

Culture-Space Workshop 1

Report

On Thursday 1 and Friday 2 August 2019, museum and arts sector professionals as well as academics from a variety of fields met to discuss the culture of space exploration. They considered what the culture of space is, was, and could be; and how this could be displayed in a future space gallery at the Science Museum, London.

The decision to re-design the Museum's 'Exploring Space' Gallery (ES) comes at a time when much of the gallery itself is 33 years old. The popularity and success of the exhibition 'Cosmonauts: Birth of the Space Age' [<https://www.sciencemuseum.org.uk/what-was-on/cosmonauts-birth-space-age>] 18 September 2015 – 13 March 2016 suggests the Museum, and its public, are ready for something new. For instance, there is a strong case for acknowledging and presenting the space story within its social and cultural context.

The two-day workshop was funded by the Arts and Humanities Research Council (AHRC) as part of their Research Networking programme, encouraging interdisciplinary discussions on themes of science in culture.

Day one

Exploring Space and meeting each other

Proceedings commenced with a series of mutual introductions that celebrated the range of academic expertise, practical experience, professional skills and subject interests in the room. Each workshop participant was invited to discuss an object, image, sound or concept that they would like to see featured in a space gallery. This activity allowed participants to reveal their thoughts on what was important in space exploration and its history while also demonstrating their own career paths and areas of interest.

A tour of ES gave workshop attendees a chance to reflect on what the gallery does well and what changes should be considered and implemented as we look to future interpretations. Ali Boyle (Keeper of Science Collections, Science Museum) asked the workshop attendees if they had felt there was a clear narrative in the gallery displays. Answers were mixed, with attendees/visitors largely commenting on there being no linear narrative in the gallery. However, Doug Millard, the ES curator, suggested that the non-linear narrative was not planned but, rather, largely due to sporadic interventions over the years in response to specific circumstances and that as a result narratives that were once manifest had been broken up and dispersed across the ES gallery.

One workshop participant recalled the timeline style of the space gallery in the 70s [sic – what became the Exploring Space gallery opened in 1986 as 'Exploration of Space', a far more densely packed and structured exposition], and how reassuring it had been to "always know where [he] was." A topical issue in public history today; are linear narratives appropriate in modern science museums? Tim Boon, curator of the 'Making the Modern World' gallery [<https://www.sciencemuseum.org.uk/see-and-do/making-modern-world>], discussed challenges this display has faced since opening to the public in July 2000. It has been accused by some historians of science and technology of being progressivist because it tells a story from earlier technology to modern inventions, apparently showing the technology getting incrementally better as visitors walk

from one end of the gallery display to the other. Is it possible for the new ES gallery to find a middle ground between a linear narrative and random display? While a linear display could show developments in space technology as a constant line of progress, with objects exhibited in a structured fashion from the earliest objects in the Museums' collection to more contemporary pieces, a non-linear narrative might host objects in a seemingly random display. A challenge for the ES gallery could be to create a space that uses material artefacts to tell a story, without simply guiding visitors through a timeline of technological developments.

Space Galleries World-Wide

Representatives from four different museums were invited to speak about how they had approached the challenge of displaying space. Three of the museums were from sites located in countries outside the UK—Germany, Russia, and China—and so it fell to them to present an overview of their national approach or perspectives on space exploration, as well as their own museums.

After a brief overview of the [Deutsches Museum](#), whose representative, Helmuth Trischler, could not attend the workshop), Kevin Yates from the [UK's National Space Centre](#) spoke. The Centre was opened in 2001 and is currently made up of five galleries; 'Into Space' considering human flight in space, 'The Universe' looking at big questions in space studies, 'Solar System' exploring our galaxy (previously 'The Planets' before Pluto was demoted), 'Space Oddities' and 'Live Space' which features space-related experiments.

From a timeline surrounded by engaging excerpts of sound to the recurrent use of furniture to encourage visitors to sit together and explore ideas, the Centre draws its audience into the narrative in a range of non-conventional ways that cater for them as students, ready to learn, and consumers, looking for a good day out. There has been a deliberate effort to ensure there is always something to occupy children while adults engage with the Centre, and social media even plays a role with a Buzz Aldrin cut-out encouraging visitors to take a photograph and speak their own "first words in space" as well as a weather pod where visitors can give forecasts to share online.

Representatives of [The Memorial Museum of Cosmonautics](#) in Moscow, Tamara Masevich and Dmitri Stalnoi, raised the question: what can be done in a museum without objects? This Russian museum, despite a comprehensive display of space artefacts, has a strong focus on the use of phone software applications or "apps", described as "virtual textbooks," that add rather than detract from the museum experience. It could be said that the use of digital displays and worksheets should be a logical next step for museums of the 21st Century when considering the need to create sustainable, eco-friendly learning resources. Stepping away from object-focused display has enabled the Memorial Museum of Cosmonautics to take education beyond the museum, as demonstrated with the themed metro train marking the anniversary of Yuri Gagarin's orbital mission on April 12 2016.

Next we hopped across the globe to the US, with a presentation from Martin Collins and David DeVorkin based at the [National Air and Space Museum](#) (NASM) in Washington DC. Divided into two sections, the NASM talk focused on the recontextualising of the V2 rocket that began in the 1980s and continues to be a contentious topic in the Museum today, not least as part of the current transformation of the Museum under the tag line "[Ignite Tomorrow](#)." At NASM there has long been a focus on presenting the V2 rocket as a product of German engineering in the Second World War but also as part of the forced labour programme of the Nazi regime when concentration camp inmates were pressed into work in the most inhumane of conditions. David DeVorkin added that the NASM's recontextualising of the V2 had been widely praised by the teams working on Washington's

[Holocaust Memorial Museum](#) (1993). As the NASM now looks to the future, he hopes the rocket remains something distinct from just its role in the overture to the Space Age.

Martin Collins discussed the tensions when the voices of the curatorial and funding bodies are not as one and a consensus has to be reached.

Zhao Yang's introduction to the space museums of China revealed several exhibits that emerged in response to popular interest, such as an exhibition based on a popular science fiction novel and eponymous film adaptation called '[Wandering Earth](#)' (at the [Chinese Science and Technology Museum in Beijing](#), 2019 which attracted 23,000 visitors in two months, and an exhibition about a science fiction novel by Liu Cixin (2008) titled 'The Three-Body Problem'. Yang's talk demonstrated how public interest in space can be generated by cultural creations, and how museums can respond to this interest to engage the public further.

The Language of Space with Alexander Geppert

The keynote presentation was given by Alexander Geppert, whose thoughts on the historiographical context from which the Space Age emerged gave great academic weight to the day's discussions. What ideas should a curator bear in mind while engaging an audience in the past?

Geppert has coined the term 'astroculture' to explain his thoughts on the language of space. Astroculture is anything that ascribes meaning to outer space and encourages both individual and collective imagination; it is the reality of the imaginary. Not to be confused with 'astrofuturism', an earlier canon that considers things from science fiction that were created when fiction writers and engineers worked together to create predictions about what could or would be possible in the future. Another related term is 'sociotechnical imaginaries', which are the products of instruments of science, technology, and a society existing in modernity. According to Geppert, while these two phrases are not to be confused with astroculture, they are similar and show that the language of space is not an unchanging field. Further, he argued that museums need to contextualise discussions when considering a past society's engagement with space.

Geppert stated that space historians have been underperforming, assuming people should be interested in their field rather than actively explaining to the public why space history matters. He feels it should be common knowledge that space history emerged from the Cold War, and worries that many people do not know space historians exist in the first place. He noted that "space history is often celebratory, descriptive, and for an inside audience: it is rarely global and keeps repeating the same stories." Geppert feels there is room to do better.

The keynote talk also considered aerospace and astronautics dictionaries, highlighting that space has its own language. Some terms have existed for years yet remain undefinable, such as the word "space" itself, which is a blank entry in one NASA dictionary. Other terms existed to serve a purpose once, but are not helpful today. For example; "the conquest of space" is loaded with colonialist ideas and for many years has not been considered appropriate or compatible with more recent narratives. The 'Space Age' was a descriptive term that emerged immediately after the Second World War, and so existed before the space age actually happened and was never intended to describe a period in history. Geppert encouraged members of the workshop to be wary of using terminology with semantic baggage that adds unwanted or unintended messages to their work.

The talk ended with the advice that once humans landed on the Moon, it was no longer imagination that fuelled discussions of what it was like to visit a different planet. The dream was over, and from then on it was a reality. A space gallery considering astroculture needs to exist with an awareness of the difference between culture before the moon landing, and culture after.

After the talk a break-out discussion focused on wider predictions made about a society that could travel in space, with some science fiction works having imagined what a future society might look like once humanity had created new space technologies. Most attendees agreed it was important to present science fiction in a museum setting with a great deal of context to help the audience understand why the writer said what they said. Attendees also agreed this could be a great challenge, with the water sometimes deliberately muddied by science fiction authors to make it unclear if their reader was looking at a fiction or non-fiction text.

Day two

Space in visual arts

After a recapitulation session lead by historian of science and technology, Ray Macauley, day two continued with three talks from artists, academics and curators engaged with the interplay between space and art.

Melanie King, who is in the process of completing a PhD at the Royal Academy of Art, works with several art companies that focus on space. Lumen, Super/Collider, combining science and culture (this group have previously worked on the Science Museum Lates program— <https://www.sciencemuseum.org.uk/see-and-do/lates>), London Alternative Photograph Collective, and Ancient Light, which captures light that has travelled for a very long time and over a very long distance. This final project was inspired by the 'Picturing the Cosmos' symposium. Taking long exposure pictures in darkness, through different aged telescopes, King considers space and poetry together, enabling audiences to see the stars as astronomers before them would have. She sees her role in space engagement as a humanising one, accounting for the way science and technology can alienate us from space.

Hannah Redler-Hawes, an independent curator focusing on art and science, provided some names of artists and works that came to mind when listening to the discussions on day one of the workshop. Her talk was given by Melanie Vandenbrouck, curator of ['The Moon'](#) exhibition at Royal Museums Greenwich, and displayed the wealth of artists already engaging in science engagement.

The exhibition in Greenwich was created to mark the fiftieth anniversary of the Moon landing and focuses on the idea that humans have always been driven to go to the Moon, and "we travelled there long before we could [actually] travel there." With a design inspired by Apollo 11, and each section of the gallery based around a different colour swatch, the Moon exhibition is divided into three themes; the faces of the Moon, the Moon through the lens, and visiting the Moon. Featuring a blend of expected exhibits, such as a telescope on loan from the Science Museum, and the unexpected - a 1929 poster for the 1929 science fiction film 'Frau im Mond', loaned from the Victoria and Albert Museum, and so showing how the public engaged with space in the early decades of the twentieth, the exhibit seeks to explore the power of images and the cultural impact of space. Vandenbrouck noted that NASA's Apollo 11 mission happened during a time of significant financial and social upheaval in the US, with "rockets or rickets" protests (4% of the US GDP being spent on the space programme), and the nation divided over the Vietnam War. The exhibition explores the context of humanity's greatest achievement, and how many thought it was its greatest hour.

In the post-presentation discussion, some workshop attendees considered what value "real" objects have today. In a society where visitors might not believe that they are seeing, are real objects still powerful?

The Sound of Space

Despite the fact there is no actual sound in space, society has collectively decided what it should sound like. We imagine long echoes, and technical inventions in music around the time space started to appear on screen has helped these conventions arise. Tim Boon, Head of Research and Public History for the Science Museum Group, asked what music would be most appropriate in the Science Museum and posited that there is room for a new genre of “spacey country music.”

Imaginations of space have envisioned space travel as a multisensory experience, one that could even be pleasurable. Ray Macauley suggested that the sound of Sputnik was a significant moment in the history and cultural perception of space-sound, with the beeping noise (Sputnik communicating with Earth via radio signals) prevalent in popular culture and public memory. From radio astronomy to natural electromagnetic ‘whistlers’ in the Earth’s magnetosphere and the 1976 Voyager record containing messages to extraterrestrials, Macauley made the point that sounds in space, of space, and for space have a long history in society and these should fit into the new ES gallery. These elements of a gallery deserve equal, if not more, attention than conventional visual representations or texts.

Composer and musician [Sarah Angliss](#) offered a review of the history of pictorial music for what cannot be seen (in other words: space). She explored the history of music about travel for audiences that could not travel, and a historic trend to place “something exotic” at the start of an ordinary piece of music to make it seem space-appropriate. A Theremin player herself, Angliss is aware her instrument has become associated with space. With an antenna that seems to resemble common ideas of what an alien should look like, a sound that is created by human gesture (seeming otherworldly), and a history that coincides with the emergence of the radio age, the Theremin represents the Other as much as space travel does.

Angliss brought her presentation to a close with a call to remember sounds that are erased from space narratives, such as voices lost on the Apollo 11 transcripts to the “more interesting” men flying the space shuttle. Angliss echoed Macauley’s thoughts on the need for music to be treated with respect as a fundamental component of space and space exploration. It should not serve as case dressing for any new space gallery.

Space, cinema and television

Mike Allen, Senior Lecturer in Film and Electronic Media and Birbeck, University of London, discussed the use of cinema in space during the Cold War, with early on-board television (TV) cameras serving as part of the propaganda war. While the USSR originally used TV’s to check that cosmonauts were still alive in their spacecraft, the US had to install TV’s in their own to show that they could do anything the Russian’s could. The US perhaps won the propaganda war when they filmed the astronauts landing on the Moon in 1969. Allen noted that improvements in image quality helped humanity to feel closer to space, and the natural sublime of the moon became visible due to America’s technical sublime.

David Kirby, Professor of Science Communication Studies at the University of Manchester, then bought the conversation back to 2019, reflecting on the public interest in NASA today—whose logo even featured on his t-shirt. Space travel is about limitations, and how they can be overcome. The largest limitation at the start of the space age, Kirby argues, was human indifference. Films were created to show wider society why we should bother going to space in the first place.

While Kirby cited many movies that sold the Moon as somewhere worth visiting, starting with ‘Frau in Mond’ (1929), the most memorable moment of his presentation was a clip from ‘Destination

Moon' (1950) where US politicians show that reaching the Moon was a military necessity. Framed prior to the Space Race, the movie says Americans must reach the Moon before the USSR because the Russians are planning to place missiles on the moon that can be used to destroy any site on Earth. These movies also had to show that spaceflight is possible, and feature 'diegetic prototypes' to explain to the audience how it could be done and, more importantly, why it should be done. The post-talk discussion suggested today's films offer a different motivation to travel into space, with climate catastrophe making life on Mars seem attractive to modern audiences.

Mark Jancovich, Professor of Film and Television Studies at the University of East Anglia, closed this section of the workshop. His talk on the narratives of space travel furthered this point, with movies from the 1950s frequently advising society to change or face the end of civilisation. While space is at worst hostile and at best indifferent to humans, in films it presents an exciting escape from Earth.

Space Narratives

Amanda Rees, a historian of science at the University of York, has an interest in science fiction books that focuses on the invention of stories rather than narratives, arguing that counterfactualism is not antihistory and that things that are not real can still present historical meaning. Science fiction novels deserve as much place in a space gallery as scientific equipment.

Rees sees science fiction as a way to engage the public with space. The appeal of science fiction is that it was created with a certain standard of "real" science and technology in mind, and the earlier works of the twentieth century were created when it was not yet determined how or if space travel might happen. If ES hopes to consider the culture around space flight, then according to Rees science fiction novels are surely a key part of this phenomenon.

Richard Tutton, Senior Lecturer in the Department of Sociology and the University of York, gave a talk on visionaries and their role in space narratives. His words echoed Kirby and Jancovich's thoughts on the perceived necessity of space travel. Today, space seems like a way to escape, somewhere that is available and might be a back-up option for humanity should Earth become unsustainable. Tutton suggested space could be a refuge from colonial ideas of conquest or other restrictive narratives. In the post-talk discussion, attendees reflected on a common feeling that politics would follow society into space, and that it would never be possible to take refuge from Earth and its history on another planet.

Conclusions

The purpose of the workshop was to begin thinking about what narrative (or narratives) a new space gallery might pursue in the future. It could be said that the Science Museum has traditionally dedicated its space gallery to scientific practice and achievement, so discussions focused on space engineering might seem more appropriate than displays encouraging visitors to dream about space exploration. The workshop nonetheless argued that the emergence of space exploration in the twentieth century was as much the result of filmmakers creating space films, science fiction writers penning novels, and artists representing what space would look, sound and feel like as it was the result of engineers and technicians inventing powerful rockets. The Space Age was the result of cultural conditions and in turn created new cultural phenomena.

A recurring theme in discussions was the idea that Earth was re-discovered from space. Robert Poole, Professor of History at the University of Central Lancashire, suggested he would like to place the entire planet—in a darkened room as if viewed from a distance—in ES, encouraging visitors to take a moment to look at the place they call home. Melanie Vandenbrouck suggested that one of

the greatest sights to see from space is Earth. We know what our planet looks like, but only because we were able to leave it and look down from above.

In this same vein, a new space gallery should allow visitors to discover as much about their own planet and its people as it teaches them about space and space exploration. We know about space because we had questions and searched for the answers, and once we reached the moon these questions did not stop.

Written by Workshop Rapporteur, Natasha Kitcher
