

3D Visualization Tools for Enhancing Awareness, Understanding, and Stewardship of Freshwater Ecosystems

<http://lakeviz.org>

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Shaping Watersheds – AR Sandbox





“At their best, graphics are instruments for reasoning about quantitative information. Often the most effective way to describe, explore, and summarize a set of numbers – even a very large set – is to look at pictures of those numbers”

Edward Tufte, “Visual Display of Quantitative Information”, 1983



We did not start out wanting to out-do *Finding Nemo* or *Avatar*. We wanted to represent the “real world” to audiences using data. But the real world is complex.

3D visualization was a way to make complex data:

1. Intelligible

2. Seem “more real”

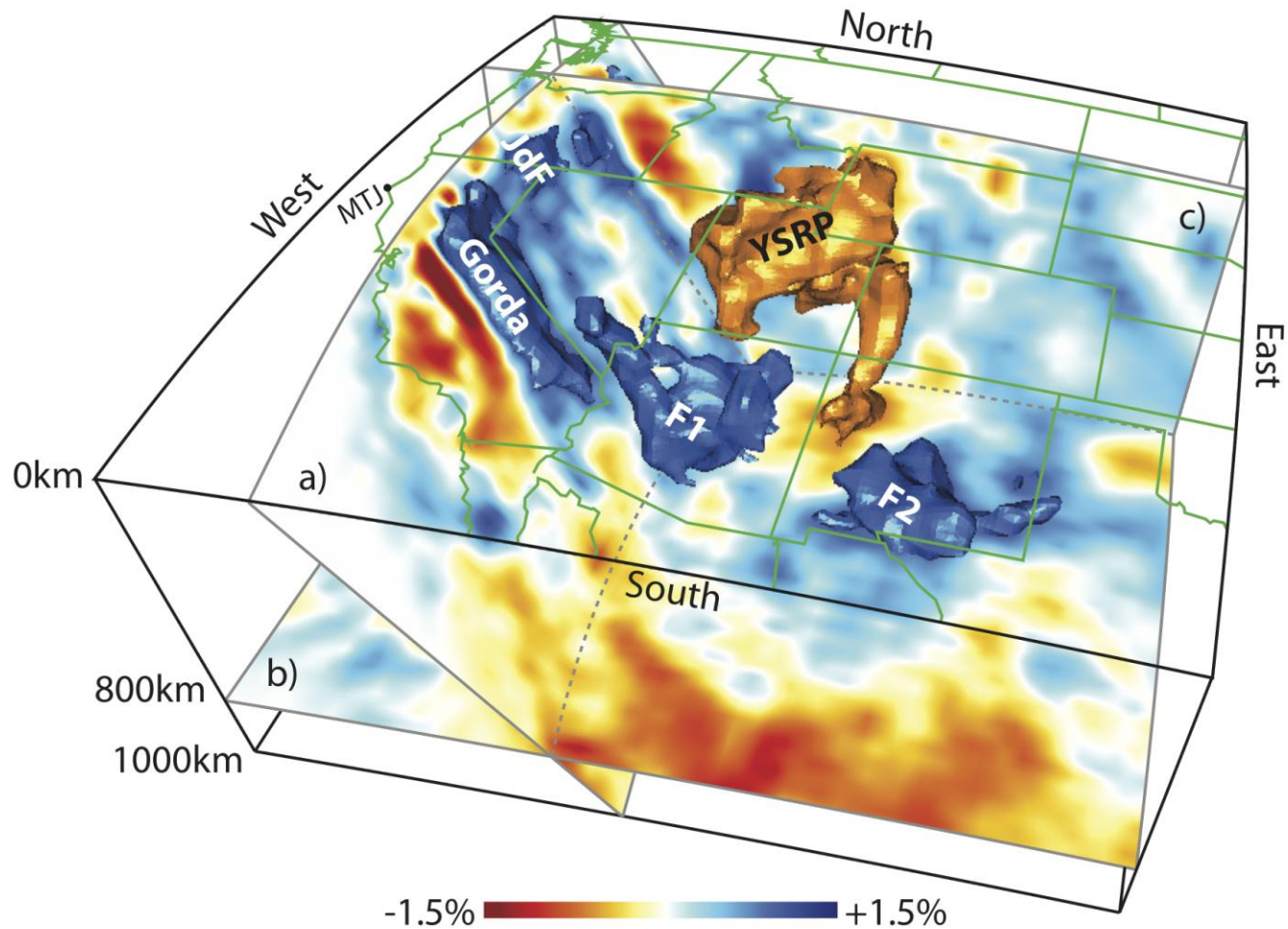
3. Seem more exciting (yes, a little bit of “wow”)

4. Quantifiable via tools

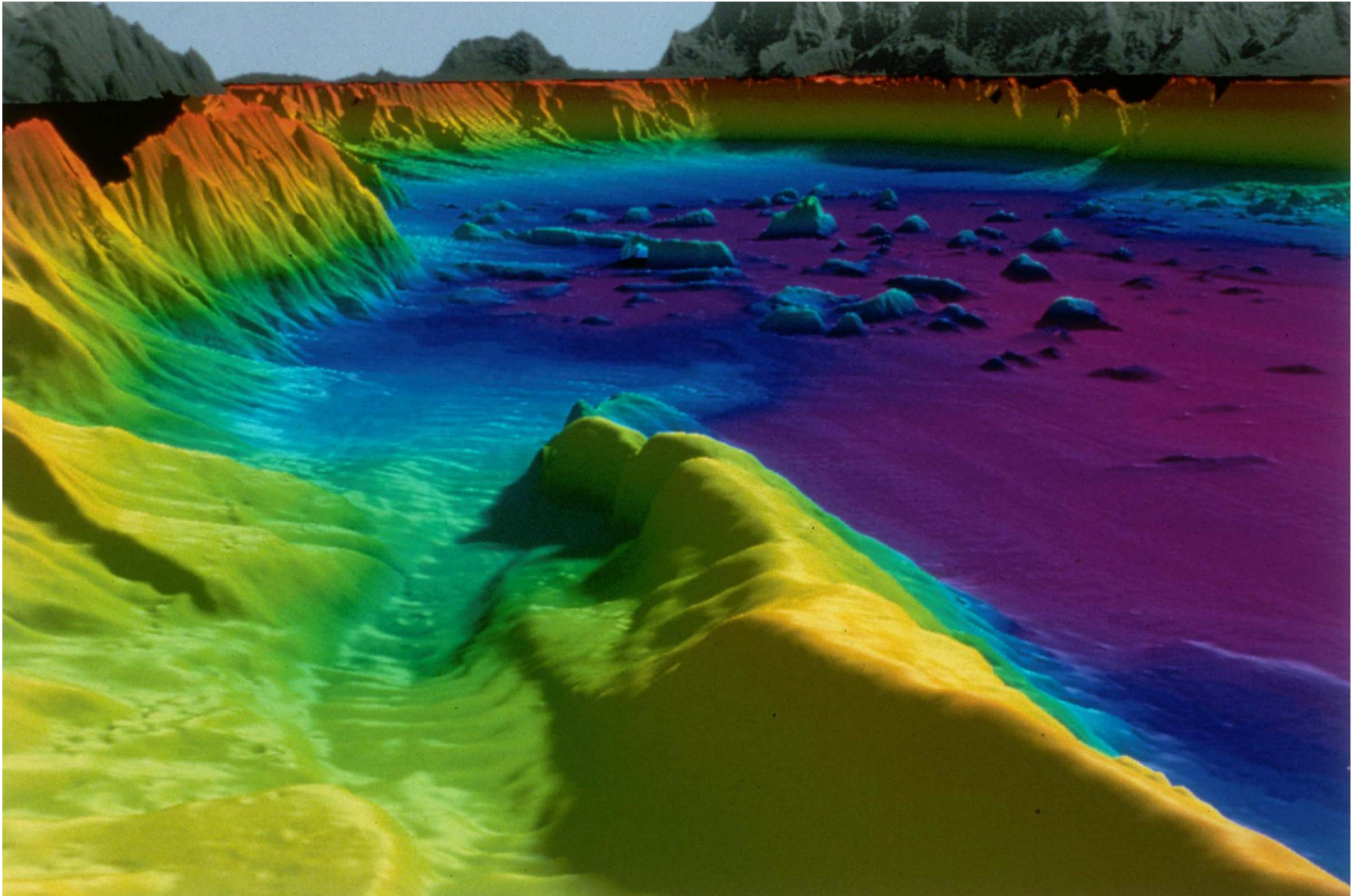
5. Infinite with possibilities



The challenge: large, complex data



3-D seismic velocity structure in the mantle beneath western North America from EarthScope data R. Allen et. al



Sidescan Sonar data of Lake Tahoe bathymetry



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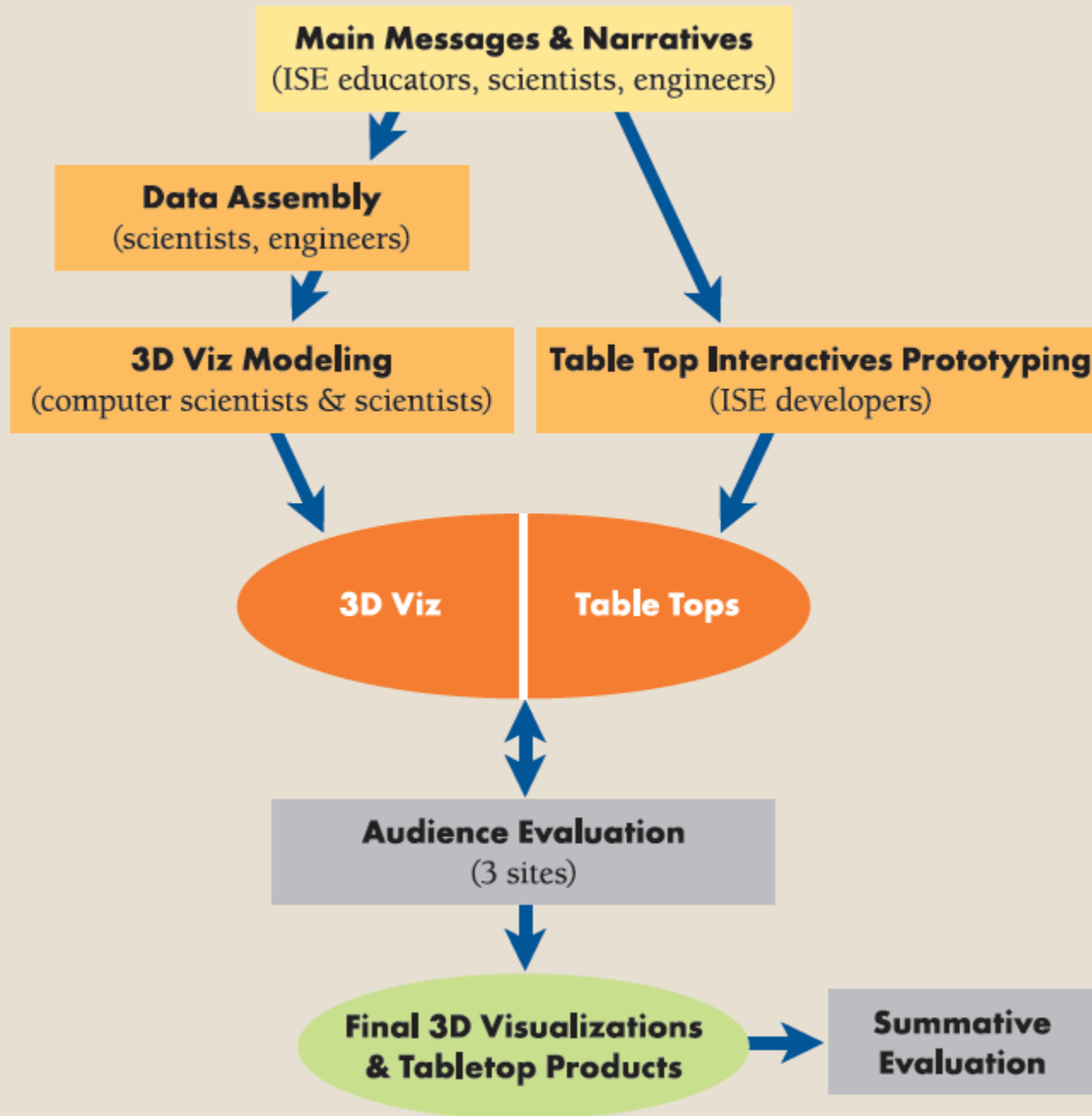


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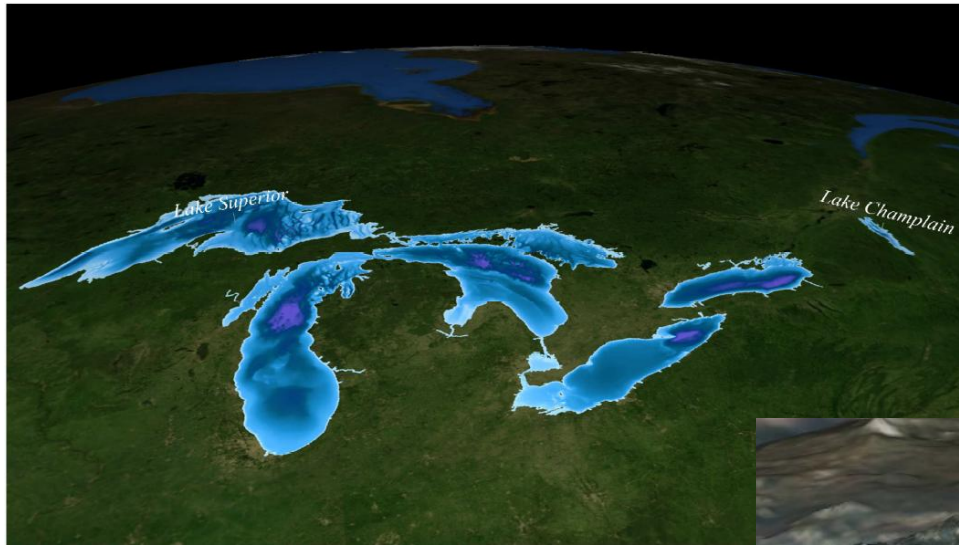


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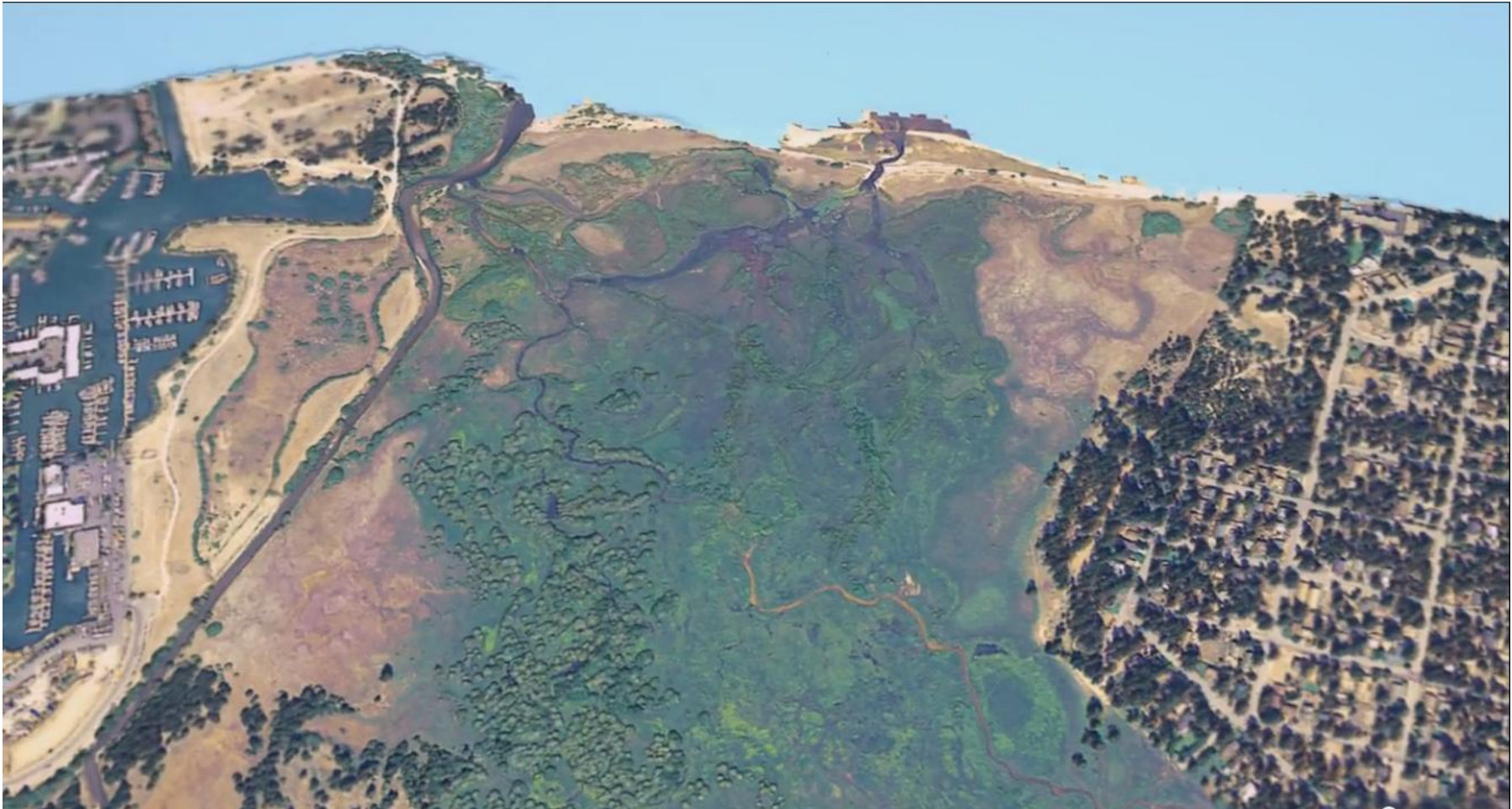


Some examples: Lakes of the World (Crusta)





Following a Drop of Water



3DH2O.org Website

ABOUT LEARNING MATERIALS BLOG



3D WATER

Search for Activities..

What is 3D Water?

3D Water is a resource for education professionals who wish to utilize stereoscopic 3D and augmented reality visualizations in their practice. Most Stereoscopic 3D learning is proprietary and costs considerable amounts of money. Our website will allow you to search and follow links to curated open-source learning materials such as: tutorials, software, datasets, best practices guidelines, evaluations, exhibits, and hands-on activities.

LATEST BLOG POST: EVALUATING WATERSHEDS AT THE LAWRENCE HALL OF SCIENCE

In late April, more than fifty visitors participated in a formative evaluation of LakeViz 3D visualizations, tabletops and exhibits at the Lawrence Hall of...

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Interactive 3D

3D Visualization of

3D Visualization Tools

Shaping Watersheds

RACE TO SAVE LAKE TAHOE

Properties of Water

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Funding provided by the National Science Foundation. Award No. DRL-1114663

