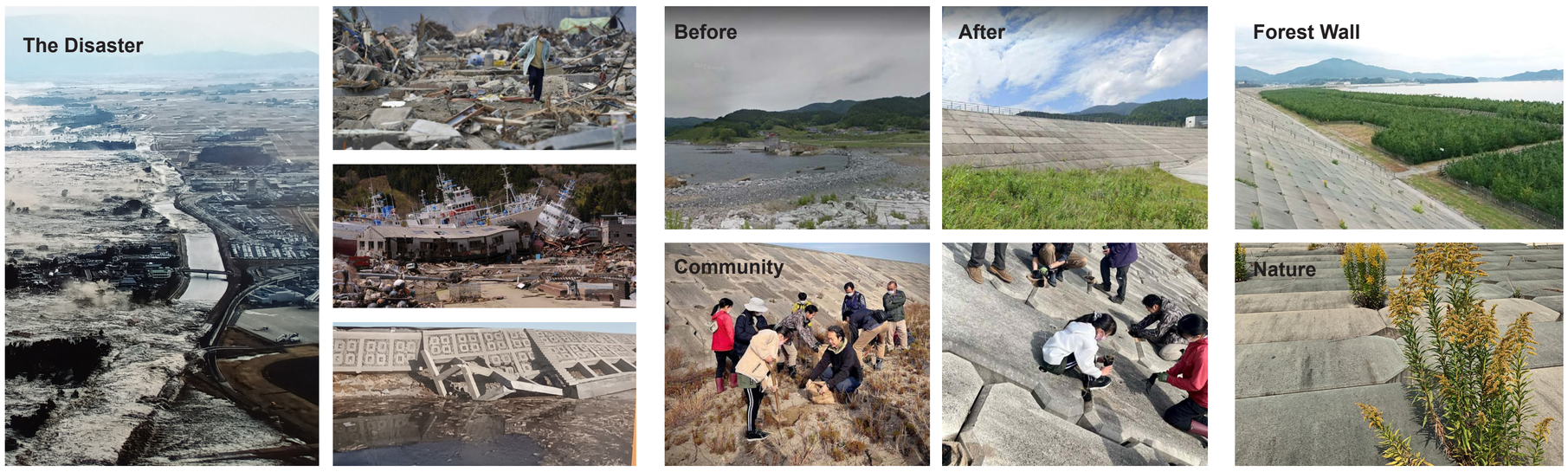
SENTIENT EDGES

RE-INHABITING THE COASTAL BOUNDARIES

The MetaBiosis.Lab project

www.element-hub.com/research

Erosion | Recovery | Memory | Rebirth



The Great Eastern Earthquake Disaster (March 2011)

Sentient Edges

“Sentient Edges” is a new design approach born from fieldwork in Japan’s Tōhoku region after the 2011 Great East Japan Earthquake and tsunami. It reimagines coastal infrastructure not as rigid, defensive barriers, but as living, responsive boundaries that protect while fostering ecological, cultural, and communal life. Just as Odysseus navigated uncertain shores, we must transform today’s “hostile edges” into thresholds that invite rather than alienate.

The MetaBiosis.Lab project explores strategies to shape rural coastlines into shared, resilient spaces where communities gather, habitats and traditions flourish, and ecological systems thrive in balance. Drawing on examples from Tōhoku, we reframe the flood-prone coastal boundary not as a threat to resist, but as a dynamic meeting place for all species.

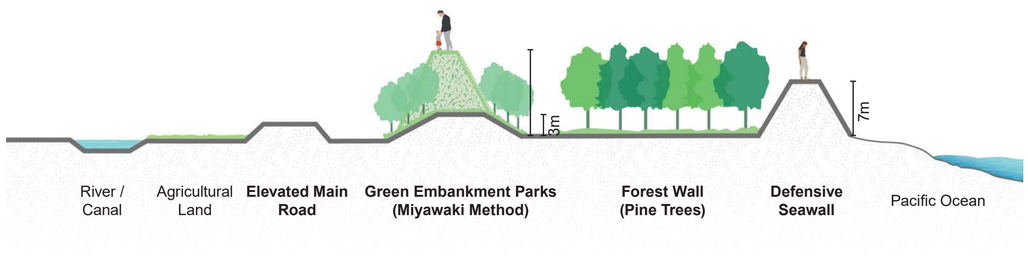
Fieldwork In Tohoku - Millennium Hope Hills | The Great Forest Wall & Parks

The Miyawaki method | October 2022 (ph.1), October 2024 (ph.2)

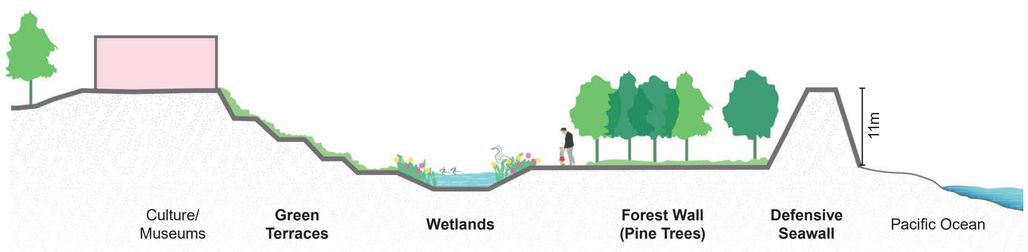
Rikuzentakata | The Great Forest Wall & Wetlands

Typologies

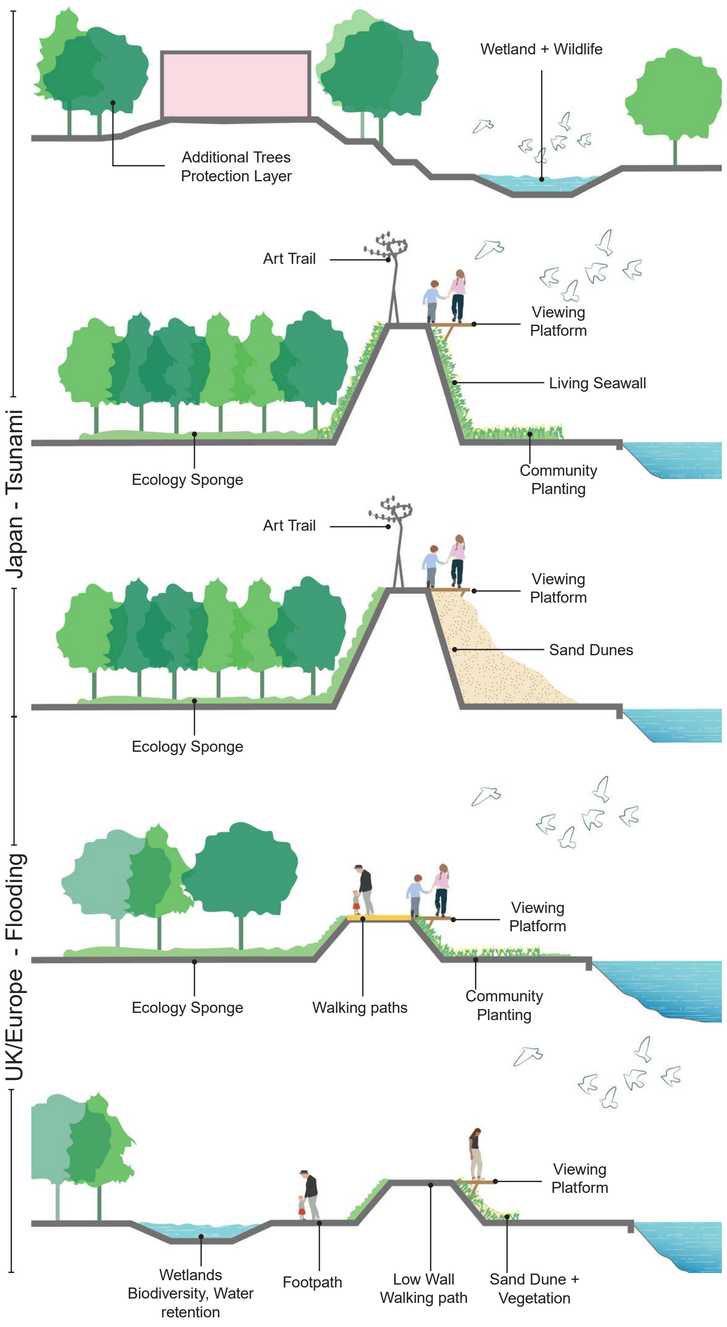
1. Four Layer Protection | Millennium Hope Hills case study



2. Four Layer Protection | Rikuzentakata case study



Adaptive Future for Coastal Thresholds



Living with Nature | Embracing its Force

Design for Emotion and Memory

Coastal defences must hold more than water; they must hold space for memory, biodiversity and everyday life. Incorporating storytelling, historical layers and ecological nuance can transform infrastructure into cultural anchors.

Living with Nature’s Uncertainty

These aren’t simply technical responses, they are cultural ones. How we shape our edges reflects how we live with uncertainty - whether we defend blindly, adapt creatively, or mourn with dignity.

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