

# **UCLA**

## **Electronic Green Journal**

### **Title**

SOAK: Mumbai in an Estuary

### **Permalink**

<https://escholarship.org/uc/item/5c50f6rp>

### **Journal**

Electronic Green Journal, 1(31)

### **Author**

Carchidi, Victoria

### **Publication Date**

2011

### **DOI**

10.5070/G313110849

### **Copyright Information**

Copyright 2011 by the author(s). All rights reserved unless otherwise indicated. Contact the author(s) for any necessary permissions. Learn more at <https://escholarship.org/terms>

Peer reviewed

## **Review: SOAK: Mumbai in an Estuary**

By Mathur, Anuradha and Dilip da Cunha

**Reviewed by Victoria Carchidi**

*University of Pennsylvania, Philadelphia PA USA*

Mathur, Anuradha and Dilip da Cunha. *SOAK: Mumbai in an Estuary*. New Delhi: Rupa & Co., 2009. 198 pp. ISBN: 812911480-1. US\$75 hardbound. Glossary, Image lexicon.

In 2005—the year of Hurricane Katrina—Mumbai received all of a season’s rain in one day. The resultant flood killed hundreds. Anuradha Mathur, a landscape architect, and Dilip da Cunha, a planner and architect, authors of Mississippi Floods, were invited to apply their insights to Mumbai (the authors also teach landscape architecture at the University of Pennsylvania). Their exploration culminated in Soak. The book presents elements of the public exhibition the authors mounted to open dialogue about the city’s future, and provides an extended illustration of the design strategies Mathur and da Cunha recommend.

To draw a line in the sand is to make an ephemeral mark. But to draw a line on a map separates here from there—at a coastline, water from land—as if each suddenly ceased at that arbitrary boundary. That conceit is particularly problematic in Mumbai, where sea and land float upon and under each other. Da Cunha has said that what we call a natural disaster is often a disaster of design. Rather than allowing the waters of the Arabian Sea and monsoon rains to filter through the estuarine sponge, contemporary Mumbai has literally been built upon a battlefield against water: seawalls, causeways, and other rigid structures that clog the estuary’s pores. The resulting concept of an island at war with rain and sea limits opportunities.

By understanding the constructed nature of that concept, the authors find new design solutions that bypass flood and drain. As part of a terrain of sections, rather than engulfing an island, water is no longer an enemy but simply an element. Working with the water and its gradients from sweet to salt permits restoration of habitats that support diverse populations. Mathur and da Cunha’s design vocabulary borrows from vernacular traditions and combines them with new technologies.

The authors propose twelve interventions operating on three scales, to restore porosity to the terrain. At five forts, the authors recommend existing built surfaces be enlarged into platforms to enhance current activities such as marketing, play, and cleaning fish. At five “nullah crossings,” water and land

embrace each other through new intersections. Two rippled “monsoon surfaces” ameliorate flooding alongside the Tulsī reservoir through the use of trenches that can divert and preserve monsoon waters.

The authors find their range of solutions in practices that work with, rather than against, the terrain’s mixed nature: the ebb and flow of sea and monsoon waters. Oarts, coconut plantations at sea’s edge, offer docking sites for new bio-treatment barges that turn human sewage into manure while producing new fish and bird habitat. Jetties can link these new water-land zones into promenades. Terraces function as filters and bioremediation zones. Maidans, open areas with retaining bunds, preserve sweet monsoon water during the dry seasons and host other activities when dry. Talaos collect and save monsoon water to suppress salt water in wells. New waterways enhance vegetation such as mangroves that thrive at different brackish levels.

Mathur and da Cunha’s unique style of combined strip collage, photomontage, and sections illustrates their exploration of and recommendations for the terrain. The proposed interventions are visually depicted as much as verbally described; the book’s graphic beauty may account for its mislabeling as visual art rather than design and planning.

Designers will benefit from the visual language used, as well as the interventions suggested. Planners will find the book’s historical assessment of the problems, and its strategy of communal involvement, useful models. The writing is elegant; the ideas and images compelling. Soak should be read by anyone interested in water, cities, and terrain in an era of climate change.

Victoria Carchidi, Ph.D. <[vcarchidi@hotmail.com](mailto:vcarchidi@hotmail.com)> University of Pennsylvania, Philadelphia PA, USA.

**Electronic Green Journal, Issue 31, Spring 2011, ISSN: 1076-7975**