

Assessing the Spatial Distribution of Neighborhood Parks in Urban Area of Kyoto City, Japan

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1. INTRODUCTION AND OBJECTIVES OF STUDY

Urban parks, which provide multiple environmental and ecological services as well as economic and social benefits, are complex elements in the increasing complex urban forms. How to convert urban parks from inert open lands to vibrant public space has become an increasing important issue for scientists, economists, landscape architects, and government officials worldwide especially for the shrinking cities of the developed countries. And the function of urban parks to the livability of community life cannot be fully reached without taking the spatial distribution characteristics of the parks into consideration.

2. METHODOLOGY

This research studied neighborhood areas centering 30 neighborhood parks in the urban area of Kyoto City. By examining accessibility through the street network, land use pattern and population density, the capacity of the urban form and social factors to allow an active and positive relationship between the urban parks with their surroundings in each neighborhood area are analyzed. Accessibility was measured under two different methods with an opportunity-based model (the Network Analysis in GIS) to understand the geometrical pattern of the street and a spatial configuration approach (the Space Syntax Theory) to measure ‘configuration pattern’ or ‘syntactic intelligibility’ of the neighborhood areas standing on pedestrians’ stand to look at the topological pattern of the road network.

3. CONCLUSION

The results showed that capacity of the urban form remains high in the historical part of the city with relative regular urban grid. In those areas with winding streets and located on the urban fringe, it may depends on whether a systemic planning such as land readjustment projects has been carried on or not in that area. Although the two measurements are of different logic, it is the two of them combined together that can detect how urban design affects the urban park accessibility in Kyoto with a rather long-lasting and complex planning history. Land use pattern and population density show rather positive results in terms of the social factors to reconnect people with their surroundings but more detailed studies are needed for further judgment. The research findings provide with a different angle for both practitioners and scientists to look at urban parks in their function to revive community. Conventional methods are challenged facing the ever-changing society and that it is the innovative way of thinking that can help urban parks to function beyond their physical existence.