

## ARTISTIC RESEARCH ON FREEDOM IN SPACE AND SCIENCE.

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### **ArtScience & ESA:** *Space science in the arts.*

Since the earliest scientific preparations for extraterrestrial travel at the beginning of the 20<sup>th</sup> century, the exploration of outer space has become a quintessential framework of the human condition and its creative manifestations. Although the artistic pursuit of space science is still in its infancy, an accelerated evolution is currently underway.

**Perspective:** With the current state of the planet and the development of technology, humankind has the ability to look from a greater distance to the damage that has been done. This offers potential in the form of early detection and prevention of disasters. Meanwhile our aim seems to be directed away from the earth into the universe. In the *Space science in the arts* project I tried to encapsulate these two viewpoints that tend to avoid each other. We are still earthbound and that is our basis. A tree cannot grow tall without strong roots. Space, a promise of freedom..

**Line of thought:** Space sounds like freedom but to actually send people out there they have to be strapped tightly on top of a giant missile to reach a habitat of interconnecting tubes with very little space. It is impossible to escape protocol without risking your life and the lives of astronauts have been fixed years in advance. This is the human predicament which does not apply to the telescopes and other devices used to reach far into the universe. Providing information instantly the various forms of light allow us to travel without moving.

**Description of the installation:** The research on freedom in space and science led to the development of an installation that reflects the dualistic aspect which clings to the exploration of the universe. The installation is a model on multiple scales. You can look at the material or the feeling it evokes as well as at the constantly changing projections. The image is provided by different lights orbiting a round table. The table itself also turns around its axis. On the surface of this round plane a circular array of glass and lenses is placed to diffract the light. Inside this glass circle there is a broken dome placed over a dark and reflective surface on which light manipulating machines continuously alter the projected image.

**Development:** In order to delve deeper into the subject of freedom in space and science this setup can serve as a vantage point. And it can offer an interactive environment to explore notions of freedom in space and science.

The addition of a specific environment around and above the installation, referring to the fabric of space would highly increase the impact it has on an audience. You would then be able to immerse yourself in the world of this settlement, somewhere in outerspace. Sound, light and projectionscreens will orbit the table changing the projections even more. Triggering the imagination with every movement.

**Results:** Freedom has been exhibited at TecArt in Rotterdam and at the Lunar conference at ESTEC. The images underneath depict the installation in some ways it can be experienced.

Image1 and 2: FreeDome



**References:** [1] Arthur R. Woods. (2007) Space Options for the 21st Century, Overview and Perspective. [2] Meike Wiedeman, Florian P.M. Kohn, Harald Roesner, Wolfgang R.L. Hanke. (2011) Self-organization and Pattern-formation in Neuronal Systems Under Conditions of Variable Gravity. [3] Jun Yang, Nicolas B. Cowan, Dorian S. Abbot. (2013) Stabilizing Cloud Feedback Dramatically Expands the Habitable Zone of Tidally Locked Planets.