

Story Engine: Design, Ecology, and the Moving Image*

ARCH 409 | 509

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Winter 27 | Tuesday 1-4PM | TVLab - A&A Bldg

How can generative visualization make environmental change imaginable—and at what cost?

Story Engine brings architecture, planning, environmental science, and artificial intelligence together around a shared design problem. The course examines generative image production and animation as methods of spatial inquiry, scenario building, and public narrative. These tools can visualize environmental change, multiply possible futures, and broaden access to forms of storytelling that once required specialized expertise. Their operation relies on energy-intensive computation, extractive material systems, opaque datasets, hidden labor, and proprietary platforms. This contradiction organizes the course.

Block Island** operates as both prototype and alibi: a bounded territory through which broader questions of principle, pragmatism, ethics, and change can be made concrete. Here, ecology, infrastructure, governance, seasonal economies, and public life are tightly coupled and unusually legible. A culture of self-reliance, preservation, local knowledge, and community control gives these relationships particular urgency. Generative AI enters this context carrying its own material demands and political economy, sharpening the contradictions the course sets out to examine. Can a globally networked technology strengthen local agency? Can it support collective decisions without displacing situated knowledge or suppressing disagreement? What happens when the tools used to imagine environmental adaptation participate in the very conditions that make adaptation necessary? Tested on the island, these questions extend well beyond its shores.

Working with the Block Island Coastal Resilience Committee and the Planning Department, students will study a beloved public beach pavilion facing coastal erosion, storm surge, and eventual loss. Field observation, community engagement, and environmental research will establish the project's conditions. Spatial design,

generative image-making, and animation will trace how the pavilion might weather, flood, adapt, migrate, or disappear. Students will work across AI-generated imagery, drawing, photography, and physical modeling, selecting each medium according to its environmental cost, civic value, and capacity to instigate change.

The resulting narratives will place alternative futures before the community for scrutiny and revision. Every image will advance a position: what deserves preservation, what must change, which risks remain acceptable, and who participates in deciding. Students will test whether generative visualization can sustain a collective imagination while remaining accountable to the place, people, labor, and resources involved in its production.

Readings in critical technology studies, environmental humanities, media theory, and speculative design will situate this work within broader material and political systems. Kate Crawford, Vladan Joler, Ruha Benjamin, and E. F. Schumacher, among others, will provide points of departure. Who controls the tools that render futures visible? Whose knowledge enters the image? What forms of labor, energy, and extraction underwrite representation?

The course is open to graduate and undergraduate students across the university. No prior design experience is required. Students will bring different disciplinary methods to a collaborative process spanning field engagement, environmental research, spatial speculation, and public storytelling. Curiosity about design processes, environmental futures, and visual communication is essential. Students may enroll as space allows.

The course covers the cost of a three-day site visit to Block Island during the first week of February. Exact dates to be confirmed.

Registration assistance: TaubmanCollegeAdvising@umich.edu

* This course is a joint initiative of the Taubman Visualization Lab (TVLab), the college's platform for experimentation with emerging technologies and visual media, and the Public Design Corps, which connects interdisciplinary design teams with community-defined public projects. It is made possible through an AI Excellence in the Design Process grant from the Gensler Charitable Gift Fund.

** Block Island, a small, environmentally exposed island community twelve miles off Rhode Island's coast, where ecology, infrastructure, tourism, governance, and public life converge within a bounded territory.

