

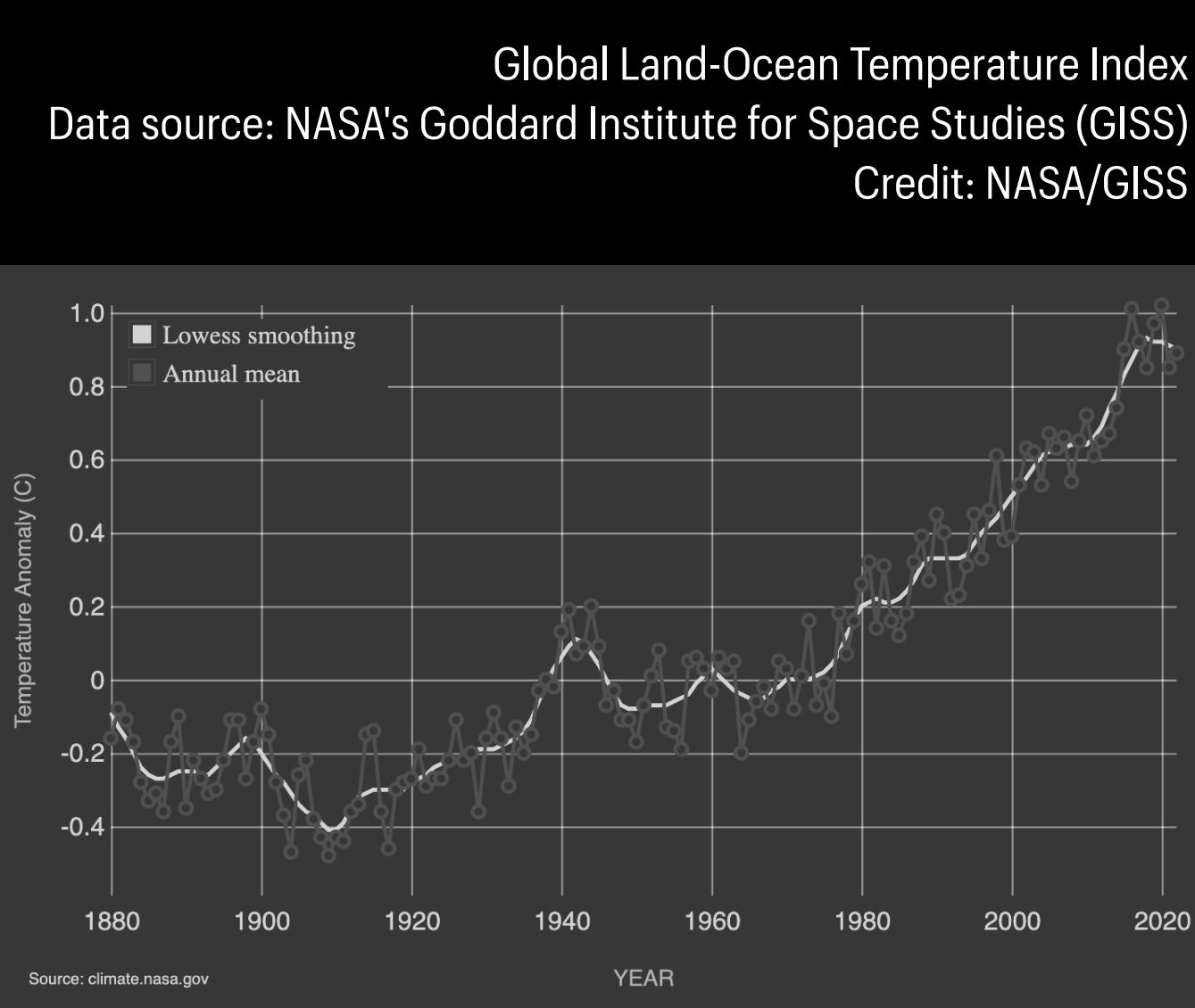
Raindrop Price Index - You Cannot Refill A Sea With Tears

on nature abstraction



climate change & global prosperity

Most countries are placing unprecedented pressure on water resources. Estimates show that with current practices, the world will face a 40% shortfall between forecast demand and available supply of water by 2030 (World Bank (2022)). Water scarcity and extreme weather events are perceived as some of the biggest threats to global prosperity and stability.



natural capital data for decision-making

Natural Capital and Ecosystem Services gained attention in the 70s to generate public interest in nature conservation. The United Nations standardized them in the System of Environmental Economic Accounting (SEEA) for sustainable growth. SEEA provides physical and monetary information on environmental stocks and flows. ARIES, an AI-powered open-source platform, complements SEEA for modeling and analyzing ecosystem services.



pricing the priceless

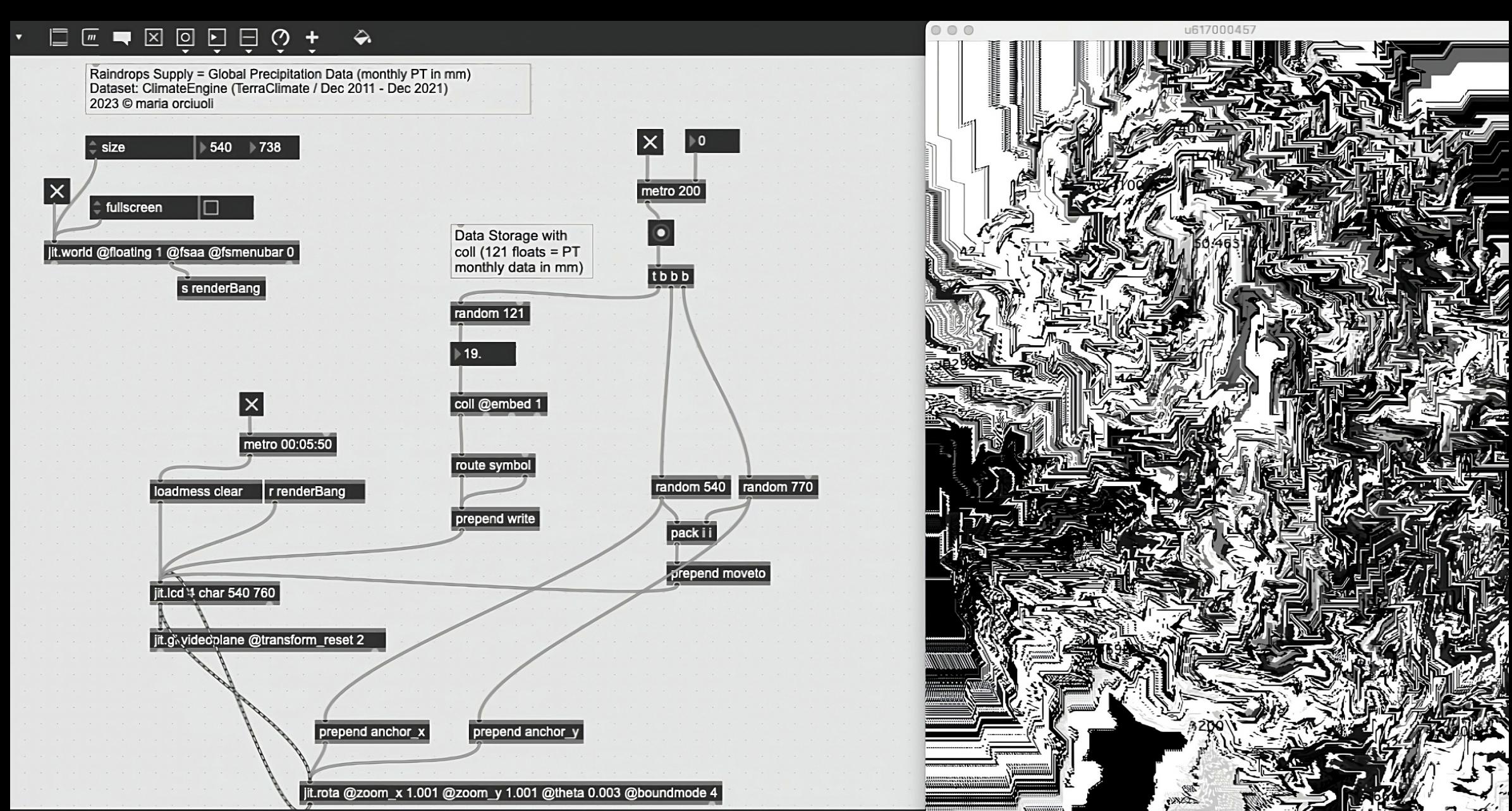
The use of big data and AI for ecosystem valuation raises concerns about bias, interpretability and trade-offs between measurability, scientific soundness and political relevance. Environmental decision making demands balanced perspectives and consultations. Sustainable development demands systemic changes beyond numbers. The subjective nature of the scientific method in economics shapes outcomes. Considering these complexities is crucial for ethical environmental decisions.

how would our perception of the ecosystem change if we shifted from human-centered concerns to view rain as a shared resource within Earth's ecosystems?

an index shaped by nature's forces of supply & demand

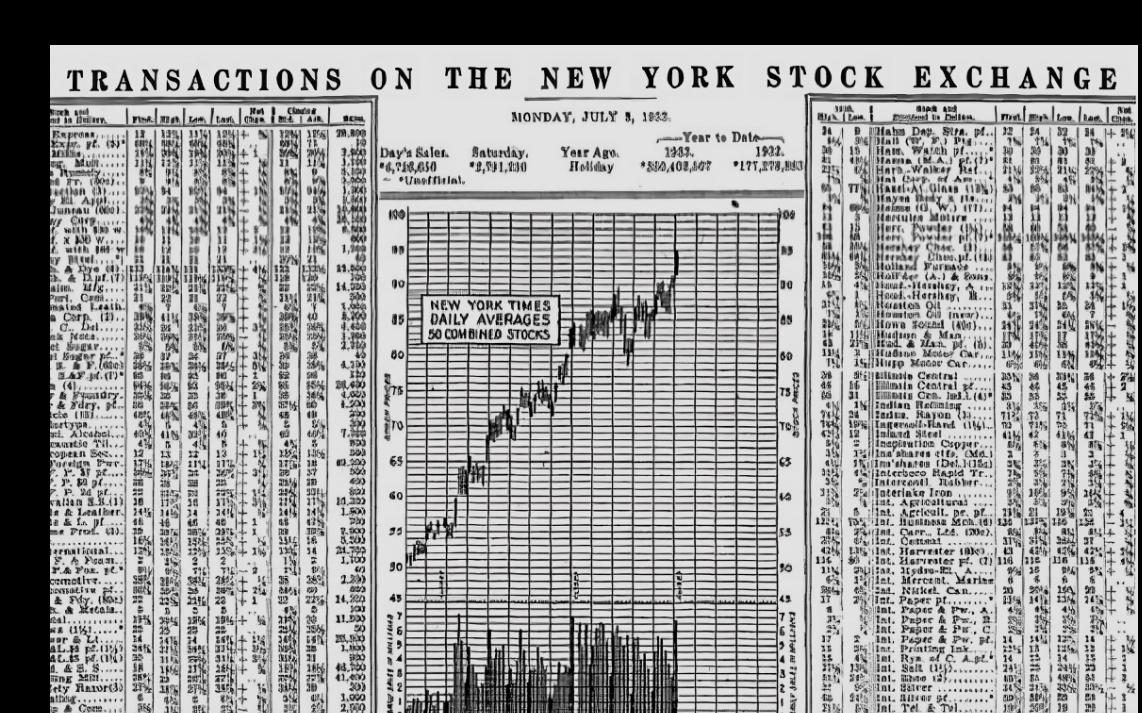
RAINDROP DEMAND = ET (EVAPOTRANSPIRATION DATA)

RAINDROP SUPPLY = PT (PRECIPITATION DATA)

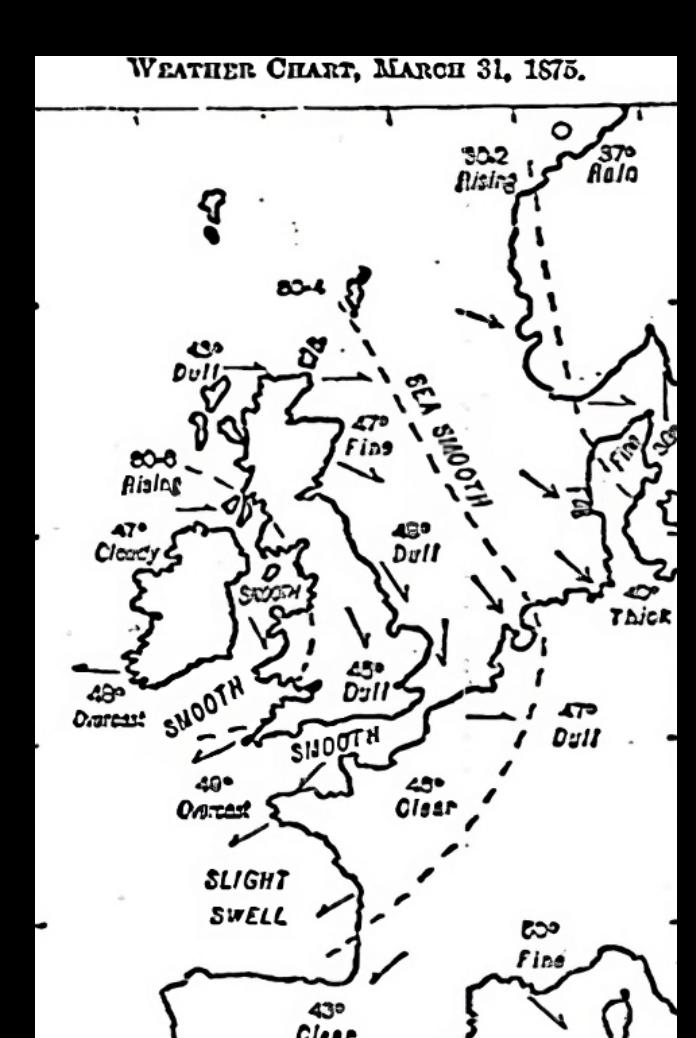


Algorithms & TerraClimate's 2011-2021 Precipitation dataset processed real-time in Max/MSP

Drawing from early meteorology and price charts, Raindrop Price Index presents terrestrial ecosystems' water balance cycles within today's frames of computational reading and control of the environment. Consisting of two generative animations using the ClimateEngine's 2011-2021 TerraClimate dataset, this piece uses natural capital accounting knowledge tools to question data-driven decision-making on ecosystem valuation. Monthly fluctuations in worldwide precipitation and rainfall demand, expressed through evapotranspiration measurements, are used to generate sound and visuals on each screen respectively. Visitors encounter two pixelated canvases where algorithmically-generated waves and contours shape-shift at the rhythm of the planet's hydrological processes. The title pays homage to the tragedy of the Aral Sea's human-driven disappearance and prompts us to reflect on the interplay between nature, society, and economic systems.



The New York Times Magazine, 1932



Julius von Hann, 1883
"Handbuch der Klimatologie"



Acknowledgement: Raindrop Price Index uses the ClimateEngine's 2011-2021 TerraClimate dataset, processed by Google Earth and obtained from NOAA and NASA by the University of Idaho's researchers. Mayers, J. (2020). This Central Asian lake is a stark reminder of the impact we have on the planet. World Economic Forum. <https://www.weforum.org/agenda/2020/02/aral-sea-lake-water-nature-human-impact/>

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