

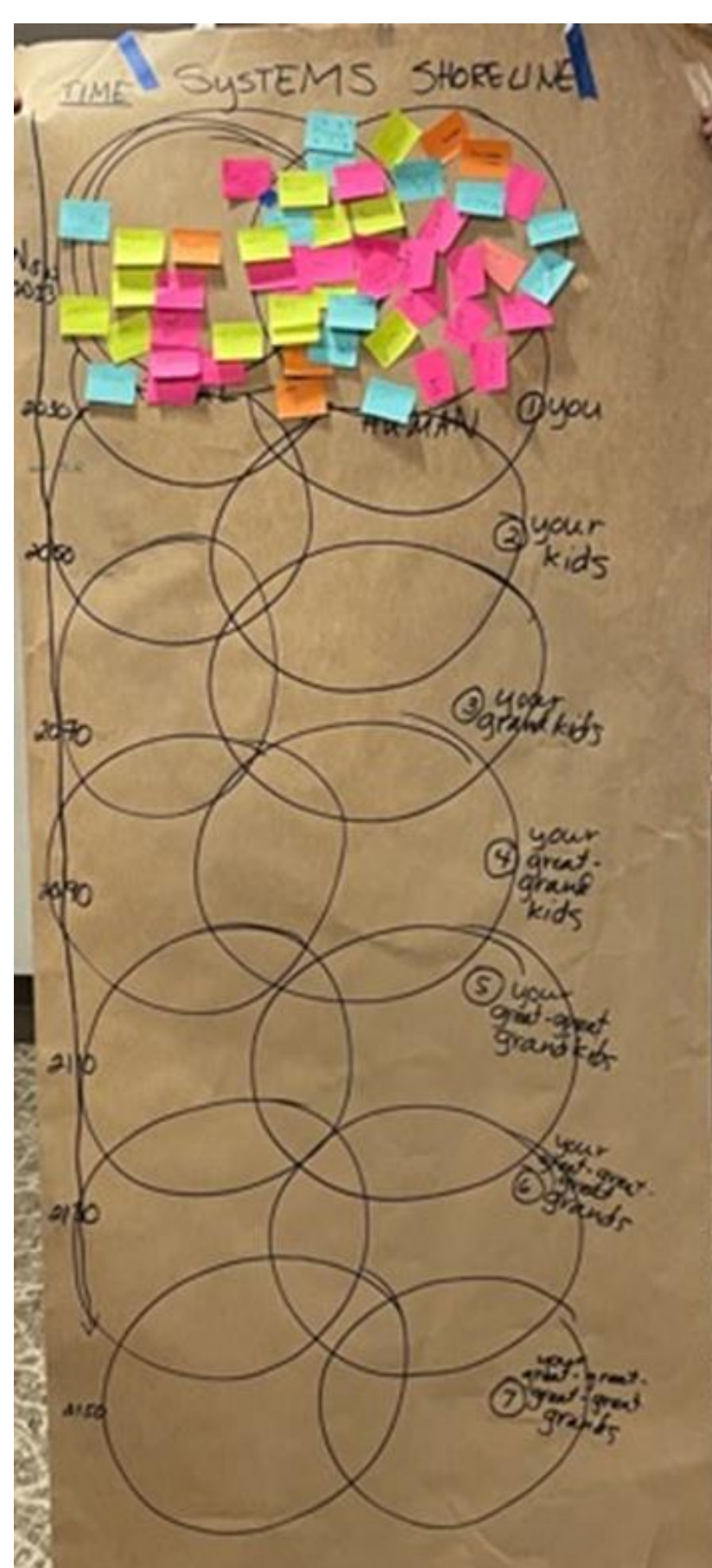
# Designing Sustainable Shorelines in Mashpee Using Traditional Ecological Knowledge

**Principal Investigators:** Robert Chen, UMass Boston; Lois Hetland, Mass. College of Art & Design; Cedric Woods, Inst. for New England Native American Studies (INENAS); Kim Starbuck, Urban Harbors Inst., UMass Boston; Melinda Vega Maldonado, Neighborhood of Affordable Housing (NOAH); Rebecca Shoer, Stone Living Lab

In 2022, WHOI Sea Grant funded a project led by Dr. Robert Chen of UMass Boston to engage high school students in East Boston and Mashpee in designing their vision for sustainable shorelines. Through classes and workshops, the course teamed resilience experts, artists, and architects with student community leaders to integrate art, design, engineering, science, and local knowledge in their work. The course led students through the design cycle, developing connections to their local shorelines and helping them to think about the needs of structures constructed near the water.



## Students of Mashpee have selected South Cape Beach to envision and design a more resilient future!



### Learning from Experts to Become Experts

The students learned from, and worked with, local experts from the Mashpee Wampanoag Tribe to incorporate traditional knowledge of the land into their vision. They also engaged with scientists and engineers working in the region, including those at Waquoit Bay National Estuarine Research Reserve, to help design a more resilient coastline. At the end of the project, the students will present their designs to both the experts and their peers, where they can gain valuable insight and share their ideas.



### More Than Just a Classroom, an Experience

For the Mashpee students, learning goes beyond the classroom. Many of their workshops were held at the Mashpee Wampanoag Tribal Government Center, where they could engage in hands-on activities. Field trips to Waquoit Bay National Estuarine Reserve and Punkhorn Point put students on the shorelines they are being asked to re-envision. Through activities such as building a mishoon, a traditional wooden boat, they also explored how people of diverse backgrounds and cultures interact with the coast.