



4.286 & 11.944

Water, Landscape + Urban Design

Water affects the design of every building, landscape, and city in aesthetic, functional, and symbolic ways. This workshop combines a systematic study of water issues with urban design projects in the U.S. and South Asia. Water has always posed integrative challenges for architects, planners, and engineers; and we will seek to build upon the history of ideas about water in these fields.

In the 21st century, water problems will rival those of the energy sector, as will linkages between water and energy. This workshop will seek to understand how cities in wealthy countries managed to supply their populations, including many low-income residents, with reasonably safe, abundant, inexpensive, and beautiful flows of water during the 20th century - and how those achievements can be adapted for the 21st century. We will ask how the U.N. Millennium Development Goals can be extended to provide safe water for the 1 billion people and safe sanitation for the 2.6 billion people who lack it, through designs that are likewise safe, sufficient, just, and beautiful.

In the 21st century U.S. cities will need to seek lessons from around the world to redesign systems that are aging and inadequate. Our investigations thus begin at home with historical and contemporary water projects in metropolitan Boston. We then shift to urban water projects in South Asia, where advances in rainwater harvesting, irrigation management, and water use efficiency warrant comparative study. The workshop will give special attention to the power and pitfalls of comparative inquiry. How can fruitful comparisons be drawn among urban water projects in India, Pakistan, and the U.S.?

Design projects will be chosen based on student interests and the urban case studies. For example, they may include rainwater harvesting, water use efficiency, wastewater reuse, stormwater management, floodplain design, constructed wetlands, waterfront development, etc. We will work together to integrate these design concepts at the site, urban, and international scales.

Time Mondays & Wednesdays 9:00-11:30 Room 9-250

Instructor Jim Wescoat <wescoat@mit.edu>

Prerequisite Permission of Instructor

Units 3-0-9 **Level** H