**(W)holes – Volume, Horizon, Surface – Three Intimate Geologies**

**Abstract:**

The ideas of holes that emerge through this essay are shaped by experiments with the tensions between artistic (w)holes. In other words, between two artistic created holes, *Untitled (Silueta Series, La Ventosa, Mexico) 1976* and *Munich Depression, 1969* created by Ana Mendieta and Michael Heizer respectively, and the ‘wholes’ of which they are a part. If the Anthropocene can be framed as a scalar problem, and the geologic as an archetypal time-space within this, an emerging body of work is calling us towards how to address the scalar challenges of the geologic. In ‘losing ground’, in the displacements and compressions that create these two very different artistic holes, I am interested in how their ‘not-nothingness’ forwards environmental imaginations of intimate geologies. Through three intersecting morphologies- volumes, horizons/edges and surfaces I explore themes of corporeal emplacement and imprinting, the thematisation of loss and ongoingness, and a foregrounding the ungraspability of the horizons over which our environmental imaginations need to operate, but also an inevitable ongoingness of geological and geomorphological processes.

1. **(W)holes: towards Intimate Geologies?**

From imprints of the human form pressed into the sand of a Mexican beach, to the cutting of geometrical coffin forms in New York’s Central Park, the encasing of melting glacier ice in concrete left slowly to melt in a Berlin studio, the blasting of thousands of tonnes of rock from the Mormon Mesa outside Las Vegas and the sculpting of bodily forms with orifices (see Sinan, this issue), there is a history of twentieth century art to be told through a litany of holes, their myriad modes of creation, scales and effects. Such a history might dwell on negativity and the modernist void, or might seek psychoanalytic explanations for penetrative digging practices, this paper however looks to make sense of two holes created by land artists in the context of contemporary Anthropocene debates. In doing so it proposes some broader thoughts about holes and in particular draws out the potency of embodied and affective experiences of these holes, both at the time of their digging and in the course of our consumption of them. It argues that these holes proffer intimate geologies that powerfully respond to the challenges of scale that the Anthropocene, and particularly its geological imaginaries have posed.

The two holes that interest me here, *Untitled (Silueta Series, La Ventosa, Mexico) 1976* and *Munich Depression* (1969), created respectively by Ana Mendieta (1948-1985) and Michael Heizer (1944- ) (perhaps an odd pairing), were dug in the 1960s-70s, an interesting era in which to be digging down. Much of the world’s attention was focused on the view from above, not least as the “Earth-Rise” Era gave us the Whole Earth images, witnessing the Earth from space for the first time. While these two holes are very different in terms of volume, form, and practices of creation, what unites them is also important: these are shallow, temporary holes, keyed into the scale of human body and very much in dialogue with the surface, these are holes one enters, or imagines entering. As such, a key question this essay grapples with concerns this sense of a view from within, as opposed to that from above. The idea of holes this essay forwards sits with the question of what work do holes do? An odd question, perhaps, to ask of something that is so often thought of in the negative. In ‘losing ground’, in the displacements and compressions that create these two very different holes, I am interested in how their ‘not-nothingness’ forwards environmental imaginations of intimate geologies.

Both Heizer and Mendieta can be situated, although not simply, within the mid-twentieth century turn to making art in the landscape (Blocker, 1999; Brett, 2004). Rising to prominence in the 1960s and 1970s Land Art (sometimes Earth Art) practices had a controversial relationship with the then emerging environmental movement. Indeed, it might be said that Mendieta and Heizer represent very different alignments with that movement (Boetkzes, 2010; Lippard, 1985). Mendieta was a feminist, a Cuban-American exile, and known, before her untimely death, for using her own body to create live, ephemeral, human-scale art that cultivated sensitive relations with nature. Mendieta’s work is often cited as representative of the kinds of small scale, often feminist practices that in the size, duration and form of their terraforming, are celebrated for creating environmental intimacies (Boettger, 2002; Sabbatino, 1996). *Untitled* is one of the hundreds of pieces that constitute Mendieta’s *Silueta* series (1973 onwards), and whilst each can be seen alone, their role as part of a ‘whole’ series is analytically important (Best, 2007). Here it is sand, pigment, hand and the action of waves that make the work, in other *Silueta* ice, mud, leaves or snow are used (see Oransky and Joseph, 2015 and Viso, 2008). At carefully chosen sites, mainly in Mexico and Iowa, and including caves, beaches, archaeological digs, woodlands, rivers, swamps and lawns, Mendieta created low reliefs or shallow depressions. She sculpted her body form in both the positive and the negative, gouging with hands, digging with small implements or carving into cave walls, and leaving the forms to erode away, their longevity a function of natural processes and the material from which they were made. Her work was mostly made alone, sometimes using a plywood template, as such her work is mostly consumed, then and now through the video and photographic ‘documentation’ she made.

By contrast, Heizer, an American land artist, often cast as a hyper-masculine cow-boy, is perhaps best known for his mammoth scale pieces carved into the landscapes of the American South-West that have been described as an ‘affront’ to nature (Carlson, 1986; Brady, 2007). *Munich Depression* (1969), sometimes called ‘vague depression’, was created using industrial machinery to ‘displace’ (Heizer’s word) a thousand tonnes of sand and gravel over the course of a week from a field on the outskirts of post-war Munich (Heizer, and Koshalek, 1992). The material form of the work – a pit 100ft in diameter and 16ft deep at its centre – was odd, digging a crater in the site of a new housing development being a loaded gesture not 25 years after allied bombing during WW2 had turned the city into a cratered smoking ruin displacing 1/3rd of the population. *Munich Depression* was one of Heizer’s smaller, more ephemeral pieces. The following year he created his iconic *Double Negative* (1969-70) displacing 240,000 tons of rock to create a still present trough 1500ft x 30ft x 50ft deep in the Mormon Mesa outside Las Vegas.

A phenomenological framing for Land Art’s environmental relations is common, foregrounding embodied and emotional experiences of landscape and environment created through corporeal experience of art works (see summary in Boetzkes, 2010). Whilst such an account does form the basis for thinking through the creation of these two holes, what also emerges in the analysis of these works is the need to enfold such local, immediate sensory experience with other space-times, primarily those of the geologic. Land artists have long toyed with a suite of ‘geo’ prefixes (geopoetics, geofictions, geomythologies), which are often taken to demonstrate the importance of the geophysical to this era of art making, after-all plate tectonics was at that point in process of being ‘proven (Smithson and Flam, 1996). Here, however, I explore the force of these holes in the context of the recent ‘geologic turn’ that has awakened the arts, humanities and social sciences to the agency of a quiet, stilled earth and attuned us to the mineralogical dimensions of humanity/the humanities (Clark and Yusoff, 2017; Yusoff, 2013; Palsson and Swanson, 2016). Indeed, the geologic has become nominated as a site from which to open onto the forms of life (human, nonhuman, inhuman) and of sociality and politics proper to the Anthropocene- that epoch of human’s geological ascent, and the associated un-grounding of ideas about nature, culture, biology and geology. The languages and concepts of geology and palaeontology (amongst others) are rerouted to think within the space-times of mineralogies, tectonics and lithification and the liveliness of fossils and strata, enmeshing capitalism and deep time in petrochemical politics (Yusoff, 2013; Yusoff, 2015a Povinelli et al. 2017). The Geologic has, in short, become an archetypal Anthropocene space time.

Yet, as a suite of scholars have noted, oftentimes the large temporal and spatial scales of the Anthropocene can eclipse and disable a focus on the minute and more human-scaled (Aliamo, 2017; Cohen, 2015). This is important as it is often the vast scales and distances in space and time that are seen to be the challenge not only to understanding but also to action in the face of environmental concerns (Hawkins and Kanngieser, 2018). Indeed, in this journal and elsewhere, a series of feminist scholars have sought to develop more proximate, intimate geographies of the Anthropocene and our worldly relations, including through concepts such as exposure, transcorporeality and porosity, foregrounding embodied, emotional experiences of connection and realisation of material in-common (Alaimo, 2017; Nieuwenhuis, 2019; Gibson-Graham 2011; Roelvink and Zolkos, 2015). As the first section of this paper will explore in more detail, Anthropocene geologies have tended, with good reason, to dwell on iconic sites, such as vast open-cast mining complexes, the caves of Lascaux, golden spikes and mantle strikes, or historic events such as the 1755 Lisbon Earthquake (Clarke 2011; Yusoff, 2013). Whilst such scales and frames key into the temporal and spatial scales of the Anthropocene as a globally recognisable geological epoch, they do little to challenge the tendencies of the Anthropocene to scale our thinking to ‘planetary and earth systems’, and we might add to the species- scale. As a host of scholars have made clear, it is imperative we find other formulations that might, as Palsson and Swanson put it, ‘move beyond the unproductive juxtaposition of “global” earth systems and “local” human differences’ ( Chakrabarty, 2012). In the context of this formulation of the Anthropocene as a problem of scale, this paper proposes to explore the intimate geologies forwarded by these artistic created holes, and our experiences of them.

To use art, and aesthetics more broadly, to think the geologic is not new (Ellsworth and Kruse, 2012; Grosz, 2008). Whilst some query the ‘new kinds of material practice’ needed for ‘an era of intensifying geophysical turbulence… new genres and practices that tap into and work with the shifting forces of contemporary earth’ (Grosz et al, 2017: 137), here I seek instead to revision existing practices. As such, this essay channels aspects of Parikka’s (2015) media geologies and Zielinski’s (2006) deep time of media, less to seek the mineralogical and geologic underpinnings of creative mediums, and more to direct attention to how the space-times and materialities of mediums and technologies might open us onto the geologic. The creation of these holes, and our contemporary consumption of them, braids together diverse forms of ‘world picture’ – from cave paintings, to 19th century panoramas and satellite imagery- principally in the latter case the Whole Earth images that have become so iconic of the Anthropocene era.

This essays contemplates these holes, and importantly their re-productions and re-creations through and in video, image and installation via three morphological dimensions: their volumes; their horizons or edges, and their surfaces. In each case, I argue that imitate geologies emerge in the midst of the tensions created between the experience of the hole and other imagined ‘wholes’. On the one hand, the ‘Wholes’ at stake here are the Whole Earth images of the 1960s and 1970, but also the whole/hole relationship forwarded by an attunement to the geographies of twentieth century art. By this I mean that the geologies emerge in part through the productive force of relations between temporary, ephemeral works - whether these be performance, installation or site-based works – and their documents or records. This is not a relation premised on an originary, primary work in the landscape and flawed, secondary documentation, marked by a sense of loss (e.g. Phelan’s 1993 ontologies of performance art). Rather, it is a relation wherein the elements of the work sit together as non-hierarchal ordered parts of a whole, the nature of which gives the work part of its force.

In sum, the three sections which follow – volume, horizon and surface – recount experiences of these relatively shallow, temporary, artistic-created holes, and their recreations and reproductions in galleries and documents. Ground is not so much lost through these holes and their inevitably ‘flawed’ reproductions, as we are re-grounded through the experiences of the intimate geologies they propose, re-turned to the E/earth beneath our feet, through experiences, projections and imaginations of being within the ground. Ahead of developing the three underground morphologies I want to elaborate further on the nature of these morphologies and on the idea of intimate geologies this paper is proposing.

1. **Intimate Geologies and Scaling the Anthropocene**

The first image of the Earth from space, nicknamed, ‘The Whole Earth image’ celebrated its 50th Anniversary in 2017. Despite all the evolutions in technology that have happened since these images where originally made they retain a very specific potency. Indeed, half a century after their production the Whole Earth images have a renewed force amidst the troubled and troubling geographies of the Anthropocene (Clark 2011; Yusoff 2013; Demos 2017). Fifty years on, their planetarity refracts the spatio-temporal disjunctions and tensions surrounding the establishment of humans as a geologically creative force. They frame an ‘Anthropos’, whose global geological inscriptions require squaring away our apparent power with a sense of fragility and limitations; an opening onto times and spaces before (and after) the human; a radical openness to deep time and an anxiety inducing rewriting of origin stories and embrace of uncertain futures (Yusoff, 2015b). Further, their status as colonial visions, despite their decentring of Western-orientated global cartographies, asserts the dangers of overlooking the hugely differential relations and experiences of Anthropocene cause and effect (Davies and Todd, 2017; Tyszczuk, 2016). These are in short unsteady world pictures, the tensions within the analysis of which is perhaps precisely what gives them their contemporary critical valences.

Key for this essay’s mobilisation of the Whole Earth images is their incitement of the scalar complexities of contemporary debates about global environmental change and the Anthropocene. As Nigel Clark and Kathryn Yusoff (2015, 2) note, ‘if the question of what to do about imminent or actually occurring shifts in the operating state of the earth are not already at the top of global agendas, this is mostly likely because their complexity and scale vastly exceed existing political repertoires and imaginaries’. Not only too big to grasp, the large temporal and spatial scales of the Anthropocene are also seen to eclipse and disable a focus on the minute and more human-scaled (Aliamo, 2017; Cohen, 2015; Clark 2011). So challenging are these scalar discontents that Bastion suggests we are ‘in the grips of a fatal confusion about the nature of time and space’ (2012, 7). If the geologic has becoming a defining space-time of the Anthropocene, then it is one that also partakes in these scalar problematics; not least because in geological circles the designation of the Anthropocene as a geological era often requires a ‘truthing’ to the scales of global signatures and millennia-long shifts.

Scholars and practitioners across the social sciences and arts and humanities, are coming to acknowledge how issues of scalar complexity play out across our geologic imaginations. Indeed, Kai Bosworth (2017) suggests that we need to tackle the challenge posed by the sense that, ‘the rhythms and spaces of life and the radical non-life of the geologic are not necessarily easily synchronized into the everyday or mundane’. For many this is primarily a question of time-out-of-joint. As Grosz (in Clark et al. 2017) summarises for us,

it is a question of scale, on the level of vast geologic periods - eras lasting billions of years - there may be intermittent or punctuating catastrophes… but at the level of, say, the lived time of a geologic element - the time it takes for example, for a stalagmite to form- there is continuous unpunctuated (even if interrupted and transformed) change (144 ).

Szerszynski (2017) explores the possibilities of the temporal form of the monument as he seeks to think together the time of the humans and the time of the earth, to situate geology as a lively presence in the here and now. Whilst for Gisli Palsson and Heather Anne Swanson (2017, 155), what is needed are geosocials wherein we might embrace a geological that is ‘down to earth, grounded in particular encounters, and draw attention to questions of scale, attuning to the intertwining of bodies and biographies with earth systems and deep-time histories’. Such geosocials begin to unfold from recent studies of stone, underlands and the arts of geology that enfold authorial and artistic biographies into accountings of the earth (Cohen, 2015; Macfarlane, 2019).

Yet scale is, as debates within geography make clear, a tricky thing to think. Indeed, geographical debates have gone up and down and back and forth with questions of scale, asserting the importance of the local over the global, pointing out the inevitable intersections of the two (the global is constituted through the local), as well as foregrounding ideas of scale jumping especially as a means to think through the implications of the corporeal and the global (for a summary of the scale debate in geography see Marston et al. 2005 or Jonas, 2006). Some have even engaged in the thought experiment of a geography without scale, recognising scale as an operational category that implies a pre-sorted understanding of the world that is limiting (Marston et al 2005; Woodward et al. 2010). This is not, they are at pains to point out, to deny the power of scalar thinking, but rather to seek to escape the debilitating effects of scalar logics through the proposal of a flat or site ontology, which remains open to the processes and hangings together of every location. In the face of these complex scalar debates, what follows is a modest attempt to explore how the embodied intimacies of these two holes manages Anthropocene scalar tensions, recognising these is more at stake in intimate geologies than just an assertion of the human scale.

In what follows, I investigate the intimate geologic imaginaries that these two shallow, ephemeral holes might open onto. In short, evolving from their not-nothing-ness, the literal removal of ground in their making and the invitations they make to the human body, are a whole series of geophysical earth becomings that conjugate human and inhuman subjects, spaces, times and materialities together in interesting ways. Doing so elaborates on how aesthetics possesses an ‘untimely quality that allows a passage into the radically incommensurate time of the geologic and therefore provides a possible site and mode of sensibility for engaging with the temporal and material contractions of the Anthropocene’ (Yusoff 2015a, 383). The essay proceeds through three necessarily intersecting morphological dimensions of these two holes; their volumes, their horizons and their relation to the surface. Whilst each morphology has its own section, all three are clearly part of the ‘whole’ hole – volumes gaining critical force from horizons and surfaces and vice-versa. The first morphology I want to interrogate is ‘volume’. Where, and here drawing inspiration from geography’s recent volumetric turn, recreations of the embodied experiences of being in these holes from archival accounts, suggest corporeal practices of emplacement and imprinting that require us to consider the enfolding of immediate embodied experiences of these land art forms with other landscape temporalities (Adey 2013, Elden 2013). The second morphology horizon, focuses on the recreations of Heizer’s temporary hole in gallery spaces. The differences, or gaps, even holes, that open up between the experiences of ‘original’ hole dug in the glacial outwash of the Bavarian Alps, and our gallery based experiences of the ‘hole’ through its art-full documentation installs a sense, I want to argue, of the limitations of human temporal horizons and sensibilities. The third and final morphology – surfaces – evolves through an attention to Mendieta’s documentation of her holes as acts of surfacing. Exploring the interplay of volume and surface forwards an implication of corporeality and geomorphological process that enables a rethinking of our earthly encounters. To close, the essay returns to the central problematic of this special issue – holes, to reflect on what contributions these three morphologies might offer.

1. **Volumes**

On encountering the Whole Earth images Martin Heidegger famously observed, ‘this is no longer the Earth on which man lives’ (1992, p.37 [1968]). For Heidegger and fellow phenomenologist Edmund Husserl, the ‘merely astronomical idea of a planet’ pictured in these images divorced humans from a ‘nature that was felt and lived’ (1981, p. 222). As geopolitical eco-objects the images presented planetery horizons and surface visions that demanded nothing short of new cosmologies (Cosgrove, 1994; Gaarb, 1985; Lazier, 2011).Indeed, writing from the 1972 UN Conference on the Environment in Stockholm, economist Barbara Ward compared the image’s effect to 16th century cosmological shifts. ‘We too’, she writes, ‘are in one of those times of vertigo. We too live in an epoch in which the solid ground of our preconceived ideas shakes daily under our feet’ (1973, p. 21). While claiming new cosmologies built from holes might be too much, the two very different holes in question here do suggest a volumetric engagement that offers a powerful counterpoint to the Whole Earth images’ Earthly/earthy imaginations. While neither work was created in direct relation to these images, land art is often situated as resonant with space activities (Sleeman, 2009). Indeed, in a recent monograph on Heizer it was noted,

we must remember at that time there were photographs of the surface of the moon to be seen in all newspapers and periodicals: his work was not only surrounded by the desert, but the space between the earth and the moon and the moon-world itself also formed part of the emotional space in which the work was created (cited in Heizer, 2016, 31).

Taking forward the phenomenologies of land art we can understand the environmental imagination that the embodied experiences of the volumes of these holes evolves in contrast to the imagination created by the surface visions of the Whole Earth images. Classically, phenomenology enables us to foreground the embodied, material experience of being on the earth and ‘in’ the environment (Shapiro, 1997; Boetzkes, 2010). In what follows ideas of displacement/emplacement and imprinting are explored as a means to examine the embodied experiences of these holes and how these experiences are enfolded within the multiple time-spaces of the geologic that register on bodies then and there, as well as here and now.

**Displacements-Emplacements**

*On a small table just inside the door of the Galarie Heiner Friedrich in Munich lay a set of instructions. Following them led visitors the field, negotiating the building site, picking their way amongst clots of mud, a slight scar on the landscape emerged, some earth more disturbed than the rest. The depression itself was insensible until they got close, its interruption of the ground slowly coming into view. Navigating down the sides of the pit to its centre, the half-finished buildings and their forests of cranes gradually receded from view, so too did the Alps. Looking up and out there was an apparently limitless horizon with no-defined edge, instead the edge seemed to float, a 360-degree horizon line where the curved edge of the pit met the grey Munich sky* [Reconstruction of experiences of the art work from archival sources][[1]](#footnote-1)

In an era of the sublime logics of the Whole Earth images, Heizer’s hole was nick-named “vague depression”. His was not a deep cavernous pit whose visitor was scared witless, nor however was it really so ‘vague’ despite its nickname and rather nondescript appearance – looking like many of the other craters that had for the last 30 years or so pitted the war-torn urban landscapes of Europe. While created through trial and error, the volume and dimensions of the hole were carefully managed and the edges were diligently excised and smoothed, ‘feathered’ in Hezier’s words, to create the optical effect he wished. You feel for the edge’, observed Heiner Friedrich, owner of the gallery which commissioned *Munich Depression,* ‘your mind seeks to orientate itself, it is playing games’ (Friedrich, 2016).

Heizer: What Heiner is referring to is that if you go to the center, lean your head all the way back so you’re just staring straight up, and then relax your eye muscles completely, which is hard to do, and then allow them to relax even more, what happens is you perceive the circle around you. You see this funny shape. It looks kind of like putting an egg in a frying pan with the yolk, the center, bigger than the side. It’s actually the shape of an eyeball or a combo eyeball/egg-yolk-looking thing. So that is the shape of your vision. You saw the shape of your brain, the perception of your maximized peripheral halative vision.

Friedrich: Planet Earth.

It seems that through his earthy displacements Heizer sought to create an embodied dislocation; he observes ‘without an edge, a horizon to orientate yourself by, your location in space and time becomes unmoored’ (Heizer in Heizer and Koshalek, 1992). To journey into the hole, with its attempt to create a limitless horizon, was to become displaced, unmoored from time and place, only – in Friedrich’s account at least – to be reminded of planet Earth, through an altogether different kind of Whole Earth vision. Yet, the displaced subject experiencing the hole is not just a seeing subject, they are also an audience experiencing the weather, the changing light, and the feel of the gravel beneath their feet.

< insert figure one in here>

Figure one: Michael Heizer, *Munich Depression*, 1968.

About Land Art it is often said that the journey is part of the work. Indeed, it is impossible to view that image of Heizer in the base of his depression without wondering how he negotiated his way there and back. You replay in your mind the journey across the field, the descent down the gritty sides, each step an unconscious weighing-up of gradient and material stability, maybe there is a breath of wind, a shaft of warm sunlight or a light mizzle from those grey clouds? Maybe you can hear the sounds of the distant construction, or perhaps gravel has found its way into your socks. It is however not just those sensory experiences that accompany our imaginary descent into that hole. For there is a tension in the cartographies of Heizer’s hole. On the one hand, he wished to control the experience of being in it, to preserve its optical illusion. He wrote, ‘in any subsequent iterations no buildings should cast their shadows over the piece, disturbing the purity of its apparently limitless horizon. (Heizer and Koshalek, 1992, p 52). Yet, on the other hand, far from negating wider context with a focus on embodied sensory experience, Heizer attempted a careful choreography of his visitor’s journeys. This applies as much to those journeys taken on a grey afternoon in Munich in 1969, as to our subsequent imaginary journeys some decades later. Such journeys enfold many space times. Back-dropped by the Alps some 50 km south, the visitor is drawn across a churned-up field, past half-finished apartment buildings, the material evidence of the city’s post-war ‘Wirtschaftswunder’ (economic miracle). For while the Western world’s attention might have been drawn up and out into space, vertical imaginations across Europe remained, perhaps inevitably, haunted by the more proximate verticalities of aerial bombardment and the rise of new buildings from the ruins. These scars (physical and mental) are folded within longer time frames – opening the viewer onto horizons before the human.

‘You were standing’, Heizer writes, ‘on ground up mountain’ (in Friedrich, 2016). Heizer’s memories of making the pit are not only marked by his optical experiments, but also by a geological imagination framed by the Alps in the distance. ‘It was beautiful’, he continues – his reminiscences betraying his knowledge of rocks and soil, perhaps the result of his father archaeologist with whom he travelled the world visiting and participating in digs – ‘no clay at all, just pure washed rock. The tactile aspect of that artwork was really, really nice’ (Heizer, 2016). Like the geologies of the Alps, Heizer’s hole created a spatial and temporal disconformity; a vertical and temporal inversion in which you descend to stand on ground-up mountain. The Bavarian Alps, that complex chains’ most northerly front, disappear from your sight line as you journey into the depression, their dominance over Munich’s skyline for once vanishing. As you traverse its slopes however, they reappear breaking the endless horizon Heizer sought to create, but at the same time opening out still other horizons beyond the human.

The experience of Heizer’s hole is that of a temporary gesture in the midst of wider landscapes of the war, of the Space Race, and of long geological histories, of ongoing erosion and deposition of the continental movements that created the Alps with their unconformities and diachronous geological layers. Heizer’s topography is diminutive compared to those forces that create and mark mountains, but it is not at all vague in design and intent. In this suburban just-below-the-surface hole lies an immediacy of sensory experiences and recent human pasts folded within the decay of mountains and the ongoing Alpine orogeny; the folding and thrusting of continental plates that begun in the late Cretaceous and still continues today.

**Imprinting**

*A stylized silhouette of a women is marked in the sand at the tide-line, its axis just off parallel with the approaching waves. Red pigment, shocking against the grey grains collects in the figure’s head and the curve of her waist and hips. The water has already started to do its work, one side of the body form is softer, darker, slightly elongated. On the beach-ward side, the curve of elbow and waist are still defined and distinct, the sand surface paler, apart from where the pulses of the waves’ encroachment has sent darker material across the body’s boundaries, spreading the vivid red pigment over and around the form.*

While, neither deep nor obdurate Mendieta’s impressions leave their marks in our imaginations. To look is an invitation to imagine, to mentally recreate the artist’s practice of imprinting, her laying on the ground, the pressings, gouging and diggings that create the temporary forms. The most obdurate of Mendieta’s many hundreds of *Siuleta* are those etched into cave walls. Set against the Whole Earth images, the series pictures highly intimate earthy contact. Indeed, almost fetishizing contact, they position the artist there in the earth, within the earth, her weight compressing the soil beneath her, the form of the *Silueta* subsequently defined by small earth movements with fingers and hand-held implements. Like Heizer’s accounts of being there, of experiencing his hole untroubled by the shadow of buildings, the being present of bodies in landscapes is privileged, but necessarily at the expense of complex temporal stories. As a trace of contact, Mendieta’s imprints reach across millennia to the earliest known forms of cave painting; the open hand as fleshy stencil, the Earthly surface and blown ochre as medium for *Cueva de las Manos* [‘cave of the hands’] (present-day Argentina) amongst other sites. For many, albeit European philosophers, such forms of cave art are openings onto the first act of touching rock, of reaching out, feeling. The opening of the ‘hand, spit, lip, breath’ an expressive gesture granted the status of bringing into being humans, the first self-portrait (Bataille, 2005; Blanchot, 1997; Nancy, 1996; Yusoff, 2015a). Just like Mendieta’s imprint, they [the hand prints] are there because they [the humans] are not, presence through absence.

The artist herself was the only original witness to the hole, created through the imprint of her body. If we need to situate the individual *Silueta* within the whole sequence, we also need to situate them within the ‘whole’ work. Documents of land art – such as photographs or videos – have been interpreted as secondary to the ‘originary’ experience, forever located through an ontology of loss and disappearance, of artist, of action, secondary audiences denied the experience of actually being there (O’Dell 2014; Phelan 1993). We can find more use however, in those perspectives that view documents as an indivisible part of the work. Such a shift draws out the value of the imaginative space-times between the times of making – Mendieta’s body pressing into the sand in 1976– and those of consumption, in galleries, printed on paper, on screens today and into the future. These gaps are productive spaces, generative spaces, that allow us tentatively, speculatively, to link Mendieta’s shallow imprints, in formal and productive terms and in their odd doubling of reality, with those cave walls at a threshold, at a time when humans entered history. For Yusoff (2015a, p.400) such cave paintings offer us an unsettling of geographies, ‘a conversing with the nonlocal, imperceptible… a stammering from the depths of ages’. They confront us, she argues with ‘the dreadful abyss of the pre-historical; or the reoccurrence of an instant that cannot be brought under retrospective control.’ How, asks Yusoff (2013) still of cave art, do these geologic subjects realise considerations of inhuman time (and I would add space) necessary for thinking with the Anthropocene?

Picturing the yawning dark void of space, the Whole Earth images refigured human horizons through temporal-spatial dislocations that assert planetary imaginaries over embodied relations, replacing orientations toward earth and sky with those of planet and void, and foregrounding global surface processes whose scale make humans feel small and powerless. They intensified the sense of disembodied abstraction associated with the ‘view from above’, reinforcing an anxiety-inducing sense that planetarity was simply too large for humans to grasp, and could never be a proper ‘scene’ for human being (Cosgrove, 2001; Demos, 2017; Franke, 2013; Haraway, 1988; Laizer, 2011). The volumes of these two holes, their invitation to bodies to be in contact with the Earth, to be, even if so shallowly, within it, beneath the surface, seems, at first glance, to foreground a ‘being’ there in contrast to that view from above. To be within the earth is the proper ‘scene’, a counterpoint to the Whole Earth images’ disembodiment. Yet, these volumes both encourage, and then thwart, even resist such a phenomenological accounting, by opening embodied experiences out onto an imaginary of intimate, bodily scaled geologies. The following two sections probe these intimate geologies further in terms of horizons and surfaces. As analysis turns toward relations between the holes dug in the landscape and their documentation and ‘recreation’ in films, images and installations, I consider these earthy, light and paper-based holes as all parts of a ‘whole’ work, but parts whose relations creates the slippages and faultlines of experience though which intimate geologies emerge.

1. **Horizons - Edges**

*I am standing in the hole.*

*At my feet are large boulders, rocks sorted by gravity, white and grey.*

*The earthy rampart almost fills the image, high above my head the horizon line, the grainy lip of the slope cutting close to the ceiling of the gallery.*

*I start to find patterns in the landscape facing me, small fans of debris stretch out from the mid-point of some of the images, the tracks of diggers zig-zag into one another, forming criss-crossing terracettes in these muddy stony cross-sections.*

*The horizon is jerky, not quite straight across each image. I follow it with my eye along the gallery wall, across the dark opening of the space and, spinning on my heel I track it around, behind and across the opposite wall.*

*I may be standing in a smooth-floored gallery on the US West Coast, but I am also standing in a hole in Munich fifty years earlier, imaginatively recreating, but also actualising in some embodied way, the rotation of the artist and his camera – click, turn, click, turn, click turn, nine times, the overlaps of the images mapping the cartographies of his slow pirouette. My shoes squeak slightly as I pivot on the polished concrete of the gallery floor.* [Field notes from a visit to LACMA, 2012]

Before Heizer’s hole was filled in, he and his Munich Gallerist Heiner Friedrich (who commissioned and funded *Munich Depression*) took Friedrich’s Nikon camera into the base of the depression and made nine black and white images (Friedrich, 2016). On his return to New York, Heizer got in touch with the experimental filmmaker and photographer Maris Ambats with whom he worked to create a projector that would project the images at actual size, enabling him to recreate his hole in a gallery space. *Munich Rotary (actual size)* was first installed in a 200ft room at the Detroit Institute of Arts in 1971, and more recently at the LA County Museum of Art (LACMA, 2012) and at the Whitney in New York (2016).

If holes are more normally about the removal of something, the re-creation of *Munich Depression* involved addition – of light and screens. Installed at LACMA the nine images map the edges of the pit. Surrounded, you could trace the edge of the hole to explore its gritty topographies, or you can stand still and pivot in the spot, looking up and out at the band of grey horizon, or over this to the gallery ceiling. If Heizer’s horizon-play in suburban Munich enabled an optical experimentation that brought forth a certain kind of earthy contact, then the recreation of the hole in the gallery space shifts these temporal horizons and forms of contact once more.

If the gaps between making of Mendieta’s work and our consumption of it, are an important constitutive force in the sense of ages her work creates, in Heizer’s re-creation of Munich Depression there is a similar need to keep hold of the relation between the different elements of the work in a non-hierarchical manner. What emerges in the tensions between these different holes – that in Munich in the 1970s and those in American in 2000s – is a thematisation of loss, of the gaps and slippages between the experience of the holes dug in the landscape and these gallery-based holes. We should not however feel this loss too keenly for the point, I want to argue, is entirely not to provoke disappointment at the failure of the recreation. Instead such slippages recast Heizer’s interest in volumes towards questions of edges and horizons, where the literal material edges and horizons direct us towards the limits of human experience.

<insert figure 2 in here>

Figure 2: Michael Heizer, *Munich Rotary*, LACMA, 2012.

Time and space is out of joint in *Munich Rotary,* the edge of the hole is jerky. To elaborate, I want to understand *Munich Rotary* in relation to another form of world picture – the panorama. If not quite forming a media geology of deep time, panoramas are world pictures from another era, they take us back to the late 18th and 19th centuries, where these popular forms of entertainment created 360-degree views that framed the world as a picture (Crary, 2002). While many, perhaps most famously the Romantic poet William Wordsworth, decried them for the deployment of nature as ‘mere spectacle’ and critiqued them as ‘mass forms of verisimilitude’, for others their very distinction as a visual apparatus lay in their poetics of time and space (King, 1993). For as Robert Barker, an Englishman who patented the panorama in 1781 observed, they were designed to ‘construct a proper point of view’, a means of making the viewer ‘feel as if really on the very spot’ (Griffiths, 2003, p.2.). Indeed, the panorama’s etymological claim (deriving from the ancient Greek for complete view) was fulfilled through a series of elaborate staging strategies deployed to create an apparently ‘close to perfect’ sense of presence.

How does understanding *Munich Rotar*y as aping an older form of world picture aid in imaginations of its space-times? While the apparent effect of the life-size hole is that of a panorama, what is more interesting is the slippage between Heizer’s work and the panorama’s workings. Central to achieving the latter’s goal of ‘seeming on the very spot’ was the arrangement of painted canvases to create a seamless recreation of reality (Griffiths, 2003; Crary, 1999). Important to the verisimilitude was the painstaking work done to efface the sutures between frames and mask any signs of spatial and temporal disjunction. Interestingly, while Heizer emphasises ‘actual size’ in his title, he does not even try to create a seamless version of reality. Indeed, almost in defiance of his assertion of the ‘actual’-ness of the hole, the smooth feathered pit-edge he sought in Munich is, in the gallery-based hole, rendered jerky and jumpy. This is a horizon that utterly fails to track smoothly from one image to the next, constantly reminding us of its artificiality.

This ironic twist on the piece’s title draws out its thematisation of the question of what is lost with displacement of the immediate contact with the earth? In other words, instead of trying to recreate being present, what is being installed with the images are precisely the slippages of experience, indeed the very impossibility of recreating ‘being there’ - we know we are missing the smells, textures, and feelings of the ‘original’ hole. The authority of the 18th century panorama was founded in the limitations of subjective vision, on the very inadequacy of the human observer that emerges through the proposition of the accessibility of a complete view, which then thoroughly exceeds our capacity to grasp it (Crary, 1999). Heizer’s gallery hole could be understood to exploit this same effect. What the slippages and fault-lines in our experiences reveal, as well as the obvious failures in representation, are the limited horizons of human knowledge and sensibility, through the gaps in experience we are opened onto an excessiveness of the world that will always exceed us and escape our ability to know. *Munich Rotary* presences the conditions of human perceptual intelligibility of the inhuman excesses of the earth (Clark, 2011; Yusoff, 2015a). As such, it can be understood as an untimely panorama, an out-of-place world picture whose flawed technologies installs in the gallery the excessiveness of Earthly forces and their resistance to human understanding, experience and representation.

1. **Surfaces: Rendering Sensible GeoPower**

***Figure 3: Untitled (Silueta series, La Ventosa, Mexico)* (1976), Ana Mendieta. Image** **© The Estate of Ana Mendieta Collection, Courtesy Galerie Lelong, New York**

Across the first four images in the sequence we witness the sea moving across the *Silueta* form, in the temporal gaps between the images the waves do their work. To move between one photo and the next is to replay the rhythmic pattern of the waves and their erosive work, to imagine the advance and retreat of waves up the beach between each opening and the closing of the camera shutter, advance and retreat, advance and retreat. By the fifth image the sea has surrounded and overtopped the *Silueta* form, the crook of an elbow, the curve of a leg diffuse into the sand. This fifth image marks a decisive shift in the sequence. The figure fills the frame, the left arm almost reaching the side of the image, making space for the dynamic, kinetic swirl of water in the bottom right. The picture framing focuses our eye on the capturing-in-motion of the down-beach drag of the water, a movement of many years ago, but one we know so well, animated in the image by white water bubbles and grains that almost seems to move with the force of the sea.

After this forceful climax, the final four images shift tone; waves smooth beach and human form alike. The incidental markings-of-making around the *Silueta* have vanished, leaving the form stranded on the beach, shallower, softer, but also somehow clearer, highlighted by the distribution of red pigment. This final sequence foregrounds the interplay of depression, surface and force. The body form on the smoothed beach is now a container for stiller water, the foamy bubbles a reminder of now dissipated energies. Here erosion feels less like a transporting of the material away from the form, and more an act of smoothing and softening. Now a declining force, water percolates down through the *Silueta* rather than rushing around its sides and overtopping it. It moves sluggishly up the beach, puddling, caught by the volume, before running back out again, the arm of the form, a line of least resistance.

In the Super Eight films and photographs that are now our way of experiencing the *Silueta* it is rarely the creation of these holes, their imprinting, that is the focus of attention, rather it is their erosion by water, wind or other natural processes that draws Mendieta’s lense and our eye. For some viewers, the surficiality of the Whole Earth images granted the Earth liberties ‘to clothe itself anew in the natural hues of water, earth and the softest veils of the atmosphere’ (Lekan, 2014, p.173). For others however, these natural systems were far from aestheticized, but rather were deadened in an impoverished static abstraction that quite literately overlooked the ‘pulsing detailed vitality of terrestrial life’ (Garrb, 1985). This exploration of the relationship between Mendieta’s holes and surfaces in this third and final section forwards an intimate geology in which the geomorphological forces and intensities of the earth come to human sensibility.

Yet, just as the holes thematise a phenomenological embodied contact with the earth and the creation of shallow volumes, they equally thematise withdrawal. For, the ‘record’ of Mendiata’s works, their seriality and the iconography of her fleshy body forms, retreats from both a phenomenological immediacy as well as from the identity issues that preoccupied many other feminist artists of the era (Cabanas, 1999). Many scholars have stumbled over the tensions between live art and ritual practice, been unsettled by too easy equations made between Mendieta’s identity as a women of colour, a Cuban in exile in a white, male, urban art market, and her creation of work that, through its ecological feminine sacred, reaches across the ages. To enumerate the withdrawals here; Mendieta’s fleshy form that created the volume; the erosion of the *Silueta,* here by time and tide; and the distance in time and space reached across by the still and moving images we consume, themselves copies of Mendieta’s originals made through the trace of light on negative. In these interplays of contact and withdrawal, and in their rhythmic nature across the hundreds of forms of the ‘whole’ *Silueta* series, the human body is continually de- and re-constituted, formed from soil and sand and returned again to these material from which it was made. Made and returned, made and returned, reaching through time and opening onto past relations, constellating the body and inhuman geologies in all kinds of ways.

For many scholars of live and performance art photographs have been understood to authenticate the performance, to stand in for the initial action. As O’Dell writes, ‘photographs are widely circulated as the principal relics and records of these [performance] events’ (2014). I would argue the seriality of these images together with the withdrawal of fleshy body, entwines an imagining of artistic performance with a picturing of earthly forces. If the fault-lines in the experience of Heizer’s panorama expressed the excessiveness of the inhuman, its sheer un-representability, then for Mendieta the gaps and slippages between each image – the holes in the record if you will – work to presence a mineralogical human subject that opens us onto the forces and temporalities of the geomorphic and geologic. What do I mean by that? Such seriality and its inevitable losses, opens spaces in which we are invited to imagine those periods before, within and after the sequence which are not pictured. The ‘whole’ series enfolds within itself those unseen actions, and in doing so brings our imagination of them to the fore.

Feminist philosopher of geopower, Elizabeth Grosz (2008; 2012; Grosz et al. 2017), writes of the relation between art and earthy forces in a way that is useful for making sense of our encounters with Mendieta’s images. For Grosz art is ‘geographical: it involves the earth and the movement of its qualities so that they may intensify the sensations of living beings with otherwise imperceptible forces’ (2012, p. 974). If the *Silueta* is a volume, a form, it also is a frame and a set of surfaces. At the risk of a perhaps too literal apprehension of the photograph and the *Silueta* as a frame, we can think of Grosz’s formulation of art as throwing a frame around ‘the forces of chaos, so that we can see them as if for the first time’ (2012, p. 3). In this way, Mendieta’s series might be understood after Clark and Yusoff (2017) to compose geosocial formations, wherein geologic and geomorphic forces are rendered sensible, but are also seen to create conditions for both the emergence of the human form and its gradual decomposition. The human subject is, in these images, rendered a mineralogical subject and is de and re composed over and over again. As Grosz writes of art, it can teach us ‘of the forces that will overrun us, that made us and will unmake us. It teaches us how to live with imponderable and unmasterable forces and how to make them sources of affirmation’ (Grosz, 2008, p. 190).

Experiencing Mendieta’s works with Grosz forwards an appreciation of how art might channel the geographically and temporally variable forces and energies of the earth, and in doing so, enable us to ‘think of diachronies with radically different implications… offering, the arts as a means to understand our encounters, past present and future, on and with a chronically unstable planet (2012, 977). For enframed within Mendieta’s images and our encounters with them are a series of different temporalities. These include, entwined times of the human: the imagined past of Mendieta’s bodily presence in the making of the original form, the passing of generations implied by the de- and re-composition of the human form and the body-stencilling’s echo of ancient forms, as well as of course the ongoinginess of the diurnal and annual cycles of the waves. Geomorphological temporalities that existed before those of human time, that persist past the temporalities pictured within that photographic sequence, outlasting the *Silueta* form, and continue, as we encounter these images on gallery walls, pages and screens. In braiding different times, in their confluence of variegated tempos, the *Silueta* series images open an imaginative space that requires that we think together the time of the human, the time before the human, but also time after the human.

1. **(W)hole World Pictures and Subterranean Aesthetics**

The creation of these holes, and our contemporary consumption of them offers a confluence of diverse forms of world picture – from cave paintings, to 19th century panoramas and satellite imagery – allowing for further elaboration on how aesthetics possesses an ‘untimely quality that allows a passage into the radically incommensurate time of the geologic and therefore provides a possible site and mode of sensibility for engaging with the temporal and material contractions of the Anthropocene’ (Yusoff 2015a, p. 383). If the intimate geologies that emerge from these art works have been the focus so far, to close I want to ask what does all this mean for a theory of holes, the topic of this special issue?

Ground is not so much lost through these holes, as we are re-grounded through the experiences of the intimate geologies they propose, re-turned to the E/earth beneath our feet. Whilst the forms, practices and durations of their holes are very different, both Mendieta’s imprintings and Heizer’s displacements thematise contact with the earth. At a most basic level they require us to imagine a ‘being there’. These were holes made and experienced by humans ‘in contact’ with the earth, the removal or compression of ground the experience of which opened up the space-times of the geological imagination. As such, these holes resist any easy opposition of the planetary and embodied, sensory experiences and material immersion or any easy scalar inversion. Evolving from morphologies of these holes – the volumes, horizons and edges, and their surfaces – are a series of geophysical earth becomings. These becomings both resonate with and problematize the terms across which the Anthropocene has come to be understood as an aesthetic-political concept through which to conceptualise the ‘geologic’ (Yusoff, 2015a).

Moving away from the specifities of these artworks, and their geologies, what broader lessons might we take away for thinking about holes? We might think firstly, of the possibilities of artistic holes for rescaling and replacing the times and spaces of how we think about geology. Anthropocene logics, for good reason, have activated geologies premised on lithification and on deep time and global scales. But these artistic works, with their intersection of glacial drift with bombing and building practices, with their implication of human subjects and daily rhythmic geomorphic processes alongside those larger earthly forces, rescales how we think about the geologic in useful and interesting ways. Of course they are not the only art works to do this, but there is nonetheless something potent in these surface penetrations. Secondly, we might reflect on how holes and their creation, and our exploration of them at a distance in space and time, might add further layers to the commonly held intersection of undergrounds and technology. If Rosalind Williams explores the intersection of literary undergrounds and the relation of technology and the environment, Parikka (2015) is interested in the material and metaphorical intersection of Media and Geology. Performing a minerological and metallurgical follow-the-thing, he explores media art’s commodity biographies, with its interest in the geological and geophysical as content. Similarly here, although lacking the tracking of material histories, the intersection of world pictures from different eras, and the technical apparatus which supports them, are integral to our apprehension of the critical force of these shallow, temporary underground spaces. As such, there is something to conjugate further in this relationship of technology and the knowing and experiencing of the underground.

Finally, in tune with other papers in this special issue (Sinan, 2019; xxxxxx) we might reflect on the experiences and affects of these holes and their intersection with our ideas of perception and the senses. The underground, often because of the dark, is a space of intensified sensory experience, an excess of sensation rather than a lack, that is often thought to defy rendering in words and images (often of course literally due to the lack of light). What the holes/wholes of this essay have suggested have been limits of experience, and of representation, but limits that are less to do with underground experiences per say and more to do with the inevitable limits of human perception and of our ability to represent and evoke. Earthy forces and materialities will always exceed and elude human grasp, and while vertical imaginaries from space offer one way of experiencing of these limitations, those seen from just below the surface offer us another set of experiences and imaginations entirely.

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1. Reconstructed from accounts by Heiner Friedrich (2016), who commissioned the piece and reviews of the work from the time cited in the above and Heizer, M. and Koshalek, R. (1992) and Heizer (1986). [↑](#footnote-ref-1)