

Image 1

Today I am going to talk about the Anthropocene and how this concept has spread from being significant within scientific communities - to becoming an idea that has become very important politically, socially and culturally. One of the core tenets of the Anthropocene is the discovery that humankind has become a geological agent, comparable to the forces of volcanic eruptions and plate tectonics. So facing the Anthropocene – politically, philosophically and aesthetically – means to conceive of both the force of human agency, and the human inability to control the effects and consequences of this agency. So the question is - how can we reflect on this paradox? And as an artist I am interested in how the Anthropocene can be translated into aesthetic representation?

Image 2

So firstly I shall explain what I mean by the Anthropocene - If we look at the etymology of the word Anthropocene...it is descended from the Greek - Anthropos meaning human and cene, which originated from the Greek word kainos meaning recent or newso the Anthropocene then is the new epoch of humans, which is thought to offer a way to understand the present environmental crisis. Its characterised by the fact that the human imprint on the global environment has become so large and active that it now rivals some of the greater forces of nature in its impact on the functioning of the Earths system.

Image 3

The term was introduced amongst the science community in the 1980s by ecologist Eugene Stoermer and popularised in the late 1990s by Nobel prize winning atmospheric chemist Paul Crutzen to describe the human imprint on the global environment, caused by activities such as mining, construction and deforestation that have become so large and active that it now rivals some of the greater forces of nature in its impact on the functioning of the Earths system.

Image 4

Recently, the Anthropocene has come to refer more broadly to the effect of climate change and the ongoing possibility of the 'sixth extinction', which is the mass extinction of plant and animal species.

Image 5 and here are some statistics relating to this.

Image 6

One of the biggest debates around the Anthropocene is when it started...this article from the guardian newspaper asks whether we really have crossed a turning point in geological history as many scientists are divided about this.... many scientists are placing the beginning of the Anthropocene at the Industrial Revolution in the late 18th century. Some put it as far back as the beginning of agriculture...or even further back to when humans discovered fire, while others trace it to the 20th century – with the splitting of the atom, or citing the American nature writer Rachel Carson, the invention and widespread use of chemical insecticides and pesticides.

Image 7

I am now going to try and provide some context as to where this concept came from, what it means and how different types of users are using the term so that you gain a better understanding of the concept. So this in a nutshell - is the concept that the Anthropocene is trying to capture.

Image 8

And what the Anthropocene is – is a proposed current geological age

So it is about more than climate change, which is an important distinction...it is also about all the other aspects of human distortion of the planetary cycles, whether it be overharvesting of resources, loss of habitat, the conversion of natural habitat for agriculture or human use, or the release of waste products from our activity into the atmosphere or the oceans.

The Anthropocene tries to capture a sense of the overall human domination of disruption of natural planetary cycles. So there is a distinction between what

we know in the media about climate change – and how we can understand the Anthropocene - While there is good evidence that the Anthropocene is a geologically significant phenomenon on the scale of ‘deep time’, the climate change component is thus far relatively minor on a geological timescale. However, the scale and significance of Anthropocene climate effects will likely increase in the near future. Geological history tells us that the Earth is prone to relatively large (and often rapid) climate changes from relatively small provocations. The provocations driven by human action are now substantial (and growing). Thus, the Earth will likely continue to warm. As climate change intensifies its effects on our planet, the Anthropocene looks set to evolve to become an increasingly fundamental transition in Earth history.

Image 9

The Anthropocene is a phrase that is becoming more popular and is increasingly being used outside its scientific origins. The internet and bookshops offer a range of literature that captures contemporary thought around the concept...These range from a journalist or travelogue perspective through to a more pop science/nature writing approach or slightly catastrophic interpretation ...so it's become a bit of a spirit of an age.

Image 10

So Paul Crutzen's idea about the Anthropocene got picked up again in 2007 when Crutzen teamed up with Earth systems scientist Will Steffen and environmental historian John McNeil wrote this paper in *Ambio*, which laid out a more considered scientific case for the Anthropocene outlining that human activity was sufficient to disrupt natural planetary cycles. Other papers expanded further and began to revise their ideas along with the suggestion that maybe the Anthropocene began in the mid 20th century in the post-world war 2 period when industrialisation picked up in scale, but also spread outside of its European north American core to much of the wider world.

Image 11

So for Crutzen, Steffen and McNeil who were taking an earth systems science perspective the Anthropocene is defined by this list of key features. The final point on this list is claiming that effects are leaving a distinct stratigraphic record – so they argue there is enough evidence to suggest that it is appropriate to define a new geological epoch.

Now I just want to point out that there are some people in the scientific community that see the anthropocene as being a conceit – one that only serves to inflate humanity’s legacy on the planet. They point out that human civilization so far is a speck in the geological record, 10,000 years (in the most generous definition of “civilization”) compared to 500 million years of complex life, or about 0.002% of that history, or 0.0002% of Earth’s overall history

Image 12

However, if we go with the growing chorus of expert opinion claiming that the fate of the “Earth system’ is now in human hands, then a pressing question seems to be – when exactly did this transition take place? The work of Crutzen, Steffin and McNeil particularly focused on the late 20th century as a key period of this transition, which they referred to as the great acceleration- which describes ramped up changes in both Earth system trends (such as increases in carbon dioxide and tropical forest loss, ocean acidification etc) and socio economic trends such as population growth and energy consumption, telecommunications, growth in transportation and so on. So this all began after world war 2 when war time economies turned to mass production and industrialisation and there was a spread of industrialisation to newly independent countries spreading to Africa and beyond.

Image 13

Because the Anthropocene was very much an earth systems concept in the beginning - it wasn’t really thought about as a geological concept initially...

Image 14

For the first 5 or 6 years there were no geologists significantly involved with the literature on the Anthropocene...until geologist Jan Zalasiewics from the University of Leicester wrote a paper in 2008 that took a geological perspective and questioned whether we were now living in the Anthropocene and whether there was enough geological evidence that justified the naming of a new geological epoch. This has led to Zalasiewics leading a working group of geologists to formally define the Anthropocene as a geological unit.

Image 15

So I am going to get a bit scientific here because as I mentioned earlier -it is important to get a sense of the scale of time when talking about geology and geological strata.

So the geological timescale I have been talking about stretches back to the origins of the Earth 4.6 billion years ago...which on a broad scale is divided into eons and then eras so the Cenozoic is the latest era that we are in and it stretches back to 65 million years ago to the demise of the dinosaurs and the rise of the mammals ...so as you can see here in the slide - eras are divided into epochs that are generally a few million years long...the epoch we are in now and are believed to be leaving is the Holocene, which began around 11.7 thousand years ago and is marked by the end of the last strong ice age to the current inter glacial which is characterised by interim periods of warm stable environmental conditions that happen every 100, 000 years or so, so the only thing that made the Holocene distinct from previous inter glacials is that this was the period in which humans shifted from a hunter gatherer phase into agricultural civilisations around the world. So here we see that the Holocene is already distinguishable by human activity and presence and that is why it is defined as a distinct geological epoch compared to previous interglacials.

Image 16

So one of the debates about the Anthropocene is how it is different from the Holocene.

Because the Holocene also implicitly involved human activity the question becomes about when did this transition to the Anthropocene actually start. As a start date has not yet been established, the Anthropocene as yet does not exist officially as a formal geological period. After establishing a strict stratigraphic boundary the Anthropocene working group should make a decision in 2020 which will probably point to the mid 20th century as the origin of the Anthropocene – a link associated with the great acceleration...although some pinpoint 1945 with the first atmospheric definition of a nuclear device.

Image 17

Interest in the Anthropocene has been growing in all disciplines, not just science... and it has been argued that there should be a much wider

discussion, bringing in the social sciences, history and humanities to try and come up with a concept of what the Anthropocene is.

Some say that the geological framing of the Anthropocene encourages a very technocentric view of the world – a very western view of the world that doesn't really have much resonance outside western cultures and thinking...others ask what is this Anthropos...this collective 'we'?...so many of the criticisms are about what is being left out of term because 'no one term' could be expected to capture all of its nuances and subtleties.

Some critics argue that there is more danger in the simplicity of this term than utility...that lumping all of humanity into this single Anthropos ignores that particular economic and power configurations are responsible for the Anthropocene.

Image 18

Art historian TJ Demos and environmental historian Jason Moore link the Anthropocene with economic and political configurations of capital as causing the Anthropocene.

They ask the question- whose Anthropocene is it?... believing that much of the disruption so far has been caused by a small faction of humanity, making it disingenuous to try and lump all of these activities into some collective human influence when it is only a subset of humanity that is responsible for Anthropocene change.

In her book 'A billion black Anthropocenes' or none, academic Kathryn Yusoff talks about the effects of colonialism in relation to the Anthropocene and argues for the importance of including Indigenous knowledges into contemporary discussions of around the concept...and within this argument one could delve further into approaches such as Maori guardianship of the New Zealand environment that include: the interconnectedness of all of life; that every element or life form has its own life-force; that matter is imbued with spirit; and the inherent reciprocity between life forms.

Image 19

Moves towards acknowledging the Maori worldview can be seen when In March 2017, Māori won legal recognition of the Whanganui River so by law

now, the river must be treated as a living entity with the same legal rights as a human being.

Indigenous world- views differ markedly in their conceptualizations of agency from Western modernist genres of human agency, which until very recently have underscored much of human ecology that are again often tightly interwoven with late capitalist or neo-liberalist forms of governance.

The various debates about the origins of the Anthropocene reflect how we conceptualise contemporary environmental change... because the stories we tell ourselves about environmental crises, and humanity's place on the earth and its presence within geological time determines how we understand how we got here, where we might like to be headed, and what we need to do. For instance there are cultural theorists who argue that a start date such as the mid 20th century does not take into account the impact of colonialism and doesn't significantly differentiate between countries, ideologies, or ways of life. So this is one of the reasons why it is important how we define the start of the Anthropocene - do we consider the start of the process of human alterationor the step change or surge in human alteration that occurred around the 20th century.

Image 20

In terms of a cultural perspective – one fascinating thing about the Anthropocene is that in the last five or six years the term has spread from academic literature out to a much wider cultural zeitgeist.

Here we see this cover of the economist magazine in 2011 , which suddenly bought this idea of the Anthropocene to a much wider audience ... and here its described as a charismatic mega category...something that is easy to bring a range of our concerns about the environment to...and often you might find when trying to describe something about environmental change...which is not just about climate change but also about waste and other aspects of other environmental problems at whatever scale, sometimes the easiest way to capture all those things is by “in the Anthropocene” and using it as a term to talk about the range of multi-scale and multi-faceted environmental changes that are occurringso it often is more convenient as a short hand label to talk about change in the Anthropocene because it captures the magnitude and breadth of human influence in the wider natural world.

Image 21

At the other end of the spectrum you have the catastrophic view that reflects on the end of our human civilisation.

There are many films and novels out there that take this approach such as the disaster block buster flick 'day after tomorrow' and the novel 'the road' by Cormac McCarthy about a father and his son in a post-apocalyptic wasteland, which was also made into a film.

As well as being an environmental argument, the Anthropocene can also be understood as a cultural transformation...an attitude that is informed and expressed in many different styles...you could see it as a structure or an expression of a feeling or a mood...As we can see in current post-apocalyptic novels and films our relationship to the environment has gradually come to occupy centre stage of our imagination. It has intensified as an emergent structure of feeling to a dominant one.

So it has spilled out of the natural sciences and has potency as a wider term that in some ways is now more significant than its formal scientific definition. It can mean different things to different people so next time you see the term being used or on the title of a book, a news article or an art exhibition for instance, have a think about the way in which it is being used and how these take different approaches.

The Anthropocene has become popular as a catch all term for the modern world and an ideological provocation that captures the concerns about the contemporary human influence on the wider natural world by challenging ideas of progress, growth and modernity.

I want to finish now with some artistic engagements reflecting on some of the concerns I have raised in this lecture.

Image 22

This is a painting entitled 'Manifest Destiny' by American artist Alexis Rockman that presents a postapocalyptic vision of Brooklyn, New York several hundred years into the future. The painting sits squarely within the growing corpus of climate disaster literature and film joining the sub-genre of science fiction and climate fiction (cli-fi) which has become a staple of popular culture, evidenced

by the release of a deluge of disaster films and docu-dramas that capitalise on fear of such and our morbid fascination with this catastrophic view reflecting on the end of our human civilisation, which I mentioned earlier.

Image 23

Other examples combine science and art...they include sound technologies- such as sounds from the Anthropocene -where a group of artists and scientists aim to translate data from stratigraphic markers of the Anthropocene into sound ...and mapping and data visualisation seen in Cartography of the Anthropocene where an anthropologist has taken data from U.S. government agencies to plot maps of all the networks that connect humanity—be it cities, roads, railways, power lines, pipelines, cable internet, airlines and shipping lanes.

Image 24

These are underwater sculptures by artist Jason deCaires Taylor are designed to help promote coral reef growth

Image 25 -detail

Image 26

Senegalese photographer Fabrice Monteiro believes we are already living in a dystopian world and here in one of his photographs a woman rises from the rocky coast covered in tar. One of her hands resembles a tentacle; the other clutches the carcass of a white bird. A sinking ship is seen in the background.

Image 27

His series *The Prophecy* Monteiro shines a light on environmental degradation in West Africa. While the photographs have been called dystopian, he's quick to point out the scenery is all real. So rather than taking a post-apocalyptic approach Monteiro says he is not so much interested in the future because he thinks the reality is right now, the present.

Image 28

The next three images are from an exhibition in New Zealand called Moana Don't Cry which focuses on the environmental degradation of the Pacific

Ocean. Moana is the Maori name for the ocean. In calling attention to narratives of loss articulated by the colonial logic of dispossession, the exhibition addresses our need to protect life as kaitiaki the Maori word for guardians, with a duty of care for the planet entrusted to us. New Zealand prime minister Jacinda Adern declared a state of emergency in relation to climate change in the region, at the last two Pacific island forums where it was described as the biggest threat to security in the Pacific.

Image 29

So this is a collaborative video work from the exhibition where three artists have responded to mass erosion and its devastating impact on the coast and ocean within NZ

Image 30 also from the exhibition –

A still from a film called 'The island' made by Vietnamese artist Tuan Andrew Nguyen. It is a short film shot entirely on Pulau Bidong, an island off the coast of Malaysia which was a refugee camp after the Vietnam War, where the artist and his family lived between 1978 and 1991.

As one of the most densely populated places in the world the camp was shut down by the United Nations in 1991 and since then the island has become overgrown by jungle, filled with crumbling monuments and relics. So the artist has returned there and shot this film, which presents a fictional account of a dystopian future in which the last man on earth - having escaped forced repatriation to Vietnam - finds a United Nations scientist who has washed ashore after the world's last nuclear battle. So the film plays around with the past and the future to weave a narrative that allows the artist to question the individual's relationship to history, trauma, nationhood, and displacement.

Image 31

It's these effects of environmental degradation on more vulnerable communities that are also explored by American photographer Richard Misrach, who highlights the pollution occurring in the Mississippi River corridor from Baton Rouge to New Orleans. So this project is a stark social commentary about the concentration of petrochemical factories located along a 100-mile stretch of the Mississippi River.

So this was once a pristine river corridor, which is now known as Cancer Alley, because of the far-reaching and ongoing devastation generated by more than 140 industrial plants that have eroded ecological systems and brought about the economic deprivation of local, and mostly poor African-American, communities.

Image 32

The Canary Project was founded in 2006 by the artists Susannah Sayler and Edward Morris from what was initially a project consisting of Sayler's photographs of landscapes throughout the world where scientists were studying the impacts of climate change. So as well as working with scientists the Canary Project now have partnered with local artists and others wherever they have been in residence. This enables them to expand the reach of their concern through the use of other media, including bus ads, billboards, posters, installations, games and fashion performances.

Image 33

This is a work by Argentinian architect and artist Tomás Saraceno who is now based in Berlin. As a response to global climate change he has been making aerial sculptures that fly, using only solar energy....

His work is all about lightening up, using way fewer resources, but still dreaming of new ways of experiencing the earth and our own bodies. Using only solar energy – his solar sculptures are made using little more than recycled plastic shopping bags. They are very much collective projects involving local people and children to make new flying machines.

Image 34

His latest exhibition at the Palais de Tokyo in Paris titled 'On Air' continues this focus on climate change and humanity's changing relationship to nature in the age of the Anthropocene.

Image 35

This work invites the visitor to consider the aesthetic contributions of non-human producers, notably spiders. In a large, almost entirely pitch-black room,

the only illumination emanates from a series of spotlights carefully trained on the silky threads of 76 elaborately constructed spiderwebs. These 'hybrid webs', as the artist calls them, are spun by dozens of spider species' that inhabited the space.

Image 36

In 2018 Greta Thunberg a Swedish schoolgirl aged 15, began her own protest about the need for immediate action to combat climate change outside the Swedish parliament and has since become an outspoken climate activist, initiating the 'school strike for climate' movement that formed in November 2018 and surged globally after the United Nations climate change conference in December the same year. What Greta Thunberg has done, is turned her life into a living emergency to try and inspire politicians to act on the climate crisis.

Image 37

So I wanted to finish with this portrait of Greta Thunberg painted by the artist Elizabeth Peyton because I think this is a very poignant portrait which tells us a lot about the time we are living in now.... if you think about historical portrait painting its often of important powerful figures such as Kings, Queens, Presidents, prime ministers, chiefs, warriors, generals etc. And I think this image sort of sums up the way the teenager Greta Thunberg has certainly captured the spirit of our age.

Image 38

Thunberg's arrival in the US earlier this month set off the rightwing and then even the president himself, who mocked her on Twitter as a "happy young girl looking forward to a bright and wonderful future", after a speech in which she urgently laid out the dismal prospects for her generation's future. Thunberg's age and gender undoubtedly annoy her critics, but they're melting down because she explicitly makes the connections that scientists are generally unwilling to make. Namely that their scientific predictions for the climate, and the current economic and political order, may not be compatible.

Image 39

So finally, I will leave you with a few reasons why the Anthropocene might be a useful concept for you all to think about.

Thank you

