

Envisioning Limits: Outer Space and the End of Utopia

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Did the end of the Space Age in the 1970s really mark the end of outer space as a field for humankind's visions, longings and projections? The termination of the Apollo program and the cessation of manned space exploration could be regarded as proof that, with the beginning of the decade, an age of limitations and boundaries started which was at odds with formerly close connections between outer space and futurity. Or should we rather understand this premature 'end' as yet another part of the grand narrative of decline through which the history of this „in-between-decade“ is so often interpreted? A number of developments in the 1970s, such as the foundation of the European Space Agency and the U.S.-Soviet Apollo-Soyuz test project in 1975, the upsurge of robotic space exploration missions, the renewed interest in space colonization, as well as the flourishing astroculture of the period, conflict with all-too easy conclusions.

At the conference „Envisioning Limits: Outer Space and the End of Utopia“ more than 60 international scholars from a wide range of disciplines investigated the complex history of outer space, space flight and extraterrestrial life in the 1970s. Alexander Geppert, William Macauley and Daniel Brandau, of the Emmy Noether Research Group „The Future in the Stars: European Astroculture and Extraterrestrial Life in the Twentieth Century“ at the Friedrich-Meinecke-Institut of Freie Universität Berlin, organized the three-day event, during which the decade was discussed as well as the nature of the boundaries that appeared to characterize it. Many of the participants had already taken part

in an earlier international symposium, entitled „Imagining Outer Space, 1900-2000,“ organized by Alexander Geppert, at Universität Bielefeld's Zentrum für interdisziplinäre Forschung (ZiF), in February 2008.¹

Three feature presentations and nine panels provided a multifaceted analysis of astroculture as a predominant topos in the cultural imagination as it shaped the socio-political discourse, not only in Western Europe and the U.S., but also in the USSR and in developing countries. In the course of investigating ideas of limits and limitlessness against the backdrop of the all-too real boundaries in a world marked by „the arms race, environmental deterioration, the population explosion, and economic stagnation,“ the question was discussed whether the 1970s were indeed a period of transition, an intermission, or, for that matter, an intelligible unit at all.² What happened to space flight and astroculture in the 1970s, and how could these developments be positioned in the wider context of this decade that is currently so eagerly debated?

In order to produce viable answers to these questions, all participants took the limits theme to heart and went far beyond the mere title of the conference with their inquiry. For one, historiographical limits, such as periodization and historical trends, were scrutinized. Furthermore, thematic limits – the range of objects of study as well as the range of disciplines involved – were decidedly widened. And lastly, geopolitical limits were called into question, both regarding national borders as well as the dividing lines between earth and outer space.

At a conference about the history of outer space during the 1970s, a crucial point was of course the choice of time frames and their explanatory potential. Accordingly, MARTIN COLLINS (Washington, DC) set the agenda when proposing that the most challenging aspect of historical research into the 1970s was that the decade had been thoroughly theo-

¹ Conference Report „Imagining Outer Space, 1900-2000.“ 06.02.2008-09.02.2008, Bielefeld, in: H-Soz-u-Kult, 16.04.2008, <http://hsozkult.geschichte.hu-berlin.de/tagungsberichte/id=2070> (25.06.2012).

² Donella H. Meadows et al., *The Limits to Growth. A Report for the Club of Rome's Project on the Predicament of Mankind*, London 1972, p. 17.

alized by scholars like Fredric Jameson, Jean-François Lyotard and David Harvey long before it was historicized. Subsequently, the decision to concentrate on the 1970s, a period that has recently been described as marking both „the end of certainty,” „the shock of the global,” as well as a time „after the boom,” was complicated by a series of developments and events in space history.³ DOUG MILLARD (London) proposed that in the UK, serious considerations of space flight had already been abandoned by the end of the 1960s. However, this early end did not dampen the continuous enthusiasm amongst the British for space culture. RALF BÜLOW (Berlin), on the other hand, painted quite the opposite picture for the West German context of the time. In his analysis of the science and technology magazine „X” Bülow pointed to how readers’ fascination with the details of space flight decreased in the early 1970s, giving way to topics such as psychology and environmentalism. ROBERT POOLE (Lancaster) outlined how Stanley Kubrick’s legendary film „2001: A Space Odyssey” could well be interpreted as a cultural critique of the scientific self-understanding of positivist progress, picturing a civilization that would go into space, but encounter the limits of its own comprehension of this very endeavor right there. Poole suggested that anxieties about nuclear disaster did much to shape the gloomy atmosphere in Kubrick’s work, a stance that resonated with doubts of progressivist narratives of human development. JOHN KRIGE (Atlanta) took Europe’s catching-up in technology development and the resulting quarrels with the United States regarding technological cooperation as the marker of more profound shifts in the U.S.’s global position. As disputes about American assistance to the launching of European telecom satellites resulted in the development of the European Ariane launch vehicle series, this caused a breach with the American monopoly on access to space which, Krige argued, should be regarded an historical turning point.

Further detailed readings of historical contexts were provided for the United States by MATTHEW H. HERSCH (Philadelphia), NEIL M. MAHER (Newark) as well as PETER

J. WESTWICK (Los Angeles) in their complementary accounts of U.S. domestic politics in the 1970s. Hersch investigated the year 1972 as the year when spaceflight proved both „successful and superfluous,” which led to the making of an „uneasy consensus” between different groups in American society that space programs should be continued, if for contradictory reasons. Maher outlined the relationship between NASA’s space program and the New Left which led from initial criticism and competition for funding to the New Left’s embracing of NASA for their technological development according to an environmental agenda. Westwick’s talk, one of the few that actually focused on the second half of the 1970s, outlined how this emergent technological optimism of the left-liberals would eventually result in the Strategic Defense Initiative (SDI) of the Reagan administration in 1983. While these contributions took the political history of the United States as the main anchor for their analysis of space programs, it soon became apparent that ideas of periodicity were connected to yet another boundary – that between the political ‘Left’ and the political ‘Right’ – which had to be questioned, if not redrawn. Political groupings turned out to be much more flexible in their means, even if their ends could be categorized according to such traditional understandings of political orientation. More close readings from other geopolitical areas would have been welcome to continue this intriguing discussion. For the time being, DEBBORA BATTAGLIA (South Hadley, MA) neatly synthesized the debate regarding the periodization of the 1970s when she urged that instead of looking towards what appeared as a period of confusion or transition, we should rather pay heed to the „interdiscursive density” resulting from diverging discourses that „intersect in the idea of space.”

In addition to engaging with the limits of periodization, limits were also transcended when it came to the range of disciplines. A

³ Konrad H. Jarausch (ed.), *Das Ende der Zuversicht. Die siebziger Jahre als Geschichte*, Göttingen 2008; Niall Ferguson et al. (eds.), *The Shock of the Global. The 1970s in Perspective*, Cambridge, MA 2010; Anselm Doering-Manteuffel / Lutz Raphael, *Nach dem Boom. Perspektiven auf die Zeitgeschichte seit 1970*, Göttingen 2008.

strong point regarding the selection of presentations was that, even if talks were always context specific, their interconnection and wider implications remained clear throughout the conference. In fact, the discussion of very diverse topics generated a multifaceted set of intersecting questions. Investigations of large-scale space science projects and their political implications were combined with questions regarding the cultural imagination of, as well as the search for, meaning in space. ANDREW JENKS (Long Beach) coined this bridging of the division between science research and socio-cultural subjects the „techie-fuzzie-dialogue.“ While ALEXANDER GEP- PERT, DANIEL BRANDAU and WILLIAM R. MACAULEY (all Berlin) accomplished the integration of these two main tendencies in their acute introduction, all participants subsequently set out to productively translate their individual research questions across disciplinary limits.

Indeed, historians of science and technology, scientists and representatives of space research institutions were joined by cultural theorists, literary studies and design researchers in what emerged as a veritable crucible of interdisciplinary exchange. Conceptual innovations in the field of the history of science were proposed in a joint presentation by LISA MESSERI (Philadelphia) and JANET VERTESI (Princeton), in which they identified the two „greatest missions never flown,“ the Mars Sample Return (discussed by NASA from 1962) and the Terrestrial Planet Finder (first conceived of by Stanford engineer Ron Bracewell in 1978). They argued that, rather than regarding these as failures, they should be evaluated in their capacity to shape scientific communities as well as technological developments, which in turn reflected future-oriented imaginaries in working towards these missions' realization. ROGER D. LAUNIUS (Washington, DC) provoked much debate with his thesis that human spaceflight shared a considerable amount of features with religion. Astroculture's filmic expressions were explored by REGINA PELDSZUS (London) whose reading of space films' changing representations of astronauts' habitations in outer space from a design point of view provided intriguing insights into the imagination

of constraints in space and their impact on the human psyche. FLORIAN KLÄGER (Münster) provided an interpretation of the reoccurrence of cosmological metaphors in 1970s novels as a literary topos for sense-making and self-reflexivity. Art in space was investigated by CHRISTINA VATSELLA (Paris), who discussed art projects that used satellites to unify images sent from several places on the globe in one broadcast, thus creating a sense of global immediacy in a politically divided world. A more exotic expression of astroculture surprised with its familiarity when THORE BJØRNVIG (Copenhagen) presented his research on the design of LEGO's space theme series. The general development from generous national budgets for big science until the 1960s, through economic crisis in the 1970s, to the subsequent commercialization of space flight that would eventually result in space tourism in the early twenty-first century, crystallized in a number of talks. A more comprehensive account of how the economics of space technologies changed due to the specific constraints in the 1970s would have provided another connection point. This minor criticism should not, however, detract from the broad range of disciplines present at the conference which was underscored by AGNES MEYER-BRANDIS' (Berlin) most intriguing account of the raising and training of „moon geese“ inspired by Francis Godwin (1562-1633). Meyer-Brandis' presentation was not only one of the highlights of the conference, but also emphasized the importance of the field of artistic practice and underscored its entertainment value, too.

The discussion of geo-political limits, the limits between nations and power blocs as well as the limits between earth and outer space were the most avid, if also the most speculative. The Cold War context appeared to privilege clear geo-political definitions resulting from the binary opposition of the two superpowers, but this assumption was soon complicated. ANDREW JENKS' (Long Beach) talk about the Association for Space Explorers as they attempted to create a terrain for cosmopolitanism in the midst of competing superpowers highlighted the intricate relations between geopolitical borders, space faring and transcendence of limits both ge-

ographically as well as of the imagination. His talk soon raised the very practical question of what could be described as specifically 'European,' culturally, politically or historically. HELMUTH TRISCHLER (Munich) suggested that a uniquely European feature was a particular development in utopian thinking when arguing that grand future visions in Europe ended precisely with the first oil crisis which brought about the collapse of large-scale top-down planning and thus ended the brief period of „concrete utopia“ in the late 1960s and early 1970s. While the U.S. context was explored in several contributions, VIRGILIU POP (Timisoara) provided the much-needed perspective on developing countries and space exploration.

The geopolitical boundaries of earth and outer space were thoroughly discussed, especially regarding the conquest of space and historic visions of space colonization that were fuelled by the economic crisis and the environmental concerns of the period. Gerard O'Neill's visions of outposts in outer space were discussed separately by GONZALO MUNÉVAR (Southfield, MI) and W. PATRICK McCRAY (Santa Barbara). Especially telling as to his historic context was O'Neill's concern that the Earth's human population had used up most resources and done much environmental damage in the process, which led him to conclude that space colonization was a necessary consequence. To an extent, LUCA FOLLIS (Lancaster) addressed colonial thinking, too, in his discussion of the legal problematic of „sovereigns without subjects“ which formed part of his analysis of the philosophical underpinnings of outer space legislation between 1967 and 1979. Follis' analysis resonated with PHILIPPE AILLERIS' (Nordwijk) investigation into the history of serious public contemplation of the existence of UFOs and extraterrestrial life, a debate that climaxed throughout the 1970s when attempts were made to communicate with the as-yet-unknown exobiological species, but was then abandoned. This ultimate rejection of other than anthropocentric explanatory models of outer space was underscored by DAVID A. KIRBY (Manchester) when he concluded that „from a human perspective, there is no outer space, there are just the

spaces that humans inhabit.“ In this way, questions of the (non-)political uses of space as territory and questions of life in outer space intersected at the point of human subjectivity. Even when leaving Earth's orbit, whether in reality or imagination, people were confronted with their inability to escape human subjectivity.

All in all, it was a most engaging conference that highlighted the importance as well as the fruitfulness of interdisciplinary research regarding the history of space exploration, extraterrestrial life and astroculture. If outer space remained the place for projections and visions of the future throughout the 1970s, the projections were more earth-related, the visions more short-term. Instead of an alternative to earth, outer space developed into part of the solution to the more pressing challenges that living on earth brought with itself, such as the prospect of environmental catastrophe and new legal, geo-political and military strategies vis-à-vis changing national relations. Accordingly, cultural producers started to question progressivist narratives and Cold War dichotomy thinking, and to explore the impact of technological advance on the human condition. Visions of encountering the alien other, be it extraterrestrials or different forms of exobiology, gave way to self-reflection mediated through cosmology, subversive artistic use of satellites, or explorations of human limits in outer space. Therefore, while the 1970s did not mark the end of space exploration and futurity, space enthusiasm and the spirit of national progress, technological optimism and military prowess, the causal link in between them was decidedly weakened, if not dissolved. This suspension was caused by the gradual realization following successes in manned space flight that the future was neither in outer space nor in a different time, it was suddenly much closer, in the present, back on earth.

Conference Overview:

Alexander C.T. Geppert, Daniel Brandau and William R. Macauley (Berlin): The 1970s, Western Europe, and the Delineation of Space

Feature Presentation I

Martin Collins (Washington, DC): Ambiguities of the 1970s. Space Flight and the Problem

of Historically Interpreting the In-Between Decade

Panel I: Transitions

Chair: Paul Nolte (Berlin)

Andrew Jenks (Long Beach): Space Flight, Cosmopolitics, and Transnational Consciousness

Doug Millard (London): Were the 1970s a Period of Transition for the History of Britain's Exploration of Space?

Panel II: Pictures

Chair: Thomas P. Weber (Brussels)

Robert Poole (Lancaster): „2001: A Space Odyssey.“ Space Travel and the Ends of Progress

Ralf Bülow (Berlin): The X Files. Reading a West German Sci-Tech Magazine from 1969 to 1973

Panel III: Laws

Chair: Peter Becker (Vienna)

Luca Follis (Lancaster): Beyond Law's Frontier. The Normative Imaginary of Outer Space

Virgiliu Pop (Timisoara): The Moon Agreement and the Beginning of Utopia

Feature Presentation II

Agnes Meyer-Brandis (Berlin): Space Traveling. A Performance-Lecture Examining Real Utopian Aspects of Interplanetary Exchange of Idea and Matter

Feature Presentation III

Chair: William R. Macauley (Berlin)

John Krige (Atlanta): Blowback, Lift Off. The Rise of Ariane and the Decline of U.S. Monopoly of Access to Space in the 1970s

Panel IV: Politics

Chair: Etienne Benson (Berlin)

Matthew H. Hersch (Philadelphia): „On the Edge of Forever.“ 1972 and the New American Space Consensus

Neil M. Maher (Newark): Ground Control. Space Technology, Environmentalism, and

Détente Across the Developing World

Panel V: Texts

Chair: Matthias Schwartz (Berlin)

Florian Kläger (Münster): Reading into the Stars. Metaphorized Cosmology and Self-Reflexivity in the British Novel of the 1970s

Regina Peldszus (London): Astronauts and their Crew Quarters as Markers of 'Humanized' Space Futures

Panel VI: Aesthetics

Chair: Claudia Schmölders (Berlin)

Christina Vatsella (Paris): Satellite Art. Artworks in Orbit

Thore Bjørnvig (Copenhagen): Unlimited Play in a World of Limits. The LEGO Classic Space Theme, 1978-80

Panel VII: Prospects

Chair: Debhora Battaglia (South Hadley, MA)

Philippe Ailleris (Nordwijk): Red Soil, Phonograph Records and United Nations Resolution 33/426. Our 1970s Extraterrestrial Heritage

Lisa Messeri (Philadelphia) and Janet Vertesi (Princeton): The Greatest Missions Never Flown

Panel VIII: Habitats

Chair: Thomas Brandstetter (Basel)

W. Patrick McCray (Santa Barbara): Gerard O'Neill's Visioning of the „High Frontier“

Gonzalo Munévar (Southfield, MI): Space Colonies and their Critics

Panel IX: Transcendence

Chair: Helmuth Trischler (Munich)

Peter J. Westwick (Los Angeles): From the Club of Rome to Star Wars. The Era of Limits, Space Colonization, and the Origins of SDI

Roger D. Launius (Washington, DC): Human Space Flight as Religion in the Aftermath of the Space Race

Conclusion

Chair: Alexander C.T. Geppert (Berlin)

David A. Kirby (Manchester)

Tagungsbericht *Envisioning Limits: Outer Space and the End of Utopia*. 19.04.2012-21.04.2012, Berlin, in: H-Soz-u-Kult 09.07.2012.