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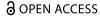
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# Ghosts of the Anthropocene: spectral accretions at the Port Arthur historic site

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#### **ABSTRACT**

As a place of heritage, the Port Arthur Historic Site in Tasmania, Australia, provides a substantial representation of a colonial landscape. Principally associated with Australia's convict history, the vestiges that are found there today take the form of extant buildings, shorelines, cemeteries, exercise yards and cells. Port Arthur is also thought to harbour less-tangible residues of its pasts in the form of ghostly apparitions and atmospheres. Indeed, it is often referred to as being one of the most haunted places in Australia. However, rather than focus on the supernatural traces of some of the deviant criminals once imprisoned there, this article will take a broader account of 'ghosts' to consider the interrelations between human and nonhumans in the Anthropocene. To do so, we look to the abiding, 'haunting' presence of 'arboreal-others' in order to re-enliven our understanding of Port Arthur's pasts and reimagine their role in its present and future.

#### **KEYWORDS**

Port Arthur; dark heritage; dark ecology; arborealothers; the Anthropocene; spectral accretions

# A prelude<sup>1</sup>

It is just after nine o'clock on a Wednesday night. The silence is punctured by the crisp click of a door latch. The simple sound is sensory nourishment for The Visitor, who is adjusting to the otherwise dark deprivation of the Separate Prison, a place that sits and broods, generating fear without thought. The Visitor shuffles softly, uneasily, down the central corridor, the thick closed doors on either side illuminated by lantern light. With each step they become more immersed in the cloying drift of shadows that seem to have lingered in the prison since 1850. They walk towards their apprehension. High wooden ceilings play acoustic tricks, filling the cold air with secret rustlings that come from everywhere. They pause in front of a door inscribed with the following: 'solitary suicide'. The Visitor enters, perhaps dragged in by a tendril of pity that still clings to the walls of the cell. Inside, a whisper of 27-year old William Carter remains, a farm labourer from Essex. His ghostly presence swings for eternity from the leather straps of his hammock, tight around his neck; sleep comes, of a sort. It is easy to picture his bent neck, poised awkwardly, giving him the appearance of morbid curiosity. The Visitor, gripped by sadness, speculates: he wore the hood his captors gave him even though there was no one there to see; and in dying he barely made a sound. Perhaps William heard the sudden, monstrous surge of thick blood as it screamed through his skull before slowing and stopping altogether? And as sleep descended, did his decaying neurons fire off one last homesick flashback to an old English oak, anchoring his despair? The Visitor draws level with the dead man's cheek as they read about the end of William; they shiver at the partial but precise point of contact. His punishment is infinite.

#### Introduction

Sightings of ghosts among the ruins at Port Arthur began to occur in the 1870s, shortly after it ceased to function as a secondary punishment station. Such accounts of uncanny and eerie apparitions were not uncommon for the time, with the nineteenth century regularly referred to as the 'Golden Age' for paranormal activity (Luckhurst, 2014). This 'age' seems to have settled between the folds of scientific advancement and natural laws on the one hand, and the revival of a strong religious sentiment on the other, the combining of which gave rise to a resurgence of beliefs in supernatural forces (Luckhurst, 20142020). Such a convergence was particularly robust in Britain and culminated in the establishment of the Society for Psychical Research in 1882, which drew upon a range of technological innovations such as photography as a means to 'authenticate' ghostly sightings (Luckhurst, 2002). As Luckhurst (2002) has argued, this abiding interest in ghosts, spirits and the mysterious can partly be explained as a consequence of growing feelings of anxiety and estrangement, stimulated by unprecedented political and social change, and acute periods of economic crisis. The turn of the millennium brought about a similar spike in anxiety, and with it a fresh surge of interest in ghosts, hauntings and interstitial beings, as well as the proliferation of 'ghost tourism' as a specific segment of the wider phenomenon referred to as dark heritage (Hanks, 2015).

Designed to administer and discipline convicted felons transported to Van Diemen's Land, Port Arthur is a well-known site of 'dark heritage' that has also earned the reputation of being one of Australia's most haunted landscapes. Associated as it is with pain, crime and deprivation, it should come as no surprise that the site has produced a wealth of stories about apparitions that remain unexplained. Such anecdotes tend to revolve around the lives and ghosts of the men, women and children who once lived there, and reference strange feelings, swinging lights, soft touches, unnerving sounds and smells that vividly evoke the presence of the past. Within the mix, there are a handful of more frequently cited encounters that conjure particular presences, such as the 'lady in grey' who died during childbirth, a young boy awaiting execution, a small girl with her pale face pressed up against the window of the Medical Officer's Residence, a solider wearing red in Tower Cottage, and a disembodied head that hovers in the dissection room underneath the Visiting Magistrate's House (McCulloch & Simmons, 2008). These are the ghosts who have made themselves known on several occasions, providing Port Arthur's visitors with visceral links between the physical spaces in which they stand and echoes of what is known to have happened there. As 'assemblages of the dead', to borrow from Gan et al. (2017: G5), they act as reminders of Port Arthur's pasts.

Notions of ghosts need not be confined to debates about paranormal activity, however, nor quite so directly linked to human 'others'. A number of scholars from a variety of disciplines have used the term in a metaphorical sense to point to 'present absences', particularly in discussions around marginalised racial and traumatic memories (Gordon, 1997; Hanks, 2015; Richardson, 2003). More recently, the editors and individual contributors to the volume, Arts of Living on a Damaged Planet: Ghosts and Monsters of the Anthropocene, have used the terms to engage not so much with human 'others' but with the power of nature, or the more-than-human world. Ghosts, in this context, have once again emerged in response to a moment of anxiety, this time triggered by environmental crises linked to the Anthropocene. But these ghosts are of a different kind. They are whispers of the past, or present absences, that haunt the world 'with the threat of extinction' (Gan et al., 2017: G6). They have emerged in part from the serious challenges opened up by the Anthropocene literature to rethink the long-held dichotomy between culture and nature, and instead contemplate multispecies relationships (see also Krauβ, 2018). They also linger in the fact that in the Anthropocene, as Mansfield points out, 'what we are facing arises out of our past, and comes at us from the future' (as cited in Rose, 2013, p. 213). Ghosts, then, as Gan et al. (2017: G6) observe, 'point to our forgetting, showing us how living landscapes are imbued with earlier tracks and traces': they are both dead and alive, human and more-than-human, natural and cultural, spectacular and mundane.

Drawing inspiration from the Arts of Living on a Damaged Planet, we speculate that Port Arthur, as a clear representation of a colonial landscape as well as one of industrial engineering, might be

better understood within Anthropocene imaginaries, where ghosts are able to tell subtle stories about the histories and interrelations between human and more-than-human actors. After all, European colonialisation played a fundamental role in re-articulating human and more-thanhuman interactions there. This is particularly the case for the convict labour management regimes in use at Port Arthur, which, as a secondary punishment station, were largely inflicted upon convicts who had reoffended while under sentence (Tuffin et al., 2018). In particular, we are interested in the extraction of timber, or 'timber-getting', undertaken by chain-gang labour, where both humans and more-than-humans became, to borrow from Tuffin et al. (2018, p. 61), coerced participants 'in the formation and development of an industrial landscape that was intimately related to punishment'.

Our ghosts in this paper, then, are a kind of more-than-human other that enliven the pasts and futures of Port Arthur in the Anthropocene: the trees themselves, which we refer to as 'arborealothers'. Borrowing from Tim Morton's 'dark ecologies', we propose that Port Arthur generates a special type of darkness predicated on deviance. By this, we mean that the (often deliberate) defiance of social norms established a sort of ecological diversity; a propensity for manifold alternative ways-of-existing that arose from defiant minds. Such deviance coerced these arboreal-others into patterns of aberrant interactions with humans that still endure. In this rendering, our 'ghosts' point to apparitions of other-worldly histories and processes, vestiges of futures that never quite happened or that undertook different historical trajectories to the pronounced ones we have come to know about the site. We term these hauntings 'spectral accretions' because of the manner in which these splices of unknown histories accumulate, or, to use geomorphic terms, are part of the sedimentation in unnoticed crevices amidst Port Arthur's ruins. We see a twofold power to these 'spectral accretions'. First, though there is an accumulatory aspect to residual hauntings, movement and mobility are also inherent in processes of accretion—the momentums and inertias that push and pull these underbelly histories into strange narrative shapes. Some histories are suppressed and erode into lost fragments; others push back on the trajectory of history as it plunges towards the Anthropocene; others, still, ricochet off at tangents and remain parallel to dominant histories. Second, these processes are inherently place-based and, as such, the concept of 'spectral accretions' anchors Morton's dark-ecological interactions into material spheres, in this case, the spaces of Port Arthur.<sup>2</sup>

## Dark heritage in the Anthropocene

The 'Anthropocene', as a concept, first emerged in the geoscience community in 2000, coined by Paul Crutzen, an atmospheric geologist, and Eugene Stoermer, a lake ecologist, and was first published in the Global Change Newsletter, where they put forward the following argument:

Considering these and many other major and still growing impacts of human activities on earth and atmosphere, and at all, global, scales, it seems to us more than appropriate to emphasize the central role of mankind [sic] in geology and ecology by proposing to use the term 'anthropocene' for the current geological epoch. (Crutzen & Stoermer, 2000, p. 17)

Since that publication, the Anthropocene has undergone serious—and increasing—investigation, triggering powerful debates about whether (or not) the Holocene has ended and, if so, how the beginnings of its successor might be evidenced in the geological record. While debates about the Anthropocene are today incredibly varied, a key proposition, underpinned by what Hudson (2014, p. 73) describes as a 're-evaluation of humanity's role in the world', is that humans have utterly disrupted the Earth System (Zalasiewicz et al., 2017; see also Johnson et al., 2014). Key to this theory is the claim that humans have become major geologic agents with impacts that extend beyond ecology to geology. A first step towards testing this premise was the application of formal geological criteria, the results of which appeared in the paper, 'Are We Now Living in the Anthropocene?', published in 2008 by Zalasiewicz et al. (2008). Shortly thereafter, testing for its inclusion within the system of dating referred to as Geological Time Scale (GTS) was undertaken by the Working Group on the 'Anthropocene' (AWG), formed in 2009 (Zalasiewicz et al., 2017). This collective evaluated the prevalence and expanse of stratigraphic markers caused by human action and determined, in 2016, that the Anthropocene exists. Stratigraphically, its markers were identified using lithostratigraphical, chemostratigraphical and biostratigraphical 'signatures' (Zalasiewicz et al., 2018, p. 179). Technofossils—new types of minerals and rocks that came into existence with the global dispersion of Anthropocene 'mineraloids' like plastics and rock types like concrete—were seen as lithostratigraphical indicators; an acceleration in the use of carbon was highlighted as one of the many striking chemostratigraphical indicators, evident in 'bubbles of fossil air' found in the great ice-sheets of Greenland and Antarctica; and, an intensifying wave of extinction was put forward as a crucial biostratigraphical signature (Zalasiewicz et al., 2018; Zalasiewicz et al., 2014).

Almost contemporaneously, debates about the Anthropocene commenced in the social sciences and humanities, pointing to the fact that, as Castree (2014, p. 239) has argued, it is 'more than a "pure" science concept'. Such debates were (and are) less concerned with the specifics of official geological markers and more its social subtext: that the world, as we know it, is unravelling. As Rose (2013, p. 207) has argued, '[i]t is going, and we have passed the point where it might have been possible to reverse the changes'. Nestled within these debates are notions of extinction, crisis, another 'Great Dying' and the end of nature, all of which have come to form a more chilling dystopian representation of the Anthropocene—another of its 'signatures', if you will. Even before the term became popular, scholars were unpicking its violent nature, which seemed to 'hack away', indiscriminately, at ecosystems, territories and cultural lives (Tolia-Kelly, 2016). Much of the debate about the Anthropocene can thus be cast as 'dark', drawing as it does from an image of human agency that 'wrecks, pillages, loots and destroys, that has very little idea what it is doing, and that carries with it, in contradiction to all reason, an expectation of immunity' (Rose, 2013, p. 210).

These dystopian theorisations sit alongside a more optimistic vein of exploration, however, which picks at the idea of posthumanism, earth-others, alternative sentiments and futures (see Saul and Waterton 2019). This vision is best exemplified by the work of Katherine Gibson et al. in the *Manifesto for Living in the Anthropocene* (Gibson et al., 2015), where they argue that we should avoid reducing the Anthropocene to the violence of industrialisation and modernity, or solely to climate change anxieties. Instead, the authors propose a strong solution-oriented theme, inspired by novel modes of alliance with landscape in places where an empathetic invitation has been extended to the 'more-than-human'<sup>3</sup> world to innovate new forms of diverse eco-ethical communities and notions of justice. This seam of work draws from the proposition that the Anthropocene, as a concept, is 'so big that the "we" who experience it are correspondingly vast and diverse', such that it must include the 'nonhuman as well as human beings; it includes plants, soils, atmosphere and oceans, and involves dynamic relationships and processes within an extremely dynamic biosphere' (Rose, 2013, p. 207). And, rather than assume that we are losing something, proponents from this side of the debate argue instead that the world and our pasts endure and outlive us (Pétursdóttir, 2017).

Both the dystopian and optimistic strands of the more socially-inflected Anthropocene debate pose interesting propositions when brought together. Crucially for this paper, both carry ghosts and a sense of haunting, 'vestiges and signs of past ways of life', as Gan et al. (2017: G1) argue, that are still 'charged in the present'. To better understand the co-mingling of pasts and present, suffering and life we borrow from the work of Pétursdóttir (2017), who points to the importance of understanding the 'dark side' of things—their excesses and integrity. As she so eloquently puts it:

Like a 'sleeping giant' withholding the full wealth of its force (Harman 2016: 7), this also means that there will always be a darkness involved in our encounter with the thing—a hidden excess integral to its being, and its potential futures. (Pétursdóttir, 2017, p. 184)

Pétursdóttir (2017: 185, emphasis in original) goes on to argue that this requires the development of a sense of politics, ethics and justice that extends beyond human knowledge and human relations to include 'the darkness beyond us'. For the heritage field, which is undergirded by a persistent effort to bifurcate itself around notions of 'cultural' and 'natural' heritage, this darkness often sits somewhere



in between the human and non-human, or, in this instance, at the edges of what has been determined as a site of cultural heritage. Perhaps it is here that Harman's 'sleeping giants' lie, holding 'in reserve arrays of unforeseen capacities and unexpected alliances that far exceed any current relations and functions—and which may or may not involve direct human associations (Pétursdóttir, 2017, p. 193).

But how to get at the darker side of heritage? Methodologically, this paper draws from what has elsewhere been termed 'multispecies ethnography', which, as Kirksey and Helmreich (2010, p. 548) argue, is 'a form of writing culture in the Anthropocene'. It is an approach that is deeply attentive to assemblages of human and more-than-human beings or the larger than human world, and 'seeks to understand the world as materially real, partially knowable, multicultured and multinatured, magical and emergent through the contingent relations of multiple beings and entities' (Ogden et al., 2013: 6; see also Locke, 2018). It has synergies with Plumwood's (2009, p. 8) attempt to champion the role of writing in ways that can make room 'for seeing much of what has been presented as meaningless accident actually as creative non-human agency' (and here she is pointing to landscapes, insects, soil, tree roots, fungi, and so forth). Both see nature as agentic, present and creative, and enmeshed with culture, and are looking to bring that larger than human world into focus (see van Dooren & Rose, 2016). Moreover, both grant permission, as Plumwood makes clear, 'to depict nature in the active voice, the domain of agency' (Plumwood, 2009, p. 126).

But this is not an advocation to speak for; rather, it is an attempt to develop narratives that are open 'to other ways of constituting, of responding to' the living world (van Dooren & Rose, 2016, p. 85). This slides easily into Anna Tsing's (2010) call for an 'arts of inclusion' or a passionate immersion in other kinds of lives, which she articulates thus: 'In these times of extinction, when even slight acquaintance can make the difference between preservation and callous disregard, we might want to know' (Tsing, 2010). Here, we were interested in illustrating the dark characteristics of the Anthropocene as we found them at Port Arthur, where inflections of human/more-than-human interactions and agency are everywhere. We could see them, for instance, etched directly into Mason Cove, where the most concentrated efforts to develop a penal colony were focused, and where the iconic ruins of the Penitentiary sit today (see Figure 1). The cove, located on the north-western coast of Carnaryon Bay and flanked by Mount Arthur and Mount Tonga, has been the subject of land reclamations and modification since the penal settlement first developed, but it has also been subjected to destructive natural forces since the settlement was abandoned (Figure 2; see Byrne, 2017 for a discussion of heritage and reclamation in the Anthropocene).

Later in our visit, we noticed the relentless encroachment of the sea at the Coal Mines Historic Site, a convict probation station associated with Port Arthur that is about a half hour drive from the Penitentiary. Another clear marker of the Anthropocene, this part of the peninsula remains under threat from an invading sea looking to take back what was previously 'reclaimed'. As Gillis (2017) has noted, there is some irony to the fact that a coal mine, responsible for the generation of planetwarming carbon dioxide, should now be under threat from a rising sea.

Given our interest in pasts, presents and futures, we were attuned both to the collection of detailed observations and photographs of our own encounters while onsite, as well as to archival materials (i.e. pamphlets, historical records, books) collated both before, during and after our visit. One such pamphlet, purchased onsite, was titled A Short History Guide to Port Arthur, 1830-1877. The preface to the volume references the role of photographs in assisting visitors to better conceive of Port Arthur as a place (Graeme-Evans 1993) . A quick tally suggested that trees, which are present in 82% of the images used to depict the landscapes of Port Arthur, are an integral component. Trees. Yes, we thought: Tsing's 'slight acquaintance' in this research could mean adopting a multispecies ethnography that engages with the lives and legacies of trees as a means to open up new ways of paying attention to Port Arthur. Indeed, as Dawdy (2016, p. 99) points out, '[t]here is something about the longevity of trees on the landscape as witnesses (and sometimes victims) to events over and beyond the human life span'. Just as Bowring (2019) reflects on the way 'survivor trees' haunt places wrought by intensities of disaster and emotion and, as witnesses, have 'seen everything' (Bowring, 2019, p. 26), we ponder here



Figure 1. The Port Arthur penitentiary.

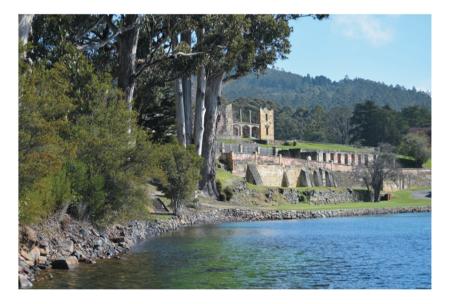


Figure 2. The edges of Mason cave, Port Arthur.

whether the agency of such trees goes beyond sensory participation in human lives to interactions with more sinister, monstrous intent. In what follows, then, we attempt to reanimate Port Arthur in the spirit of writing originally set out by Plumwood, with 'active, agentic subjects' (Plumwood, 2009, p. 8). Traumatised trees come to haunt Port Arthur as ghosts, having also embroiled themselves in the monstrous misdeeds of both convict and captor: they are more-than-human interlocutors that have been ignored, smoothed out and pushed back into the dark side of heritage, and are here re-enlivened in order to 'expose alternative ways of knowing the past' (Stark et al., 2018).



## Port Arthur and its arboreal-others

# Dark ecologies and spectral accretions

In a humid gully at the edge of Mason Cove, a blue gum tree threads roots out into meagre soil that has collected from the alluvial run-off from surrounding hills. It is not long since the sun rose but already the brittle leaves are hot under the shiny legs of a long-horned borer beetle. Warm amber gum has liquefied enough to start dripping from a bark wound. Beneath the apprehensive scuffling of the beetle's feet, the forest is quiet. Sticky heat mounts and then recedes as the evening draws in; a day slips by in a fluttering of breezy thermals on fern fronds. A forest smothered in sultry heat abides in this way as a slow six months languishes into two years, then fifty, then a hundred. And then, from not too far away in the ferny undergrowth, a twig snaps. The intrusion startles the arboreal-beings to attention. Through the bracken, a monstrous centipede tramples; fifty pairs of legs stagger beneath the disfigured corpse of a stringy bark eucalypt, its trunk still crawling with insects. It is 1833. The centipede,<sup>4</sup> a chain-gang of timber-getters, is assiduously extracting the resource as part of their convict service. With this aberrant creature—a hybrid of convict- and arboreal-sentience—begins a deviant ecology that invites us to rethink the history of Port Arthur in unexpected ways (see Figure 3).

Morton first introduced the idea that ecologies could be 'dark' in 2007, in *Ecology without Nature*, and solidified his thoughts in 2016, with the volume *Dark Ecology: For a Logic of Coexistence*. In both, he engages with difficult environments that he conceives of as being 'right here' (rather than 'over there'), and in which humans hold no special status: the boundaries between 'us' and more-than-humans, for Morton, are porous and entangled. Just as ecology probes the interactions between organisms, dark ecology recognises that a 'human species' is ungraspable as a species category alone, making the project of understanding its interactions with more-than-humans a necessary one. But the human species is contradictory and unpredictable, or, as Morton puts it, 'weird'. Efforts to understand our interactions with earth-others, to study 'dark ecologies', therefore begin by recognising the darkness as a series of loops, where positive loops amplify processes between beings and



Figure 3. 'Gentlemen Convicts—The Centipede' (sketch unsigned, dated '1830' on the verso, and from the collection *Sketches of New South Wales, Tasmania and Victoria, by Lempriere and others, ca. 1830–1869*. Dixson Library, State Library of New South Wales, DL PXX 39).

negative ones infuse them with lethargy. Some of these loops occasionally intersect with human-temporality before convulsing out-of-sync, where they are left to lumber away from an anthropoid trajectory.

It is with this idea of a 'dark ecology' that we began to understand the relationship between trees, convicts, the penal settlement and Van Diemen's Land. Through this awareness, two things became apparent. First, the ecological darkness at Port Arthur is infused with deviance. This is the case to such an extent that that deviance turned the dark ecological project of industrialisation and colonisation into something light: a loop that brought about an unusual mode of conservation. Second, it is in deviant ecologies like that found at Port Arthur that the 'intactness' of humans as a 'species' breaks down, spilling into monstrous hybridities that, in the governmentality of the place as a site of punishment, are treated with contempt. And yet, these hybrid-beings, though they suffered the abuses of punishment, solitary confinement, insanity and under-privilege, have plotted a deviant trajectory away from the shadows of Morton's dark ecology.

To explain the power of these monstrous defenders of the light in an age of dark ecologies we introduce the idea that Port Arthur is a site of 'spectral accretions'. Much like 'shadow places' ecologically and economically support the affluent lifestyles of the privileged minority whilst remaining hidden from knowledge and responsibility (Plumwood 2008), spectral accretions are the apparitions or ghosts of other-worldly histories that never fully came to exist, or, in some cases, tug against the dominant trajectories of time and history. The deviant ecologies we have come to know at Port Arthur, a hybrid of human and arboreal-other, are an example of the latter: we trace the ghostly apparitions that have sedimented there in order to narrate a subtle history that foregoes the inevitability of our Anthropocene future. Spectral accretions adhere and reside, generating places with momentums around certain interactions, directed towards certain types of future, often tugging at different trajectories than the one we know. Thus, while it is easy to appreciate how the industrial interactions with landscape at Port Arthur could have propelled us towards a dark Anthropocenic future, it is less obvious how such interactions might equally have pulled us in almost the opposite direction, as we will detail below, unfolding in non-linear and unexpected ways. Spectral accretions therefore become sites which, like turbines, drive entropic pressures and exert unpredictable momentums on those that engage with such places. As such, they are the places where the causal loops of dark ecologies spin out and variably thrust into history, sometimes towards an Anthropocene future and sometimes towards lost futures we misplaced. They are the motivational engine-rooms, generative of unpredictable and looping interactions between beings. But more than that, such places sanction an investment in those interactions and make them permissible, even if they defy environmental ethics or logic.

Back, then, to 1833, and the hardest form of punishment. The 'centipede gang' stumbles its load through the forest, stopping only once for respite. 'Come on, you bloody crawlers!' The huge stringy bark eucalypt, a magnificent forest giant that just hours ago had been flourishing on the slopes of the peninsula, has now been felled, shorn and neatened by saws in a makeshift sawpit. Its majority is transformed into a workable, though rough, beam. Its severed roots are left to desperately search out minerals, oxygen and moisture. The retained beam bears down on the tallest of the gang, pushing him—relentlessly—closer to death as the 'centipede' limps through the newly-occupied Mason Cove settlement and into the dockyard. There, it is further subdued and transformed once again, this time into planks, joists and boards.

In its earliest incarnation, Port Arthur's structures demonstrate the importance of timber-getting and sea transport. While the rough-hewn timber quarters of the convicts were located on the southern shore, to the north was a mass of movement and noise as felled gum trees were dismembered in two sawpits, their remains crafted at boatsheds into sailing technologies for Britain's then optimistic project of colonial expansion. As early as 1803, the Governor of New South Wales, Phillip Gidley King, had asked Lieutenant Bowen, who had been tasked with establishing the first settlement in Van Diemen's Land, to consider whether the timber there was 'fit for the purposes of being sent to England for the construction of the King's ships' (as

cited in Carron, 1985, p. 59). Long had the British ambitions for Tasmania revolved around industrial extraction, and with some species of Eucalyptus such as the mountain ash—the tallest flowering plant in the world—recording heights of one hundred metres (Williams & Potts, 1996), the forests around the penal settlement quickly became important sources for navy ship-building and regional trade watercraft.

During the 1840s and 1850s, the industry boomed as Tasmanian forests found their way into Victorian gold mines as railway sleepers and roof girders (Carron, 1985). The Port Arthur Commandant responded by ordering the expansion of timber-getting out onto the flanks of Mount Arthur, and the construction of timber processing tramways into its surrounds. Convict labour, which had been put to carrying the forest products directly, was now engaged in designing and building economies of efficiency, underpinned by technological progress. In almost every way, it is easy to see how the story of Port Arthur is one of an industrial node, extending from British shores into the far empire so that its presence could be planted and concretised. It is a story filled with unjustly treated protagonists: the kidnapped, disease-inflicted, and displaced Pydairrerme, as well as the many waves of convicted criminals, often guilty of little more than being poor. More than 3,500 convicts were housed at the penitentiary by 1844: this was the beginnings of a nation built on convict labour, straining for economic sustainability and self-rule, which finally came in 1886. Early penal settlements like Port Arthur were some of the most instrumental in that tale of industrial progress and nation-building, a fact captured by the site's inclusion in the successful Australian Convict Sites World Heritage nomination and inscription onto the World Heritage List in 2010.

# The arboreal-panopticon

Though 'penal industry in pursuit of the nation' is a dominant narrative at Port Arthur, there exist other, more subtle, dark ecological loops. It is these loops that break down the seeming inevitability of the Anthropocene that otherwise exists linearly at the end of Port Arthur's industrial narrative. It was of little consequence at the time, for example, that the trees became integrated in the disciplinary regime for the convicts. In large part, the extraordinary danger involved in the hard labour of the 'centipede gangs' was considered a compelling incentive for good behaviour and strong discouragement to reoffenders. Port Arthur was therefore managed as an 'open prison', because its natural environs and the foreboding of forest beasts (such as tiger snakes and copperheads) were considered enough of a deterrent to dampen the spirits of even the most fleet-footed defectors, chained or not. Added to this, and created under Charles O'Hara Booth's command of Port Arthur, was the curious entanglement of arboreal-mycorrhizal modes of communication that formed a penal alarm system (after Wohlleben, 2016). Before then, far back when the only history was the Dreaming, the language of trees was spoken only through fungi. For instance, volatile compounds were released to alert other arboreal-others to the threat of a Eucalyptus weevil infestation; soil fungi scavenged nitrogen and phosphorus to trade with trees for sugars; and young seedlings were nurtured with mineral nutrients by gentle old giants. Their communication, argues Wohlleben (2016), was of a community engaged in all types of commerce, drama, warring and mutual cherishing.

Between 1830 and 1835, some of the tallest gum trees, notably those on the southern shore behind the Commandant's Residence, were co-opted into a hybrid conversation with the discipliners via an arboreal-panopticon. The semaphore system that they created in tandem with prison administrators reached all the way to Hobart, until it was decommissioned in 1849. Not only could trees literally inflict punishment on the convicts as they bore their weight when part of centipede gangs, they were now also co-opted into their surveillance and containment. The edge of the penal settlement had, until then, been demarcated by the forest. But now, the forest extended the visual catchment and thus expanded the authority and disciplinary power of the prison beyond the immediate cove. This arboreal-panopticon marginally preceded the construction of the Separate 'Model' Prison in 1850, which solidified surveillance as a central tool of discipline at Port Arthur. An 1860 sketch of the cove, housed in the Tasmanian Archive, draws focus on a troop of tall trees that can be seen lining the edge of the harbour, standing like silent, watchful sentinels, as vessels laden with convicts approach incarceration (see Figure 4).

It is now 1842. Three men duck low amongst the yellow blooms of the wattle shrubs near the edge of Pirate's Bay. Deep scratches cross the skin of their hands and arms, overlaying old scars from their years of timber-getting. The yellow pom-pom flowers release a pungent sweet scent as the men push through the undergrowth towards the water's edge. On the isthmus of land called Eaglehawk Neck that they are approaching, a line of fiendish-looking dogs sniff at the air, suspicious of the aromatic oils that are being gently carried on the breeze. The men hold their breath, their muscles taut, as they anticipate what seems like inevitable discovery and a return to even stricter privations at Port Arthur. They hunker down into the wattles for cover, casting nervous glances upwards to an imposing eucalypt pole, cut from a single trunk of a mountain ash. Like a peculiar mast of a sailing ship plunged into dry earth, this semaphore can see to the horizon. The three men watch the signals on the cross-beam change positions. They sneer at the tree's conspiracy. Port Arthur has raised the alarm. A hunt begins. The wattle cannot hide them anymore, and they slip silently into the placid waters that separate the peninsulas.

# Securing the future for environmental heritage

Such was the nature of the deviant ecology at Port Arthur that the trees and convicts came to practice a sort of mutual conservation. Haraway (2007, p. 88) might refer to such calculations about which lives flourished and which were extinguished as 'ontological choreography'. In the nineteenth century, the deviant ecology at Port Arthur was a composition of human, monstrous and arboreal-others experiencing remarkably different valuations of their lives and security for their futures. For the convicts, they succumbed, at the moment of sentencing, to a biopolitics that treated them as monstrous aberrations that could not be allowed to commingle in British society. Their punishment:



Figure 4. The Arboreal-panopticon [artist unknown, *Port Arthur ca.1860*, watercolour on paper pasted on linen (55x64cm), W.L. Crowther Library, State Library of Tasmania, [Record ID: SD\_ILS:169 425].

hard, tree-felling labour that witnessed their fiendish identities collectively reaffirmed as gangs metamorphosed into giant centipedes. Their inhuman worth was valued by the concomitant punishment they could inflict on their 'wild' collaborators, the trees. It is paradoxical and tragically un-just how, in a more-than-human reading of this history, the punishment for misdemeanours was to encourage the perpetrators to inflict yet further punishment on the diverse sentient arborealothers. Monstrous convicts killed and dismembered the trees that imprisoned them and were, in return, held captive and often killed under the weight of their arboreal-others. The landscape created at Port Arthur exists because of the practices of valuing deviant, monstrous lives that were governed by looping reciprocal exchanges of punishment.

One could argue that this grotesque 'ontological choreography' (Haraway, 2007), based on ever more efficient means of punishing bodies, perversely became entangled with the notion of conservation justice. In the 1920s, for example, the Tasmanian Forestry Association sought to afforest the 'great waste areas of Tasmania' (as cited in Carron, 1985, p. 66) with plantation trees that would offset the felling of old-growth specimens. But, in what was effectively an economic enterprise with loose conservation benefits, the undertaking was directed towards the 'destitute and waif boys of the Empire' so that they might 'find their place, their manhood [sic] and their citizenship in planting the waste and in leaving a heritage of enormous value to those who came after' (Carron, 1985, p. 66). Indeed, in what is effectively 'second-wave convictism' it is, again, underprivileged bodies that are appropriated into the shaping of conservation's disciplinary landscape. And, in return, those displaced bodies, suffering the loss of their belonging, were instructed to germinate new identities in the forests they planted.

The deviant ecology we have been describing was thus the foundation for an important subversive narrative regarding Port Arthur's role in Tasmanian environmental history. Throughout its history, the 'open prison' arrangement meant that numerous prisoners tried their chances at escape. 'Bushrangers'—escaped convicts that used the forest 'bush' for cover from the authorities and were notorious for making their living through robbery—were a widespread phenomenon in the 1800s. In the mid-nineteenth century, those released on a 'ticket-of-leave' were a constant source of unease, and perpetrated much of Tasmania's violent crime: the deviant ecology of Port Arthur had quickly spilled beyond its surveillance catchment (Reynolds, 1969). In 1848 and 1849, for example, 93% of Tasmania's serious crimes were committed by convict-emancipists who made up 68% of the population (Reynolds, 1969). By the mid-1860s, following the establishment of the Separate Prison at Port Arthur, which introduced solitary confinement as a standard rehabilitation technique, Tasmania had more lunatics, prisoners, serious crime and abandoned children than South Australia and Queensland combined (Reynolds, 1969, p. 21). More than anywhere else in Australia, the dark underbelly of Tasmania's history was moulded by deviance. Though formally designed to discipline these flows of crooked wrongdoings, Port Arthur actually occupies an important place in their gestation. Bushrangers, for instance, had far-reaching impacts and found their home in the cover of the bush because of their acquaintance with trees through timber-getting. In 1895, the Secretary for Lands, one E. A. Counsel, reported that bushrangers and timber poachers were wreaking havoc amongst Tasmanian saw-millers, stealing timber and equipment (Carron, 1985). It is by some weird, looping irony, to borrow from Morton (2016), that the bushrangers inverted the gaze of the institutional panopticon on to the free-settlers. The thick forests now disguised the nefarious activities of these bandits; their criminal notoriety earned them names like 'Hellfire Jack' and meant that they inspired fear through reputations that spatially exceeded their criminal movements. In 1895, the consequence of these bushrangers was that free-settler saw-millers, according to Counsel, were too threatened to establish permanent homes and the equipment to achieve largescale extractions of timber, even though the government had provided them with free parcels of land for the purpose (Carron, 1985). In this way, the deviant ecology, spawned from Port Arthur, severely inhibited the industrial/colonial project of extraction of vast wilderness areas.

The impacts of these early 'delinquent-conservationists'—who preserved their wilderness hideouts—set in motion a unique environmental heritage in Tasmania. In an ongoing effort to encourage saw-millers to settle and invest in the timber industry, in the face of bushranging activities, the Waste Lands Act of 1881 was introduced to empower the Governor to establish protective reserves to manage timber and free-settler workers. Since granting large leases had not resulted in large-scale timber cutting, as the Lands Department complained, those reserves by default began to transform into spaces where forest management was not governed by the strictures of industry. By 1920, the Forestry Act designated one and a half million acres for state protection in only seven years. In wider conservation opinion it wasn't until the 1970s that 'wilderness' began to be cherished for its pristine 'natural' qualities instead of being viewed as a 'frontier to be tamed' (Household & Sharples, 2008). Yet, in Tasmania, one could argue that the 1920s Forestry Act was ahead of its contemporaries in its vision for wilderness protections. Perhaps the 'outlaw conservationists' that we argue exist in the bushrangers push this attitude of outback veneration even further back to the mid-nineteenth-century. This deviant ecology has endured into the twentieth century, continuing to undermine the voracity of industrial values in this region. In 1972 it was because of the strenuous dissent of local communities protesting against the flooding of Lake Pedder to form a large artificially dammed hydro-electric plant, which would have destroyed abundant habitats, that the world's first 'green party' was formed. Thus, this deviant ecology, historically sedimented amongst the criminals and bushrangers of Port Arthur, spawned a geo-politics of trees with global momentum.

# **Concluding thoughts: arboreal futures**

As readers will find in other papers of this Special Issue, the dominant narrative of Port Arthur is one of an emerging nation, forged in the industries of the penal colony. In this paper, we have argued that its history of indifferent extractive practices and industrialised labour places it directly within the logics of the Anthropocene. But we have also pointed to a deviant ecology, driven by the monstrous 'arboreal-other' protagonists of Port Arthur, which we suggest disrupted the linearity of a singularly industrial timeline to the Anthropocene. To understand this deviant ecology, we introduced the idea of 'spectral accretions' to illustrate the interspecies relations at Port Arthur, whose combined efforts, in this context, push back against Anthropocene. The trees exist as one of many spectral accretions at Port Arthur: unlikely residues of overlooked pasts. In this case, the trees generated momentums around deviant interactions that drove, counterintuitively at this site of industrial extraction, towards a 'weird' thread that sought their own conservation. Perhaps it was with the spectre of intent that these arboreal-others were acting in self-preservation? Though they were so prevalent they were unexceptional, the trees engineered habits and routines that subverted their otherwise dominant role in the industries of the Empire. Their mighty, straight trunks blinkered the minds of the discipliners because of their wealth value, and the convicts because of their weighty risks. But it wasn't in the trunks that the spectral accretions eddied and resided. For the 'bushrangers' it was the gnarled roots that disguised their movements, and for the runaways it was the twisted foliage that offered cover from recapture. Convicts and arboreal-others, together, were coerced into producing energy and resources for others; at the same time, our arboreal-others were also entangled in the site's work of discipline and surveillance. Their monstrous actions reside there now as a ghostly presence that remains integral to the site, yet their stories have largely been erased from the dominant histories that we are told there. Crucially, our close engagement with the lives and legacies of arboreal-others has also opened up new ways of thinking about Port Arthur and its relations to heritage and Tasmanian nature conservation. A focus on human nature alone, then, can be seen as counterproductive in this context; instead, attention to other kinds of life, located within a shared and struggling world, can produce new ways of thinking about the histories and future of a place.

Richard Gathercole, an ex-convict, sits on the shady veranda of his simple homestead in the new settlement of Carnarvon sipping black tea. It is the last day of 1897. He reflects quietly on the new settlers that swarmed into Port Arthur after it closed. 'It used to be that people couldn't wait to get out of this place, now they colonise it like ants', he mused. For him, punishment was his way of life, his home, he remembers nothing else. Behind his house a thinning forest of stringy eucalypts cascades down the hill, their white trunks peeling long strips of gum-rich bark from the canopy to the blanket of leaves on the ground below. Though the forest still endures prolific timbergetting, its numbers seem hardly to have dwindled. The wall of trees bears down upon the new town, recognising no distinction between the caged and the liberated. A single ignition point. The stringy bark becomes a wick, channelling fingering flames from the carpet of leaves at the base of the trunks, to the topmost branches. Oozing eucalyptus oil bubbles contentedly and then lights. Moments pass and the hillside is ablaze, fuelled by decades of timber-getting detritus on the forest floor. In the distance, the new settlers leave their meagre belongings and run. The trees invite the flames to warm and lap at the seed pods in the upper reaches of the canopy, caressing them to life so that after the fire subsides, they will reclaim.

#### **Notes**

- A series of vignettes, marked out in italics, are located throughout the article. Each vignette draws from material found onsite at Port Arthur Historic Site (i.e. interpretation panels, audio-visual guides), as well as field-diaries and archival material.
- 2. For ethical reasons, we have purposefully omitted mention of the 1996 Port Arthur massacre, which left thirtyfive children, women and men dead and twenty-three injured at the hands of Martin Bryant, who entered the historic site armed with a semi-automatic rifle. The majority of Bryant's victims were in the Broad Arrow café when his attack began. Whilst Bryant's notoriety and the trauma he inflicted certainly enables the site to fit within accepted definitions of 'dark heritage', and whilst some visitors will undoubtedly be haunted by memories of what happened there, we were challenged by the prospect of focusing on the massacre in this paper. In large part, our reticence arose from discussions we had with staff working at Port Arthur during our visit, as well as our own personal experiences with death, anguish and loss, and the knowledge that acts of remembering also have the power to harm. As Tumarkin (2004, p. 19) writes, 'On the tours of Port Arthur, the majority of guides now walk right past the Broad Arrow. Without stopping. The visitors heckle, of course, persist with questioning even when the guides' faces close in. The visitors want to know what happened. But the guides don't talk. A lot of them simply can't'. A conscious decision has been made by the Port Arthur Memorial Committee to avoid sensationalising the massacre. Aside from a sliver of information provided by the site's website and guidebook, very little is said about the massacre to Port Arthur's visitors; the Memorial Garden contains an equally limited amount of text. The aim, it would seem, is to instead encourage visitors to reflect on the 'on-site historic dark tourism rather than considering the contemporary dark tourism event' (Frew, 2012, p. 46). We adopt the same position because we recognise a distinction between experiences of lived-trauma where being asked to remember forces a visceral reliving of those experiences, and historic traumas that are beyond the scope of living memory. Those interested can read more about the 1996 massacre in the context of dark heritage in Tumarkin (2004) and Frew (2012).
- 3. 'More-than-human' here draws from the work of Sarah Whatmore (2006) and the broader sub-discipline of 'more-than-human geographies'. It captures the interconnections and relationships between and among humans, places, animals, spirits, and other non-human agents and subjectivities.
- 4. Convicts were required to undertake many forms of hard labour at Port Arthur, including timber getting, quarrying and the grinding of wheat. They often worked in 'gangs', moving as 'part of a mass' and were 'referred to collectively' (Dunning & Maxwell-Smith, 2002, p. 40). One such collective was the 'centipede gang' or 'giant centipede'. Both terms have been used to describe timber-getting gangs at Port Arthur since at least the 1830s, as the following quote makes clear: 'As the centipede moved along, and the truth flashed upon the mind, that it was a collection of human beings performing that expiation of crimes against their country which its laws were exacting ... this log seemed the weight of evil consequent upon it, which they were called upon to unite in resisting' (Extract from Ellison's Almanak & Ross' Van Diemen's Land Annual, 1837, p. 91, as cited in Dunning & Maxwell-Smith, 2002: 41).

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