Liberty Quinn

A Traumatic Loss of Coordinates in The Anthropogenic Age

By Liberty Quinn
Royal College of Art
MA Print
Word Count: 9416
2022

ABSTRACT

A Traumatic Loss of Coordinates in The Anthropogenic Age takes the reader on a journey within a fragmented framework of ecology, climate and technology. Seeking a voyage into a horizon of possibilities, locating questions to linger on, discuss and pull apart. I will be bringing in thinkers, artists, experiences and my own practice to iterate my claims and thoughts, to make sense of the accelerated rate in which we navigate our lives.

A fragment is a fracture, a decay, a displacement and a scatter. I want to dissect the reader into a syntax of exploration using the fragment as a mode of navigating how this piece will be presented – exploring different conversations and linking them by the core initiatives which I will lay out now. I will focus my interests towards the climate crisis, our orientation within physical and digital space – with particular focus on the horizon line as a grounding yet disorientating force of navigating ourselves. Furthering my research and applying it to human acceleration, the proliferation of images and how the slippages in technology simultaneously disrupt our perceptions.

Through this text I hope you find a sense of unease yet a prospect for things to come – just don't forget to look up to the expanse of sky or out into the horizon once in a while.

KEYWORDS

CONTENTS

FRAGMENTS

LIST OF ILLUSTRATIONS

THE BEGINNING

You cannot grasp the horizon line, it is a void space that teases your perceptions of the near and far. Our current condition has compromised our orientation, we look down at our devices and back up at the expanse. How can we navigate ourselves through both digital and physical space when the horizon is lost within the interface of screen, pixel and data.

Our senses are flattened by digital space and the horizon is necessary to navigate our way through technology and regulate the accelerated rate in which we have come to live. The Great Acceleration was first recorded in the middle of the 20th century and it marks the start of the irreversible changes humankind has made on the earth's geological and ecological systems. We continue to crush these fragile spaces and alter the landscape to an unknown state – the layers of strata and digital detritus surrounding and consuming us are no longer natural, the very makeup of rock and pixel are unknown 0's and 1's created by us.

The idea of fragmentation is the visual journey this collection of writings will take. I want to give a sense of slowness within the acceleration, creating pauses for contemplation throughout this text. These fragments 'are strata themselves. They stratify and condense themes that intertwine and build on each other as dynamic apparatuses mobilizing different sorts of material.'[i] Within the layers of rock and pixel are pieces to discuss and pull apart, I will focus my attention towards our fractured orientation within digital and physical space, the acceleration of human activity and how climate change and The Anthropocene are at the forefront of contemporary perception. We fear the glitch and the slippages in technology, but how do these spaces ground us and take us on a journey into the unknown. Falling further within the fragmented web of text I want to dislocate the viewer to mirror the navigation we take through digital technology, undoing the multi-perspectival experience of the world in which we exist. Our orientation has been compromised through digital technology and I will flesh out thoughts, facts and thinkers to explore this necessary space to navigate our way through changing times.

The contemporary condition has reshuffled how people consume and understand the world as we know it, we are living in a fragmented framework of ecology, politics and material. In New Dark Age: Technology and the End of the Future, James Bridle states 'the changing climate shakes not merely our expectations, but our ability to predict any future at all.'[ii] We exist as a hyperobject, unable to grasp ourselves in the entirety of humankind – we rely on destruction to mark the history's that are fundamentally destroying our planet. How can we navigate ourselves with no fixed state, the proliferation of data and images swimming at the surface of time we need to look towards the phenomenon of the horizon for solace and contemplation. Soon we will find ourselves below the melting glaciers holding our devices up to stay afloat.

Multiple perspectives are being consumed at once through our cameras and methods of surveillance causing us to free fall through our new de-materialised perception. Does our new mode of vision aided by technology allow us insight to the hidden elements of the landscape, will this trace of production blur even more the boundaries between the digital and physical. Along with landscape the referent to the body in digital technology is ever present, the haptic visuality of touch and multisensory experience lends itself to a fractured consumption of screen and material. We can now touch the cloud and skim through a sea of tabs. Our modes of vision and sense predetermined by technology, we are swimming in data and the navigation of the horizon line is lost, a new type of visuality has risen.

A GLOWING GLARE

Our perception of images is an absorption rather than looking. Consuming light and subliminally digesting signals from machines only to find our contemporary perception has been compromised by technology.

Skimming through information but consuming light we question where our perception fundamentally comes from. The monotonous consumption of data is how we understand the information we seek, the makeup of pixel circulates through the glowing screen so we can comprehend what we are looking at. The glow of the sea and screen simultaneously gives us the reflection we need, but in what way do we understand what we are looking at. Light is everywhere, perhaps the only way to understand the contemporary modes of viewing is to broaden our ability to consume it – even if it is artificial or real. With these tools our 'vision loses importance and is replaced by filtering, decrypting, and pattern recognition.'[iii] Light is only on the surface, speed and repetition are what lies below, our vision filters through the light and pattern to reach what we understand.

The recognition of light staring at us from every surface sinks into our being, staring into a phone's glare to read an image is not a reading at all, it is the absorption of information from one thing to another – retina display to the retina of the eye. Experiencing the light dancing across the waves does something entirely different. Something deeper is going on in three-dimensional space, the light is being stretched and reformed through the flux of water into a new visual space. Digital looking has changed the way we perceive things, like taking time for your eyes to adjust after looking at a screen, the contemporary perception of the world has turned a page. In *The Lost Dimension* Paul Virilio talks about 'a new perception', in which the very concept of physical dimension has progressively lost its meaning.'[iv] Here this suggests the power of the physical has radically declined and made way for an interface of human and digital. The physicality of the landscape has been altered by this glare we are experiencing more of every day, looking into the reflecting sun on the sea and looking at the image you took of it will not compare. Is this perhaps the "sea of data"[v] itself? There are no pixels on the surface of the sea, the glare is real. The horizon line is unattainable, we are unable to grasp it in its entirety and it is forever the same distance away from us. It is a constant fixed point in the indefiniteness that is the digital world, 'the screen reflects on the faces of those rapt in its glare… each human for him or herself, bathing in the emitted light of the screen, is suffused with a glaucous aquatic gleam.'[vi]

My own experience of this glare I am referring to is down to the change of surroundings I have had over the last few years. Before living in London I was living by the coast, every day I would open my window and be confronted with the void and eternal horizon – the shimmering glare of the sea and the physical expanse of the sky. The glare on my phone never comparing to the rays beaming back at me on a sunny day. I was literally living by the sea of data which made me feel a sense of being grounded, able to orient myself withing the vastness of the world. Although living by the unstable cliffs, stones and tides should have given me the opposite effect, living in London has given me the most uneasy of senses. I now wake up with no horizon in sight, no expanse voided of human activity and a sense of groundlessness within the most concrete of places. The epicentre of technological activity, lasers and flashes bounce off of buildings, creating a whole different kind of glowing glare. The light doesn't dance across the waves on a sunny day, it reflects and refracts on sky scrapers and car windows, off of adverts and screens. My lack of orientation within such mapped place doesn't make sense, I crave the unknowing of the sea and sky's expanse. The sun and artificial light of the city is my only way of navigating now, I do not have the horizon in sight. Where do I go from here?

Known and Strange Things Pass (Fig 1.) by Andy Sewell is a photographic installation based work that is about the deep and complex entanglement of technology with contemporary life.[vii] Sewell explores how the mundaneness of everyday life can be part of a much larger and complex system, looking closer into the digital and physical spaces we find ourselves in and how they coexist and intertwine. The two images I have selected below show the glowing glare of the sea existing within the same space as the glow of the screen, unreadable at certain angles due to the light bouncing off the digital surface. 'Mechanization of vision'[viii] coined by Virilio makes note of this relationship between artificial light and the light of the sun, understanding the implications of both on human contemporary perception. Tracking the changes throughout the technological age 'lasers attempt to take over light of the sun, perception is no longer enhanced by our eyes but by computer.'[ix] The 'glowing glare' is chasing us until our only knowing of light source is from what we use to communicate with the world, our only way of perceiving is through the glare of a screen. Our touch and senses dominated by the inability to grasp the glare, the shimmering surface of the horizon never coming closer, never being able to cross the glass of the screen to fully experience this glowing glare.

Fig 1. Andy Sewell, *Known and Strange Things Pass,* 2020

GLITCH

A glitch is an error, a mistake, an acceleration in pixel and data. It blurs the gap between human and machine and our perceptions changed, we fear the glitch and it's unpredictability. "Within techno culture, a glitch is part of machine anxiety, an indicator of something having gone wrong. This built-in technological anxiety of *something gone wrong* spills over naturally when we encounter glitches in AFK∗ scenarios: a car engine calling it quits; getting stuck in an elevator; a city wide blackout."[x] The technological and physicality of the glitch shake up our worlds and are constantly shifting and moving. Our handheld devices creating an unstable surface in which to hold our lives, never knowing when it may slip out of place.

March 2020, let's not go there. I dropped my iPhone on the concrete floor and it started to glitch. On a mild spring day through the lines of RGB flickers it suddenly displayed 'TEMPERATURE iPhone needs to cool down before you can use it 🌡.' The glitch fully overcame the layers of mineral and pixel and decided to heat it up quicker than the warming of the earth, not even the conditions of the freezer could reverse this message. During that (dreaded) time I had nowhere to go, taking a walk was exciting enough but with no device to navigate myself it was a whole other kind of orientation. I had the horizon in front of me at all times and I knew my location well, I found myself looking up at the expanse rather than down at the little blue dot on my map. This glitch caused a slippage and a break within my phone, the overheating of digital space. Perhaps every time a glitch occurs an iceberg melts, now that's a terrifying thought – soon we will be submerged within digital space. 'Data flows. We are swimming in information. But all data's movements generate heat.'[xi] Our devices will soon be unable to withstand the temperatures we could experience in the near future. Already this is happening, just forty-five degrees Celsius is the current limit at which this jarring message occurs. Just by leaving your phone in the car on a hot day[xii] or getting into a YouTube video hole at 3am can cause the little fans to override and pack in, someday they will just never cool down.

As I have mentioned, the unpredictability of the glitch is widely feared. It is in a constantly shifting state, fluxing and flowing like the tide of the sea. A sea of pixels being altered and disseminated to create new worlds. These new worlds worry us as there is no way of predicting what may happen, we are left with the digital detritus of fallout and technology dares to modify what we are left with. 'The earth is itself not a stable entity but constantly in a state of process.'[xiii] We need to look ahead to the horizon line to ground our orientation, data can no longer slip out of place and alter our sight for the tragedy's we face within the physical. The glitch and our perception create spatial tensions, slipping through our fingers we are in a constate state of anxiety just waiting for our technology to fail us. We rely too heavily on the depthless screen, the haptic touch of zooming in and out to determine what is within – we assume multiple positions within one frame creating a multi-layered experience of technology and temporalities.

Within my own practice I look to the glitch and faults within technology to create new perceptions, looking to the void space a 3D scan produces or the single colour pixel that the computer thinks it should be. I am interested in how these slippages in technology create new perceptions and modify the way we may view the natural world. How they unfold the language of technical images to disseminate and challenge the makeup of pixel-data, transforming information to threaten the visual stability of understanding images. In a recent body of work titled *'Glitched Futures'* (Fig 2.) I created three digitally printed books, this work was part of a performance showing myself unfold each book onto the gallery floor. I

wanted to unfold the layers to create a sense of mapping – acknowledging deep time and glitching the surface to arise new perceptions. The images have been digitally altered to accelerate the view, zooming in at an incomprehensible rate to create glitched abstract forms, geological in formation and technologically produced. Through this work I considered the glitch as another level of geological time, laying physical and digital information to subsequently challenge visual perceptions.

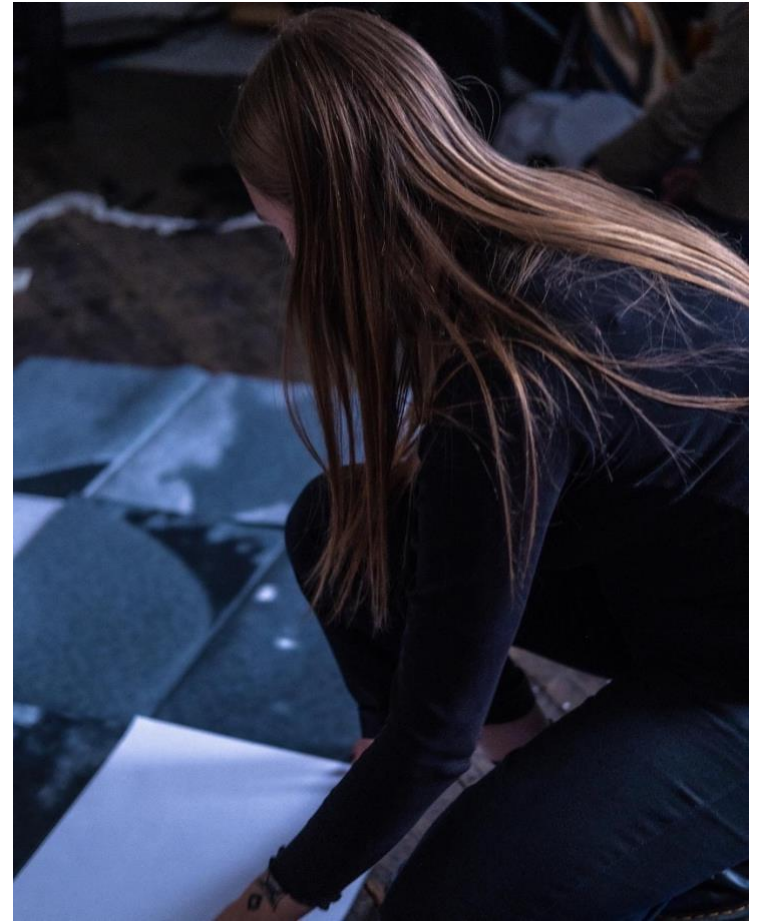*AFK, away from keyboard. Coined by Legacy Russel.

Fig 2. Author's own work, *Glitched futures,* 2022.

A SEA OF TABS

Search and save tab, close and reopen. Coexisting through windows and overlapping temporalities we are left with this sea of tabs that consume our screen, there is no defining line between image and material. How do we focus our attention on peering into the depths of pixels, 'from the immediate proximity of the visible to the visibility of all that lingers beyond our field of vision,'[xiv] the near and far digital strata of tabs disrupt our stable visible fields of vision and have given way to new perceptions of space.

Grosse Fatigue (Fig 3.) by Camille Henrot is a video work lasting 13 minutes depicting a story through the creation of the earth. My interest lies within the format of this piece, the magnitude of safari windows popping up in sequence or at random to tell this story of the natural way life has come to its point today. The pixilated window I am referring to is a 'resizable, draggable, motile frame, with a scroll bar to navigate within its boundaries.'[xv] It 'appears like pop-ups at the screen's surface'[xvi] and create a kind of constructed landscape within the screen. Through tabs and windows these come together like the stepping stones across a stream or the strata of chalk and flint on a coastal cliff, mirroring the fractured and disrupted modes of viewing tab pop-ups. Accelerated viewpoints and geological like formations the glitch within our screens challenges our views and pushes the boundaries of digital space.

The viewpoint of the horizon is a singular line in which we can focus our orientation, 'its stable and single point of view is being supplemented (and often replaced) by multiple perspectives, overlapping windows, distorted flight lines, and divergent vanishing points.'[xvii] Constantly shifting between these modes of viewing changes the way we singularly consume data. These distorted and open perceptions arise new dimensions and collapse distances – challenging temporalities of depth within the screen. Within the midst of windows within Henrot's piece, your eye moves constantly during the flicker of light and pattern within the screen. Jean Baudrillard writes in *Xerox and Infinity,* 'reading a screen differs greatly from reading an expression. It is a digital exploration, where the eye moves along a non-stop dotted line.'[xviii] A dotted line of constructed pixels making up the screen in which we view the video, or the dotted line of stones amongst the ground in which we walk, this dotted line is what makes up the physical and digital systems in which we exist, our perception dislocated by technology.

Depth means time. A new point of visuality into the way the information is viewed gives a sense of geological time, the tabs are strata within the earth's crust, they layer up and open up our knowledge. Henrot's use of this layering builds upon our perceptions and creates deep time within the piece. There is a juxtaposition within slowness and acceleration here, a geological slowness over billions of years is shown through bursting tabs popping up and suspending themselves on the screen. The acceleration in which we are viewing this work mirrors the raid rate in which humans are altering the earth. Using the physical experience to turn our knowledge to the depths and time of our planet, using imagery and sources from the creation of the earth we are looking into digital space to be acceleration and placed within – we are seeing multiple viewpoints and shifting terrains of 4.54 billion years into 13 minutes.
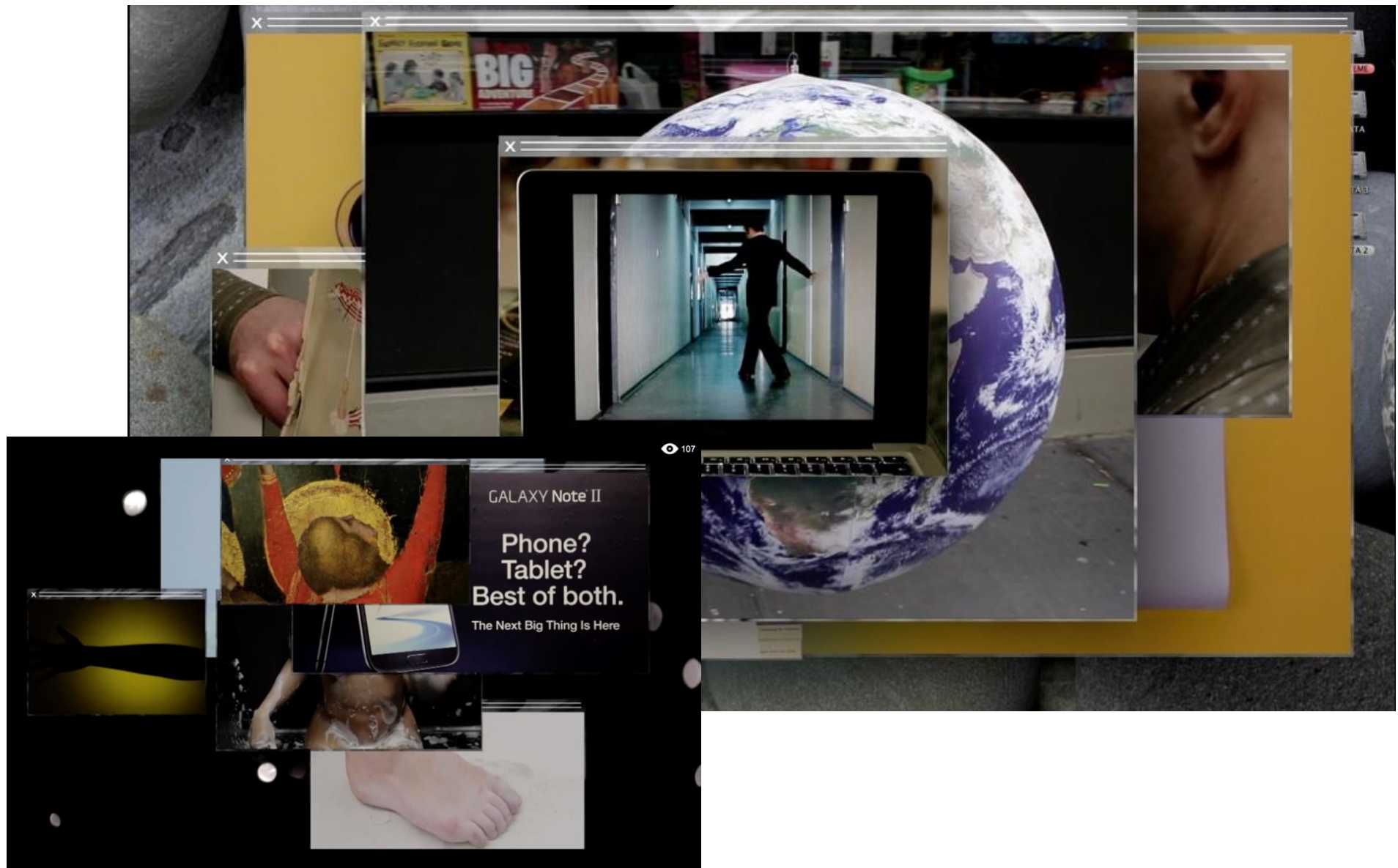
Fig 3. Stills from Camille Henrot's video work *Grosse Fatigue,* 2013.

NEW EPOCH

An epoch notes a significant and extended point in time, with this context I am referring to the marking of events, beginnings and ends within the history of the earth. The Holocene has been dated back to 11,700 years ago, signifying the earth as a 'garden of Eden' with a stable climate throughout the globe. This epoch has also seen the acceleration of human growth, technology, agriculture and urban development. Suggestions for when humans irreversibly altered the makeup of earth leading to a conversation about an even more recent epoch is when in 1784 air trapped in a polar ice cap showed concentrations of carbon dioxide and methane for the first time[xix] – happening to coincide with the industrial revolution with the use of fossil fuels. Other markers include the Atomic Age which is the most favoured date, in 1945 the first atomic bomb named 'Trinity Test' (Fig 4.) was set off which left unmistakable traces of radioactive material in the strata of the earth. More recently the devastation of plastic waste within the land and sea could be a significant marker for the end of the Holocene and time to make way for the Anthropocene. It's important to note at this moment in time the Anthropocene epoch has not officially been declared as a subdivision for geological time, we have all the evidence for the way human impact has altered the earth's crust and atmosphere, we are in an age of undoubtably irreversible changes and marking this change is the first step to undo it, 'humans leave their mark, and the earth carries it forward as an archive.'[xx].

The Anthropocene also does not necessarily only refer to nature, but it covers the technological condition in which we find ourselves, technology and nature coexist – 'geology does not refer exclusively to the ground under our feet. It is constitutive of social and technological relations as well as environmental and ecological realities.'[xxi] This newly proposed Epoch is the first time in the history of the earth that it does not solely refer to nature, technology is just as crucial in explaining the current conditions we are in. The strata of the earth has now extended to space, the layers of satellite debris orbiting the outer layer of the atmosphere make up the geology of our planet too – we are going even further into the depths of the unknown. Fundamentally our phones will become another layer in history but that just means the minerals returning to where they came from, but this time scattered far from where they were stolen. Soon fossils will not just be from the depths of the ground, we will find them above and beyond in the atmosphere suspended in space.

This new era can be a way of discussing the catastrophe we are in, however people have become so accustomed to the terms 'climate change' and 'global warming', what we should be saying is that we are living in an age of the sixth mass extinction. Here I am clearly saying that using the scaremongering terms are most effective, but the extinction of the dinosaurs scared the shit out of people so fundamentally we are next. However what's different is that it won't be an alien object coming into the stratosphere, it'll be the breakdown of our own planetary systems caused by us. Timothy Morton in *All Art is Ecological* states 'extinctions look like points on a time line when you look them up on Wikipedia – but they are actually spread out over time, so that while they are happening it would be very hard to discern them.'[xxii] They are within the horizons that we gaze out upon, they are coming but we will never be able to grasp it in its entirety. We will never reach the end until it comes at such a pace we cannot comprehend. The Anthropocene is as much about the environmental as it is about the technical, 'digital culture starts in the depths and deep times of the planet.'[xxiii] It shakes up our conscious and clouds our goals, the digital detritus is left suspended and made into a raw material ready to pollute. It smog's our orientation and causes the traumatic loss of coordinates within this Anthropogenic age in which we find ourselves. We ride the wave with the newly proposed epoch looking into the depths of the horizon just waiting for something even more dramatic to suggest that we, humans have completely fucked it for the future.

Fig 4. Trinity Test, July 16th 1945, image showing 0.016th of a second into the first detonation of a nuclear weapon.

UNCERTAIN ARCHIVE

I enter Olafur Eliasson's website and everything appears to be in order, then a floating orb of glacial ice comes into my screen, the very thing that is so fragile on this planet – I suddenly find it below my fingertips. I click on this glowing entity and get transported into a vortex of fragments. I am able to 'drift through the cloud of archival objects' and navigate myself through this never-ending space. I am confronted with Eliasson's archive of works, books, talks and research using the arrows on my keyboard to drift around this space with no horizon in sight. His work explores elemental materials such as light, water and natural phenomena. Using science and art to create conversations about geological time and climate emergency, like simulating weather or displaying chunks of glacier for the public to watch tragically melt but here it acts as a portal to his own world.

Within this digital space he calls *'Your Uncertain Archive'* (Fig 5.) we are faced with a fragmented framework of text and image, I lose my sense of navigation right away even though there are clear instructions – I am thrown up into the expanse of the digital having only the arrows on my keyboard to ground me. When you enter this space there is a clear reference to 'the cloud', does that insinuate that every fragmented piece is an ephemeral cloud, something that does not really exist but also is the most expansive thing of all? They are clearly there, rectangle and unmistakably present, suspended in space waiting to be acknowledged. My attention is divided across these pieces of information and strung together like strata, an archive of the past – 'human history is infused in geological time.'[xxiv] I can perceive only sections of this vast landscape at once, navigating myself through the unknown I stop and look now and again, there are key words, artists and references coming at me so quickly, almost simulating the speed of light. The detritus and e-waste of the digital age is so vast and unknown to us, it's almost like Eliasson is making us aware of the amount of discarded material left out there, we cannot grasp it so it gets left floating in the void.

Within this archive is something I did not expect, while innocently gliding through digital space I am transported into the void of a black hole! I have no choice, I am sucked in and fall into the space of nothing. Only what I find on the other side of the black hole is a work by Eliasson, what are these pieces of work doing in such a space. I find a 3D scan of a meteor or a photo of his studio, perhaps they are works in progress just waiting to be reversed out of the space we know nothing about. This natural phenomena is so close to us on earth yet so out of reach, it is a space we fear hugely yet have so many horrors closer to home here on earth. It's another dimension of perception within an already oversaturated landscape, we can have a break from navigating the space and without choice are sucked into another dimension. The horizon is lost in digital space and we cannot get out. The apparent skyline of blues and oranges is an illusion, there is only the expanse out there with no grounding line to hold on to. Eliasson's work creates poetic, physically and visually engaging spaces that communicate a sense of the sublime experience of the natural world.

Your Uncertain Archive is a jump into the collected past, piecing together everything he made possible to allow us to get an insight into the unseeable, the ungraspable and the unknown.

Fig 5. Screenshot of Olafur Eliasson's website, *Your Uncertain Archive,* 2022

THE CLOUD

The phenomena of the cloud is everywhere, it is above, below and beyond our perception. It is within water vapour, the particles between us, undersea cables and the icon within our devices – the cloud is a symbol for more than just the weather, 'once a realm of human imagination and a source of insight, the cloudy sky now reveals the limits of machine driven artificial intelligence.'[xxv] 'Backup Cloud', how can we backup a cloud, should I purchase one to own it? It is an unstable, shifting entity that has no coordinates and no ground in which I can stand. Although it is something we cannot grasp, users including myself put a lot of trust into this ephemeral idea . It holds our data and lives so carefully, we used to look into the sky longingly for answers – now what we used to see has been digitized and stolen, it has been turned into an abundance of technical networks.

Apophenia is the recognition of random objects and faces within data, including clouds, the moon or a piece of burnt toast. Apophenia is about "drawing connections and conclusions from sources with no direct connection other than their indissoluble perceptual simultaneity."[xxvi] Instead of looking up to the expanse of the sky and finding faces within the clouds, I now look down to my handheld device that holds the cloud within – simultaneously I can see my own face reflecting back on the smooth glass. I sort of recognise that person looking back at me, but this new cloud holds more data and I feel very much on edge. I wonder whether the changing climate in which we are already facing will shift the way we perceive objects in the cloud above (the oldest state of the cloud I should say). Will we soon be laying in the field looking up and saying 'oh look, there's a rabbit within the artificially created cloud' because the ice caps have melted, we rely on the clouds to emit the sun's rays back into space. The technical cloud will soon fill the sky, we will further accelerate global warming to a point of no return– we may have a whole new category for a cloud, not just the common Nimbus or Cumulus cloud – but maybe an 'Anthropocloud'.

Trevor Paglen's continuing fascination with the study of how computer vision and AI systems 'see' the world is depicted in his 2019 series titled 'Clouds' (Fig 6.). Within the seemingly normal depiction of various cloud formations are strokes and lines that show what computer vision algorithms are seeing – there are different algorithms for faces, objects, shapes and patterns and are attempting to simplify these abstract forms. The technologies used to detect these categories within the cloud are fundamentally from guided missiles, surveillance and face recognition, artists adopt these sinister true uses to make light of the ephemeral. Geopolitics comes into play with the relation between these technologies, controlling entities with surveillance but can we servile a cloud, can we detect and capture a cloud? There are lots of questions within this fragment for which I can't answer, it is an unknown and slippery space. Within the lines could be the detection of data, information floating and speeding through space. Our perception doesn't reach to this other type of cloud, we rely on these algorithms to draw the line around the ungraspable. Paglen's 'Clouds' are vast spaces voided of any horizon, they could be above or below viewpoints – they disorient our perception of space and speak to the expanse of the sky.

Paglen uses algorithms to detect what may be hidden within the forms, on the other hand Noa Jansma uses this natural phenomenon and turns it into exploitable resources. In her work 'Buycloud' (Fig 7.) she copied the western processes and theories on ownership and exploitation and pasted it on to the cloud in the sky. She notes the context of the work to be 'in the 15th century the Western 'explorers' went to what-we-now-call-America, they told the natives that they wanted to buy their land. The natives were confused; Their land? To buy it? Their vocabulary did not have a word or understanding for ownership over natural phenomena.'[xxvii] This ownership has now gone beyond the tangible and has passed onto the

ephemeral, the last standing thing we can own, a cloud. It is a fluid state, vapour, using pattern detection technologies she successfully captured and detected the hardest thing to put a net around. Once detected Jansma started selling off these objects depending on their size and density, each purchase comes with a 'Commodifying Cumulus Cloud Manifesto' – a legal binding into owning nothing. Jansma also notes that with the claims of rising emissions cumulus clouds will disappear in 100–150 years[xxviii] (bring on the Anthropocloud!!!), she says this will be great for the cloud market. Purchasers of a cloud are left with a poetic but stable investment, bringing feelings of confusion, anger, greed, and pride with their ownership of the cloud.
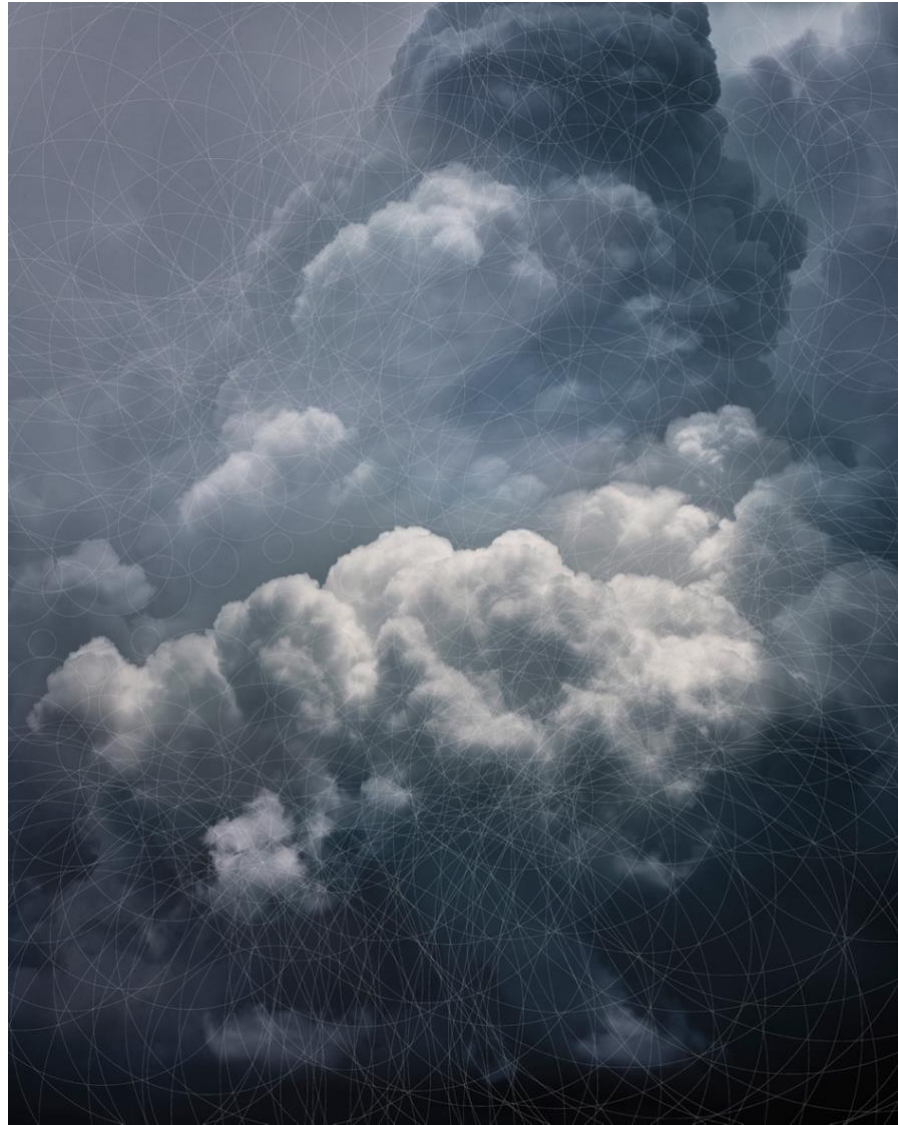
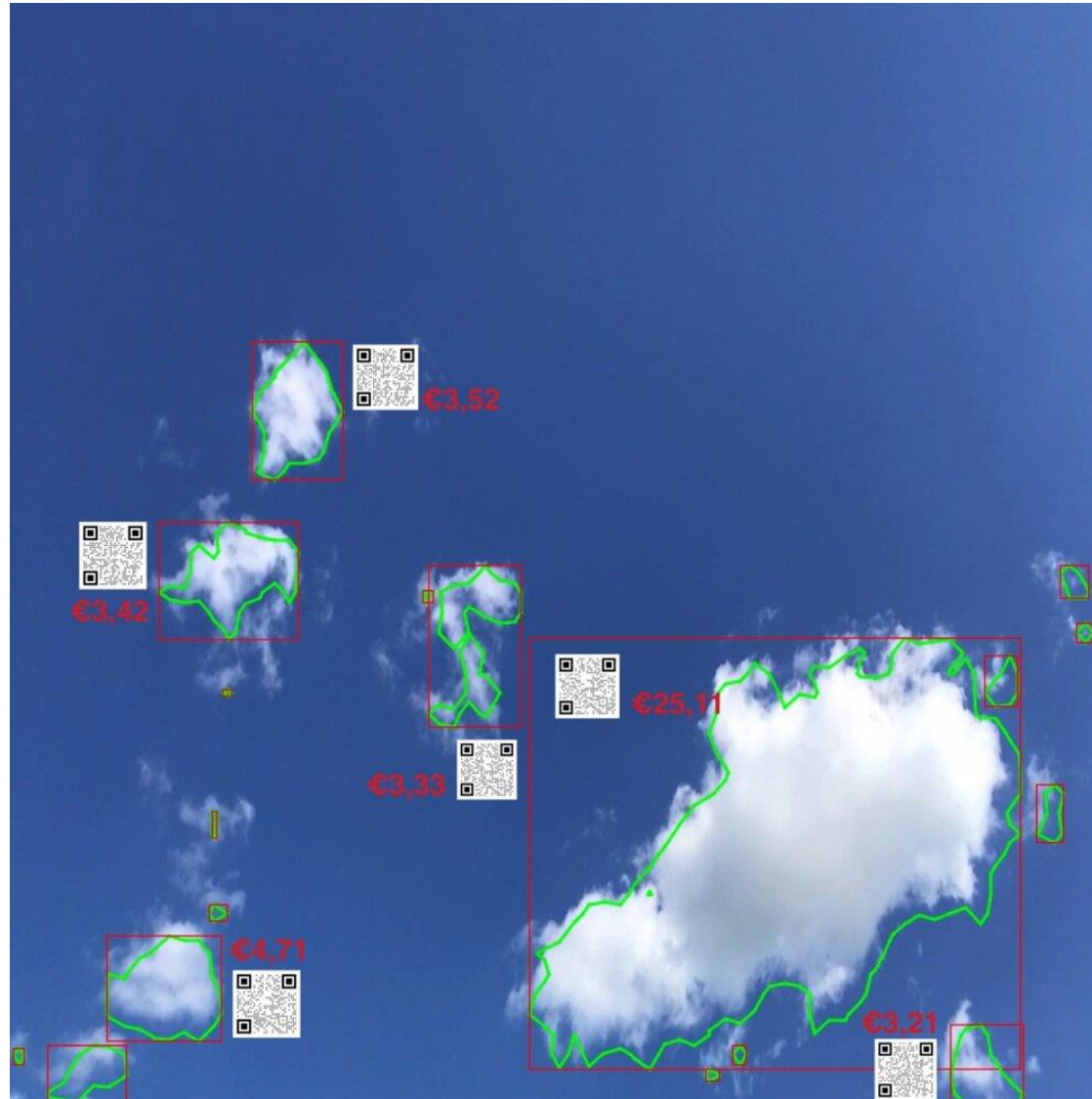Fig 6. Trevor Paglen, *The Shape of Clouds,* 2019.

Fig 7. Noa Jansma, *Buycloud,* 2021.

<u>AURA</u>

The dislocation of contemporary perception can be put down to the rapid rate technology has accelerated digital culture, with the circulation of image-data increasing faster than ever before, where does authenticity come into question. In Walter Benjamin's 1935 essay *The Work Of Art In The Age Of Mechanical Reproduction* he arises his thinking about aura, the unique phenomenon of a distance… the atmosphere or quality that seems to be generated by a person, thing or place.[xxix] His thoughts and concerns throughout this essay explore the idea of mechanical reproduction devaluing the aura of the art object, at its core the presence of something is what holds the 'aura' and if it is multiplied and reproduced how can this stay present.

Within the orientation of physical and digital space aura can be understood as 'a strange weave of space and time: the unique appearance of a distance, however near it may be.'[xxx] The screen collapses distances, alters perceptions yet enhances looking. We accelerate and zoom in the pixels to get a closer look, screenshot and replicate, what is the true aura of looking. The decay of aura through technology may only be known If there is an apparatus to determine what has true 'aura', and this itself is its own meta-medium. Our images, thoughts and searches are accelerating at a pace we can't see – what is the authentic self when it comes to a selfie? Does capturing your face on screen automatically mean you are not a whole of a person, your aura has been taken away and locked within the glass forever. When information gets thrown into digital space 'all decisions concerning networks, screens, information, communication, are serial, partial, fragmentary, fractual.'[xxxi] They disseminate and change their state, the fractures of information that are gathered do not represent the true likeness of the original which he calls a 'decay of aura.'[xxxii] A decay is a breaking down of something, the entirety of the information is lost, broken, partial, glitched. He is suggesting aura is a quality that can't be communicated through technology and perhaps the aura can't be held together after being reproduced.

Paul Virilio has introduced the idea of 'optics', terms to decipher the changes in technological perception. 'Small optics' allow distinctions between the near and far. 'Big optics' is the real-time electronic transmission of information and measures time passing. The latter has replaced the former in the way in which aura is understood, 'big optics locks us in a claustrophobic world without any depth or horizon.'[xxxiii] The mechanical reproduction and proliferation of information has altered this temporality, technology has created a distance with no end – aura is lost within the void of a digital age. Virilio mourns the destruction of distance and vastness of natural space, noticing the derealisation of this terrestrial horizon which has been replaced by technological modes of viewing. Telepresence is communication in real-time with two sperate locations, a phone call, text, zoom call – it collapses physical distances, uprooting our familiar patterns of perception that ground our understanding and thinking.

Aura can be lost through slippages and breakdowns in technology, altering its captured state and pulling apart it's data. The decay of aura has never been more present. For both Benjamin and Virilio the horizon is something to ground us and switch our optics back to the distinctions between the near and far, 'distance guaranteed by vision preserves the aura of an object.'[xxxiv] We must look to the big-optics of transmission and put our faith and understanding into what is being fed into us, the aura is in the real-time, the present, the accidents, the true state in which we experience the world.

LIMINALITY

liminal
/ˈlɪmɪn(ə)l/
adjective
TECHNICAL
1. 1.
relating to a transitional or initial stage of a process.
2. 2.
occupying a position at, or on both sides of, a boundary or threshold.[xxxv]

Liminal space can be described as a threshold, a transitional space or a boundary between two things. In relation to the technological era we are living in, 'our traditional sense of orientation—and, with it, modern concepts of time and space—are based on a stable line. The horizon line.'[xxxvi] Orientation is lost and replaced with maps on a screen, these constructed maps create new worlds and dare to alter the one we know. Our habitats are in a process of change, accelerating technologies and diminishing ecosystems – we need to occupy our position and look forward to a new geological era, we are in a space of liminality.

Our position in the world used to be located and determined by coordinates on a physical map, now they are hidden within our devices. Opening maps on my phone I am confronted with a pale blue dot, just as if I were on a NASA mission looking back at earth from space. I have been located by hidden systems of GPS tracking, I am constantly being followed by this dot. Coordinates are the most accurate way of locating places and they ground our point on the earth, have you ever opened maps and this pale blue dot does a little dance around the screen because it can't locate your position? I do not trust this way of getting around, I used to sway my phone from left to right hoping the navigation arrow would point me in the right direction, now I just follow my instinct. Within this technological age we have lost our coordinates and are in a constant state of suspension – the coordinates are within this blue dot, you just need to look closer.

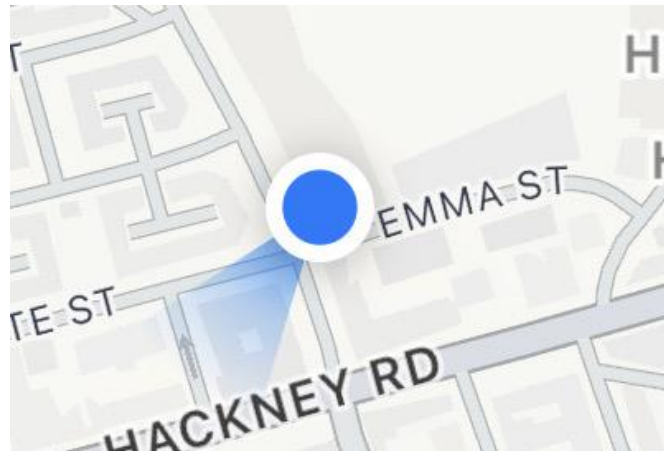Fig 8. NASA, *Earth Rising over the Moons Horizon*, 2019.

Fig 9. Screenshot of author's screen, *Apple Maps*, 2022.

IN FREE FALL

Liminal space grounds our orientation in the world. Without these spaces there would be no ground in which we can stand, we would be in a constant state of suspension. Hito Steyerl in *In Free Fall: A Thought Experiment on Vertical Perspective,* takes us on a journey into the world of linear perspective, this perspective is a system of creating an illusion of depth on a flat surface. The disorientation and overwhelming sense of how we view the world, the depth of the touch screen made up of liquid crystals, the depths of oceans, space, the void. The acceleration of technology has caused a state of groundlessness, 'traditional modes of seeing and feeling are shattered. Any sense of balance is disrupted. Perspectives are twisted and multiplied, new types of visuality arise.'[xxxvii]

The horizon is a navigation tool, rooted in the maritime navigation is a traditional sense of horizon, the grounding blocks for the modernist linear perspective are defined here. Using only this infinite line and the stars to determine ones location, defined what it meant to communicate and understand the limits of the vast expanse of the horizon. Reinventing the western ideologies of representation, time, space and perception.

In recent years, the way we are able to view the world has shifted, prompted by new technologies of surveillance, tracking, and targeting.[xxxviii] Aerial views, google maps and drone surveillance all play a part in the groundlessness of the horizon line. It is a maze of collapsing lines and you may lose any sense of above and below, of before and after, of yourself and your boundaries.'[xxxix] Viewing the world at its vanishing point arises alterations and changes in visual perception, the boundaries are lost within the lines of strata and pixel. Contemporary perception lies with the disorientation of what is real and imaginary, the unstable change in our traditional sense of the horizon has been unhinged by our fixation on the screen. When we are confronted with the infinite horizon, why is it we peer into the screen of our phones while trying to capture this sublime depth. Trying to recreate what is already there, this offering of multiple perspectives can alter the spectators view into two different narratives, digital and physical depth.

The instability of technology today can be mirrored and found present in these analogue ways of discovery, using only the vanishing point and gestures to understand location and depth. In relation to early navigation techniques, 'the ground on which the sailors stood was never stable in the first place…until artificial horizons were invented in order to create the illusion of stability.'[xl] The horizon is perhaps the only fixed thing we have, the shifts and changes in technology can prove advanced but it will never alter the natural device to navigate space, the boundary between earth and sky, freefalling to create the horizon line, a place to take us back to reality.

A physical horizon is always calculated, present and continuous. Technology today may cause the displacement of perspective creating a disembodied gaze, panoramic views are unstable and it is up to the user to create the perception of elongated space (see Fig 10. Horizon distorted by data.) Now this paradigm of linear perspective is changing, modes of viewing the world are continuing to develop, meaning shifts in perspective and stability in horizon lines may be disrupted from what we know even further. 'Aviation is partly responsible for changing the climate, but our findings show for the first time how climate change could affect aviation.'[xli] Pilots are in the constant state of free fall, with changing weather patterns and shifts in temperature turbulence is increasingly harder to detect. These pockets of different air temperature are causing aircraft to

become unstable, unable to ground itself in suspension. Crashes and new perceptions are created, autopilot is no longer an option and technology cannot predict the (un)natural change in pressure.

The horizon of possibilities disrupted by our own wrong doing, relying on the stable horizon for navigation and orientation, and can we look to the depths of the screen and digital space for this? Climate and the acceleration of technology challenging our modes of living, we look to our devices for answers marking a sea of tabs and windows with no defining horizon in sight.

Fig 10. Screenshot of author's screen, *Google Maps, Birling Gap*, 2022.

HYPEROBJECT

As previously mentioned The Great Acceleration marks the rate in which human activity has rocketed and fundamentally altered the earth's natural systems. First recorded in the middle of the 20th century it continues to be analysed and measured to this day, it will never stop monitoring the further damage we are doing to geological and ecological systems. To be more specific it measures socio-economic changes such as human population and energy use, and shows how the increase in these factors has been the sole drive in rising carbon dioxide, ocean acidification levels and other ecological disasters.

Something as vast as The Great Acceleration can be seen as a 'hyperobject', this term was developed by contemporary thinker Timothy Morton to 'refer to things that are massively distributed in time and space relative to humans.'[xlii] We mostly perceive hyperobject's through their influence on other things, for example seeing a melting ice cap or the bleaching of coral, but an important fact of a hyperobject is that we cannot perceive it in its entirety – we can only perceive it's imprint on other things. It is something so vast that we need terms to discuss the whole of it, for example a black hole, global warming or the solar system.

Some hyperobjects we can control, because they are directly linked to human acceleration and activity. We ask ourselves things like 'what's my carbon footprint' or 'will achieving net zero emissions by 2050 reverse the climate crisis', perhaps our granted acts of good like using a reusable bag, washing our clothes on cold or going to the zero waste shop can create a hyperobject's reverse. A reverse or stagnation of human acceleration and destruction, acknowledging the influence on the hyperobject of global warming we may be able to alter the horizon of what's to come, we cannot see in detail the changes these acts are having but they're there. As I said we cannot perceive hyperobjects in their entirety – but we can look within and understand the strata that makes up the vastness of them, they are not infinite and can be tightly wound back up. We just need to be able to perceive the inevitable changes we have made in the history of earth and beyond.

A hyperobject is something that envelops and surrounds us, they happen behind our backs until we are able to perceive them. Katie Paterson's work brings deep time of the earth and natural phenomena to the human's grasp through senses of sound, smell, sight and touch. She engages people with their natural environment and has created works ranging from broadcasting live sounds from a melting glacier, mapping all the dead stars in the universe to creating a library in a forest with books not to be read for 100 years. Her poetic and conceptual endeavours speak to and create a conversation around our place within the solar system and earth in the context of geological and deep time.

Paterson's most recent work *Requiem* (Fig 11.) sets out to tell the tale of creation, life, death, extinction and phenomena of our planet and beyond – even before our own sun. In the centre of the room is a glass urn, loosely based on a funeral vessel of the past – it is a horrific reminder of the imminent crisis we are in, a funeral of our own past, present and future. Surrounding the urn are 370 glass vials containing dust in all colours and iridescent hues, the earliest a fragment from a meteorite existing before the birth of our own sun – to more recent detritus from the Anthropocene, trinitite from the first atomic bomb and dead coral. Weighing 21 grammes each, this was once proposed as the weight of a single human soul, a stark reminder we are within the strata being made up in the urn every day, we exist because of them and are very quickly modifying the magic of life. Through this work among many other of Paterson's projects she address's the hyperobjects that surround us, brining geological time to a

tangible thing. At the end of the daily rituals of guests and the public adding a dust strata to the urn we will be left with something to admire and fear, an artifact, we will wonder what the next layer will be. Paterson remarks this piece as the most epic piece she's ever made but also the saddest. 'Hyperobjects are vivid and often painful, yet they carry with them a trace of unreality.'[xliii] *Requiem* will be a physical hyperobject, it will represent un-comprehendible spans of time and space bringing nature to the forefront of anthropogenic thought – we must act now to make sure we aren't a layer of dust in the urn.

Fig 11. Katie Paterson, *Requiem,* 2022.

THE SMUDGE

The flatbed scanner simulates illusory depth, illuminating and disseminating the light over the image. It gives us a further insight into the makeup of pixel and image-data, mimicking a digital self to allow us to understand images. The gliding source of light within the scan absorbs and gathers the information needed to create a whole, what happens if this gathering is disrupted?

A scan is a capture, a transferring of image and data, in (Fig 12.) the fast slippage yet slow act of disrupting the process causes a new type of visuality. The two speeds simultaneously glitch and disseminate the data, leading to the strata of pixel smudging, emerging gaps and fault lines within this space. From the collision of digital and physical space we see a surface of pixels flowing, suspended and static – mirroring the waves as they hit the shore and linger for a second, or a finger smudge on an unlocked phones surface. Both of these spaces have a sense of flux, the tides are never still, they are constantly moving and swallowing the land. On the surface of digital space your fingers moves seamlessly across the smooth glass of your device, 'our touch leaves a greasy mark that smudges our experience.'[xliv] You create your own tides on the surface of your device that continually flow in and out like this phenomena that you can't control.

Catching your phone screen in the glare of a light source usually makes apparent your DNA and the traces of an Instagram 'doomscroll'. The haptic touch of your greasy finger on the phone screen marks your journey into digital space, the iridescence of this connection alters the information below – it creates an RGB of flickering light on the surface. Grab your unlocked touch screen and see this iridescence for yourself. Like the sea on a sunny day or the light on a reflective object something comes apparent. Our perception is 'visible on the level of the surface, speed appears thus like an optical phenomenon of reflection of the ground'.[xlv] The pixel and mineral of deep time are accelerated, you will never view the information below the screen the same again – the surface disrupts data and illuminates our perceptions.

Within *Latent Flux* the horizon is blurred, the dissemination of pixels sits directly on this space. The horizon is stretched between the sky and earth revealing itself further when the moon fluctuates in the sky, the tide never sleeps. Viewing the digital detritus left by the scan can arise new levels of visual thought – looking to the landscape of liminal space, the strata of rock, sky and sea become one. 0's and 1's become elongated and stretched, they create new temporalities and mirror the acceleration of human activity. The information is caught static, unlike the forever fluxing changing of the tides, disrupting and further removing our orientation within digital and physical space.

The visual representations of landscape that I have chosen to depict are in crisis, 'the melting of the permafrost is both danger sign and metaphor: an accelerating collapse of our environmental and our cognitive infrastructure.'[xlvi] I want to evoke a sense of this change by suspending the spaces in which we are so familiar and uproot our perceptions – so we can start to contemplate the deep impact we are having on it. Can we really call anything 'nature' anymore, this implies all things natural. We have had enough significant impact on this planet for nothing to be called natural anymore, there is destruction and illusion haunting us every day. I want to make apparent these layers and bring Anthropogenic thought to the forefront.

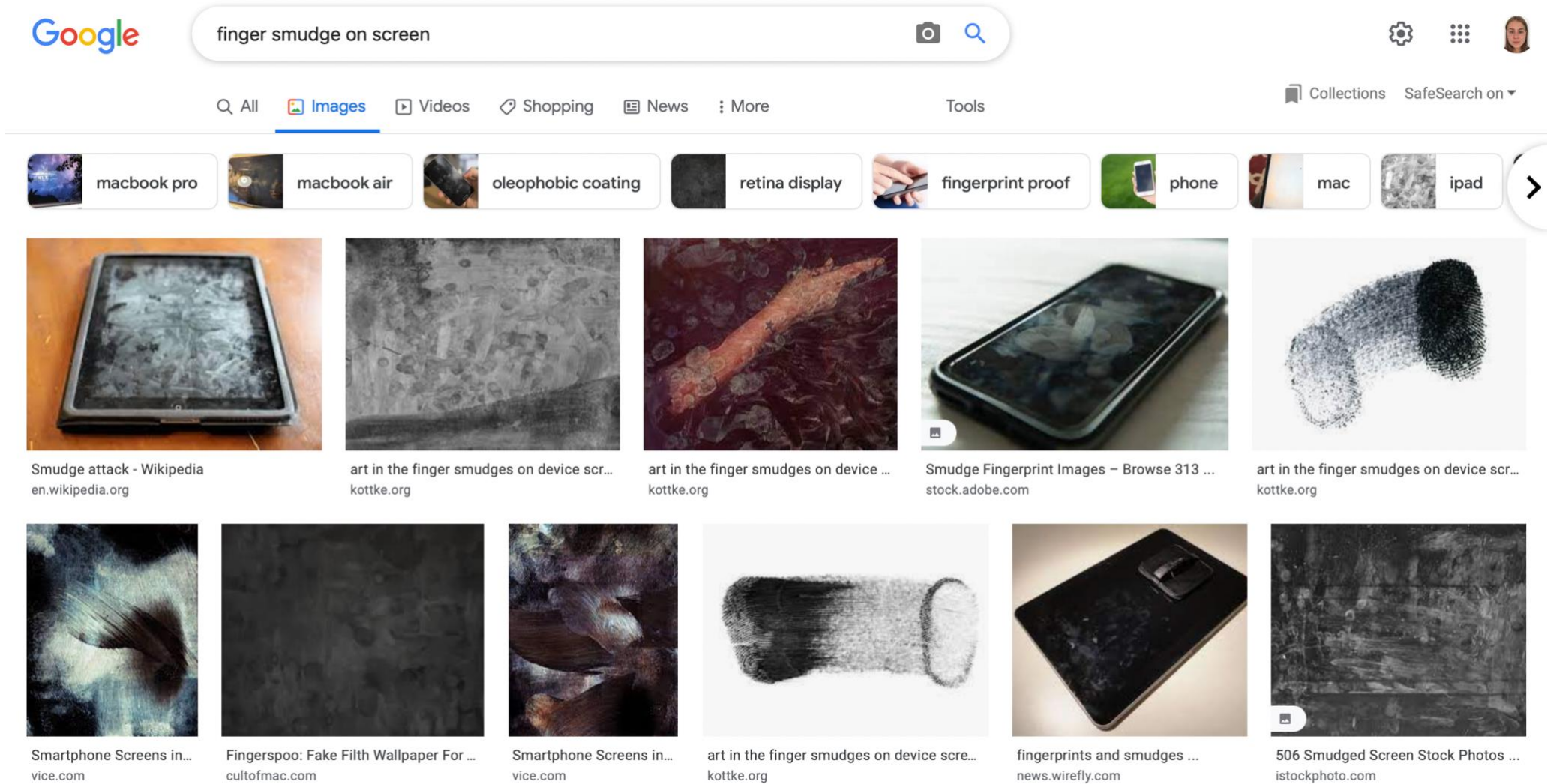Fig 12. Author's own work, Detail from *Latent Flux*, 2021.

Fig 13. Screenshot of author's screen, *finger smudge on screen,* 2022.

CONCLUDING REMARKS

Within this text I have collected and expanded my thoughts into how A Traumatic Loss of Coordinates in The Anthropogenic Age uproots our current condition. Through the presentation of fragments I dissected different systems of enquiry, focusing on our orientation within digital and physical space, human acceleration relating to climate change and how our perceptions have been altered by technology. We ourselves are pixilating, fluxing and fractured bits of data, navigating space with no stable ground – we are constantly IN FREE FALL.

In THE BEGINNING there were minerals, now they are within the device you read this on. The contemporary condition has surpassed our perceptions, we are living at different rates of acceleration, we are burning up, melting and simultaneously existing in a web of net and screen. The glow of the screen is getting brighter, more GLITCH's are occurring, the strata of the earth is no longer natural. Human activity is accelerating continuously faster than what's being recorded – we are definitely in a NEW EPOCH. We are losing our sense of AURA and diminishing our perceptions through digital technology, looking to the screen hoping to absorb all of the information it gives us. We open the internet to be confronted with A SEA OF TABS, flickering and scrolling through them but our attention spans have been compromised – multiple perspectives cannot be perceived. The horizon is a space of expanse, void space within the LIMINALITY of sky, sea and rock. It is a place that grounds us, it is the space for navigation and the unknown – it connects our UNCERTAIN ARCHIVE of data with the deep time of rock. As we continue to accelerate it's harder to grasp things in their entirety, perceptions fault but are not always needed to navigate our lives, we have a term like HYPEROBJECTS to determine vast intangible things. Global warming and THE CLOUD are examples, areas of both caused and created by humans, they are ungraspable entities but exist only through being themselves – as vast and important as they are. The cloud is a space with many meanings, it connects us, stores our data, rains on us and protects ourselves from the sun's GLOWING GLARE. We are directly connected to technology, not only did we create it to aid our lives, we use it to control ecosystems and geological time. Within the temporality of geological space is the slippage of strata, the layers within our device glitch and THE SMUDGE of the pixels on an unlocked phone's surface speaks to the human layers that definitively mark the new era in which we live. I am still trying to place myself within this fractured world, I am here writing and attempting to flesh out my experience and thoughts on a device with a screen filled with liquid crystals, the very mineral from the strata of the earth. The device I am writing this one demands energy to emit this text, everything is interconnected to enhance the experience of humans, however this is catastrophically altering the planet as we know it. The gap between technology and nature is closing, the deep time of environmental change is upon us, we are spectators of our own extinction.

Ultimately, we are a pale blue dot moving around within our screens, trying to navigate our way through the Anthropogenic age.

<u>BIBLIOGRAPHY</u>

<u>BOOKS</u>

Leslie, Esther, *Liquid Crystals* (London: Reaktion Books Ltd, 2016)

Flusser, Vilém, *Into The Universe Of Technical Images*(Minneapolis: University of Minnesota Press, 2011)

Merleau-Ponty, Maurice, *Phenomenology Of Perception* (London: Routledge, 2011)

Steyerl, Hito, *The Wretched Of The Screen* (Sternberg Press, 2012), pp. 12-31

Baudrillard, Jean, *Xerox And Infinity* ([London]: Touchepas, 1988)

Steinberg, Leo, *The Flatbed Picture Plane* in *Other Criteria* (Chicago: University of Chicago Press, 2007)

Marks, Laura U, *The Skin Of The Film* (Duke University Press, 2000)

Rubinstein, Daniel, *Fragmentation Of The Photographic Image In The Digital Age* (Routledge, Taylor & Francis Group, New York, 2019)

Apprich, Clemens, Wendy Hui Kyong Chun, Florian Cramer, and Hito Steyerl, *A Sea of Data: Pattern Recognition and Corporate Animism* in *Pattern Discrimination* (Germany: Meson Press, 2018), pp. 15 – 36

Benjamin, Walter, *The Work Of Art In The Age Of Mechanical Reproduction* (London: Penguin, 1935)

Friedberg, Anne, *The Virtual Window* (Cambridge, Mass.: MIT Press, 2009)

Vierkant, Artie, *The Image Object Post-Internet*, 2010

Virilio, Paul, *Open Sky* (London: Verso, 1997)

Virilio, Paul, *The Lost Dimension* (Los Angeles, Calif: Semiotext(e), 2012)

Manovich, Lev. *The Language of New Media*. (Cambridge, Mass: MIT Press, 2001)

Boucher, Marie-Pier, Stefan Helmreich, Leila W Kinney, Skylar Tibbits, Rebecca Uchill, and Evan Ziporyn, *Being Material* (Cambridge, Mass.: MIT Press, 2019)

Virilio, Paul, *Negative Horizon* (London: Continuum, 2005)

Bridle, J., 2018. *New dark age: Technology and the End of the Future*. Verso.

Parikka, J., 2015. *A geology of media*. University of Minnesota Press, pp.4–131.

Russell, L., 2020. *Glitch Feminism: A Manifesto*. Verso, pp.7–74.

Morton, T., 2018. *All Art is Ecological*. Penguin Random House UK.

Armitage, J., Armitage, J., Beck, J., Bishop, R., Bishop, R., Bratton, B., Crandall, J., Dunlop, G., Garnett, J., James, I., Kaplan, C., Phillips, J., Roy, T. and Virilio, P., 2013. *Virilio and Visual Culture*. Edinburgh University Press.

Morton, T., 2013. *Hyperobjects : Philosophy and Ecology after the End of the World*. University of Minnesota Press.

Parikka, J., 2014. *The Anthrobscene*. University of Minnesota Press

JOURNAL / WEBSITES

McGuinn, Martha, "THE FLASH AND ITS PRESERVATION IN SILICON", *Issuu*, 2016
<https://issuu.com/marthamcguinn/docs/martha_mcguinn__chs_dissertation_20> [Accessed 29 October 2020]

Adams, Tim, "Trevor Paglen: Art In The Age Of Mass Surveillance", *The Guardian*, 2017 <https://www.theguardian.com/artanddesign/2017/nov/25/trevor-paglen-art-in-age-of-mass-surveillance-drones-spy-satellites> [Accessed 29 October 2020]

"EVAN ROTH", *Evan-Roth.Com*, 2020 <http://www.evan-roth.com/work/redlines/> [Accessed 9 November 2020]

Small, Zachary, "A Net Artist On Why The Cloud Is A Bad Metaphor For The Internet", *Hyperallergic*, 2020 <https://hyperallergic.com/460796/a-net-artist-on-why-the-cloud-is-a-bad-metaphor-for-the-internet/> [Accessed 9 November 2020]

Grammatikopoulou, Christina, "Beyond Materiality: A Digital Revolution In Life, Art And Logos", *Interartive.Org*, 2020
<https://interartive.org/2009/06/hypertext-digital-art/> [Accessed 9 November 2020]

Liminal - Definition Of Liminal In English | Oxford Dictionaries", *Oxford Dictionaries | English*, 2017
<https://en.oxforddictionaries.com/definition/liminal> [accessed 10 November 2020].

"Evan Roth Created A Work Of Net Art That You Can Live With | Creative Capital", *Creative Capital*, 2020 <https://creative-capital.org/2018/09/10/evan-roth-created-a-net-artwork-that-you-can-live-with-for-free/> [Accessed 10 November 2020]

"Camille Henrot . Artist : Selected Works : Grosse Fatigue", *Camillehenrot.Fr*, 2013 <https://www.camillehenrot.fr/en/work/68/grosse-fatigue> [Accessed 16 November 2020]

McLaverty-Robinson, Andy, "Walter Benjamin: Art, Aura And Authenticity", *Ceasefire Magazine*, 2020 <https://ceasefiremagazine.co.uk/walter-benjamin-art-aura-authenticity/> [Accessed 18 November 2020]

Steyerl, Hito, "A Sea Of Data: Apophenia And Pattern (Mis-)Recognition", *E-Flux*, 72 (2016) <https://www.e-flux.com/journal/72/60480/a-sea-of-data-apophenia-and-pattern-mis-recognition/>

Paglen, T., 2022. [online] Available at: <https://www.pacegallery.com/exhibitions/trevor-paglen/> [Accessed 1 June 2022].

Anthropocene.info. 2012. *The Anthropocene | Anthropocene Timeline*. [online] Available at: <https://www.anthropocene.info/anthropocene-timeline.php> [Accessed 19 May 2022].

Paterson, K., 2022. *Requiem | Katie Paterson*. [online] Katiepaterson.org. Available at: <https://katiepaterson.org/artwork/requiem/> [Accessed 20 May 2022].

Shinkle, E., 2022. *Andy Sewell | 1000 Words*. [online] 1000 Words. Available at: <http://www.1000wordsmag.com/andy-sewell/> [Accessed 31 May 2022].

Olafureliasson.net. 2022. *Studio Olafur Eliasson – Your uncertain archive*. [online] Available at: <https://olafureliasson.net/uncertain> [Accessed 7 June 2022].

PODCAST

Webber, Jordan, "Finding The Cloud Under The Sea", *Chips With Everything*, 2018 <https://www.theguardian.com/technology/audio/2018/nov/30/finding-the-cloud-under-the-sea-chips-with-everything-podcast> [Accessed 11 November 2020]

As I said, don't forget to look up.

ENDNOTES

INTRODUCTION
[i] Parikka, J., 2015. *A geology of media*. University of Minnesota Press, p.25.
[ii] Bridle, J., 2018. *New dark age: Technology and the End of the Future*. Verso.
[iii] Steyerl, Hito, "A Sea Of Data: Apophenia And Pattern (Mis-)Recognition", (*E-Flux*, 72, 2016) [Accessed 21 December 2020]
[iv] Virilio, Paul, *The Lost Dimension* (Los Angeles, Calif: Semiotext(e), 2012), p.30.
[v] Steyerl, Hito, "A Sea Of Data: Apophenia And Pattern (Mis-)Recognition", (*E-Flux*, 72, 2016) [Accessed 21 December 2020]
[vi] Leslie, Esther, *Liquid Crystals* (London: Reaktion Books Ltd, 2016), p.233.
[vii] Shinkle, E., 2022. *Andy Sewell / 1000 Words*. [online] 1000 Words. Available at: <http://www.1000wordsmag.com/andy-sewell/> [Accessed 31 May 2022].
[viii] Virilio, Paul, *Open Sky* (London: Verso, 1997), p.94.
[ix] ibid.

GLITCH
[x] Russell, L., 2020. *Glitch Feminism: A Manifesto*. Verso, p.7.
[xi] Leslie, Esther, *Liquid Crystals* (London: Reaktion Books Ltd, 2016)p.261.
[xii] Bridle, J., 2018. *New dark age: Technology and the End of the Future*. Verso.
[xiii] Parikka, J., 2015. *A geology of media*. University of Minnesota Press, p.110.

A SEA OF TABS
[xiv] Virilio, Paul, *The Lost Dimension* (Los Angeles, Calif: Semiotext(e), 2012), p.32.
[xv] Friedberg, Anne, *The Virtual Window* (Cambridge, Mass.: MIT Press, 2009), p, 226.
[xvi] "Camille Henrot . Artist : Selected Works : Grosse Fatigue", *Camillehenrot.Fr*, 2013 <https://www.camillehenrot.fr/en/work/68/grosse-fatigue> [Accessed 16 November 2020]
[xvii] Steyerl, Hito, *The Wretched Of The Screen* (Sternberg Press, 2012), pp. 12-31
[xviii] Baudrillard, Jean, *Xerox And Infinity* ([London]: Touchepas, 1988)

NEW EPOCH
[xix] Anthropocene.info. 2012. *The Anthropocene / Anthropocene Timeline*. [online] Available at: <https://www.anthropocene.info/anthropocene-timeline.php> [Accessed 19 May 2022].
[xx] Parikka, J., 2015. *A geology of media*. University of Minnesota Press, p.1.
[xxi] Parikka, J., 2014. *The Anthrobscene*. University of Minnesota Press.p.36.
[xxii] Morton, T., 2018. *All Art is Ecological*. Penguin Random House UK.p.7.
[xxiii] Parikka, J., 2015. *A geology of media*. University of Minnesota Press, p.58.

UNCERTAIN ARCHIVE
xxiv Parikka, J., 2015. *A geology of media*. University of Minnesota Press, p.5.

THE CLOUD
xxv C/O Berlin: Songs of the Sky – Photography & The Cloud exhibition hand out
xxvi Steyerl, Hito, "A Sea Of Data: Apophenia And Pattern (Mis-)Recognition", *E-Flux*, 72 (2016) <https://www.e-flux.com/journal/72/60480/a-sea-of-data-apophenia-and-pattern-mis-recognition/>
xxvii Noa Jansma, 2022. Buycloud – Noa Jansma, [online] Available at: https://www.noajansma.com/buycloud [Accessed 18 May 2022].
xxvii Ibid

AURA
xxix Aura - Definition Of Aura In English | Oxford Dictionaries", *Oxford Dictionaries | English*, 2017 <https://en.oxforddictionaries.com/definition/aura> [accessed 18 November 2020].
xxx Hansen, Miriam, *Cinema And Experience* (Berkeley: University of California Press, 2012), pp. 104-132
xxxi Baudrillard, J., 1988. *Xerox And Infinity*. Touches London, p. 12.
xxxii Benjamin, Walter, *The Work Of Art In The Age Of Mechanical Reproduction* (London: Penguin, 1935), p. 5.
xxxiii Manovich, Lev. *The Language of New Media*. (Cambridge, Mass: MIT Press, 2001), p.171.
xxxiv Ibid.

LIMINALITY
xxxv Liminal - Definition Of Liminal In English | Oxford Dictionaries", *Oxford Dictionaries | English*, 2017 <https://en.oxforddictionaries.com/definition/liminal> [accessed 10 November 2020].
xxxvi Steyerl, Hito, *The Wretched Of The Screen* (Sternberg Press, 2012), pp. 12-31

IN FREE FALL
xxxvii Steyerl, Hito, *The Wretched Of The Screen* (Sternberg Press, 2012), p.13.
xxxviii Ibid, p.14.
xxxix Ibid. 10.
xl Ibid, p.15.
xli Bridle, J., 2018. *New dark age: Technology and the End of the Future*. Verso.p.69.

HYPEROBJECT
xlii Morton, T., 2013. *Hyperobjects : Philosophy and Ecology after the End of the World*. University of Minnesota Press.p.1.
xliii Ibid.p.28.

THE SMUDGE

[xliv] Leslie, Esther, *Liquid Crystals* (London: Reaktion Books Ltd, 2016) p.240.

[xlv] Virilio, Paul, *Negative Horizon* (London: Continuum, 2005), p.137.

[xlvi] Bridle, J., 2018. *New dark age: Technology and the End of the Future*. Verso.p.58.