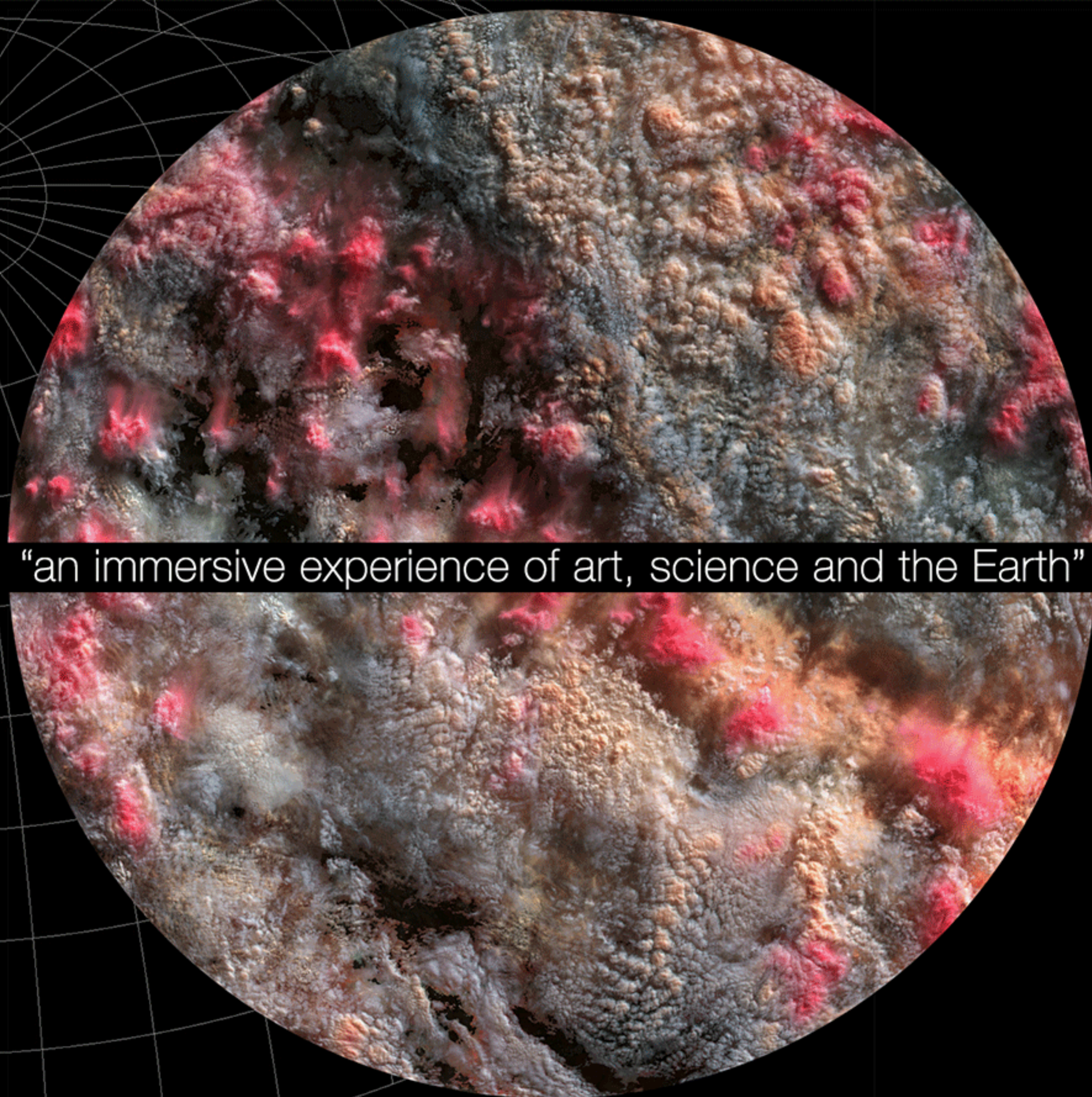


Path 99

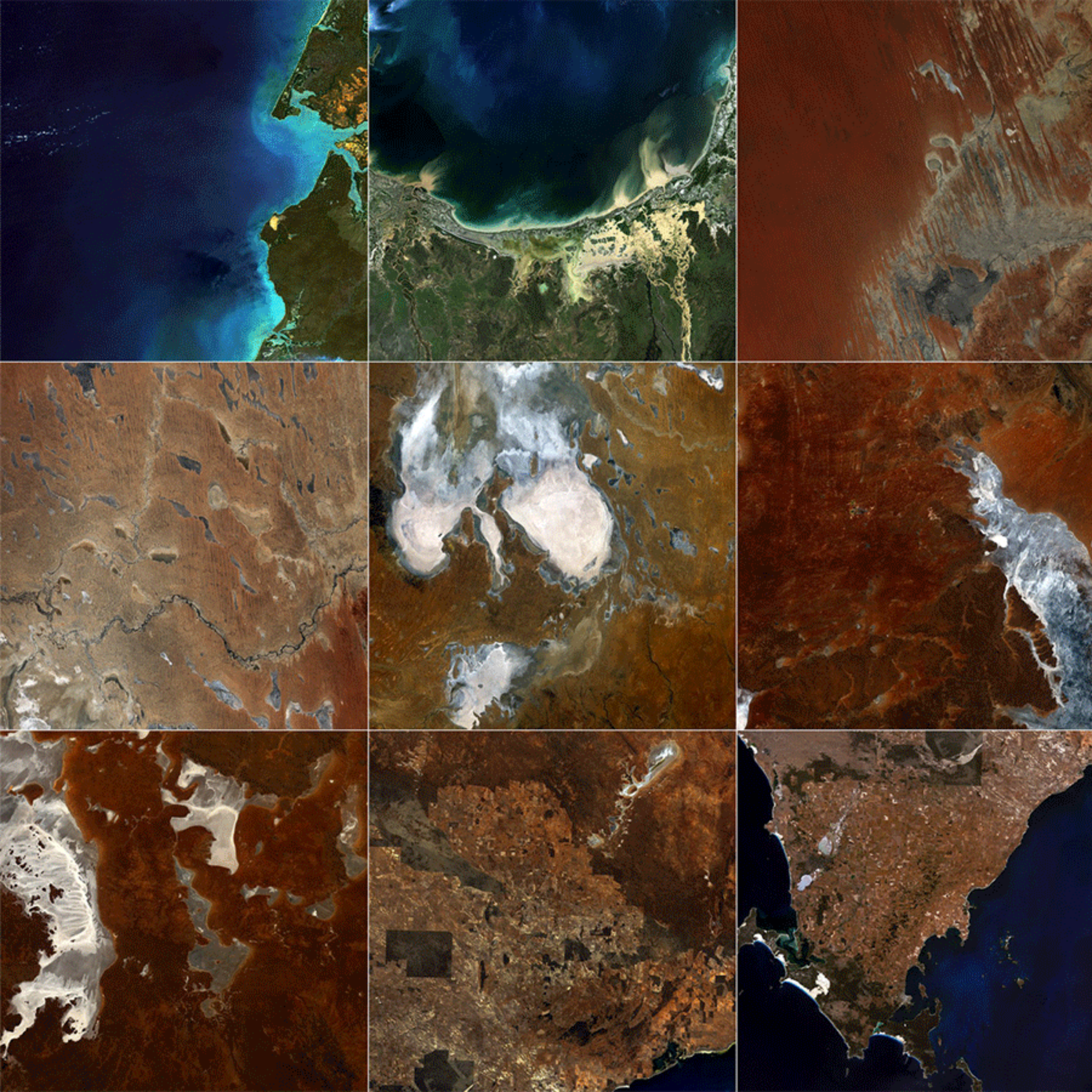
an art/science film
for fulldome planetarium projection

by Grayson Cooke
and Dugal McKinnon

www.graysoncooke.com/path99



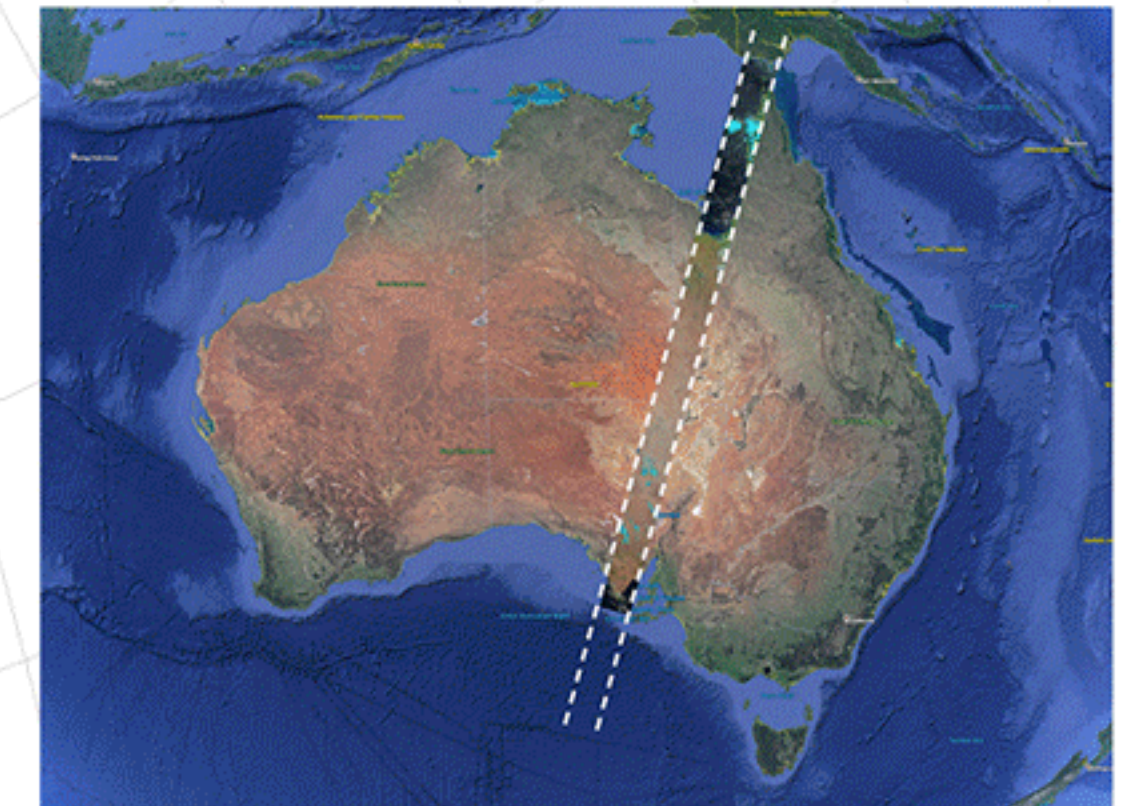
“an immersive experience of art, science and the Earth”

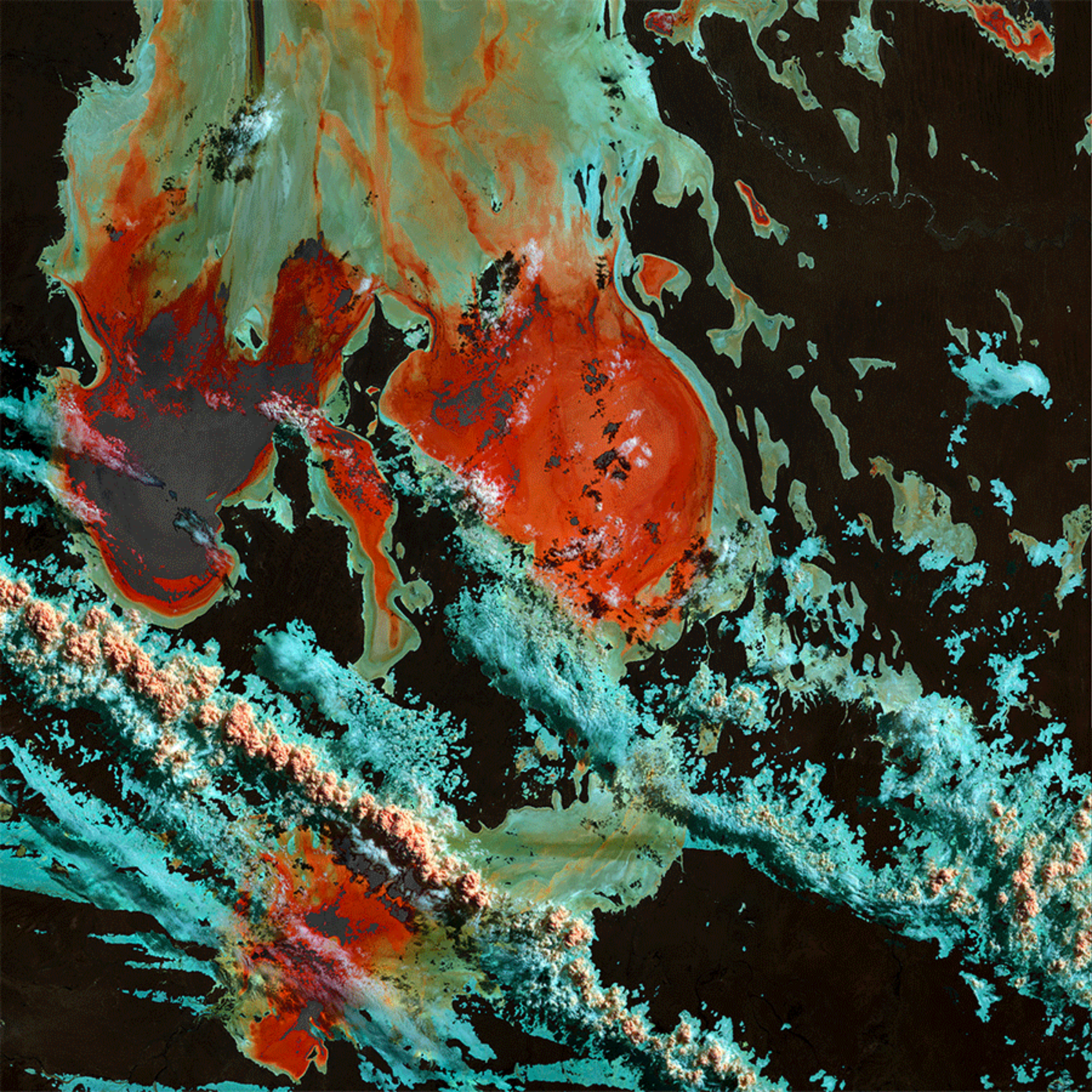


"Path 99" is an art/science project designed for full-dome planetarium projection.

Produced by media artist Grayson Cooke and composer Dugal McKinnon, this project uses satellite images of clouds to explore the weather and landscape of Path 99, an orbit of the Landsat 8 satellite that passes directly down the centre of Australia.

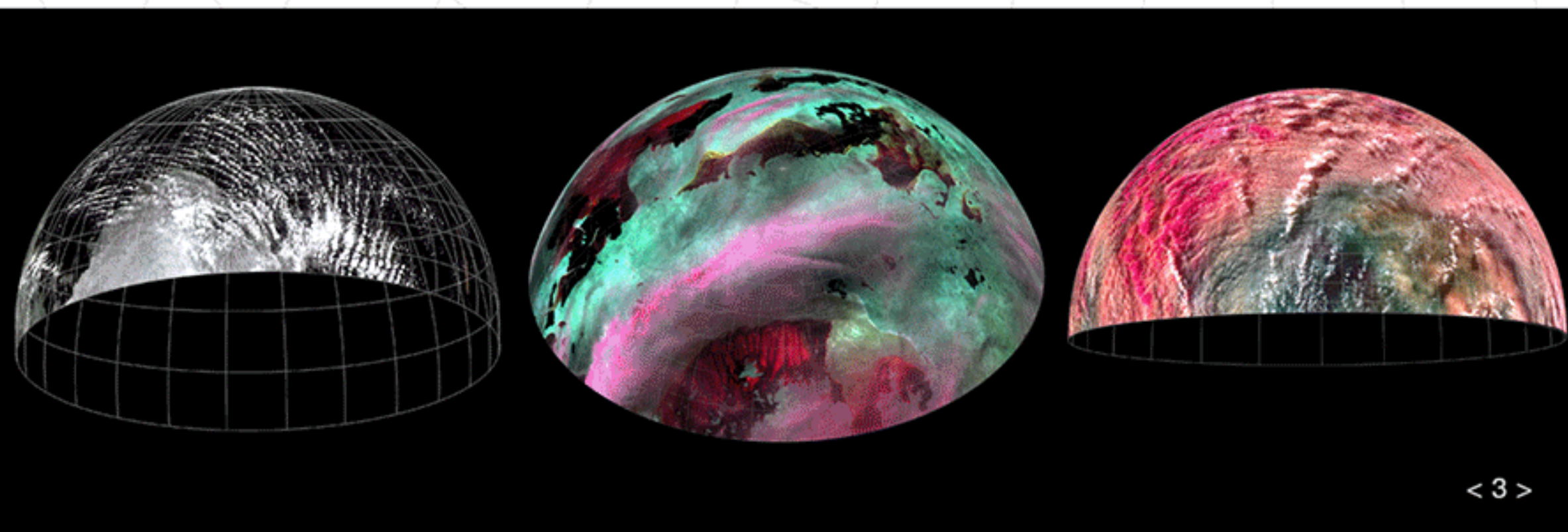
The images used in the project show us the changing fortunes of the country across tropical and desert areas, the coming and the going of cloud, storm and rain, periods of drought and of deluge.

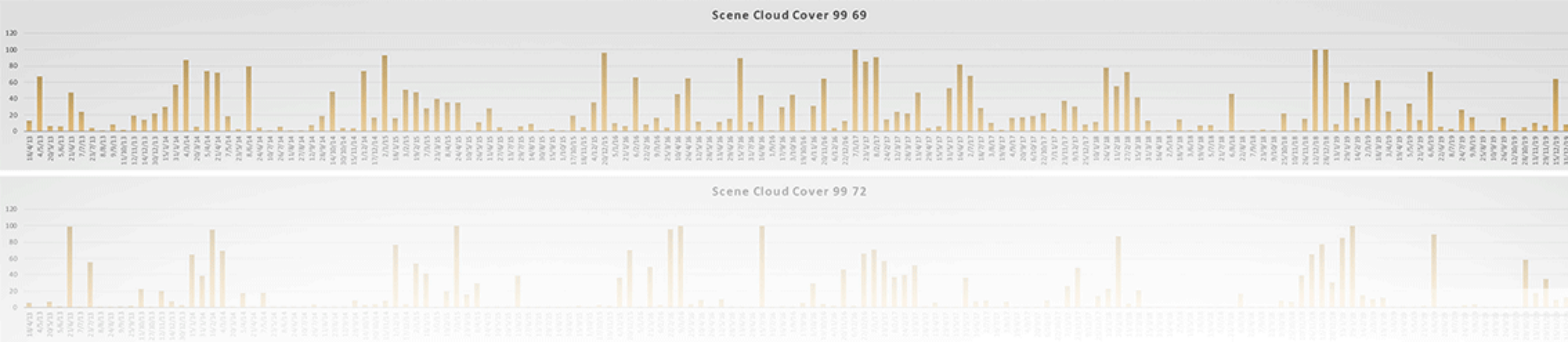




Using infrared light to render clouds in a surreal and startling way, the project is also simply about the astounding beauty of clouds.

Combining the visual immersion of fulldome planetarium projection with a multi-channel electronic soundtrack, this project is a unique combination of art, science and the Earth.



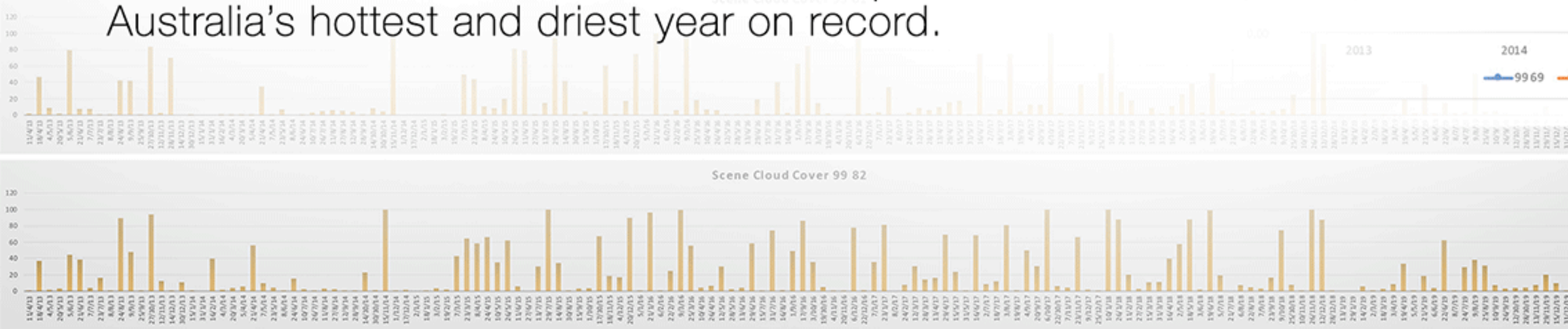
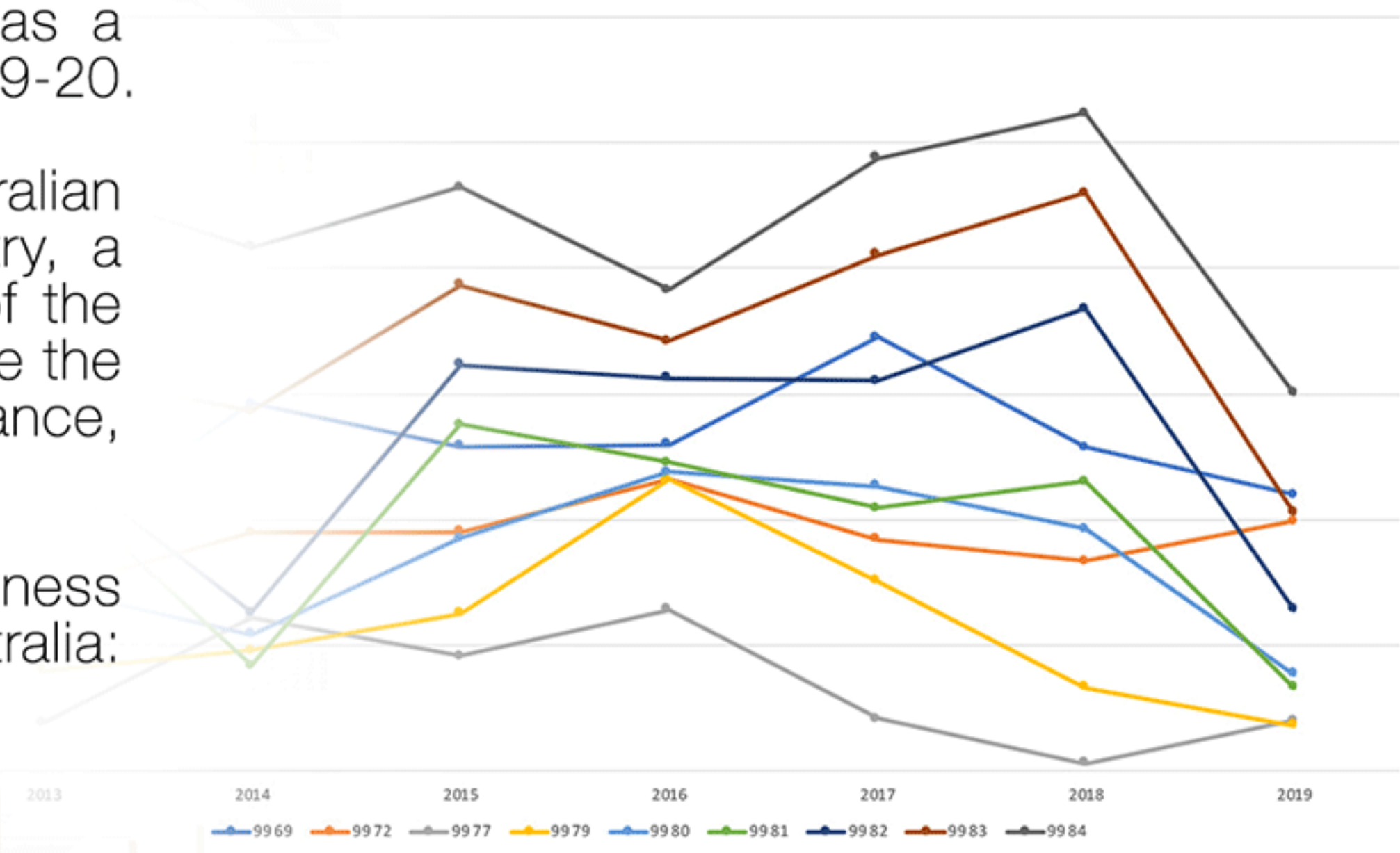


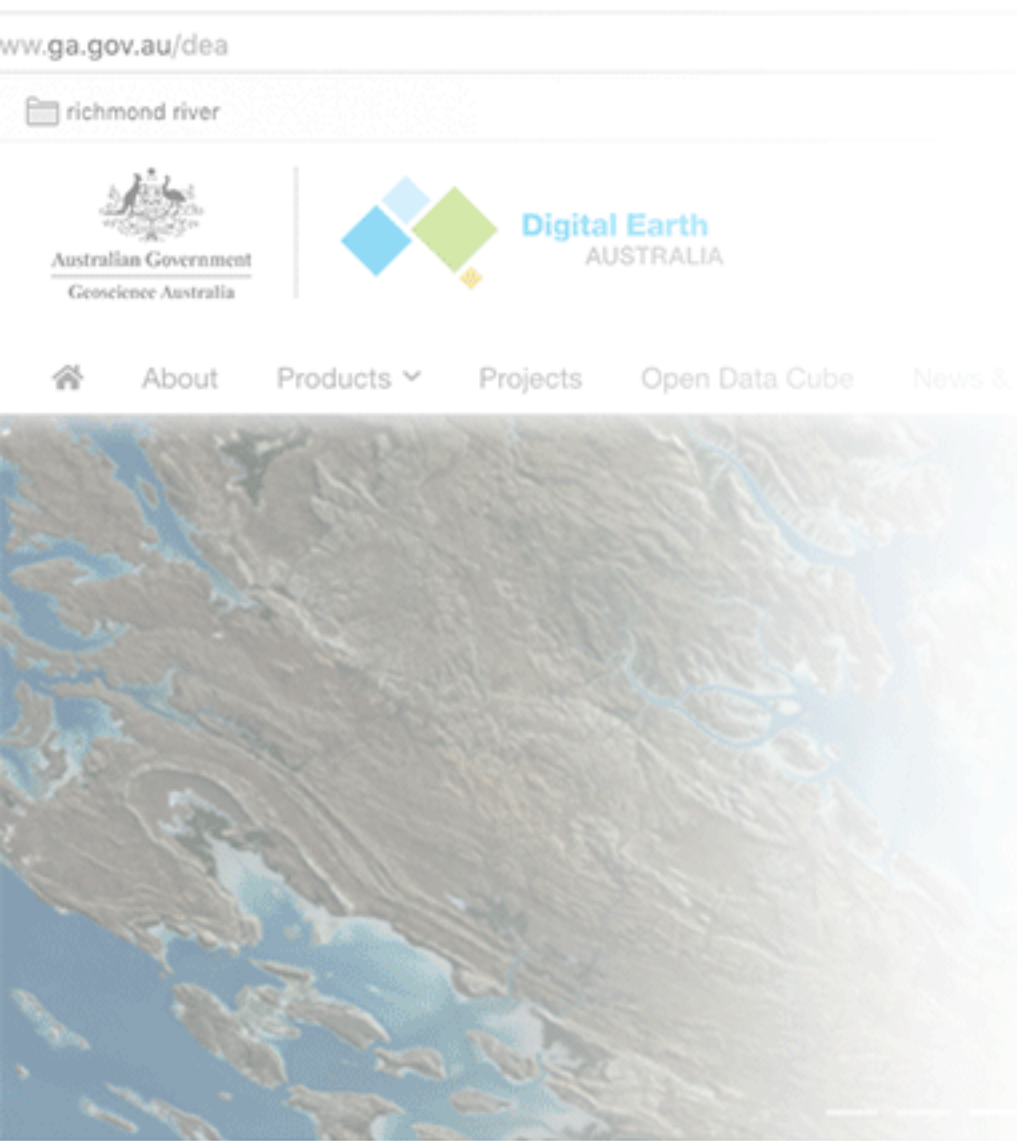
What's really interesting is that the project in fact operates as a pre-history of the catastrophic Australian bushfire season of 2019-20.

“Path 99” charts seven years of cloud data across the Australian continent - it can be understood as a transect of the country, a sampling mechanism, exploring the atmospheric phenomena of the period, and their interaction with the planet. In the project we see the tropical and southern regions receive regular inundations for instance, and we are exposed to the true aridity of the desert areas.

And we also see change over time. Tracking average cloudiness values, we can map the data to significant disaster events in Australia: across the continent, cloudiness values plummeted in 2019, Australia's hottest and driest year on record.

Mean Cloudiness Across 9 sites on Path99





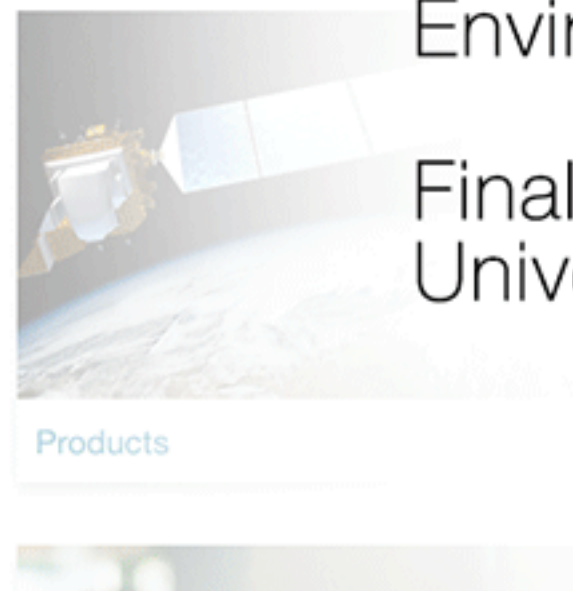
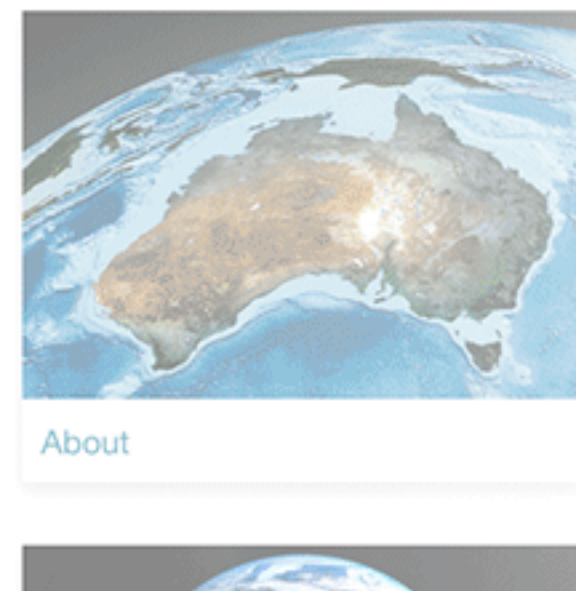
This project is the result of a significant and long-term partnership between Grayson Cooke and Geoscience Australia, and in particular, the Digital Earth Australia (DEA) satellite imaging program.

Landsat 8 data, made available by NASA/USGS, is accessed through the DEA data-cube, which is stored on the national supercomputing facility, the National Computational Infrastructure (NCI), a joint facility of the ANU and the Australian Government.

Path 99 also makes use of data from the Himawari 8 satellite. Run by the Japan Meteorological Agency (JMA), this is the geostationary weather satellite that the Australian Bureau of Meteorology uses for Australian weather forecasting and research. Himawari data is also stored on the NCI.

This project also features the voice and research of Christian Jakob, Professor of Climate Modelling, School of Earth, Atmosphere and Environment, Monash University.

Finally, this project has been supported significantly by Southern Cross University, and Victoria University of Wellington.



IMAGE



Born in New Zealand and based in Australia, Grayson Cooke is an interdisciplinary scholar and media artist, Associate Professor of Media and Chair of Creative Arts at Southern Cross University. His feature film work "Open Air" won the Waterhouse Natural Science Art Prize at the South Australian Museum in 2020. This work and others have shown in major forums such as the Japan Media Arts Festival, the WRO Media Art Biennale and the Imagine Science Film Festival in New York. As a scholar he has published widely in academic journals, and he is also an associate editor for the scholarly journal "Transformations." He holds an interdisciplinary PhD from Concordia University in Montreal.

SOUND



Dr Dugal McKinnon is the Deputy Director of the New Zealand School of Music and Co-Director of the Lilburn Studios for Electronic Music. He is a composer and sound artist whose output encompasses electronic, acoustic and text media, and often intersects these. In 2018 he co-organised the Aotearoa Audio Arts festival, a platform for the presentation and promotion of sound and audiovisual arts in New Zealand. He was 2014 composer-in-residence at the Institut für Elektronische Musik und Akustik (Graz, Austria), and was also a composer-in-residence at the Zentrum für Kunst und Medientechnologie [Centre for Art and Media Technology] (Karlsruhe, Germany) in 2010. He holds a PhD from the University of Birmingham (UK) and teaches sonic art and composition at the NZSM.

Specifications

Resolution: 4K dome master (4096x4096)

FPS: 30

Duration: 45 minutes

Audio: 5.1 surround

Year of release: 2021

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Website

<https://www.graysoncooke.com/path99>

Thanks

Many thanks to Matt Power and Peter Morse; to the many fantastic staff at GA - David Gavin, Alicia Thomson, Trent Kershaw, Rani Austin, Trevor Dhu, Chris Penning, Rachel Przeslawski, Erin Telfer, Norman Mueller and Stuart Minchin; to Museums Wellington, Haritina Mogoşanu, and Anton Carter; to Peter Frankland and Duncan Waldron at the Sir Thomas Brisbane Planetarium.

