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Contemporary Arts Practice and Outer Space: A Multi-Disciplinary Approach (3)

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CLIMATEXCHANGE: CREATING MOVING CLOUDS INTO DIAPHANOUS SCULPTURES MADE
OF THE SPACE TECHNOLOGY NANOMATERIAL SILICA AEROGEL

Abstract

“It suddenly struck me that that tiny pea, pretty and blue, was the Earth. I put up my thumb and shut one eye, and my thumb blotted out the planet Earth. I didn’t feel like a giant. I felt very, very small”. When astronaut Neil Armstrong stated those words as part of his experience setting foot on the moon, he was acting primarily as a visual artist by shutting one eye in attempt to measure the Earth in front of him. From this attempt, he perceived the scaling of the giant planet as a tiny pea. When we gazed back on ourselves and our planet for the first time, how much of our emotional reaction to this new perspective could be considered to be informed by our artistic history? Artists have long sought to portray beauty using the devices of scale, space, colour and pattern. This paper explores the way these devices, in their relationship to space travel, have influenced or changed our perspectives about our Earth and our responsibility to it. The authors are all interdisciplinary artists who work in the intersection of art and science. The interdisciplinary nature of their research requires constant shifting in perspective and the application of artistic devices to traditionally non-artistic areas. Dr Ioannis Michaloudis’ research and artworks centre on the nanomaterial silica aerogel an ethereal (im)material resembling the colours of our sky. Living and realizing his research in three different countries/climates the last four years, he has initiated collaborative interdisciplinary research on possibilities to imitate moving micro clouds inside the diaphanous body of his sculptures made of the space nanotechnology silica aerogel. The creative venture of this interdisciplinary research also has technological applications by driving a scientific visualization on bio-mimicry of microclimatic experimentations on greenhouse and climate change phenomena. Bronwyn Dann is an artist and PhD candidate at Charles Darwin University in the Northern Territory, Australia. Her research project is titled Harvesting Moonlight and is focused on creating an artistic interpretation of the history of the pearl shelling industry in the north of Australia. Professor Naoko Tosa is an artist and academic at the Academic Centre for Computing and Media Studies Kyoto University; with Michaloudis they were Research Fellows at MIT in 2002.