

Boring Lizards: Ludic Management, Affect and Ambivalence

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Abstract

This chapter utilises Game Studies, Animal Studies and Affect Studies approaches to explore how videogame adaptation *Jurassic World: Evolution* (Frontier 2018) mediates *Jurassic World's* (2015) themes of captivity, anxiety and boredom in a time of routinised risk and perpetual crisis management (Bhattacharyya 2015; Beck 1992). Critically, the game has been denigrated as boring and repetitious (Stapleton 2018; Freeman 2018); dinosaurs sleep more than fight; and players balance variables to meet minimum thresholds of dinosaur contentment and their own enjoyment. If the film's hybrid dinosaur signals the increasing banality of 'terrible lizards,' I argue that *Evolution* explores boredom systemically through simulations of banal park maintenance where the speculative animal might 'respond' to the player through shared affects and constraints. As W.J.T. Mitchell asks of the dinosaur's ambivalent meanings of power and extinction, "Are we to scream or to yawn?" (1998:69). This is not a break with games of exploitation and manipulation of the animal, but rather an articulation of our complicity and enmeshment in loops of captivity that embrace human and animal but neither completely. Unable to see the animal itself, filled with tantalising contradictions and distance, we instead become-bored-with the animal.

Keywords: Animal; Boredom; Game; Captivity; Jurassic World: Evolution.

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“No one’s impressed by a dinosaur anymore.”
(Jurassic World, 2015)

1 Introduction: Fossil Impressions

The dinosaurs are loose. Again. A pain for finances—lawsuits, repairs, park ratings—but not a threat to life and limb. This is part of a park manager’s job. Such looping failures drive *Jurassic World: Evolution* (Frontier 2018), a videogame of banalised monsters and familiar shock which offers a ludic articulation of Mitchell’s argument that the ‘dinosaur’ is a totem of modernity characterised by fascinating ambivalences: power/death, allure/obsolescence, horror/humour (1998: 19). This article tries to explain the mundane monster, and the turn from action to anxiety and horror to boredom in this videogame adaptation.

Utilising Game, Affect and Animal Studies approaches I explore how *Evolution* [Fig. 1] mediates *Jurassic World’s* (2015) themes of captivity, anxiety and ambivalent boredom from multiple perspectives. The focus of my analysis is on the animals central to the franchise but largely peripheral to previous scholarship. If *Jurassic World’s* hybrid ‘dinosaur’ signals the increasing banality of ‘terrible lizards’, *Evolution* explores boredom systematically through simulations of banal park maintenance. Critically, player experience has been denigrated as boring and anxiously repetitious busywork (Stapleton 2018; Freeman 2018): how then did this game resonate with its audience; what might this affective shift tell us about human- animal relationships?

Here dinosaurs sleep more than fight, eat more than escape, and players experience less the direct violences of survival and more the maintenance work of balancing variables to meet the minimum thresholds of dinosaur contentment and their own enjoyment. As Toohey (2011) argues, boredom haunts caged animal and human alike, and in these transmedia objects the player is ‘captivated’ by the management of boredom: animal, visitor and their own. As Mitchell asks of the dinosaur’s iconic “vacillation between sublime awe and cliched commodification...” (1998: 25), “Are we to scream or to yawn?” (1998: 69), but theories of boredom suggest the choice is more complicated in the 21st Century where everything is boring but omnipresent neoliberal anxiety ordinarily prohibits us from being bored (Fisher 2016). I argue the human-technology-dinosaur videogame uses boredom and anxiety as a space of “resonating involvement” (Hayward 2012: 162) for connecting with the animal and reflecting on our world of perpetual and routinised crisis (Bhattacharyya 2015; Beck 1992).



Fig. 1. Frontier, (2018). Jurassic World: Evolution. Frontier Developments Plc. PC.

In focusing on the dinosaurs and their environment, I hope to contribute to what Chang terms ‘materialist ludology’ which analyses nonhuman game elements in order to de-centre the player (Chang 2019:134). Combining direct textual and visual analysis with reception studies and theory, I synthesise existing scholarship in this case study’s contexts of animality and labour. My method draws on Bo Ruberg’s (2019) call for widening interpretation in contrast to normative calls for singular interpretation, emphasising the importance of the potentials latent in the subjective interpretation of the player over conventional emphasis on authorial intent. Here we will find that a perceived dearth of systems in the context of high-fidelity visualisation of the dinosaur in reception and this author’s phenomenological observations frame an ambivalent but generative relation to the animal on the level of the corporeal and the affective registers of play which Keogh (2019) and Anable

(2018) suggest we take seriously, however contingent and ephemeral. Following analysis of critical reception which identifies the recurrent felt experience of boredom in play, I situate this analysis within the literature on the *Jurassic* films and Animal Studies approaches to complicate ideas of animal agency and effects of the game's affective relationships. In the main body I then approach the sub-themes of anxious park and bored animal to explore how systems and aesthetics in an interactive medium frame this franchise through the gaze of a park administrator in dramatic contrast to previous perspectives of the filmic park survivor.

2 Excavating Dinosaurs

I've lost track of a miracle of science. One of my six triceratops is ill and feeling more than a bit sad and angry. To be more precise, I've forgotten to delegate medical care to a NPC park ranger amid the low level-stimulus of tweaking concession stand prices, and now the dinosaur has slowly but inevitably broken the fence and started its aimless wandering.

Moments later the miracle is tranquilised, shipped sleepily to its pen and cured of its ills, and as a player I wish I could do the same, but instead I'm stuck with the lawsuits. Unusually as a park sim, *Evolution* embraces monstrous failure as a core loop, but here failure in a system of few variables often proves oddly banal, boring.

To unpack the strange form, affects and limits of the ludic dinosaur, I begin with reception, which speaks to both audience affects and examples of play to ground discussion. Here I focus on *Evolution* over its less successful, iterative sequel *Jurassic World: Evolution 2* (Frontier, 2021). *Evolution's* significant commercial success, doubling its developer's revenue (Frontier 2019), makes it a significant case study in terms of both management sims and the rendering of dinosaurs. Indeed, *Evolution* has inspired subsequent indie works which divide its core qualities: *Parkasaurus* (Washbear Studio 2019) playfully emphasises simplicity and low-stakes care work in a low-poly aesthetic; and *Prehistoric Kingdom* (Blue Meridian 2022) pushes for greater visual verisimilitude in its speculative renderings of animals relative to the 1990s paleoartistic representations of the *Jurassic* franchise.

Evolution's success sits strangely alongside its critical failure, and relates to changes in atmosphere and perspective through adaptation. This game shifts in genre from action 'event' films (Wilkins 2014: 74) to more monotonous management only previously embodied in the less commercially successful and more minimal design of *Jurassic Park: Operation Genesis* (Blue Tongue Entertainment 2003). With this detachment comes more subtle affects where players "need to manage everything from dig sites and DNA extraction to general park maintenance" (Swinbanks 2018).

For multiple critics, this possibility space is characterised by a beautiful and tense boredom—highly finished models underpinned by tedious systems: "It's a gorgeous game especially in terms of how the dinosaurs look—but it's beholden to the movie franchise in ways which disrupt management sim play" (Warr 2018). Summarising critical consensus, Stapleton sees "so few interesting decisions and so much mundane busywork" (2018). This tedium veers between the fulfilling and unfulfilling: "there's immense satisfaction to be found in just sitting back and watching your creations roam" but "a lack of meaningful gameplay" (Blake 2018).

Boredom here is involved in an interplay between managing player affects and dinosaur affects that oscillate between sleep and repetitive violence: "the fifth time your *Ankylosauruses* make a break for it because they don't like being around other dinosaurs can get tiresome" (Swinbanks 2018). This suggests implications for a franchise that has long been interested in failure—the nature of 'failure' in *Evolution's* discourse and play are uncertain, a loop of tedious anxiety which may be surmounted but never escaped: "*Jurassic World Evolution* asks you to fail as a dinosaur keeper, but it lets you return to the task without consequence" (Gilliam 2018). However, just as the opening premise of *Jurassic World* (2015) contends that we are bored of dinosaurs, that they no longer represent an imposing or ineffable horror, the 'boring' body of the dinosaur itself in a 'boring' game might allow us to affectively bridge a failure of human-animal understanding. Failure, boredom and more-than-human agency are at stake in a game that repeats the threat of escape without loss or solution, and whose animals both resist and spread the negative affects of captivity. Exploring this requires a survey of literature on the *Jurassic Park* franchise alongside overarching scholarship on the aims and premises of Animal Studies.

3 The Ludic Dinosaur

Scholarship on the *Jurassic* franchise has predominantly focused on human protagonists and technological elements, leaving the dinosaurs of this dinosaur franchise relatively under-studied and secondary. Animals in the literature are cast as reflections on cybernetic experience and reproduction (Laist 2014; Yaszek 1997), symbols of postmodernity and simulation (Fuchs 2016; Mitchell 1998; King 2000), or signifiers of the military-industrial complex (Andersen 2017). While the intersectional representation of race, gender and sexuality of the films' human casts has been effectively critiqued (Dyer 2015, Laist 2014; Yaszek 1997) the representation of the animal and its containment (we might say of the 'Jurassic' and the 'park') is often relegated to the margins as a means to an end. With *Evolution* in mind, a game where we must live with the dinosaur rather than evade it, it becomes all the more pressing to ask, in the vein of Mitchell, what does the ludic dinosaur want?

The 'voice' of the films' dinosaur simply services suspenseful atmospherics for Wilkins (2014), rather than animal want. Even John O'Neill's (1996) work in *Monster Theory* focuses on fantasies of simulation and crises of masculinity in the modern family from a predominantly psychoanalytic perspective, rather than on the 'monsters' themselves, a theme reinforced by Dyer's (2015) account of *Jurassic World's* reinstitution of the heteronormative white family. Though Baird (1998) discusses the films' dinosaur as intentionally framed by Spielberg as animal rather than monster (91), this starting point is used to make de-historicised claims about human threat scenes in cinema. Many acknowledge, however, that the franchise articulates human-technology-animal relationships as alienated, horrifying, and highly reflective of the human and speculative regarding the animal. Such readings include: discussion of the dinosaur's instrumentalisation under market/military logics in the Anthropocene (Andersen 2017); its metonymic reification as the 'spectral' condition of all animals in the anthropogenic digital age (Fuchs 2016); the cries of extinct animals evoked by synthesis of multiple living species (Wilkins 2014).

Building on critiques of the franchise's human representations, how might we expand this to the human-animal relationship, and how does an adaptation focused on caring and containing inflect this theme? In *Evolution*, the dinosaur experiences yet another reanimation reflective of a cultural moment as Mitchell would argue (1998), but in centering affect and interactivity, while rendering human tourists and captive animals through the same digital engine, this game suggests a space of slippage from its 'action' genre constraints and the potential to approach the animal on a more even footing without the limited perspective of cinema's protagonists.

Heise (2003) helps expand scholarship to the third element of the human-technology-animal relationship using the discursive lens of extinction/conservation. Heise reminds us that here we are not simply dealing with the contemporary or generalised Animal, but the resurrection of lost species as a reflection and deflection of anxieties concerning the sixth great extinction (2003: 61). As Turner argues, increasingly narratives of de-extinction suggest scientific-control-as-saviour (2007). Problematically, resurrecting the dinosaur technologically suggests both that species destruction is reversible, and that the animal's threat to the human may excuse extinction (Heise 2003:63-64). This duality of power and fear in the films connects to key affects associated with extinction in the Anthropocene: failure, melancholy and ambivalence (Rose 2016: 1-2).

Extinction Studies explores affective and attentive modes of responsibility that 'stay with' the particularities of death and resists both the confidence of techno-solutions and despair: staying with lifeworlds in the present rather than allowing "the perspectives afforded by evolutionary deep time or genetic codification—invaluably unsettling as they are—to invalidate the fragile temporalities by which singular living communities make their worlds and make their way in ours" (2016: 7-8). Unlike endangered species, however, the reintroduction of the dinosaur is an excess, representing bodies that exceed their environment (Heise 2003: 62) and nostalgically figuring an animality that can compete with technology (Ibid.: 65). However, while the franchise responds problematically to the scene of mass-extinction, the dinosaur's propensity for excess also suggests capacity for resistance to attempts at categorisation and containment (Mitchell 1998).

In the franchise, attempting to undo extinction results in the repeated failures of containment both literally and conceptually as single-gendered clones adapt themselves to procreation and *Velociraptors* assumed to be obsolete fauna are revealed to have intelligence close to the human, in turn threatening humanity itself with species failure. In *Evolution*, human and animal failure also intersect in both the loss of profits in attempting to instrumentalise the animal, and the dinosaur's 'excesses': escaping and eating the visitors. In playing with

repeated failure as a source of destructive joy, this game does not utilise failure as a means of improving the player or ‘failing better,’ the neoliberal sentiment which Halberstam critiques (2011), but of breaking the conventional loops of play and mastery (Ruberg 2015), or at least the possibility of failure’s resolution. Through these failures we might wrestle with our flaws (Juul 2013), perhaps not just in park management, but our flawed intent to distance or manage nature. Compared to the *Jurassic* films, we experience threat scenes through the roving camera at multiple scales and distances, and as Chang argues: “failure and loss as felt through play can lead to a collective, multispecies, and multiscalar awareness that promises hope in the face of ecological precarity” (2019: 12). In mediating human and animal agencies, this hope’s viability in *Evolution* and wider visual culture remains a matter of qualification, frustration and the exploration of slippages and lateral strategies.

In thinking ecologically, Animal Studies provides a final lens in contextualising this animality – Humanities scholarship exploring the way we construct the animal Other, and ways in which humans and nonhumans can resist reification, instrumentalisation and the elision of both the plurality of difference and entanglement of being. For Derrida, the Animal has been deployed as a generalised category in the West, characterised by lack and the inability to respond, and in critical ‘response’ we need to respect the plurality of difference—but non humans also ‘haunt’ us in his account with both shared vulnerabilities and incommunicable, ineffable differences (2008).

These unknowable differences in ‘umwelt’, the irreducibly unique ways species experience their environments (Uexküll 2010: 53), is magnified in relation to extinct animals for which we only have bone and trace fossils with little sense of fat, tissue and behaviour (Naish 2012: 8). As Mitchell summarises, our access to even the appearance of the dinosaur mediated, constructed and speculative: “We never see the ‘real’ dinosaur, but only an artifact, a visual-verbal-tactile construction based on its remains” (1998:52). *Evolution* models its dinosaurs on the quick, muscular forms of the original movie borrowed from the (now expanded) vision of Stephen Jay Gould’s¹ mid-century framing of dinosaurs as dynamic and avian. In doing so it iterates on paleoart’s strange, plural, more-than-human speculation: on the partially re-constructable animal, its strange ahistorical interaction with the human, and the nostalgic resurrection of the 1990s vision of the dinosaur through play. As Mitchell (1998) reiterates, the dinosaur is symptomatic of the age that produces it, a collision of fantasy and anxiety in attempting to dialogue with extinction, an ambivalent connection to bodies, histories and technologies. We are intimately entangled with the dinosaur, and its hybrid scientific spectacle—as well as its symbolism of precarious hegemony—underpins our relation to modernity.

Contrasting with Derrida (2008) and Agamben’s (2003) emphasis on human-nonhuman difference, we might then both acknowledge the gap involved in speculation, but also our continued enmeshment with bodies we can never extricate ourselves from. More optimistically, Haraway suggests that we can and do relate to the animal, that not only do we respond to each other, but we habitually and mutually constitute each other as ‘companion species’—a radical, emancipatory form of cyborg manifests itself when a dog and human play with each other, learning and expanding each other’s limits (2008). The ludic dinosaur might then want us to learn and become-with it.

If Chang proposes videogames as “opportunities to create entirely new sets of relations, outside of those based on dominance or manipulation” (2019:23), I will explore whether *Evolution*, repeats, critiques or expands our relationship with the nonhuman. Where might we situate contact with the captive speculative animal, this difference and entanglement that generates both anxiety and boredom for its critics, the dinosaur that breaks free but is also broken?

4 Anxious Park

I begin by focusing on the park as a space and process mediating the human-animal relationship which I will expand on in relation to boredom in the final section of this article. Before focusing on specific virtual animals, we should evaluate the space of play in which this park management game both replicates and plays with the apparatus of spectacular nature. How might the space of captivity under the player’s cursor articulate the

1. A key figure in the history of Paeleontology, active from the 1960s–2000s and prolific in the popular press where he commented on the interrelation of science and pop culture and paradigm shifts in evolutionary Biology.

zoo as an institution which Berger frames as a “monument to the impossibility” of encountering the animal (1980:21), but which Haraway sees as messy zones, spaces of “beings-in-encounter” (2008: 5) and “degrees of freedom” (Ibid.: 73)?

Theme parks and zoos are deeply entangled with games, from the involvement of Disney Imagineers such as Don Carson in game development, to the more recent gamification of Disney’s parks (Birdsall 2019), and as both the subject of play in franchises like *Rollercoaster Tycoon* (Various 1999-) and the motif of theory from Caillois’ amusement park examples of *ilinx* (2001: 133) to Jenkins’ use of the theme park to found an understanding of videogames’ environmental storytelling (2003). An early antecedent to *Evolution* can be found in the popular *Zoo Tycoon* (Blue Fang Games 2001-2017) series which similarly frames the captive animal as both a commodity and form of labour for our management.

Spectacular nature “does more than just edify human consumption of the environment and enlist wildlife in the production process, it says that is profitable—and fun!” (Opel & Smith 2004: 117). As Chang argues of farming simulation (a related game genre), we lack both representations of ecological entanglement and of nonhumans that “possess life independent of player actions” (2012: 251).

In *Evolution*, the player attempts to create profitable parks are limited by space, money, genetic research and the affective turns of destructive dinosaurs in fictional Costa Rican island settings (with neocolonial imported American infrastructures inspired by the first five franchise movies). With a fluid zoomable camera tuned by controller triggers or mouse scroll-wheel, and the option of both an omniscient overlay pinpointing every dinosaur and close-third-person control of helicopters and jeeps, the player possesses multiple frames for smooth surveillance and targeted intervention to shape the terrain, blueprint the park or tranquillise a rogue dinosaur. This layering of abstract overlay and immersive naturalism combines the range of gaming’s interfaces which often manifest in hybrid forms that attach player to world by reinforcing functionality and player agency (Jorgensen 2013: 2-3).

This agency is channelled towards production, enclosure and consumption of a dinosaur population. Firstly, the genetic code is gathered by touring a flat world map, allowing for both viability and variability in constitution and temperament; then through the plotting of buildings, feeders and electric fences. The dinosaurs are birthed from hatcheries directly into enclosures which are further enmeshed in infrastructures of path-building and electricity. The last stage of this loop is closed by smoothing consumption where units are assigned to medicate and feed the animals while viewing galleries, tour vehicles and amenities allow the park to monetise the consumerism of the park visitors.

This loop is built on containment — the enclosures supported by fence, power, and teams of vehicle and tranquilliser-equipped employees. Hamscha observes in *Jurassic Park*, as characters disembark from their vehicles, that they move from a realm of technologised and distanced observation to one of proximate feeling (2013: 137). In the game neither player nor nondescript employee can leave the jeep to tend to the animal directly. The animal is sealed, separated and put under surveillance. We may, as Dyer writes of *Jurassic World*, see this as an example of the “world zoo” a totalising system of infrastructural control of the animal for which occasional escape is merely an exception than proves the rule (2015:23). At the level of interface, then, it would seem that the animal is captured panoptically by the park, rendered as object for the player from the moment the “asset” (as your employees term the animals) leaves the hatchery fully formed for the paddock (with a spectacular cutscene) to the point at which its corpse is towed away by helicopter.

The ‘procedural rhetoric’ of *Evolution*, Bogost’s term for arguments embodied by interacting with a game’s rules (2007), seems to privilege human power over the animal and uncritically frames the player as complicit in incarceration for profit. As a mode of ‘dark play’ (Mortensen 2015) with the infrastructure of biopower—darkly playing the control and systematisation of life towards production and consumption—infrastructure here seems to enact the reification of the animal into postmodern image and commodity we are familiar with (Dyer 2015, Fuchs 2016, Mitchell 1998). However, the direction and limits of this play need to be evaluated in the context of how the ‘great divide’ that is thought to exist between human and nonhuman (Haraway 2008: 9) is formed and unsettled in the context of captivity.

Davis’ landmark study of Seaworld, branching from postmodern readings of the theme as “spectacular” (Davis 1997:8), “standardised” (28) and “surface” (30) in the captive animal, and how nature is enrolled in consumer

capitalism: “full of corporate stories about nature, and nature stories about the corporation” (15). This understanding of the animal park presents an inroad to *Evolution*, but rests on deeper power dynamics involving the captive animal which requires further critique. For Agamben (2003), like Derrida (2008), the division of human and animal should not be obscured/dissolved through myth or technology, nor violently enforced, but rather reformulated and nuanced. As Agamben argues we need to resist mastery through hierarchical difference, and also the collapse of difference under both biopower’s animalisation of man and anthropomorphisation of the animal, by instead aiming at a ‘letting be’ that might realise both our strange differences and solidarities (Agamben 2003: 91). As Berger summarises, in more grounded visual cultural terms with his foundational essay ‘Why Look at Animals?’ animals are framed in Western thought as “both like and unlike” us (1980: 4), but in the shadow of the Cartesian division of body and mind animals were denied subjectivity, never the observer and always the observed, distanced and reified through their framing: “All animals appear like fish seen through the plate glass of an aquarium” (1980: 16). The question then is what might unsettle the power of the great divide while preserving perspectives that don’t reduce the animal.

However, relations in the theme/animal park are already more complex than they at first appear. Recent work on attendees argues their engagement with spectacle is more “active, reflective,” and they are not simply “naive, controlled dupes” (Williams 2020: 11) any more than the animals. Returning to our virtual park, the player-park-manager does not simply passively receive ideology, but can play counter to the game’s procedural rhetoric by letting loose the dinosaurs—a joy Ruberg finds with revelling in critical and affective failure (2015)—or reflecting critically on their dark play. In contrast to zoo or theme park sims, *Evolution* offers a space to play with catastrophe on a qualitatively different scale, where players can extend or rescind agency to the animal in the form of freedom of movement with unpredictable consequences. But, more significantly, the power of player and park is far from total in *Evolution*’s systems and the human is framed as far from innocent.

Andersen notes in *Jurassic World* the commodification of the animal is generally critiqued, though connections and infrastructures of the military-entertainment complex remain intact (2017: 458). In *Evolution* a system of vested-interest contracts interrelates these concerns and provides both a counterweight to player power and a nuanced model of human avarice. To access more tools and objects, the player must complete small missions during play, such as building projects, from three factions: security, entertainment, and science. Each have self-interest and asymmetric goals that prompt sabotage should you ignore their requests in favour of another faction (such as scientists spreading diseases or security opening paddocks). The player’s focus on infrastructure and containment is thus also regularly directed and usurped by AI, sharing power with divided interests that reflect how structural power dynamics can create exploitation and cascade failure.

Negative affects also impact the fantasy of control and captivity. The interface here is distilled from Frontier’s more granular park simulator *Planet Coaster* (2016). While enhancing spectacle, the simplified loop further flattens player agency and focuses on the balance for four key variables underpinning finance, managed by the placement and operation of assets: time, power, visitor satisfaction and dinosaur comfort. Mismanage any and the park falls into debt, and the comfort of the animal is an inextricable and equal variable. Mechanically, a dinosaur that has a good quality of life (food, environment, sociality etc.) is peaceful. Conversely, no amount of carceral enclosure will prevent them from escaping if they are dissatisfied—all containment does is to create time, a delay in which the player can respond. Indeed the minimal modes of interaction leads to micromanagement that can exceed the time players have to respond, provoking what Sianne Ngai would call the ‘ugly feeling’ (2005) of anxiety — intensified during moments of animal escape where the player must respond with units in realtime (rangers rebuilding fences, and helicopter units tranquillising and transporting the dinosaurs), while emergency shelters are opened for the human population. As critics note, there’s “a lot of clicking” (Warr 2018), but this is a powerful source of tension. The player here is exploited alongside, but in divergent ways to, the animal. We mediate interests, and are driven by loops of response to escape. While the animal here cannot be conditioned, and thus eludes mastery as their repeated escapes testify (Swinbanks *Gamespot* 2018), the player is conditioned, enclosed by the game. As Kennedy and Giddings argue, while we think play facilitates player mastery, “the player is mastered by the machine” (2008: 19).

As Adorno and Horkheimer famously argue, in late Capitalism leisure comes to reflect work (1947), here a game of “busywork” (Stapleton 2018; Warr 2018). When we plot our parks in the interests of multiple represented agents, we are entertained by the creative labour of making entertainment, simulating Dyer-Witford and

de Peuter's concept of immaterial labour in increasingly informal and playful workplaces: 'a blurring of the boundaries between work and leisure, creating a continuum of productivity, and of exploitability,' (2009: 23), locating *Evolution's* player-manager close to the world of work. More positively, as we play at 'busywork' to compromise between the desires and affordances of animals, humans and technologies on a storm-rocked island: "as Tsing cautions, and games effectively teach us, 'we might not always be in charge. We might get to know other-than-human worlds in which we participate, but in which we don't make the rules'" (Chang 2019: 144).

5 Jurassic Boredom

In attempting to trace the animal, the question of what the ludic dinosaur wants has so far been addressed in terms of what the nonhuman lacks and performs in the anxieties of managerial play and the park's technological mediation of the animal. A fuller perspective on the human-animal relationship needs to consider the mundane moments of play and the virtual body of the dinosaur itself; inclusive of the dinosaur's performative ambivalence in relation to boredom's position as an ambivalent affect. Here we find the dinosaur 'responds' through a boredom we share, creating an opening for reflection on our neoliberal present and our speculative relation to the past and future nonhuman.

In *Jurassic World*, as Dyer observed, and in *Evolution*, human relationships with every actant here from employee roles to the dinosaurs themselves is described in the corporate language of the "asset" (2015) through non-player character barks/dialogue. This resonates at the level of design — assets are videogame components like ready-made code or three-dimensional models such as the virtual animal, reflecting and building on the reduction of animal to postmodern image. This evokes the idea of the animal articulated as simply code (genetic and machine) as Mitchell explores in the mirroring of digital effects rendering and DNA cloning in *Jurassic Park*: "The 'essence' of the animal is not in its structural 'constitution' or even its dynamic movements, but in its DNA, the code which, when cracked, can allow it to be 'cloned' and reproduced indefinitely" (Mitchell 1998:209). Birth and death for *Edmontosaurus* or *Gallimimus* are stages in a production pipeline, meters filling in a hatchery and an audiovisual alert of 'Dead Dinosaur' to be be airlifted. These are elements of waste that threaten to ruin the customers' gaze from the viewing platform. As we've seen, on one level the asset lumbers and labours as a unit circulated within a park economy. But as the animal begins to move across our vision it becomes hard to read as purely code, it becomes hard to see clearly between economic reification and visually detailed embodied being, between the abstract icons of the map and the rain-slicked skin of a feeding *Brachiosaurus*. The ludic dinosaur's escape from fixed meaning can be highlighted through comparison to existing schemas of videogame animals. As discussed, Chang (2019), Opel and Smith's (2004) critiques of virtual parks and farms skewer the majority of animal representation in games, and can be further nuanced with Janski's (2016) productive typology where they deconstruct reductive/disrespectful portrayals and reflect on the degree to which the animal is represented "in itself" rather than reduced to human terms and biases (2016:90). This typology identifies the problematic conventions by which game animals are often reduced and abstracted in terms of both function and visuality. Functionally they constitute enemies, background props, anthropomorphised heroes, secondary companions or tools/resources (Janski 2016: 91-92). Visually, as we found through Davis, dinosaurs are often spectacularised, and framed as mythical, 'extrapolations' of fictional animals adapted to fictional environments, hybrid or 'actual' living or extinct animals (Janski 2016: 93). However, *Evolution's* dinosaur troubles these categories as both an enemy and a tool, and both an 'actual' animal, and a speculative mess of temporalities; categories involved in articulating extinct beings. As assets they are a 1990s extrapolation of bodies not suited to the grasslands enclosures that evolved after them; hybridised from our understanding of birds and lizards; skinned and coloured with fantastical integument we have little evidence for. This breach of limiting categories in the games visual representation is an ambivalence that disrupts ordinary player relations to the animal, and this defamiliarisation and bored distancing of the animal is enhanced by its animations, behaviours and mechanics.

These fictive animals spend most of their time eating and sleeping, repeating these animation cycles, looping mundane behaviours, while our interaction with them often involves tranquilising them and moving their slumbering forms from pen to pen. Even during a dinosaur rampage, the scale of the environment and the zoomable camera keeps them at a distance and procedurally randomised behaviours diffuse their impact on

infrastructure. Their progress through a large park is slow and lumbering in relative terms, and appears oddly dissociated from the surging and screaming crowds as the animal stops, and starts without direction — in practice the player may often use the most abstracted register, the icon overlay to track their progress, a small note of red in a sea of blue that generates mild managerial anxiety more than fear. By adopting the mode of park management rather than the first- or third-person action of the films, the dinosaur both exhibits quotidian behaviour for the majority of playtime and presents a form of threat that is rendered marginal and minimal without the tight cropping of fixed camera angles and forced encounters of authored plot. The dinosaurs' limited freedom and duration of display generates what Berger sees as the disappointing boredom of zoo's limited encounters with the animal (1980:23).

Interrupting the anxious core loop of management is the visual encounter with detailed and richly animated bodies, and we can set the camera to closely orbit a dinosaur, placing it at the centre of its world: affording, as one critic puts it “the joy” of seeing them “live out their lives” (Swinbanks 2018). The historical metamorphosis of dinosaur visions from lumbering swamp-dwelling basilisk lizards to fast and lethal turkeys, reveals the dinosaurs of *Evolution* to be what Mitchell terms the category-defying ‘Schizosaurus’: “a shape-shifting transitional figure that can seem to mean almost anything one minute and almost nothing the next” (1998:145).

Between creation and death, we are also visually confronted with the aforementioned ambivalent spectacle of the dinosaur's escape from captivity, but behind this the player is also given an expanded sense of the dinosaur's life and motivations through the statistically- driven contingency of these escapes. In contrast to human visitors of the park described by critics as “contrary creatures” whose satisfaction “is generic and homogenous” (Blake 2018), the dinosaur possesses multi-factor requirements for contentment, from space to companionship, modelling a nonhuman that possesses a richer interior life. We see the liveness of the animal that drinks, the audience who gaze on it, the boredom of its management, and the indifference of its peaceful repose.

If the films focus on the behaviours of hunting, the game adds less violent disagreements between animals: eating, ambling and even the common but cinematically improbable behaviour of sleep. As Naish et al. explore in speculative paleoart (2012), representations of both nature documentaries' living animals and textbook dinosaurs ignore the spectrum of behaviour between sex and death, subtle affects like playfulness and boredom which we see here reflected. If *Jurassic Park's* dinosaurs were only onscreen for 6% of the duration (Baird 1998:95), *Evolution's* longer duration and multi-camera exposure of the dinosaur surfaces uneventful time and scenes in sympathy with Conway's descriptively-named ‘Sleepy Stan’ T-Rex. Bored dinosaurs resist the performance of spectacle and the reduction to asset, speaking to both conditions of alienation and initiating the possibility of identification [Fig.2]. At the same time, the animation of the dinosaur points to what exceeds capture — they may follow each other, adding substance to their shared vocalisations, but their interactions are free from mistakes. But though these beings may not be fully fleshed, in the context of the park space we feel our entanglements, and in animation and repose they do address Chang's call for nonhumans that possess a sense of their own lives.



Fig. 2. Frontier, (2018). Jurassic World: Evolution. Frontier Developments Plc. PC.

Indeed their constraints reflect their 'umwelt'—and our own—as conditioned by the park. Berger observes that the zoo manifests at the historical moment when animals disappear from urban life, representing the impossibility and insufficiency of human-animal encounter in modernity (1980:21)—the bored and sleeping zoo animal appears both disappointingly less than the visitor believed, and like an “image out of focus” (1980:23). The encounter haunts us. The animal, nominally the object of the gaze, blurs with proximity. What was alien becomes eerily mundane; excitement becomes boredom when the monster remains on screen past the moment of shock. If the character of Grant in *Jurassic Park* foreshadows action, excitement and novelty by claiming we have no idea what the sudden proximity of historically disparate species might do or become, *Evolution's* repetitive play suggests not only are we overly familiar with what might happen, but that distance is as much an issue as proximity.

Failure “can lead to a collective, multispecies, and multi-scalar awareness” (Chang 2019: 12), but here failure's effects, manifestations and implications are subtle and strange. *Evolutions* failure states of escapes, storms and lawsuits are designed, but their repetition and tedium breaks the potential loop of meaningful play for critics. The boring reduction of challenge to crisis management leads to a failure of genre and promise; exciting affect replaced with anxiety and ennui. The awareness that then stems from this does not just concern captivity, but the ambiguity that we wrestle with in approaching the extinct and speculative for which respectful representation remains forever out of focus. The cloned dinosaur, a 1990s vision of ineffable deep time, reflects what Chang sees as videogames' straddling of “multiply real and imagined worlds” (2019:11). This multiplicity also speaks to the hybrid anthropogenic quality of modern ecosystems in the general (Marris 2011), the haunting resurrection of the dinosaur as a troubling figure for human exceptionalism, and games' capacity to model the strange edge effects of our encounter as a: “mesocosm, or an experimental enclosure halfway between unbounded nature and the tidy lab” (Chang 2019:11). The real-world cultural moment that the ludic dinosaur here connects to through its cloned animals, is one where 'crisis' during routinised mass extinction and economic collapse is both the “structural signature of modernity” (Koselleck 2006: 372), and a mundanely 'everyday' monster to be managed rather than resolved (Bhattacharyya 2015; Beck 1992). In times of neoliberal economics and climate crisis this is something player and dinosaur both face—in every enclosure and lawsuit that manages deaths during escapes. As Fisher argues, continuous low-level interaction in the 21st Century signals a new mode of boredom, one of endless unsatisfying stimulus (2018), what *Evolution's* critics feel in there being both too much (in quantity) and too little (in variety) to do.

The bored player, however, recognises a response in the bored dinosaur that seeks escape or sleep, at the edge effect produced by the fence between human and dinosaur worlds, between captivity and excess, anxiety and boredom. Here edge effect maps on to what Mitchell (1998) sees as the ambivalence of the dinosaur as real/speculative, horrifying/humorous, and which other scholars of the *Jurassic* franchise see as the paradoxical character of the dinosaur. For O'Neill these dinosaurs represent the American 'technosaurus' of both our desire for self-creation and the death drive (1996: 306-307), while for Fuchs they are “spectral postanimal beings” (2016: 2) caught in an even wider “network of paradoxes” of reality and unreality (4), but from these contradictions there are not only logics of destruction but also generative collisions. The edges of the speculative/real, asset/threat, anxiety/boredom evoking dinosaur are, I argue, what Chang would call a productive distillation of the untidy edge effects of ecology (2019: 14-15).

If *Evolution's* dinosaurs are creatures of limited habit, enmeshed with technologies and suspended between aimless wandering and bored incarceration, they arguably reflect the difficulty and complexity of accessing animal agency. Animal life here is ambiguous and strange. There no-longer exists an “animal in itself” in the messy real world, neither appreciable on its own terms nor extricable from human visual culture (Derrida 2008; Haraway 2008); nor is our ethical duty to the already extinct clear. This disorienting ambiguity surrounding a mediated representation of a past representation of a past animal, creates an opening for strange speculation on representation and human-nonhuman relationships where speculation on the animal itself may be inaccessible. If the dinosaur could rule and then vanish at the hands of a single rock, how do we imaginatively reconcile our own hegemony with its ephemerality? Perhaps the response to slow death, anticipating chronic climate catastrophe we feel we have no agency over, is an attenuation of anxiety: a chronic, stressful boredom.

Reciprocal to the temporality of anxiety in *Evolution*, then, is the temporality of boredom as emphasised by its critics: boredom for player and fictive animal in performing the micromanagement of understimulating

captivity. Our parks become nearly uniform in appearance, our choice of buildings is limited, and the available terrain for pen space is highly constrained. The core loop of *Evolution* lives at the surface: fill a valley with enclosures, and wait poised to tranquilise the animal that escapes before repairing and resetting the system. The player sees the visual splendour of the films here, but doesn't feel their pacing — their experience is that of bracketing the filmic animal encounter of fight and flight with the animal encounter of the zoo. This is a loop of digital boredom that traps both player and dinosaur.

Hand identifies digital boredom as a widespread affective state intensified by Capitalism (2017). However, as I have argued in relation to *Animal Crossing* (Nintendo 2020), boredom can create a radical space for standing still and growing-with the nonhuman (Seller 2021), and as Ruberg more elegantly puts it: boredom is “a challenge to the status quo and a challenge to ourselves” (2015: 122). If boredom is a mode that defamiliarises (Sandywell 2017), then here we see the human-technology-animal relationship estranged in the figure of the sleepy dinosaur, the image out of focus, the mundane monster.

According to the philosopher Lars Svendsen, digesting affects takes the time that modern life lacks, making staying with boredom both critical and difficult (Svendsen 2005: 145-146). Soderman, unpacking the busywork of play, argues such videogames seem to innocently process dead time—but when a 21st-century journalist or other precarious worker has no time to endure boredom, all videogames offer is to replace an existential anxiety with a more pleasurable form of anxious play (Soderman 2017). Boredom and anxiety are entangled in *Evolution*, and rather than their perfect balance in a state of flow (Chen 2007) we instead have their fractious super-imposition as in Sianne Ngai's ‘stuplimity’ (2005)—defined as both boredom and anxiety experienced together rather than their blissful mutual cancellation. The feeling of routinised crisis, the dinosaur slaughtering one moment and getting a cold the next, the player bringing extinct genomes to life and erecting the merchandise huts. Like Davis' experiences at *Sea World*, we are “alternately horrified and bored by the animal performances” (1997: 9). Where Oppel & Smith reflect on *Zootycoon* players boredom with the animal leading to dark play, letting the lions loose for distraction (2004: 104), *Evolution*'s players are bored and anxious at “tiresome” escape and loss of control (Swinbanks 2018) during a time of lost respite and constrained autonomy in late capitalism.

For Fisher, digital labour prompts a wistful longing for an older form of pure boredom as solidity, a stable absorption that has become impossible in neoliberalism's continual anxious impulse towards productivity and distributed attention (2018: 688-690). Fisher claims everything is boring, but everyone is stimulated just enough by ubiquitous digital entertainment and labour such that we never become fully bored. If 20th-century labour reduced life to monotony, contemporary work promises engagement and variety but enforces anxiety and precarity. This is the scenario rendered affectively explicit in *Evolution*. As Anable has argued, games make history affectively perceptible, reorienting us to past and present (2018: 2). Here, then, we feel the strange pressures of work and play with its distributed affects of boredom and anxiety which developed in the neoliberal context of the film franchise's inception and have persisted ever since. The playborious subject is alternately and sometimes simultaneously anxious and bored in encounters with the multivalent animal that resists its labour and spectacle both violently and passively but which, like us, is trapped in a cycle of recapture. Players face the spectre of both the futility and fragility of hegemony—an encounter which confine species of the 5th and 6th great extinctions.

To capture this multiplicity of the multivalent animal, where play, power and affect are distributed across player, park technology and speculative-real dinosaur in strange times of failure, I will lastly turn to Eva Hayward's work — which compliments Chang's analysis of messy edges and the affordances of worlds where we do not make the rules. Using the example of an aquarium jellyfish, Hayward suggestively argues that the human-animal relation of power is not unidirectional nor univocal, and through her analysis via Haraway we might frame this shifting-out-of-focus as a ‘diffraction’ in which human visitor is drawn in by the beautiful allure of nonhumans into a space of “resonating involvement” (Hayward 2012: 162). Rather than a fixed or clean point of contact or its rejection, and in addition to Davis and Berger's optics of exploitation and alienation, for Hayward the nominally carceral space of the animal park can also be a place where flows of difference are exposed through interference, an awareness of which exposes the capacity for difference to be “interwoven” and agency shared through visual sensation: “Refracting light through seawater and acrylic, the aquarium seduces spectatorial senses, immersing us among these invertebrates. Expressively dense: spaces, beings, forces, and

lights conjugate each other into ever-ramifying patterns of resonance” (2012: 162).

In the captivating animations of dinosaurs whose commercial entrapment we may identify with, players have an intensification of what Isbister locates in Non-Player Characters more broadly: “NPCs allow players [...] a feeling of responsibility and of the complexity of relating to other beings” (Isbister 2016: 41). But these strangely distorted mundane monsters that kill and wander between horror, humour, speculation and resurrection do not offer the impossible representation of the ‘animal in itself’ but rather our bored becoming-with, embodied in the animal-technology-human parks of *Evolution* which resonate with us. If Chang argues that games can act as mesocosms: “boundary objects that facilitate passage between the material and seemingly immaterial contexts of the physical world and virtual playspace” (2019: 11), then *Evolution* facilitates the diffraction of affects and ontologies that trouble the edges of human and animal through anxiety and boredom. Here we might find that animal and human can respond to each other through the shared affects of captivity.

When I have shepherded all my park attendees into underground shelters, the rampaging dinosaur becomes a harmless wanderer, meandering down pathways like our bored double: escaping from their pen only to find themselves in ours.

6 Sharing Captivity

What the ludic dinosaur wants is its player to experience how mechanics and aesthetics offer a diffracted space of understanding through affective speculation. It wants what we want, an escape from neoliberalism’s loops of anxiety and boredom but also a recognition that captivity and care are a dark but messy trouble worth staying with.

This game thus offers potential for reframing how we represent and reflect on animals in the 6th great extinction through its strange diffraction of genre, affect and speculative/real in itself, however much this author may wish to align with Janski’s progressive impulse, the dinosaur here does not express agency as much as it exposes a web of relation beyond Mitchell’s ambivalent totem: a multivalent figure, not just ‘reified’ as Fuch’s identifies in the films, but a messy and self-reflexive speculation on the edge effects of affects and worlds.

We meet the resistant, impossible animal as an exploited, anxious and bored player in a time of everyday crises, on more even footing than we may realise. This is not a break with games of exploitation and manipulation as Chang hopes for, but rather an articulation of our complicity and enmeshment in loops of captivity that embrace both human and animal but neither completely. Through visual and mechanical diffraction we become bored-with the animal.

References

- Adorno, Theodor & Horkheimer, Max (2016 [1947]). *Dialectic of Enlightenment*. London: Verso.
- Agamben, Giorgio (2003). *The Open: man and animal*. Stanford Calif: Stanford University Press.
- Anable, Aubrey (2018). *Playing with Feelings: Video Games and Affect*. Minneapolis: University of Minnesota Press.
- Andersen, Robin (2017). “Learning to Love Killing: How Jurassic World Embraces Life Forms as Weapons”. *American Journal of Economics and Sociology*, 76(2). <https://doi.org/10.1111/ajes.12183>.
- Baird, Robert (1998). “Animalizing Jurassic Park’s dinosaurs: blockbuster schemata and cross-cultural cognition in the threat scene”. *Cinema Journal*, 37(4): 82–103.
- Beck, Ulrich (1992). *Risk Society: towards a new modernity*. London: Sage.
- Berger, John (1980). *About Looking*. London: Bloomsbury Publishing.
- Bhattacharyya, Gargi (2015). *Crisis, austerity, and everyday life living in a time of diminishing expectations*. London: Palgrave Macmillan.

- Birdsall, Heather Lea (2019). "The Happiest Plays on Earth: Theme Park Franchising in Disneyland Video Games". In *The Franchise Era*, edited by Fleury, James, Hartzheim, Brian and Mamber, Stephen. Edinburgh: Edinburgh University Press.
- Blake, Vikki (2018). "Jurassic World Evolution review – a beautiful, overly brutal park sim". *Eurogamer*. <https://www.eurogamer.net/jurassic-world-evolution-review-a-beautiful-overly-brutal-park-sim> (last accessed 20-06-22).
- Blue Fang Games (2001). *Zoo Tycoon*. Microsoft. PC.
- Blue Meridian (2022). *Prehistoric Kingdom*. Crytivo. PC.
- Blue Tongue Entertainment (2003). *Jurassic Park: Operation Genesis*. Konami. PC.
- Bogost, Ian (2007). *Persuasive Games: The Expressive Power of Videogames*. Cambridge: MIT Press.
- Caillois, Roger (2001). *Man, play, and games*. Urbana: University of Illinois Press.
- Chang, Alenda. Y. (2012). "Back to the Virtual Farm: Gleaning the Agriculture- Management Game". *Interdisciplinary studies in literature and environment*, 19(2): 237–252.
- (2019) *Playing Nature: Ecology in Video Games*. Minneapolis: University of Minnesota Press.
- Chen, Jenovah (2007). "Flow in Games (and Everything Else)". *COMMUNICATIONS OF THE ACM*, 50(4): 31–4.
- Davis, Susan. G. (1997). *Spectacular nature: corporate culture and the Sea World experience*. Berkeley: University of California Press.
- Derrida, Jacques (2008). *The animal that therefore I am*. New York: Fordham University Press.
- Dyer, Richard (2015). "Jurassic World and Procreation Anxiety", *Film Quarterly*, 69(2): 19–24.
- Dyer-Withford, Nick and de Peuter, Greig (2009). *Games of Empire: Global Capitalism and Video Games*. Minneapolis: University of Minnesota Press.
- Eco, Umberto (1986). *Travels in Hyper-reality: Essays*. London: Picador.
- Fisher, Mark, Ambrose, Darren. and Reynolds, Simon (2018). *K-punk: the collected and unpublished writings of Mark Fisher (2004-2016)*. London, UK: Repeater.
- Freeman, Will (2018). "Jurassic World Evolution review — fun once the chaos begins". *The Guardian*. <https://www.theguardian.com/games/2018/jun/22/jurassic-world-evolution-business-management-game-pc-ps4-xbox-one-frontier-developments> (last accessed 20-06-20).
- Frontier (2018). *Jurassic World: Evolution*. Frontier Developments Plc. PC. (2019). *Trading Update*. https://otp.tools.investis.com/clients/uk/frontier_developments_plc/rns/regulatory-story.aspx?cid=1725&newsid=1293672 (last accessed 01-06-2022).
- (2021) *Jurassic World: Evolution 2*. Frontier Developments Plc. PC.
- (2016) *Planet Coaster*. Frontier Developments Plc. PC.
- Fuchs, Michael (2016). "When Dinosaurs Ruled the Earth? Digital Animals, Simulation, and the Return of 'Real Nature' in the Jurassic Park Movies". *On_Culture*, 2: 2–22.
- Gilliam, Ryan (2018). "Jurassic World Evolution is exactly the park sim you want it to be". *Polygon*. <https://www.polygon.com/2018/6/11/17446768/jurassic-world-evolution-review-pc-ps4-xbox-one> (last accessed 20-06-22).
- Halberstam, Jack (2011). *The Queer Art of Failure*. Durham: Duke University Press.
- Hamscha, Susanne (2013). *The Fiction of America: Performance and the Cultural Imaginary in Literature and Film*. Frankfurt, Main: Campus Verlag.

- Hand, Martin (2017). "Technology, acceleration, and connected presence in the social media age". In *Boredom Studies Reader: frameworks and perspectives*, edited by Gardiner, M.E. and Haladyn, J.J. New York: Routledge.
- Haraway, Donna (2008). *When species meet*. Minneapolis: University of Minnesota Press.
- Hayward, Eva (2012). "Sensational Jellyfish: Aquarium Affects and the Matter of Immersion". *Differences*, 23(3): 161–196.
- Heise, Ursula (2003). "From Extinction to Electronics: Dead Frogs, Live Dinosaurs, and Electric Sheep". In *Zoontologies: the question of the animal*, edited by Cary Wolfe. Minneapolis: University of Minnesota Press.
- Isbister, Katherine (2016). *How games move us: emotion by design*. Cambridge: The MIT Press.
- Janski, Krzysztof (2016). "Towards a Categorisation of Animals in Video Games". *Homo Ludens*, 1(9): 87–98.
- Jenkins, Henry (2004). "Game Design as Narrative Architecture". In *FirstPerson : new media as story, performance, and game*, edited by Noah Wardrip-Fruin and Pat Harrigan. Cambridge: MIT.
- Jorgensen, Kristine (2013). *Gameworld Interfaces*. Cambridge: The MIT Press.
- Juul, Jesper (2013). *The Art of Failure an essay on the pain of playing video games*. Cambridge, Mass: MIT Press.
- Kennedy, Helen and Giddings, Seth (2008). "Little Jesuses and *@#? – off Robots: On Cybernetics, Aesthetics, and Not Being Very Good at Lego Star Wars". In *The Pleasures of Computer Gaming: Essays on Cultural History, Theory and Aesthetics*, edited by Melanie Swalwell and Jason Wilson. Jefferson: McFarland.
- King, Geoff (2000). *Spectacular Narratives: Hollywood in the Age of the Blockbuster*. London: I. B. Tauris.
- Koselleck, Reinhart (2006). Crisis. *Journal of the History of Ideas*, 67: 357–400.
- Laist, Randy (2014). "Hypersaurus Rex: Recombinant Reality in *Jurassic Park*". In *Unnatural reproductions and monstrosity: the birth of the monster in literature, film, and media*, edited by Andrea Wood and Brandy Schillace mherst. New York: Cambria Press.
- Marris, Emma (2011). *Rambunctious Garden: Saving Nature in a Post-Wild World*. New York: Bloomsbury.
- Marvin, Garry, Mchugh, Susan (2014). *Routledge Handbook of Human-Animal Studies*. New York: Routledge.
- Mitchell, William. J. T. (1998). *The Last Dinosaur Book: The Life and Times of a Cultural Icon*, Chicago: University of Chicago Press.
- Mortensen, Torill, Linderoth, Jonas and Brown, Ashley (2015). *The Dark Side of Play: Controversial Issues in Playful Environments*. Abingdon: Routledge.
- Morton, Timothy (2016). *Dark Ecology: for a logic of future coexistence*. New York: Columbia University Press.
- Naish, Darren (2012). "Introduction". In *All Yesterdays: Unique and Speculative Views of Dinosaurs and Other Prehistoric Animals*, edited by Conway, John, Kosemen Cevet. M. and Naish D. Irregular Books.
- Ngai, Sianne (2005). *Ugly Feelings*. Cambridge: Harvard University Press.
- O'Neill, John 1996. "Dinosaurs-R-Us: The (Un) Natural History of Jurassic Park". In *Monster Theory*, edited by Cohen, Jeremy. Minneapolis: University of Minnesota Press.
- Opel, Andy and Smith, Jason (2004). "ZooTycoon(TM): Capitalism, Nature, and the Pursuit of Happiness". *Ethics and the Environment*, 9(2): 103–120. <https://doi.org/10.1353/een.2005.0007>.
- Rose, Deborah. B., Dooren, Thom and Chrulew, Matthew (2017). *Extinction studies: stories of time, death, and generations*. New York: Columbia University Press.
- Ruberg, Bonnie (2015). "No Fun: The Queer Potential of Video Games that Annoy, Anger, Disappoint, Sadden, and Hurt". *QED*, 2(2): 108–124.

- Sandywell, Barry (2017). "The Dialectic of Lassitude: A Reflexive Investigation". In *Boredom Studies Reader: Frameworks and Perspectives*, edited by Gardiner, Michael. E. and Haladyn, Julian J. Abingdon: Routledge.
- Seller, Merlin (2021). "Ever-Lockdown: Waiting through Times of Playbour and Pandemic in Animal Crossing". *Networking Knowledge*. <https://doi.org/10.31165/nk.2021.141.635>.
- Soderman, Braxton (2021). *Against Flow: Video Games and the Flowing Subject*. Cambridge: MIT Press.
- Spielberg, Steven (1993). *Jurassic Park*. Universal Pictures. Amblin Entertainment.
- Svendsen, Lars F. H. (2005). *A Philosophy of Boredom*. London: Reaktion.
- Stapleton, Dan (2018). "Jurassic World Evolution Review". *IGN*. <https://www.ign.com/articles/2018/06/11/jurassic-park-evolution-review%20> (last accessed 20-06-22).
- Swinbanks, James (2018). "Jurassic World Evolution Review: Life Finds A Way". *Gamespot*. <https://www.gamespot.com/reviews/jurassic-world-evolution-review-life-finds-a-way/1900-6416933/> (last accessed 20-06-22).
- Toohy, Peter (2011). *Boredom: A Lively History*. New Haven: Yale University Press.
- Trevorrow, Colin (2015). *Jurassic World*. Universal Pictures. Amblin Entertainment.
- Turner, Stephanie (2007). "Open-Ended Stories: Extinction Narratives in Genome Time". *Literature and Medicine* 26(1): 55–82.
- Uexküll, Jakob (2010). *A Foray into the Worlds of Animals and Humans, with A Theory of Meaning*. Minneapolis: University of Minnesota Press.
- Warr, Philippa (2018). "Jurassic World Evolution Review". *PC Gamer*. <https://www.pcgamer.com/jurassic-world-evolution-review/%20> (last accessed 20/06/22).
- Washbear Studio (2019). *Parkasaurus*. Washbear Studio. PC.
- Wilkins, Heidi (2014). "Steven Spielberg's Jurassic Park: Sounding dinosaurs". *The New Soundtrack*, 4(1): 73–87.
- Williams, Rebecca (2020). *Theme Park Fandom. Spatial Transmedia, Materiality And Participatory Cultures*. Amsterdam: Amsterdam University Press.
- Yaszek, Lisa (1997). "Of Fossils and Androids: (Re)Producing Sexual Identity in 'Jurassic Park' and 'Blade Runner'". *The Journal of the Midwest Modern Language Association*, 30(1/2): 52–62.

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