[Grant-in-Aid for Scientific Research(S)] Science and Engineering (Engineering II)



Title of Project : A Comparative Study on Water Cities from the Viewpoint of History and Environment

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Research Area : Urban and Architectural History

Keywords : Water City, Typology, Sustainability, Cultural Landscape

[Purpose and Background of the Research]

Throughout the world there exist many spectacular "water cities." Located in close proximity to the oceans and rivers, these cities flourished economically due to waterborne commerce, and boasted beautiful vistas and vibrant cultures centered on and around the water. However, during the 20th Century, with industrialization and the spread of the automobile, these spaces of water were the first to be sacrificed, becoming a distant memory for many of the cities citizens. Having come full circle, in a historical sense, the 21st Century now provides an ideal time for the peoples of the cities located along the rivers and oceans to regain what has been forgotten.

At Hosei University's Laboratory of Regional Design with Ecology we conduct research on the revitalization of the "water city." The past seven years have provided many research results, including the formation of an international network. Our research aims to make active use of this accumulated data, combining historical and environmental viewpoints in an original manner, which we further seek to develop and deepen over time. While doing so we hope to study the world's "water cities" in an interdisciplinary, moreover synthesized manner.

[Research Methods]

Our goal is to do comparative research from a global perspective on the different historical and environmental viewpoints held by the West (Europe and America) and East (Asia/Japan). This research also seeks to synthesize the fields of "history" and "environment" that have usually been treated as separate fields in the past, and will take a look at the formations and transformations of "water cities," and the sustainability of revitalization movements concerning them.

Target cities will be Venice, Suzhou, Bangkok, Amsterdam, and Tokyo/Osaka with their large water networks, which contrast with Middle and Early Modern cities such as Amalfi, Genova and Tomo which are located on inlets. Inland cities located along rivers like London, Paris, Firenze and Kyoto etc. and modern port cities like New York and Sydney will also be touched upon. Cities will be classified and studied, focusing on the role/function of water within them, and how the "meaning" of water and spatial structure changed historically.

[Expected Research Achievements and Scientific Significance]

In the past, the relationships between the fields of river engineering, water circulation/ source studies/ecology and architectural/urban history and urban design/construction etc. have been rather weak.

As a result of our research, "water" has come to play an intermediary of role of sorts, creating a bridge between the different disciplines.

Japanese cities such as Tokyo-Edo etc. exist(ed) as "eco cities"; using the fruits of our historical and environmental research on this subject, our hope is to spread the conceptualization and methods behind the formation of the ideal 21 Century Japanese "water city" to countries outside our borders.

[Publications Relevant to the Project]

• H.Jinnai, "Urban Regeneration in Tokyo", *Places*, Vol.19, no.1, Berkeley, 2007. April, pp.62-67

• Laboratory of Regional Design with Ecology, Hosei University, *Regional Design based on History and Ecological Viewpoint*, Gakugei Shuppannsha,2004.

• H.Jinnai, *Tokyo: A Spatial Anthropology*, University of California Press, Berkeley, 1995

Term of Project FY2011-2015

(Budget Allocation) 105, 500 Thousand Yen

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