

TRANSFORM A VEHICULAR ROAD INTO A WATERWAY: RECLAIMING A LOST WATERWAY OF DHAKA CITY THROUGH LANDSCAPE DESIGN

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1 ABSTRACT

In the intense urbanization of fast-growing cities in developing countries, preservation of surface water has consistently been neglected. Overall, rapid urbanization increases impervious surface and decreases natural land surface, resulting in ecological degradation; bringing surface water back into a city will improve its ecology. One means of restoring surface water is to reintroduce lost water bodies or waterway connections. This paper will discuss a hypothesis regarding the process of reviving a lost waterway through landscape design, namely that reviving a lost water channel through transforming a vehicular road into a waterway can bring nature back within the city. Dhaka City was chosen as the study site for this idea-based proposal. First, a physical survey was conducted and the road to be transformed was categorized into several sections based on land use, activities, and appearance on both sides of the road. The ArcGIS flow accumulation tool and watershed tool were used to determine a proposed depth for the waterway. The design proposals are particular to each road section. An overall design concept was developed, and several functions are proposed based on site surveys to support the existing transport system. In addition to restoring nature, the potential outcome of this idea-based experimental proposal may help address the growing demand for water in the urbanized area of the city of Dhaka, Bangladesh

1.1 Keywords:

Lost waterway, landscape design, ecology, Dhaka.