on the main use of park and green space. The aim of park-base mixed use districts is firstly to secure the site of large parks and green spaces in the peripheral areas of urban large parks in order to increase the communication between park and green space with the city.

The fact that the existing park and green space of the city are located within and separated from the city as a green islands causes a barrier that blocks the communication with the city. In this context, most of all, the introduction of park-based mixed used districts becomes the means<sup>5)</sup> to overcome this problem of blocking of communication. Secondly, this concept has the advantage of expanding park and green spaces as a new infrastructure. It is difficult to build and establish park and green spaces in city for economic reasons. However, the introduction of park-base mixed use districts can become the way<sup>6)</sup> to expand the park and green spaces to the city. Further more, this also could become the base for the formation of a network of parks and green spaces in progress.

Thirdly, introducing park-base mixed use districts around the peripheral areas of large urban parks ensures the revitalization of the area. A large urban park attracts people, but also shows the characteristics of low density use in its peripheral areas due to the limitations of the physical flow of peoples to park. The physical boundary of line between park and city block the communication. To incorporate parks with other uses of residence, culture, commerce and industry, the communication between city and park could occur smoothly. Such communication and flow can become an opportunity to revitalize the area (Jacobs, 1993).

## 2. The Functions and Ranges of Park-base Mixed Use District

The functions of park-base mixed use are expanding and establishing network of parks and green spaces in city, as well as regenerating the area. The expansion of parks and green spaces in the city can become an important means to mitigate the climate change, and to increase biodiversity, which is effected by low-carbon emission. It also give the functions of leisure and recreation in city. In addition, it can be used to raise the quality of life, as well as the culture, of its citizens. In a foreign case,<sup>7)</sup> the park and the cultural activity of the city is utilized as either mixed-use. It has also become the means to increase a very useful quality of life in the context of convergence of nature and culture, culture and city, and citizen and culture.

The park-base mixed use district may contribute to the revitalization of the city's economy, society, culture and environment. Traditional single purpose use and the resulting separation and severance by its own use decrease the flows of peoples, materials, informations, and organisms. It is becoming the reason for the reduction in economic and social usefulness, as well as the decrease of use-density and lack of diversity in a society. Park-based mixed used districts makes important roles for the process. Eventually, park-based mixed use districts suggests and seeks another possibility in order to increase the usefulness by combining residence, commerce, and industry with nature, in addition to the modern concept of city that combines the environmental and cultural function together. Likewise, park-based mixed use districts constructs parks as the infrastructures that are important for the urban generation.

Designating the boundary of park-base mixed use districts is a very strategic perspective task. Whether to include the boundary of the district of the entire peripheral area of the park or to include only a certain designated part should be considered according to the location of the park and the environment of the peripheral areas. For example, the range of Central Park in New York City<sup>8)</sup> that is impacting to the value of real estate is 2.3 km in distance. Such results are the evidence that it can be used as one standard for the selection of the boundary for park base-mixed use district. A person can walk 800m non-stop. Such physical standard can also be applied in selecting the boundary. However, it is reasonable to

select such boundaries from the comprehensive perspective with diverse variables such as the size and location of park, spatial function and political consideration.

### 3. The Boundary and Target of the Designation of Park-base Mixed Use District

#### 1) Size of Urban Large Parks and Green Spaces

The designated target of park-based mixed use districts can be the peripheral areas such as large urban parks, city streams, urban nature parks, and green spaces. However, there is a need to meet the standard by the indicator, such as the relationship of 'size', 'shape' and 'city life of the peripheral', 'size' has been the considered target as the park-based mixed use districts since the introduction of parks to cities. When Olmsted used the word park in "The Justifying Value of a Public Park" speech in 1870, the meaning of the word was defined as 'a large area prepared for the public for the enjoyment of the suburb landscape.' Andrew Jackson Downing argued<sup>9)</sup> that a minimum of 500 acres of land must be designated for the future of the city (Czerniak and Hargreaves, 2007). The meaning of the vastness argued for here was that it is indispensable because the main function of the park is to provide pleasantness as the antidote for life in the industrial city and the image of green color to the city landscape. The term 'vastness' and large urban city is defined as complicated conceptual domains. An example is that the size of the park connects the nearby river with the valley, combining and promoting the ecological role of the park as a wild corridor<sup>10)</sup>. The park can also carry vision, sacrifice, innovation, as well as considerable amount of energy that can evolve by itself. Under such perspectives, parks and green spaces produce much quantity of land to the effect of nature, organizes picturesque scenes, create an opportunity for appropriate participation of citizens, and designs nature-like system. They are also considered indispensable elements for the possibility of economical sustainment because, depending on the size, parks can carry the resources for its own self-development.

The adjective 'vast' in the large park occupies an important part in the landscape discussion related to complicated methods such as ecology, public space, process, place, site and city. Although these aspects are also shown within the small parks, vastness embraces size that promotes enough environmental interaction and is considered to be a very important element,

because it accomplishes a point of contact with the city.

Also, the vastness of parks and green spaces in relation to revitalization of the city, especially the peripheral use, is taken from the angle of responsibility. Jacobs argues that large scale single use in the area of city residence environment brings danger and stagnation because the large parks are vulnerable in becoming a vacuum of dispirited edge (Jacobs, 1996). She demanded that the large urban parks be included in the charm of large city and suggested that peripherals of Central Park could be made into a better place if it has the mixed-use development with park and cultural infra.

#### 2) The Form of the District and the Selection of Urban Large Parks and Green Space

The location that establishes the relationship with the peripheral city life can be the designated standard beyond the size of the park and green space as the standard for considering the designation of park-base mixed use district. That is, in the context that the park becomes the city and the city becomes the park, how the relationship between the peripheral and parks and green spaces is established could be an important point to consider. Areas with less revitalization and declining residence area of the peripheral park area, or the area itself declining as a reason of, brown field and former enemy land can establish the park-based mixed use district in the peripheral areas along with the park formation.

The form of close connection with the park's interior and exterior is just as important as the size of the park and green space. That is, the park can become an important standard in selecting the form of park-based mixed use districts to help form good relationship with the peripheral area. As an example, parks related to America's city planning, such as the Golden Gate Park of 1013 acres in San Francisco, are organized and systematized to function and flow with the city because the form of the circumference is designated to extend in a rectangular form. As a result, a bigger ecotone can be formed in the peripheral. On the other hand, the boundary of the park, such as Stanley Park of 1000 acres in Vancouver, agrees with the logical nature-like boundary and displays form that emphasizes its connection with nature. Such a case of park-based mixed use district designation in the peripheral area of the park is not desirable because it induces separation with the nature.

Although numerous designs and management studies re-

lated to the size, form, and the relationship of city life with the parks and green spaces has been performed, discussion on how to expand and systematically manage the peripheral areas related to regeneration of the city and how to operate and flow with such parks and green spaces have not been examined. The designation of park-based mixed use districts is a necessary process to employ such discourse on an urban level.

#### 4. The Assignment of Introducing Park-base Mixed Use District

For introducing and designating park-based mixed use districts in the peripheral areas of urban large parks and green spaces, the main task is to determine the size of the urban large park, location of the city, relationships with surrounding city, selection of the boundary of the peripheral area, selection of the introductory mixed-use and park-based mixed use district, park ratio to other uses, index of accumulated building ratio to floor area, index of building ratio to floor, standard for regulations and guidelines for spacial plan. It is necessary to comprehensively examine the method and relevant contents, as well as the of park-based mixed use district. A break from the existing view of centering on limiting the building height for the visual quality of city is needed in order to secure parks and green spaces and to secure adaptability and elasticity that can correspond to the changes of the city.

It is considered that the task produces a void of the landscape with diverse forms and sizes that may be exposed (Hester, 2006).

## V. Conclusions

Large city parks broke off from the separation, severance and isolation from the city beginning in the late half of the 20th century. Since then, they have emerged as the new energy that regenerates and revitalizes the city and induces the evolution of the city through the with city. Landscape urbanism has been applied and perceived as the new paradigm and there has been significant development in implementing strategies for this new trend. In order for large parks of the city, however, to actively with the city and expand to the exterior as the green infrastructure, there must be a planned and managed tool in the city's and park's buffer area for the pe-

ripheral urban area that surrounds the city as another urban surface. This notion is discussed in landscape urbanism. This buffer area, coming under the concept of ecotone in the landscape ecology, is more cultural than the park, as the cultural ecotone that converges the city and nature. It is more of a mixture of nature and the city with high user density. This research introduces the concept of park-based mixed use districts as a tool for city planning of the cultural ecotone and suggests the necessity of managing the park-based mixed use district as the peripheral areas of urban large parks by designation.

Park-based mixed use district means that park use become the main function, while other needed functions and uses particular to residence, commerce, business and culture becomes subordinate function. The background for the introduction of such park-based mixed use district is that it was not possible to manage such massive peripheral areas of the park with the existing measures of district unit planning when the standard size of large urban large parks and green spaces is defined as at least 500 acres.

To designate the park-based mixed use district in the peripheral areas of urban large park, spacial scope and form of it as ecotone, need to be considered, as well as the surrounding city environment variables such as the kinds of introductory mixed-use, mixed ratio of the uses, and spacial structure as like index of building area ratio to floor area, index of accumulated building ratio to floor etc.

This research is based on the notion of landscape urbanism that is being raised as a new paradigm in the field of urbanism and landscape architecture. It is the means to practically use the large urban park as an effective mean for urban regeneration. This research seem to contributes to the theoretical bases for the introduction of park-based mix use districts around the large parks and green spaces. For actualization of park-base mixed use district, this research suggests that reform must take place in the related law of land use and architectural regulations. Such a law needs to consider in-depth and comprehensive research, including the size and environment of the large parks and green spaces, condition on the use and form, research and analysis on the density and sorts of land use on its peripheral, analysis of the relationship between large parks and green spaces with surrounding city area, examination of cognition of specialists, interested parties and officers related.

- Notes 1. La Villete Park of Paris regenerated its area through forming a park in the slaughterhouse site that lots the function of city infrastructure. The strategy to revitalize the city through the park formation of the Downsview Park of Toronto, a former enemy territory, is understood to be a new movement of the urban large parks pursuing active flow with the city beyond the simple green island.
- Notes 2. For the case "Tree City", the prizewinner of Downsview Park, 1000 small roads have been introduced to increase flow with the city and the main road of the park is practically used as a weaving device with the organization of the city (Bae Jeong-han, 2002).
- Notes 3. In his book "Life and death of America's big city", Jay Jacobs points out that the user density abruptly decreases from the difference between the land use and the peripheral areas with facilities like the park.
- Notes 4. The presenter named cultural ecotone as the peripheral in which nature and the city meet in the nature landscape.
- Notes 5. Generally, the peripheral area of the city park has limited access to the park from the resident land use and, as a result, shows the aspect of separation and severance with the city.
- Notes 6. Of course, although it could be promoted through the designation of special planned district of the existing district unit planning, it is too much to designate all of the peripheral area of the park as special plan district. Above all else, since the reality (Kim Ok-yeon, Lee Joo-hyung, 2009) is that the practical use of special plan district is forming around the developmental profit, like residential and commercial complexes, it is not in the reason to solve through the designation of special plan district.
- Notes 7. A case of using the park as a cultural space by operating through mixture and/or connection with culture? Art facilities, like the Guggenheim Museum, surrounding the peripheral area of the park in many cities such as New York City's Central Park or Chicago's Millenium Park.
- Notes 8. Economic effect of Central Park is deduced as there is a large increase of tax levied around the peripheral areas of Central Park compared to other areas.
- Notes 9. It is argued that the beauty of green plain and the feeling of genuine nature can be felt within at least 500 acres of land. With such trend, Franklin Park of Boston, which is part of Emeralds Necklace, has 527 acres and Buffalo Park System has 700 acres. Central Park occupies 843 acres and Fairmount Park reaches from 1061 to 4411 acres as a super large park.
- Notes 10. Shown in the Bernard Tchumi's plan for Downsview Park of Toronto.

## References

- Almy, Dean(2007) On Landscape Urbanism, School of Architecture, The University of Texas at Austin.
- Bae, Jeung-Han(2002) New plan in landscaping design from the viewpoint of downsview park international design competition, Journal of the Korean Institute of Landscape Architecture 29(6) : 62-71.
- Cho, Se-Hwan(2010) Landscape Urbanism and Parkbanism, The International Symposium on the New Paradigm of Landscape Architecture and Urbanism of 21st Century Hosted by The Korean Institute of Landscape Architecture.
- Cho, Se-Hwan(2007) Landscaping symposium on city regeneration, landscaping policy, land, city plan and preservation, Korean Institute of Landscape, pp. 29-60.
- Cho, Se-Whan(2010) City regeneration strategy from the viewpoint of landscape urbanism, Journal of the Korean Institute of Landscape Book 38(2) : 109-118.
- Corner, James(1999) Recovering Landscape, Essays in Contemporary Architecture, Princeton Architectural Press, NY.
- Czerniak, Julia and George Hargreaves(2007) Large Parks, New York: Princeton Architectural Press.
- Dramstad, Wenche, James Olson and Richard Forman(1996) Landscape Ecology Principles in Landscape Architecture and Land-Use Planning, Washington D. C.: Island Press.
- Gang, Byung-Ki, Hong-Gu Yeo and Hang-Jib Kim(1997) Research on the concepts of mixed use district within the framework of city plan law and changes of regulations, Korea Land Plan Institution 32(1) : 7-25.
- Hester, T. Randolph(2006) Design for Ecological Democracy, London: The MIT Press.
- Hill, Kristina(2005) Ecological Function, Cultural Meaning: A Theoretical Framework for Landscape Urbanism, Eco-Responsible, Essay in Symposium for Academic Festival for Urbanism held by Graduate School of Urban Studies, Hanyang University.
- Jacobs, Jane(1993) The Death and Life of Great American Cities, New York: Random House Inc.
- Kim, Ok-Yeon and Joo-Hyung Lee(2009) Analysis on Mixed Use Development and Research on Introduction of Mixed Use Development, Space and Society Series Book 32: 139-167.
- Kim, Ok-Yeon(2007) Analysis on mixed-use development of Korea for introduction of mixed-use development district, Korea Land Plan Institution Joint Academic Conference 1: 223-232.
- Lee, In-Sik(2008) Knowledge Convergence, Seoul: Goeswin.
- Valeur, Henrik(2005) A New Future for Planning, Copenhagen: The Architectural Magazine.
- Waldehim, Charles(2006) Landscape Urbanism Reader, New York: Princeton Architectural Press.
- Almy, Dean(2007) On Landscape Urbanism, School of Architecture, The University of Texas at Austin.
- Bae, Jeung-Han(2002) New plan in landscaping design from the viewpoint of downsview park international design competition, Journal of the Korean Institute of Landscape Architecture 29(6) : 62-71.
- Cho, Se-Hwan(2010) Landscape Urbanism and Parkbanism, The International Symposium on the New Paradigm of Landscape Architecture and Urbanism of 21st Century hosted by The Korean Institute of Landscape Architecture.
- Cho, Se-Hwan(2007) Landscaping Symposium on City Regeneration, Landscaping Policy, Land, City Plan and Preservation, Korean Institute of Landscape, pp. 29-60.
- Cho, Se-whan(2010) City regeneration strategy from the viewpoint of landscape urbanism, Journal of the Korean Institute of Landscape Book 38(2) : 109-118.
- Corner, James(1999) Recovering Landscape, Essays in Contemporary Architecture, Princeton Architectural Press, NY.
- Czerniak, Julia and George Hargreaves(2007) Large Parks, New York: Princeton Architectural Press.
- Dramstad, Wenche, James Olson and Richard Forman(1996) Landscape Ecology Principles in Landscape Architecture and Land-Use Planning, Washington D. C.: Island Press.
- Gang, Byung-Ki, Hong-Gu Yeo and Hang-Jib Kim(1997) Research on the concepts of mixed use district within the framework of city plan law and changes of regulations, Korea Land Plan Institution 32(1) : 7-25.
- Hester, Randolph T.(2006) Design for Ecological Democracy, London:



- The MIT Press.
28. Hill, Kristina(2005) Ecological Function, Cultural Meaning: A Theoretical framework for Landscape Urbanism, Eco-Responsible. Essay in Symposium for Academic Festival for Urbanism held by Graduate School of Urban Studies, Hanyang University.
  29. Jacobs, Jane(1993) The Death and Life of Great American Cities. New York: Random House Inc.
  30. Kim, Ok-Yeon and Joo-Hyung Lee(2009) Analysis on mixed use development and research on introduction of mixed use development. Space and Society Series Book 32: 139-167.
  31. Kim, Ok-Yeon(2007) Analysis on mixed-use development of Korea for introduction of mixed-use development district. Korea Land Plan Institution Joint Academic Conference 1: 223-232.
  32. Lee, In-Sik(2008) Knowledge Convergence, Seoul: Goeswin.
  33. Simonds, J. O.(1998) A New Approach to Urban Landscape Planning. Ph. D. Dissertation, University of California, Berkeley.
  34. Simonds, J. O.(1998) A New Approach to Urban Landscape Planning. MS Thesis. University of California, Berkeley.
  35. Valeur, Henrik(2005) A New Future for Planning. Copenhagen: The Architectural Magazine.
  36. Waldehim, Charles(2006) Landscape Urbanism Reader. New York: Princeton Architectural Press.

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