

Curating contemporary art in the framework of the planetary commons

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Introduction

Our personal visual impressions of outer space and the polar regions are constructed from images in the media, popular culture and art.¹ In turn, these impressions and images reflect national and global imaginaries of these domains that project assumptions about national identities, utopian aspirations and global anxieties. Outer space and the polar regions are associated with sublime and striking images, from breathtaking views of the Earth from space to blinding white expanses of ice sheet. These spaces of the imagination occupy an important place for those who will never go to these places, but are also perpetuated by those who have (including astronauts in space and scientists in Antarctica). It is rare that the politics of these spaces find representation as contested arenas of unresolved territorial claims, capitalism and empire, and as deeply affected by human presence – the Arctic is home to diverse groups of indigenous people, while Antarctica and outer space, although sparsely or barely inhabited, are still “densely populated” by human strategic interests, commerce, architecture and media representations. The social imaginary helps to shape a society’s values and how it understands its remit and its authority, and therefore the images that feed the imaginary are important. Contemporary art is one of the sources of those images and the ideas behind them. Outer space and the polar regions are recurring themes in contemporary art and increasingly popular in the present century. The polar regions are particularly seen as symbolic spaces of climate change, which chimes with the popularity of contemporary art’s engagement with ecological issues, including stewardship of the Earth’s natural resources.

This paper discusses my curatorial research and practice, which has developed a long-term underlying tactical and interpretative framework of the planetary commons in curating a programme of contemporary art commissions and exhibitions that engage with eco- and geopolitical concerns. It proposes this framework as a complement and alternative to the dominant interpretative framework of the Anthropocene when addressing ecological themes in the arts and humanities, explores its value in drawing out the politics of the polar regions and outer space, and discusses how it develops art’s role in co-producing knowledge across disciplines. I discuss several curatorial and artistic projects in which I have been involved as a curator and researcher, that specifically relate to the polar regions and outer space, and to ideas of the planetary commons. The framework of the planetary commons has emerged through a long-term process of exploring strategies and tactics for artistic and audience engagement with the eco- and sociopolitics of the domains of common-pool resources.

The planetary commons

¹ Elena Glasberg calls Antarctica “the most mediated place on Earth”. Glasberg, *Antarctica as Cultural Critique*.

The practical context for my curatorial practice in the field of contemporary art is my position as founding director of Arts Catalyst, a non-profit art organisation specialising in new artists' commissions and interdisciplinary research projects. One of the underlying questions to the curatorial programme that I have led over the past 10 years has been how to develop an interpretative and "tactical"² framework for projects that seek to engage with the complex inter-relationships between society, culture, ecology, politics, science and technology. Around 2006, I began to use the "global commons" as an underlying thematic idea for artists' engagement with subjects relating to the stewardship and governance of the Earth's extraterritorial spaces (such as the deep seas, polar regions and outer space) and its natural resources.

The notion of the global commons applies the ideas of the commons to those domains that are international, supranational or global in which common-pool resources are found. International law identifies four global commons: the high seas (oceans and seabed, including the frozen Arctic ocean), the atmosphere, Antarctica,³ and outer space.⁴ Over the last 10 years, I have expanded this global commons framework to that of the "planetary commons", a term which, in common use, variously describes the natural resources of the planet, common-pool resources that are not contained within one state (such as air or biodiversity), and the spaces within which these resources are found, including the oceans, atmosphere, outer space, the Arctic, the Earth's crust, and so forth.

Using this term, I intended to achieve three things. First, it acknowledges the "planetary turn" in comparative literature, the arts and the social humanities.⁵ Postcolonial theorist Gayatri Chakravorty Spivak originally coined the term "planetary" to name an ethical alternative to globalisation.⁶ As globalisation is driven by capitalist requirements for extracting resources and making profits, and imposes sameness over the face of the globe, Spivak proposed to overwrite it with a planetary vision of the world, which could pay attention to multiple perspectives and differences. Rather than a model of the world – the globe – constructed of political borders, latitude and longitude, and contour lines, the planet is concrete and ecological.

Second, applying the notion of the commons more broadly to the Earth's shared natural resources thereby foregrounds stewardship (the responsible use and protection of the environment) alongside governance (with its networks of government, business and civil society). Elias and Moraru suggest that planetary refocuses our attention from the regulative principles of the globe, with their "uncomfortable associations with paternalism, colonialism, and monopoly capital", to the "stewardship" of the planet and ecocritically informed discourse.⁷ Planetary can also be associated with the scientific concept of planetary boundaries, an attempt to identify

² In using the term "tactical", I draw on the ideas of tactical media, a form of activist art practice, originating in the 1990s, that intervenes actively within a system, discussed in Garcia and Lovink, "The ABC of Tactical Media".

³ Technically, Antarctica is an international commons rather than a global commons, since membership of the governing regime is limited.

⁴ For more on the global commons, see Buck, *The Global Commons*.

⁵ Elias and Moraru, *The Planetary Turn*.

⁶ Spivak, *Death of a Discipline*.

⁷ Elias and Moraru, *The Planetary Turn*, xxiii.

boundaries for nine Earth system processes, which (if they are not crossed) mark the safe zone for the planet.⁸

Third, this broader scope allows a wider inclusion of globally significant “commons”, including biodiversity, the knowledge commons and contested regions such as the Arctic. Furthermore, it acknowledges that there is a network of “actants” – humans, non-human animals, plant life, microorganisms, technology, geology, ecosystems, atmosphere – involved both as “commoners” (those that can be argued to share rights over common-pool resources) and as commons. This notion draws on Actor–network–theory (ANT), an approach to social theory which maps relations that are simultaneously material (between things) and semiotic (between concepts) and puts all the factors involved in a social situation on the same level. Thus, objects, ideas, processes, non-humans and other factors are considered equally important in creating social situations as humans.⁹

Using the planetary commons as a framework for artistic inquiry means that individual artists’ projects and curated exhibitions, whilst not constrained by a narrow or strict curatorial concept and therefore free to explore a range of ideas, forms and subjects, are underpinned by a long-term investigation into the interrelationships between planetary imaginaries, political thought, artistic agency and environmentalism. Such interrelationships have been explored in varied ways by scholars from different fields. Geographer Denis Cosgrove examined how the evolving image of a unified globe shifted political concepts in the West, helping to shape ideas of globalism and globalisation.¹⁰ Ursula Heise discusses the environmental imagination of the global and critiques the paradox of the emphasis placed by most North American ecocritics on localism while the environmental crisis and its causes are definitively global. She proposes “eco-cosmopolitanism”, an environmental world citizenship that acknowledges global impact and connectedness, and examines the new artistic forms that this sense produces.¹¹ Elizabeth Deloughrey connects the vision of the globe to its history of satellite imaging technology, a product of the cold war space race, and coins the phrase “satellite planetarity” to recognise that militarism and strategic interests are intertwined with imagery of the planet and with environmental consciousness of the planetary biosphere.¹²

Conceptualising the Arctic and Antarctica as planetary commons recognises them as sites of coveted and common-pool resources, threatened wilderness and wildlife, and political and contested spaces. This framing suggests more complex representations of the region, interwoven with history, politics, society and technology, than the prevailing ones of sublime, fragile, challenging and forbidding landscapes.

Limitations of the Anthropocene as a concept

⁸ Rockström et al., “Planetary Boundaries.” The boundaries relate to climate change, biodiversity loss, biogeochemical measurements, ocean acidification, land use, freshwater consumption, ozone depletion, atmospheric aerosol particulates in the atmosphere, and chemical pollution.

⁹ See Latour, *Reassembling the Social*.

¹⁰ Cosgrove, *Apollo’s Eye*.

¹¹ Heise, *Sense of Place and Sense of Planet*.

¹² Deloughrey, ‘Satellite Planetarity and the Ends of the Earth’, 265.

The term Anthropocene has taken a major position in the conceptual and theoretical landscape of the contemporary art world over the last three years, as demonstrated by a spate of recent and forthcoming books,¹³ and a multitude of conferences, conference sessions and journal articles, as well as recent patterns of curatorial and exhibition-making practices that take the Anthropocene as a critical concept. The Anthropocene has been read as a call to re-envisage human history through biology and geology,¹⁴ or more usually as a means of highlighting the acceleration and extent of detrimental human impact on the planet.¹⁵ Bruno Latour, a science sociologist and anthropologist and an influential theorist in both science and technology studies and art, suggests that the Anthropocene's enormous popularity in art and the humanities was because it provided a rare point of contact between critical theory and science, and therefore was a turning point for interdisciplinary dialogue.¹⁶ Suddenly, here was a concept of interest to scientists, couched in scientific terminology, but which needed the tools and concepts of critical theory. The Anthropocene is also a compelling and poetic concept – entwining ideas of deep time, biological and geological formation and the circulation of particles in the air, with the history of technology and human agency.

As the idea of the Anthropocene has expanded to become part of the social imaginary, and is now scientifically acknowledged as being functionally and stratigraphically distinct from the Holocene,¹⁷ it has received a growing number of critiques. These include that the Anthropocene is a misleading term stimulating a redundant debate,¹⁸ that it is arrogant – self-mythologising the human as superspecies, the controller and killer of nature¹⁹, universalist, in that it implies all humans are equally culpable and equally impacted,²⁰ apolitical, for representing the new era as a stratigraphic phenomenon rather than a political event,²¹ and capitalist-technocratic because it collapses recent Earth history to its industrial and technological history, ignoring the ideologies and economy which drive them,²² and thus tends to foster technological geoengineering solutions,²³ or encourages despair and defeatism.²⁴

These criticisms of the Anthropocene point to the concept's limited political and historical dimensions. In framing climate change and environmental degradation as a product of some form of innate human trait, rather than the consequence of specific social and political structures and

¹³ For instance Davis and Turpin, *Art in the Anthropocene*, and Tsing et al., *Art of Living on a Damaged Planet*.

¹⁴ Delanda, *A Thousand Years of Nonlinear History*.

¹⁵ Latour and Davis, 'Diplomacy in the Face of Gaia'.

¹⁶ Ibid.

¹⁷ Waters et al., 'The Anthropocene is Functionally and Stratigraphically Distinct'.

¹⁸ Scourse, 'Enough 'Anthropocene' Nonsense'.

¹⁹ McFarlane, 'Generation Anthropocene'.

²⁰ Klein, *This Changes Everything: Capitalism vs. the Climate*.

²¹ Bonneuil and Fressoz, *The Shock of the Anthropocene*.

²² Purdy, *After Nature*.

²³ Demos, *Against the Anthropocene*.

²⁴ Malm, 'The Anthropocene Myth'.

struggles through time, the Anthropocene tends to distribute responsibility evenly across the world's population. This is both misleading and misdirecting (or rather it provides little or no direction at all, other than despair). Naomi Klein has conceptualised the climate crisis as a confrontation between capitalism and the planet and dismisses the Anthropocene's implied notion of a universal human evildoer. She has in turn been criticised for denying that we are all implicated,²⁵ but she is correct. The people of the Earth are not equally responsible or culpable for the current ecological crisis. We need a more nuanced and less Eurocentric account of the state of the planet, one that acknowledges asymmetries of wealth and the unequal ecological exchange between the North and South. Jason Moore proposes it be renamed the Capitalocene,²⁶ which at least usefully associates our current ecological and social precarity with the age of capital and profit at any cost rather than the vagueness of an "age of humankind".

Robert McFarlane thinks that we will soon be exhausted by the Anthropocene:

...glutted by its ubiquity as a cultural shorthand, fatigued by its imprecisions, and enervated by its variant names ... Perhaps the Anthropocene has already become an anthropomeme: punned and pimped into stuplimity, its presence in popular discourse often just a virtue signal that merely mandates the user to proceed with the work of consumption.²⁷

Critically, the Anthropocene has limited political agency and direction. As Aaron Vansintjan suggests, the Anthropocene "... fails to adequately frame the current situation, and in-do-ing-so allows anyone to co-opt it to their own solutions".²⁸ He notes that it is neither political nor precise, and suggests other terms used by the climate movement that are more specific and still powerful: "degrowth, climate justice, ecocide, ecological debt, and 350 ppm". More and more these days, contemporary art practices claim political motivations, and ecological themes occur with increasing frequency. The Anthropocene has been taken up enthusiastically by contemporary artists and curators, but – and particularly if we accept curator Nato Thompson's argument that the question for political art is no longer "But is it art?" but instead "Is it useful?" –²⁹ the Anthropocene contributes little to art's political effectiveness.

I propose the planetary commons as an alternative discourse and framework for contemporary art to engage with subjects of climate change and environmental degradation, bringing a "commons" agenda to frame and address these issues as intertwined systems of resources, social community and social values. Applying a commons logic to natural resources challenges conventional economics, in its assumption of a broader definition of value than money. To support this proposal, in the rest of this paper, I discuss how I have applied the planetary commons as an underlying framework for a curatorial programme that addresses the spaces, networks and geopolitical regimes of the polar regions and outer space, and what this approach contributes in

²⁵ Gray, 'This Changes Everything'; and Kingsnorth, 'The Four Degrees'.

²⁶ Moore, *Capitalism in the Web of Life*.

²⁷ McFarlane, 'Generation Anthropocene'.

²⁸ Vansintjan, 'The Anthropocene Debate'.

²⁹ Thompson, *Living as Form*.

terms of the agency of art, its emotional impact and meaning, how audience and participants are engaged, and the different forms of knowledge that are produced through it.

Representations of the polar regions and outer space

The polar regions – particularly Antarctica – and outer space are extraterritorial spaces that share perceived qualities of remoteness and extremeness (in that their environments provide harsh and challenging conditions for humans and other species). Being sparsely inhabited and frequently associated with sublime and striking images, they are also spaces for the imagination. It is unsurprising then that artists are drawn to these environments.

Beyond their shared association with these imaginaries of remoteness, inhospitability and the sublime, outer space and Antarctica also have a shared political history, which led to their statuses as global commons, that is worth briefly recounting. The International Geophysical Year (IGY), 1957–8, was an international scientific project that set out to look at the planet as a whole, through a range of Earth system sciences. It led directly to the Antarctic Treaty, which set aside Antarctica, as a global (or international) commons, for peaceful purposes and cooperative scientific research. The IGY also set off the space race, as both the US and then the Soviet Union announced they would launch artificial satellites as part of it (the Soviet Union being the first to do so, with Sputnik 1, in October 1957). The US and the Soviet Union, each fearing the potential military uses of space by the other, then swiftly began discussions on the peaceful uses of space. This ultimately led to the Outer Space Treaty of 1968, which was modelled on the Antarctic Treaty. The Outer Space Treaty bans party states from placing weapons in space, limits the use of the Moon (and other celestial bodies) to peaceful purposes, declares that outer space exploration shall be done to benefit all countries, and designates the Moon as the common heritage of mankind.

In recent decades, the status of the polar regions as axial and symbolic centres of global warming has attracted artists to visit the Arctic and Antarctica in increasing numbers, often as guests of the field stations of various nations, frequently in ship-based “art and science” expeditions,³⁰ or on self-organised trips, particularly to different parts of the Arctic. Despite all this activity, artworks and exhibitions still tend to focus on an aesthetic of an idealised – albeit threatened – landscape of ice sheets, icebergs and glaciers, and the notion of melting ice. In the past 10 years, however, artists have increasingly produced works that integrate technologically mediated data, images and sounds relating to climate change and its science, as well as acknowledging the wildlife of the poles, although this tends to linger on penguins and polar bears.³¹ It is still rare to see the complex networks of people, ecologies, technologies and politics in the polar regions, and issues of governance and stewardship, represented in artworks in any more substantial way, but there are indications that this complexity is starting to be examined by artists.

Media studies scholar Julie Doyle, when analysing the dominance of melting glaciers in the pictorial language of climate change, notes that, by presenting images of distant empty landscapes, these images effectively “relegat[e] climate change impacts to a remote and

³⁰ Such as 2017s *Antarctic Biennale*, convened by artist Alexander Ponomarev, the UK organisation Cape Farewell's eight sailing ship expeditions to the Arctic between 2003 and 2010, and artist Pierre Huyghe's sailing trip with invited fellow artists to Antarctica in 2005.

³¹ See, for example, artists' works in Marsching and Polli, *Far field*, the Antarctic Biennale 2017, and the Antarctic Pavilion at the 56th and 57th Venice Biennales of 2015 and 2017.

inaccessible place”.³² Given the pervasiveness of this form of representation of the Arctic and Antarctica in contemporary art, I have suggested that such images are problematic in removing people, technology and politics from the picture.³³ Anthropologist Juan Francisco Salazar notes that, while new representations of Antarctica – by scientists, tourists and other visitors, not only artists – expand the already rich Antarctic imaginary, they can also be problematic for their normative presumptions.³⁴ Cultural theorist Malcolm Miles considers that the focus on aesthetic images in several well-meaning art projects addressing ecological concerns can serve to depoliticise the content.³⁵

Moving to outer space, during the twenty-first century, there has been a resurgence of interest in space as a theme in contemporary art, with a succession of international exhibitions on themes of space exploration and cosmology.³⁶ Alongside works that somewhat uncritically engage with the images and ideas of off-planet exploration and cosmology are examples of more nuanced and critical approaches towards space, and particularly lower Earth orbit, as a contested and congested arena. However, deeper explicit engagements with and critiques of the strategic history, politics and contemporary commercial aspects of space, as with the polar regions, are less obvious.

Whilst even fewer people physically “inhabit” outer space than Antarctica, its human denizens being confined to a handful of astronauts on the International Space Station,³⁷ as with Antarctica, outer space has myriad connections to social life on Earth.³⁸ Sociologists James Ormrod and Peter Dickens have examined how outer space is socially produced, experienced, perceived and imagined.³⁹ Outer space also finds rich and diverse representations in science fiction literature and film, which often strongly present ideas of the technologies of space and the prospect of space militarisation of space,⁴⁰ alongside shared tropes with the Arctic and Antarctic of remoteness and beauty, but both can be problematic for representing outer space as “out there”, disconnected from Earth-based politics, society and environment.

Curating artistic engagement with the polar regions and outer space

Through my position at Arts Catalyst, I have been able to pursue a dedicated, coherent curatorial strategy, exploring particular topics over extended periods through collaborative

³² Doyle, ‘Picturing the Clima(c)tic’.

³³ Triscott, ‘Critical Art and Intervention in the Technologies’.

³⁴ Salazar, ‘Mediating Antarctica in Digital Culture’.

³⁵ Miles, *Eco-aesthetics*.

³⁶ Including *@rt Outsiders: Space Art* (Maison Europeene de la Photographie, Paris 2003); *Return to Space* (Hamburg Kunsthalle, 2005); *Stardust ou la dernière frontier* (MAC/VAL, Vitry-sue-Seine, 2007); *Space is the Place* (ICI, USA, touring, 2006-8); *Space: About a Dream* (Vienna Kunsthalle, 2011); Tom Sachs’ *Space Program: Mars* (Creative Time, NY, 2012); *Space Odyssey 2.0* (Z33, Hasselt, 2013).

³⁷ O’Reilly and Salazar suggest that Antarctic human habitations deserves attention as experiments of human dwelling in extreme environments in ways that might pre-empt human inhabitation of Outer Space. O’Reilly and Salazar, ‘Inhabiting the Antarctic’.

³⁸ MacDonald, ‘Anti-Astropolitik’.

³⁹ Ormrod and Dickens, *The Palgrave Handbook of Society*.

⁴⁰ Albeit with the potential for misapprehension if people confuse fact and fiction.

projects with artists, researchers and other curators. This curatorial approach draws on – and contributes to – an expanded notion of curating as a process of developing networks of agents. Art curator Maria Lind terms this approach the “curatorial”: “A way of linking objects, images, processes, people, locations, histories, and discourses in physical space”.⁴¹ Some of these linkages within my practice have been to connect my interests in contemporary art, interdisciplinarity, environmental and Earth system science, extraterritorial spaces and how we imagine and mythologise them, global governance regimes, environmental activism and technological agency.

The polar regions and outer space appear and reappear as points of interest and inquiry in multiple artists’ projects and exhibitions within Arts Catalyst’s programme over the past 15 years. As advances in technology (and the impact of global warming) open up more potential strategic and commercial opportunities in the polar regions and outer space, so the threat increases to these spaces as global commons and to the natural resources they encompass. The need for different publics (from local to global) to understand and discuss the implications for economies, environment, and equity, now and into the future, requires a social imaginary that keeps up with technological advances and changing situations, even when legal and governance systems cannot.

In Antarctica, international field stations are the key scientific institutions and many artists who have undertaken research in Antarctica have done so as invited guests of one of the scientific research bodies that operate there.⁴² These field stations also serve as geo-political symbols and claim stakes of the ambitions of their sponsoring nations, and the conflict between idealised notions of international cooperation and transparency in science, as suggested by the Antarctic Treaty, and the tensions and competition between national scientific groups is an ongoing challenge.⁴³

Artist Simon Faithfull drew visual attention to current spatial and physical manifestations of this historical context (in particular the UK’s part) when he travelled to Antarctica with the British Antarctic Survey in 2004, undertaking research for an exhibition of new work commissioned by Arts Catalyst.⁴⁴ On his two-month journey to and from Antarctica – just five days of which were actually spent there, at Halley Research Station – Faithfull made daily line sketches on a Palm Pilot, which he transmitted to the email inboxes of subscribers around the world, as he zigzagged southwards through the Atlantic, hopping between tiny vestigial – primarily military – outposts of the UK. These sketches providing glimpses of a journey defined by tedium, barbed wire, severe weather and spatial geopolitics.⁴⁵ Faithfull’s resulting exhibition *Ice Blink* included these daily drawings etched onto backlit Perspex alongside a series of striking video works – the hypnotic view from an icebreaker, absurd weather balloon experiments that the artist conducted outside Halley, an eerie, abandoned whaling town populated by seals and haunted by history. Together,

⁴¹ Lind, ‘Active Cultures’.

⁴² Some examples are given in Marsching and Polli, *Far field*.

⁴³ Polar Field Stations and International Polar Year History research group, Scott Polar Research Institute, *AHRC Material Culture of Polar Exploration Workshops*.

⁴⁴ The exhibition *Ice Blink* was shown simultaneously at Stills Gallery, Edinburgh, Scotland, Cell Project Space, London, UK, and Parker’s Box, New York, US, in 2006.

⁴⁵ Simon Faithfull, personal conversations.

the works, and his accompanying essay publication,⁴⁶ convey a very different representation of Antarctica from the usual imagery of icebergs, ice cliffs and penguins, providing insights into an inhabited, contested Antarctica within a historical, political and spatial context.

A year after we showed the Ice Blink exhibition, in 2007 I jointly organised, with geographer Kathryn Yusoff, an interdisciplinary programme *POLAR: Fieldwork and Archive Fever*, through which we sought ways to introduce the contributions of artists, geographers, writers, historians and indigenous people of the North into the formal and scientific systems of climate change knowledge from the polar regions. We invited more than 30 diverse experts to take part in a lecture series and international symposium held at the British Library and to contribute to a book of polar archives.⁴⁷ The conversations at POLAR spoke clearly of a need for international governance systems to open up to admit local and indigenous knowledges, both for sustainability and to connect with constituencies “on the ground”, while the publication revealed that involving a wide range of disciplines in systems of climate change knowledge can open up new perceptions and understanding.

Alongside POLAR, I became involved as a curatorial team member in the *Arctic Perspective Initiative* (API), an art, science and culture working group initiated by artists Matthew Biederman and Marko Peljhan. API sought to develop a practical project that could combine different knowledges – including artistic, scientific, technological, situated and indigenous – to address some of the environmental and social-cultural challenges facing people in the North. Specifically, through a multiyear project that is still ongoing, API set out to co-develop open source and affordable communications and environmental sensing tools and infrastructures that can enable indigenous people to undertake their own ecological monitoring and to share this data and situated knowledge with other Arctic communities, as well as communicating with an international audience.

The political economist Elinor Ostrom, whose groundbreaking analysis of community governance of common-pool resources discredited Hardin’s notion of the “tragedy of the commons”,⁴⁸ observed that solutions are found on the ground, through collective action.⁴⁹ Through its localised, media-centric and technological approach, API contributes to community-centred politics relating to the stewardship of Arctic environments, demonstrating the potential of contemporary art (as the field is understood by practitioners who work in interdisciplinary and socially embedded ways) to operate both as a sociopolitical intervention in the public realm and as a transdisciplinary inquiry into a complex and changing social-cultural-ecological-technological system. API articulates a planetarity approach to the global commons of the polar regions by paying attention to multiple perspectives and differences and by refocusing attention from international regulative principles to local stewardship, and back again.

In outer space, as in the Arctic and Antarctica, advances in technology are creating new opportunities for commercial and strategic interests, particularly in lower Earth orbit. The development of nanosatellite technology has enabled many countries that were not space

⁴⁶ Faithfull, *Ice Blink*.

⁴⁷ Yusoff, *Bipolar*.

⁴⁸ Hardin, ‘The Tragedy of the Commons’.

⁴⁹ Ostrom, *Governing the Commons*.

capable actively now to pursue domestic space programmes. As well, with the advent of affordable space technology, more commercial companies have built and launched their own satellites as secondary payloads on launch vehicles. As these new countries and actors enter the international space community, space law – still in its infancy – is likely to evolve dramatically. Clashes over property rights and the exploitation of a “planetary commons” in outer space primarily focus on orbit–spectrum resources: satellite orbits and the electromagnetic spectrum. Several artists were quick to understand the potential of satellite and communications technology as disruptors to prevailing space and state politics. Marko Peljhan’s visionary project *Makrolab* (1997–2007), a precursor to API, was a migrating telecommunications and research lab, which looked and functioned like an earthbound space station. Its utopian ambition was to provide an autonomous social environment that could operate independently of state systems and surveillance. In practical terms, *Makrolab* provided a communications, research and living unit, capable of sustaining the concentrated work of several people in isolated conditions for up to 120 days. It drew its power from the sun and the wind and linked to networks via satellite and shortwave radio. In its decade of operations, *Makrolab* moved between continents, evolving its architecture and systems, with rotating crews of artists, scientists, hackers and researchers.⁵⁰

I co-curated *Makrolab*’s siting in Scotland in 2002, where it hosted several crews of independent artists and researchers. Lisa Haskel describes *Makrolab* functioning as “a node within branching patterns of flows and processes through time and space”.⁵¹ The realm and contents of the electromagnetic spectrum were of particular interest to the *Makrolab* residents. The electromagnetic spectrum, through which radio waves are transmitted, and the orbits into which satellites are placed, are responsible for the extraordinary range and volume of data traffic through the skies and space. Traditionally, they have been regarded as common resources that no one country is entitled to appropriate.⁵² However, as both the electromagnetic spectrum and the geostationary orbit for satellites have become congested, these orbit–spectrum resources have become valuable, and national governments and commercial companies are trying to enclose them.⁵³ On *Makrolab*, the “Makronauts” had access to a wide spectrum of short wave, L-Band, and mobile radio frequencies, satellite telephone systems, Internet and satellite video transmissions, giving them broad access to the electromagnetic spectrum of transmitted audio and data traffic. Crew members gathered information concerning security, the environment, weather, economic and financial transactions, political conflicts and scientific research, undertaking the types of observation (surveillance) and analysis (intelligence gathering) more usually conducted by institutions, corporations, states and the military, but sharing their collected data openly.⁵⁴ In monitoring radio and satellite links, activities on the *Makrolab* often moved on the borders of

⁵⁰ Peljhan’s goal for *Makrolab* was ultimately to set up two permanent stations, one in the Arctic and one in Antarctica, providing a research facility for autonomous researchers and progressive activists in the polar regions, connected by a polar orbiting nanosatellite. Following research trips to both poles in 2006 and 2007, Peljhan’s interest shifted to working with communities in the Arctic. This work evolved into the Arctic Perspective Initiative.

⁵¹ Haskel, ‘Pretty Good Pirates’.

⁵² The body that awards the rights to use parts of the electromagnetic spectrum is the International Telecommunications Union, a specialised agency of the United Nations. User rights are awarded to countries on a first-come first-served basis, free of charge.

⁵³ Wijkman, *Managing the Global Commons*.

⁵⁴ Birringer, ‘Makrolab: A Heterotopia’.

legality,⁵⁵ engaging with issues of ownership and regulation of the electromagnetic spectrum. Thus, *Makrolab* operated, both actively and metaphorically, as an autonomous node of access to the threatened global commons of the sky and the airwaves. Through its many presentations in international exhibitions, festivals and biennales, Peljhan's project exposed some of the complex issues surrounding the enclosure of the orbit-spectrum commons, as well as drawing attention to the military origins of much space technology through tactics of appropriation and conversion, alternatively described by geographer Fraser MacDonald (a *Makrolab* resident in 2002) as forms of "... playful and subversive activism, experiment and art-event that knowingly toyed with space hardware".⁵⁶

Exploring further the idea of outer space as a "commons", in 2008 I co-curated a project with artist Joanna Griffin, much of whose practice has explored the human-made architecture of Earth's orbit – the satellites, space stations and orbital junk encircling the planet. *Satellite Stories* (2008) was a performative walk through the Mullard Space Sciences Lab, which is situated in a mansion in rural Surrey in the UK. Griffin guided Mullard scientists and audience members through the spaces of the house and then – after dark – around the garden, stopping at selected points to share stories of launches, orbits, constructions and failures. Griffin has proposed a substitution of the notion of authorship of outer space for that of ownership.⁵⁷ Orbiting spacecraft – such as those the Mullard scientists work on – generate partitions between those who own space technology and those who do not. Yet, Griffin argues, such partitions can be seen as abstractions (or imaginaries), because the ownership of space technology, being a collaborative enterprise with many actors, can be difficult to pin down.⁵⁸ With *Satellite Stories*, she set out to illuminate scientists and engineers' individual and collective roles in this authorship.

Many of the projects that I have initiated or been involved with relating to outer space have, in different ways, attempted to assert a more open, collective "authorship" of space. As I have described above, through discussing of the orbit-spectrum commons, one of the challenges of reinforcing collective "ownership" of a remote resource domain such as outer space is that of access. Another project by Griffin, with artist Alejo Duque, addressed inequalities in this access through an open collaborative project that explored the poetics of the Bogotá Declaration, a little-known piece of space law history, through writing, drawing, experimental music and events, exchanged online, on the ground and through space. The Bogotá Declaration was an attempt in 1976 by eight equatorial countries – Brazil, Colombia, Congo, Ecuador, Indonesia, Kenya, Uganda and Zaire – to draw attention to the inequity of geostationary orbital allocations,⁵⁹ by asserting sovereignty over those portions of the orbit lying over their nation's territory. Unsurprisingly, given what they stood to lose, it failed to garner support from major space-faring nations.

⁵⁵ Ibid.

⁵⁶ MacDonald, 'Anti-Astropolitik'.

⁵⁷ Griffin, 'Hitchhiking to the Moon'.

⁵⁸ Ibid.

⁵⁹ Geostationary orbits are hugely important for communications satellites that have revolutionised communications and have important defence and intelligence applications. Since telecommunications technology developed in the industrial countries first, it is unsurprising that ninety per cent of existing user rights have been allocated to the richest ten per cent of the world's countries.

Taking a strategic – and symbolic – approach to the challenge of creating a more open, inclusive and interdisciplinary system of governance of the outer space commons, one that could involve artistic and cultural practitioners, in 2007, with a group of international collaborators from the art sector and space community, I made a successful proposal to the International Astronautical Federation, to set up a new Technical Activities Committee for Cultural utilisation of Space (acronym: ITACCUS). As one of the Federation’s Technical Activities Committees, ITACCUS was invited to present its activities and agenda directly to the United Nations’ Committee on the Peaceful Uses of Outer Space (COPUOS), which oversees the implementation of United Nations treaties and agreements relating to activities in outer space. ITACCUS continues as a network and regular gathering of individuals from the cultural and space sectors interested in opening space activities to include arts and culture. Its activities including endorsing various participatory and outreach activities, including Arts Catalyst’s KOSMICA programme (an ongoing series of space culture events in different parts of the world)⁶⁰ and its *Republic of the Moon* exhibition.

Republic of the Moon (Liverpool 2011, London 2014) was a major programme and exhibition, through which my colleague Rob La Frenais and I set out to examine and draw attention to the process by which advances in technology are extending strategic and commercial aspirations further and further into space. In recent years, we noted, the space industry has adopted an ideological framework for the future of the Moon, wherein private enterprise is considered the determining factor and the Moon an object to be exploited for its resources. La Frenais and I wanted to reflect on how this affects our cultural imaginaries of the Moon and to trigger a public debate about space governance and whether, or to what extent, we owe the Moon a duty of care, as we enter a technological era in which humans are making plans to exploit and occupy it. The exhibition’s title was taken from a remark made by Ciro Arévalo Yepes, a Columbian diplomat who was Chair of COPUOS (2008–10), at one of the ITACCUS meetings. In a conversation discussing the politics of defending the Moon as a global commons, Arévalo made the passing comment: “I’m not talking about a Republic of the Moon ...”.

We chose as our curatorial tactic to declare an artists’ Republic of the Moon and to curate the exhibition as its Earth-based embassy. Commissioned artists’ works reflected on how we may need to review our historical and romantic conceptions of the Moon and to create new myths and imaginings more responsive to an age in which outer space and its celestial bodies are contested and dynamic spaces, rather than fixed and remote ones. Alongside installations by Agnes Meyer-Brandis, Liliane Lijn, Leonid Tishkov and Katie Paterson, we invited the artist group We Colonised the Moon (Sue Corke and Hagen Betzwieser) to be resident throughout the exhibition. In characteristically playful style, they conducted a creative, transdisciplinary enquiry into people’s responses to the idea of the Moon as a territory for occupation and exploitation. Their final drop-in workshop solicited visitors to contribute slogans, which were then incorporated into placards for a “protest” and “counter protest” for and against mining on the Moon, which took place along London’s South Bank.

In its emphasis on our emotional and mythological relationship with the Moon in its changing status from remote celestial body to global commons to potential site of extractable resources, *Republic of the Moon’s* approach resonates with anthropologist Debora Battaglia’s discussion of the cosmos as commons. In recounting a Melanesian Sabarl islander’s realisation that a sample of

⁶⁰ Initially co-curated with Arts Catalyst’s associate curator Nahum Mantra, KOSMICA has since become a separate and independent entity from Arts Catalyst, based in Mexico City and Berlin.

moon rock from the Apollo programme that he had observed was “only a rock”, producing a moment of cultural dissonance given the Sabar’s complex mythological relationship with the Moon, Battaglia suggests that science’s expansion of the commons to include such remote entities and environments raises questions about our accountability and how we remediate for “a world of diminished meaning” and fewer ways of feeling.⁶¹

A curatorial framework: from the commons to the planetary commons

While the rhetoric of “the commons” has been present in the arts since the early twentieth century, often articulated by participatory and public art projects,⁶² it is since the 1990s that artists, curators and cultural theorists have begun to assert clearly the importance of creating new social models and political collectives based in commons logic.⁶³ This articulation is intertwined with a move in contemporary art away from a focus on the individual agency of artists (producing discrete art objects) towards art-making as an open, collective process,⁶⁴ and a shift in thinking from political art producing political messages towards the idea of art producing a politics.⁶⁵ John Roberts suggests this has produced two main strands of “commoning” practice. In the first, artists, groups of artists and other participants collaborate as an ideal intellectual community. In the second, artists choose to collaborate with non-artistic communities or groups in the transformation of a particular local problem.⁶⁶ He gives several examples of the latter, including the Danish group Superflex drilling a well in an African village.

Can such commoning practices be applied when working in supranational and extra-territorial domains, such as the polar regions and outer space? Projects such as *Makrolab* and ITACCUS are examples of the former, in their processes of community creation, while *Arctic Perspective Initiative* points to the latter, in which the artists are working with communities in Arctic Canada to co-produce a functional and symbolic transformation to a local problem. Griffin’s *Satellite Stories*, Griffin and Duque’s *Bogotá Declaration*, and Arts Catalyst’s *Republic of the Moon*, meanwhile, take on problematising or critical functions, opening up little known issues and implications of outer space as a commons to public scrutiny, imagination and participation.

Republic of the Moon and *Bogotá Declaration* draw attention to the gap between the rhetoric of outer space as a common good, and the “common heritage of mankind”, and the reality of its control by strategic and, increasingly, commercial interests. They also highlight the contradiction of postcolonial political structures that underpinned the foundation of outer space – and Antarctica – as global commons, and that continue to underlie their occupation and governance, as well as the lack of developing countries and local, traditional and indigenous knowledges in global governance systems. In the case of Antarctica, Klaus Dodds notes that article IV of the Antarctic Treaty established a “holding pattern”, which effectively served to freeze the colonial

⁶¹ Battaglia, ‘Cosmos as Commons’.

⁶² Elias, ‘Art and the Commons’.

⁶³ Ibid; Casarino and Negri, *In Praise of the Common*; and Roberts, ‘Art, Neoliberalism and the Fate of the Commons’.

⁶⁴ Bourriaud, *Relational Aesthetics*.

⁶⁵ Ranciere, *The Politics of Aesthetics*.

⁶⁶ Roberts, ‘Art, Neoliberalism and the Fate of the Commons’.

map for the duration of the Treaty, thus rewarding colonial occupation and annexation,⁶⁷ while Anne-Marie Brady points out that, although the Antarctic Treaty is open to all nation states to join, only those states that have recognised scientific programmes in Antarctica have a say in its governance, a requirement that effectively sets the bar too high for the developing world to participate in Antarctica affairs.⁶⁸

As environmental challenges continue to grow, international governance systems need to become flexible and responsive. Otherwise, they risk becoming irrelevant, ignored and impotent. Ostrom showed how common property can be successfully managed by user associations and highlighted the need to consider the diversity of institutional responses when facing problems of collective action around common-pool resources.⁶⁹ She elaborated on this to address issues relating to the governance of global (or planetary) commons, providing methodologies and insights into the role the commons can play in building a sustainable future, through the role of people who govern the commons, both locally and transnationally. Ostrom emphasised the need for institutional diversity at multiple scales, including indigenous local institutions as well as institutions on national and international scales, and stressed that there is never a single, best way that can be applied to a wide variety of problems.⁷⁰ Science studies scholars Sheila Jasanoff and Marybeth Martello also argue for environmental governance approaches that balance the local and the global.⁷¹ They note that global governance in coming decades will have to accommodate cultural, religious and aspirational differences, and respect – or even defer to – many aspects of the local when designing institutions that wish to transcend localism. They note how the meanings of the words global and local connect to political struggles around various environmental regimes, and consider that “Issues of this complexity can only be grasped by bringing together perspectives from several disciplines”.⁷²

In my curatorial experience, artists cope well with ambiguity and complexity, which makes them potentially strong contributors to envisaging or creating flexible systems and responses to complex problems. The projects I have discussed are characterised by imaginative inquiries, sociopolitical interventions into, and critiques of complex spatial politics, environmental stewardship, and local–global governance structures and processes relating to the polar regions or outer space. They point to the benefits of a more open, inclusive and interdisciplinary approach to knowledge and governance, that can respond to different cultural perspectives and forms of knowledge, and incorporate local, situated expertise. The knowledge that the artists and the projects I have discussed have co-produced with participants is wide-ranging and includes Peljhan’s insights into processes of military–civilian technology conversion, Griffin’s conceptualising of the authorship of space, the combining and reframing of varied understandings of “the commons”, the role of art in forming and reforming social imaginaries of outer space and polar regions, and public views on enclosures of the “global commons”.

⁶⁷ Dodds, ‘Post-colonial Antarctica’.

⁶⁸ Brady, ‘Opinion: Democratising Antarctic Governance’.

⁶⁹ Ostrom, *Governing in the Commons*.

⁷⁰ Ostrom, ‘Managing Resources in the Global Commons’.

⁷¹ Jasanoff and Martello, *Earthly Politics: Local and Global in Environmental Governance*.

⁷² *Ibid*, 4.

A long-term curatorial strategy driven by an ongoing inquiry into the planetary commons produces a distinctive repertoire of images and imaginings, texts, and tactics relating to the ecology, technology and politics of trans- or supranational spaces, that impact on the social imaginary of those regions, showing how they can no longer be considered remote, and suggesting directions for collective environmental and political action.

Conclusion

While Paul Crutzen's coining of the term Anthropocene remains compelling and profoundly insightful, perhaps the most persuasive of its many criticisms is that it leaves us directionless. As Andreas Malm notes: "Species-thinking on climate change only induces paralysis. If everyone is to blame, then no one is".⁷³ If destructive human activity is written into the planet's geology, and we are all culpable, what hope? If we understand the Anthropocene as a failure of societal governance, then I suggest that an interpretative and tactical framework of the planetary commons might address matters of concern relating to environmental stewardship more usefully than the geologically derived concept of Anthropocene alone. Used within a curatorial programme, a framework of the planetary commons can enable multiple forms of interdisciplinary knowledge and insights to be produced and shared.

The perspective provided by this framework has generated new knowledge and enabled meaningful insights crossing different disciplines, as well as highlighting the role of art in interdisciplinary discourse. The projects I have described have examined and highlighted technological agency in relation to the global commons, developed community-centred, culturally sensitive, and environmentally appropriate sensor and communications infrastructures, revealed how our understandings of extraterritorial spaces are mediated by representation in art, examined intertwined histories of art, space imaginaries and space activity and governance, revealed insights around the complexity of governance in the global system, highlighted the roles that local cultural practices can play in commons stewardship, and contributed to evolving discourses across several fields.

Critical artistic practices, particularly when focused through a sustained curatorial inquiry, contribute to society's understanding of the polar regions and outer space as socially constructed spaces and as important global and planetary commons. They do so by directing our attention to hard-to-access, contested spaces – lower Earth orbit, the Moon, Antarctica, the remote North – and by intervening in their technology and politics. The artists' projects discussed here reveal the polar regions and outer space – dedicated global commons – as spaces of exclusion, both in practical and cultural terms, wherein activities and beliefs by certain groups or individuals are prohibited, precluded or dismissed both by international regulatory authorities assuming authority and by nations, corporations and institutions staking property claims.

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⁷³ Malm, 'The Anthropocene Myth'.

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