

Digitised Landscapes

Heartbeat of the Earth

GOOGLE ARTS & CULTURE LAB, IN COLLABORATION WITH THE UNITED NATIONS,
COMMISSIONS ONLINE ARTWORKS THAT RESPOND TO AND INTERPRET CLIMATE DATA.

“Human activities are estimated to have caused approximately 1.0°C of warming above pre-industrial levels, with a range of 0.8°C to 1.2°C. Global warming is likely to reach 1.5°C between 2030 and 2052 if it continues to increase at the current rate.” The Intergovernmental Panel on Climate Change (IPCC) released this vital information in a report released in 2018. Detailing predicted changes such as increases in floods, droughts, ocean acidification, food shortages and extinctions, it makes for sobering reading.

No one will escape the consequences of the climate crisis, and the report makes that abundantly clear, though the countries with the smallest economies – who have contributed least to the problem – will undeservedly bear the brunt of extreme weather conditions. More daunting still is the notion that the effects will be worse if the Earth heats up even more. If the increase in temperature reaches 2°C, all species are set up for a terrifying future. Just over a year ago, the UN published another report finding that around one million animal and plant species are now threatened by extinction. The average abundance of native species in most major land-based habitats has fallen by at least 20%, mostly since 1900.

The IPCC document, though illuminating, is not by any means an easy read – couched in careful terms and aimed at policymakers. Despite the fact that climate change will affect everyone, and is also everyone’s responsibility, the report is not aimed at the individual. That’s where initiatives such as Google Arts & Culture Lab’s *Heartbeat of the Earth* series comes into play. Freely available online, the initiative features four artworks primarily focused on user-interaction.

Kicking off the *Heartbeat of the Earth* programme is Fabian Oefner’s (b. 1984) immersive work, *Timelines*. The Swiss artist has mapped out the ever-shrinking dimensions of two glaciers, taking data from the last 140 years. Then there’s *Coastline Paradox* by Finnish duo Timo Aho (b. 1980) and Pekka Niittyvirta (b.1974), which uses Google Street View to demonstrate projected sea levels over the next 280 years. Meanwhile, *Diving into an Acidifying Ocean* by Cristina Tarquini (b. 1990) allows users to scroll through underwater visualisations from a richly diverse past to an empty future. Finally, there’s *What We Eat* by Laurie Frick (b. 1955), which highlights the impact of the consumer, mapping CO2 footprints for diets in the USA, UK and France.

Google has been showcasing projects in its *Experiments Lab* since 2009 and has hosted more than 1550 to date. Divided into categories such as *Arts and Culture*, *AR*, *AI* and *Digital Well Being*, these projects push the boundaries of art, technology, design and culture in order to “inspire, teach and delight.” So far, a number of large and established institutions have been involved, such as MIT Media Lab and Serpentine Galleries as well as individual artists, designers and coders. It’s an impressive initiative that came into its own during lockdown as museums and galleries around the world closed. However, it’s an interesting approach to take at any time – moving art and culture out of the traditional gallery walls and placing it directly into people’s hands and homes (provided they have internet access).

This is the crux of the *Heartbeat* project because, as Cristina Tarquini – one of the five key artists – points out, it’s an