

The Philosophical Aesthetics of Space Culture and Arts

By Lowry Burgess

If we are to move human beings into outer space we are going to have to move their culture with them

Lowry Burgess, *Fortune Magazine*, September 2005

Zero gravity's effect is not what one would assume from conceptual thought or seeming reason. When I observe interactions in zero gravity, it has surprised me that zero gravity appears as an energy that flows through things causing them to live and grow out – to fan out with new potentialities! Zero gravity energy flows through and out and so doing pulls things inside out! It manifests as a vital energy, a grace that lives and moves. It is powerful in all its transformations – its disengagement and releasement requires new cultural and aesthetic relationships. It is demandingly vital

Lowry Burgess, the Space Arts Conference,
Nordwijk, the Netherlands, 2003

Since the first humans looked upward to the vast and profoundly meaning-filled sky, reaching upward and beyond to the starry cosmos, we have pressed our archetypal feelings and ideas into that beautiful and receptive sky-surface that surrounds us all. When we look up, we look into the mirror of our utterly fundamental mind. Human perception and the understanding of the world, its nature and reason, has always been intimately connected to our sense of the cosmic matrix in which we all hover. The celestial sphere led and now leads to other worlds filled with life or death, gods or other life, from the future or the past and even beyond. Each generation's most imaginative intuitions concerning the meaning of human being are formed by its concept of the sky and cosmos. It is there in that overarching sky that mythic logic – the logic of the mind in framing the unknown – plays out and finds feeling-filled aesthetic forms that establish the ethos of each historic epoch.

The framing of a new cosmic mythos marks each distinct historical epoch. Each age's utopic aspirations are often first seen in outer-space, a place beyond, a heaven that impinges and drives all cultural frameworks. It is there, in that overarching sky, where that the mind finds initial forms that become the cultural frameworks of society – the arts and language, morals and ethics, science and technology, economics and politics. They all reach out to and are deeply grounded in the cosmos both above and below.

Now humanity is physically pressing outward beyond the Moon to Mars. While probing the deep space origins of the universe itself, we, here on Earth, are surrounded by a new manifestation of outer-space, the “Metasphere”, created from all the projections and actions pressed into outer space for the past 60 years. The Metasphere is the recently emerging framework of space-monitoring and space-based information systems, the complex infrastructures, that are effecting a radically transformative view of Earth – its weather, ecology, geology, hydrology, health, finance/economy, defense, energy, exploration, communications, and imagining – a new Earth and sky. Indeed, we have seen the beginning of the Space Epoch.

In this new epoch, there is a profound need to engage the fuller participation of the arts and culture in space exploration to gain a deeper holistic imagination toward our new cosmos. It is there in outer-space that new spiritual and aesthetic ideas and values appear; new understandings of intimacy and love; new understandings of sorrow and risk expressing how that outer-space affects the inward space: the unfolding deeper understandings of life; new forms of expression – new names and words, languages and grammars; desires for happiness and freedom – longing, sorrow, and death; new notions of comfort and repose, even humor; new processes of art making, new forms of art; even imagining new forms of human life – an imagining in the new scales of nearly endless times and spaces, with new materials and energies, as well as extreme conditions. It can be assumed that many innovative artistic projects and creations will point to the territories of mind and reality at the edges of the possible and even far beyond. As in the past, artistic imagining will be crucial to future developments in science and religion, technology and engineering inspiring and motivating curiosity and knowledge creation in every field and discipline – all being essential to the realization of broad potentials for a better life,

These recent significant transformations of our world view require a new cultural aesthetics in which the contemporary sense of cosmos is embedded:

1. The new infinite cosmology—the open universe, infinity and even beyond...
2. Life as a universal presence—Mars, Europa, and almost everywhere...
3. DNA—the new control of life forms, cloning, inside out reversals—DNA designed life—humans controlling DNA...
4. The computer combined with global communications systems, the instantaneous cyber-communications “metasphere” ...
5. Brain re-forming chemistry altering mind/body relationships...
6. Internal and external robotics—the micro/macro machine...
7. Shared dream-culture, simultaneous within the communications metasphere—interactive telepresence and remote multi-sensing...

In a time of extraordinary global cultural tensions the global community needs to reach toward and express shared human feelings, feelings that all people have – and, in particular, those feelings associated with the universal surrounding of the sky and starry cosmos from which we derive our being. Not to address feeling-filled culture in outer space and particularly meaning creation there is to strangle the imagination's life-blood as it reaches out to our much-expanded cosmos – there searching for a new human destiny! Just as in many historic cosmic myths the creators gaze into the mirror of the cosmos to mirror their godly selves, so we gaze upward to the celestial mirror beneath which we are suspended – there to face our deep future. What do we see as the ultimate goal for human consciousness in the cosmos? To undertake such ontological and teleological exploration raises all the questions about those things that are most essentially human, engaging the utmost capacities of the human mind/body.

We do not know what the genome wishes to become in zero gravity. Certainly, most of the physical and mental structures that have evolved to enable the genome in gravity will become superfluous. What is life to become in the zero gravity garden? What does this imply for the evolution of such a gravity formed creature as us? In this reality the human body, with all its meaning and history, becomes enfolded and engulfed, swallowing all external society and nature in its gravitation – totally inverted and pulled inside-out in the “gravity garden” of release. Surely, within these evolving experiences reside deep emotions and feelings, a plenum for a newly emerging aesthetic framework for many artists and collaborators to articulate and develop in conjunction with the technologies and sciences, even that of the magneto-gravitational spectrum.

We are the creatures who make meaning. Imaginers/artists give initial intuitive form to those meanings that guide and give compass to being. This provocative condition requires artistically original plots, narratives and choreographs – a new kinesthetic and dramaturgy. New artistic/poetic invention with the new technologies and techniques fashions and explores an expressive, intimate, synaesthetic/multi-sensory consciousness. It evolves within a vibrant mesh of actions and events pulled outward by tremendous anti-gravitational forces driven by the desire for Earth-released consciousness.

Various arts have accomplished those cosmic connections during the past 40 thousand years – an accumulation and record of the arts addressing the skies and heavens from the earthbound surface. This has led to a rich array of artifacts and sites in a vast assembly of evidence. In the middle of the last century a radical threshold was achieved – it became possible to displace the whole of humanity – mind, heart and body from the surface of the earth – to venture into cosmic space and time. From that moment a few artists have been engaged with this new context to unfold its broader meanings.

Projects known and unknown, public and private, have engendered broad creative thinking and aspirations toward outer space within the various arts communities.

In the past generation, the Space Arts community has grown from a few to hundreds of artists in the various arts disciplines from around the world who are now engaged in individual and collaborative space arts projects. Over the past 25 years, the community has gained momentum from a growing number of major exhibitions and conferences. During that time, Space Art has garnered the support for projects and residencies from major institutions, with foundations, and with space agencies, including NASA, the European Space Agency (ESA), and the Japanese Aerospace Exploration Agency (JAXA).

More specifically to the topology of the arts, Space Art can be considered as any art that connects and expands human consciousness and culture toward its cosmic context. These space arts (literature, poetry, music, dance, media art, conceptual art, performance art, visual arts, architecture, painting, sculpture, design, etc.) have included:

- Sky art
- Celestial art on the ground as well as in space
- Microgravity art in numerous parabolic flights and in orbit
- Partial gravity art, double-G art on earth and in space
- Cosmic art – art that addresses large cosmic structures, time-space constructions
- Henge Art – that which creates a “hinge” between sky and earth: Celestial Architecture on the earth – telescope observatories, the ancient henges, (e.g. the Pyramids, Stonehenge) – Greek drama performed under the stars
- Science Fiction/Fantasy literature
- Arts of re-perceiving earth from the perspective of space
- Art produced through the media of photography, film, video, radio astronomy, visual astronomy, X-ray, infrared including a radio/sonic arts
- Art actually in outer space produced after Sputnik – Art that can only exist in the outer space environment

Since the landmark experiments in art, science and technology of the 1960s, there has emerged a stronger and more insightful understanding of both the meaning and necessity of informed mutual involvement between the arts, science, and technology. Increasingly, over the past 50 years, artists have found and are finding ways to contribute to scientific undertakings just as science and technology are informing artistic and humanistic practice particularly and in this case related to outer space.

Sample areas of space arts recent experimentation include:

“The Body in Motion”

This theme-cluster is devoted to the sense of the OG/2G-body’s unique physiology and kinesthesia (movement) leading to extraordinary development of a sense of new types of physicality in altered gravities. This theme would involve dancers, choreographers, physiologists, and gymnasts – arts that make this new physiology evident and present. It would also include artists with physical or perceptual handicaps.

“Mind Expansion”

This theme is devoted to the unique psycho-physiological or mental realities of multi-gravitational experiences – the new consciousness embedded in altered gravitational reality. This theme would involve artists, poets, teachers, psychologists, neurologists, philosophers, and theologians. It concerns itself with the manifestation of new larger meanings.

“Place Sensing”

This theme concerns itself with formulating and articulating the sense of Place in OG/2G experience – new orientations of mind/body in “space”. Where am “I” and where is “it” – the sense of location without “pull” or with crushing confinement, both self and context producing a new “place”. This theme would involve artists, architects, designers, topologists (mapping), etc.

“Zero Gravity – Multi-Gravity Socialization”

This theme is focused at the social interactions with others in hyperbolic flight, the unique motions, proximities, and unusual objectivities that inhabit social interactions in OG/XG experience involving artists, sociologists, social psychologists, and anthropologists.

“Communications in Virtual Space”

Earth to outer space communications linking the ground-based sites to micro-gravity disengagement in hyperbolic flights in an effort to open wider horizons for direct and indirect experiences. This nexus of disengagement and release is a precondition to the exploration of nascent aesthetic formulations that are inherent to zero gravity experience through the creation of live simulations and interactions between earth and space in virtual reality where live data is sonified and visualized with haptic interfaces in communicating and simulating new gravitational experiences to those on the ground.

In these interfaces, we can enter a more flowing relationship between the mind and sensorial physicality, a communicative, a “garden” constituting its own forms, structures and contents. Traditional images and words, music and sounds, gestures and touch, do not live comfortably in this disengaged, zero gravity reality. They want to be more dynamic, more rapid, more explorative, and more inquisitive; they want to be more democratic, more synaesthetic, more polyvalent, more free-associative. This new framework demands a de-gestalt and fragmentation – then a re-assembly on another plane of consciousness. It requires entirely new image formulations – dynamic, hieroglyphic, and synaesthetic in nature – all in a mutual “inter-relational” mesh filled with new aesthetic meanings to be formed by artistic creative effort.

In the more formal fields of philosophical aesthetics the new presence of outer-space presents such open and commanding territory for the further development of new aesthetic philosophy and theory presenting deep challenges to all of 20th Century’s aesthetic thought, whether in the phenomenology of perception (Merleau-Ponty), existentialist philosophy and aesthetics (Heidegger and Sartre), anthropological and structuralist thought (Levi-Strauss), linguistic thought (Wittgenstein and Chomsky) or deconstructualist, post-Freudian polymorphic, desire driven thought (Deleuze, Guattari, Baudrillard, and Foucault) and particularly for the evolution of the inherency of an aesthetics of justice and freedom (from Hegel through Derrida’s last writings) – also to theological aesthetics (de Chardin and von Balthazar). In every condition of aesthetic thought we are confronted by such new situations in outer-space, with our relation to presence of life-forms strewn everywhere, that the Earth-bound condition for our mind is now truly unlocked and unbound. New aesthetic frameworks are required for the processes of expanded understanding of human existence.

To turn toward the more immediate, at the end of a Space Arts Conference in Paris in 2003, a group of core participants agreed to plan and convene a meeting devoted to the further development of the field of Space Art. This led to a subsequent Space Arts conference held February 2004 on the West Coast Campus of Carnegie Mellon at the NASA Ames Research Center in Mountain View, CA. The Workshop on “Space Artists’ Residencies and Collaborations” was organized by the Studio for Creative Inquiry at Carnegie Mellon University, the Zero Gravity Arts Consortium, the Center for Science Education at Space Sciences Laboratory, University of California at Berkeley, and more than 40 artists and scientists attended. An outcome of the Conference was a document titled “The Common Ground of Creativity,” which outlined a working agenda and proposal for the Space Arts Community.

As in the recent 2012 “Astrobiotic” Conference, sponsored by NASA at SETI, we have witnessed the upsurge of cross-disciplinary relationships, workshops, conferences, and

exhibitions increasing, as well as scholarly articles and chapters of books that address the complex relationship in areas as diverse as space exploration, nanotechnology, bioethics. Fostering the future of culture and the arts in outer space calls for networks of university, institutional, and space agency support in the United States, Europe, China, and India and more immediately expanding the cultural potentials of the International Space Station. Also, “Ground-to-zero-gravity linkages” need to be explored in a variety of settings and conditions involving new communications technologies to build broader cultural participation.

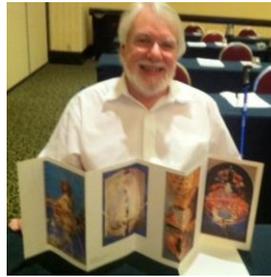
Organizationally, we require an aesthetic, a feeling-filled basis for a cultural membrane that links, interconnects, and integrates an extraordinary plenum and potential for human creativity and freedom by the creation and activation of networked groups, institutions, facilities scattered around the world. These extraordinary creative potentials call upon the world’s Space Community: its space agencies, research, academic and artistic institutions to extend a deep hospitality to the arts and humanities within the scientific, technological and technical frameworks that exist – to engage in an imagining with and for the whole of humankind such that the vast potentials we see will be enabled among us all by the generous and loving spirit that our life so deeply requires.

*Weightlessness comes on abruptly.
I soared as if I were inside a soap bubble –
Like an infant in the womb of my Spacecraft,
Still a child of my mother Earth.*
Miroslav Hermaszewski

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About the Author: Professor Lowry Burgess is a Distinguished Fellow at the Studio for Creative Inquiry, Center for the Arts and Society, College of Fine Arts, Carnegie Mellon University. He created the first official art payload taken into Space by NASA in 1989 and is a pioneer of the Space Art movement which in 2012 has hundreds of global artists. After destruction of the Buddhas in Bamiyan, Afghanistan in 2001, he authored the worldwide endorsed “*Toronto Manifesto: The Right to Human Memory*”. His artworks are in museums in the United States, Europe, Canada, and Japan and created curricula in higher education for the arts and humanities. Lowry has received awards from nine of the world’s leading Arts and Letters Foundation, including the Leonardo da Vinci Space Art Award from the National Space Society. His 1987 book, *Burgess: The*

Quiet Axis, which won the Imperishable Gold Award from Le Devoir, Montreal is at Amazon.



Bob Krone photo of Lowry at the Kepler Space Institute Convention, Hilton Head, South Carolina, March 2012.

Editor’s Notes: The Kepler Space Team has been privileged to benefit from Lowry Burgess’s participation for years and considers his long career of pioneering and entrepreneurial work in Space Art and Culture to be critically important to both the philosophy and the development for the future of humans in Space. We are proud to include Lowry’s original article, “*The Philosophical Aesthetics of Space Culture and Arts*”, in this first issue of *The Journal of Space Philosophy*. Kepler Space Institute (KSI) is committed to retaining permanently in its vision the following recommendation of Professor Lowry Burgess:

“Organizationally, we require an aesthetic, a feeling-filled basis for a cultural membrane that links, interconnects, and integrates an extraordinary plenum and potential for human creativity and freedom by the creation and activation of networked groups, institutions, facilities scattered around the world. These extraordinary creative potentials call upon the world’s Space Community: its space agencies, research, academic and artistic institutions to extend a deep hospitality to the arts and humanities within the scientific, technological and technical frameworks that exist – to engage in an imagining with and for the whole of humankind such that the vast potentials we see will be enabled among us all by the generous and loving spirit that our life so deeply requires.”

[Lowry Burgess, *Journal of Space Philosophy*, October 15, 2012.](#)

[Bob Krone, *PhD*.](#)
