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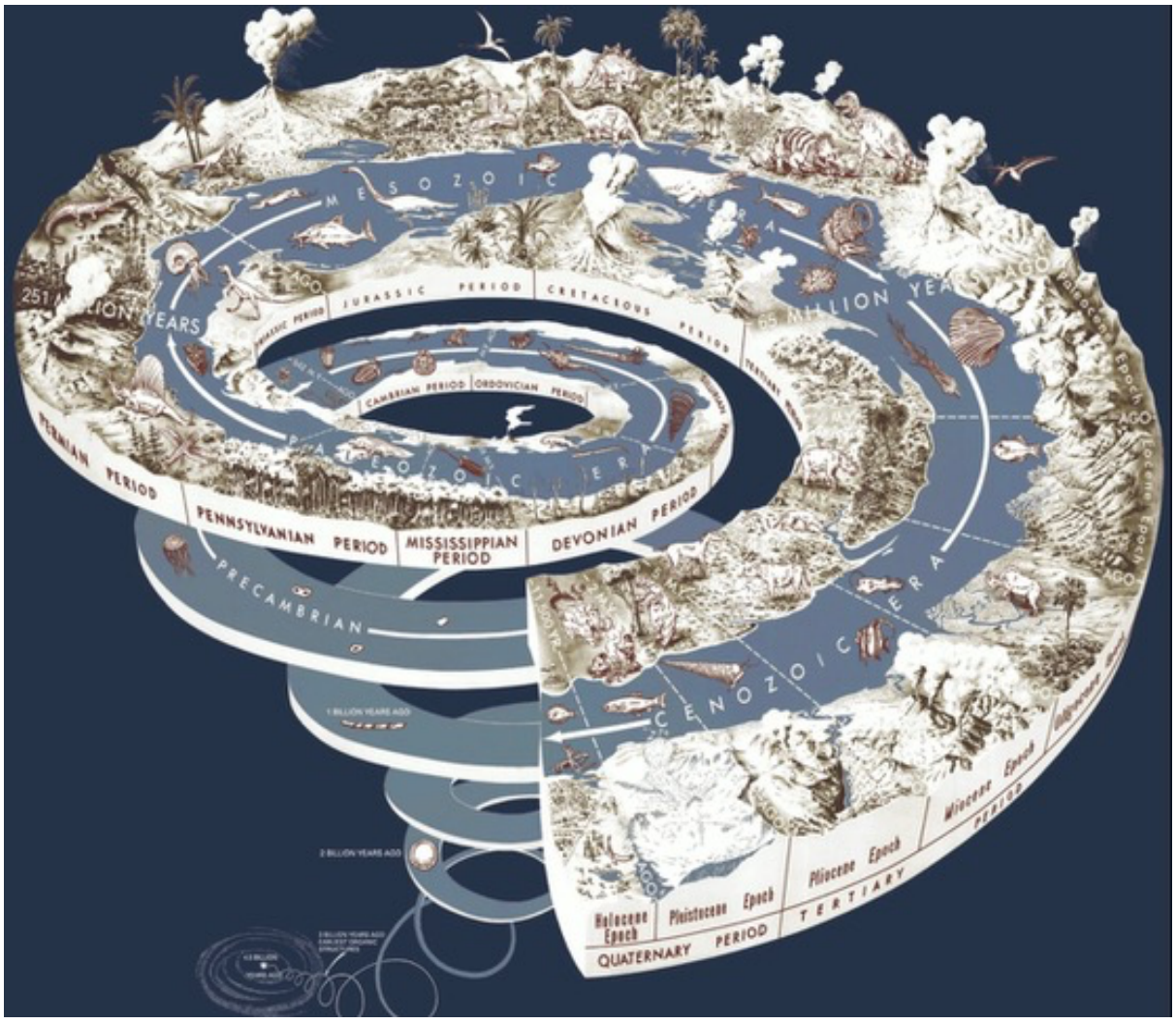
'Repurposing the Siren: Insights from Deep Time' Carina Fearnley



Spiral diagram of the geological time scale. Credit: US Geological Survey, Department of the Interior/USGS.

In 1788 Scottish geologist James Hutton proposed that the Earth was a "beautiful machine" constantly subjected to long-term decay and regeneration that could only be understood over many millions of years. Hutton was describing what would later be known as "deep time," a concept that challenged the place of both God and humankind in the 18th to 19th centuries. John McPhee coined the term in his 1981 book

Basin and Range, highlighting the apparent insignificance of the span of human existence in the face of geological processes.

Deep time, recognised even by professional Earth Scientists as one of the most difficult concepts to grasp, is geological time or cosmic time, in other words: billions of years. As Irvine states, “deep time is not an abstract concept, but part of the phenomenal world impacting on people at the level of experience.” [1] Yet deep time, for all its vastness, becomes intimate when we trace it in things that are familiar to us. Farrier explains that deep time is “not an abstract, distant prospect, but a spectral presence in the everyday.” [2] It is in the fossil laden floors we walk on, in the whisky we drink, and the nuclear technology that fuels nations. Produced over millennia, often repurposed within minutes.

Deep time is also a warning. Charles Lyell’s seminal text Principles focused around the concept that the present is the key to the past, in essence it is a warning from the deep past of natural hazards and environmental hazards, the timescales of space and supernovae, nuclear fusion, and our existence on planet earth, our home, our pale blue dot. To quote Aura Satz’s film Preemptive Listening: “when does the symptom become the alarm?”

An employee walks at the control centre of the stopped third reactor at the Chernobyl nuclear power plant in Chernobyl, Ukraine April 20, 2018. REUTERS/Gleb Garanich

Deep time affords the opportunity to explore the possibility of the past. Reconstructing events such as oceans closing, enormous chains of

volcanoes, bolides crashing into earth, and the extinction events, not just of dinosaurs. With clues and pockets of data left in the geological landscape, the geological detective can establish trends and behaviours. When does climate change become a problem? What is the rate of change? What is the change? As the symptoms of Earth's processes progress, warnings emerge that call for us to pay attention. Melting ice caps, flooded countries, pandemics all scream, much in the mode of Edvard Munch, that change is happening too fast, too much, with terrifying consequences. Do we hear the warning? Do we act? Precautionary information provides a choice to make better informed decisions based on the warnings. But we are not listening. Or if we are listening, we are not acting.

Often a warning is regarded as a siren, alarm, or 'technology' that issues the 'warning,' but the warning process is far more complex. The United Nations define a warning system as "an integrated system of hazard monitoring, forecasting and prediction, disaster risk assessment, communication and preparedness activities systems and processes that enable individuals, communities, governments, businesses and others to take timely action to reduce disaster risks in advance of hazardous events." [3] It is a complex system that binds nature, society, culture, environment, politics and climate change together, in all its complexity as ever emergent, adaptive systems.

As Aura states in Preemptive Listening, "the siren is an interruption… a jolt, a wakeup call that points to the possibility of escape, a threat that has erupted into the present." The siren is a trigger to this process, a call to action, an alarm (from the italian "alle arme") that in itself repurposes its role, not just for danger, but also as one for opportunity to make and build a better world. However, the siren alone is unable to generate a response, or indeed the 'right' response. Often the siren is ignored. Whose alarm is it? Whose emergency is it? Who will be affected?

History has demonstrated that the most vulnerable are the ones most affected. History has also shown that everyone is vulnerable without warnings, as seen in the 2004 Boxing Day tsunami in Indonesia that killed over 250,000 people across 11 countries, affecting those rich and poor, famous and local, near and far. With no alert, it is hard to establish a danger if people do not understand the warning signs of nature.

However, numerous tragedies have shown that thousands of people have died needlessly, not because of the failure of a warning, but the failure to believe in it, trust it, and act on it. Political agendas frequently clash with the safety of those they should be protecting, and with an ever-increasing number of warnings from different hazards, be they geological, hydrological, meteorological, climatic, industrial, related to space, health, terrorist and civil unrest and conflict, and everyday risks. With so many sirens it is hard to hear the warnings, to know which requires the most attention, and to know what to do in a growing complex situation where information is often conflicting, and biased, not to mention whether it is misinformation.

Yet, cultures globally have evolved with their own warning systems, embedded in sounds, songs, stories, signs, and signals. With these systems warnings are embedded in the fabric of society, rather than producing an interruption. It is here, perhaps, that opportunities arise to explore the role and sound of the siren. As Asantewaa Boykin and Niki Jones from MHFirst ask in the film: can the siren be seen as an opportunity, rather than a crisis?

The Sound of Hoy, Orkney. Photo: Carina Fearnley

Contributor/s

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Notes

1. Irvine, R. (2014), 'Deep time: an anthropological problem' in Social Anthropology/Anthropologie Sociale, 22: 157-172. https://doi.org/10.1111/1469-8676.12067 ↩
2. Farrier, D. (2016). "How the concept of deep time is changing" in The Atlantic 31. https://www.theatlantic.com/science/archive/2016/10/aeon-deep-time/505922/ (accessed 20 April 2024) ↩
3. https://www.undrr.org/terminology/early-warning-system ↩