Morphological Features of the Waterscape Heritage in Wuhan, China

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Abstract

Wuhan, a city of more than 10 million inhabitants, once had a nickname of "Hundred Lake City". Within its territory of 8,494 sqkm, approximately one quarter is covered by water, including the Yangtze, the Han River and the largest inner city lake in China, the East Lake (33 sqkm in water area). The waterscape mingles with settlements and neighbourhoods, creating a unique, natural and man-made mixed urbanscape in a scale unmatched anywhere in the world. Nevertheless, the past 30 years saw a rapid deterioration of Wuhan's waterscape both in quantity and quality. The governments are struggling in maintaining a balance between conservation and development. The objective of this study is to characterize the morphological features of Wuhan's waterscape. This will be done by applying a number of techniques used by landscape ecologist, for instance, patch analysis, fractal dimension and contiguity analysis. The results of the analysis will help identify and quantify the morphological features of waterscape and better inform the local government in initiating ecological protection programs. As Wuhan is aspiring to become a World City, the study helps recognize the city's unique water morphology and calls for planning and design with a particular attention to water.

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