

SENSORIUM FOR THE WORLD OCEAN: An Art Science Collaboration

Only a fool fights with the ocean, wise folk dance with the rising waters

Sensorium for the World Ocean is a work of art and science, multi-sensory interactive immersive installation that sets out to directly address the survival problems the world ocean faces as temperatures continue to rise. We believe that new and creative answers to questions regarding the ocean's ability to regenerate and return to ecological well-being will emerge from integrating core artistic concepts and creative strategies with current scientific resources and modeling, generating a new synthesis that builds on the strengths of the underlying science and the perspective of the artistic experience. These thoughts underpin the design and the work of Sensorium.

Sensorium applies tools of artistic expression to real-time data analysis and visualization, with the aim of building new syntheses and giving users opportunities to connect with regenerative projects. Phase 1 of Sensorium will premiere in September 2024 as a part of the Getty Foundation's forthcoming *Pacific Standard Time, California Works* statewide series of installations.

Much more than an educational tool, **Sensorium** functions as a "virtual laboratory" of real world data, embodied in a powerful emotive environment. It serves as a communication laboratory that challenges its visitors to investigate phenomena by asking questions, to listen and heighten their awareness. In so doing we hope to manifest a new way of thinking and acting in response to the requests from the Life Web that is in crisis. We have partnered with UCSB's AlloSphere to build Sensorium, along with Virtual Planet Technologies and Almost Human Media. A central element of our mission is to break down the silos of inaction and build in tools to connect participants directly to community organizations who are already engaged in supporting ocean resilience.



Concept Render of Sensorium's Centerpiece and Kiosks, AlloSphere Research Laboratory, 2023

Sensorium is designed as a three-part journey: an Ante-room with interactive kiosks allowing members of the audience to directly interact and ask questions about the health of the ocean. Next, they enter the Sensorium's Centerpiece, a massive immersive space set inside a 360 degree video wall. Assertions from the voice of the Ocean punctuate a series of vignettes designed to address the most serious issues facing the Ocean such as sea level rise, acidification, pollution, overfishing, mass extinction, and climate change.



Excerpt from Coral Reef 360 Video, part of Sensorium's Centerpiece, 2023



In the Post-room, kiosks will start to present some of the thousands of regenerative projects at all scales already in place, as a path to building a community of "practice, hope and solutions." Audience members can take this experience with them by connecting them to a robust program of community engagement. Sensorium will continue beyond the first installation as we develop tools and open source software that will allow anyone to experience it. We are developing long-term plans for a permanent installation, hyperlocal versions focused on individual coastal cities across the U.S, and a fully autonomous AI version of Sensorium.



Comparing yearly OHI data mapped onto the surface of Globe App, AlloSphere Research Laboratory, 2023

Community Engagement

While many of us are aware of environmental issues, the details can be overwhelming, difficult to grasp, and ultimately keep most from deciding to pursue active change. Sensorium, at the intersection of art and science, is designed to engage, immerse and then empower individuals to take a stand and get involved in their own communities. Our opening in September 2024 will be supported by a public event and communication campaign.

The central message of Sensorium is about shifting the patterns in how we understand and respond to the impacts of warming climate on the world ocean. Much of the core content addresses Climate Change directly, supplemented by information from a list of key ocean "stressors" that involve related topics ranging from pollution to water temperature.

Via partnerships between University of California researchers and oceanographers and state and local agencies, we are developing techniques to share the message of Sensorium well beyond the *Pacific Standard Time* installation. We are also establishing partnerships with an international group of oceanographic and meteorological organizations, including the *Ocean Health Index*, the *Potsdam Institute for Climate Impact Research*, the *Alfred-Wegener-Institut* in Bremerhaven, and the *German Climate Computing Centre*. Among our potential community partners are the *Community Environmental Council* (CEC), *Regeneración Pajaro Valley* (RPV), *Save our Shores* (SOS), and the Port of Los Angeles's *AltaSea*.

Future plans include stand alone versions of the Sensorium's interactive kiosks, a publicly accessible VR experience and tools to connect members of the audience with climate resilience and training in their own neighborhoods.

Finally, we plan to release any software and content developed for Sensorium into the public domain for other institutions and educators to adapt into their own curriculums and research projects. How to most effectively distribute and support this content is a main research goal of the project.

Video Links

- The science behind Sensorium The World with Data: <u>https://youtu.be/PcPdVLKHWog</u>
- California Works UC Irvine xMPL, Design Renderings for Installation: <u>https://youtu.be/TP1glVNzMJ8</u>
- SC Boardwalk Sea Level Rise 360 video: <u>https://vimeo.com/802751685/1df0da3b4c</u>
- Coral Reef 360 video test: <u>https://vimeo.com/793560551</u>

More about Sensorium here: <u>https://allosphere.ucsb.edu/research/sensorium/</u>