1.
The human being is a *Mangelmutant*, a “deficient mutant”, in Oskar Negt and Alexander Kluge’s delightful definition. We are born into the world naked and underdeveloped, dependent for our survival on tools and prostheses. Whether as individuals or as a species we are anything but autonomous: it is only thanks to mechanisms of compensation and a benign socius that human existence can be upheld. Ironically, while our technologies have probably never been more sophisticated in themselves, our species’ impotence is out of control and makes nature itself mutate. A civilisation that depletes the resources that keep it alive refuses to acknowledge its relationality, and to see itself as a part of its life environment. The human psyche that inhabits such a world reverberates not only with its own generic uncertainty, but also with the imbalance of the entire biosphere. Our innate deficiency has in a sense gone viral, creating lack and absence in both space and time.

Katie Paterson’s work can be said to address such a negative anthropology, and the conditions of possibility for the human mind to wrap itself around the imperial position that it must now accept that it is not only forced to abdicate, but in fact never possessed. If there is an overarching challenge for human beings and thinking today, this is it. To Deborah Danowski and Edoardo Viveiros de Castro, the current terrifying or “terra-fying” reality of environmental disaster and spatio-temporal meltdown contributes decisively to unsettle existing concepts of knowledge and “unmoor the fundamental distinction of the modern *epistēme* – the distinction between cosmological and anthropological orders (that have been separated at least since the 17th century) by a double discontinuity of essence and scale.”

Because the current, human-made ecological crisis is not only global, but melts into geological time like one of Paterson’s ice records through the irreversible changes it has produced, the human race has made another world of planet Earth and its future. The *Anthropos* has become continuous and entangled with the scale and essence of cosmos. The present text is my attempt to argue that a fundamental intuition that seems to drive Paterson’s work – her production of rigorously researched, seamlessly produced, and gnomically condensed short-circuitings between the humanly earthly and non-humanly cosmic – departs from this disintegration between anthropological and cosmological domains.

Paterson’s works know about the necessity to radically rearrange knowledge and its subject; they have come to terms with how anthropocentric scripts have lost history; and they are fully up to speed about the moral, cognitive, and perceptual dissonances that result. For what is the world when we can no longer address it as such – that is, as our bounded, (hu)man-dominated realm – but must accept that the limits of our worldly habitat and of our individual being are dissolving into cosmos?
Cosmos is where the human subject disappears. It is nature, but not the kind of nature that obeys the modern-capitalist registers of cultivation, exploitation, and contemplation.

Whether understood in an astronomical sense or in the sense of a comprehensive, healthy or ruined ecology, the cosmos is indomitable and indifferent. It is nature-beyond-nature. No longer at a safe and antithetical distance to us – no longer a wilderness to which astronomers turn their telescopes – it is now a domain that is legislated and claimed. Outer space is becoming commercialised and colonised. For instance, President Obama recently declared that the US government will protect US companies that will mine on the Moon, on asteroids, and in deep space. It won’t be long before UPS seeks its business opportunities up there. Unbeknownst to them, Paterson already gave them a sidereal trial run in *Second Moon* (2013–14), in which she made a small fragment of the Moon circle the Earth about 30 times during one year via air freight courier, accelerating the celestial body’s diurnal turn to twice its normal speed. In the era of globalisation, logistics have world-making properties.

The artist Matt Mullican has said that cosmology is not what is in life, but around life. Accounts of ways in which worlds begin and end, cosmologies are shared by science and religions, and other discursive systems that seek to map, explain, or dramatise the totality around life. As far as religion goes, the concept of cosmology is notable for what it does not exclude, namely non-Western, non-monotheistic religions. In these ways it opens up lateral perspectives across a variety of cultures and vocabularies, realms of being, and historical experiences, and enables a critical view of divisions in the modern Western mind set up between religion(s), science, ethnography, art, as well as – fundamentally – between nature and culture. Also subjects play with entire worlds; children, artists. Considering the negatively world-making powers of human cultures, one can also talk about cosmologies that don’t announce themselves as such; tacit cosmologies that inhere in what we take for granted about the world as it is. Preconceptions are also productive and have world-making properties, no matter how passive and destructive they may be.

True, Paterson’s work is not about global warming, or about the Anthropocene. It is not eco-art any more than it is space art. Devoid of symbolic exhibitionism it is abstract, cool, laconic. It does make one point very clear, though: If cosmology is that which surrounds life, but not life itself, then it is from a cosmological point of view that life and its properties are configured. In Paterson, the art concept plays a direct and active part in this dynamic. Think for instance of how the idea of contamination is engaged with by implicating the art concept in the demonstration. In *Inside this desert lies the tiniest grain of sand* (2010), Paterson buried a nano-miniaturised grain of sand chiseled down to 0.00005 mm in the Sahara, where it had also been originally collected. In this way the whole of Sahara is now contaminated by that entity, art, that was alien to its million-year old desert integrity. What more poignant way to demonstrate how a wilderness disappears?

The blindness and immaturity that produced the anthropological – cosmological squeeze haunts our current political climate, too. Here scientific hypotheses and analyses concerning evolution, global warming, and human consciousness are increasingly contested or denied.
by theological models of explanation. Even if Paterson can hardly be called a positivist (or would make for a strange specimen within that particular epistemological clan), she clearly sides with knowledge-producing, rather than believing communities. By combining or confronting scientific platforms, procedures, and archives with domesticated everyday practices – playing LP records, ringing a doorbell, sending letters – her work acknowledges a certain fragility or massage-ability of science. Because it is hard to fix on the spectrum of knowledge, cosmology offers a framework for interactions between art and science where art is not humiliated by the cultural authority of science: Paterson makes the most of this fact, performing encounters for science outside of the lab that are strange and unexpected, though certainly less hostile than is often the case today.

3.

Even if our species might prove to be nothing but a dollop in the magma of evolution, some of Paterson’s works suggest there is hope for the short term. “You, at least, believe that the human race will still be around in a hundred years!” enthused Margaret Atwood when she was asked to write for Paterson’s centennial project Future Library (2014–2114). For everybody alive today, though, Future Library offers no homecoming, no redemption. “You just haven’t earned it yet, baby”, as the song goes, and suffering and crying for slightly longer won’t cut it; only your commitment to ensure that future generations will in fact have a future. The Mangelmaman must find new ways to exist if it wants some of its species members to get past the covers of the books in Future Library.

Considering Future Library’s exacerbation of the tension between the human life-span and the life of the artwork, we can consider the example of Percival Bartlebooth, gentleman of leisure and protagonist of George Perec’s novel La Vie mode d’emploi (1978). Bartlebooth spends ten years studying the art of watercolour, and another 20 years travelling around the world painting motifs from various ports. Returning from his travels he has his watercolours turned into 500 750-piece jigsaw puzzles that he spends the next 20 years completing, has the jigsaws posted back to the places where he created them to be washed free of pigment in the very port they depict, leaving behind nothing. Just as perversely as Bartlebooth calculates his life (un-)project to be a zero-sum game, Perec kills Bartlebooth in mid-puzzle, preventing him from ever completing his egregiously futile existential game. Future Library also inscribes itself onto the lives of its authors, with the difference that many of these writers – and certainly Katie Paterson – will be subject to biological désœuvrement themselves, while their work remains.

And then the chronopolitics of Future Library is even fairly human-scaled, according to Paterson’s normal standards. There is certainty in the fact that our death will occur within the next 100 years. By then, we will have been here. But where are we in relation to the ancient darkness that can be observed at the furthest point of the observed universe, 13.2 billion years ago? The anthropological – cosmological squeeze is fully on when Paterson has one minute of ancient darkness broadcast on the Manhattan News Network at midnight one night in November 2009. A brief sequence of some very old news, it generously allowed TV viewers – that late-modern caricature of the Homo sapiens – a glimpse into imperceptible eternity.
To use a category from aesthetic philosophy, the remit of Paterson’s work is the sublime. The Kantian sublime describes the meeting with formless and immeasurable nature: the enormity of the ocean and the endless reach of the desert, as well as chaotic and fear-provoking phenomena such as volcanoes, earthquakes and hurricanes. It is both attractive and repulsive to the subject, and therefore it “merits the name of a negative pleasure”, against which the subject is subdued and fascinated.4 The sublime immediately involves – or else by its presence provokes – a representation of limitlessness, yet with a superadded thought of its totality. Hence the delight of the sublime is indirect and “dead earnest” because it is “brought about by the feeling of a momentary check to the vital forces”:

\[\text{It cannot be contained in any sensuous form, but rather concerns ideas of reason, which, although no adequate presentation of them is possible, may be excited and called into the mind by that very inadequacy itself which does admit of sensuous presentation.}\]

Kant only includes spatial phenomena in his exposé of the sublime, and not temporalities that can be seen as equally fear-provoking and limitless. The physical presentation of the sublime is “horrible”, because it has no objective correlate in phenomena: the fact that we are incapable of grasping and representing the enormity of the sublime event proves the inadequacy of our imagination. Its saving grace, according to Kant, is that we are capable of identifying the event of our incapacity as singular, a fact that indicates the superiority of cognition. This cognitive power is the “supersensible substrate” that underlies both cognition and nature: in the end, reason wins against a mighty force that will not come to dominate us. Therefore Kant regards the sublime as a presentation of an indeterminate concept of reason.6

In relation to the scientific cult of fact that Paterson plays with in her work, it should be mentioned that Kant defines two kinds of sublime, namely the dynamic sublime (“nature considered in an aesthetic judgement as might that has no dominion over us”), and the mathematic sublime (“the notion of absolute greatness not inhibited with ideas of limitations”). We find both kinds in Paterson, and, true to Kant, she employs it as a sobering reminder of the limits and finitude of imagination. But this is also where the artist and the philosopher part ways. In Paterson, reason wobbles, too. The tables are turned on human cognition and we are reminded of the power of cosmic nature-beyond-nature, and of the ephemerality and conditionality of our cognition and existence. At the same time, Paterson completely strips down the Sturm und Drang with which the sublime may be associated art historically, using the sublime as an aesthetic principal whose pathos she reinvests in her global caretaking in order to take stock of all that exists.

You can call this the moral law of her work, to nod to her work’s negotiations with Kant. In the spirit of Paterson, the philosopher of human autonomy wrote this famous passage, which was even inscribed on his tombstone: “Two things fill the mind with ever new and increasing admiration and reverence, the more often and more steadily one reflects on them: the starry heavens above me and the moral law within me.”7
The sublime discord between human and cosmos is mediated counterintuitively, or with a
certain comic relief, by the pedestrian or anachronistic technologies employed – the LP
record player, television, Morse code, festoon lights, a disco ball, 100-year-old books. They
are technologies with a soul: we know them, or remember them, and they don’t have any
tricks left to manipulate us. When Paterson is through with it, technology’s sophistication
has been stunted, and its founding ambition of modernity and faithful reproduction appears
naive. If the metaphor is not misleading, Paterson’s work gets under technology’s skin, for
instance when she has a light bulb produced that shines with the lumen of the Moon.

It is correct, as Mary Jane Jacob points out elsewhere in this book, that Paterson engages
with thought experiments, with the realm of speculation. At the same time, you must take
note of the fact that she typically goes to great lengths to realise her work in the strong
sense of this term. She doesn’t remain in the realm of “as if”. More than the symbolic
economies of the art institution, she is concerned with institutions that represent the
possible because they verify, socialise, or represent what can be known or done in different
fields of agency. In this respect what UPS, ESA, and MNN have in common is that they all
represent a different authority and claim to reality than art’s symbolic and indirect economy.
Paterson works with experts – engineers, scientists, and architects – and works like them,
too, by adhering to strict methodological parameters; factors that set her work and strategy
apart from conceptual art’s reliance on the registers of the critical, poetical, and semiotic.
You could perhaps say that Paterson makes such institutions, discourses, and technological
super-operators accept Gedankenexperiments as a kind of contraband in their expediency.

Another work whose ethos seems related to Perec’s Bartheletho, Campo del Cielo, Field of
the Sky (2012–14), is a case in point. It consists in an object-act or object-performance: a
meteorite that has travelled for over 4.5 billion years was cast, melted, and then recast back
into a new version of itself that replicated its original form, and returned to space by the
European Space Agency. We can compare Paterson’s work with Lowry Burgess’ Boundless
Cubic Lunar Aperture, which was the first to be taken into space by one of NASA’s Space
Shuttles, the Discovery, in 1989. It included holograms and cubes made from all the
elements known to science, and water samples from all of the world’s rivers. By sending a
material representation of Earth into space, Burgess hereby reproduced a cosmic perspective
focused on Earth (think of the famous photo of the blue Earth that was sent down from one
the first space missions in the 1960s, and adorned the cover of Whole Earth Catalog). This
endeavour exemplified his artistic programme of “a visionary realignment of the Earth and
heavens so that new relationships may be ordered to establish a new framework for
consciousness.”

Although aligned in their strategy and scientific alliances, Campo del Cielo promises no such
lyrical alignment. Campo del Cielo reverses a terracentric perspective by returning a piece of
outer space to whatever vanishing point in time and space it came from: Instead of
representing Earth in space, an extra-terrestrial entity is Earth-bounced back into the eons.
In this Copernican gesture, the technological vanguard of space exploration is put in the
service of a piece of circular reasoning that confronts human technology with its own
purpose and ethics. Not by exploring, extracting, and going to “the last frontier” (as the phrase inspired by the colonisation of the North American West goes), but by insisting that we should meditate on this alien object. With Campo del Cielo as an interstellar palindrome inserted in a cosmic syntax, we are offered a contact consciousness of another kind.

One of Paterson’s more offbeat works is Candle (from Earth into a Black Hole) (2015), a synesthetic planetary voyage based on smell. A white candle that burns down over 12 hours releases its layered scents to create an associative journey through space. Starting from Earth, which reasonably enough smells of forest, the scents get increasingly idiosyncratic: geranium for the stratosphere, burnt almond biscuit for the Moon, interstellar clouds are mothballs, a burnt steak for a dying star. A latter-day, olfactory version of Pythagorean music of the spheres, Candle rewires the viewer’s – sniffer’s? – imagination with her nervous system. Mars, for instance, smells like an old penny. Paterson’s work may be universal in a fundamental sense of the term, but with Candle she also lays bare her own cultural programming: the smell of an old penny must be like the wet tweed of H.G. Wells’s suit, verdigris on the Forth Bridge, or the smell of your skin after being chewed by midgies on a summer night on the Western Isles. This is the almost-nothing stuff, the barefoot reveries of the totally elsewhere of black holes, crystal mountains, and dying stars, and the gestures – maybe not so insignificant, all of human civilisation considered – that we can perform to get our heads around them.

Endnotes


3. Katie Paterson, Margaret Atwood, and Lars Bang Larsen in conversation, Copenhagen, August 2014.


5. Ibid: p. 69.


7. The entire quote goes: “Two things fill the mind with ever new and increasing admiration and reverence, the more often and more steadily one reflects on them: the starry heavens above me and the moral law within me. I do not need to search for them and merely conjecture them as though they were veiled in obscurity or in the transcendent region beyond my horizon of my vision; I see them before me and connect them immediately with the consciousness of my existence.” Immanuel Kant, Critique of Practical Reason (Cambridge: Cambridge University Press, 1788]: 2015): p. 129.