Dark Entanglement and Visions of the Post-Anthropocene in Battlefield 2042

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Abstract

While the revelation of our entanglement with other biological actors and our surrounding environments can radically reshape our relations with Earth, a form of dark entanglement also underlies contemporary life. This darkness is legible through the ways that enmeshed capitalist, geotechnic, and cybernetic infrastructures fuel unsustainable and exploitative human interactions with Earth. This form of dark entanglement also underpins the operational logic of the military-industrial complex. We turn to Battlefield 2042 *(DICE, 2021), where player encounters with dark entanglements coalesce into a vision of an apocalyptic post-Anthropocene era. Textual analysis of the game reveals how its narrative and ludic structures plunge players into a harrowing vision of Earth's future. The entangled forces of capital, geotechnic systems, and military-industrial imperatives emerge as central to the play of* Battlefield 2042 *and situate players at the point of transition from the Anthropocene era to an apocalyptic post-Anthropocene future. Extending arguments that the material conditions of the Anthropocene have permeated digital media, we suggest that games such as* Battlefield 2042 *reflect, illuminate, and extrapolate the inexorably necrotic logic of our era. Understanding this intricate web of dark entanglements, including through videogames, is crucial for grappling with the existential challenges that define the Anthropocene and what may follow.*

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Introduction

Breaking into a sprint, an assault rifle cradled and swinging back-and-forth at the centre of our vision, the virtual minimap and other elements of the heads-up display lighting up to feed through real-time information about fellow soldiers, we scale the crest of a sand dune to survey the battlefield. In what is, of course, only a virtual conflict, the game *Battlefield 2042* (DICE, 2021) has brought us to Doha, once the capital city of a Qatar that has—in this fiction—failed as a state because of the devastating impact of climate change. Intense and unyielding sandstorms have swamped with sand the Gulf state's once prosperous settlements, choking out life and creating a flashpoint for conflict over access to natural resources such as oil. As players, we use our vantage point to survey the tactical opportunities offered by a landscape of arid sand dunes, listing skyscrapers, and abandoned vehicles. We are also offered an opportunity to reflect on the grim paradoxes of an era of entangled existence, responsibility, and fate between humankind and Earth's other species and elements.

The concept of entanglement is influential in ecological thinking. Scholars including Karen Barad (2007), Donna Haraway (2016b), Jane Bennett (2010) and Rosi Braidotti (2013), among others, have argued compellingly that revelation and awareness of our concomitance with other biological actors and our surrounding environments not only helps to explain the operation of Earth's ecosystems but can also reorient and reshape our relations with our planet. However, these entanglements are also exploited by late-stage capitalism and the military–industrial complex. The view from the crest of a sand dune in the desertified Doha of *Battlefield 2042*—along with countless other possible experiences within the game—draws our attention to what we term the "dark entanglement" that underlies life in the Anthropocene. The entanglement of (often hidden) capitalist, geotechnic, and cybernetic infrastructures fuels the Anthropocene's unsustainable logics of resource exploitation and consumption (Robles-Anderson & Liboiron, 2016, p. 248). These infrastructures not only dictate the extraction and exploitation of Earth's resources but also support the exercise of neoliberal governmentality and power (Wakefield, 2022, pp. 187–188) and underpin the operational logic of the military–industrial complex (Masco, 2018, p. 76). These expressions of "dark" entanglement are characterised by a manifold *darkness*: one that gestures to the dire ecological conditions of our planet, to the tenor of the ethical and moral frameworks that engender these conditions, and to the anthropocentric impulse to obscure the more-than-human qualities of Earthly life.

The multiplayer first-person shooter game *Battlefield 2042* is well positioned to render visible elements of dark entanglement. Bucking a trend that has seen very few mainstream blockbuster videogame titles engage with the climate crisis (Abraham & Jayemanne, 2017, p. 74), and for the first time in the popular and long-running *Battlefield* series, *Battlefield 2042* addresses the ecological consequences of the Anthropocene era directly. Set in 2042, a climate change-stricken year marked by decaying landscapes and punctuated with extreme in-game weather events, *Battlefield 2042* heralds the compounding of contemporary crises of

poverty with the disastrous vectors of the climate crisis, leading to the mass displacement of refugees, collapse of states, and brutal natural resource conflicts. *Battlefield 2042*'s players are drawn into virtual military conflict shaped by the changing geostrategic priorities of a failed planet. Elsewhere, we have examined how players respond in different ways to the opportunities for ecological thought offered by the game's representation and simulation of this state of crisis (see May and Hall, 2024). In this article we consider how the game's projections of the violent convulsions of the tail-end of the Anthropocene era and the conditions of dark entanglement fostered by the military–industrial complex coalesce to offer a vision of an apocalyptic post-Anthropocene era. Our textual analysis of the game reveals how its narrative and ludic structures plunge players into a harrowing vision of Earth's future, one belied by the game's ostensible focus upon the conventions of the multiplayer first-person shooter genre. The entangled logics of capitalism, geotechnic systems, living death, and military–industrial imperatives emerge as central to the play of *Battlefield 2042* and situate players at the point of transition from the Anthropocene era to an apocalyptic post-Anthropocene future.

Our uncovering of the dark entanglements and post-Anthropocentric visions of *Battlefield 2042* is underpinned by the burgeoning field of ecocritical game studies. Alenda Chang's (2019) detailed observations of the ways that virtual environments and our lived worlds overlap allow us to identify the game and the apocalyptic experiences it offers players as shaped by the currents of ecological relations underlying the Anthropocene era. Benjamin Abraham's (2018) study of *Arma 3*—another shooter simulation videogame—reveals how the game builds alternative climate futures in the player imaginary through its representation of sustainable energy technologies. This encourages us to turn to games such as *Battlefield 2042* without expecting them to be necessarily deliberately educative or activist in their design while reflecting critically upon both present and looming planetary crises. Extending Alenda Chang (2019) and Jussi Parikka's (2015) arguments that the material conditions of the Anthropocene have permeated digital media, we suggest that games such as *Battlefield 2042* reflect, illuminate, and extrapolate the inexorably necrotic logic of our era (McBrien, 2016). As Benjamin Abraham (2022) has more recently observed of the games we play every day, "for all the innocent pleasures they may bring, [they] are profoundly entangled with the global processes that are fueling and deepening the climate crisis" (p. 5).

Addressing *Battlefield 2042* as an ecocritical text allows us (as players and scholars alike) to draw upon post-Anthropocentric visions found within mainstream games to provoke similar revelations to those Paolo Ruffino (2020) identifies in games made and played by nonhuman actors. Nonhuman games, Ruffino argues, offer an opportunity to reveal the "situatedness and partiality of our knowledge regarding the boundaries that separate and differentiate human and nonhuman," as well as those that moderate life and death, offering themselves as "useful references when considering a more ethical approach to the ecological crisis of the Anthropocene" (2020, p. 11). Understanding the intricate webs of dark entanglements driving Earth and its ecosystems to collapse, including through manifestations in videogames, is crucial to the task of grappling with the existential challenges that define the Anthropocene

and what may follow.

<div align="center">**Entanglement**</div>

An Ecological Ideal

Entanglement has become an influential ontological frame, rejecting oversimplifications and dualisms that typically explain different modes of existence (such as those that separate humans from nature) and, instead, embracing existence as an "unfolding process" of the inseparability of different agents and flows of energy and matter (Taffel & Holm, 2017, p. ix). Ideas of entanglement are often traced in their origin to posthumanist theories and theorists, but it should also be noted that, globally, many Indigenous modes of knowledge and practice engage with human–nature relationships in holistic and reciprocal terms and precede and inform this philosophical tradition (see Salmón, 2000). Therefore, such postdualistic considerations have multifaceted applications and histories that can be extended, and offer rich ways to continue to consider our notion of "dark" entanglement (which we substantiate in this article through posthumanist traditions) in other settings and through other lenses.

Karen Barad (2007) influentially describes entanglement as more than a mere intertwining between the individual and other entities but a fundamentally relational ontology that means "to lack an independent, self-contained existence", and where individuals "emerge through and as part of their entangled intra-relating" (p. ix). Drawing on experiments in quantum physics, Barad establishes that entities (such as the observed atoms that inspire her account) are not discrete, nor do they have determinate boundaries prior to their measurement—they come into being intra-actively, thanks to their co-constitution with other atomic agencies. Barad's view of ontology as made up of multiple entangled entanglements, where "there is no outside of matter just as there is no outside of meaning" (Gamble & Hanan, 2016, p. 266), is repeated and intensified across posthumanist scholarship. Donna Haraway (1991), for example, asks "why should our bodies end at the skin, or include at best other bodies encapsulated by skin?" (p. 178). This concern with the fundamentally entangled nature of existence recurs in Haraway's work. It crystallises most notably, for those considering ecologies and ecological perspectives, in Haraway's (2016b) account of *sympoiesis* (or *making-with*), which casts life systems as depending upon "relentlessly relational" (p. 49) dynamics and consequences within which "assemblages of organic species and of abiotic actors make history" (p. 100). *Sympoiesis* is itself integral to Haraway's (2016b) figuration of our lives as lived within *naturecultures*, or more-than-human worlds where species, technologies, behaviours, and boundaries between entities meet and inflect one another. New materialism similarly draws attention to the contingent dynamism and vitality of matter, finding human bodies and lives as enmeshed with other actors and agencies in more-than-human configurations (Bennett, 2010, p. 112). Ultimately, we are reminded, "nothing is really auto-poietic or self-organizing" and the enfolding of all living things with other entities means our life systems— and our selves—are complex, dynamic, responsive, and situated in manifold ways (Haraway,

2017, p. M25).

Understanding life as entangled has been embraced as an ideal in ecological thinking, both as a critical perspective for viewing our lives and the worlds surrounding us, and as an aspiration for an *ethics* of relating to those worlds. Entanglement allows us, for example, to move away from the "misleadingly isolated backdrops suggested by unitary notions of 'nature' and 'wilderness'" (Dodson, 2011, p. 7) and appreciate that humans are "both 'in' and 'of' nature, both are and are not the outside" (Bennett, 2010, p. 114). Amid the Anthropocene, this reciprocity and indivisibility invites us to appreciate that we, as humans, are defined by the planet and its environments as much as we configure and reshape it ourselves. Rosi Braidotti (2013) argues that posthumanist epistemologies, with their recognition of more-than-human entanglements, provide important conceptual challenges to an anthropocentric ethics that otherwise invites ecological catastrophe through its disregard towards nonhuman actors. Entanglement radically undercuts human exceptionalism by declaring that "the Earth of the Anthropocene is 'ours' in name only" (Bergthaller, 2020, p. 38), with inter- and intra-connections across creatures and entities creating contingent and unpredictable currents of ontological composition. This environmental posthumanism, situated and layered with countless points of enmeshment, draws economic, political, cultural, scientific, and material domains together, and means that "practices and actions that were once not even remotely ethical or political matters suddenly become so" (Alaimo, 2016, p. 112). Opening ourselves up to our perpetual interconnection with the matter and agencies of Earth's environments could, in itself, offer pleasure and instigate an "ethics that is always 'in place' and never a disembodied or free-floating Cartesian affair" to guide our relations with the planet (Alaimo, 2016, p. 30). For Félix Guattari (2005), recognition of our complex kinship has an avowedly ethical dimension, requiring of us more sustainable relationships with ecologies, and turning our attention towards reconfiguring the way human culture perceives itself in relation to our surrounding environments. The relationship between entanglement and ecologically oriented areas of critical theory has been one that champions the ethicality, mindfulness, and making-with that might emerge from the radical revelations of our inter- and intra-relatedness with all other life and matter.

An Abject Condition

Donna Haraway (2017) describes the entanglement of humans and nonhumans as an "irresistible attraction", forming the "vital motor of living and dying on earth" (p. M25), while Claire Colebrook (2012) observes that there is no ecological dynamic or thought "that is not already contaminated and made possible by the very logic of man" (pp. 198–199). We are, for better *or for worse*, ineluctably entangled. This inescapability opens the door to darker accounts or experiences of entanglement that must also be acknowledged alongside the more hopeful ethics of environmental posthumanism already described. Our entangled existence speaks to "networks of harm and responsibility" as much as it does to the radical and ethical possibilities of making-with and kinship (Alaimo, 2016, p. 2). We have, through the Anthro-

pocene era, become entangled with fossil-fueled power, the logics of resource extraction, industrialised agriculture, and the technologies of mass production (Gan et al., 2017), as well as the violences of capitalism and colonialism (Moore, 2017). Our interweaving with the myriad nonhuman actors and entities that surround us has led to the "extraordinary burdens of toxic chemistry, mining, nuclear pollution, depletion of lakes and rivers under and above ground, ecosystem simplification, vast genocides of people" and the reality of recursive ecosystemic collapses (Haraway, 2016b, p. 100). The actions and ecological relationships that have gone into fostering our globalised and highly industrialised modern society have come to exhibit entangled agencies in hazardous ways that exceed our capacity to ever control them (Masco, 2018, p. 71). Whether the emergence of drug-resistant bacteria, the ecologically devastating rise of particular species caused by commercial hunting and fishing, or the traces of nuclear radiation that permeate the Pacific Ocean and the bodies of those who depend upon that seascape, to name just a few, we are given countless examples of the abject consequences of our "dark" enmeshment with our surroundings.

In return, the porousness of our bodies, systems, and very existence means that while we are transferring waste, toxicity, and destruction across Earth's life systems (Davis, 2019, p. 89) we are ourselves facing a "dilemma of inheritance, of what we have inherited, in our flesh" (Haraway, 2016a, p. 221). The condition of the Anthropocene, as Heather Swanson et al. (2017) observe, is to be "suffering from the ills of another species" as the repercussions of damaged entanglements ripple outward (p. M4). The life-making and radical possibilities of enmeshment have turned against us, and entanglement accelerates and intensifies systemic catastrophes of our own making. Entanglement, therefore, seems to lead us simultaneously in two directions: one is, optimistically, toward "the apprehension of the cross-ontological alliances by which ecosystems thrive, change, commingle, create" (Cohen & Duckert, 2015, p. 5), while the other more ominously beckons with the likely mass extinction event that follows cascading and interlinked loss of species, ecosystems, and assemblages, some of which we might not even have known about before their demise (Gan et al., 2017, p. G4). Abjection—or the particular revulsion associated with the breakdown in the distinction between self and horrific other (Kristeva 1982)—aptly characterises an age in which humankind faces a state of planetary terror comprised of its own entangled actions.

Militarised and Industrialised

In our analysis of *Battlefield 2042* and its simulation of military conflict at the apocalyptic precipice of a looming post-Anthropocene, we draw particular attention to a specific human system that forms part of the entanglements of contemporary existence: the military–industrial complex. Enmeshment, during the Anthropocene, has both transformed and empowered the military–industrial complex and the structures of governance it bolsters. As climate crisis, economic disarray, and resource shortages swirl together, entangled and intra-operating, security concerns have shifted from the level of the nation-state "to the envelope of the atmosphere itself" (Masco, 2018, p. 72). This shift sees the apparatus of the military–in-

dustrial complex exercised in efforts to, paradoxically, repress the worst existential threats posed by the consequences of dark entanglements, while also continuing to fuel the cycles of extraction, production, expansion, and subjugation that render entanglement dark. The conditions of the Anthropocene encourage the military–industrial complex to turn to a form of geopower, which attempts to manage entanglement in order to allow "asymmetrical planetary circulations of energy, materials, species and information to take place, ensuring that living and nonliving things are in movement but in such a way that the balance of power is preserved" (Luisetti, 2019, p. 351). The recognition of the military–industrial complex as an entity that both benefits from, and co-opts, entanglement magnifies the sense of an apocalyptic hubris underlying the Anthropocene.

Within environmental scholarship, Stephanie Wakefield's (2022) writing highlights the securitisation and militarisation of entanglement. Wakefield explains how, after the September 11 terror attacks of 2001, American and Western military planners turned their attention to ensuring networks of security were interconnected across the globe, mirroring the globalised economy, with non-integrated entities assumed to be unstable and threatening. The defining security concern of the era, according to military analysts such as Thomas Barnett (2004), has come to be "eradicating disconnectedness" and enacting military action to force connection where it is absent (p. 8). Across the Western neoliberal order, resilience has become a critically important concept to the military–industrial complex, emphasising an engagement with "interconnectedness of the social, ecological, and technological" (Wakefield, 2022, p. 188). As such, geopower is increasingly exercised within a "governance paradigm that welcomes entanglements, understands instability as inevitable", and seeks to absorb, latch onto, and weaponise the turbulence that dark entanglements bring (Wakefield, 2022, p. 188). The apparatus of the military–industrial complex and its political underwriters increasingly see security and power as encapsulated in the mastery of the circuits of planetary enmeshment in the Anthropocene. While entanglement is seen, in this paradigm, as a solution (enabling more stable and integrated global governance and geosecurity initiatives), the corollary is ultimately an ironic intensification of risk, through the possibility of networked, compounding catastrophe. Dark entanglement means that the threat and manifestation of violent conflict—and attendant risk of existentially apocalyptic consequences—exists at a whole-Earth level.

The following textual analysis of *Battlefield 2042* focuses on the game's entangled environments and cycles of death and undeath to illustrate how this game, as with other media and art in the Anthropocene, draws upon its fractious provenance to reflect and refract for players the material and cultural outlines of both the present and likely futures (Axel et al., 2022, p. 9). In this case, dark entanglement and the military–industrial complex appear to beckon us towards apocalypse and the existential terror of a post-Anthropocene Earth.

An Entangled Apocalypse

Infrastructures of Environmental Violence

As with many of the thirteen playable virtual maps (or levels) found within *Battlefield 2042*, one named "Renewal" confronts the player with dramatic environmental imagery almost immediately. The player's selection of a location on the landscape from which to "spawn" and begin play is conducted on an overhead view of the map's environment. Renewal takes place in a section of Egypt's vast Eastern Desert, and an imposing wall bisects this pocket of the sandy landscape. On one side of the wall is barren desert and the twinkling appearance of an enormous solar panel array and energy storage facility, while on the other is found artificially lush grass, dotted with high-tech greenhouses and administrative offices. The player's objective, according to the diegesis of the game, is to either attack and seize control of the entire agricultural research facility (if playing on the side of the United States) or to defend it on behalf of the Egyptian allies (if playing on the side of the Russian Federation). Disembarking the military helicopter with their teammates, under a hail of gunfire, the player might storm across the ultra-vivid green grasses of the facility's lawns and into one of the laboratories. Among gleaming shelving structures and spotless white walls, countless rows of seedlings grow, automated robotic arms pick and pluck at flowers, and swarms of orange butterflies dance in the air. Through the floor-to-ceiling windows of the laboratory the player can observe, beyond the neatly arranged experimental patches of farmland immediately surrounding the building, the arid desert stretching away to the virtual horizon on all sides of the map.

Amongst the gunfire, the shattering of glass, and the thumping noise of rocket fire, *Battlefield 2042* presents a microcosmic view of one of the dark entanglements that surrounds human life: the coercion and subjugation of the ecosystems that underpin food supply to a kind of agrilogistics, or an extreme logic of maximising agricultural output. Agrilogistics entails feeding and fueling human existence—even if at the expense of the *quality* of existence— through ecological dynamics that resemble a war against the natural environment and its own tendencies (Morton, 2018). The logic of our heavily industrialised, technologised, and scientifically modified relationship to food systems is laid bare in this virtual research facility, presenting as it does a jarring juxtaposition between the largely lifeless substrate of Renewal's deserts and the human desperation to artificially foster lush and hyperrealistically green nature and existence against all odds. Juxtapositions such as these offer, according to Myra Hird (2017), an "anxious slippage between visualizations of the conquest of nature and the realization of our vulnerability" within volatile surrounds, and are both symptomatic of the Anthropocene while also gesturing toward the instability and decline built into the era's relations (p. 265). The briefing provided by the player's virtual commander before deployment describes this facility as "key to mitigating the global famine" and casts its occupation as necessary to keeping the soldiers' families well fed and to halt the march of either American or Russian imperialism. Timothy Morton (2018) connects the rise of agrilogistics to the very origins of the Anthropocene with the advent of cattle farming, and *Battlefield 2042* ensures that industrialised and technologised agriculture is, for its players, firmly tied to the

anthropocentric operation of the military–industrial complex.

Eight thousand virtual kilometres away from the Egyptian desert, another map named "Manifest" centres, again, around Americans repelling Russians from a location of strategic importance in Singapore. "The liberty of Singapore is essential to international stability," intones the Russian commanding officer as the player's game loads, while choosing to play on the American side entails a briefing that casts the fate of the world as hinging on securing Singapore's sovereignty. What is at stake, in fact, is represented by the hundreds of shipping containers and pieces of shipping infrastructure found at the port facility that constitutes Manifest. Further voiceover detail provided by the player's virtual commanders raises the spectre of a shipping crisis and the freezing up of vital trade flows should the player fail in their military objectives. As battle commences, the player descends into a maze-like arrangement of shipping containers, massive machinery, and anonymous low-rise office buildings. Singapore's geography, culture, and people are elided by the game. Instead, the virtual environment only plays host to the material artefacts of a darkly entangling global economic order and the virtual bodies of those soldiers sent to secure those artefacts against the existential threat posed by the enemy to the global-capitalistic imperatives of trade and commerce. A third map, "Discarded", shifts the player's attention to another outpost of the global capitalist system: the Alang Ship Breaking Yard on India's western coast. Here, among the detritus of industrial capital—hulking cargo vessels that have been run aground along Alang's beachfronts for breaking up—a military submarine of great importance has found itself lost and mired in all the toxicity and decay of the yards. Fighting their way through the rusting refuse of the global economy, the player is again tasked with securing an important component of industrial capitalism's dark entanglements: its capacity to forget what it discards, and to anonymise the countless apocalypses its by-products create in areas of the developing world such as Alang.

Visions of Singapore and India in *Battlefield 2042* highlight what Eva Horn (2020) describes as the "latent infrastructures" of the Anthropocene era, which for her encompass all the sites of natural resource extraction, transport infrastructures, big box retail stores, junkyards, and various other monuments to our asymmetric relationship with the planet (p. 165). Kathryn Yusoff (2022) similarly terms all those structures connected directly to the ravenously extractivist and toxifying logic of industrial capital, including waste sites and extraction zones, the "violent infrastructures of geology" (p. 15) and "museums of humanity" (p. 14). Infrastructures and structures such as the cargo containers in Manifest and the ship carcasses in Discarded remind us of a painful double bind. This is the intertwining of the violence delivered upon the planet by these structures and the economic order they represent, and humanity's "vital dependency" on these objects, machines, and places to survive (Horn, 2020, p. 165). Climate change, and the accumulation of pollution, toxicity, and climate shifts wrought by its attendant climate crisis, reconfigures the very meaning of these violent infrastructures, fracturing and rupturing the narratives of progress and harmony—or the "neat enclosure of the whole, both in representational and sociopolitical terms"—that industrial capital has

attempted to construct around its ecological dynamics (Yusoff, 2022, p. 18). Philip Aghogh-ovwia (2021) finds in ruined oil extraction sites in the Niger River delta horrific encounters with the "startling evidence of the wide divide between humanity's march toward progress and material abundance and the landscapes of abandonment that follow in the wake of humanity's onward trajectory" (p. 36). *Battlefield 2042* players, encountering spaces critical to global capital's functioning against the apocalyptic backdrop of climate collapse and the *Battlefield* series' trademark grinding and spectacle-infused military violence, might be said to encounter much the same horror. The fracturing of the Anthropocentric meaning normally surrounding the game's decaying infrastructures allows players an opportunity to register what looms beyond this era: a post-Anthropocene, where humanity, and its ideologies, power structures and economic orders are brushed aside.

Battlefield 2042's environments, as we see in the Renewal, Manifest and Discarded maps, tell a vivid story of the dark entanglements between industrialised agriculture, capitalism, and Earth's life systems. Despite the virtual Earth of *Battlefield 2042* being effectively in a state of climate crisis-induced palliative care, concentrated nodes in the infrastructure of global capital continue to figure centrally in a human fantasy of mastering the dynamics of anthropogenic entanglements with the planet's natural systems. Military intervention, in the game, is repeatedly predicated upon the maintenance of the capitalist economic system and its constituent flows of production and trade. Even as the condition of apocalypse beckons nearer and nearer, it seems that humanity is doomed by the inconceivability of operating in any way differently to the capitalistic patterns that both drive the Anthropocene and lead it to a post-Anthropocene state of cataclysm. Nick Axel et al. (2022) observe that, despite media being uniquely positioned to provide access to the material processes that are "endemic" to our age of climate instability (p. 9), in a contemporary mediascape addicted to spectacle and noise, "it can be difficult to bring into relevance the slow accumulations now destabilizing the climate" (p. 11). We suggest that *Battlefield 2042* distinguishes itself in the face of this challenge by inviting its players to fight spectacle with spectacle. Helicopter gunships, jet fighters, battle tanks, and the players themselves, armed to the teeth with advanced weaponry and blinking digital heads-up displays, arrive to each of the game's maps in a spectacular cacophony of noise and violence. The Anthropocene's accumulations, excesses, and infrastructures are integrated into the maximalist and violent logic of the military–industrial complex. Discarded cargo ships, the familiar corrugated metal of shipping containers, ubiquitous office spaces, and even plant crops are rendered hostile and dangerous, sheltering hunched and hidden enemy soldiers, creating the coordinates for precision missile strikes, or summoning death in battle in countless other ways. This is an inflection of the otherwise seemingly benign (in our lived world, that is) components of the industrial capital order with monstrous qualities. As with many types of figurative "monsters" we encounter as part of life on our ailing planet, the monstrosity of *Battlefield 2042*'s environments seems to "ask us to consider the wonders and terrors of symbiotic entanglement in the Anthropocene" (Swanson et al., 2017, p. M2), ensuring for the player a defamiliarisation of these intimate environments and habits, in which the inseparability of the natural world from human influence is revealed.

Cycles of Death and Undeath

Beyond the game's fractious environments and Anthropocene infrastructures, *Battlefield 2042*'s structural features invite players to participate in cyclical entanglements of death and undeath. One example of this cyclicality can be found in the "spawn" and "respawn" mechanics (in other words, the processes that allow players' avatars to join game sessions, and rejoin after being killed in combat) that feature in the primary game modes of *Battlefield 2042*. These mechanics mean that all players' avatars spawn synchronously at the start of the match but, when killed, players must wait a short time for the opportunity to spawn again within the virtual environment as a new avatar (or, less commonly, have their avatar revived by another player). The resultant gameplay is commonly described as being characterised by a "meatgrinder" logic, wherein players frequently engage in aggressive forays into battle only to be quickly killed. A repetitive cycle of resurrection and reengagement emerges, as players spawn, rush forward, engage in battle, lose this particular avatar's virtual life, await respawn, rush forward, and so on. Adrian Parr (2018), comparing the conditions of the Anthropocene to environments devastated by war in Aleppo, Gaza, and Baghdad, suggests that in both cases inhabitants find life reduced to a "pure present", where the possibility of the future and the memory of the past are simultaneously eradicated in "an endless repetition of the same" (p. 164). The *Battlefield 2042* player's experience of existence through their avatar—live, die, rinse, repeat—is held similarly in a state of atemporal stasis.

Underlying the mechanics of spawning in *Battlefield 2042* is a virtualised "ticket" system. A game session begins with a limited number of tickets allocated to each team, and the total number of tickets stands for the number of times players can respawn within each team. Each player death deducts one ticket from their team's pool, and one team's strategic advances and seizure of objective locations within the virtual environment will also introduce a rate of attrition upon the other team's pool of tickets. As one team builds up strategic momentum and secures more of the environment, the opposing team not only finds themselves fighting in a more constrained space, but also their collective mortality draining away more and more rapidly. In *Battlefield 2042*'s ticket system we might read an expression of what Jean-Luc Nancy has described as "eco-technology" (Nancy & Barrau, 2015), or the inextricable interdependence of natural environments, technologies, and technical mindsets. This is a form of geotechnical entanglement that bears the risk of "always potentially catastrophic destructive effects" (Nancy & Ricco, 2015, p. 85). The in-game interrelationship between tickets and virtual life can be understood as a dramatic escalation of a common mode of player engagement across games, namely the exploitation of virtual environments as *resources* (Abraham & Jayemanne, 2017, p. 81). In the case of *Battlefield 2042*, the game incentivises the adoption of geotechnical approaches to the virtual battle and the land upon which it takes place, thus integrating environment, death, and resurrection in a cybernetic loop that generates avatarial life itself from the virtual landscape.

This technologised intensification of the logic of play drawing upon environments as re-

source continues within the "Killswitch" game mode of *Battlefield 2042*. This mode centres around capturing and controlling nodes that allow players to generate synthetic, non-player-controlled combatants (referred to as Geists). These artificially intelligent soldiers are limited to light weaponry and have increased health statistics, meaning their function is largely as a form of "cannon fodder" or distraction to the opposing team. The Geist figures again exemplify the treatment of the environment as a resource, with the gameworld translating the player's level of geographic and spatial control into higher or lower levels of active production of these cannon fodder entities. Contained in the game's logic here is an incentive to pursue the consumption of more and more land to increase the rates of Geist production. Environment is, for the player, a resource to bring under control through the exercise of violence and destruction, in the form of warfare and the sacrifice of lives (whether player avatars or Geists). The ludic logic surrounding the generation of Geists is redolent of the environmental tensions that underlie contemporary life: we depend upon our entanglement with a dying planet for our own existence, but it is the entanglement with us that causes the degradation of our planet's life-sustaining resources. In the Anthropocene, human vitality is shot through with death, drawing as it does on dead and dying resources, and fuelling the demise of planetary futures. In *Battlefield 2042*'s artificially-intelligent combatants, this dynamic is made more abject by the suggestion of a paradigmatic shift from passive environmental degradation to an active manifestation of threat, with the virtual world generating artificially intelligent belligerents with the explicit intent of engaging players—humans—in combat and killing them. Between tickets, Geists, death, and undeath, *Battlefield 2042*, in virtual microcosm, articulates the combination of eco-cybernetic entanglement and precarity that defines much of life on Earth as it slides toward cataclysm and the post-Anthropocene (Wakefield, 2022, p. 190).

While eventually a game session, and its cycle of death, undeath, and redeath, comes to an end through the exhaustion of one team's tickets, in the game's standard online modes of play, an automatic requeuing mechanism ensures that players are immediately placed into new servers and matches, seamlessly initiating another iteration of recycled life for the player. Again, the game appears to echo the peculiar conditions of contemporary life, where devastation, decay, and the failure of life systems are transformed into a "kind of becoming", by virtue of other possibilities, even if that becoming is ultimately (and increasingly) "depleted in some way, drained of its capacity to be constituent" (Fuller & Goriunova, 2019, p. 1). Life, death, failure, and success are never given concrete meaning in *Battlefield 2042*, centred as the game is around perpetual forward movement toward death and revival, and the reconstitution of play experiences according to the logic of multiplayer servers, lobbies, and queues. The game is instead structured around a phenomenon where a semblance of perpetual uninterrupted enjoyment is offered, punctuated only by the occasional experience of team success or failure in an individual map. But with a new game session on a different server swiftly following, the military–industrial entanglement with life forces and environments is immediately renewed: a dark entanglement between the player and the uncritical pursuit of progression, continuation and longevity.

A distinctive *Battlefield 2042* game mode dubbed "Portal", in which maps and weapons from antecedent titles in the Battlefield series are made available to players, further reinforces the atemporal entanglement of life and meaningless death found in the game's spawn mechanics. Portal engages players in a state of temporal disjunction, allowing game sessions featuring bespoke anachronistic scenarios (for example, a confrontation between the World War II armed forces of the United States of America and Russian combatants from the futuristic context of the year 2042). *Battlefield 2042* once again captures its players in an interminable present and the forward momentum of dark entanglements. These exercises in temporal and spatial amalgamation not only draw past, present, and future together, but also climate, environment, and virtuality. Playing as a 2042-era climate collapse survivor combatant, dodging bursts of enemy fire in the Ardennes Forest during 1945's Battle of the Bulge, or storming into 2042's sand-ravaged Doha with World War II weaponry in hand, the player is drawn into an entanglement that reflects the conditions of the Anthropocene. The cataclysmic era in which we find ourselves has depended, in no small measure, upon the sensation of "'whole Earth' vision" founded upon the apparently "immaterial flows of data, people, ideas and cultures" globally, obscuring the determinedly material and spatialised nature of our contributions to the planet's ailments (Harrison & Sterling, 2020, p. 21). Paul Virilio (2005) argues that neoliberal governmentality and the military–industrial complex embraces this concoction of immateriality, celebrating a shift away from concrete geopolitics to a chronopolitics exercised through the transmission of virtual images and sounds (p. 13). The material considerations of our lives as spatialised and entangled with the material conditions of Earth give way, in this logic, to the meta-geophysics of a "small planet held in suspension in the electronic ether of our modern means of telecommunication" (Virilio, 2005, p. 7). In a darkened reconfiguration, material enmeshment is traded for an entanglement of virtuality and power, in the interests of sustaining contemporary currents of power. Whether through the enfolding of vitality into virtualised tickets, the summoning of artificially intelligent non-player combatants, or the hallucinatory meta-geophysics of Portal sessions, the entanglement of environment, virtuality, and undeath in *Battlefield 2042* seems to suggest to players that, just as in the Anthropocene more broadly, they can only move forward along an immanent trajectory of dark entanglement and ecological decay.

Visions of the Coming Post-Anthropocene

Our analysis of *Battlefield 2042* has highlighted how the game articulates the inseparability of our planet's landscapes from the hubris, logistics, and infrastructures of the industrial capitalism that has fostered the Anthropocene, while also drawing players into cycles of death and undeath that reflect the metaphysical indeterminacy of contemporary life amidst planetary crisis. As such, *Battlefield 2042* illustrates the "runaway quality" of the operating conditions of the Anthropocene: that "no patch of land, sea, or air—escapes the potentiality of capital's perpetual reach" (Hird, 2017, p. 265). In this article we have offered the idea of "dark entanglement"—which reminds us that all entanglements are not necessarily ethical ones—as a means for understanding the risk of instability, decay and devastation that comes

with intra-action in the Anthropocene. In *Battlefield 2042* the military–industrial complex, embodied by the player's avatar and the military aggression in which they participate, weaves in and out of these dark entanglements, exercising violence as a means of sustaining enmeshments that drain our planet of its life systems, and benefiting from the instability and disorder this planetary half-life engenders. The military–industrial complex becomes, in this game, a magnifying lens that allows players to peel back layers of anthropogenic obfuscation and lay bare the craven logics of the Anthropocene. Play of the game thus attunes to the ways that imagined futures haunt our landscapes in the Anthropocene, reminding us that the closely entangled forces of industrial capitalism and militarised neoliberal power are riven by an eagerness to "turn things into rubble, destroy atmospheres, sell out companion species" in exchange for the fleeting fantasies of "dreamworlds of progress" (Gan et al., 2017, p. G2). Confronting players with a vision of an Earth merely two decades distant, *Battlefield 2042* offers an apocalyptic vision of the planet where, dark entanglements left unchecked, a transition has begun out of an increasingly unstable and unruly Anthropocene, and an epochal end has come into view.

Battlefield 2042, by engaging with the dark entanglements of our current era, raises the spectre of the post-Anthropocene and the definitively apocalyptic prospect of a world-without-humans. Such catastrophic scenarios are a preoccupation common to some genres of videogame; consider post-apocalyptic science fiction and fantasy titles, for example. To critical theorists such as Eugene Thacker (2011), the "world-without-us" stands for the profound existential dread that looms over life on Earth today: that a horrific, abjected, and unknowable vision of our planet exists in the shadows of its present Anthropocentric form, free of humans. It is not, of course, our contention that the developers of *Battlefield 2042* necessarily set out to engage with something so existentially profound as the post-Anthropocene that might come as the Earth shrugs off the burden of industrial capitalism's exploitation, and humanity itself. Rather, given the intimate—and often unwitting—layers of overlap between virtual and lived worlds (Chang, 2019), the ways that ecological dynamics saturate and form both human culture and the collective psyche (Bennett, 2010), and the indebtedness of digital media to the planet's geological and ecosystemic conditions (Parikka, 2015), we suggest that when games such as *Battlefield 2042* represent the final spasms of the Anthropocene, these articulations emerge from deep within the material and cultural constitution of the medium. Just as the material conditions of the Anthropocene are immanent to experiences of play, we suggest that the cultural imaginary of the post-Anthropocene is equally deeply embedded in the contours of countless games.

How might games such as *Battlefield 2042*, in laying bare the dark entanglements of the Anthropocene, be useful to us as inhabitants of a damaged planet, living in the existential shadow of the post-Anthropocene? Adrian Parr (2018) notes that, just as the optimistic promises of entanglement can collapse into darkness, in encounters with apocalyptic ecological scenarios, all too often "suffering collapses into ecstasy", inuring audiences to the imaginaries and lessons they offer (p. xx). Games, of course, are intended to be enjoyed, and it could be

all too easy for *Battlefield 2042*'s visions of the post-Anthropocene to wash away in the heat—and pleasure—of virtual battle. However, if we were to follow Jean-Luc Nancy's (2015) appeal to keep ourselves "exposed" to the "catastrophe of meaning" found in experiences of devastation, committing ourselves to enduring and sensing damage and loss in visceral terms (p. 8), games such as *Battlefield 2042* could act as powerful guides. Through videogame play there exists the potential for the material, political, and cultural entanglements of our era to be revealed. By "exposing" ourselves as players to *Battlefield 2042*'s portents of military–industrial capitalist apocalypticism, we can abandon the "comfortable position" that the representational aesthetics of the Anthropocene generally conspire to place us in: a position exterior to, and dematerialised and disembodied from, the systems fed and exploited by the power dynamics of the Anthropocene (Alaimo, 2016, p. 146). Play can, instead, draw us into first-hand encounters with the unfolding of Earth's sixth great extinction event, and in doing so open new opportunities to apprehend the entanglements of the Anthropocene.

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