

A Cyber-City Approach Of Urban Visual Landscape Management

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The urban visual landscape management of beginning 21st century shows strong emphasis in creating three-dimensional descriptions of cities, developing methods to maintain and up-date these data, and in exploiting the Website for broad distribution and presentation. The so-called Cyber-City not only shows data in three dimensions but also presents photo realistic images. In this article, it presents a three-dimensional description of a city's visual landscape environment. Take the Taipei Culture and Sports Park for example, it shows a dynamic 3D hypermedia to simulate option projects. Remote and local access to the urban information systems turns this into a hypermedia database system, which is the unavoidable next step in improving the city's data for the management of our growing cities.

A Study on Relationship Rules Regarding Adjacent Sites toward Townscape Formation with Using Several Simulations

Yasuo AIBA

Zoning in local cities particularly in old ones, has not functioned effectively in the area of townscape design. One of many reasons is the lack of an arrangement system with adjacent sites. In order to form a harmonious townscape and environment, rules regarding adjacent sites based on public needs are to be publicized. The object of this study is to investigate such relationship rules regarding adjacent sites with using simulations.

In the first part of this study surveys of the central district of Kyoto are discussed. The author reviewed existing reports, interviewed developers and inhabitants in the area, examined the contents of existing regulations and proposed revisions. Then simulations are presented where the first is based on the rules proposed in the first part of the study using volume models, and second is an abstract simulation using simple figures of 0 and 1 to examine many cases that vary in many aspects.

Integrated Impact Verification of Material Cycling Infrastructure and Long-Term Land Use Management; Implementational Simulation in Osaka City Japan

Tsuyoshi FUJITA & Tohru MORIOKA

Based upon industrial ecology and its application for urban management, planning alternatives for a century-long urban environment management are firstly proposed. Strategic material cycling policies are designed and evaluated for their environmental improvement impacts a long-run for different spatial management strategies, namely, business-as-usual type spatial control which allow sprawl development in peripheral areas, mono-centric compact city type control, and multi-central compact city type control schedules.

Relationships among different management options are investigated and combination of management options is brought as the strategic management scenarios. Indicators to compare the different scenarios and options are discussed and eco-efficiency estimation process is proposed scoping on carbon dioxide and solid wastes as primary factors for environmental impacts.

Land use patterns for Osaka City are projected for one hundred years from 2000 based on the existing location data of buildings and their duration period functions and environmental impacts for different scenarios and options are

investigated. The following results are obtained: (1) The efficiencies of energy supplying and solid waste recycling are improved by strategic down zoning in suburb areas (2) This system can be applied to future urban environmental planning such as estimating environmental infrastructure \$B!G (Bs efficiency or comparing land developing alternatives.

A Stream of Opportunities Model of Urban Dynamics

Shih-Kung LAI

The garbage can simulation model of organizational choice behavior considers problems, decision makers, choices, and solutions as separate streams of independent elements interacting with each other in garbage cans. Previous study shows that planning based on the model increases decision making efficiency, but at the cost of fewer problems resolved. The garbage can model did not consider however the spatial aspects of interacting decisions. In this paper, I will first introduce the model and how planning could be incorporated in that model. A spatial element of stream of locations or places is then considered in the model where choice opportunities in combination of other elements meet, and something happens. This modified model of stream of opportunities for planning could be used to represent urban change in a way different from traditional spatial analytic models.