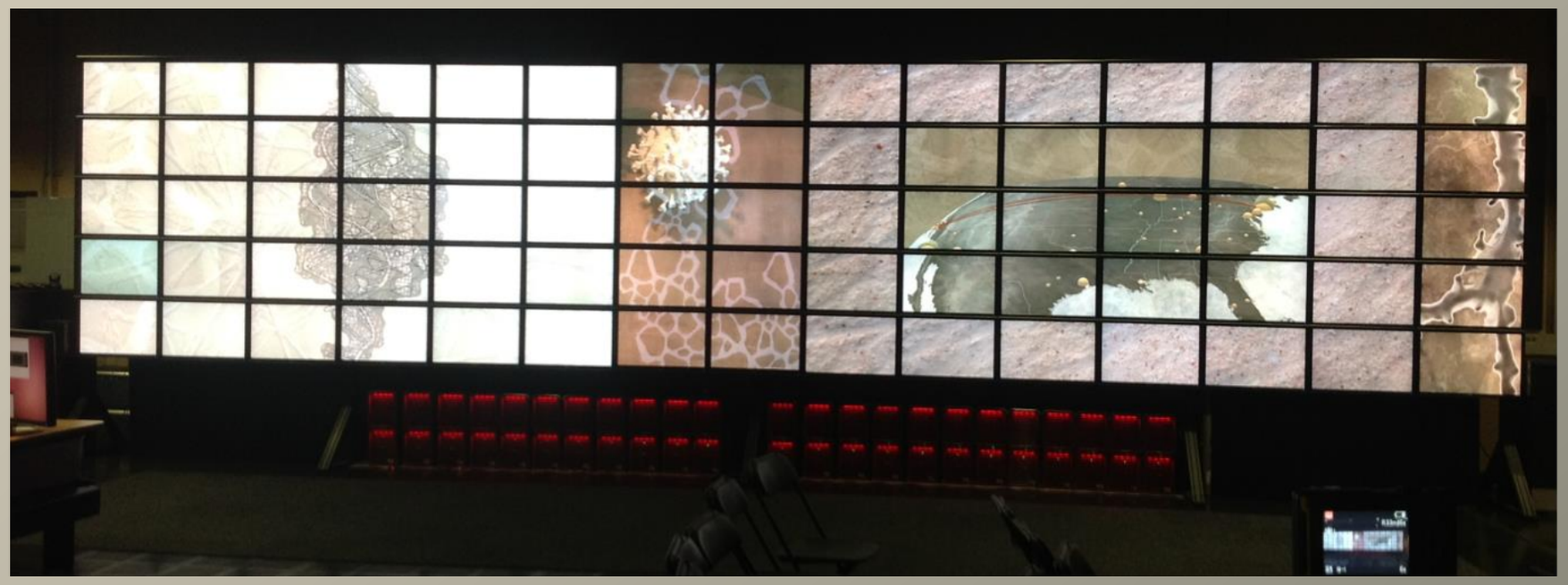
Francesca Samsel

Assistant Research Professor, University of Texas at El Paso
Research Affiliate, Center for Agile Technologies, UT Austin
Collaborating with the Visualization Research Team, LANL

Artistic and
Scientific language

Communicating to
both hemispheres



Transmission

Francesca Samsel, University of Texas at El Paso
Visualization in collaboration with Kelly Gaither
Texas Advanced Computing Center, University of Texas at Austin

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Visualization in collaboration with Dr. Kelly Gaither

Based on the Pandemic Flu research of Dr. Lauren Ancel Meyers

Texas Advanced Computing Center, University of Texas at Austin

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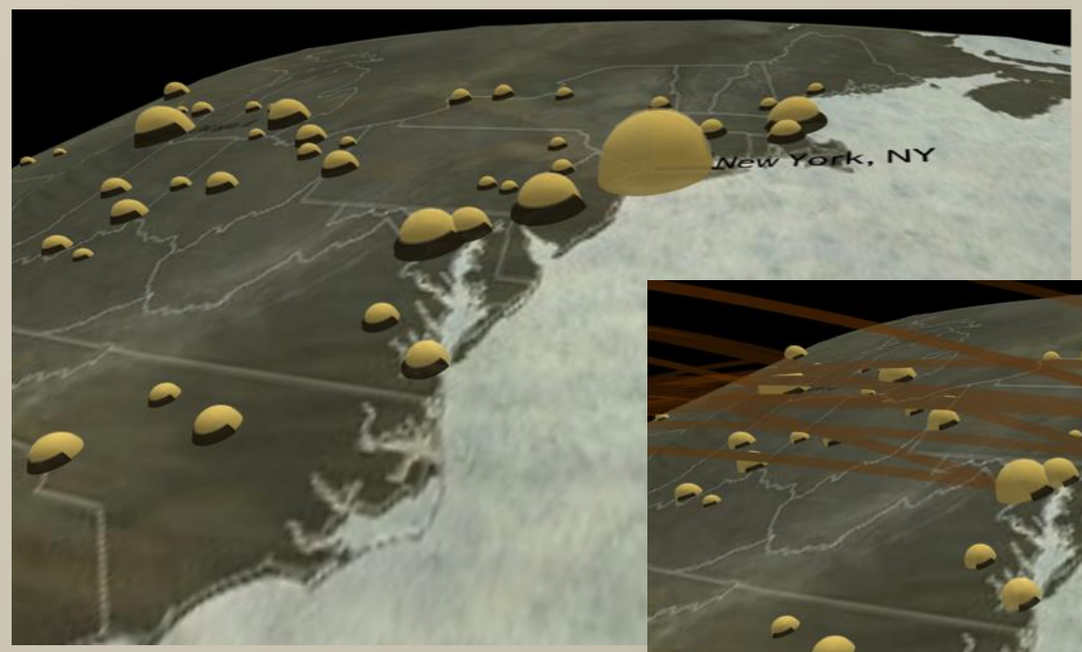
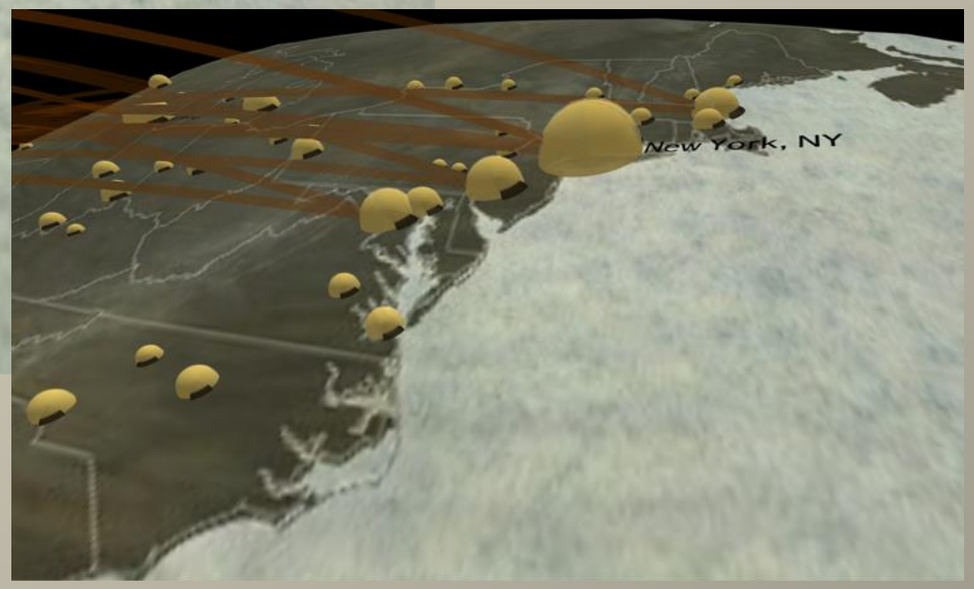
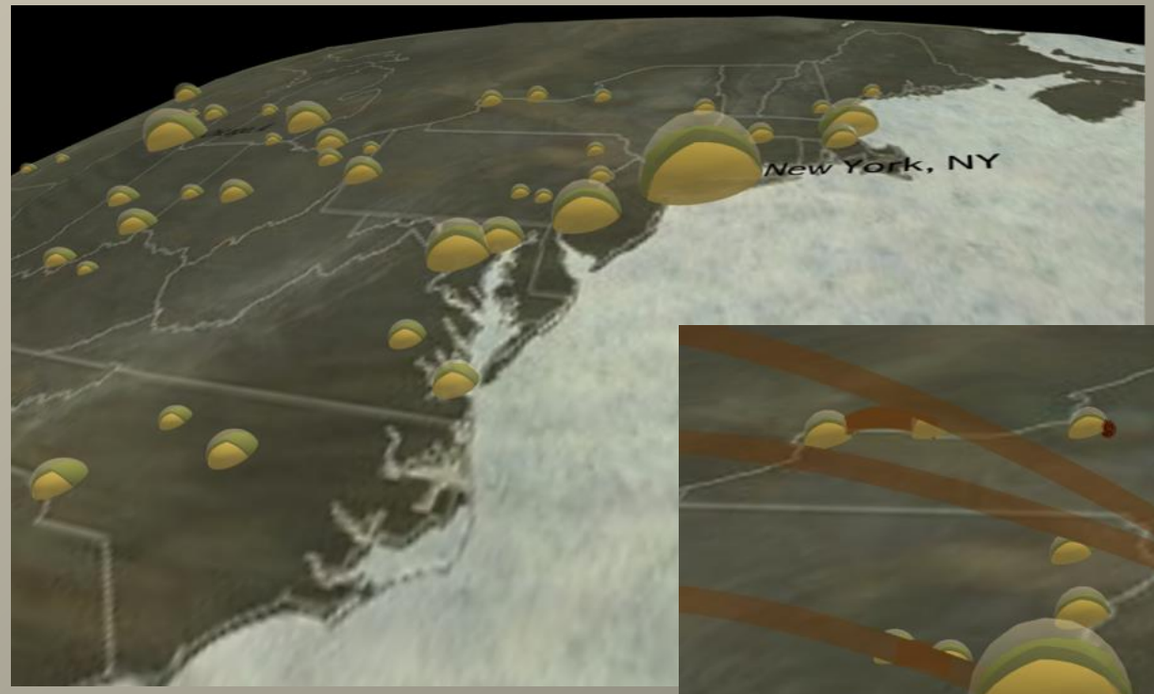






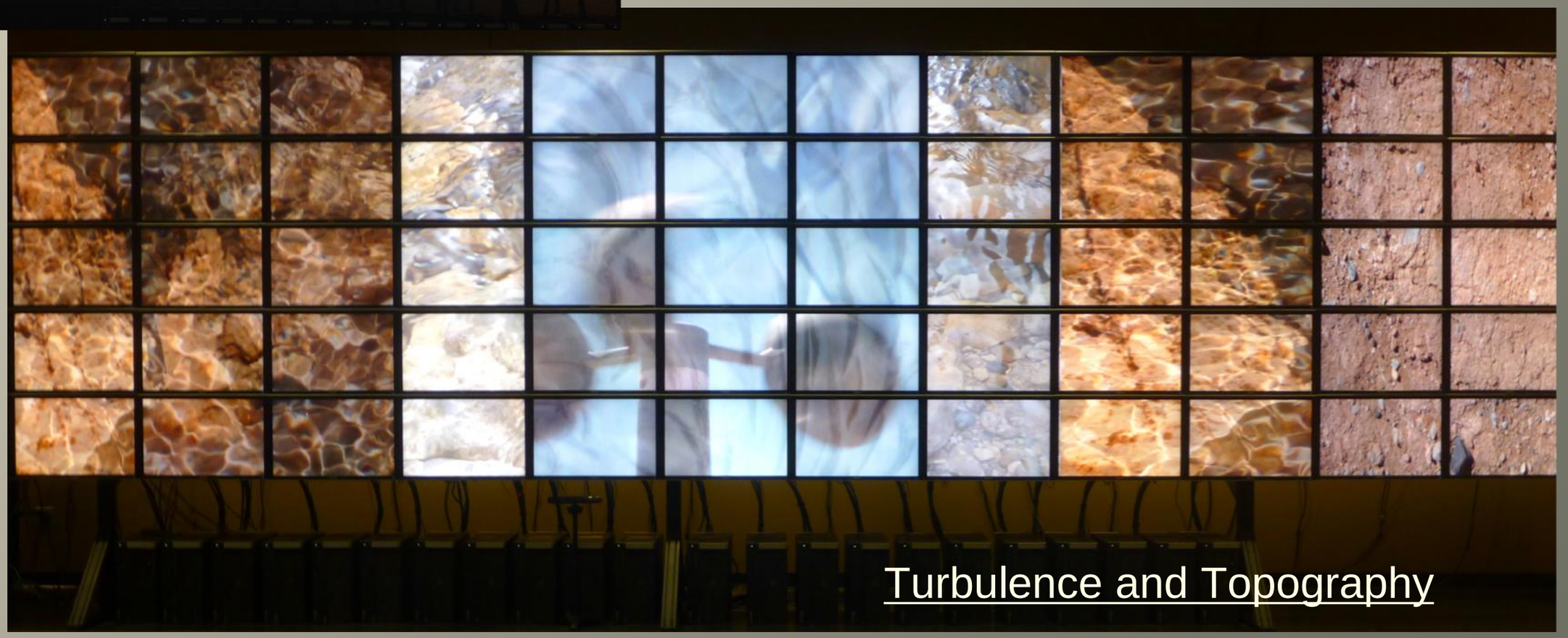
Speaking to both sides of the Brain

data

human connection

CyberShare Center for Excellence
University of Texas at El Paso
Francesca Samsel Dr. Craig Tweedie
Commissioned by the Rubin Center for the Arts

Re-Enchanting Science



Turbulence and Topography

Commissioned by
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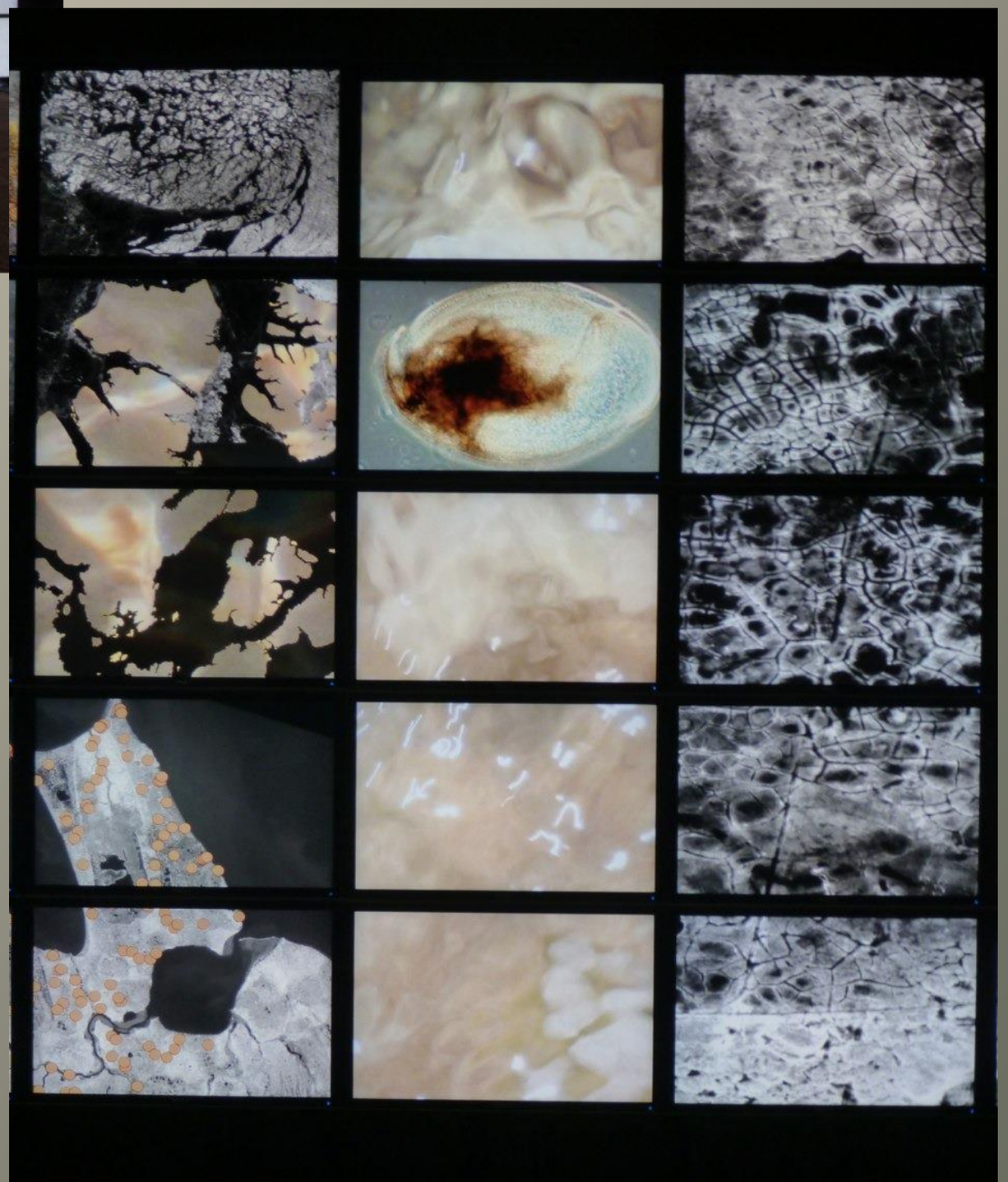
CyberShare Center for Excellence
University of Texas at El Paso
Francesca Samsel Dr. Craig Tweedie

Speaking to Our Humanity Through…

The wonder of nature
plankton
topography
satellite maps
lidar data

From the human hand
photographs
etchings
drawings

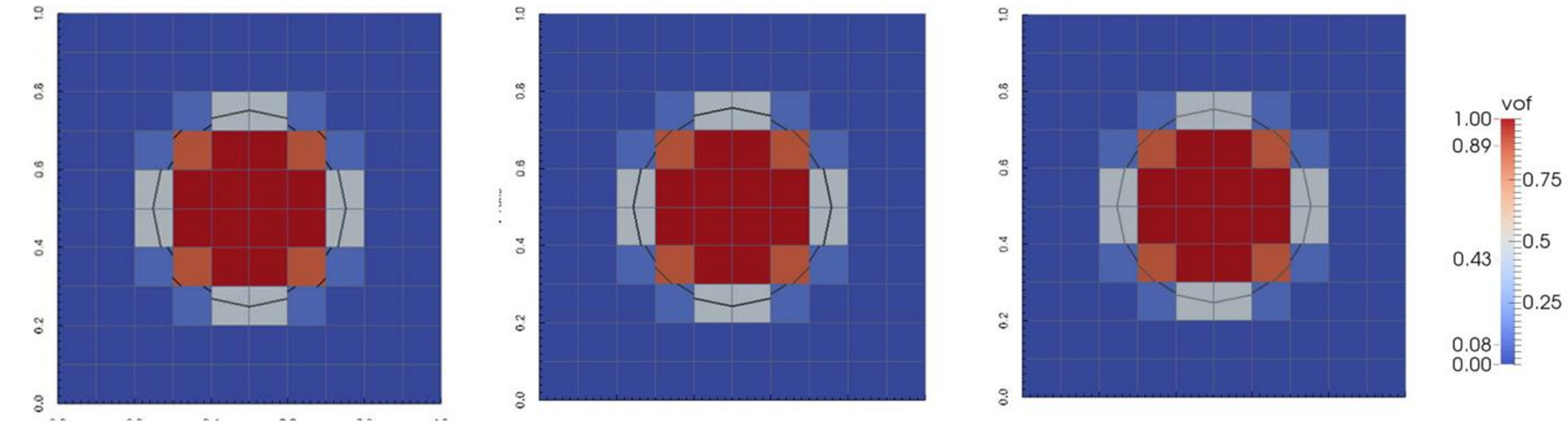


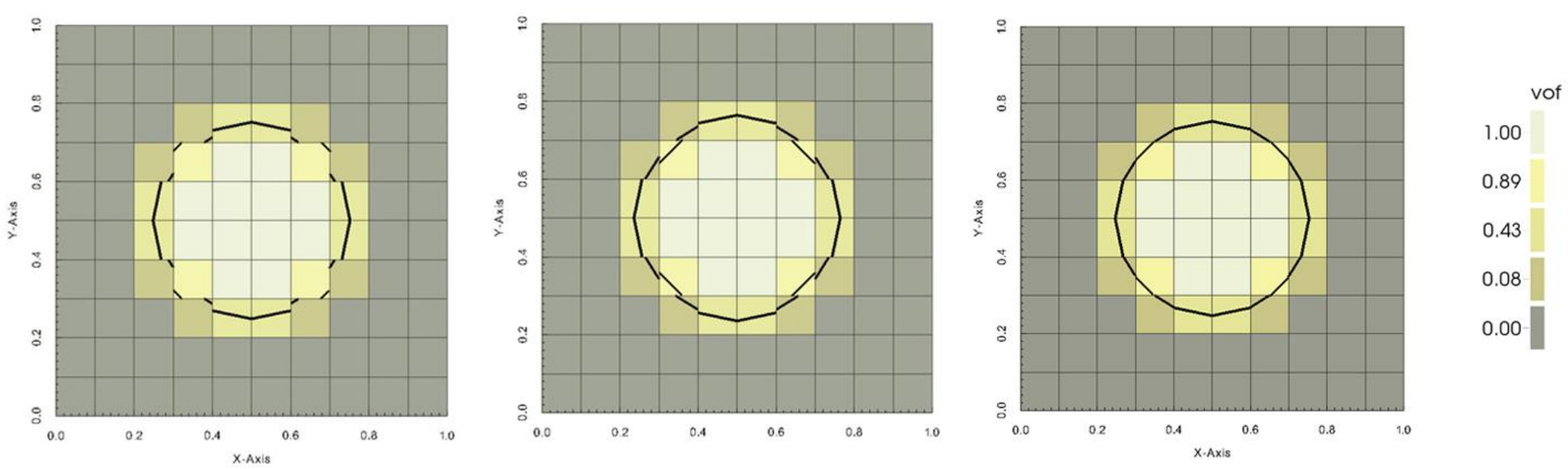
Turbulence and Topography

Francesca Samsel Dr. Craig Tweedie
CyberShare Center for Excellence
University of Texas at El Paso

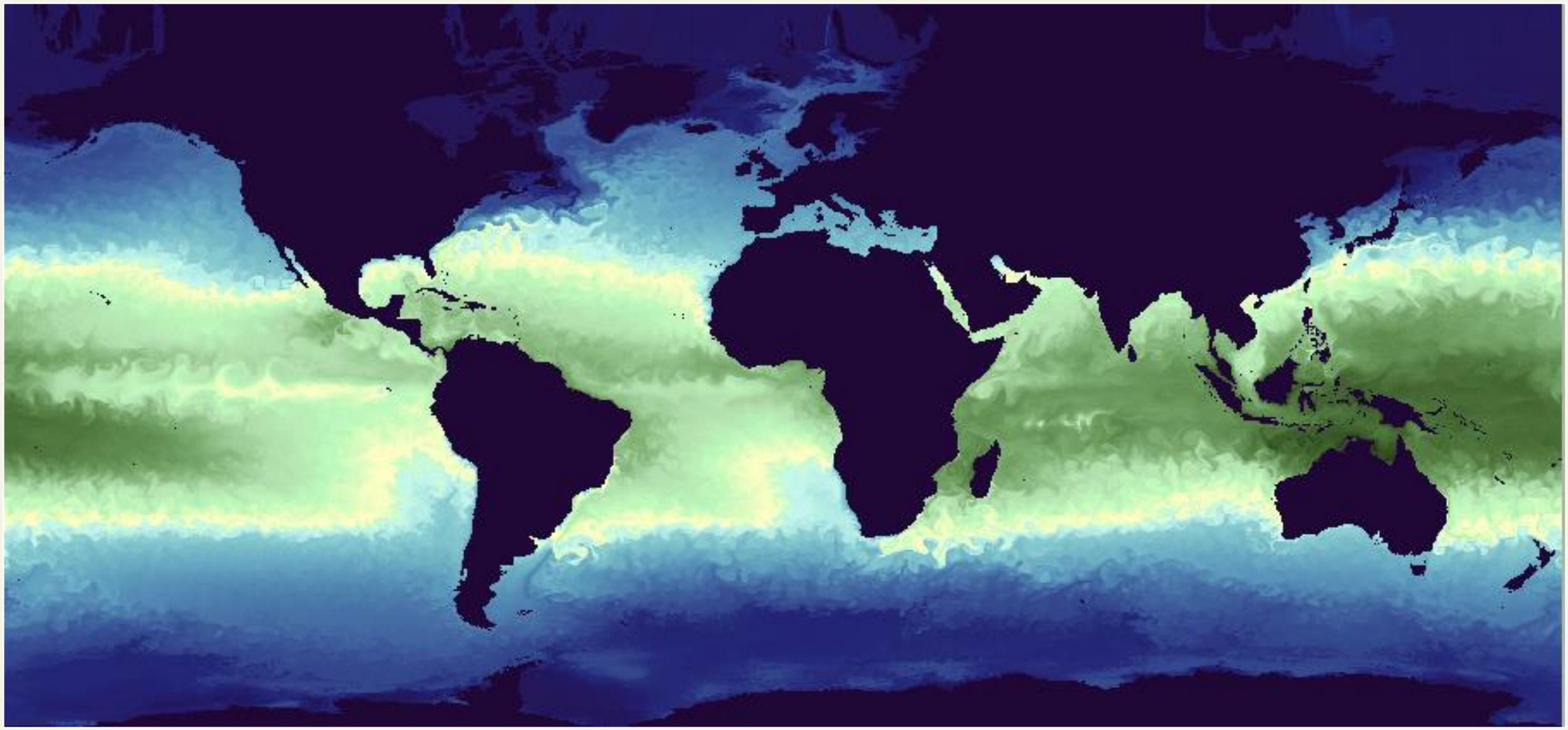
Less is usually more
Leave a bit unsaid
Reduce to create focus

For Example…

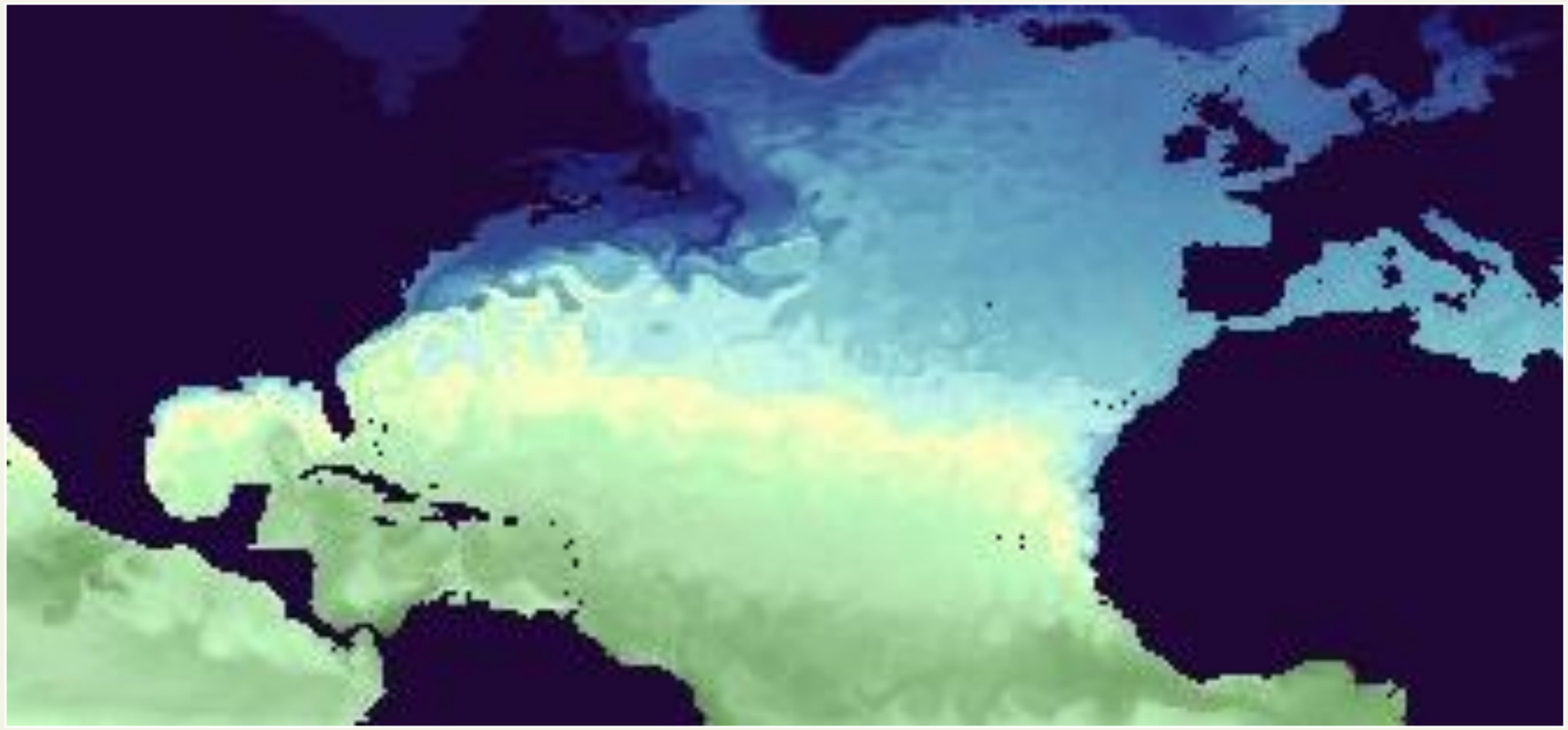


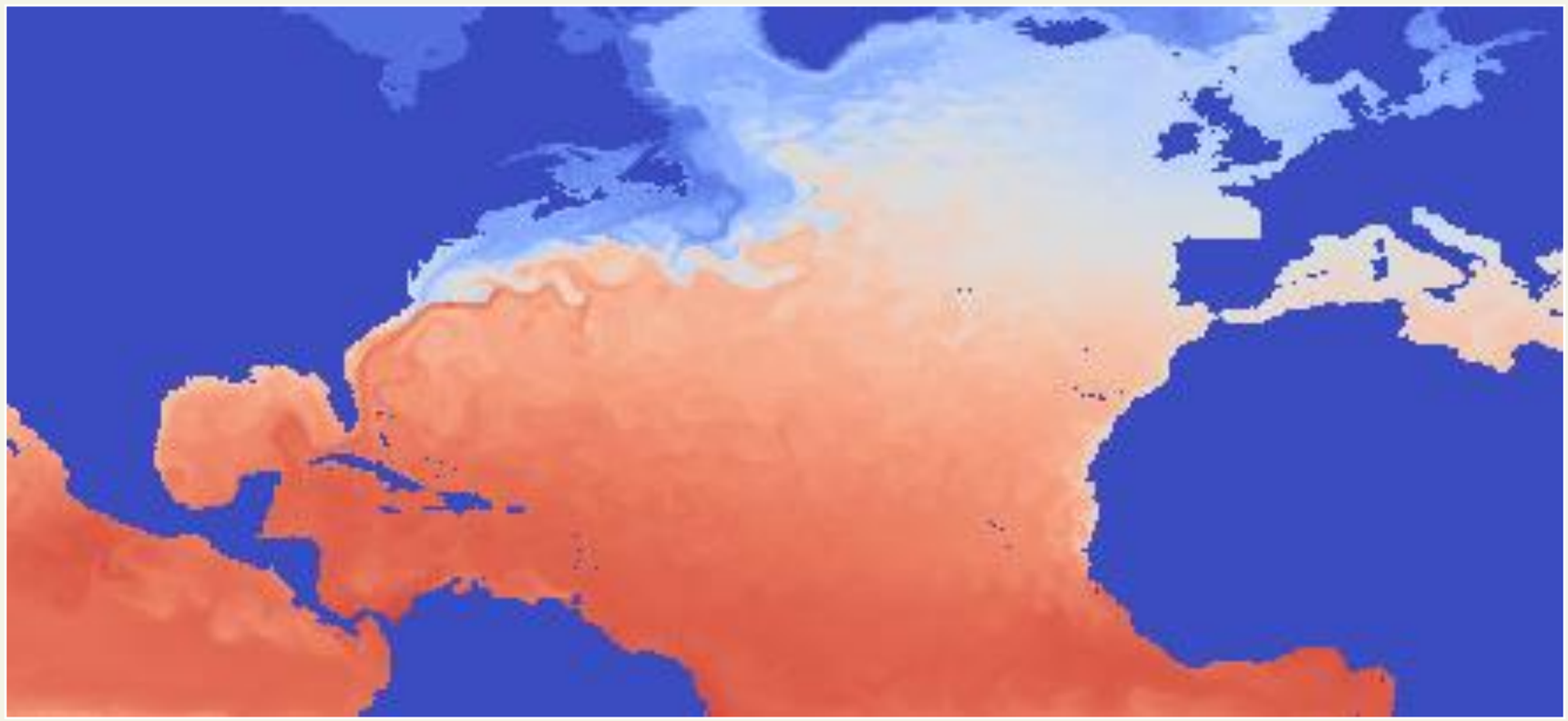


Placing the highlight color to draw attention to the relevant areas
Non-critical areas colored with neutrals



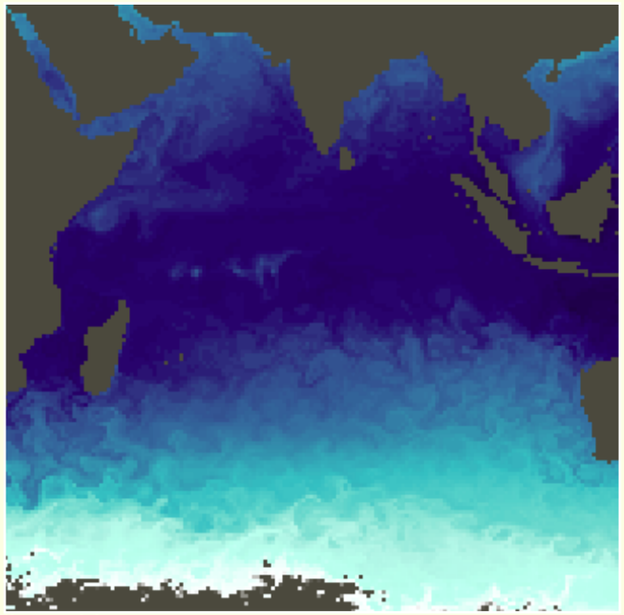
Perception driven color mapping



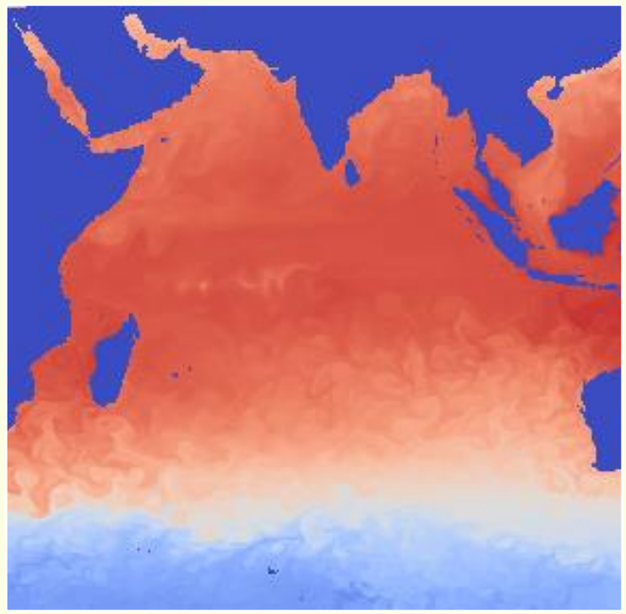


Same data
More information
Lower cognitive load

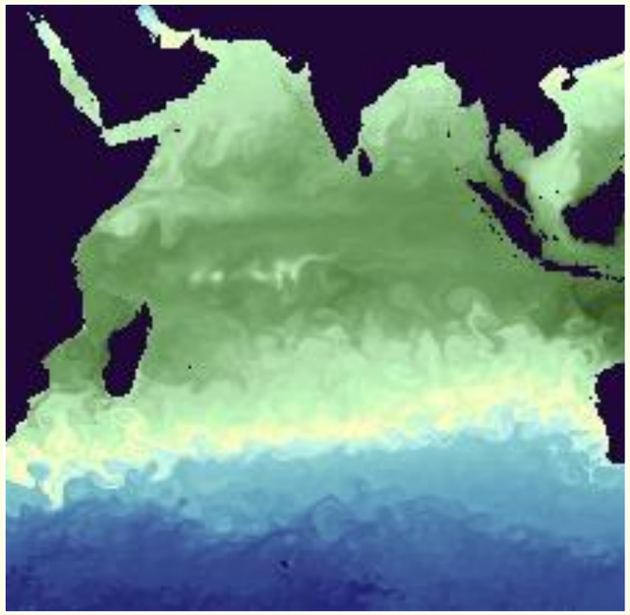
Comparisons to the defaults
Rainbow color map and Red / Blue color map



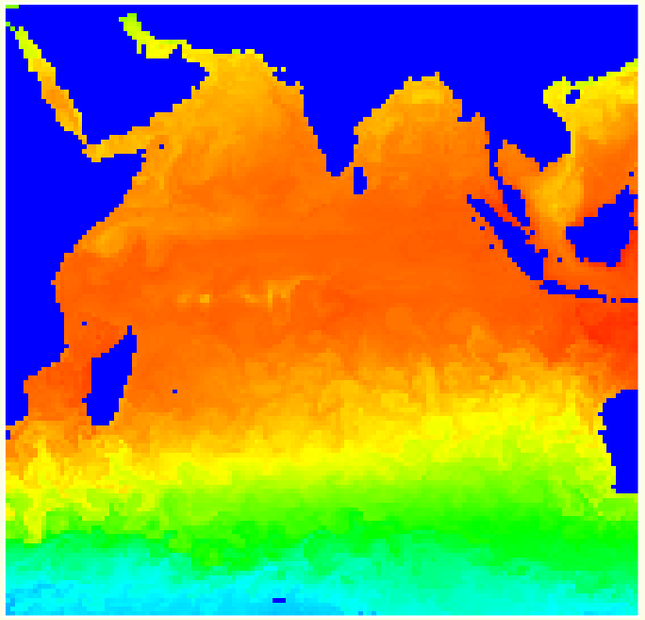
linear blue



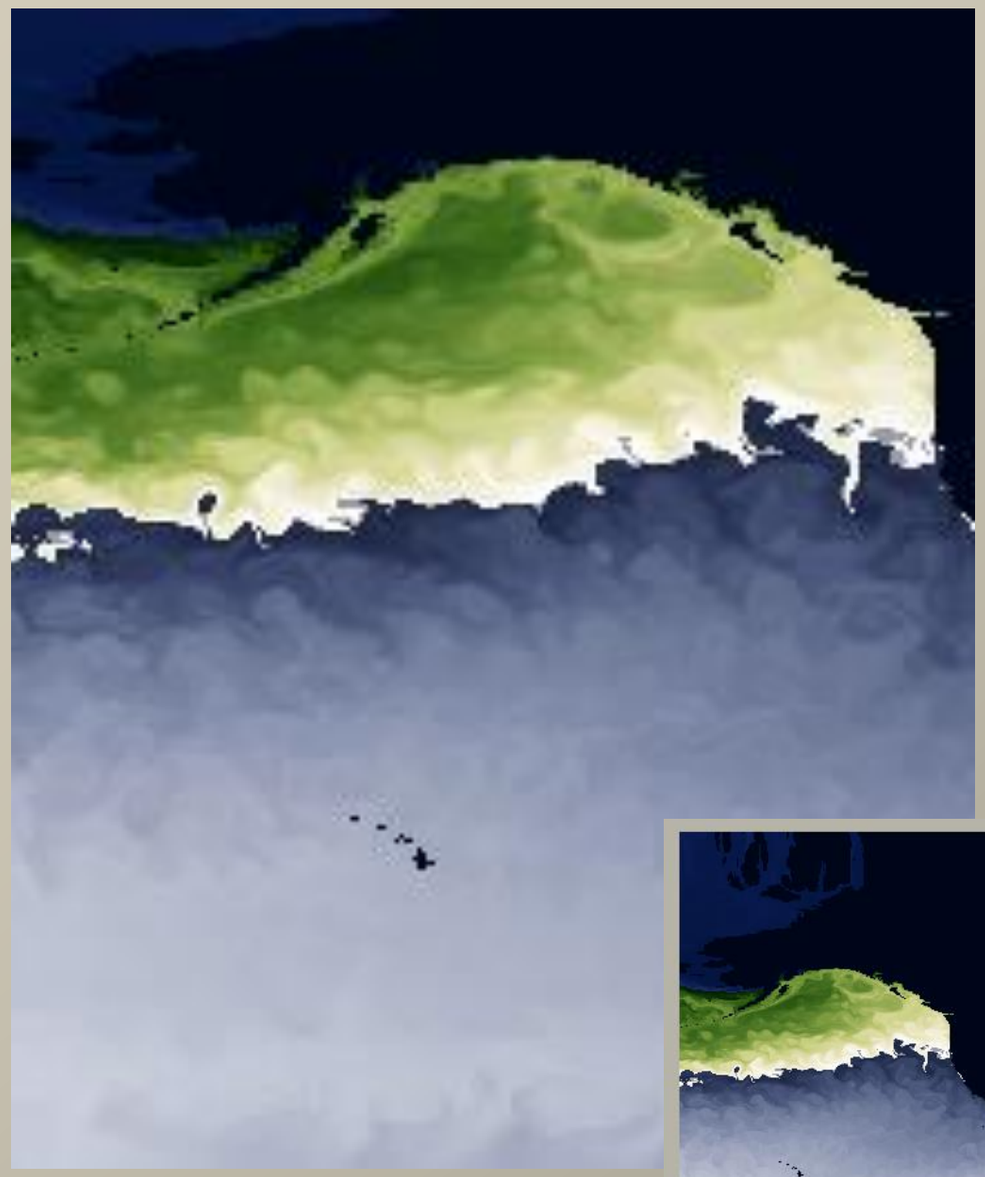
warm / cool



blue / green divergent

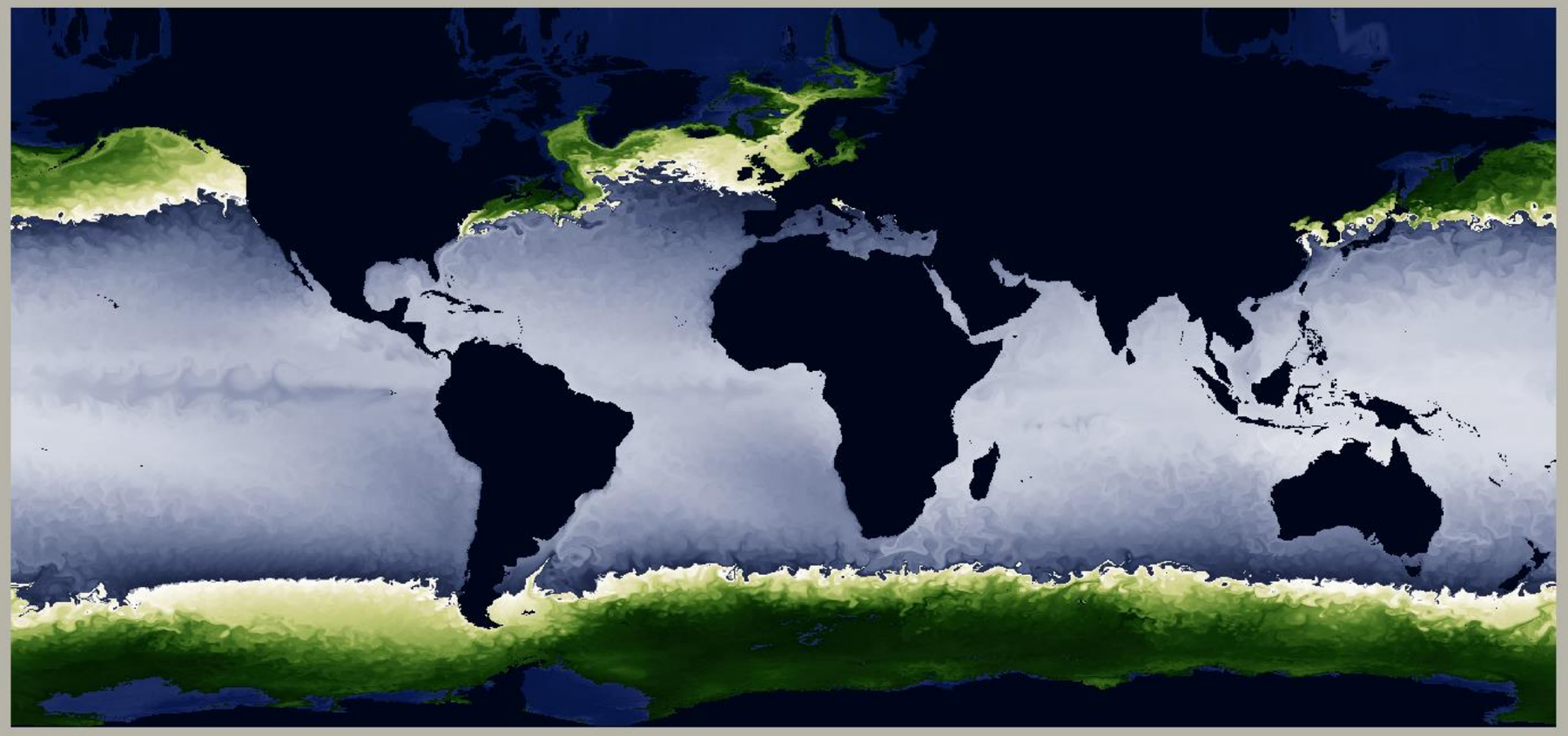


rainbow



Focusing attention

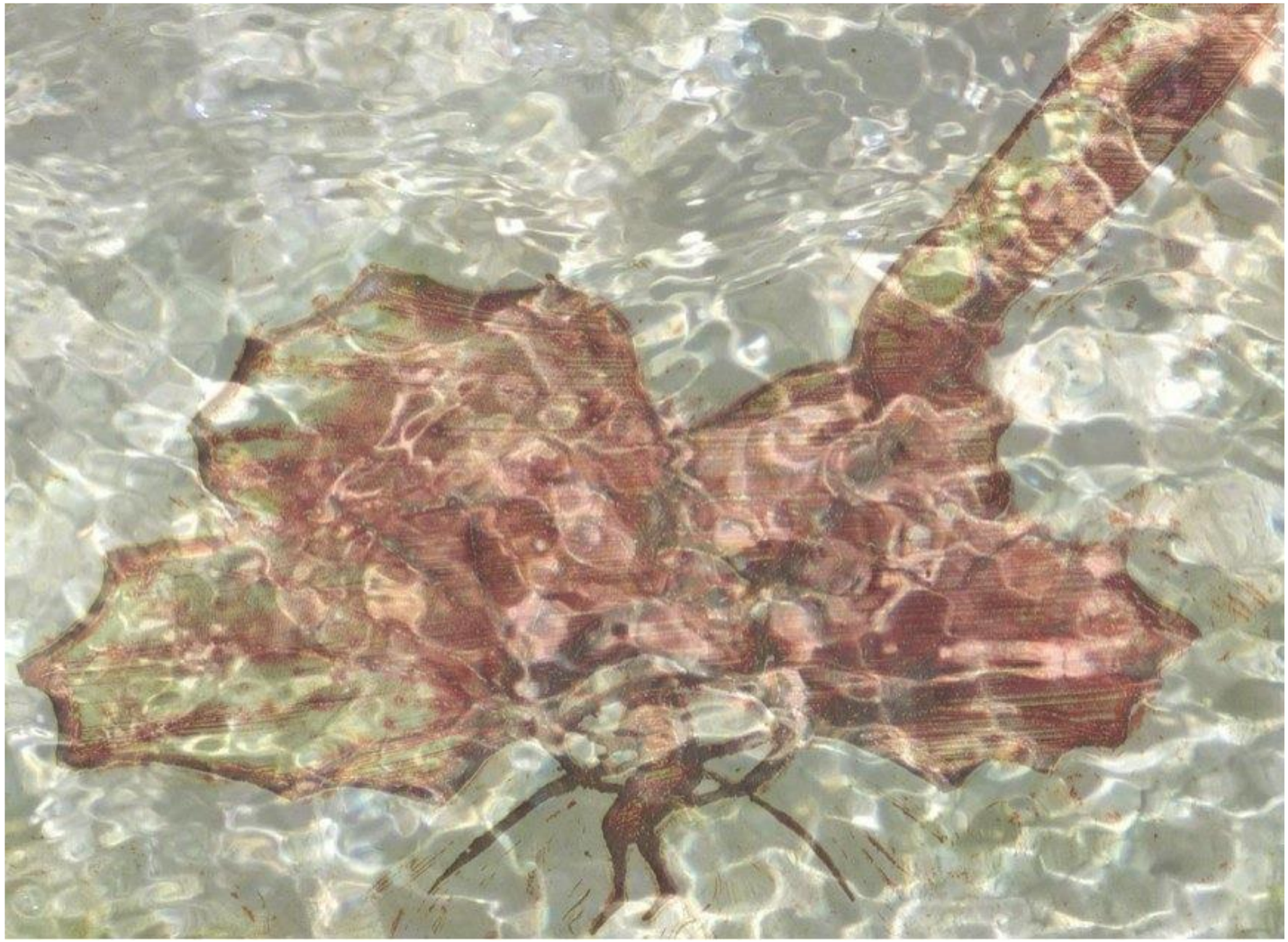
Highlighting specific data ranges



Risk and Trust

Working outside of one's comfort zone is required.

All parties need to trust that results will come.



A collaboration is an *investment* on everyone's part. One committed extended collaboration is better then many smaller projects.

Poetry and Logic

"We must link artistic vision to scientific creativity…

… to "re-enchant" the story of our relationship to nature, and of how knowledge is acquired."

Christopher Comer
Professor of Biology & Neuroscience
Dean of the College of Arts & Sciences
University of Montana