

THE EARTH AT FEATURE-LENGTH

ART EXPERIMENTS IN SPACE

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Two ballet dancers glide in a small still cabin. A man in tights moves a ballerina effortlessly like the second-hand of a clock. She floats upside-down, her legs elegantly sticking in the air. I'm watching a dance in weightlessness by the French choreographer Kitsou Dubois.

Space-experiments aren't any more the domain of scientists and cosmonauts. The Slovenian theatre-director Dragan Zivadinov staged a show in a Russian plane during a parabolic flight. On video it looks peculiar: audience in safety belts, with helmets and headphones while around them the actors seem to sway freely through the aircraft. The wish to be in a state of weightlessness arises in me at the space-art workshop at the European Space-center ESTEC (European Space Research and Technology Center) in Noordwijk, a small town on the Dutch coast. I'm shown clips of artists during zero gravity. A fakir, with turban and beard, ascends on a flying carpet. The work of artist Frank Pietronigri makes me laugh: he paints in a state of zero gravity. The performance takes place in a tent made of transparent plastic. It takes a great effort to adjust the sheet of paper. The paint leaves the tubes in the shape of a big turd, flying shit in various colors and then you still have to paint with it!

Another clip. The art-piece *Cosmic Dancer* made by Arthur Woods, one of the few works of art that really have been in space. An astronaut on board of space station MIR -in front of him floats an art piece that consists of three triangular shapes wedged into each other. In zero gravity the sculpture resembles a jellyfish under water. Cosmic dancer is light, seems to float.

Months before I had seen the workshop on mailinglists. Scientists, journalists, curators, philosophers and artists were asked to send in proposals for the 7th Space and Arts Workshop 'Space: Science, Technology and the Arts. Over 100 artists sent in concepts and 25 got selected.

The International Academy for Astronauts (IAA), the French magazine Leonardo -about art, science and technology - the Swiss O.U.R.S. Foundation and the European Space Agency (ESA) organized the meeting. Over the years there have been more workshops about space art. This time, Arthur Woods explains, the organization aimed for a small event, making it a real workshop, where people got the opportunity to really get to know each other. During the three days at Noordwijk every participant had to give a presentation. No audience or members of the press were allowed not even this newspaper or the BBC.

Rehearsal room

After a lot of hassle I squeeze myself in on the second day as the assistant of a befriended artist, Graham Smith. His proposal is an artwork in progress for a number of years - imagine a circular movie theatre or a planetarium upside-down filled with water. In Canada, Smith made a pilot model. Under the waterline there's silence, surrounded by the projection a swimmer can experience something of the universe in weightlessness. A rehearsal room for astronauts, the visitor becomes a space-tourist. At his presentation Smith shows a simple version of his plan with a flat projection screen under water. That's what interests Ir. Alexander van Dijk, the only Dutch person at the workshop. He works for the Dutch space-company Delta-Utec SRC in Leiden, the Netherlands, close to Noordwijk and he participates in the workshop with a film proposal. Film and video-material from space is only shown in short clips, never in a longer strain of images, never the whole earth. At a distance of three- to four hundred kilometers one circles the earth in about 90 minutes: exactly feature length. Thirty minutes will be dark, because of the night-day-effect. The ultimate reward is dawn. For minutes only clouds and sea will be visible.

When van Dijk presents his plan an inventory is being made of the already existing video-material in the archives of the NASA and ESA. There is a discussion about the soundtrack of the film.

I've never been at ESTEC research center before, but the place is an event in itself. Days before the workshop I had to fax a copy of my passport. The compound is heavily secured, there's a golf course surrounded by barbed wire and you can smell the sea. The main building is designed by Dutch architect Aldo van Eijck and looks rather worn out: it's got the shape of a beehive, angular wooden cells, where the sea-air has eaten into. Inside I recognize the conference room from television. The hall brings on memories of space-travel in the seventies: a high ceiling, oval shaped table, wood. We're sitting in a room called Einstein.

For the workshop a broad spectrum of space art has been selected. During the session on 'Dance and Movement' on the first day, that I have missed, a number of Japanese and French participants talked about research on new ways of choreography in zero gravity. In the session 'Space and Sound' several artists and musicians show their projects. There is a proposal called radio astronomy by artist Honor Harger, where listeners world-wide receive radio-output through radio-telescopes on the web or the FM-band, for instance radiation of the sun, activities of pulsars and quasars or other astrological phenomena. A version of this work was exhibited in Paris at the European Museum for Photography. This installation won the Leonardo Art Award.

Honor Hagar writes in her weblog: 'The WCC Radio Observatories is the only organization that broadcasts real-time space-audio. We listened for 20 minutes and found out that their recordings of signals around Jupiter had a remarkable resemblance with the recordings we made at VIRAC, the radio-astronomy-center in Latvia. It could be we were listening to cosmic noise, in any case it was very exciting.'

The conference is also exciting and works on my imagination. How would bodies decay in space, for instance, probably someone researched this. No time to ask. The rate at which new speakers do their presentations is high and after every session there are discussions on subjects like 'Space and New Media' and 'Space Architecture and Psychology'.

The lecturers are in many case veterans in the field. During the lunch I'm seating opposite of space-professor and technician of interplanetary robotics, Bob Parkinson. His team developed robots for Mars. I get into a conversation between Parkinson and an Austrian artist. The space-professor asks with a naughty twinkle in his eyes whether or not I think consciousness is bound to a fixed location. I don't think so, but add cowardly that we first have to define the term consciousness. To make it up with him I put forward that the Internet has proven that you can be in several virtual locations at a time and can have several conversations. The professor laughs out loud.

A week later he sends me a text 'Evolution of Consciousness' and explains the Fermi-paradox. Enrico Fermi's question: 'Where is everybody?' or rather 'if we're not alone in the universe, where are the others?' provokes him to think about the way consciousness evolves.

Truth

Lowry Burgess, a famous artist and professor at *Carnegie Mellon University*, tells about the space-experiments of cosmonauts. In texts they depict a transcendent situation: what strikes is that astronauts use the word '*truth*' remarkably often. Burgess draws a parallel between cyberspace and zero gravity because he tries to explain what kind of effect weightlessness has on the mind. For instance the linear thinking doesn't exist any more, because what's the first, second and third object without gravity? The perceptions of concepts like 'inside' and 'outside' change, according to Burgess.

Artist Lorelie Lisowsky tells that to her own surprise when she was kissing a student during a moment of zero gravity, she experienced a feeling of extreme solidarity with everybody around her. Without concepts as under or over she wanted to kiss everybody, without number. After her being weightlessness she preferred round objects to square ones. I immediately wonder what a long term stay in space does with the pressure in the brain, with the connections, synapses. I imagine what it would do with our imagination: new architecture, design, and language.

Fantasies

My generation grew up with fantasies about the universe thanks to tv-series like Star Trek, movies like Men in Black, Minority Report, ET and books by Neal Stephenson, William Gibson and Michael Crichton. I learn that space art is a very broad concept: educational projects are space-art but also forms of science fiction. There are a lot of different clubs, but it's still a community because it's very hard to get your ideas done in reality. For some projects you need to know people at NASA, some people are working hard to create artist in residencies in co-operation with laboratories.

Dan Goods is a young artist who works together with scientists. His task is to 'create unconventional ways of communication for JPL' (the Jet Propulsion Lab of NASA). An example of his work: the universe we can observe consists of 200 billion Milky Ways. JPL hopes to find a planet that looks like earth! If one grain of sand represents the Milky Way we live in, you would have to fill seven living rooms with sand to imagine the 200 billion milky-ways, every Milky equals one grain of sand for each of the two- to four hundred billion stars. The sculpture of Goods: halls full of sand, makes you realize how big the universe is and how little we can actually see. He's illustrating this with a Plexiglas pipe in the middle of this immense sandpit, which has one grain of sand: our Milky Way. In this one grain of sand a micro-hole is drilled: that's the area we can -until now- research. In this piece more than 100 planets have been found that resemble earth. This info sticks to me. Just like the discussion about manned space-travel, robots can do the job just as well. The workshop is also critical about space-sculptures, some plans are seen as pollution, space-trash. The intense workshop did make my head float. And that's what counts in space-art: stick your head above the clouds.

7th Space & Arts workshop

<http://www.congrex.nl/04c20/>

Arthur Woods and OURS

www.arsastronautica.com

Dan Goods:

<http://quad.bic.caltech.edu/~dangoods/portfolio>

Honor Hagar :

http://frequencyclock.montevideo.nl/pMachineFree2.2.1/weblog.php?id=C0_4_1

Dragan Zivadinov NOORDUNG:

<http://www.nskstate.com/athens/noordung/noordung-benson.asp>

Arts Catalyst:

<http://www.artscatalyst.org/>