

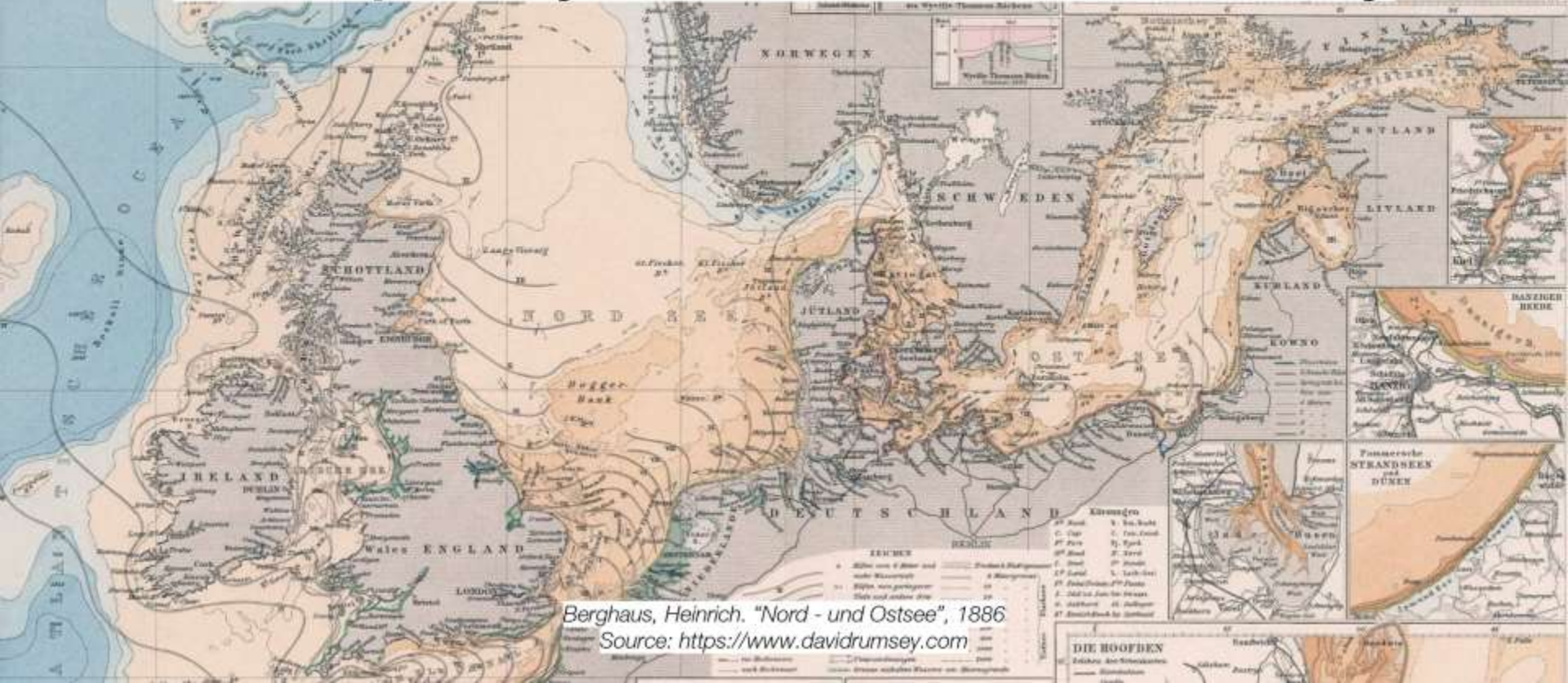
**The whole is  
greater than the  
sum of its parts**

**Claudia Bode, *Thing Collective***

Congres Geologique International: "Carte Tectonique Internationale de L'Europe", 1962  
Source: <https://atlasofplaces.com/Carte-Tectonique-Europe-Congres-Geologique-International>

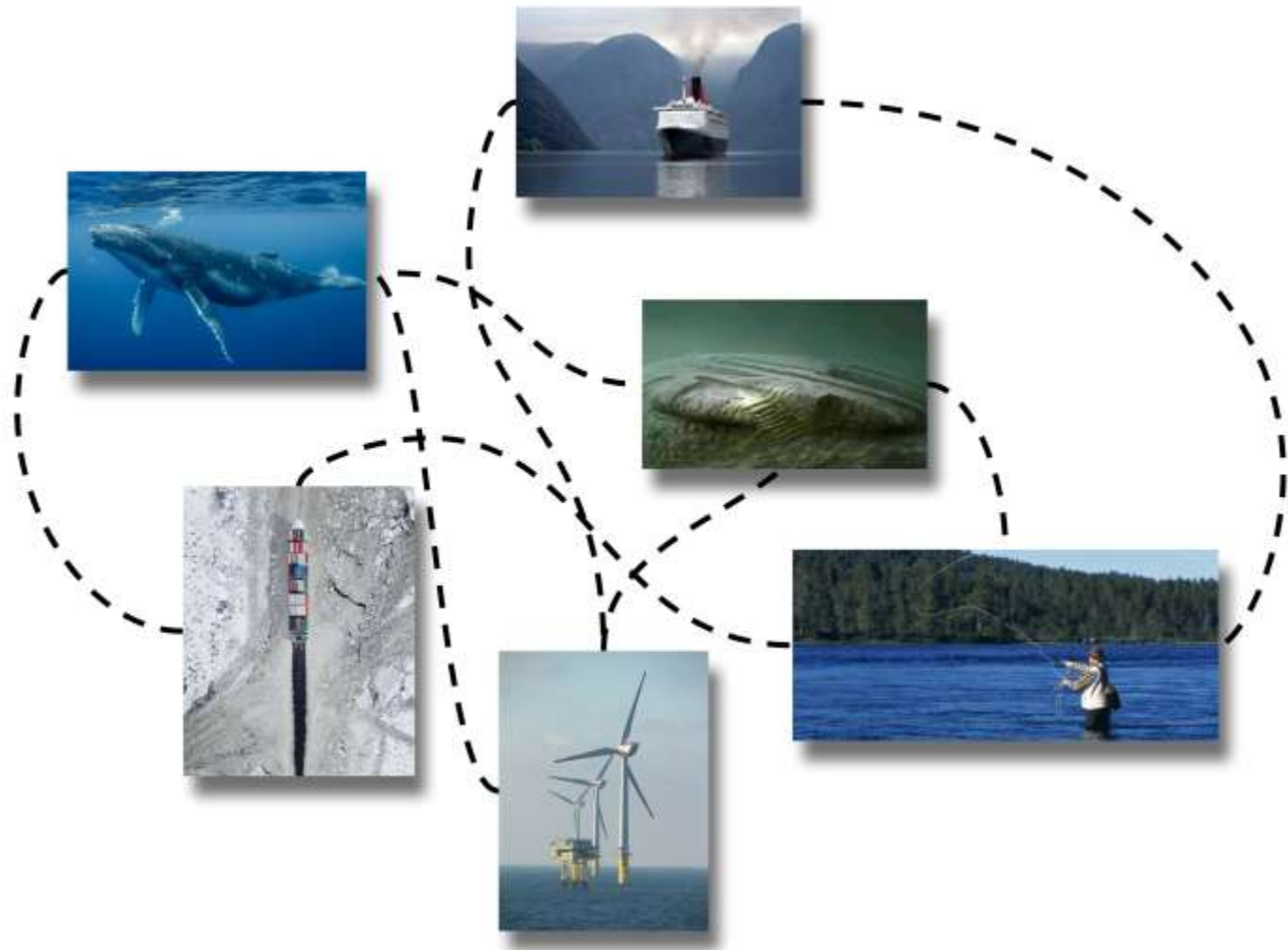


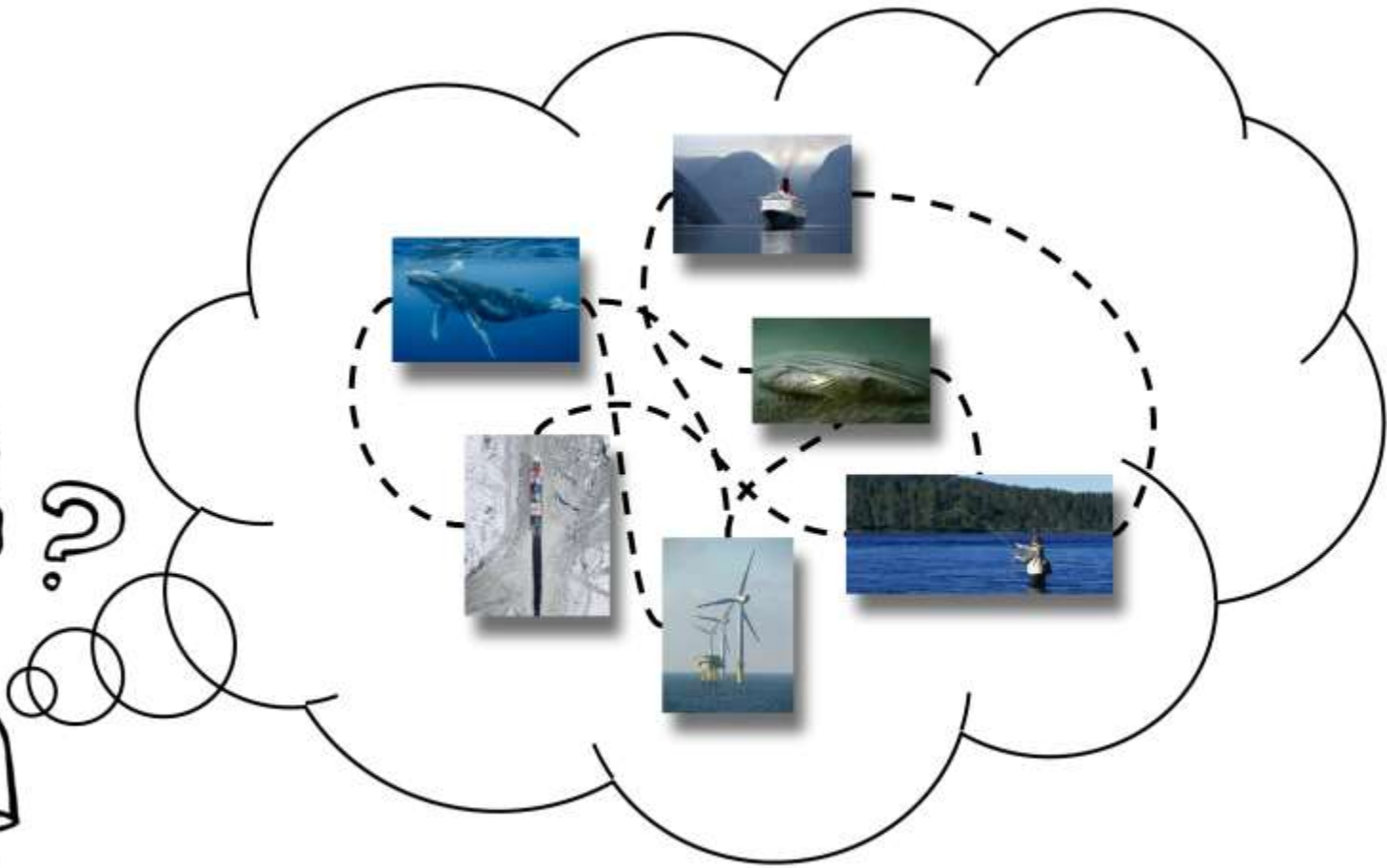
# A complex system with its own identity



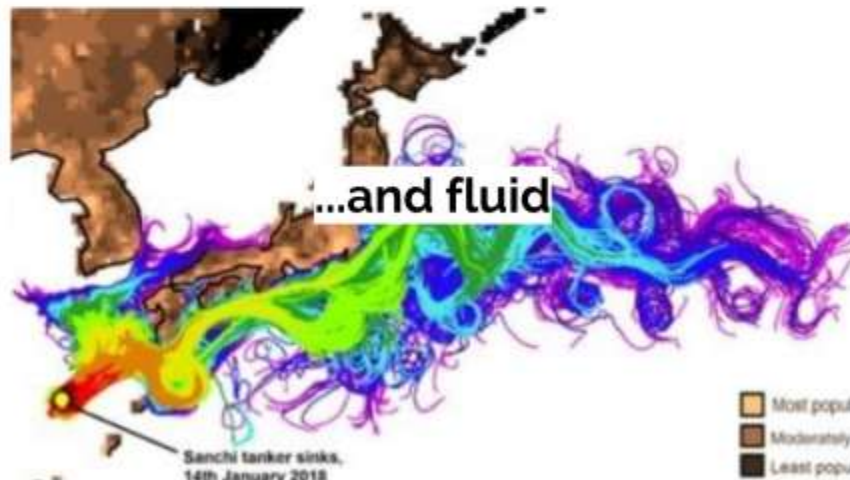
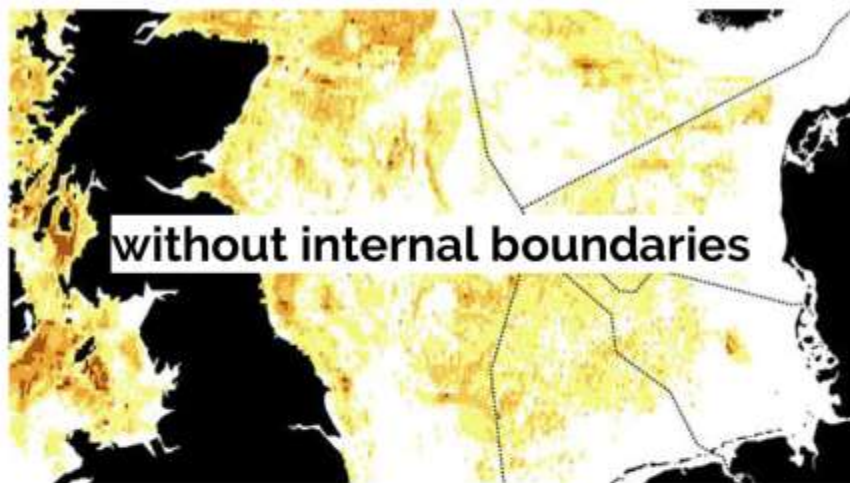
Berghaus, Heinrich. "Nord - und Ostsee", 1886

Source: <https://www.davidrumsey.com>









# A Diving Helmet from a Water Heater

Air for the  
diver is sup-  
plied f r o m  
twin bellows.

**T**HEY go down  
to the sea in old  
water heaters along  
the Atlantic coast  
these days, now that  
some young man  
with a leaning to-  
ward aquatic sports  
has proved how easy  
it is to make an  
excellent diving  
helmet from a metal  
water heater which  
will enable its  
wearer to walk  
comfortably on the  
sea floor 35 feet  
and more below  
the surface.

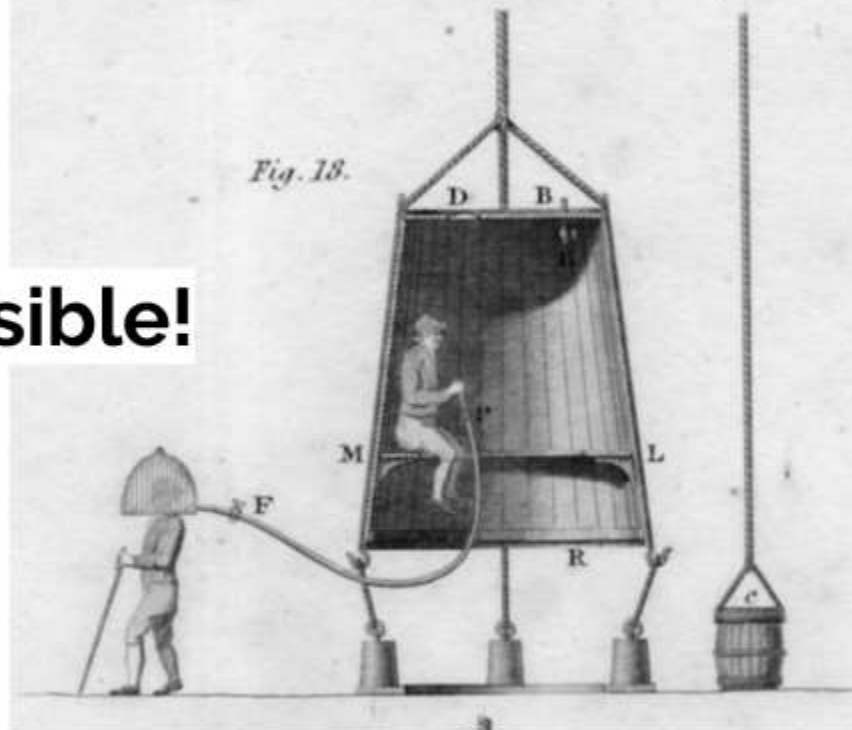


Completed water-heater diving helmet.

inaccessible!

*Dr. Halley's*

*Fig. 18.*



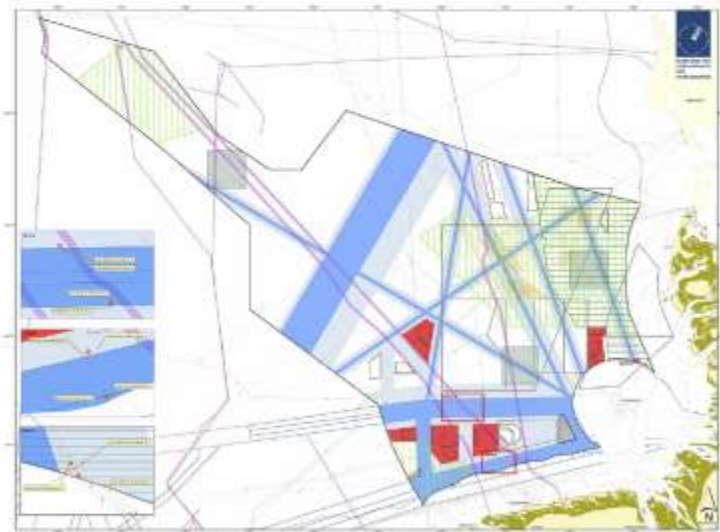
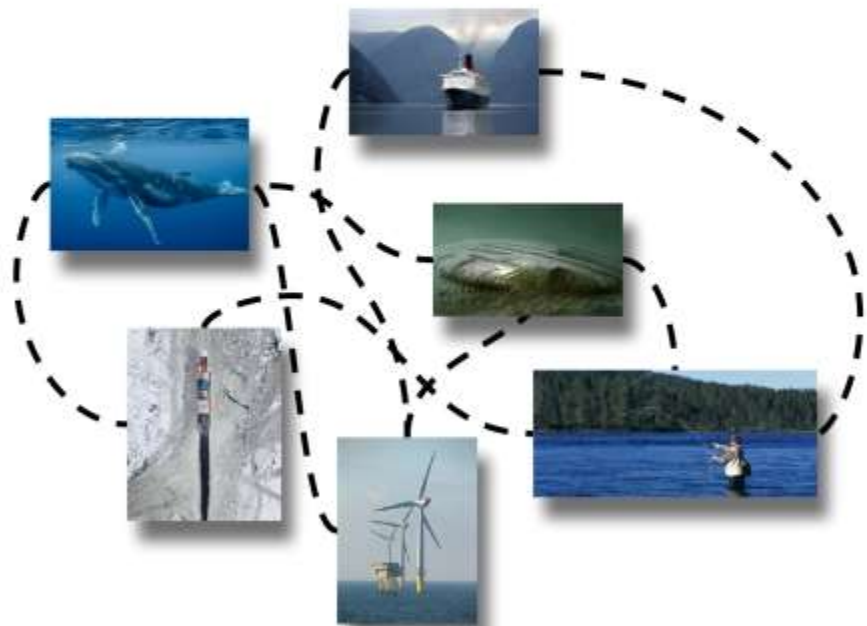
*Build A Diving Helmet from a Water Heater (Jan, 1932)*

Source: <http://blog.modernmechanix.com/build-a-diving-helmet-from-a-water-heater/>

*Air-Punk: Underwater Cyborg Diving Suit (1797)*

<https://longstreet.typepad.com/thesciencebookstore/2012/07/underwater-cyborg-diving-suit.html>

# We understand complex situations by making representations of reality



Source: BSH



# Representations are not neutral

The ocean is a neutral substrate in which landmasses "float"?



*Mercator Projection*

Landmasses encircle one interconnected, self-contained ocean?



*Spillhaus Projection, drawing by Clara Dealberto.*

Source: <https://www.planet4mat.com/2015/04/20/les-possibilites-du-centre-de-la-terre-1675558>



# Representations change how we think

The view from the land?



The view from the sea?



**Do the representations we make the process of creating MSP - our base of common understanding - do justice to the real complexity and uniqueness of the ocean?**

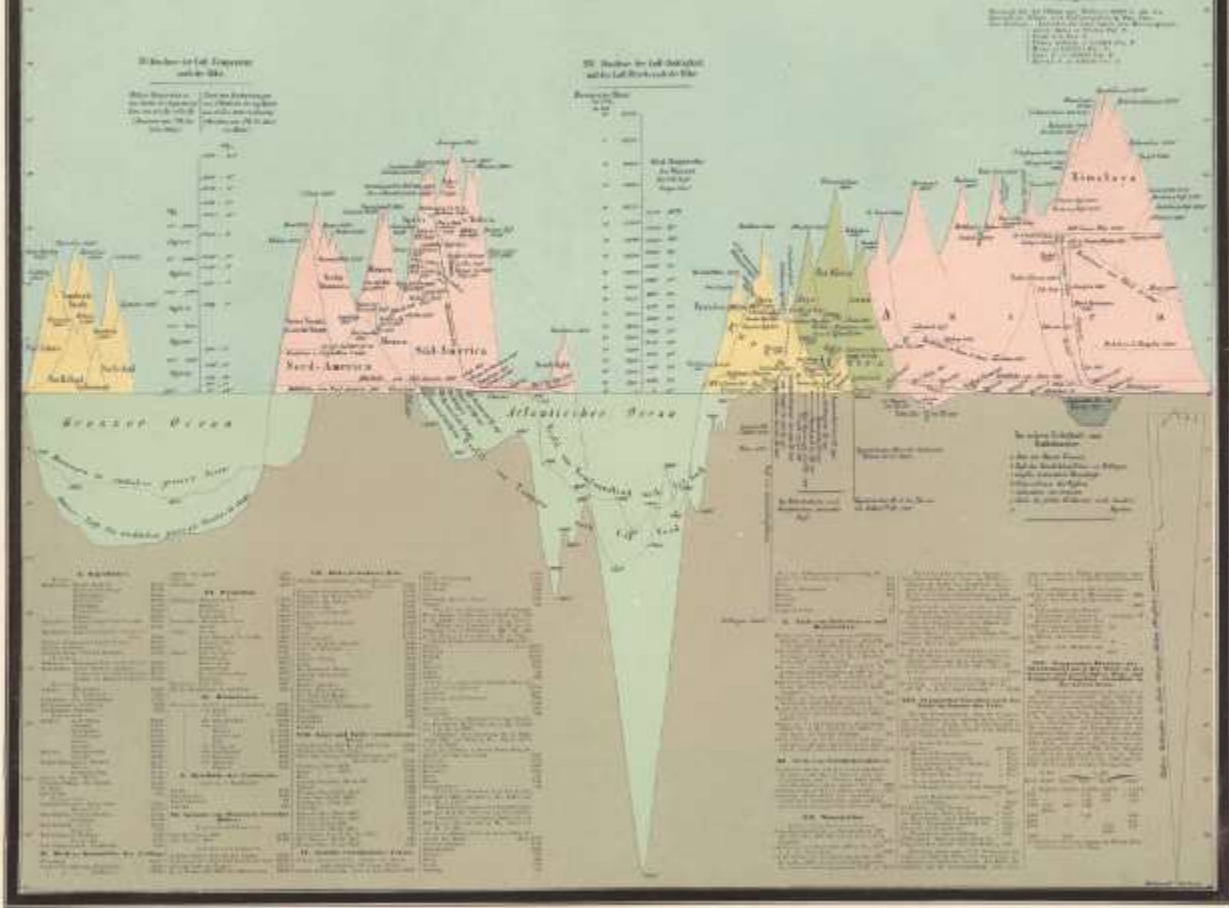
**...or are we using terrestrial defaults?**

### Höhen und Tiefen.

Verf. von L. Ewald 1860.

#### Baromet.

Verlag von Engelke & Triebner's Verlagsbuchh. Leipzig.



Left: The Mariana Trench.  
 Source:  
<http://www.oceanographerschoice.com/2010/02/two-views-of-the-ocean/>

Right: Ewald, Ludwig.  
 "No. 39. Höhen und Tiefen", 1860.





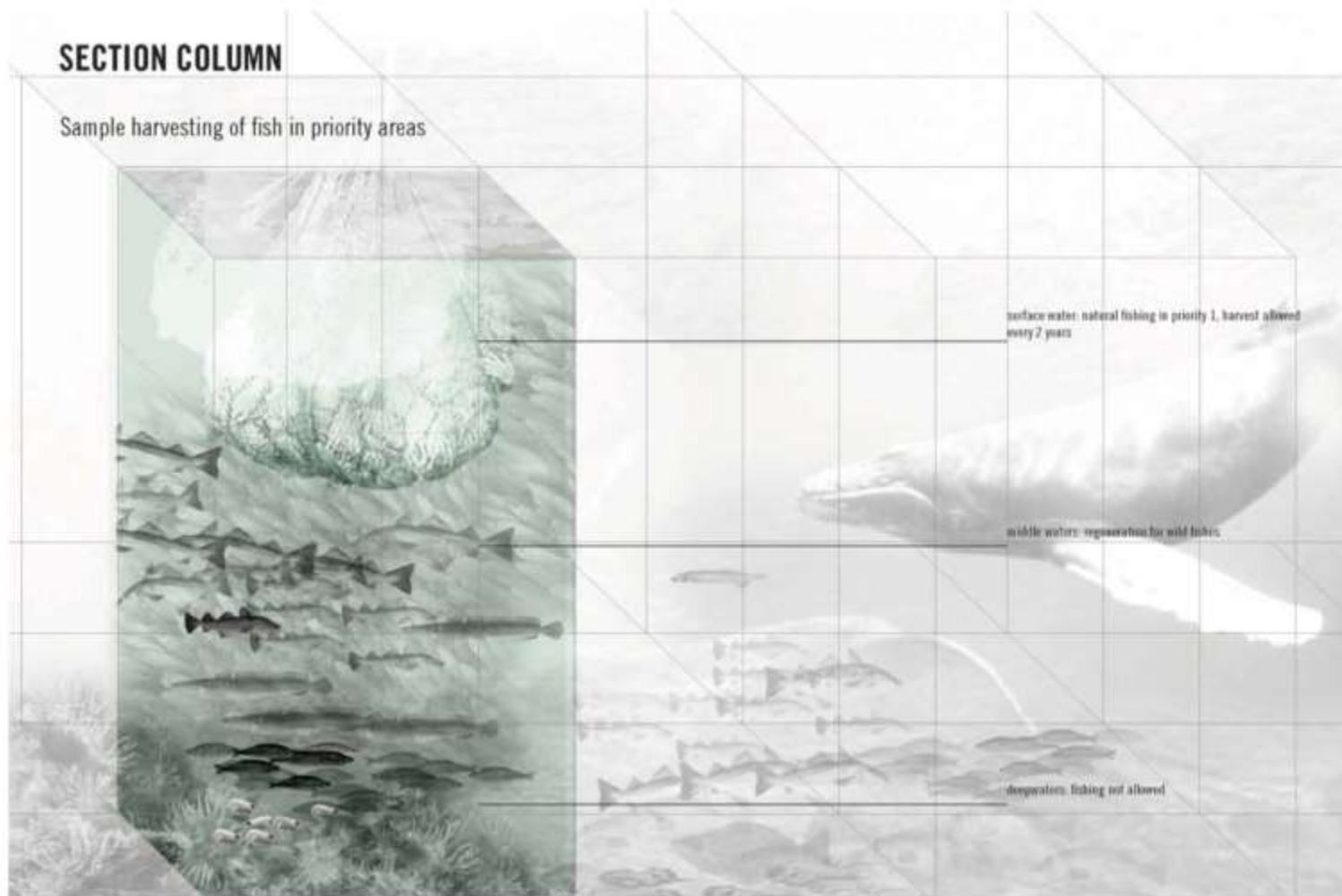
Left: National Geographic Magazine. "Atlantic Ocean Floor", 1968



Right: Atlas of Places. "Island Atlas: Corsica", 2016.  
<https://atlasofplaces.com>

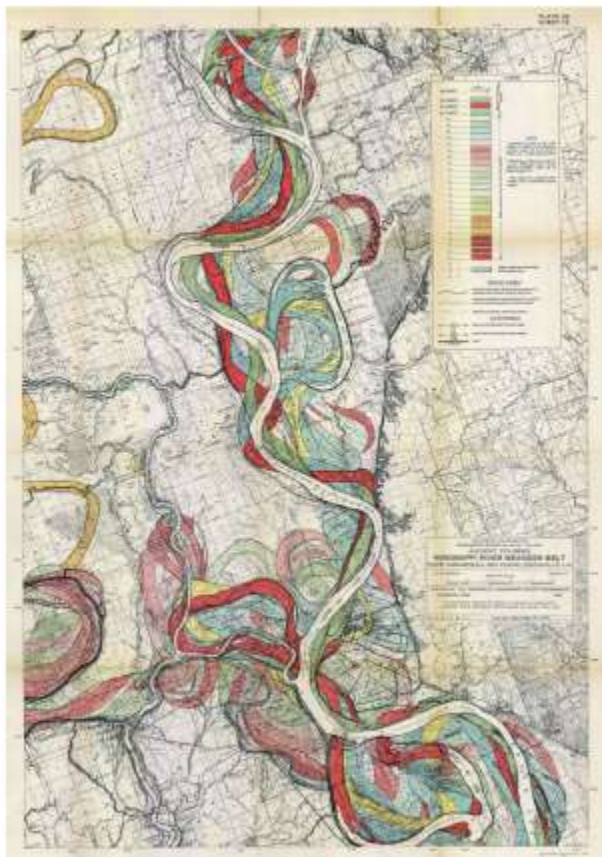
## SECTION COLUMN

Sample harvesting of fish in priority areas



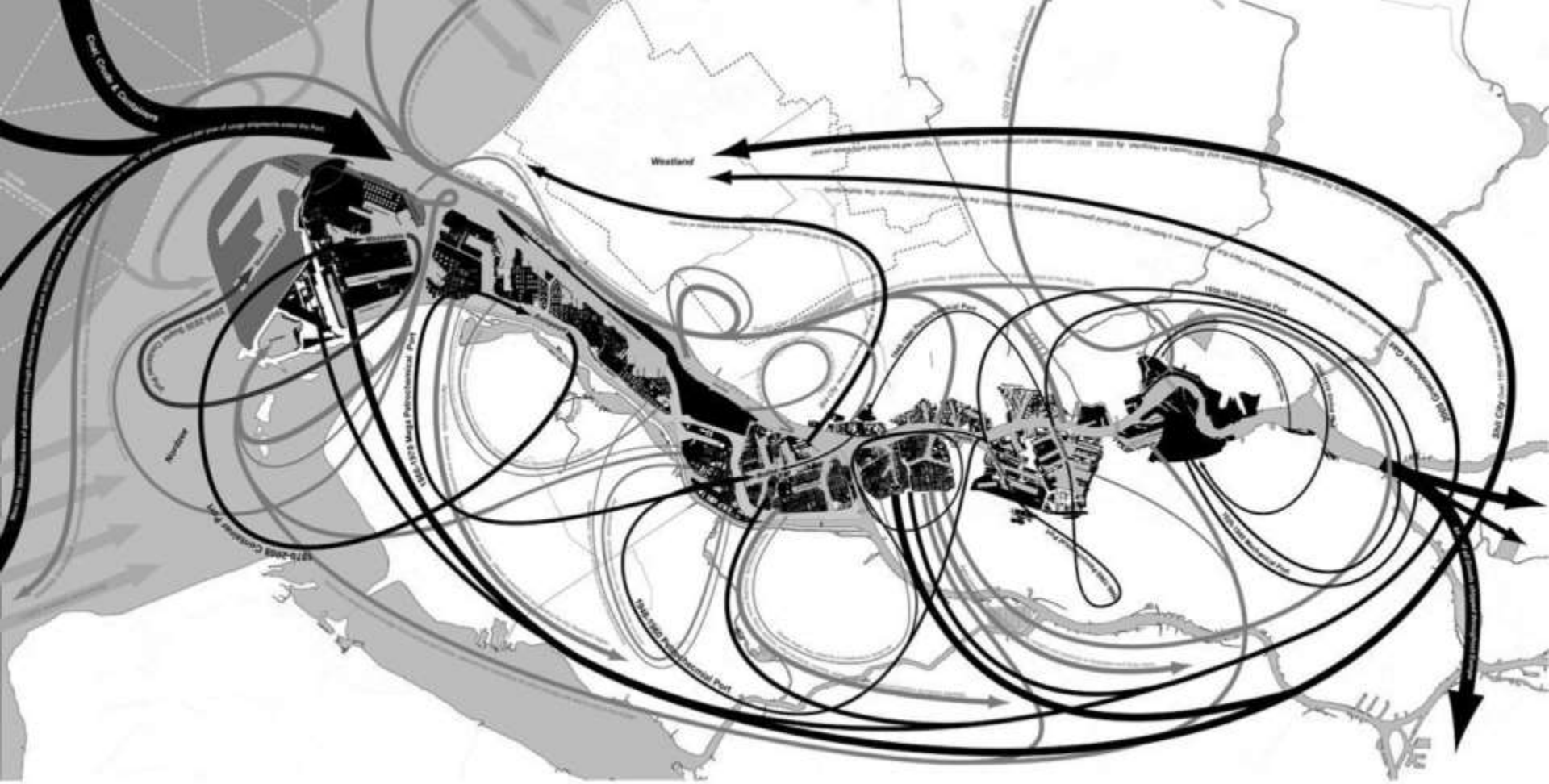
*Application of fishing regulations for a sample section. Giulia Altarelli, Nicoletta Caputo, Carmen Fischer, Carolie Iorio, Jeane Wéry (Iaba, EPFL).*



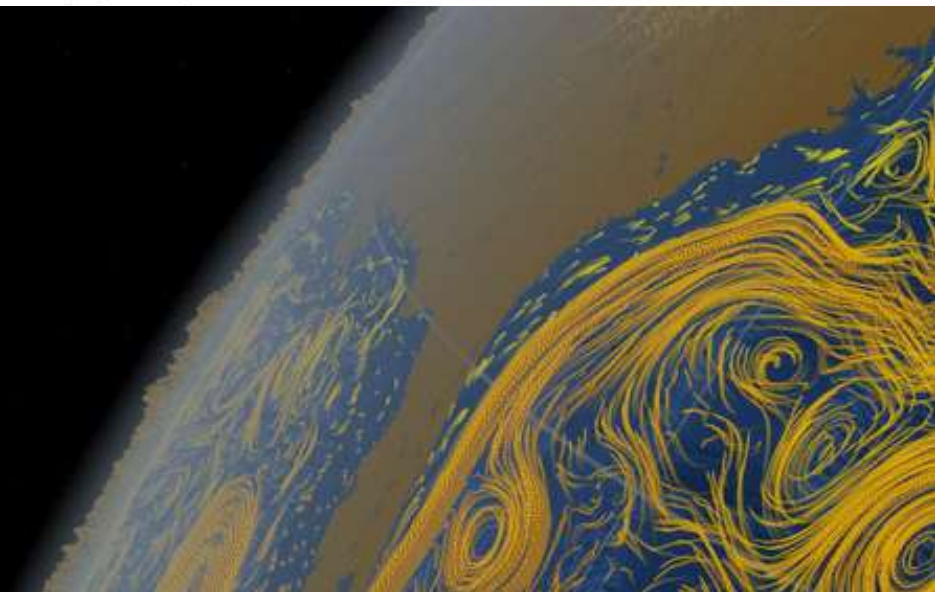


Harold Fisk, Army Corps of Engineers. "The Alluvial Valley of the Lower Mississippi River", 1944

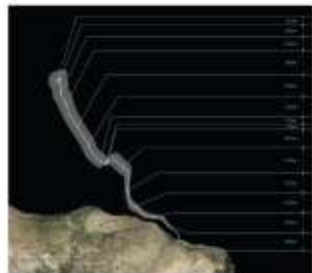
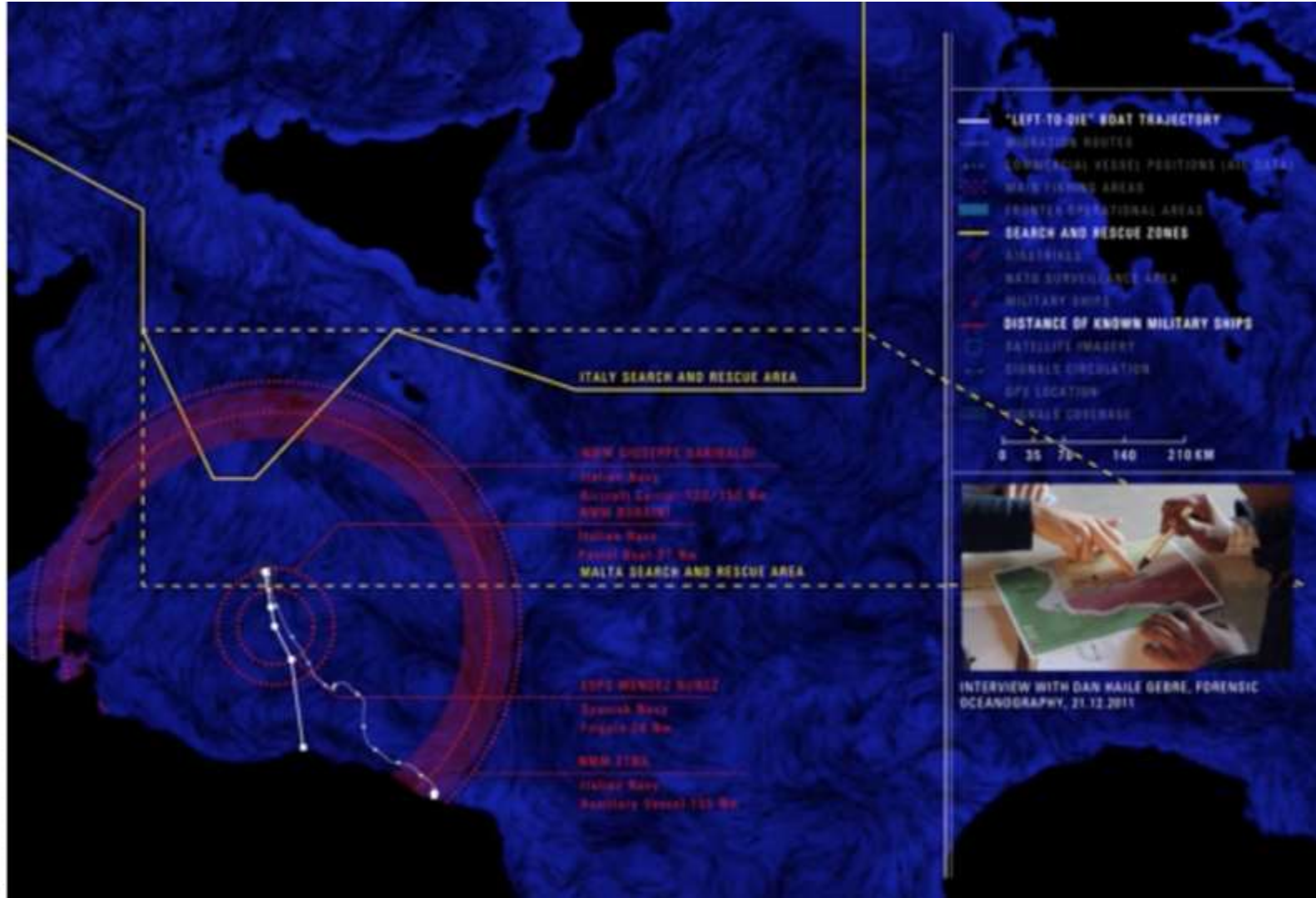




Opsys. "Rhine Waste Flows", 2009



Left-To-Die Boat drift model (video).  
 Source: Forensic Architecture

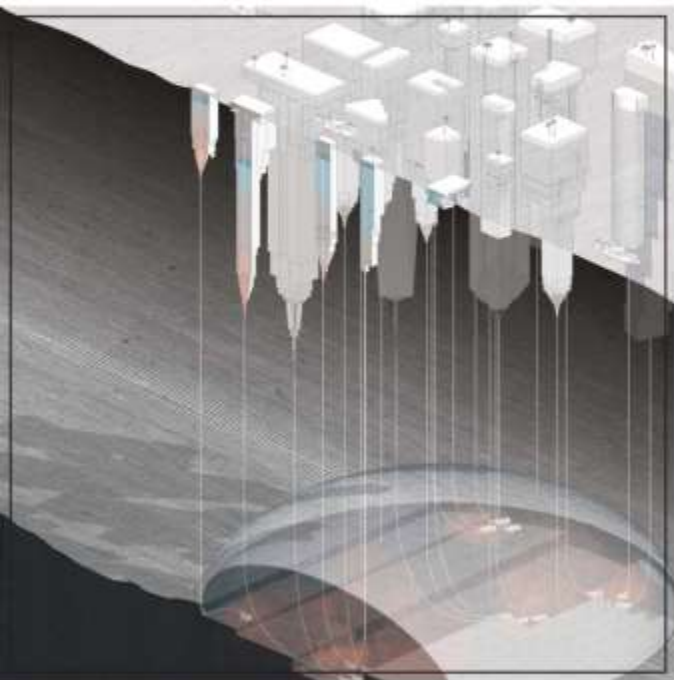






Newell Robert, Canessa Rosaline, and Sharma Tara.  
"Visualizing Our Options for Coastal Places: Exploring  
Realistic Immersive Geovisualizations as Tools for  
Inclusive Approaches to Coastal Planning and  
Management". *Frontiers in Marine Science* 4, 2017

# Representations allow us to imagine new futures



DESIGN EARTH



The Energy Report, AMO/OMA

# Representations allow us to imagine new futures



*Radical Ocean Futures, [www.radicaloceanfutures.earth](http://www.radicaloceanfutures.earth)*



*DESIGN EARTH*





**How are you forming part of a greater whole?**



**How are you forming part of a greater whole?**

**Do your representational tools reflect the ocean's real dynamism, interconnectivity, fluidity, depth?**





**How are you forming part of a greater whole?**

**Do your representational tools reflect the ocean's real dynamism, interconnectivity, fluidity, depth?**

**Do they form a coherent base of common understanding?**





**Marine Spatial Planning is a  
creative and aspirational act!**