



## NASA HISTORY DIVISION Office of External Relations

MAY 2008

## VOLUME 25, NUMBER 2

# From the Chief Historian



Fifty years ago, the National Aeronautics and Space Administration (NASA) was in its birth throes, and fundamental decisions were being made that profoundly shaped all that was to come. The driving force, of course, was the launch of Sputnik on 4 October 1957, followed by its even weightier successors. In the midst of the Cold War, a country that aspired to global preeminence could not let that challenge pass. Although the United States already had its own satellite plans in place as part of the International Geophysical Year, the Soviet events spurred the Space Age and, in particular, gave urgency to the founding of an American national space agency.

In the wake of the Sputniks, events moved quickly toward the development of NASA, especially considering the weighty issues that had to be resolved. Should there be a new agency or one built on an already-established institution, such as the National Science Foundation (NSF), the Atomic Energy Commission (AEC), or the National Advisory Committee for Aeronautics (NACA)? Or should it be part of a military agency—the Army and Air Force were both keen, based on their missile work. If it was to be a military or civilian agency, then how to divide the tasks peculiar to each function? Should the new agency include aeronautical activities? Should it have the power to implement international agreements? If so, how should those agreements be used as an instrument of foreign policy, and what should the new agency's relationship be with the State Department?

# SPACE IN EUROPE, EUROPE IN SPACE: SYMPOSIUM ON 20TH-CENTURY ASTROCULTURE

By Alexander C. T. Geppert, Harvard University/Freie Universität Berlin

How has the idea of spaceflight developed into a central element of European modernity? Where and what was outer space at which point in time? How was it represented, communicated, imagined, and perceived? And in what way have European conceptions of the cosmos and extraterrestrial life been affected by the continuous exploration of outer space? These were the pivotal questions discussed at "Imagining Outer Space, 1900–2000," the first international conference on the cultural history of outer space in 20th-century Europe, held from 6 through 9 February 2008 at the Center for Interdisciplinary Research (ZiF), an institute of advanced studies that forms part of Bielefeld University in Germany. For four days, almost 70 scholars from more than a dozen countries convened to historicize outer space and to analyze its significance in the European cultural imagination of the 20th century. I organized the symposium, which was generously sponsored by the ZiF and Fritz Thyssen Stiftung.

Representatives of more than 15 different disciplines were present. Speakers included numerous distinguished scholars, in particular Steven J. Dick (NASA), Debbora Battaglia (Mount Holyoke College), Rainer Eisfeld (Universität Osnabrück), Pierre Lagrange (Centre national de la recherche scientifique), Michael J. Neufeld (National Air and Space Museum),

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Claudia Schmölders (Humboldt-Universität zu Berlin), KaiUwe Schrogl (European Space Policy Institute, or ESPI), James Schwoch (Northwestern University), and Helmuth Trischler (Deutsches Museum). Also among the participants were many younger scholars, graduate students, national and international media representatives, and delegates of several international organizations including ESPI, the European Space Agency (ESA), and the International Academy of Astronautics (IAA). I commenced the symposium with an introductory lecture on problems and perspectives of European Astrofuturism in the 20th century before giving the floor to the keynote speaker, NASA's Chief Historian, Steven Dick. Entitled "Space, Time and Aliens: The Role of Imagination in Outer Space," Dr. Dick's lecture attracted the largest audience of the entire conference. At the end of the fourth day, Helmuth Trischler, research director of the Deutsches Museum in Munich, concluded the symposium by delivering a general commentary, reviewing the achievements of this collective enterprise and formulating several openended questions that may prove to be fertile ground for future inquiry. A number of additional feature presentations rounded off the program. They included Philip Pocock's (Zentrum für Kunst und Medientechnologie) interactive multimedia installation "SpacePlace: Art in the Age of Orbitization," a screening of rare historical films curated by Berlin-based director Jürgen Ast and historian Burghard Ciesla (Universität Potsdam/Universität der Künste Berlin), and several poster presentations, which are on display outside the ZiF's plenary hall.

Between Steve Dick's grand keynote lecture and Helmuth Trischler's comprehensive commentary, altogether 27 papers were presented. Grouped in 10 different panels, they were arranged thematically, starting with theoretical and heuristic issues and concluding with questions of a more empirical and technical character. At the same time, presentations were in chronological order, with contributions covering historical topics ranging from the fin de siècle through the present day. There was, however, a particular emphasis on the two decades between the 1950s and the early 1970s—from the so-called "golden age of space travel," with the launching of Sputnik I, the first artificial satellite, in October 1957, to the last Apollo flight in December 1972. Each panel was designed to bring together scholars from different academic backgrounds

and have them enter a transdisciplinary—and, in most cases, also transnational—dialogue. For instance, Panel I, "Theorizing Outer Space," brought together a literary scholar, an anthropologist, a philosopher, and a historian, while Panel X, "Designing Outer Space," saw a museum curator engage in discussion with an art historian and a historian of science.

Unlike NASA's successful "Societal Impact of Spaceflight Conference," held in September 2006 (see Proceedings at *http:// history.nasa.gov/sp4801-part1.pdf*),



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#### From the Chief Historian (continued)

John M. Logsdon, moderator, *Legislative Origins of the National Aeronautics and Space Act of 1958: Proceedings of an Oral History Workshop Conducted April 3, 1992* (Washington, DC: Monographs in Aerospace History, no. 8, 1998). Available online at *http://history.nasa.gov/40thann/legislat.pdf*; a larger version of the file with graphics is located at *http://history.nasa.gov/40thann/legorgns.pdf*.

Walter MacDougall, ... *The Heavens and the Earth: A Political History of the Space Age* (Baltimore: The Johns Hopkins University Press, 1985).

Robert R. MacGregor, "Imagining an Aerospace Agency in the Atomic Age," in *Remembering the Space Age*, ed. Steven J. Dick (NASA History Series, forthcoming).

National Aeronautics and Space Act of 1958, as amended, with legislative history showing changes over time. Available online at *http://history.nasa.gov/spaceact-legishistory.pdf*.

David S. F. Portree, NASA's Origins and the Dawn of the Space Age (Washington, DC: Monographs in Aerospace History, no. 10, 1998). Available online at http://history.nasa.gov/monograph10/.

Robert L. Rosholt, *An Administrative History of NASA*, 1958–1963 (Washington, DC: NASA SP-4101, 1966).

#### Space in Europe, Europe in Space: Symposium on 20th-Century Astroculture (continued)

the geographical focus of this symposium was on Europe, in particular Western Europe, yet without neglecting transatlantic references and transnational interdependencies. Despite their different disciplinary provenances, all presentations approached their respective subject matter from the perspective of cultural history or cultural studies, broadly defined. Neither did this conference concentrate on the institutional or technological history of the European space effort, nor was it centered on classical astropolitics or present-day policy analyses. By concentrating on prominent activists and specific sites, contact points between science and fiction, and single historical episodes and various case studies, contributions to the conference rather examined the cultural and societal impact of space exploration and space travel on European culture and society at large. As a conceptual counterpart to the more familiar term "astropolitics," it was suggested to analyze the cultural significance and imaginative repercussions of outer space, space travel, and space exploration under the new label "astroculture."

Thus, presentations covered a broad range of fascinating topics and frequently employed innovative methodologies to exploit largely unknown research territory. A number of papers analyzed the activities of influential "space personae" such as the now deceased science fiction author and longstanding chairman of the British Interplanetary Society, Arthur C. Clarke (presented by Thore Bjørnvig), the space popularizer and occultist Max Valier (Christina Wessely), and the German-born

American rocket engineer Wernher von Braun (Michael J. Neufeld). Others examined the history of launch sites and other Earthly locations important to space exploration, as well as specific sites of exploration, such as the so-called Tunguska event of June 1908 (Claudia Schmölders); the Australian-British-European spaceport Woomera that opened in 1947 (Kerrie Anne Dougherty); UFO sightings in a small village in northern France in the 1950s (James I. Miller, Pierre Lagrange); and underwater habitats, popular in the late 1960s, where aspects of future life in space colonies were to be simulated (Sven Mesinovic). A third group of papers studied changing European conceptions of outer space in different media contexts, for instance, popular francophone comic books of the 1950s such as Hergé's Tintin albums "Objectif lune" and "On a marché sur la lune" of 1953 and 1954 (Guillaume de Syon), space coverage in German newspapers and TV between 1957 and 1987 (Bernd Mütter), the British science fiction series "Space 1999" (Henry Keazor), American Star Trek episodes that took up themes of German National Socialism (Werner Suppanz), and the iconography of the famous Pioneer 10 and 11 plaques (William R. Macauley). Although Carl Sagan composed them in the early 1970s to communicate information about humankind to extraterrestrial life-forms in the event of the spacecraft's discovery, more terrestrial factors were at the forefront 30 years later when British artist Damien Hirst designed the calibration target for the European Beagle 2 spacecraft, scheduled to land on Mars on Christmas 2003 but eventually declared lost. Over the course of these three decades, from the early 1970s through 2003, all ideologically motivated claims to space art had been replaced by a provocative denial of metaphysics, in particular far-reaching forms of commodification (Tristan Weddigen).

Without any doubt, the most remarkable features of this conference were its cooperative atmosphere and creative dynamic. Participants discussed the most controversial issues across all disciplinary, national, and generational boundaries with great enthusiasm. Quite organically, some of the conference's initial questions changed trajectory as the panels proceeded. Not all of them proved as productive as foreseen or set the right directions for future research. Yet during this process, other, more pressing questions were raised and productively discussed. As always, this should be taken as what it clearly was: the classic indicator for success of any scholarly enterprise. Hardly ever are problems solved conclusively, once and for all; rather, questions can only be reconfigured, perhaps "better" than before, and once a conference is over, its proceedings may be published for wider critique and discussion. In this particular case, the entire field of research is still much too young—especially from a Western European perspective—to allow for a more systematizing and structuring approach.

With almost 30 contributions and intense discussion following each presentation, it is a sheer impossibility to do justice to all papers and, at the same time, to summarize the ensuing lively debates. Thus, as an alternative to presenting a series of one conference statement after another, the second half of this essay seeks to give a brief review of those themes, issues, and problems discussed in Bielefeld that sparked the greatest amount of interest among participants. A brief program survey can be found at the end of this report, and more detailed information, including concise abstracts and short biographies of all speakers, is available at the conference's Web site: *http://www.geschkult.fu-berlin.delouterspace*.

#### Themes, Issues, and Problems

The symposium pursued a threefold objective. First, by bringing together members of different disciplines and inviting them to enter a dialogue on the opportunities and problems of historicizing outer space, we sought to contribute to the development of a field of research hitherto unexplored. Unfortunately, an equivalent to NASA's History Division or to the Space History Division of the National Air and Space Museum, with their concerted activities and unparalleled research programs, does not exist in Europe. As a direct consequence, space history is a much smaller affair and an even more fragmentary enterprise in Europe. Hence, the conference did not primarily pursue a synthesizing or systematizing goal, but rather an explorative objective.

Moreover, the symposium was based on the assumption that changing images of outer space and conceptions of extraterrestrial cultures must also, in a European context, be read as expressions of historically specific ideas of the beyond and expectations for the future. This is the same discursive complex for which literary scholar De Witt Douglas Kilgore has introduced the term "astrofuturism." Hence, in addition to a general structuring and transdisciplinary stocktaking of a nascent field of research, the conference aimed, second, at identifying a distinctly European version of this discursive formation, so central to 20th-century European modernity. Is space exploration—since Apollo 8 delivered the first images of the entire globe so crucial to and inextricably intertwined with the process of globalization that the introduction of an additional, specifically European level of analysis would only prove of limited heuristic value?

Third, the conference aimed to explore the relation between science and fiction in this particular field of research. This is a theme long familiar to all space historians, starting with Willy Ley in 1944. According to the standard argument, in October 1957, the "visionary" or "pioneering" era of spaceflight was superseded by "real" spaceflight, and "science fiction" was subsequently replaced by "science fact." However, assuming such a teleological line is naive. To be sure, there is science in fiction, fiction in science, and science fiction" and "science fact" overlap and continue to affect each other; one has never been fully absorbed by the other. Thus, contributors to the conference were anxious to balance carefully both perspectives when analyzing the contexts of the production of literature, whether research or fiction, *and* the sociocultural effects of these "scientific fictions" in various configurations.

Additional characteristics of a field of historical research still *in statu nascendi* became apparent during these four days in Bielefeld. "Astrofuturism" proved indeed a suitable umbrella concept to thematize interactions between representations of outer space and changing conceptions of the future, as well as to analyze their strong, yet all-too-often hidden, connection to religion, transcendental beliefs, and the spiritual beyond. Given the overall state of research at present, it proved a much more challenging task to identify and characterize the spe-

cifically European element within 20th-century astroculture and to draw a clear dividing line between that and American or Russian conceptions of the cosmos. Assuming, however, that these were exclusively discussed among the social elites is simply incorrect and not confirmed by the source material. Quite the contrary: the presence of extraterrestrials in the cultural life of our times has long been undisputed and is anything but an epiphenomenon of postmodernity. Aliens as cultural artifacts have always been subject to sociocultural fluctuations that can at least be traced back to Giovanni Schiaparelli's discovery of "canals" on Mars in the fall of 1877 (discussed by Rainer Eisfeld).

Furthermore, it became clear that fields of historical research usually treated separately, such as the history of extraterrestrial life and science fiction on the one hand and the history of spaceflight, rocketry, and satellite technology on the other, must necessarily be taken together if the aim is to produce a history of nonscientific forms of knowledge (Andreas Daum, Thomas Brandstetter). Visual aspects play a central role in the imagination of outer space, in terms of both supply and demand. Hardly a single presentation could do without a careful analysis of the enormously rich visual material available, be it drawings, photographs, and films or postcards, comic books, and video clips (David Valentine). Also from a historiographical perspective, the conference offered abundant points of contact to other subbranches of historical research going far beyond the history of science and technology (Paul Ceruzzi). These included not only the history of philosophy (Benjamin Lazier, Gonzalo Munevar), the history of literature (Angela Schwarz), and military history (Bernd Weisbrod), but also the history of consumption (Monica Rüthers), of media and communication (Peter Becker), and of colonialism (Debbora Battaglia).

For a long time after 1945, Europe's active contribution to the physical exploration of outer space was, at best, secondary. Nonetheless, as the fascinating contributions to this conference testified in a variety of ways, the sociocultural impact of outer space has been tremendous, and it remains so. Quite obviously, it will require an enormous amount of effort until this "European paradox" of comprehensive space enthusiasm concomitant with a decades-long abstinence from actual spaceflight is adequately explained and the cultural history of European outer space properly integrated into mainstream historiography. It is also obvious that such a challenge can only be met by choosing a combined transdisciplinary and transnational approach. However, in what way an integration could be accomplished, and to what extent this would be at all desirable, are two of the few questions that remained undiscussed in Bielefeld.

A book based on the contributions to this conference, tentatively entitled *Imagining Outer Space: European Astroculture in the Twentieth Century*, is currently in preparation. A detailed program, abstracts of all presentations, and biographical information on all speakers can be found at *http://www.geschkult.fu-berlin.de/outerspace*. A video of Steve Dick's complete keynote lecture can be viewed at *http://www.archive.org/details/ImaginingOuterSpace1900-2000ZifBielefeldConferenceKeynotes6.2.08-.* 

# PROGRAM

#### Wednesday, 6 February 2008

### **INTRODUCTION**

Alexander C. T. Geppert (Harvard University/Freie Universität Berlin): "European Astrofuturism, Cosmic Provincialism: Historical Problems and Historiographical Perspectives"

Steven J. Dick (NASA): "Space, Time and Aliens: The Role of Imagination in Outer Space" (keynote lecture)

Philip Pocock (ZKM): "SpacePlace: Art in the Age of Orbitization" (feature presentation I)

#### Thursday, 7 February 2008

#### PANEL I: THEORIZING OUTER SPACE

Chair: De Witt Douglas Kilgore (Indiana University)

Debbora Battaglia (Mount Holyoke College): "Galaxies of E.T. Discourse: An Anthropologist's First Contact with the Science of 'Weird Life'"

Thomas Brandstetter (Universität Wien): "Imagining Inorganic Life: Crystalline Aliens in Science and Fiction"

Benjamin Lazier (Stanford Humanities Center): "The Globalization of the World-Picture: Towards a History of Earth and Artifact in Twentieth-Century Thought"

## PANEL II: PERSONALIZING OUTER SPACE

Chair: Bernd Weisbrod (Georg-August-Universität Göttingen)

Christina Wessely (Universität Wien): "Cosmic Spectacular: Rocketry, Weltanschauung and the Quest for Cosmic Ice in Weimar, Germany"

Thore Bjørnvig (University of Copenhagen): "Transcendence of Gravity: Arthur C. Clarke and the Apocalyptic of Weightlessness"

### PANEL III: LOCALIZING OUTER SPACE

Chair: Andreas W. Daum (State University of New York at Buffalo)

Kerrie Anne Dougherty (Powerhouse Museum, Sydney): "Spaceport Woomera"

Sven Mesinovic (European University Institute, Florence): "Inner Space and Outer Space: Similarities, Differences and Connections"

## PANEL IV: SCREENING OUTER SPACE

Chair: Peter Becker (Johannes-Kepler-Universität Linz)

Burghard Ciesla (Universität Potsdam/Universität der Künste Berlin): "Outer Space, Inner Fear: Cold War SF Films in East and West"

Henry Keazor (Johann-Wolfgang-Goethe-Universität Frankfurt am Main): "A Stumble in the Dark: Gerry Anderson's 'Space 1999'"

Werner Suppanz (Karl-Franzens-Universität Graz): "Nazis in Space: Distant Worlds as Projection Screen of Cultural Memory"

Jürgen Ast (Berlin)/Burghard Ciesla (Universität Potsdam/Universität der Künste Berlin): "Screening of Historical Films" (feature presentation II)

#### Friday, 8 February 2008

#### PANEL V: FICTIONALIZING OUTER SPACE

Chair: Angela Schwarz (Universität Siegen)

Claudia Schmölders (Humboldt-Universität zu Berlin): "Unwriting Heaven: Tunguska Region, June 30, 1908"

Steffen Krämer (Ludwig-Maximilians-Universität München): "Ancient Heroes and Early Christian Ascetics: Archetypes of Modern Science Fiction"

Rainer Eisfeld (Universität Osnabrück): "Projecting Landscapes of the Human Mind on Another World: Changing Features of an Imaginary Mars"

#### PANEL VI: VISIONING OUTER SPACE

Chair: Alexander C. T. Geppert (Harvard University/Freie Universität Berlin)

Pierre Lagrange (National Center for Scientific Research [CNRS] Paris): "A 'Symmetrical' Explanation for Flying Saucers"

James I. Miller (Davidson College): "Encountering Aliens in the French Countryside: UFOs and the Fabrication of a New World in Quarouble, France, 1954"

#### PANEL VII: POLITICIZING OUTER SPACE

Chair: Kai-Uwe Schrogl (European Space Policy Institute)

Monica Rüthers (Universität Basel): "Outer Space, Children's Material Culture and Soviet Imagery After Sputnik"

Michael J. Neufeld (National Air and Space Museum): "'Smash the Myth of the Fascist Rocket Baron': East German Attacks on Wernher von Braun in the 1960s"

#### PANEL VIII: COMMUNICATING OUTER SPACE

Chair: Ralf Bülow (Berlin)

Guillaume de Syon (Albright College): "Between the Bubble and the Moon: Visions of Space Travel in Francophone Comic Strips"

Bernd Mütter (Universität Bielefeld): "Per Media Ad Astra? Outer Space in West Germany's Media 1957–1987"

#### Saturday, 9 February 2008

## PANEL IX: AUTOMATIZING OUTER SPACE

Chair: Paul Ceruzzi (National Air and Space Museum)

James Schwoch (Northwestern University): " 'Short, Nasty, and Brutish': The Curious Life of Telstar, 10 July 1962–21 February 1963"

Gonzalo Munevar (Lawrence Technological University): "Self-Reproducing Automata and the Impossibility of SETI"

#### PANEL X: DESIGNING OUTER SPACE

Chair: Peter Davidson (National Museums Scotland)

William R. Macauley (University of Manchester): "Inscribing Scientific Knowledge: Interstellar Communication, Universal Laws and Contact with Cultures of the Imagination"

Tristan Weddigen (Universität Bern): "Alien Spotting: Damien Hirst's Beagle 2 Mars Lander 'Calibration Target' and the Exploitation of Outer Space"

#### CONCLUSION

Chair: Steven J. Dick (NASA)

Helmuth Trischler (Deutsches Museum): General Commentary