DomeLab + EPICentre

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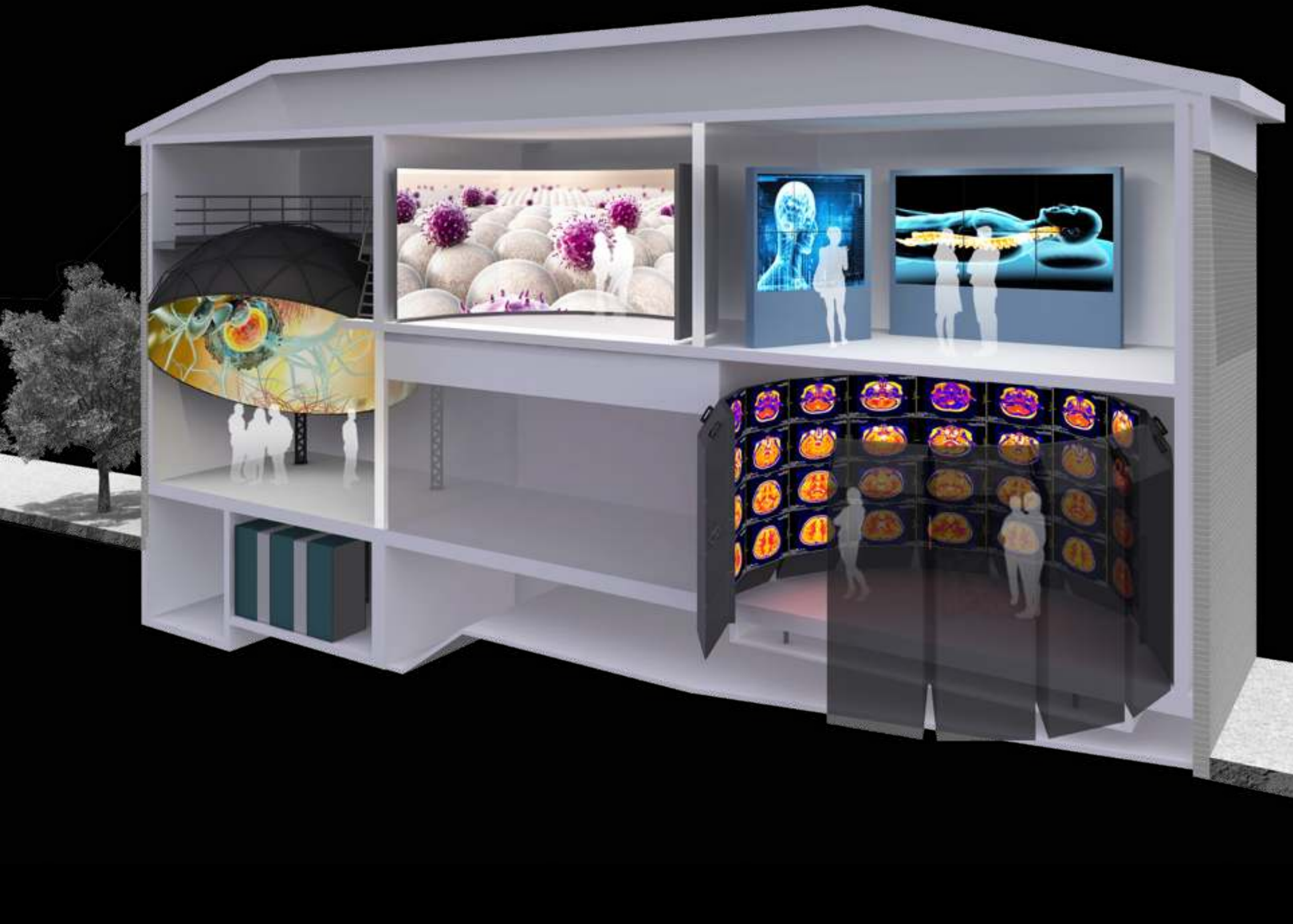
Introduction: DomeLab

- DomeLab: ARC Lief funded in 2015
- High resolution “True 4K” touring dome
- 6m diameter, negative pressure dome
- 8 x 2560x1600 pixel resolution projectors, stereoscopic 3D capable
- Single computer or cluster of 4 IGs + head node
- 5.1 sound system
- Camera based automated alignment system

Introduction: EPICentre

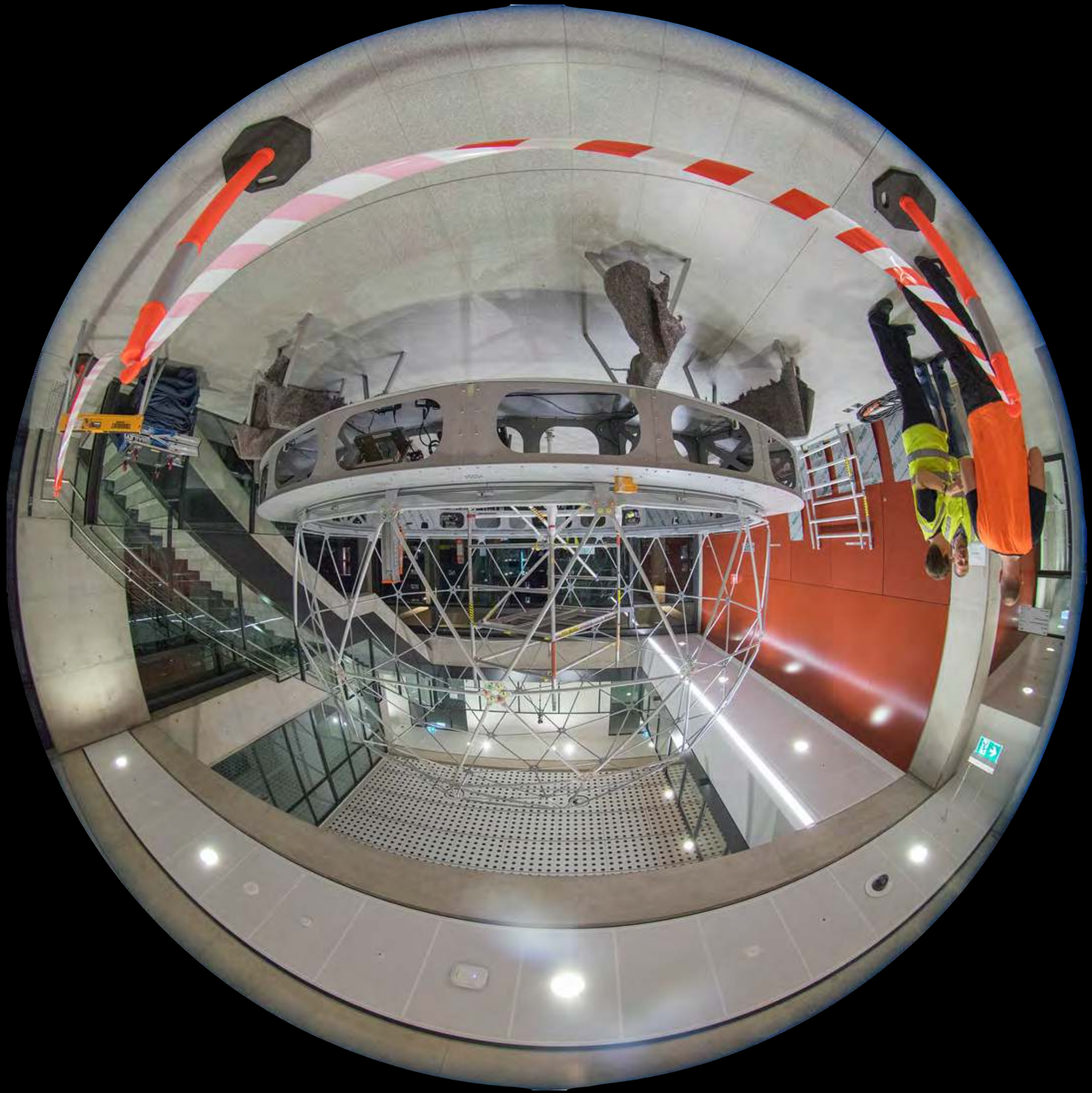
- Enhanced Perception and Interaction Centre
- UNSW initiative with a focus on visualisation for medical research
- Building is currently being renovated, expected handover in July
- Will contain a number of visual machines and research laboratories

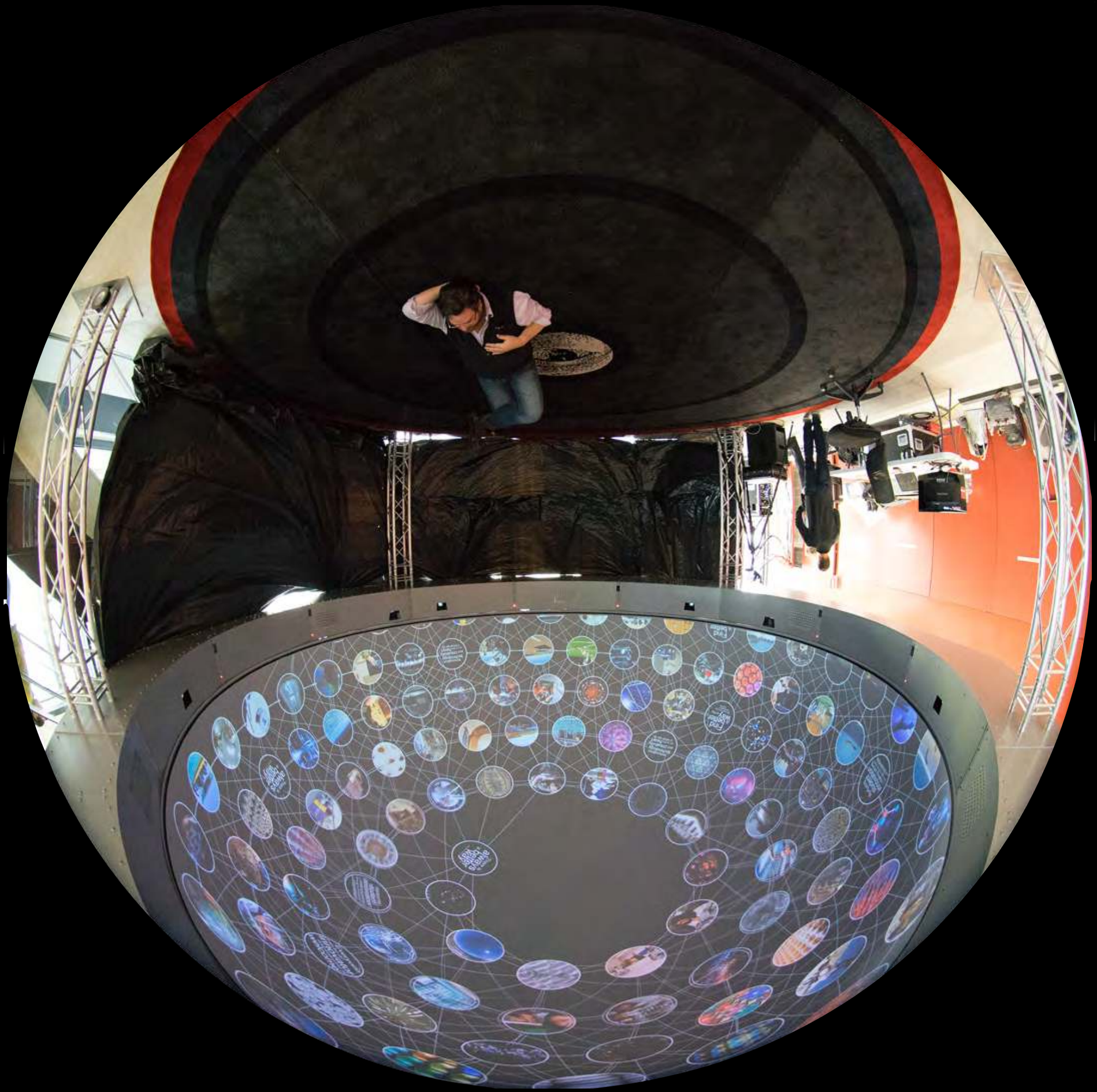


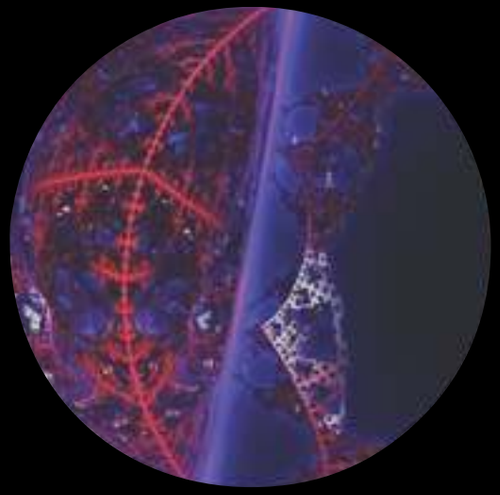
Cylinder

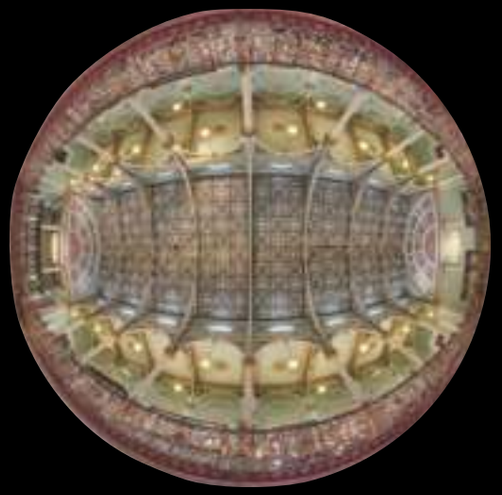
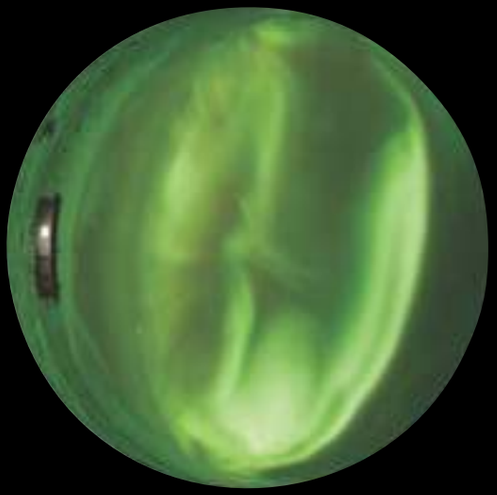
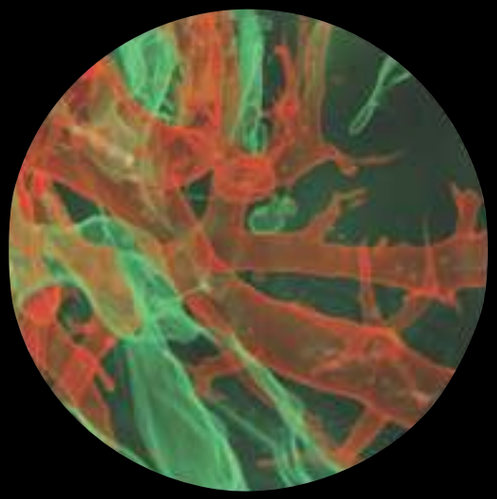
- Centrepiece infrastructure is the cylindrical display
- 56 panels (14 columns of 4 rows each), each HD resolution and stereoscopic 3D capable
- Total of 120MPixels in 3D, three times the resolution of the CAVE-2
  (True MPixels, not projector MPixels)
  Addresses many of the other issues with the CAVE-2
- 32 channel audio system capable of creating high order ambisonic sound fields
- 12 camera tracking system for viewer and 3D interactive device tracking
- Driven from a cluster of 28 computers + head node

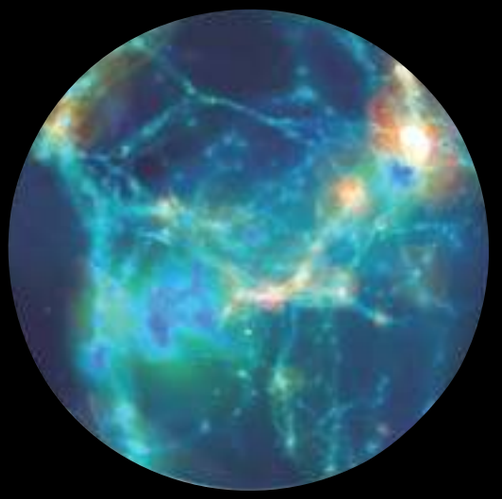
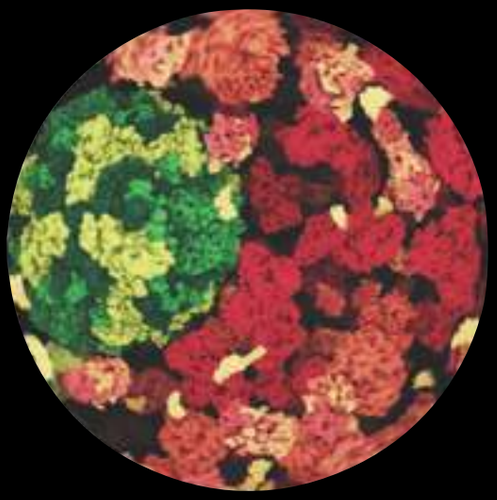
DomeLab: Michael Crouch Innovation Centre

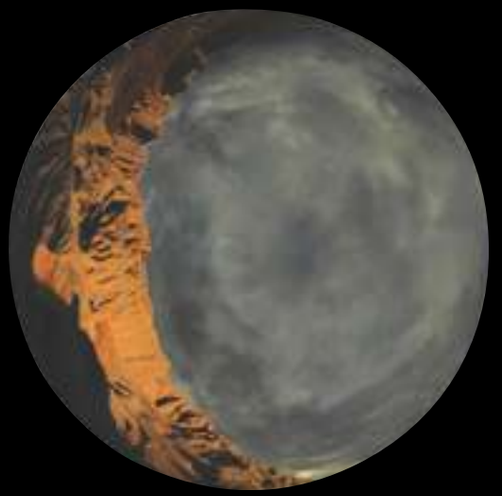




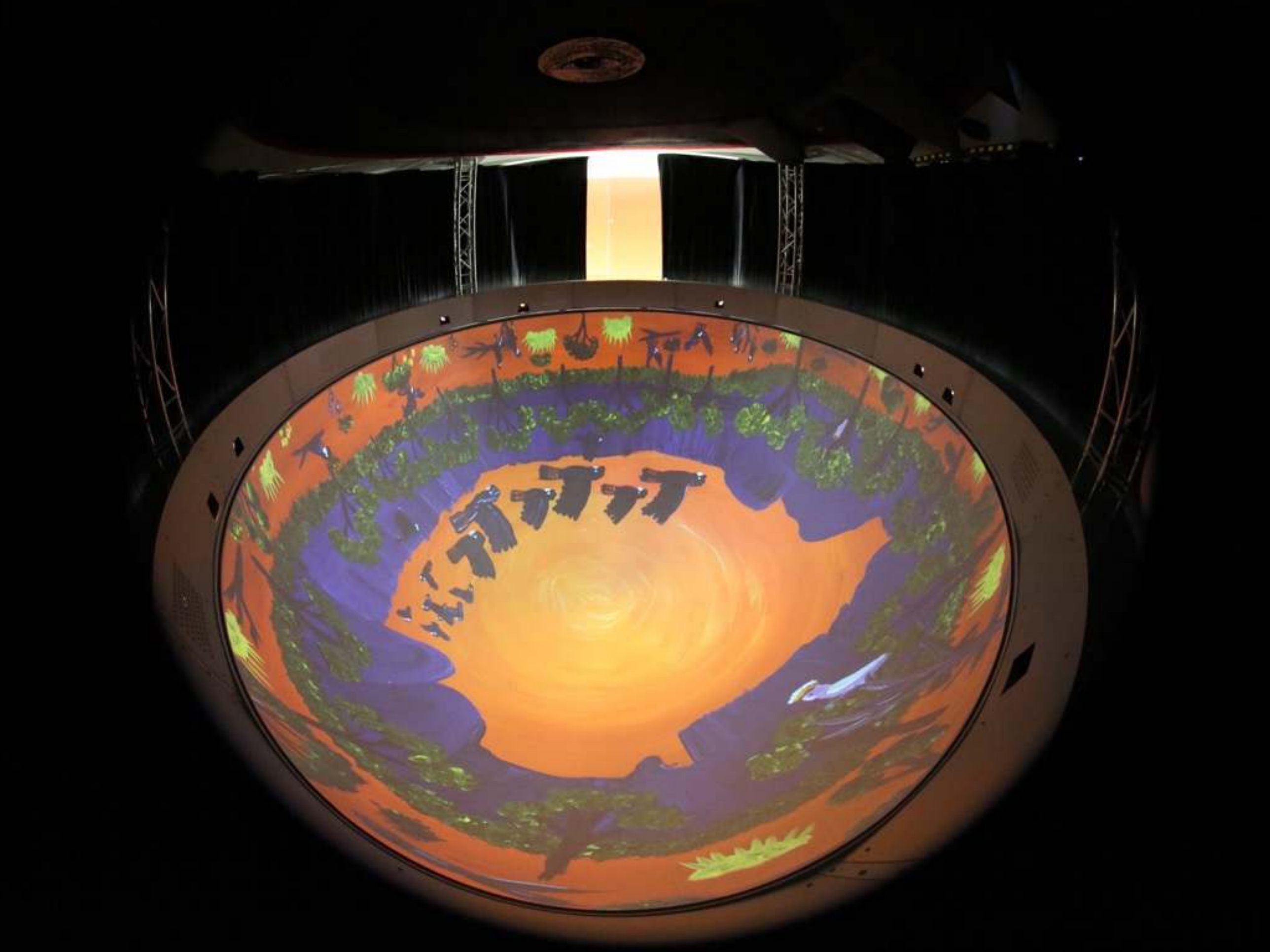


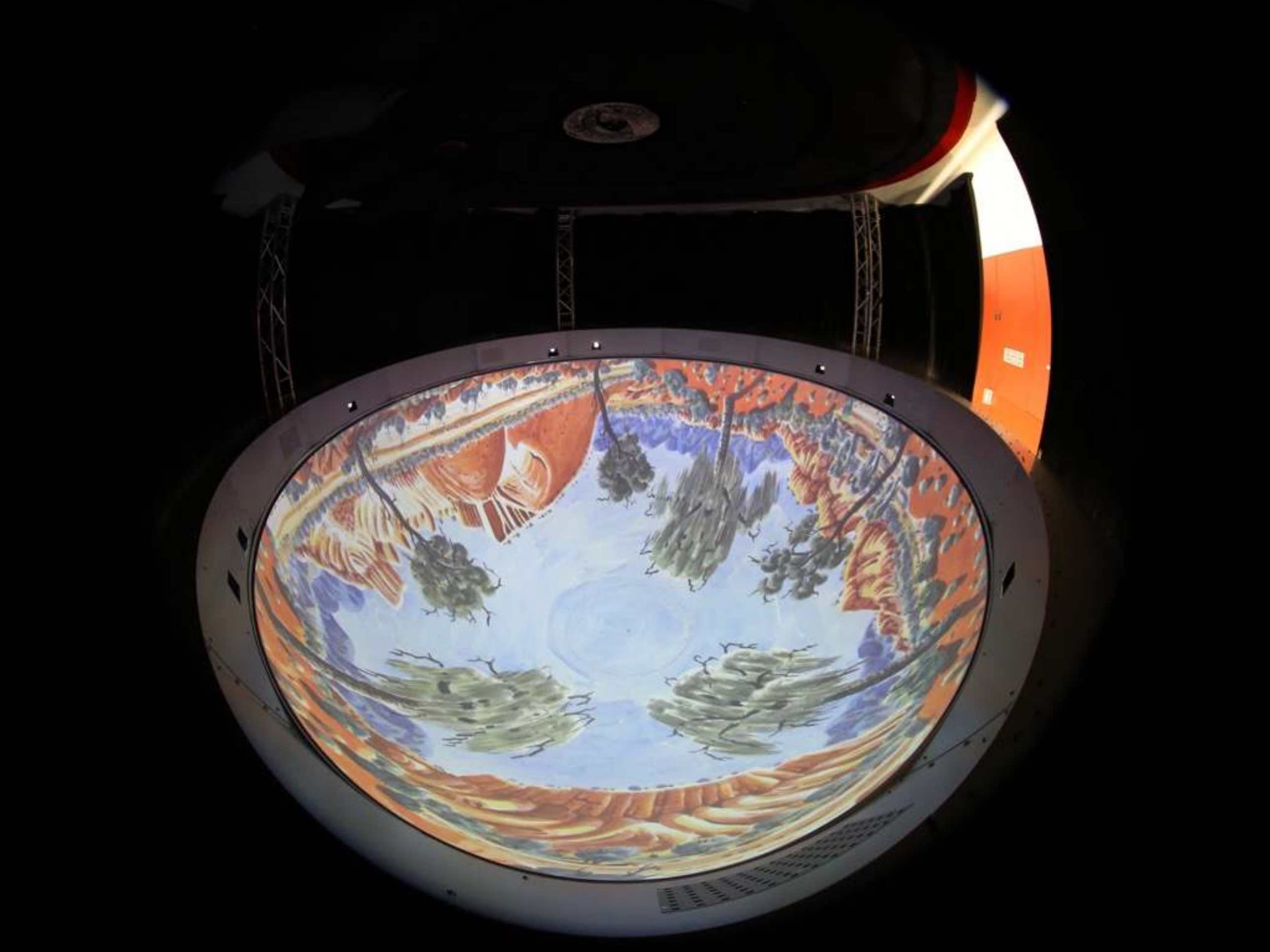




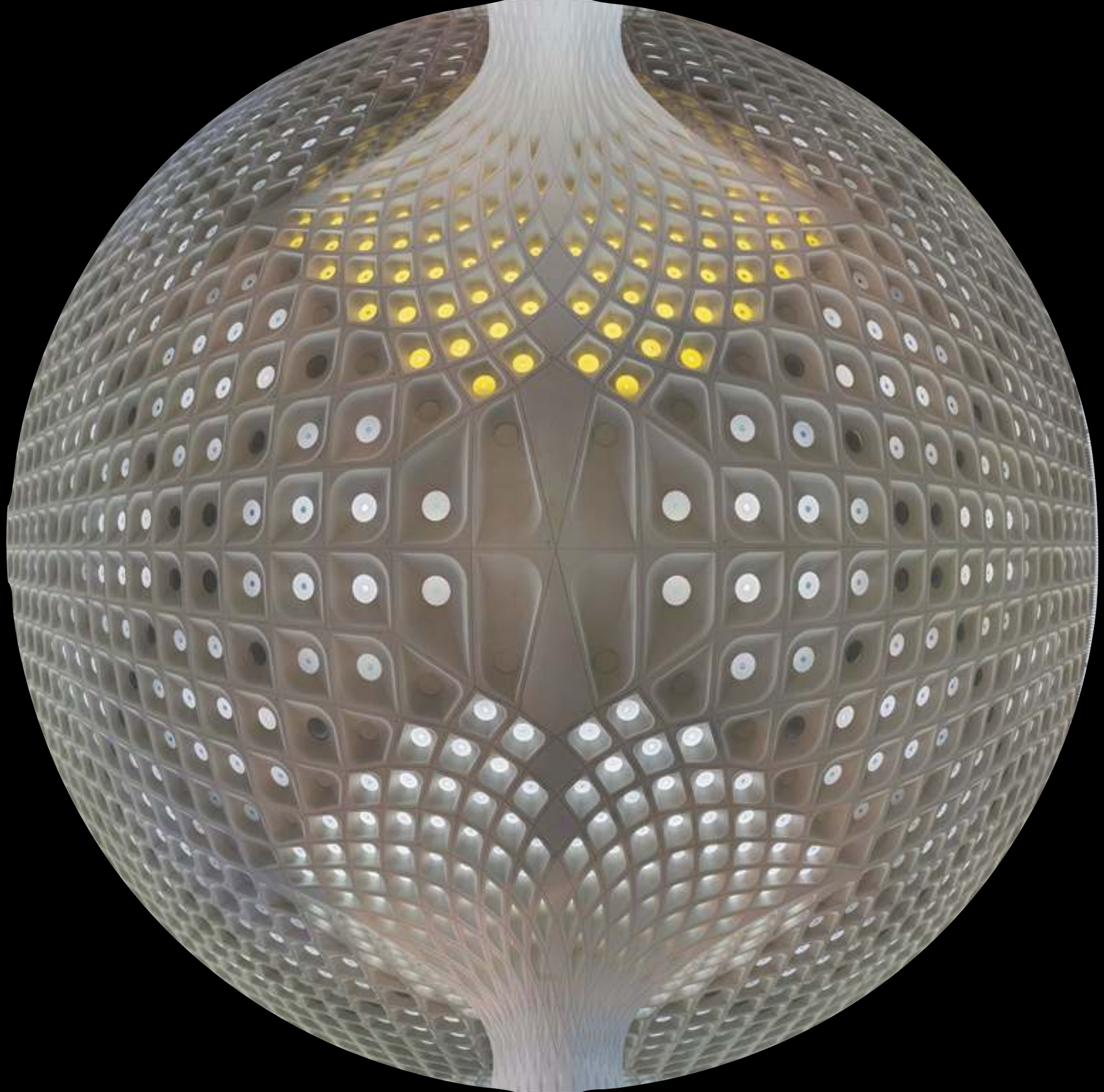


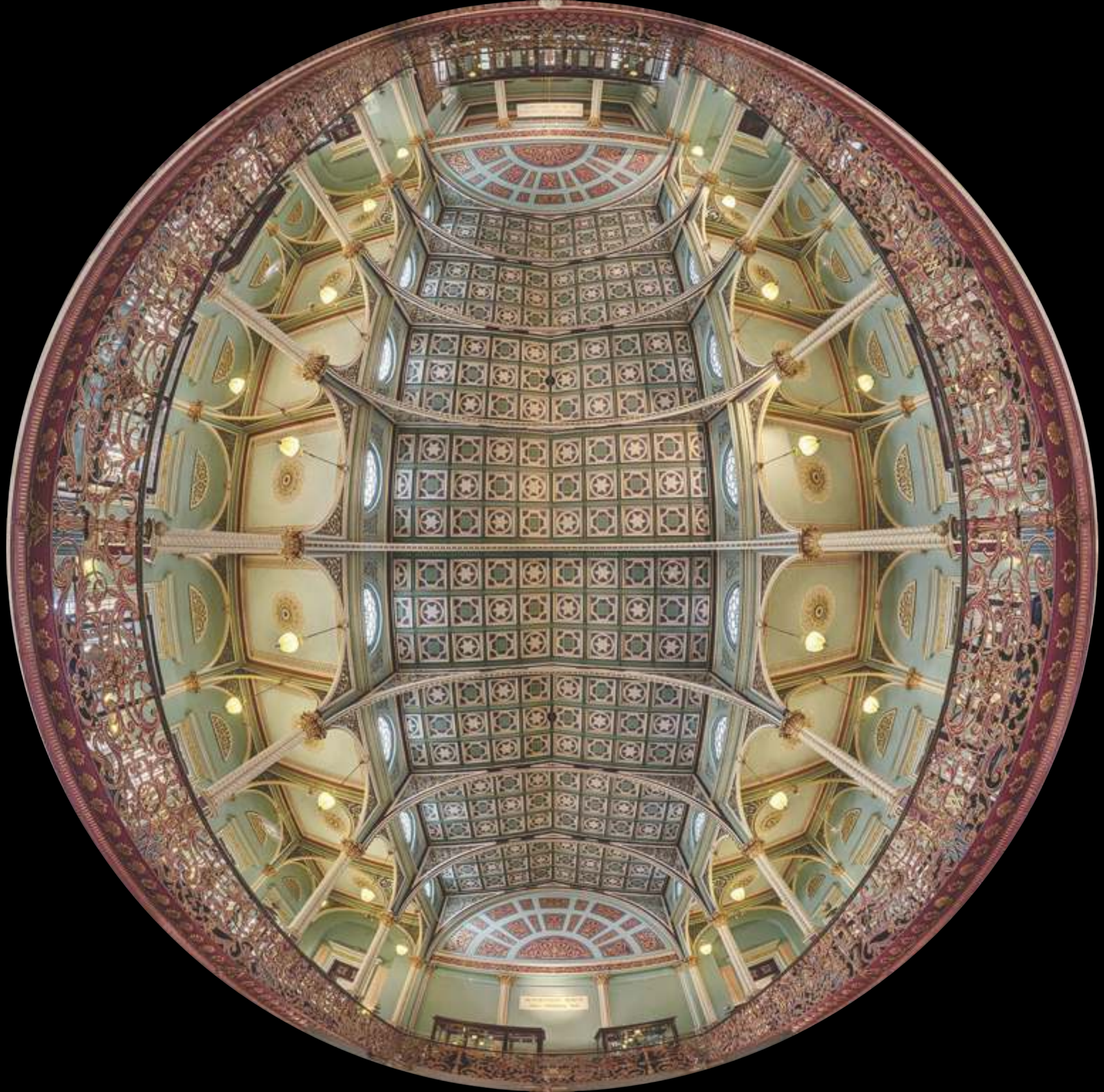
DomeLab : Indigenous paintings





DomeLab : Look up Mumbai





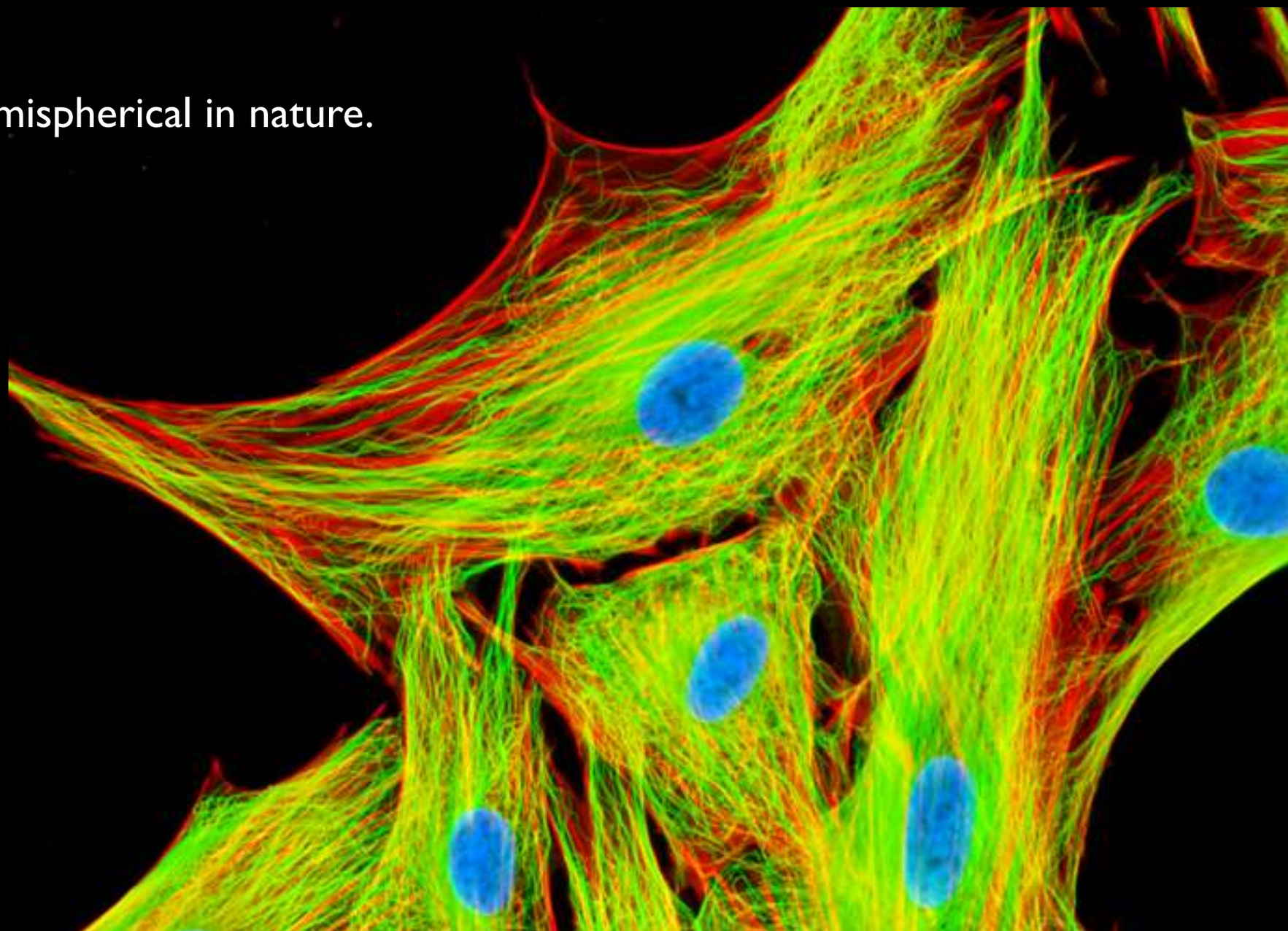
Dunhuang caves: Dome and AR

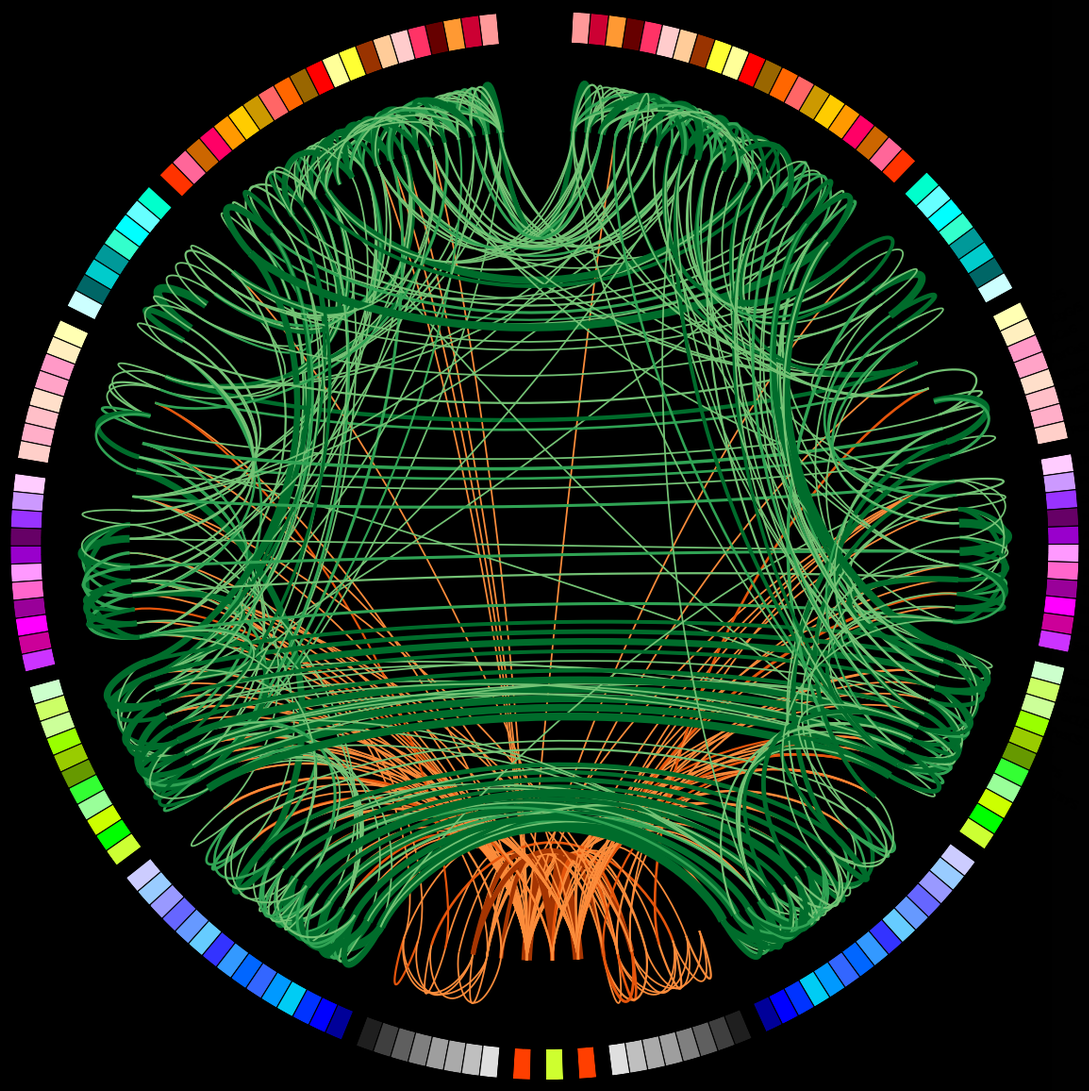
- Exhibition at the world economic forum, 2015, Doha.
- The Mogao Grottoes, also known as the Caves of the Thousand Buddhas.
- Plug: The Augmented Reality version is opening in the NSW State Art Gallery next weekend.

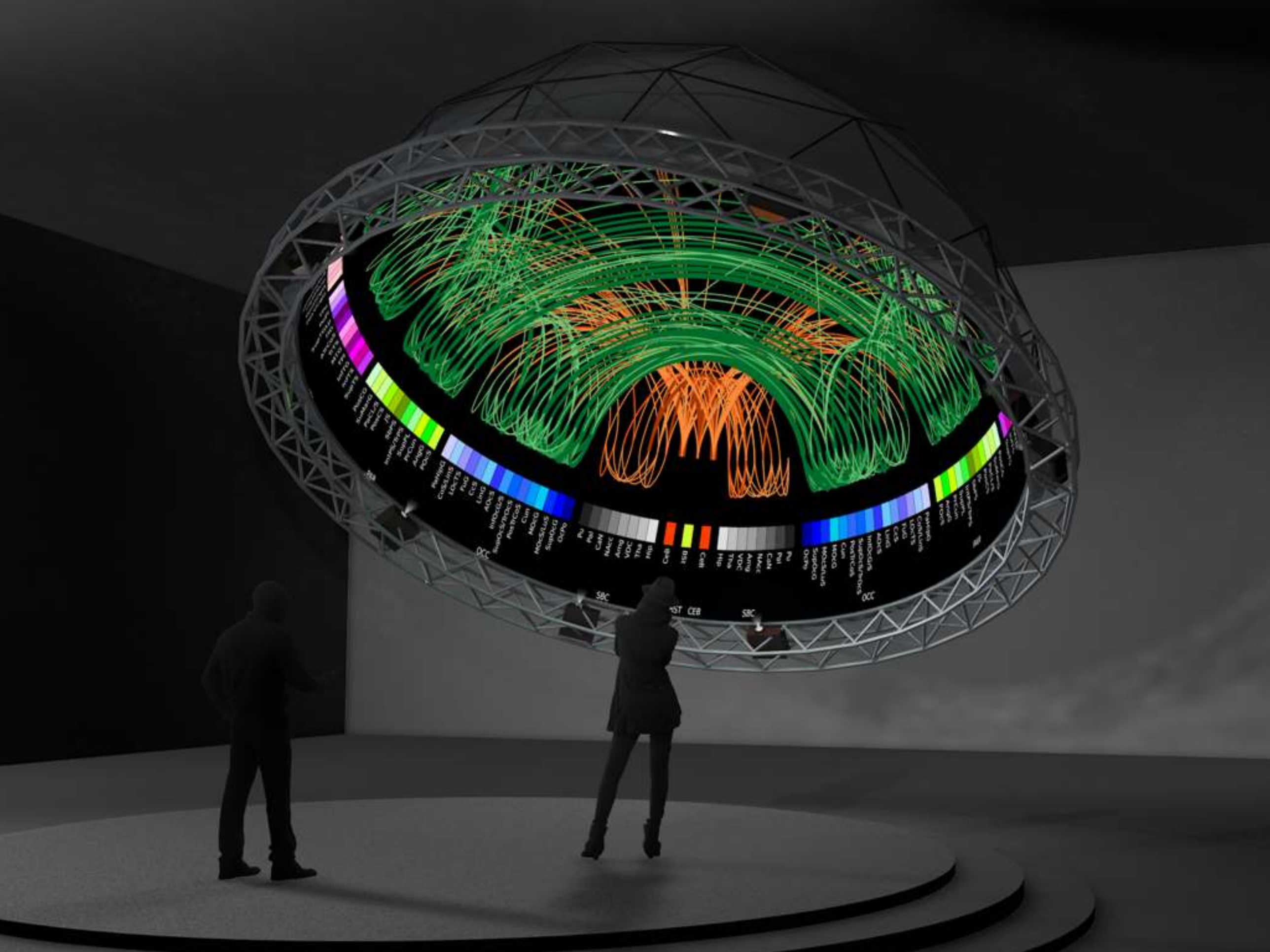
Media Village
Cave Dome
About the Caves
The Mogao Grottoes — also known as the Caves of the Thousand Buddhas — occupies a site at Dunhuang. A small oasis town in the desert of North-West China, Dunhuang was a gateway on the ancient Silk Road. These temple grottoes are not only a great art treasury, but also an enduring record of globalization. Their murals, sculptures and scrolls offer an unparalleled glimpse into the multicultural society that thrived for a thousand years along the once ingoing corridor between East and West.
(Larmer 2010).
WORLD ECONOMIC FORUM

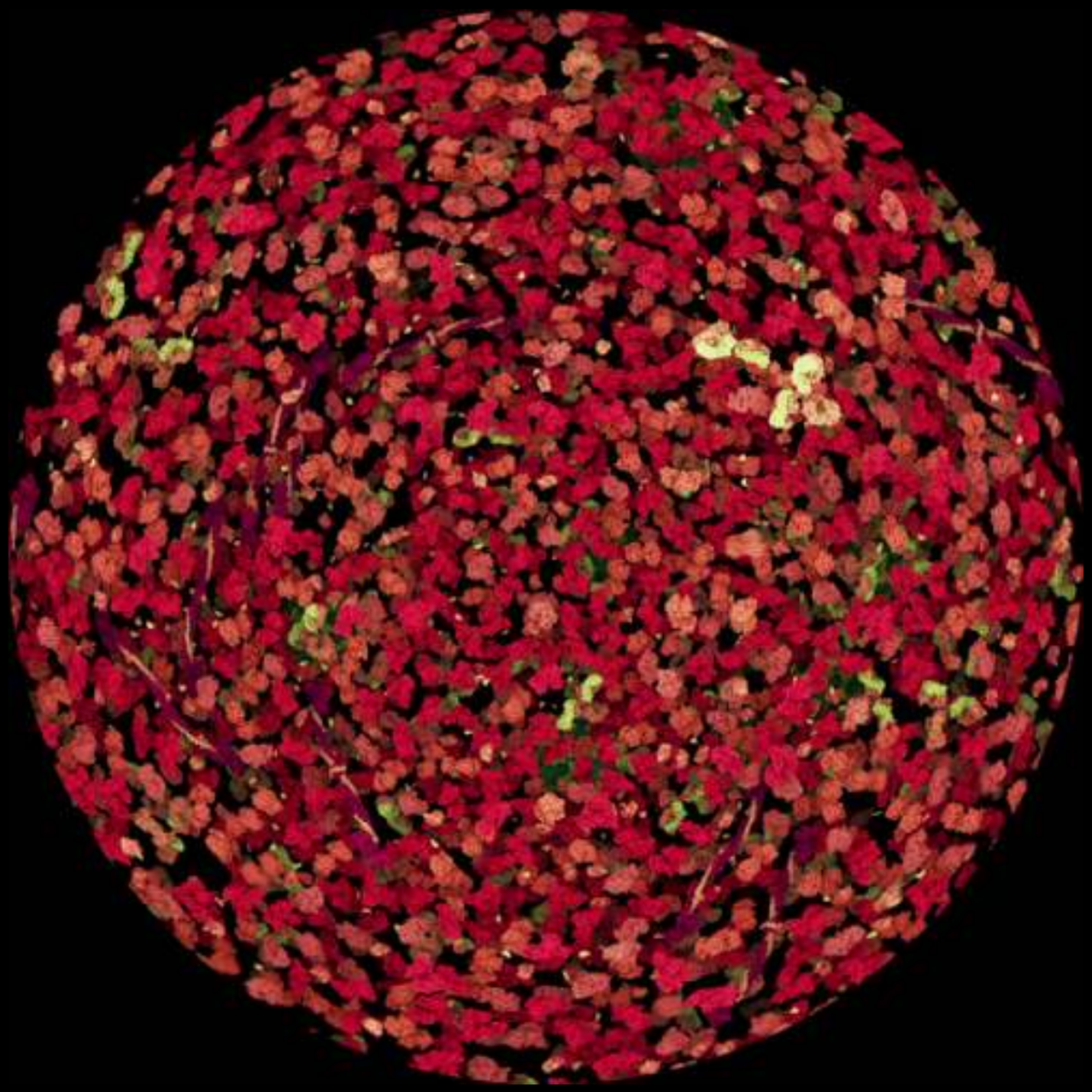
Why? DomeLab + EPICentre

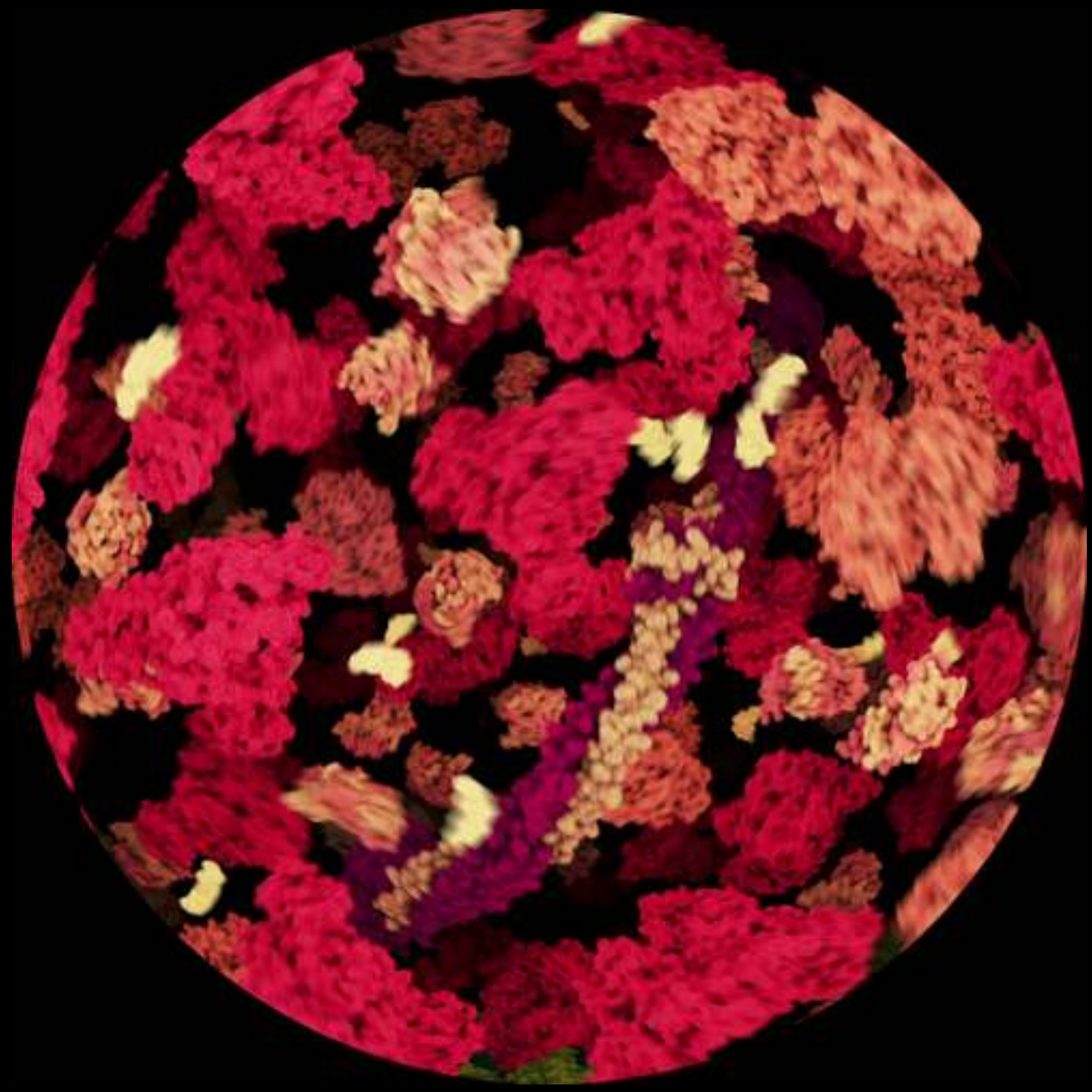
- As with many sciences, medical research is both generating larger data sets from simulation as well as amazing imaging.
- EPICentre will have a number of visualisation tools, the characteristics of each will suit different data types.
- Many data types are hemispherical in nature.











Questions?