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Labour, mining, dispossession: on the performance of earth and the necropolitics of digital culture

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ABSTRACT

This paper places the territorial politics of digital culture within a material perspective, specifically, through studying forms of labour involved in the mining of rare earths and minerals to generate our digital infrastructures. Following Jussi Parikka's lead in *A Geology of Media* (2015), I consider the deeper geological time of mineral formation, and analyse the intersection of labour and medianatures. Drawing attention to the exemplification of supply chain capitalism (Tsing), I look at the scales of violence of mining and the dispossession of bodies implicated in two locations in Congo and Australia in the Global South through the lens of performance studies and critical theory.

KEYWORDS

Media materialism; mining; supply chain; necropolitics; decolonial

> Hello consumer, thank you for joining us. Let me tell you the story of this phone, while I provide you with quality entertainment. Once upon a time, there are minerals resting in the bowels of the earth …

We may all know that our smartphones are produced with blood minerals, but what happens when you have to play a game that confronts you with the chains of violence that generate the gadget you play the game with? Digital game, *Phone Story* from Molleindustria,[1] aims at provoking critical reflection on what happens beneath the shiny gadget we hold – but already within hours of its release, it was removed from the Apple app store.

> Gameplay: A robotish voiceover narrates the dark side of phone production, providing further background information on the scene before your eyes. You go through four levels of the 8-bit animated game: coltan extraction in Congo, exploitative labour in Foxconn China, gadget consumerism in the West, and e-waste processing in Pakistan. You attempt to complete the set goal of each level within limited time.

The game performatively reveals the violence of 'supply chain capitalism' (Tsing 2009) and forces players to embody the violent processes through playing, and acknowledge how we, as end-consumers, participate in the chains of exploitation that enable the creation of the beautifully glossy gadget we play *Phone Story* with. Anna Tsing uses the term 'supply chain capitalism' to highlight how this particular dimension of capitalist structure exploits

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the 'enhanced mobility of labour and the economic vulnerabilities created by recent forms of imperialism and histories of global war' (149). At the time of writing, Tsing observes the consolidation of the practice of outsourcing where large corporations subcontract labour to other parts of the world. The trend has continued in today's digital world, where state-of-the-art Amazon voice recognition AI assistants are built in Chinese Foxconn sweat labour factories, while the transistor parts themselves are built from processed coltan from the Democratic Republic of Congo. Supply chains bring different parts of the globe together but at the same time feed the 'growing gaps between rich and poor, across lines of colour and culture, and between North and South' (150). More specifically, Tsing critiques the capitalisation of existing inequalities by supply chain capitalism – 'no firm has to personally invent patriarchy, colonialism, war, racism, or imprisonment, yet each of these is privileged in supply chain labor mobilization' (151).

> Level 1, in Congo, you keep child miners working at gunpoint; level 2, in Foxconn China, you catch suicidal workers jumping off a building with an anti-jumping net so they could walk off in safety; 3, in the West, you hurl iPhones at crazy consumers; and 4, in Pakistan, you sort out different used parts in e-waste processing.

This paper builds upon Tsing's critique by focusing the analysis of supply chain capitalism upon the raw material extraction stage – mining – and thus turns the attention to one key materialist component that is the common denominator of all our digital devices: minerals. In so doing, I propose to look at the labour of humans and non-humans in providing for this basic building material for our digital world, following Jussi Parikka's discussion of medianatures in *A Geology of Media* (2015). Modelled after Donna Haraway's naturecultures (2007), medianatures shows an understanding of media and nature as co-constituting spheres of connection, 'where the ties are intensively connected in material nonhuman realities as much as in relations of power, economy, and work' (Parikka 2015, 14). Studying medianatures requires scaling in and out of these entanglements, where abstract digital entities like a digital game could be brought back into relation with the minerals that are mined for the actual building of computer-machines. The term medianatures also enable us to look at how mediatic networks and their material counterparts elicit the performance of nature, through the incorporation of minerals excavated from the bowels of the earth.

> Your fingers begin to tire as you click to point the soldier's gun at idling child miners. You fail to complete Level 1 in time, and are reprimanded by the robotic voice—"You did not meet the goal, don't pretend that you are not complicit!"

Phone Story begins its narrative and critique of supply chain capitalism with mineral mining in Congo, and constructs a shared frame where mining is considered alongside a culture of consumption and phone usage. The game brings to bear upon questions of how the material labour of mining is organised and distributed within the Empire[2] (Hardt and Negri 2001) of digital culture, that invariably connects consumers with the harsh realities of labouring and the livelihoods of the labourers. In this paper, I focus on two specific locations where such mining takes place – the Kivu region of the Democratic Republic of Congo (DRC), and Northern Territory in Australia.

> You play four rounds of Phone Story successfully only to find that the game loops back to level 1, and you are forced to point guns at child miners in Congo—again. Ironically, the Apple app

store claims that the game depicts violence and abuse of children and crude content, and therefore has removed it from the store.

Using the lens of performance studies and critical theory, I look at these material dimensions of digital culture by engaging with Anna Tsing's theory of supply chain capitalism (2009) in association with writings on biopolitics and necropolitics. Standing with Achille Mbembé (2003) and Elizabeth Povinelli (2016), I use the term necropolitics to refer to biopolitics and its permutations beyond its Western-centric[3] study first offered by Michel Foucault. In this account of the Empire of digital culture, I construct an argument of how labour surrounding our digital culture enfolds the performance of the body of earth and of miners, and how their lives become entangled with violence and dispossession. The argument turns to two cases of communities in the Global South to show the violence committed towards such populations, and their performances of resistance in articulating their indigenous ontologies and agencies.

The violence of mining in the times of medianatures

The smooth workings of the digital game *Phone Story* exposes the layers of violence that feed the material production of our digital gadgets today. By staging production circuits involved on a global scale, the narrative unveils the horrors of supply chain capitalism in deadpan humour and the player is enticed to reach the goals of each level and is forced to be complicit with the system through the dramaturgy of the game. The cruel infinite looping of the levels shows the never-ending exploitation generated by the capitalist system that fuels the inequalities demonstrated and presents how these multiple ends of labour are bound together within a singular circuit, along commodity chains that criss-cross the globe.

Qiu, Gregg, and Crawford (2014) analyses this phenomenon as global circuits of ICT labour, in order to bring attention to 'the inventive and capacious work of the body under capital' (2014, 577), whether as a factory worker in Foxconn, or a digital gamer. Yet despite this theoretical framing,[4] the bodily violence and material exploitation that feeds our digital networks continue to slip from view. As Tsing (2009) points out, supply chains are formed through 'the vicissitudes of gender, race, ethnicity, nationality, religion, sexuality, age, and citizenship status' (158), and depends on the extraction of biopower globally. Taking this idea further, I use the framework of necropolitics (Mbembé 2003) and geontologies (Povinelli 2016) to demonstrate how these extractions operate within a material dimension of the Empire of technology.

Necropolitics is a response to Foucault's biopolitics and refers to the politics of death and dispossession that comes with the extraction of a population's labour and reproductive power. In Foucauldian terms, biopolitics is defined as the sovereign's power to control or limit how one lives, 'the right to make live and to let die' (Foucault 2003, 241). In contrast to this, Mbembé emphasises the side of 'letting die', and goes deep into the deathworlds of necropolitics taking place on the plantation, in the colony, and in the World War II Nazi camps. Mbembé discusses these sites as instances where technology has operated as death machines. According to him, each stage of imperialism involved key technologies (the gunboat, quinine, steamship lines, submarine telegraph cables, and colonial railroads) (2003, 25) and these technologies were utilised to support colonial occupation. Mbembé

disagrees with Foucault's characterisation of the Nazi state as the most complete example of a sovereign power demonstrating the right to kill. Instead he shows Foucault's blindspot by arguing that the pre-history of the concept of biopolitics could for instance be found in the colonial genocides and massacres in colonial Africa (or in more recent history, Israeli occupation of Palestine). This emphasis on death, when read together with supply chain capitalism, reminds us of the extent of violence in resource extraction and that what we are observing currently belongs to a longer history of exploitation and colonialism. The immaterial wireless internet technologies that we are surrounded by are supported by material chains of human labour and exploitation, some of which are heavily tainted with violence.

The performance of the body of earth is also called upon through the extraction of minerals, which are of increasing importance as more digital gadgets and batteries are invented and built. The itinerary of medianatures-entanglements could be traced to various places on earth where mineral ores for digital gadgets are found. Coltan, for instance, is turned into a heat resistant powder called tantalum that can hold a high electric charge, which is a vital element in creating devices that store energy or capacitors. Tantalum is used in a vast array of small electronic devices, especially in mobile phones, laptop computers, iPods, Nintendo's, Xboxes and other electronic devices.

The role of the earth's body could be explored through Povinelli's (2016) posthuman spin on the concept of biopolitics, as she calls for attention to how biopower and necropower also operate on non-human animals and geological entities. Like Mbembé, Povinelli reminds us through necropolitics that the prehistory of biopolitics is not in Europe but in colonised lands, such as in the Northern Territory of Australia, where she makes kin with the Belyuen community. Critiquing biopolitics, Povinelli proposes that biopower has too long relied upon the distinction between life and death. Instead one could also reformulate it such that non-human entities like rocks, sand, soil, could also be considered within the biopolitical regime. In her hypothesis, Povinelli traces the prehistory of biopolitics into an underlying distinction between Life and non-Life; that in fact, just like the division between those who make live and those who are let die, biopower has long been operant to distinguish between Life (*bios*) and non-Life (*geos*), humans versus non-living things (like the body of earth). Povinelli proposes the term geontopower –

> Geontopower is not a power that is only now emerging to replace biopolitics—biopower (the governance through life and death) has long depended on a subtending geontopower (the difference between the lively and the inert). And, similarly to how necropolitics operated openly in colonial Africa only later to reveal its shape in Europe, so geontopower has long operated openly in settler late liberalism and been insinuated in the ordinary operations of its governance of difference and markets. (2016, 5)

She revises biopolitics into geontologies, geo- and onto- standing for geos and being, to look at the geological implications of biopower's grip on inert earth, often discounted as 'non-Life'. Mining and resource extraction are instances where geontological power are operant, in conditions of 'settler late liberalism' (5) and capitalist markets. Povinelli provides a decolonial take on the subject by insisting on the lifeworlds of Aboriginal culture that speak to the animist and vitalist nature of so-called non-Life, and shows how necropolitics could be observed through both humans and non-humans as violence is brought upon earth and to indigenous ontologies in the course of mining.

In the following, I lay out the violence of mining by referring to three layers of destruction aligned from a temporal perspective: temporal dispossession of populations (in Congo), destruction of indigenous times (Aboriginal Dreamtime), and disruption of geological time.[5] These three layers of time are activated through necropolitical extractivist mining, that requires the performance of labour by humans (miners) and non-human actors (by earth) alike. The agency of earth itself is often ignored because matter is seen as non-Life and is present only through its economic value. It is my contention that mining disrupts both animist cultural relations to land in Aboriginal ontologies, as well as the earth's geological rhythms of mineral production. Minerals are extracted and depleted at a much faster rate than they could be produced and replenished, in addition to the environmental degradation and pollution mining generates. By turning to the lens of violence through scales of time, one could see the durational reach of necropolitical power and the different ways it participates in the violence perpetrated in various corners of earth.

Labour circuits in the mining industry are ridden with violence. James H. Smith (2011) refers to it as 'temporal dispossession' (20) of Congolese miners and local communities, and describes the systematic abuse carried out by militias in Kivu, border region with Rwanda and Uganda. Temporal dispossession occurs in several layers and ultimately functions to disrupt the possibility of building a sustainable future and continuity in their livelihoods.

Eight percent of the world's coltan (for tantalum) comes from the Democratic Republic of Congo, and 80% of coltan from Congo comes from the volcanic Nyiragongo region. Smith's careful ethnographic study (2011) of coltan mining in the Kivu region unravels the commodity chain that begins with mined coltan and ends in finished products. Miners are subjected to various levels of exploitation and violence as military groups (including foreign militias, local militias, and the Congolese army) wage war with them to get in on the lucrative trade of these resources heavily sought after by the electronics industry. The global demand for smart devices only increases the pressure to provide these raw materials, unfortunately concentrated in parts of the world where governance is repressive and corrupt. Even though the exploitation problems with mining are not a direct outcome of the current drive for digital products, they have been exacerbated by the trend. The rapid creation of new products has led to a significant demand surge which puts pressure on the market, and encourages the continued violence and instability in the region.

Smith (2011) speaks of the impossibility of 'predictable time' (21) in his account, which refers to the fact that miners usually cannot make plans and do not know where they would go work the next day. This is a widespread phenomenon as they usually go where there is an opportunity to make money. This sense of insecurity is common amongst the Congolese miners, who prefer mining to other ways of generating income even though it does not actually pay well. This is because earnings from mining is relatively regular, as opposed to agricultural harvest, which takes months to grow but may be expropriated by militias and army soldiers at any time. But mining income is driven by the market and price fluctuations, which miners are kept out of the loop of. There is an inescapable day-to-day sense of uncertainty surrounding their livelihoods. Smith (2015) refers to the example of a spike in coltan prices in late 2000 due to online speculation, because Sony ran out of the tantalum it needed to produce Playstation 2 to meet the Christmas

market demand. The temporality of production in Congo is invariably linked to the temporal cycles of shopping seasons and trends elsewhere, and these rhythms of capitalistic consumption contribute to the violence of dispossession experienced by the miners.

Unpredictable time and the associated violence spread and affect the viability of other forms of livelihoods in the villages in mineral-rich regions. Military groups focus on destroying settlements, crops, and livestock, which are crucial for linking communities and bringing people together. Moreover, violence is concentrated in the form of gendered violence. Mass rape is used systematically on both men and women to maintain control and demonstrate who is boss in the area. It is designed to humiliate and to disrupt the production of future through childbirth and rearing, again an instance of temporal dispossession. In Congolese culture, male identity is closely linked to power and control, and sexual violence against men aims at destroying such senses of self and to demean them. Locals also believe that rape is used to weaponise the spread of HIV/AIDS and the dwindling of communities could allow military groups to seize land and gain power. Smith argues that all these acts of violence and abuse are done with the idea of disrupting an incremental temporality, meaning the idea that one could build the future progressively through their acts in the past and present. By taking away the future or a sense of continuity between past, present, and future, the militia groups actively perpetuate violence upon these people's lives and their relationship to the progression of time. This is encapsulated in Smith's quotation of Mbembé's work on states of war on the African continent, 'In most contemporary war zones in Africa […] the spread of terror fragments inhabited spaces, *blows apart temporal frames of reference, and diminishes the possibilities available to individuals to fulfil themselves as continuous subjects*' (Mbembé 2002; 18 as quoted in Smith 2011, 21, own emphasis).

Not only miners are affected by temporal dispossession. By turning to the deep timescales of medianatures (see also Zielinski 2016), one could also open up an avenue to engage with the labour realities and the violence that come hand-in-hand with the materiality of the media objects we use every day. While the Congolese face the continuous destruction of their senses of time, the Aboriginal Australians face the erosion of their sacred land and totems, a destruction of their longstanding Aboriginal Dreamtime, through mineral mining. Mining of minerals has been on the colonisers' minds as evidenced by the early surveys conducted by settlers in late nineteenth century. For instance, Australia is one of the top producers of gold and lithium in the world, and within digital gadget production, gold is used to plate wires and can be found on all circuit boards, while lithium is the primary chemical element for batteries.

In Aboriginal culture, Ancestor Spirits came to the earth in human form and as they moved through the land, they created animals, plants, rocks, and all the landscapes. Once this creation process ended, the ancestral spirits themselves transformed into trees, stars, rocks, watering holes or other objects. They become the sacred sites of Aboriginal culture, linking people and land, past and present. Dreaming tracks link ancestral history and sacred sites across the entire continent, and these sites also embody Dreaming in a cyclical manner, where past, present, and future are collapsed within totem narratives. By taking up Aboriginal ontologies, one could see that what is to 'us' in the West not 'alive' may be very much living and imbued with meaning to others. Rocks, in other words, can die too. Such a view challenges Western ontological views of materiality as Aboriginal ontologies imbue land and earth with vibrant spiritual or totemic meanings attached to

place. Aboriginal Dreamings do not make distinctions between Life and Non-life, and Western theory is only just now catching up through recent interests in vitalist philosophy in the likes of new materialism, speculative realism, and object-oriented theories (Povinelli 2016, 18).[6] In the Aboriginal worldview, land seizure and mining can be as exploitative to earth itself as extractive labour is to humans. The destruction of Dreamtime through the destruction of land shows the extent to which the violence may be experienced, as Dreamings are passed across generations, and form a significant part of Aboriginal cultural heritage. Loss is experienced intergenerationally and kinship relations to land are challenged as rocks die. This point will be explored further in the next section where I discuss the agency of the local populations in their performances of labour. In labouring they become dispossessed as they lend their services to supply chain capitalism, but also claim their agency and resist, by asserting their cultural ontologies through legal and cultural rituals.

I close off this section by turning the attention to the third layer of temporal violence to earth. While the first layer of dispossession is towards human populations, the second layer affects both humans and non-humans/non-Life as their relation to each other in Aboriginal ontology is destroyed through the act of mining. In addition to the extraction of human labour and the exhaustion of their healths and lives (bio- and necro- powers), the material infrastructure of digital culture depends too upon the continuous extraction of earth resources (geo-power). The third layer of temporal violence is non-human-oriented, as we consider the environmental impact to earth through the act of mining. Through geontopower, we could consider the agency of earth and the role it plays in the circuits of ICT labour – we could also argue that non-Life is also very much performing labour in service to our digital worlds. In a nod to medianatures, geophysical matter is also implicated within this labour circuit. Earth pays a price and takes a toll. As scholars have argued and as scientists have proven, we are at the tipping point whereby the actions of certain humans on earth have caused irrevocable damage to our ecosystem in the geological age of the Anthropocene.

Jason W. Moore in *Capitalism in the Web of Life* (2015) forcefully argues that 'capital puts nature to work' (113) where natural resources either get 'wiped out' or 'maxed out' (112). Resources are extracted at a volume that no longer sustains natural processes of accumulation (maxing out), like that of fossil fuels, or to the point of complete exhaustion, like forests (wiping out). Maxing out will eventually lead to wiping out, and in my terms, constitutes a form of disruption to the geological rhythms and times as earth's resources replenishes through natural biochemical and geophysical processes. The constant unsustainable mining sees earth as a non-Living resource ready for extraction, rather than earth as a living ecological system with its own material processes. Heeding Jane Bennett's call to view matter through a longer time scale, one could read extracted minerals as products of long, durational performances of earth's geological processes. By slowing down to the non-human timescale of mineral formation,[7] '[a] metallic vitality, a (impersonal) life, can be seen in the quivering of these free atoms at the edges between the grains of the polycrystalline edifice' (Bennett 2010, 59). In fact, the rich deposits of coltan around the Nyiragongo region as well as around Lake Kivu in Congo are due to volcanic activity of two major volcanoes in the area, and the molten rock forms coltan ores over time. From this perspective, the earth needs to perform mineralisation through long periods of time before coltan could be extracted and processed to be used in our smartphones.

As Moore writes, '[c]apitalism's governing conceit is that it may do with Nature as it pleases, that Nature is external and may be coded, quantified, and rationalized to serve economic growth, social development, or some other higher good' (2015, 2). In Moore's perspective, nature is appropriated as 'Cheap Nature' that turns 'the work/energy of the biosphere into capital' (2015, 13) for economic gain. For this reason, he proposes a rereading of the Anthropocene as Capitalocene, a formation that is subsequently adopted by Donna Haraway (2015). Looking at supply chain capitalism in the age of Capitalocene perhaps requires also a consideration of the role played by natural resources, where the extraction and appropriation of land and resources is dependent upon the long durational processes of labour by earth itself to generate minerals. In medianatures, the extraction of minerals is bio-necro-geo-political in nature, and could be seen as a form of violence to earth. Through these three different timescales (the time of labour, the time of Aboriginal ontologies of Dreaming, the time of earth's processes), we could interrogate the ways violence is exerted upon humans and non-humans through mining.

Performances of dispossession, performances of agency and resistance

In the previous section, I have discussed the violence of mining in light of its effect on human and non-human subjects. The chosen locales of Congo and Aboriginal Australia demonstrate different ways in which violence could be experienced. In the current global distribution of ICT labour, we see the continued subjugation of the 'formerly' colonialised, such as the postcolonial legacies of armed conflicts, war machines, and instability in Congo, and the struggle for recognition of Aboriginal people in Australia. This dispossession is iteratively performed over time as local populations fight for their livelihoods and for their inscription of cultural meanings over the minerals which are mined. In Judith Butler and Athena Athanasiou's *Dispossession: The Performative in the Political* (2013), they discuss the notion of dispossession in relation to questions of agency and performativity. The logic of dispossession, they explain, 'whether it be colonial or neocolonial, capitalist and neoliberal, endures by reproducing a metaphysics of presence in the form of the violence inherent in improper, expropriated, and dispossessed subjectivities' (18). The struggle is harder for particular populations to perform their embodied agency to claim their selves within the confines of media materialism, particularly in the shadow of postcoloniality. Tsing (2009) also uses the language of performance specifically to refer to the labour conditions and the exploitation that takes place, discussing how superexploitation by the structural conditions of supply chain capitalism dovetails with self-exploitation as workers themselves self-submit to the terms of labour.

> Workers establish their economic performance through performances of the very factors that establish their superexploitation: gender, race, ethnicity, and so forth. At first this formula sounds strange, but it is a familiar feature of independent contracting. A day laborer must perform brawn and availability; a prostitute must perform sexual charm. These performances bring them contracts and make it difficult for them to negotiate the wage outside niches for gender, sexuality, and race. (158–159)

While their labour and their resistance form a performance of their agencies, the performance itself also unveils their unequal position of power from which they speak, the limitations placed on their agencies, and the stripping of their cultural heritage. The

following section details this difficult relationship to land, labour, and mining from the perspectives of the Australian Aboriginal people and the Congolese villagers. By using a performative lens following Tsing (2009) and Butler and Athanasiou (2013), we also see how the conditions of labour intersect with cultural performance, as locals attempt to stage their own definitions of place and to gain control over the minerals they are mining. The bio-necropower that their lives are subjected to is both constitutive and regulatory in nature, and these processes of subjectivation performatively reveal both the agency they claim and the dispossession they experience.

While Aboriginal lands continue to be seized in mining projects, it is the mining industry which offers job opportunities and a path out of poverty for some Aboriginal people. In some cases, they are both the majority landholders working with mining companies, as well as the majority of the actual workforce carrying out the mining activities. On one hand, we can point to the violence towards Aboriginal ontologies, but on the other, attention should also be directed to the self-exploitations that take place as the local communities negotiate their positions around mining. Indeed, Neale and Vincent (2017) poignantly writes that 'we cannot deny Aboriginal peoples' aspirations for economic development and an embrace of environmentally destructive projects, just as we cannot deny that structurally inequitable processes condition this embrace.' (432) It is a difficult bind that demonstrates the complex negotiation of local ontologies and politics as performances of cultural sovereignty. The legal case below from the Northern Territory demonstrates the performative nature of the locals' relationship to land ownership.

In her book, Povinelli (2016) discusses the totem of Two Women Sitting Down, an Indigenous sacred site of the Warlmanpa and Warrumungu people at Bootu Creek manganese mine. Of much interest to mining corporations, this site is rich in manganese, the fourth most-used metal in global manufacturing, and an important component for the production of phone batteries. Beyond its practical use-value, the Aboriginal meaning of the manganese can be captured in the Dreaming of this totem:

> Two Women Sitting Down consists of two female dreamtime ancestors, a bandicoot and a rat. The bandicoot had only two children while the rat had so many the bandicoot tried to take one of the rat's children, which caused them to fight. The manganese outcrops in this area, of which this Sacred Site is one, represents the blood of these ancestors. (Povinelli 2016, 31)

When OM Manganese Ltd, a mining company, caused damage to this sacred site, the Aboriginal Areas Protection Authority brought a lawsuit against them in 2013. OM Manganese in fact had a working relationship with the locals and was allowed to work there. However, the blasts conducted during mining have led significant parts of the rock formation to fall off and the site is no longer recognisable. Custodian Gina Smith, in her statement for the case,

> likened the damage to the sacred site to the ripping out of a page in an inherited book, noting that the current generations of custodians will never be able to show their children or grandchildren that site the way it was shown to them, leaving a permanent gap in the narrative and tradition. (Lewis and Scambary 2016, 240).

Disappointed by the disrespect of the mining corporation and the violation of trust instilled in them, the locals attempted to maintain a working relationship with them while advancing a case in court to sue for damages.

Proving in law that these sacred places are imbued with meaning is very difficult. Aboriginal people have to convince the officials and the courts of the 'liveliness' of the land, ironically through totemic Dreamings that become fixed in meaning through verification by ordained anthropologists. In their own Aboriginal ontologies, Dreamings are often dynamic and their definitions of who the traditional owners of country are do not sit comfortably with the legal definitions demanded of them. In the land-claim hearings of the manganese case, Indigenous groups had to testify that they believed the specific features of Two Women Sitting Down were sentient, and that as custodians of the land and the descendants of these sentient sites, they had to act on these beliefs. Rather than a recognition of the Aboriginal worldview as the norm, the Indigenous populations must explain and perform their culture in a way that is legible to the Australian settler colonial legal system. It came as a surprise that the Aboriginal Authority actually won the case, and this became the first case precedent for future prosecutions of desecrations and destructions of sacred sites around Australia. But because the actual fine was relatively small, it was clear that this would not create significant impediment to further mining on Aboriginal lands. This case shows how locals have to negotiate and perform their identities and walk a narrow path between economic gain and potential loss of heritage, as they struggle to claim their agencies within the conditions of a settler state.

Interestingly, Povinelli's discussion of what manganese means to the Aboriginal people echoes the situation in Kivu where coltan has other cultural meanings for the Congolese. In Smith's anthropological research, he came across women who have developed rituals in response to the mining. As mining began pulling people away from agricultural food production, they wanted to induce control spiritually over the chaos surrounding mining. So they collected and boiled water used in coltan mining with herbs from the forest, 'domesticating the power of coltan and the medicines simultaneously, in the process equating these things symbolically' (Smith 2011, 28). The cultural ritual stages their sovereignty over the minerals, in order to re-attain control over the substance. These women believe that because foreigners (non-Nyanga people like the Rwandan-backed Rally for Congolese Democracy, which have been colluding with foreign corporations like Sony and Citibank) took control of the ore, they were ruining the resource. One woman explained,

> they thought that coltan was just a thing in the ground, but it is not, it is a special thing. They were ruining this thing because they didn't know how to treat it, and that's why this whole place is poor now. Before, old people would call meetings in the forest, and they would teach us how to use these things. (Smith 2011, 28–29)

The women show a certain level of respect to the agency of coltan itself by suggesting that it is special and that it should be treated differently. While the Kivu locals are not making an argument for the Life-ness of their coltan ores, they are no doubt making a claim on other cultural meanings of the mineral that are lost to those exerting geontopower in the region, extracting these minerals and only seeing them in terms of specific use value and exchange value.

Tsing (2009) observes that supply chain capitalism functions well precisely because of the conflation of superexploitation and self-exploitation, because individuals see themselves as potential entrepreneurs who might be able to gain profit from the labour context. Much like how Aboriginal people themselves participate within the mining

economy in order to lift themselves out of poverty, Congolese miners also attempt to participate in the trade themselves to see if they could fetch good prices. Tsing's point about the binds of supply chain capitalism lies in the fact that those who are subjugated may at the same time be attached to the system that exploits them. Indeed, the Congolese miners find it difficult to imagine other ways of living as the viability of alternative livelihoods is continuously destroyed by militia activities. The Aboriginal communities must continue to perform their own culture within terms that would make them legible and recognisable as rights-bearing subjects within a legal system that systematically undercuts their ontologies. Even though self-exploitation is part and parcel of their participation in global supply chain capitalism, rather than mere victims, these communities perform small gestures of resistance and attempt to push back at the superexploitation they simultaneously experience.

Smith (2011) emphasises that as much as the Congolese are labourers and miners, they are also end users of digital products. There is no easy divide between the producer and the consumer, and the Congolese are not 'out-there' in some projected fantasy of the exotic African jungle but networked and interfaced with cellphone towers and infrastructure. The miners attempt to increase their earnings by also participating in the trading of minerals, but this could become quite a gamble. Some would lose land, property, and livestock, and even the rights to their children. In Smith's focus group interview, the miners express the following:

> Our biggest problem is that we don't know the price! This is what you need to tell the people where you come from. You are here now, so please tell me, how is price determined? What is the true price? We can buy at $6 a kilo, here, then we go to Goma and the price has dropped to $1.50. You can use a whole fortune to buy sand. This happens all the time to us! (Smith 2011, 21–22)

To make sure that the miners remain miners and not become their competitors, militias would rob their places to remove mobile phones from miners and traders to make it difficult for them to continue participating in the trade. Some military generals even prohibit their subordinates to carry mobile phones so that they themselves could communicate with traders and middlemen, and seize the phones of miners so they are kept away from information about the prices their minerals and ores are fetching. Despite these obstacles, the miners attempt to maintain network connectivity so that they could fetch better prices and earn enough to move away from mining work.

In their repeated attempts to negotiate their livelihoods under the violence of settler colonialism, militia activities, and global supply chain capitalism, both the Aboriginal and Congolese cases show how communities perform resistance to the labour conditions taken up and imposed upon them. The two examples from Northern Territory and Kivu show how the communities' entrance into supply chain economies as historically exploited, subaltern subjects already defines the conditions of their superexploitation. The Aboriginal people must perform certain legible forms of Aboriginality in order for their rights to be recognised in courts and for there to be a small victory against the large machinery of mining and capitalist extraction that they are incorporated into. The Congolese find the need to re-enact their cultural relationship to coltan through new rituals as a way to stage their resistance against longstanding war machines (Deleuze and Guattari 1987) implicated in enclave economies, where militias and rebel groups gain territories and

decimate populations while drawing on a range of trans-national networks for material and financial support. The performance of their agencies is inevitably linked to the conditions of their dispossession, and their negotiations of the roles they play in supply chain capitalism could be read as 'performative politics of survival' (Butler and Athanasiou 31), in the face of dispossession. As Butler and Athansiou writes, dispossession 'involves the subject's relation to norms, its mode of becoming by means of assuming and resignifying injurious interpellations and impossible passions' (2013, 2). The two communities attempt to come into forms of intelligibility as subjects of capitalist economies but must submit themselves to modes of subjugations that in the first place limit their possibilities of autonomy. Thus, their performances of agency and resistance are framed by their conditions of dispossession as they simultaneously attempt to push past the boundaries of imposed violence and systematic inequalities.

Conclusion

As Butler and Athanasiou (2013) argue, subjects are performatively constituted and deconstituted through their relations to the norms and structures they are embedded in. The discussion above portrays how the Empire of digital culture is tied up with capitalist circuits of violence and necropower, and how such power shapes the subjectivities of those living under its strongest grip. The Congolese example of mineral extraction and the violence of militia control exemplifies Mbembé's discussion of war economy in the necropolitics of the African continent, a war economy that is sustained by

> armed groups acting behind the mask of the state against armed groups that have no state but control very distinct territories; both sides having as their main targets civilian populations that are unarmed or organized into militias. In cases where armed dissidents have not completely taken over state power, they have provoked territorial partitions and succeeded in controlling entire regions […], especially where there are mineral deposits. (2003, 35)

The concentration of mineral deposits in these particular parts of earth brings both the economic opportunities and the violence of supply chain capitalism to the doors of Congolese and Aboriginal subjects. My discussion above on Kivu and Northern Territory shows the abuse, violence, and death imposed upon certain populations where their lives or their cultures are considered to be of lesser value in service to the capitalist machinery and to supply chain capitalism.

From a temporal perspective I proposed three layers of violence committed against human and non-human subjects. The emphasis on the forever-deferred possibility of a better future for the Kivu shows that violence can be temporalised through durational dispossession. The accounts of Kivu communities demonstrate the violence and frustrations experienced when the possibilities of economic benefits are offered and at the same time removed from them. Letting die does not only refer to the letting die of physical bodies – it is also the killing of viable and sustainable futures. This same point extends to the killing off of Aboriginal Dreamtime landscapes and the viability of their totemic dreaming and passing on of narratives to future generations as their landmarks and sacred land vanish. The violence of mining also extends to the ecological future of the earth itself as unsustainable extraction leads to resource depletion, environmental degradation, and pollution.

To seriously engage with these territorial relations of the commodity chain in our digital culture requires us to create a cogent link between our technologies and their associated labour, and the material and geological agencies, performed by humans and non-humans alike. Like the game *Phone Story* I opened with, this paper constructs a narrative of such links in order to bring to light the various modes of capture of labour along circuits of ICT labour, particularly in the mineral deposits of the Global South, and the necropolitics that come with specific modes of labouring. Attempts have been made too from the industry in order to make these circuits of labour apparent and to address the structural inequalities and social issues. For instance, the Fairphone project is a key example in the activism surrounding digital materialism. As a social enterprise, the company conducts research, works with other NGOs and initiatives, and tries to source certified conflict-free minerals to make their phones. Part of Fairphone's philosophy is to create best case practices that would hopefully inspire change in the electronics industry and disrupt the practices today. The game, *Phone Story*, not only educates players but at the same time donates profits of the Android app to workers' organisations and other non-profits related to the issues addressed by the game.

Concentrating on the darker side of technology challenges the notion of progress, emancipation, and equality that mediatised culture purportedly brings, and reminds us of violence imposed on those whose livelihoods are diminished so that the rest of us could thrive in the increasingly mediatised and interconnected world. Materialist ontologies exemplify the vibrant nature and the agency of the minerals extracted and push to the fore posthuman implications of this extractive relationship to earth and nature as a cheap resource. What is just a rock that represents a deposit of wealth to capitalists can be of totemic significance to Aboriginal ontologies. The discounting of their worldview and cultural beliefs can be seen as a form of colonial violence that continues from a longer history of oppression. What is urgently needed is not only advocacy and activism for the labour rights of miners and for the conservation of Aboriginal sacred sites, but also a decolonial lens through which one could study the Empire of digital culture that addresses the longer histories of oppression and exploitation upon certain populations, and a posthuman ecological view that recognises the agency of earth itself and the labour it performs in producing the minerals we so eagerly extract.

Notes

1. The people behind the project are Paulo Pedercini (design), Michael Pineschi (concept), and Minusbaby (music).
2. Empire is a globalised political order that offers a post-sovereign understanding of power, where power circulates in networks, rather than being centralised in sovereign governments. The term 'network' here refers to as much to systems of interconnected states, companies, institutions, supply chains and labour networks, as to communication systems and information networks. Hardt and Negri (2001) use a broad definition of network and circulations of power in their analysis of biopolitics. While technology is not the main focus of their work, their writings characterise the globalised world as one which is interconnected by communication networks. In other words, advances in information technology underlie their conception of 'Empire'.
3. Critics of Foucault have discussed how his conception of biopower is guilty of 'a narcissistic provinciality' (Povinelli 2016, 3), where the discussion is narrowly focused on the study of European history. See also Venn 2009.

4. In media studies, while much ink is spilled on the critique of digital labour as the subjugation of end-users constantly offering our attention and data for capitalist capture (Terranova 2000; Fuchs 2013; Scholz 2013, to name a few), less discussion is constructed around the material labour that is involved in digital culture. One does not often consider mined lands and enslaved miners in the same stroke as data mining by Google and Facebook.
5. This is not to suggest a linear, progressive view of geological time, but to emphasise the non-sustainability of mining and the disjuncture between the durational processes which occur inside Earth's strata and the speedy extraction that undercuts the time geological processes takes to replenish non-renewable resources.
6. For a concise and well-defined introduction to the field of new materialism, see Dolphijn and van der Tuin (2012). See Bryant, Srnicek, and Harman (2011) for an overview of speculative realism and object-oriented theories.
7. See also DeLanda (1997) on the concept of mineralisation.

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