

## Water City

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### 1 ABSTRACT

The consequences of climate change are visited onto the city; the implications of the changes are expressed in the changing dynamics of city conditions. A new way of thinking about the consequences for the city is needed, one that goes beyond the contingency of the engineering solution. This paper speculates on the consequences of these new ecological conditions on the future development of an important component in the global city; the waterfront.

Waterfronts are one of the most interesting urban developments of the last 30 years. Transforming the 19th century port infrastructure of the European and American city into a new urban topography of personal consumption has developed into a global model of urban development. However a growing awareness has developed of the serious environmental problems that exist in many waterfronts; the centuries of maritime pollution, the untreated urban stormwater and sewerage discharges, and now the rising sea levels, are all forcing a rethink of this urban type.

This paper argues that we need to change the existing model of waterfront development, away from the generic and towards a new understanding of the waterfront as a site of dynamic landscape forces, both urban and ecological. The author, an academic and landscape architect in New Zealand explore the implication of this idea and use several design case studies in PR China and New Zealand to discuss the implications of such a shift.

The author discuss the ways in which the waterfront can be reconceptualizing as different landscapes conditions, such as the topography of the site, the hydrological condition of the site, the movements of freshwater, stormwater, and saltwater, and the conjectured site, like the historical landscape of native ecotones.

The author discusses how this re configuration of the urban landscape necessitates a new way of representing the landscape to uncover urban and ecological conditions. The author uses a GIS programme, ArcView, to re present these landscapes and develop a design process that connects to the urban condition. The process develops possible manifestations of the new hybrid landscape and demonstrates their congruencies with environmental operations.

Design case studies are presented which demonstrate the implication of these ideas; the case studies explore the urban and environmental consequences of this fundamental reconfiguration.

By engaging with the particularities of place, designers avoid the generic, and citizens unavoidable engage within the making of new and unique urban spaces. Through an understanding of these systems and networks can develop new design models for waterfront development which privilege the landscape, in effect making a landscape urbanism.