

Increasing Sustainability Using the Potential of Urban Rivers in Developing Countries with a Biophilic Design Approach

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Abstract : Population growth, urban development and urban buildup have disturbed the balance between the nature and the city, and so leading to the loss of quality of sustainability of proximity to rivers. While in the past, the sides of urban rivers were considered as urban green space. Urban rivers and their sides that have environmental, social and economic values are important to achieve sustainable development. So far, efforts have been made at various scales in various cities around the world to revitalize these areas. On the other hand, biophilic design is an innovative design approach in which attention to natural details and relation to nature is a fundamental concept. The purpose of this study is to provide an integrated framework of urban design using the potential of urban rivers (in order to increase sustainability) with a biophilic design approach to be used in cities in developing countries. The methodology of the research is based on the collection of data and information from research and projects including a study on biophilic design, investigations and projects related to the urban rivers, and a review of the literature on sustainable urban development. Then studying the boundary of urban rivers is completed by examining case samples. Eventually, integrated framework of urban design, to design the boundaries of urban rivers in the cities of developing countries is presented regarding the factors affecting the design of these areas. The result shows that according to this framework, the potential of the river banks is utilized to increase not only the environmental sustainability but also social, economic and physical stability with regard to water, light, and the usage of indigenous materials, etc.

Keywords : urban rivers, biophilic design, urban sustainability, nature

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