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Exploring the creation of ecological historic district through comparing and analyzing four typical revitalized historic districts

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Abstract

The urbanization process in China resulted in a severe loss of traditional urban morphology. With the emergence of livability as an integral goal, preservation of “obsolete” historic districts has increasingly been taking a more radical vision on eco-cultural resilience and cultural evolution. The thriving notion of “ecological city”, with systemic and integral objectives, evaluation systems and practical technologies, holds potential for guiding sustainable development in communities, meanwhile supporting the dynamic involvement of cultures. The loss of sense of place in historic districts, the demand of livable communities, as well as the rise of territorialisation prompt us to explore planning methodologies, building on the assessment and comparison of four existing cases in order to create livable and ecological historic districts, i.e., eco-historic districts. The five drivers of livability, society, culture, nature, and economy, offer a classification to approach eco-historic district for assessing the four American historic districts of successfully redevelopment, including: Pearl district in Portland, OR, Pioneer square historic district in Seattle, WA, Oakland district in Pittsburgh, PA and Beacon Hill historic district in Boston, MA, the merits and demerits of ancient smart and preservation design guidelines, existing and future development plans and ecological plans were discussed into three layers, i.e., city scale, district scale and building scale. The potentially first and foremost ecological approaches will be excavated to illumine the following strategies for creating eco-historic district.

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Keywords: Ecological city; Historic district; Regeneration; Ecological strategy

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1. Introduction:

In this paper we discuss how to create an ecological historic district by exploring the first step and strategies through comparing and analysing four typical regenerated historic district. This paper searches for the methods of revitalizing historic district into livable, ecological districts. The research aims to analyze the diverse roles that culture plays in ecological development. By exploring how the ecological environment and historic district can mingle each other, the concept of territorialisation will be employed. The concept allows communities to assign meaning to local assets, add functions and ascribe rules for how to use space.

The notion of the eco-city, which puts man and nature in harmony with one another rather than in opposition, has experienced 5 decades of development since the mid-19th century. However, currently the definition is still blurry for its nature of evolution of the term. In 1971, The MAB (Man and Biosphere) program held by UNESCO, first proposed the notion that an eco-city is an ideal habitat. Then in 1987, Berkeley became the first official “eco-city”, and ecological architectural concepts were put into practice there. In Berkeley, Richard Register proposed that the goal of an eco-city is to promote good health and the livability of humans and nature. China also explored the concept of the eco-city, named “Shanshui ” city. “Shanshui” which means ecology is regarded as the spirit and emotion has connected history and nature for thousands of years. It also expresses a connotation “Here and there, you and me, are mutual inclusion”. In recent years, numerous ecological cities burst out accompanied with new urban sprawl in China. Nevertheless, the new eco-city does not seem to promote designated districts more sustainable. The gap between obsolescent old districts and new eco-districts become huger. The appeal of preserving old urban fabric and cultural landscape integrity pushes on the interacted development of new and old district. Furthermore, the integrity of new and old districts not only demonstrates the prospect of new-way-of-living in historic district, but also provides a restriction on the unprecedented urban sprawl.

The discipline of historic district regeneration varies from conservative views focusing on preserving cultural heritage to eco-cultural resilience and cultural evolution. This paper will use a broad understanding of spatial form and culture, giving all the possible understandings from narrow definition to broad, way-of-life based approaches, and beyond. Moreover, culture is not seen only as an additional aspect of ecological city development, but rather as mediator, a cross-cutting transversal framework or even as a new set of guiding principles for ecological development research and practices.

2. The backgrounds of combining notions: Eco-city and Historic district

2.1. *Losing a sense of place in Historic districts:*

A sense of place illustrates the belongings of people in space-time dimension, which contains several cultural characters such as: conscious of identity, people and permanence etc. Also, there are some interrelated hierarchies of obsolescence in historic districts, including: structural/physical obsolescence, functional obsolescence, image obsolescence, legal and official locational obsolescence. All kinds of obsolescence deeply lead to the absence of a sense of place. With the shortage of infrastructure maintenance and some development restriction in historic districts, the neighborhoods become gradually obsolescent and losing the sense of place. As a result, the spatial form of historic districts are undergoing the following situations:

- The locality losing and the fabrics of districts disordered.
- The traditional lifestyle losing and functional structure outdated.
- The ecological landscape losing and green system deconstruction.
- The facade of historic buildings losing and the streets surface demolition.
- The boundary of historic district losing and the connection media disappeared.
- The public space losing and the community social networks interrupted.

2.2. *Desirability of Livable Surroundings*

“Human Settlement” is the place for surviving, living, working and relaxing. The optimization of human survival and development should have a livable environment (Kang Qi, 2013). As a desirability of citizens, livability

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