



A Climate Mural for Our Times

The impact of Anthropogenic climate change is pervasive across all major ecological and human systems. Without urgent action to mitigate the emissions that drive warming, society will overshoot the 1.5°C global temperature mark and ultimately cause much of the global cryosphere, such as mountain glaciers, to melt. The resulting sea level rise would impose significant socio-ecological burdens, from flooding to habitat loss. In *A Climate Mural of Our Times*, artist Gennadiy Ivanov, working together with climate scientists from the Universities of East Anglia and Saskatchewan, illustrates the interactions between climate, sea level, and society in the context of the Norfolk coastline and city of Norwich. Warming stripes in the sky illustrate two possible climate futures, one leading to a sustainable green future and the other where we continue to strongly emit CO₂ resulting in damaging climate change. This artwork inspires viewers to think deeply and seriously about which future we should choose and calls for cross-community collaborations—among policymakers, scientists, and every one of us—to work together to navigate toward a habitable future.

The artist

Gennadiy Ivanov is a UK-based artist originally from Russia who graduated with an MA from Norwich University of the Arts. He is an environmental artist with an immersive and synthetic thinking technique that allows him to be responsive *in situ* and to work simultaneously in several directions and styles. His paintings place intellectual demands on a spectator calling on them to make an emotional effort: to feel.

The science

The artwork, *A Climate Mural for Our Times*, was commissioned by the Norwich City Council and overseen by the then-leader of the council, Alan Waters. To illustrate a visual history of climate change during the Cenozoic era and how it has impacted humans and their environment, especially in Norwich and Norfolk, the artist Gennadiy Ivanov worked together with climate and cryospheric scientists Trevor Davies, Tim Osborn, and Michael Taylor (all at the Climatic Research Unit, University of East Anglia) and John Pomeroy (University of Saskatchewan and Global Water Futures). The six panels of the mural stretch from the asteroid collision, which caused the extinction of most of the non-avian dinosaurs 66 million years ago, through the palaeoclimate record and the instrumental record to the present day, and then through to the year 2200 using climate model projections of possible future temperatures.

The mural portrays astonishing scientific achievements in understanding the Earth and what controls its climate, from the reconstruction of ancient climates through to tracking global temperature since thermometers were widely deployed. The mural's richness is in its depiction of the interplay between climate and society.

The mural's sixth panel—"Present–2200 CE"—captures the link between our projected emissions of greenhouse gases, the rise in global temperature, and some of the potential consequences. It shows two different climate futures; which one we follow depends upon how we act, i.e., what types of energy (e.g., renewables vs. fossil fuels) we use to support society and its economy, what types of technologies (e.g., green vs. carbon-intensive) we use to produce goods and services, and how we alleviate poverty while providing a sustainable environment that is safe for all. These future scenarios are illustrated in the sixth panel of the mural from two lenses: a high-emission future where we continue to inject greenhouse gases into the atmosphere to 2100 and beyond and a more benign future with emissions reduced to net zero and a higher chance of meeting the goals of the Paris Agreement and stabilizing climate change soon after 2050.

Above image: "Present–2200 CE" (the sixth panel of the *A Climate Mural for Our Times* mural artwork), Gennadiy Ivanov, 2022, oil on canvas, size of the whole mural 10m × 1.5m, courtesy of the artist.



ACKNOWLEDGMENTS

Artwork selection and curatorial statement provided by Gennadiy Ivanov and the University of East Anglia. The artwork is a collaboration between Norwich City Council, Climatic Research Unit (CRU) at the University of East Anglia, the Transitions Art-Science Project on Climate Change, and Global Water Futures. Acknowledgements to Gennadiy V. Ivanov MAFA, artist, Norwich, UK; Professor John W. Pomeroy, Director Global Water Futures, University of Saskatchewan; Professor Trevor D. Davies, Former Director Climatic Research Unit, University of East Anglia; Professor Timothy J. Osborn, Director Climatic Research Unit, University of East Anglia; Dr. Michael Taylor, Climatic Research Unit, University of East Anglia; and Councillor Alan Waters, former leader of Norwich City Council, UK. To learn more about this artist and his work, please visit <http://www.climate.transitions.co.uk>. To learn more about the mural, please visit <https://crudata.uea.ac.uk/cru/climate-mural/>.

DECLARATION OF INTERESTS

The author declares no competing interests.