



NUS
National University
of Singapore

College of Design
and Engineering

NUS Cities cordially invites you to a seminar

City, Water Reservoir, Urban Waterfront: Innovations in Floating Structures for Urban Growth and Climate Adaptation

In the 2020s, urban growth through floating structures—including residential, commercial, and recreational buildings, as well as energy facilities like floating solar PV systems—has gained support from UN-Habitat and various national governments. The Intergovernmental Panel on Climate Change is exploring floating structures as an experimental strategy for climate adaptation, shifting parts of urbanization to aquatic surfaces. These structures enable urban growth with typically much lower environmental impacts compared to land reclamation and are resilient to sea-level rise.

Historically, the large-scale use of energy-intensive materials, such as concrete and steel, combined with industrial-scale land reclamation initially enabled by steam pumps, made possible through the Industrial Revolution, dominated Western terra-centric urbanization from the 19th century and Asian urbanization from the 20th century, marginalizing water-based construction. The association of floating structures like house boats with the counterculture of the 1960s added to this marginalization. Corresponding developments in legal systems, political frameworks, urban planning, and university curricula further embedded this terra-centric mindset globally. However, the advent of high-tech floating designs in the early 21st century has revitalized interest in floating solutions.

The lecture will examine recent advancements in floating structures, focusing on urban waterfronts and water reservoirs in Asian and European cities. It will explore the opportunities and challenges in sustainable urban planning, including adaptation to sea-level rise, solutions to urban sinking, and the redevelopment of former ports and other areas. The discussion will also address the often-limited social acceptance due to historical factors and conclude with reflections regarding Singapore, Jakarta, and Busan.

Lecture By Dr. Stefan Huebner

Dr. Stefan Huebner, the President of the Society of Floating Solutions (Singapore) and the Deputy Chair of the International Scientific Committee for the annual World Conference on Floating Solutions. He is also a Senior Research Fellow at the National University of Singapore's Asia Research Institute. In 2019, he served as a U.S. SSRC Transregional Research Fellow at Harvard University, where he was previously a Fulbright scholar in 2018. In 2016, he was a History and Public Policy Fellow at the Wilson Center in Washington, DC. He is working on the history, present, and future of ocean industrialization and new forms of urbanization that became possible through floating structures. His monograph on the topic ("Earth's Amphibious Transformation") will be released by Cambridge University Press in late 2025. Recent articles were published in Ocean and Coastal Management, ChannelNews Asia, and AsiaGlobal Online. Together with the International Scientific Committee, he is working on a series of policy recommendations and white papers on floating solutions in urban contexts.

On 24th Feb 2025, Monday

6:00 p.m. – Registration and Networking

6: 30 p.m. – Start of Program

Lecture by Dr. Stefan Huebner

Moderated Q & A Session

8:30 p.m. – End of Program

At Lecture Theatre LT421

Level 04, NUS SDE3,

4 Architecture Drive, School Of Design and Environment, Singapore 117566

Location: <https://goo.gl/maps/RFhpGTAEbqbb2BjC7>

Register by 23rd Feb 5:00 p.m, as there are limited seats only!

CPD Pending for BOA-SIA, SIP, SILA and PEB

2ABCWP PDU approved

NUS Cities Lecture Series investigates ideas, policies and projects developed by urban experts, which aspire to create sustainable, resilient, and liveable cities.