Less Remote: The Futures of Space Exploration - An Arts and Humanities Symposium

PROGRAMME & ABSTRACTS

[k] = keynote talk
[i] = interactive presentation

DAY 1: 30 September 2008

SESSION 1: THE INTROSPECTIVE URGE
Moderator: Rob la Frenais, The Arts Catalyst

This session focused on humanity's self image as a determining constituent in the context of the cultural and social constructions of space science.

Opening Comments

[k] Architectures of Address - Fraser Macdonald

Finding Time in Google Earth - Chris Speed

[i] The Self As Technology - Lee Mackinnon

In Space and Out Of Scale - Nina Czegledy

Notes on the Potentiality of Space - Catharina Gabrielsson

Architectures of Address & the Geopolitics of Orbital Space - Fraser Macdonald (GB)

Geographer Fraser Macdonald's paper attempted to make connections between mundane social practices by individuals on Earth and the much wider geopolitical contests among superpowers in space. As the geographer Nigel Thrift has argued, the integration of GPS into everyday life - now in mobile phones - may mean the effective end to the question where am I? In this way, the penetration of satellite technologies into the most mundane

social practices are bringing into play new ways of being in the world - new forms of sensory a-whereness - which in turn are reconfiguring our experience of place and space.

Finding Time in Google Earth - Chris Speed (GB)

Chris Speed's paper identified problems associated with how networked earth visualisation technologies affect our understanding of our local and global environment, and presented a critical and creative opportunity for space science and exploration to remedy them. Through an analysis of a series of applications of the Google and Yahoo mapping API's (Application Programming Interface), Speed demonstrated how the use of space and time as discreet design parameters distorts our understanding of social, economic and ethical subjects. As a recovery for this split, he identifies space activity as having the only actual potential for synthesising time and space, through the imaging and transmission capabilities of the International Space Station and orbiting satellites.

The Self As Technology - Lee Mackinnon (GB)

Lee Mackinnon explored early modern visual technology as a manner in which the subject is gradually inscribed within the look of technology. Early modern European visual technologies extended the range of human vision: anatomical studies (Da Vinci); the exploration of outer space (Galileo); and the mapping of land, sea and stars (Columbus). Supported by CAP Research fund, Solent University.

In Space and Out Of Scale - Nina Czegledy & Andre P. Czegledy (CA)

The Czegledys' paper explored the question: Is scale the same as space? Some of the most significant contributing factors to our shifting perceptions of the universe include the effects of technology on human awareness of the scale of space, and the changing sense of self that this awareness has created. How do new perceptions of the corporeal realm illuminate changing perspectives on visualizing outer space? And what do we do with these parallels between the macro and the micro?

Notes on the Potentiality of Space - Catharina Gabrielsson (SE)

Forming part of a larger post doctorate research study, Catharina Gabrielsson's paper will problematized the concept of space in architectural theory and philosophical thought, arguing that space needs to be re-thought in order to fulfil its potentiality. The term space possesses an inherent duality, not only signifying outer space but also liveable, built, architectural space. The predominating conception of space in Western thought – as abstract, stable, geometrical, permanent – has constantly put it in opposition to time, that is, to anything involving process, creation or change.

SPECIAL ARTIST'S PRESENTATION: TOMAS SARACENO (AR / IT)

The Argentian artist-architect Tomas Saraceno introduced his work and his vision for future floating cities in the sky.

SESSION 2: EXTENDING OUR REACH
Moderator: Roger Malina, Leonardo / IAA Commission VI

This session focused on the search for life and its origins, the yearning for proof that we are not alone in the universe, and the long-term prospects for a human future among the stars.

Opening Comments

[k] Extraterrestrial Ethics: Our Cultural and Moral Commitment to Discover,Create and Support Emergent Life Forms - Andy Miah

Human Reproduction in Space - Rachel Armstrong

Interstellar Message Composition - Doug Vakoch

[i] Yelling At Stars - Nicky Forster + Willoh Weiland

Extraterrestrial Ethics: Our Cultural and Moral Commitment to Discover, Create and Support Emergent Life Forms - Andy Miah (GB)

Andy Miah's paper outlined a moral commitment to future species, which encompasses manufactured, by-products of humanity, along with the development of new life forms by synthetic biology, enhanced humans and non-human animals, and the possible discovery of new life forms (both native to Earth and foreign). It fashioned the concept of extraterrestrial ethics as a critical response to and extension of bioethics and environmental ethics, where the emerging language of ecosystem health expresses a broad commitment to planetary well-being.

Human Reproduction in Space - Rachel Armstrong (GB)

To date, hundreds of experiments have been carried out to investigate the challenges of the extra terrestrial environment, but none have generated so much speculation as the challenges of human reproduction. Rachel Armstrong's presentation speculated on the implications of the animal data to date. Drawing from those species whose progeny have survived in extra terrestrial environments, we visualise our predictions about the developmental stages of the human embryo conceived in weightlessness.

Interstellar Message Composition - Doug Vakoch (US)

Doug Vakosh gave an overview of the work of the Search for Extraterrestrial Intelligence (SETI) Institute.

Yelling At Stars - Nicky Forster + Willoh Weiland (AU)

Yelling at Stars - Australia's first interstellar message - is a cross discipline art/science project taking place in Melbourne, Australia, as part of the Next Wave Festival 2008. Nicky Forster and Willoh Weiland's paper presented the artists' findings based on each phase of the project from research and development, to performance and audience feedback. Supported by the Australian Network for Art and Technology through its Professional Development Travel Fund.

THE ARTS CATALYST CURATED EVENT

Marko Peljhan - Interpolar (SI)

Artist Marko Peljhan reported on the current progress on the launch of the first artist controlled and commissioned satellite and also the development of the Slovenian Space Agency, with artists contributing to its foundation.

Geetha Naranayan (IN) & Joanna Griffin (GB) - Moon Vehicle Design Group

Geetha Naranayan & Joanna Griffin gave an outline of the Moon Vehicle project, undertaken by students at Srishti School of Art, Bangalore, inspired by ISRO's Chandrayaan mission and informed by India's cultural and philosophical relationship with the moon.

Carrie Paterson (GB) - Several Attempts to Make Images of the Moon and Mars By Landing on Them

Documentation video of the use of trampolines to evoke 'the collective desperation - as well as libidinous longing - for freedom from the body, materiality and consequence that accompany the 21st century Space Age.'

Pascal Pique (FR)

Pascal Pique, curator at the art museum Les Abbatoirs in Toulouse, described the showing of provocative artworks at the Cite D'Espace in Toulouse, a popular destination for families discovering space exploration in a theme park context.

Screening of SpaceBaby, a film by London Fieldworks (GB)

A new film by the artists London Fieldworks (Bruce Gilchrist & Jo Joelson) charting the research done by the artists acting as subjects in an experiment to investigate a possible genetic basis for sleep - with a view to long-term space exploration.

DAY 2: 01 October 2008

SESSION 3: CULTURAL CONCERNS
Moderator: Jill Stuart, London School of Economics and Political Science

The session addressed the interrelationship between intercultural, as well as interdisciplinary ideas of the cosmos and the nature of space exploration.

Opening Comments

[k] Desiring Missions: The Exploratory Urge and its Ideological Background Radiation - Andrew Stones

Political Culture and National Space Policy - Iain Bolton

[i] A New Culture in Space - Takuro Osaka

[i] Space-Art-Rescue - Melody Burke + Frank Hoppe

The Potential Contributions of Queer Culture - Frank Pietronigro

The Legacy of Columbus - Hans-Arthur Marsiske

[i] Social Power and the Cosmos - Peter Dickens

Desiring Missions: The Exploratory Urge and its Ideological Background Radiation - Andrew Stones (GB)

Artist Andrew Stones explored the empty territories that have often seemed to be a prerequisite for the big performances of human progress. Today, the New Worlds which await are not the terrestrial ones of Lewis and Clarke, or Captain Cook and Joseph Banks, but the video-surface of Mars, the Hubble Deep Field. Unlike any on Earth, these terrains seem culturally uncontested, open to any reading anyone might want to project onto them. The desiring imagination alone might be satisfied with visualizations, simulations, virtual realities, even art. Projecting without reflecting, the would-be explorer might forget that the dangers of exploration lie as much in their own disposition as in the new terrain.

Political Culture and National Space Policy - Iain Bolton (US)

Iain Bolton's paper examined the influence of political culture in the area of national space policy. Significant and substantive elements of the US space programme cannot be explained without acknowledging the influence of American political ideology and the country's collective self-image.

A New Culture in Space - Takuro Osaka (JP)

The vastness and mystery of the universe, transcending time and space, is a theme that has existed since antiquity, and has been represented by ancient monuments, religious sites, Japanese tea-rooms and gardens, and the like. The other theme in space art has been experimented with mainly in western Europe since the latter half of the 20th century: art that will unfold in space (zero gravity). This presentation considered Osaka's artistic experiments in this field, and the potential of art as a basis of a new culture in the space age.

The Legacy of Columbus - Hans-Arthur Marsiske (DE)

Space exploration, especially human space travel, is often viewed as a direct continuation of the voyages of Christopher Columbus and the other great European explorers of the 15th and 16th century. However Columbus' legacy is ambiguous to say the least. His discovery of a new continent paved the way to the empirical proof that the Earth is a globe, but it also opened up the trade routes for slavery. Marsiske's presentation argued that a space laboratory with the name of Columbus should represent these victims as well as the courage and determination of the explorers.

Space-Art-Rescue - Melody Burke + Frank Hoppe (DE)

Satellite Art Works created a Space Art initiative called Space-Art-Rescue - Art for the Early Warning System, concentrating on disaster reduction,

cultural concerns and technology. Their Space-Art-Rescue devices are intented to be visible from earth to air-space, near-space and space and envelop the question of global responsibilities. New organs of perception, methods and activities connected to space are reflected in the examination of Space Art Practice, a fine art research approach within the evolving field of Space Art.

The Potential Contributions of Queer Culture - Frank Pietronigro (US)

Artist Frank Pietronigro (joining the symposium by videolink from San Francisco) discussed that, as a cosmology unique unto its own, queer culture has and will offer a differentiated contribution to the evolution of future space exploration while expanding the arts, humanities and culture in space in ways that are universally enriching. Throughout the history of our planet Earth, lesbians, gays, bisexuals, and transgender (LGBT) people have significantly contributed, in recognised and unrecognized ways, to evolution of culture and the author posits that it is inevitable that such contributions to cultural expansion in space will continue as our species moves off-planet.

ITACCUS LAUNCH

The new **IAF (International Astronautical Federation) Technical Activities Committee for the Cultural Utilisation of Space (ITACCUS)** was announced during the Less Remote symposium. ITACCUS has been set up to promote and facilitate the innovative utilisation of space by the cultural sectors of society internationally. The term 'utilisation' is used often by the space community. In a cultural context, it may include cultural production, cultural preservation, cultural representation, cultural education and cultural development.

Launch speakers were ITACCUS co-chairs **Roger Malina, Director, L'Observatoire Astronomique Marseille**, and **Nicola Triscott, Director of The Arts Catalyst**, and committee members **Ciro Arevelo, Chairman of the United Nations Commitee on the Peaceful Uses of Outer Space**, who welcomed the ITACCUS initiative for the contribution that the cultural sector could make to space and society's engagement with it, **Mario Hernandez from UNESCO**, who explained the work of UNESCO in using space surveillance systems to monitor world heritage sites, **Bernard Foing from the European Space Agency** and **Spanish astronaut Pedro Duque**.

SESSION 4: INHABITING SPACE
Moderator: Nicola Triscott, The Arts Catalyst

In this session, speakers considered the continuity between the needs of humans on earth and the possible demands of future 'spacefarers' in remote and often hostile environments.

Opening Comments

[k] Biological Habitat: Developing Living Spaces - Zbigniew Oksiuta

The Martian Rose - Howard Boland + Laura Cinti

[i] Tools to Search - Agnes Meyer-Brandis

[i] Lunokhod 1 - Carrie Paterson

[i] Space Synapse Ltd - Anna Hill

The Other Place - Kirsten Johannsen

Art from Atlantica Mission - Sarah Jane Pell

[i] Garments for Reduced Gravity Environments - Mark Timmins

Biological Habitat: Developing Living Spaces - Zbigniew Oksiuta (PO)

Gravity decisively influences the manifestation of earthly technology: humans create their static and mechanical objects according to the principles of Euclidean geometry from stiff, dead material: hardened concrete, glass, steel, ceramic. At the moment, we are still sending heavy, static equipment, produced on earth under gravitational conditions, into space - an environment which is not static at all. Artist Zbigniew Oksuita explores in his work what kind of habitats can make sense of a biological system in outer space.

The Martian Rose - Howard Boland + Laura Cinti (GB)

Artists Howard Boland and Laura Cinti presented their project, The Martian Rose, an artistic investigation into boundary conditions of life beyond terrestrial settings. The Mars Simulation Laboratory at the University of Aarhus constructed a planetary simulation chamber, used to expose biological samples under proxy Martian conditions.

Tools to Search - Agnes Meyer-Brandis (DE)

Leaving an environmental entity with known structures (gravity) confronts us with a differing reality. Art is related to the world that we know and where we are. What kind of art and perception would the expansion of our world into space create? Artist Agnes Meyer-Brandis discussed her involvement with a parabolic flight campaign at the DLR (German Aerospace Centre), in which she performed an artistic experiment to examine the smallest particles in the interiors of clouds - cloud cores / aerosols. Supported by the Goethe Institute Glasgow.

Space Synapse Ltd - Anna Hill (IE)

Anna Hill gave an update on the Space Synapse venture, a collection of products designed to enable the human experience of space travel to be shared between astronauts and people on Earth.

The Other Place - Kirsten Johannsen (DE)

Going to Mars is widely considered to be the next logical step in human space exploration. Kirsten Johannsen's paper suggested that art production for long-term spaceflights will extend the artistic process on a technical as well as on an intellectual level, because artists will have to develop modified metaphors which question the non-orientated space as the other place. This will also imply the development of new design forms based on the unique interaction of the floating artwork and the floating astronaut as user, the astronaut as the new audience and the potential benefit of artworks in microgravity environments.

Garments for Reduced Gravity Environments - Mark Timmins (GB)

Fashion has a rich history of engaging with representations of space: during the space fever of the 1960s, fashion designers Courreges and Cardin explored new materials and silhouettes to transform gravity-laden mortals with some of the cachets and sparkles of space exploration. Mark Timmins asked: what will future space tourists (and staff) be clad in? He felt the answer lies in the hands of a new generation of designers who will create garments that react to zero and microgravity. Jets of air, magnets, shape memory alloys, nanofibres and fabrics, infrared data streams, light, radiation; the possibilities expand along with the technologies and the designers' imaginations.

Art from Atlantica Mission - Sarah Jane Pell (AU)

Artist Sarah-Jane Pell spoke on her artistic and scientific involvement in the longest ever human undersea durational mission ever attempted, Atlantica. A custom-built facility called the Leviathan Habitat is to be submerged off the coast of Florida. This presentation posits the Atlantica mission as an

innovative platform for discussing new modes of being, strategies of technicity and the aesthetics of care and operation from within an analogue to future outer space habitat missions.

EVENING INTERACTIVE EVENT : 01 October 2008

Centre for Contemporary Art, 350 Sauchiehall Street, G2 3JD

Due to the limited number of speaker slots, a number of interactive presentations took place during the symposium. These comprised 5 minute presentation slots in one of the sessions, followed by more detailed description of the work (alongside a poster) in this separate event.

The interactive event was an opportunity to find out more about those projects briefly outlined in sessions, and provided an informal forum for discussion of issues raised during the two days.

20:30 PERFORMANCE: Yelling at Stars

Yelling at Stars is an ongoing science art project investigating the composition of interstellar messages. After sending a transmission into outer space on 31 May 2008 in Melbourne Australia, the Yelling at Stars team is in Glasgow for Phase Three, a performance research installation focused on communication with space.

Willoh S.Weiland, Nicky Forster, Pip Norman, Sarah Jane Pell Performers
Pip Norman (AKA Count Bounce) Sound
Willoh S.Weiland Art Design
Andrew Fraser, Georgina Read, Roger Alsop Video

Visualisations and animations courtesy Swinburne University of Technology Department of Astrophysics and Supercomputing. Supported by the Australian Network for Art and Technology through its Professional Development Travel Fund