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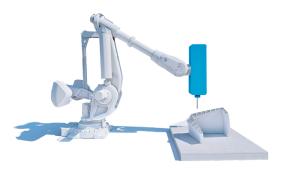
Thomas Grothues Christina Kaunzinger Vincent Lee Steven Handel Sulan Kolatan Philip Parker

Overview

Urban Shorelines is a new form of coastal infrastructure for our time. Urban Shorelines fundamentally redesigns coastal infrastructure to improve city resilience, enhance biodiversity, support the blue economy, and improve social engagement with our waterfronts.

Scalable Fabrication + Material

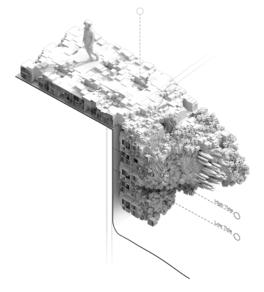
Urban Shorelines is an adaptable, modular, and scalable system. It builds on recent developments in science and technology to link advanced computation, material and structural engineering, digital fabrication technologies, with emerging models in ecology and social sciences.



The combination of portable 3D fabrication technology and novel concrete compositions lend our system sustainability, feasibility, and scalability.

3D Complexity + Variability → Biodiversity + Human engagement

We are developing a modular system with increased complexity and variability. Our initial measurements show that *Urban Shorelines* modules can multiply surface area 16-fold. This unique complexity in turn multiplies habitat.



A sample segment of *Urban Shorelines* modules. Variations in form and scale support enhanced biodiversity and human engagement.

Resilient Cities and Communities

In the *Urban Shorelines* system resilience is strengthened through diversity and connection. The varied interactions it supports between humans and coastal environments improve awareness, engagement, and well-being.



A sample urban scenario showing the application of *Urban Shorelines* with many different built-in features derived from local data and community feedback.