EXPLORE GAIA

GAIA
BY LUKE JERRAM

Gaia is a touring artwork by Bristol based artist Luke Jerram.

Luke is known globally for his innovative arts practice and large scale public artworks such as the 'Museum of the Moon', 'Park and Slide' (the big water slide he installed down Park street in Bristol), and the street pianos art project 'Play Me I'm Yours'. www.lukejerram.com

Measuring seven metres in diameter, *Gaia* features 120dpi detailed NASA imagery of the Earth's surface*. The artwork provides the opportunity to see our planet on this scale, floating in three-dimensions.

The artwork has been touring since 2018 within the UK and internationally. It has been presented in Hong Kong, Australia, Europe, USA and at the Natural History Museum in London. Wherever the artwork is presented, its interpretation is slightly different.

In Greek Mythology Gaia is the personification of the Earth.

The installation aims to create a sense of the *Overview Effect*, which was first described by author Frank White in 1987. Common features of the experience for astronauts are a feeling of awe for the planet, a profound understanding of the interconnection of all life, and a renewed sense of responsibility for taking care of the environment.

Gaia acts as an installation artwork, but also as a venue, to be programmed by the venue, to take place beneath it.

Who wrote the Music?

Luke commissioned a specially made surround sound composition by BAFTA and Ivor Novello award winning Composer Dan Jones is played alongside the sculpture.

The music is played on a loop throughout the installation when there are no events programmed to take place beneath the Earth.

What is the Scale of this artwork?

The artwork is 1.8 million times smaller than the real Earth with each centimetre of the internally lit sculpture describing 18km of the Earth's surface. By standing 211m away from the artwork, the public will be able to see the Earth as it appears from the moon.

The Earth here is 7m in diameter. If the Sun were made to the same scale it would be 2820m in diameter! The sun would be 300km (186miles) away from where the Earth sculpture is now!

When *Gaia* is presented indoors, it slowly rotates making one revolution every 4 minutes.

Why was this artwork made?

For our entire human existence we have been gazing up at the moon and projecting all our hopes, dreams and wishes up there. Whereas for the Earth, the first time humankind got to see our planet in its entirety as a blue marble floating in space was in 1972 with NASA's Apollo 17 mission. At this moment, our perception and understanding of our planet changed forever. Hanging in the black emptiness of space the Earth seems isolated, a precious and fragile island of life. From a distance, the Earth is just a pale blue dot.

"With this Gaia Earth artwork, I'm interested in just how different the experience and interpretation is compared to my other artwork the Museum of the Moon. Both artworks are exactly the same size, so I'm interested how the experience and interpretation of each work is quite different."

Is there an Environmental Message?

“I hope visitors to Gaia get to see the Earth as if from space; an incredibly beautiful and precious place. An ecosystem we urgently need to look after – our only home.

Halfway through the Earth’s six mass extinction, we urgently need to wake up, and change our behavior. We need to quickly make urgent changes to society, to prevent run away Climate Change. ”

As an artist exhibiting in museums and festivals all around the world I realize I need to change my behaviour and alter the way I work.” says Luke

Where did the imagery come from to make this artwork?

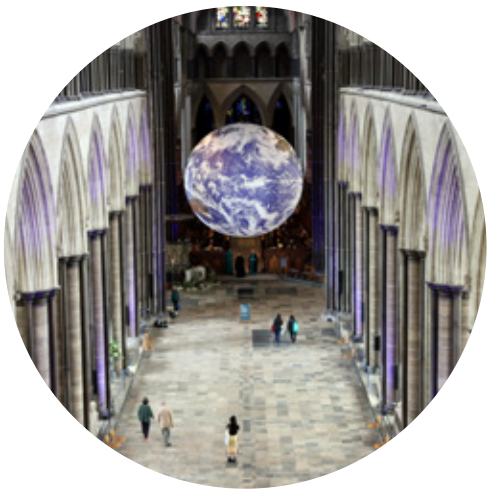
The satellite imagery for the artwork has been compiled from *Visible Earth* series, NASA.

Who commissioned this artwork?

Gaia has been created in partnership with the Natural Environment Research Council (NERC), Bluedot Festival and The UK Association for Science and Discovery Centres. With supporting partners Culture Liverpool and Liverpool Cathedral.

What is the overview effect?

The overview effect is a cognitive shift in awareness reported by some astronauts during spaceflight, often while viewing the Earth from orbit or from the lunar surface. It refers to the experience of seeing firsthand the reality of the Earth in space, which is immediately understood to be a tiny, fragile ball of life, “hanging in the void”, shielded and nourished by a paper-thin atmosphere. From space, national boundaries vanish, the conflicts that divide people become less important, and the need to create a planetary society with the united will to protect this “pale blue dot” becomes both obvious and imperative. The term and concept were coined in 1987 by Frank White, who explored the theme in his book The Overview Effect — Space Exploration and Human Evolution (Houghton-Mifflin, 1987), (AIAA, 1998).



What is Earthrise?

Earthrise is a photograph of Earth and parts of the Moon’s surface that was taken from lunar orbit by astronaut Bill Anders in 1968, during the Apollo 8 mission. Nature photographer Galen Rowell declared it “the most influential environmental photograph ever taken”.

It’s never easy to identify the moment a hinge turns in history. When it comes to humanity’s first true grasp of the beauty, fragility and loneliness of our world, however, we know the precise instant. It was on December 24, 1968, exactly 75 hours, 48 minutes and 41 seconds after the Apollo 8 spacecraft lifted off from Cape Canaveral en route to becoming the first manned mission to orbit the moon. Astronauts Frank Borman, Jim Lovell and Bill Anders entered lunar orbit on Christmas Eve of what had been a bloody, war-torn year for America.

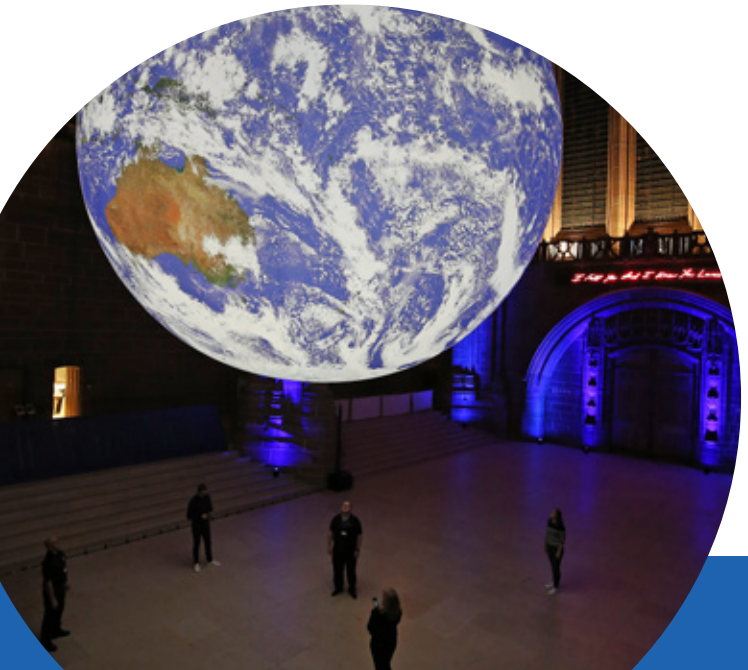
At the beginning of the fourth of 10 orbits, their spacecraft was emerging from the far side of the moon when a view of the blue-white planet filled one of the hatch windows. “Oh, my God! Look at that picture over there! Here’s the Earth coming up. Wow, is that pretty!” Anders exclaimed. He snapped a picture—in black and white. Lovell scrambled to find a color canister. “Well, I think we missed it,” Anders said. Lovell looked through windows three and four. “Hey, I got it right here!” he exclaimed. A weightless Anders shot to where Lovell was floating and fired his Hasselblad. “You got it?” Lovell asked. “Yep,” Anders answered. The image—our first full-color view of our planet from off of it—helped to launch the environmental movement. And, just as important, it helped human beings recognise that in a cold and punishing cosmos, we’ve got it pretty good.

What is the Blue Marble?

The Blue Marble is an image of planet Earth taken on December 7, 1972, by the crew of the Apollo 17 spacecraft at a distance of about 29,000 kilometers (18,000 miles) from the surface. It is one of the most reproduced images in human history. Earth is revealed as both a vast planet home to billions of creatures and a beautiful orb capable of fitting into the pocket of the universe.

The image with the official NASA designation AS17-148-22727 reproduces the view of the Earth as seen by the Apollo crew traveling toward the Moon. The translunar coast photograph extends from the Mediterranean Sea to Antarctica. This was the first time the Apollo trajectory made it possible to photograph the south polar ice cap, despite the Southern Hemisphere being heavily covered in clouds. In addition to the Arabian Peninsula and Madagascar, almost the entire coastline of Africa is clearly visible. The Asian mainland is on the horizon. The 1972 Tamil Nadu cyclone can be seen in the top right of the image. This storm had brought flooding and high winds to the Indian state of Tamil Nadu on December 5, two days before the photograph was taken.

Apollo 17 was the last manned lunar mission. No human since has been far enough from Earth to photograph a whole-Earth image such as The Blue Marble, but whole-Earth images have been taken by many unmanned spacecraft missions. The name has also been applied by NASA to a 2012 series of image data sets covering the entire globe at relatively high resolution, created by carefully sifting through satellite-captured sequences taken over time, to eliminate as much cloud cover as possible from the collated set of images.



What is Gaia?

In Greek mythology, Gaia also spelled Gaea, is the personification of the Earth and one of the Greek primordial deities. Gaia is the ancestral mother of all life: the primal Mother Earth goddess.

The mythological name was revived in 1979 by James Lovelock, in Gaia: A New Look at Life on Earth. The Gaia hypothesis proposes that living organisms and inorganic material are part of a dynamical system that shapes the Earth's biosphere, and maintains the Earth as a fit environment for life. However the hypothesis is scientifically flawed. The vast majority of scientists believe the hypothesis is not consistent with modern scientific evidence and understanding and should therefore be rejected.

http://my-earth.org/