Article

Anthropocene islands: There are only islands after the end of the world

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Abstract
Many Anthropocene scholars provide us with the key take home message that they are writing 'after the end of the world'. Not because they are writing about apocalypse, but because they are engaging the Anthropocene after the profound crisis of faith in Western modernity which has swept across academia in recent decades. Here the dominant problematic of contemporary Anthropocene thinking has rapidly turned away from modernity's human/nature divide to that of 'relational entanglements'. Thus, Anthropocene scholarship is taking a particular interest in geographical forms and cultures which are held to bring this problematic to the fore for more intensive interrogation. In this article, we examine how the figure of the island as a liminal and transgressive space has facilitated Anthropocene thinking, working with and upon island forms and imaginations to develop alternatives to hegemonic, modern, 'mainland', or 'one world' thinking. Thus, whilst islands, under modern frameworks of reasoning, were reductively understood as isolated, backward, dependent, vulnerable, and in need of saving by others, the island is being productively re-thought in and for more recent Anthropocene thinking. We explain how islands have shifted from the margins in a number of international debates, becoming key sites for understanding relational entanglements, enabling alternative forms of thought and practice in the Anthropocene.

Keywords
Anthropocene, correlation, epistemology, islands, ontology, patchworks, relationality, resilience, storiation

Introduction: Islands as emblematic figures for Anthropocene thinking

Many Anthropocene scholars provide us with the key take home message that they are writing 'after the end of the world' (Danowski and de Castro, 2016; Morton, 2013; Tsing, 2015; Watts, 2018; as just some examples). Not because they are necessarily writing about apocalypse, but because they are engaging the Anthropocene after the profound crisis of faith in Western modernity which has increasingly come to prominence in recent decades. For

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many contemporary Anthropocene thinkers, artists, activists, and policy-makers, modern frameworks of reasoning which claimed to separate humans from nature – to be able to grasp the 'world' as a coherent, controllable and manageable object – are part of the problem rather than the solution (DeLoughrey, 2019; Haraway, 2016; Sheller, 2018, 2020; Wakefield, 2020; Yusoff, 2019). In the Anthropocene, relational entanglements and feedbacks are understood to be too rich, vibrant, and complex to be commanded in this modern way (Alaimo, 2016; Latour, 2017). Indeed, it is widely noted that the question of how to live in a world shaped by relational entanglements and feedbacks is *the* problematic of contemporary Anthropocene thinking (Chandler, 2018; Chandler and Pugh, 2020a; Colebrook, 2019; Colebrook and Weinstein, 2017; Giraud, 2019).

Here, Derrida (2011: 9) resonates powerfully when he says that once faith in modern reasoning collapses we are faced with the stark realisation that 'there is no world, there are only islands'. Derrida's argument focuses upon forwarding deconstruction as a method or approach for challenging the metaphysical claims of modern philosophy. For Derrida, islands were key framing devices and the most obvious spaces of disruptive relations which work against modernity's requirement of coherence and its metaphysical grounding propositions. This article significantly expands upon Derrida's observation because we analyse how *work with islands has become productive in the development of many of the core conceptual frameworks for Anthropocene thinking*. Islands, long understood as emblematic liminal and transgressive spaces, have become key resources, drawn upon in the generation of a great deal of Anthropocene thinking, suggesting alternatives to hegemonic, modern, 'mainland', or 'one world' thinking.

Given that relational entanglement is the central problematic of the Anthropocene, it was perhaps inevitable that island geographical forms, practices, orientations, and imaginaries would come to the fore. As Donna Haraway (2016: 57) says, 'it matters which thoughts think thoughts'. Compared to islands, other geographical forms – like valleys, deserts, and mountains – seem to do less productive

'work' when it comes to developing the problematic of relational entanglements. Islands have become generative for Anthropocene thinking concerned with global warming, rising sea levels, the legacies of colonialism, the effects of mainland Western consumerism, nuclear fallout, climate migration, intensified hurricanes, and ocean acidification. Importantly, as we explain in this article, islands were already grasped as liminal spaces lacking modernity's coherence and uniformity. Increasingly, however, these liminal and transgressive qualities have been seen positively rather than negatively. The island power of relational entanglement had already been drawn upon generatively prior to the awareness of the Anthropocene; illustrated variously, from Darwin (2010) to Mead (1957), and from Glissant (1997) to Brathwaite (1999), Strathern (2004), and Hau'ofa (2008). This generative and disruptive power is widely recognised today in how islands are constituted in both islander and Western scholarship and research (Chandler and Pugh, 2020a; Hayward, 2012; Jetñil-Kijiner, 2019; Joseph, 2019; Perez, 2020a, 2020b; Pugh, 2013, 2016, 2018; Stratford et al., 2011; Teaiwa, 2011, 2012).

For those concerned with the hubris and counterproductive nature of modern frameworks of reasoning, the problem is the exclusion of relation and focus upon essences and linear or universal causality. The relations and feedback effects associated with the Anthropocene are widely held to be masked by and hidden from a reductionist modern ontology and epistemology (Tsing, 2015; Martinez, 2020). In debates about the Anthropocene, island life rises to the fore and is regularly invoked as having a different set of capacities, affordances, and potentialities to modern or mainland life (Hessler, 2018; Ingersoll, 2016; Morton, 2016; Wolfe, 2017). Islands are held to exemplify how all life is relationally entangled and co-dependent. Of course, not all Anthropocene thinking chooses to explicitly engage the geographical form of the island, but, as we will explain, a concern with island orientations, entanglements, affordances, and feedbacks, surfaces regularly enough, for enough people, in enough wider debates about the Anthropocene, to indicate that

islands are particularly productive for contemporary Anthropocene thinking.

To be clear, in this article we are not saying that there is such a thing as 'island thinking'; there are, of course, only variations of ways of drawing upon and working with islands in different places and at different times in history. Under older European and modern thought, the island was often understood as insular, isolated, and backward, when compared to continental, mainland, reasoning (Baldacchino, 2004; Gillis, 2004). Building directly from these older narratives, in more recent debates about climate change, islands are still often reductively framed in Western and modernist fantasies of control; understood as backward, helpless, vulnerable, and in need of saving by others. Islanders are 'often portrayed as passive victims waiting to be saved from their sinking islands' (DeLoughrey, 2019; Suliman et al., 2019: 305). But we think the debate is changing: the island is being productively re-thought, worked with, and drawn upon, in the generation of contemporary Anthropocene thinking.[1] Thus, in this article we are going to *draw out heuristically and examine in detail the work of thinking and working with islands after the end of the world*. The approach we take here is less one of advocating what island thinking and practices should be, and more about heuristically drawing out and analysing the ways in which these conceptualisations are today being developed in the Anthropocene.

Working with islands or relational thought per se is not one homogenous 'other' to modernist or mainland approaches, and so it is important to start a conversation about how we engage in working through the rich variety of possibilities and opportunites that island-oriented approaches afford today. In order to initiate this process, we carve out four tendencies or analytics which position the figure of the island centrally within broader debates about the Anthropocene: what we call Resilience, Patchworks, Correlation, and Storiation. These mark out two sets of conceptual sliding scales which, in the first half of the paper, focus upon ontology (Resilience and Patchworks), and, in the second half, (onto)epistemology (Correlation and Storiation). Throughout, we analyse how the emergence of these four 'island' analytics draw heavily upon islands as a reserve of non-modern modes of interdependence, relation, and feedback, facilitating alternatives to modernist framings of linear causality, universality, and homogeneity. Abstracting from specific authors and works, we draw upon a wide range of examples in order to illustrate how island imaginaries of human/world relations are generative of alternative methodological approaches in the Anthropocene. In the conclusion, we explain how our initial set of four analytic distinctions could serve to spark discussion about a critical agenda for island studies. Thus, we see this article as the starting point for a broader project – which we are calling *Anthropocene Islands*[2] – focusing upon conceptually and heuristically exploring ways of working with islands in contemporary Anthropocene thinking; and how this could become the beginning for a wider discussion reflecting upon how island scholarship opens up the Anthropocene as a problematic more broadly.

Relational ontology

As just noted, the approaches to relational ontology examined in this article are heurstically conceptualised in two modes, those of 'Resilience', closer to systems theoretical approaches, and what we call 'Patchworks', working on a more transitory understanding of connection and affect. As a brief summary of their key characteristics before we get into the details, Resilience draws out how the resilient capacities of life (often exemplified in discourses of island life) are part and parcel of spatially and temporally fixed assemblages with autonomous capacities for self-ordering or adaptation, whether these are communities or islands as interactive socioecological systems. Resilience thus traces and responds to relational entanglements, affordances, and feedback effects over space and time. Central here is how Resilience thinking draws upon the immanent interactive powers of life itself – again, often exemplified by island life – as a self-regulating system (Chandler, 2014; Pugh, 2014). As we will shortly elaborate, for us, this is a key reason why islands and islanders have emerged as particularly high-profile bounded spaces for Resilience thinking in debates about the Anthropocene (Kelman, 2018; McMillen et al., 2014) – because,

as the naturalist Charles Darwin (2010) found, in developing his theories of evolution, islands are remarkable localised sites of relational entanglements and feedback effects.

What we are calling 'Patchwork ontologies', which we see as a variation and development upon Resilience, are also increasingly prevalent in debates about the Anthropocene. These approaches characterise the work of many scholars, experimental artists, designers, and activists today engaged with debates about the Anthropocene (Bird Rose, 2017; Daou and Pérez-Ramos, 2016; Glissant, 1997; Hayward, 2012; Roberts and Stephens, 2017; Spahr, 2005; Tsing, 2015; Watts, 2018). They similarly draw upon the powers of islands, foregrounding ontological tropes of relational entanglement and feedback effects. But, in contrast to Resilience, Patchwork approaches have a much more open ontology of spatial and temporal becoming. They do not draw upon an imaginary of islands existing as self-regulating systems, tracing continuities in relation across linear time into an ever more efficient order, as in Resilience. Thus Patchwork ontologies locate the human subject as inside relations of interactive becoming rather than as a scientific observer manipulating or directing processes from 'above'. In this 'flatter' ontology, the task is a more interactive one of responsively 'staying with the trouble' (Haraway, 2016) of relational disturbances and emergent effects (Bird Rose, 2017; Tsing, 2015; Watts, 2018). Whilst Patchwork approaches thus align with a great deal of contemporary critical theory associated with the Anthropocene, our key argument will be that one geographical form which is doing some of the most important 'work' in these debates is the figure of the island.

Resilience

Resilience has without doubt become the analytical field through which islands have emerged as central to less modern, 'command-and-control', 'top-down', framings of governance, with linear thinking about progress and sustainability (Baldacchino, 2018; Kelman, 2018). In the Anthropocene, Resilience has emerged as the key conceptual innovation,

focusing upon governance as the art of adaptation or of adaptive change in relation to changing circumstances (Anderson et al., 2019; Chandler and Coaffee, 2016; Grove, 2018; Pugh, 2014; Wakefield, 2020). At the ontological level, Resilience approaches could be understood as reflecting a shift towards tapping into the immanent powers of complex adaptive systems. Rather than exporting or imposing external resources, knowledge, or assistance, it is the relational or contextual powers and affordances of these actors and agencies which are the key strengths upon which to draw. Whereas modernity is seen to homogenise and reduce life to the lowest common denominator, repressing any form of being outside the norm, by contrast, drawing upon, engaging, and working with islands has been absolutely central to the rise of Resilience thinking, because islands are imagined to have the opposite powers: the powers of creative and productive differentiation and individuation.

What enables islands rather than mainlands to illustrate the power of immanence; to intensify relationalities, differentiation, and individuation? What is the island ontology that is being oriented towards? Here we can turn to Darwin and the creative power he attributed to islands in his paradigm-shifting perspective of life itself; not only exemplified, but *revealed* to the rest of the world, by island life. Darwin famously theorised the radiating vibrancy of life in the form of a branching evolutionary tree, where different environmental opportunities enabled different answers to the problems of life. Species evolved and adapted differently on the Galápagos because different island ecologies facilitated and enabled this differentiation. The key word for Darwin was thus 'divergence' (Quammen, 2018: 6), which emerged from the separation and bounded nature of islands, and in focusing upon this he drew the world's attention to how islands are powerful differentiating 'engines' for life itself. Darwin explained how island life reveals how all life is interactive and profoundly relational, with each island context drawing out different potentials. Darwin was obsessed with the power of islands – this 'island effect'. Thus, with mockingbirds:

These gray, long-beaked birds differed from island to island but so subtly that they seemed to have diverged from one stock. Diverged? Three kinds of mockingbird? Varying slightly, this island to that? Yes: they appeared distinct but similar, in a way that suggested relatedness. If that impression were true, Darwin confided to Henslow [his Cambridge biology professor], confessing an intellectual heresy, 'such facts would undermine the stability of the species'. (Quammen, 2018: 4)

Darwin's work on islands brought the world's attention to the differentiating, creative, and adaptive potentialities of life itself. For Darwin, cats on an island, like lizards on a tiny Croatian island, or the finches on the Galápagos, do not evolve to become better cats per se, but 'better cats for catting on that particular island' (Quammen, 2018: 6). Darwin's heresy was to overturn the idea that evolutionary speciation is linear, or the unfolding of some essence of cat-being, but rather non-linear, and instead to do with the relational context of island cat-emerging or island cat-becoming. Species do not evolve in the sense of a linear hierarchy and telos of 'progress' (Quammen, 2018: 6). Since Darwin's time, island life has become a symbol of non-linear emergence and diversification because islands are seen to enable contexts to intensify and magnify interactive feedback effects (Kueffer and Kaiser-Bunbury, 2014). In this way, as Gregory Bateson (2000: 455, 457) acknowledges, the subject of evolution is no longer an isolated or autonomous one but the 'organism plus environment' or 'organism-in-its-environment'.

The creative attributes of life – exemplified above all else by island life – are absolutely central to Resilience-thinking, because they demonstrate that adaptation to change is not only possible but is an ontologically inherent power of life itself (Chandler and Pugh, 2020a). Resilience policymaking is thus oriented around designing for relational adaption rather than about planning, predicting, regulating, and controlling. Resilience is not about perfecting the essence of entities but about understanding capacities in relation to other agencies. Without Darwin's understanding of how (island) life works, Resilience theories based upon

system ecologies would not, and simply could not, have emerged in the way that they did. Examinations of island life were thereby frequently at the heart of early case studies of Resilience (Kelman, 2018: 5).

As the highly influential resilience scholar C. S. Holling notes in an interview about the resilience programmes which he initiated: 'When we considered whether someone would be good for the programme, the first question we'd ask was "Is he/she good on islands?"' (Alliance Magazine, 2012).[3] Islands increasingly became generative as both laboratories for Western science *and* as key sites of creative adaptation, relational affordances, and feedback effects. Key developments in Resilience understandings drew upon extensive island research; including in Fiji (Gane, 1975), the Caribbean (O'Keefe and Conway, 1977), and Papua New Guinea (Waddell, 1975). Foregrounding islands as intensive sites of relational entanglements, affordances, and feedback effects (Westman, 1986) crucially reverses the epistemological and governing hierarchies of island vs. mainland. It challenges the top-down, modern, and external centralisation of knowledge and power off-island, instead switching the focus of attention to the active possibilities and relational potentialities of (island) life.

Today it is commonplace for international policymakers, academics, and practitioners to work with islands in these ways and to highlight how we can all learn from island life and islanders' capacities for resilience (Pugh, 2018). Islands are understood to be a resource, because they appear to be literally generative of new and creative forms of life. Resilience as a mode of governance seeks to learn from and to replicate these generative powers, seen in the potentialities of (island) life. It seeks to direct, instrumentalize, and governmentalize approaches, often illustrating how the resilient capacities of (island) life are part and parcel of whole (island) socio-ecological systems. Thus it has become near ubiquitous in the literature to argue that islanders' 'knowledge systems include valuable insights on seasonal cycles, ecological processes, and the management of biocultural diversity that are relevant at a broad scale for understanding resilience and adaptability to the social-ecological effects of climate

change' (McMillen et al., 2014: 44). Island life is widely understood as constituting a living system that the rest of the world may learn from; exemplifying the creative potentialities or 'emergent' powers of life itself – 'system effects' – that cannot be accessed directly by way of modern frameworks of reasoning. Working with islands has historically been and today remains fundamental to Resilience as a key ontology and analytic for many concerned with contemporary Anthropocene thinking.

Patchworks

While Resilience works with fixed spatial and temporal understandings of system interaction, a more fluid grasp of relational ontology can be heuristically grasped in terms of 'Patchwork' approaches, which, as noted, are prevalent in the work of many contemporary Anthropocene scholars, experimental artists, designers, and activists. Patchwork approaches develop and disrupt the island ontology of Resilience thinking so that the modernist imaginary of islands existing in a flat, one dimensional space, side-by-side, tracing continuities in relation across linear time, is replaced with a more open island ontology of spatial and temporal becoming (Glissant, 1997). Working with islands is radicalised, thereby destabilising the 'solutionist' or instrumentalising aspects of Resilience and making Patchwork approaches more open, less governmentalizing, and human-centred.

For Marilyn Strathern (2004), many people across the world, exemplified by the Melanesian islanders (the interlocutors for Strathern), do not construct their existence in terms of modernity's human/nature divide. What Strathern (2004: 118) calls these 'Melanesian cyborgs' see themselves as inextricably part of relations, where '[o]ne person or relationship exists cut out of or as an extension of another. Conversely, these extensions – relationships and connections – are integrally part of the person. They are the person's circuit'. This is widely reflected in Melanesian island culture; so that:

> There is no difference between shell strands and a matrilineage, between a man and a bamboo pole, between a yam and spirit. The one 'is' the other,

insofar as they equally evoke the perception of relations. The different components or figures are thus all parts of persons or relationships fixed on to one another . . .

> [For example] the flutes that both are children and produce children, or spirits that are both within and beyond the body-form of persons. Melanesians have a cultural facility for presenting their extensions of themselves to themselves, a facility for, we could put it, moving without travelling. (Strathern, 2004: 118)

These islanders are therefore non-modern through and through – '[t]he distinction between the Melanesian cyborg and Haraway's half human, half mechanical contraption is that the components of the Melanesian cyborg are conceptually "cut" from the same material' (Strathern, 2004: 118). What is key for Strathern about Melanesian island cultures (and for the development of more recent Patchwork ontologies in Anthropocene thinking) is 'the creative act of severance, the burst of information that makes one person visible as an extended part of another' (2004: 118). Thus, for Strathern, it is not merely that people and things are cobbled together as hybrids or cyborgs of human-non-human relations; rather, what exists on the island *already* emerges from the 'perception of the common background to all movement and activity' (2004: 118).

In such Anthropological studies (see also Bird Rose, 2017; Suwa, 2007), island cultures offer us insights into worlds which cannot be reduced to the binaries which sustained the modernist imaginary (subject/object, mind/body, human/nature). Given what we have just been saying, it is no surprise that many leading contemporary anthropologists, like Anna Tsing (2015), have recently chosen to focus their research specifically upon islands and islanders. Here an island-oriented relational ontology foregrounds the ongoing processes of engaging relational entanglements, emergent disturbances, and effects. As Tsing (2015) makes clear in her highly influential book, *The Mushroom at the End of the World*, working with islands and islanders brings to the fore the localised figurations and co-shaping of relations which cannot be grasped by formalised and abstract modern reasoning and interventions. Tsing's (2015) famous study of Japanese islanders

cultivating the matsutake mushroom is a very good contemporary example of Patchwork ontologies coming to the forefront of contemporary thought.

Exploring the relationship between people, landscapes, and mushrooms, Tsing follows the commodity chain of the matsutake mushroom from North America and China to the islands of Japan. In contrast to what is seen as the modern hubris of North American and Chinese practices which separate humans from nature, for Tsing, it is above all the Japanese concept of *satoyama* woodlands which offers us the most hope in the Anthropocene:

> Satoyama are traditional peasant landscapes, combining rice agriculture and water management with woodlands. The woodlands – the heart of the satoyama concept – were once disturbed, and thus maintained, through their use for firewood and charcoal-making as well as nontimber forest products. Today, the most valuable product of satoyama woodland is matsutake. To restore woodlands for matsutake encourages a suite of other living things: pines and oaks, understory herbs, insects, birds. Restoration requires disturbance – but disturbance to enhance diversity and the healthy functioning of ecosystems. Some kinds of ecosystems, advocates argue, flourish with human activities. (Tsing, 2015: 151–152)

For Tsing, humans and other forms of life are intricately entangled through such islands of interconnection, which are brought to the surface via momentary or contingent disturbances and effects, and each island requires the care of constant and delicate re-configuration to engender these creative processes. Here working with an island ontology in terms of relations and feedback effects thus shapes an understanding of the world as a pluriverse of multiple or many worlds; and, in Patchwork ontologies this is associated with looking at concrete interactions in specific moments and often rich ethnographic research; enabling us to see the creativity in the everyday (see also Daou and Pérez-Ramos, 2016; Watts, 2018).

For Tsing, in these ways, the practices of satoyama become a radical tool for decentering the hubris of modern reasoning which seeks to manage nature in more 'top-down' and 'goal-directed' ways. As Tsing continues:

One Japanese scientist explained matsutake as the result of 'unintentional cultivation', because human disturbance makes the presence of matsutake more likely – despite the fact that humans are entirely incapable of cultivating the mushroom. Indeed, one could say that pines, matsutake, and humans all cultivate each other unintentionally. They make each other's world-making projects possible. This idiom has allowed me to consider how landscapes more generally are products of *unintentional design*, that is, the overlapping world-making activities of many agents, human and not human. The design is clear in the landscape's ecosystem. But none of the agents have planned this effect. Humans join others in making landscapes of unintentional design. (2015: 152, emphasis in original)

This focus upon 'unintentionality', 'effects', and 'disturbances', rather than instrumentality, is clearly different from the 'solutions-thinking' of those who seek to draw upon and develop 'island powers' of Resilience. Indeed, for such Patchwork island approaches as Tsing's, solutions-thinking would be a barrier to the need to be constantly attuned, alert, and responsive to emergent effects. Neither is the power of interactive island life understood in terms of self-regulating, harmonious systems which tend towards order. The promise of 'order' or 'solutions' would be too modernist, denying our entangled responsibilities and commitments, while greater sensitivity to effects and disturbances enables us to become increasingly aware of them.

Patchwork thinking with islands is therefore *productive*, and nowhere is this more obvious than in the work of Caribbean island scholar Édouard Glissant, who we see as a forerunner of this ontological approach. Here Glissant's (1997) argument is that life (again, exemplified for him, above all else, by island life) is a coming to consciousness within what he calls the opacity of 'Relation'.[4] Conceptually speaking, for Glissant (1997: 155), Relation is not actually an entity as such which could be transparently grasped and instrumentalised in the ways of modern reasoning or Resilience island thinking. Relation is instead the very process or *movement* itself, living through and with the disturbances and effects – of colonial legacies, island geographies, oceanic currents, elemental forces, and everything

else – that are formed and continuously reformed to make up (island) life. In Glissant's work, which examined the Middle Passage, creolisation, and the Caribbean, he argued that these islands were 'explosive regions' where Relation is 'gathering strength' (Glissant, 1997: 33). For Glissant (1997: 191), modern, continental frameworks of reasoning had reductively and oppressively focused upon how it was possible to 'grasp' the world; so that 'the verb *to grasp* contains the movement of hands that grab their surroundings and bring them back to themselves' (again, exemplified by the grasping hand of colonialism on islands). By contrast, Glissant's more radically open engagement with 'Relation' pushes relational thinking with islands to the point that we can never stand outside and grasp; only ever contemplate and explore 'the texture of the weave', living with and through the turbulence and relational effects (Glissant, 1997: 190).

John Drabinski (2019: 46) has recently underscored the centrality of thinking with islands to Glissant's whole approach, highlighting that 'Glissant's literary and theoretical work consistently engages with the image and botanical-geographic meaning of the mangrove in order to characterize the polyrooted, rhizomic character of Antillanité'. For Roberts and Stephens (2017: 19), engaging Glissant's more productive way of thinking with islands provides us with what they call an 'anti-explorer' method, which we understand as a powerful Patchwork approach to contemporary Anthropocene scholarship. This challenges the idea of the (White, male) island explorer who 'sallies forth with confidence that if the world is as yet unknown, then it at least may be surveyed and hence known via Euclidean geometry' (Roberts and Stephens, 2017: 20). Glissant instead works with '*the infinite island*' (Roberts and Stephens, 2017: 23, emphasis in original), 'a maelstrom, a place constituted by infinitely large numbers of analytical frames moving toward the infinitely minute' (Roberts and Stephens, 2017: 28). This foregrounds how Glissant's thinking with islands is a practical one in which the subject no longer stands apart, outside or above as an observer of relations, but rather practically worlds themselves – expanding their world – in embedded and embodied ways which cannot be known in advance.

For such Patchwork ontologies, islands are not merely worlds that we are on, but rather within; as Glissant (1997), Hayward (2012), Roberts and Stephens (2017), Tsing (2015), and Sheller (2020) draw out, islands are also ways of expressing and understanding our own processes of worldmaking. Thinking with islands, as Teaiwa (2007) says, then importantly becomes a *verb*[5]; a practice of opening ourselves to relational affects and knots of co-relational entanglements, rather than one of Resilience which tends to reify the world and suborn us to it. In Patchwork ontologies the focus is upon how we make, explore, and journey, rather than merely reflect upon and become more aware of our relational interconnections so as to become resilient. The central focus of Patchwork approaches is 'giving-on-and-with' (Glissant, 1997: 142) the power of disturbances and emergent effects, where, in the work of many influential Anthropocene scholars, activists, artists, and experimental designers today, island ontology becomes a key resource to draw upon and for stimulating thinking about how relationality is radically *open* and contains potentialities or possibilities which are beyond our capacities to predict or control.

Another brief example of an influential Patchwork approach for Anthropocene thinking is Deborah Bird Rose's (2017: G53) engagement with the Australian Aboriginal aesthetic of 'shimmer', which pervades many aspects of Aboriginal island life. For example,

> At an ecological scale in northern Australia, one of the most obvious patterns is the pulse between wet and dry seasons. The desiccation of the dry season dulls the landscape in many ways (although the country is always beautiful): there is a winding back of fertility, a loss of water, and thus loss of the possibility for sun to glint on the water. But then, things begin to move toward brilliant again: the lightening starts to spark things up, the rain starts to bring forth shiny green shoots, and rainbows offer their own kind of brilliance. Shimmer comes with new growth, the everything-coming-new process of shininess and health, and the new generations.

What is important about shimmer, for Bird Rose, is that the past does not exist as a lack; as a

stepping-stone to march on from, as in the telos of modernity with its linear understanding of progress, development, and time. Rather, shimmer is a form of expansive amplification of the richness and complexity of island relations, which does not understand the world as being 'composed of gears and cogs but of multifaceted, multispecies relations and pulses' (Bird Rose, 2017: G55). For Bird Rose (2017: G55), only in this way can we bring out the full potentiality of (island) life; its 'diversity, complexity, abundance, and beauty'. Rather than a universal theory of progress, where the past was always a necessary moment, fixing the determination of the present, for such Patchwork ontologies, the past is an 'inexhaustible' resource for holding open transformative hope in the present and for an ethics of care: '[f]or shimmer to capture the eye, there must be absence of shimmer. To understand how absence brings forth, it must be understood not as lack but as potential' (Bird Rose, 2017: G54). This is why there is a need to expand thinking with islands into a focus upon the richness and depth of relation: everything in relation becomes a possibility.

In a paper we can only focus upon a few examples of Patchwork ontologies. Many others include Hayward's (2012) development of the 'aquapelago' concept on Haida Gwaii; Daou and Pérez-Ramos' (2016: 8) examiniation of how 'the island [has become] a design tool, in scales ranging from gardens to cities to regions'; Spahr's (2005) Hawaiian poetry in the Anthropocene; Kelly and Lobo's (2020) work with tidal country and cultures in North Australia; Latour's (2017) examination of how Gaia developed from thinking with islands, and Watts' (2018) work with Orkney islanders. In all these cases, and many more, it *matters* that they draw upon and engage with the figure of the island and islanders. These are not on the periphery in such debates and developments, blank spaces awaiting the insertion of new philosophical frameworks of reasoning. Rather, invoking certain island imaginaries, and islands' relational entanglements, affordances, and feedbacks in particular has become generative in the development of Patchwork approaches.

(Onto)epistemology

After establishing that engaging islands and islanders in the Anthropocene is seen as highly productive for the generation of relational ontologies, thereby disrupting modernist frameworks of reasoning and a telos of linear progress, we now turn to how island-oriented work is productive of *distinctive relational approaches to epistemology*: those of *onto-epistemology*. In a non-modern framework of thought, questions of epistemology are not entirely separate from those of ontology, but are onto-epistemological: knowing is not a product of passive reflection but of being itself. Here we seek to suggest that island-oriented approaches to epistemology can be approached heuristically by demarcating two modes of onto-epistemological understanding, firstly, that of *Correlation*, where there is a direct relation or registration of effect, depending upon the affordances of the entity concerned, and that of *Storiation* where the effects circulate in ways which problematise modernist constructions of linear time and space.

Central to both is again how islands are worked with as important sites of relational entanglements in order to generate new approaches to knowledge and understanding. Both approaches to knowledge depart from key assumptions of the modern epistemic imaginary and are material, posthuman, or more-than-human in orientation. Where distinctions can be heuristically drawn between them is in how they approach, register, or 'read' the Anthropocene. Correlation is a relational onto-epistemology which relies heavily on patterns of repetition and stable relations of surface effect. Here island life and island cultures emerge as key figures for developing approaches which sense and register the Anthropocene; illustrated well in how the island has become symbolised as the 'canary in the coalmine'. By contrast, Storiation offers a more speculative, disruptive, and generative set of openings. This is illustrated in recent critical framings which draw widely upon island life and cultures to foreground how the traces, hauntings, and legacies of modernity and colonialism are not over, but constitutive of the present.

Correlation

Contemporary Anthropocene thinking is fundamentally marked by new approaches which seek to affirm the enabling powers of more-than-human relations. For such authors, the power of the Anthropocene (Danowski and Viveiros de Castro, 2016), 'Gaia' (Latour, 2017), the lithosphere (Clark and Yusoff, 2017), or 'hyperobjects' (Morton, 2013), like global warming, while too great for the human intellect to grasp in modernist forms of 'command-and-control', enable new forms of thinking and responsivity to emerge. Although 'anthropos' may have forged the road to the Anthropocene, the tables are turned; our transforming planet is setting the pace, revealing to us the overwhelming power and forces of more-than-human relations. Humans are now tasked with following and responding to these forces, having a more humble role: to learn how to better co-relate and sense what the transforming planet is telling us. The problematic becomes that of: 'how to listen?' and 'how to become aware?' The sciences of correlation, rather than causation, and the need to develop new methods and approaches of onto-epistemology – Correlational technologies – have thereby come to the fore.

As we have examined elsewhere (Chandler and Pugh, 2020b), key to the onto-epistemology of Correlation is the capacity to see, sense, or register processes of becoming beyond those 'given' directly in appearance. Correlation is indirect, the registration of one entity, force, or intensity in the changes in appearance of another entity. Correlational approaches depend on contextual relations and regularities, where experiential knowledge enables signs and signals to be read as indexing or registering other, often unseen, changes. For example, a dog barking in the night-time might alert someone to an intruder, the bark thus registering, indexing, or revealing something that would otherwise be unseen. Correlational forms of knowing or sensing thus enable a wide spectrum of interactions in the human and the non-human world and are understood to inform the interactive evolutionary processes of life itself, as life forms co-relate in ecosystem processes of mutual adaptation (Kohn, 2013; Van Dooren, 2014). Correlation is not

specific to human knowledge systems and, in modernity, was long side-lined in favour of the truths generated by the laws of causation. After the end of the world as imagined in modernist ways, Correlational approaches have increasingly garnered the attention of policy-makers and academics and, for this reason, they have often been drawn to island practices and imaginaries where these forms of working are understood to be more central to everyday life.

As Elizabeth DeLoughrey (2019) notes, islands have become vital interpretants in the Anthropocene for mapping and modelling indirectly, through the registration of effects, the impact of complex transformations in planetary conditions. Islands are often seen as 'canaries in the coalmine' (Benwell, 2011) because they are widely understood as small and extremely vulnerable to catastrophic climate change, and such forces as atmospheric pollution, rising sea levels, and plastic pollutants (Grydehøj and Kelman, 2017). Thus, again, there is something to working with *island* affordances and properties that matters for the development of Correlational onto-epistemologies. Islands are not 'blank spaces' devoid of meaning, simply awaiting the 'parachuting in' and 'testing out' of Correlational onto-epistemologies. Rather, we argue that working *with* islands as sites of relational entanglements, affordances, and feedback effects has been crucial for the generation of Correlational analytics in Anthropocene thinking.

It is important here to illustrate how the island as a key register for climate change shifts the focus to sensing and correlation, rather than a modernist ontology of causation, as this is central to the importance of islands as instruments for non-modern ways of working in the Anthropocene. Correlation relies on causal laws or regularities, but the key aspect is that these are secondary to correlation rather than primary. As Latour (2017) argues, correlational epistemologies are not about entities or essences but relations: the causal becomes background to the relational effects which are foregrounded. In the classic trope of the canary in the mineshaft, the problem of carbon monoxide is not addressed at the level of causation (predicting it or preventing it from appearing or solving the problem afterwards) but

through developing a method of *signalling* the existence of poisonous fumes and of increasing human *sense-ability* through the power of Correlation. Without this registration of effects, carbon monoxide is understood to either exist or to not exist in a mineshaft, and by the time it exists it is too late and the coalminers die.

The addition of the canary into the situational context reveals the coming into existence of other actants, the poisonous gases, which would have previously operated unseen, beneath the level of human cognition. The affordances of the canary enable poisonous gases (variations in intensities) to become quantified or measured through extension via the material body of the canary. In the same way, the fact that mercury expands when heated is a specific capacity or affordance that enables enrolment in a technical more-than-human assemblage – a thermometer – or correlation mechanism. As Scott Schwartz (2017) writes, these affordances enable the translation of an intensity, like heat, to be read or made legible through extension, in the form of measurement; thus, enabling something that cannot be seen directly to be datafied indirectly. In short, correlation translates quality into quantity, enabling its registration through effect. Intensities such as air temperature or densities thereby come into existence as meaningful or legible objects.

These underlying logics of Correlational approaches are usefully highlighted in Stephanie Wakefield and Bruce Braun's (2019) work on the deployment of 'green infrastructure' on Manhattan island. This relies on the agency of non-human actors, such as the deployment of oysters as seawall infrastructure, to enable sensing that is grounded on responsivity. Wakefield and Braun highlight the distinctiveness of this mode of governance, which rather than seeking to adapt and learn on the basis of causal relations that are oriented towards the future, has a very different temporality or approach to the future in that it seeks to '*ward it off*', attempting to keep everything as it is by cancelling out or absorbing events (Wakefield and Braun, 2019: 13, emphasis in original). Rather than seeking to reform or adapt existing modes of infrastructure – for example, by building walls around Manhattan island – such approaches instead seek to maintain existing

forms of infrastructure but to add other forms of sensing and responsivity. While modernist or causal understandings assumed a hierarchy of centralised reporting and adaptation, such Correlational governance has a much flatter ontology of self-generated responses, whether at the level of society, community, or the quantified self.

Along with island ecologies, probably the most high-profile illustration of this in contemporary Anthropocene thinking is the widespread celebration of Indigenous islanders' own Correlational abilities (Chandler and Reid, 2019; Pugh, 2018; Suliman et al., 2019; Wright et al., 2020). Throughout international policy-making and academic literature today, Indigenous islanders are regularly characterised through their capacities for Correlation seen as a vital attribute for survival in the Anthropocene. As First People's Worldwide (n.d.) say, 'Indigenous science and knowledge are based largely on bioindicators, or natural signs . . . Learning from nature in this way is an integral part of the Indigenous worldview that all things are connected, and that nature, when respected, can be a benevolent part of the whole community'. Indigenous islanders are recurrently characterised as possessing unique correlating and sensing expertise, lost to the Moderns:

> On these small atolls the ocean and its rhythms, the endless sound of the waves breaking on the reef, and the tides, constantly contracting and expanding around the islands like a heartbeat, feature in most aspects of daily life. Navigational skills have allowed a handful of people from these islands to align themselves in this ocean world and to predict sailing and weather conditions. Navigators have interpreted the formation and colour of clouds to identify islands over the horizon. Birds and certain species of fish would give an indication of the distance to land. Star paths were followed when travelling greater distances. Most impressively, ocean swells, reflected from far away islands and reefs, would echo through the canoe and its navigator, and would be recognised like the face of an old friend. (Robertson, 2018: 50–51)

In such perspectives, this living and evolving knowledge of relational interaction is often understood as (or previously relegated to) 'Indigenous

knowledge'. However, the fact that Correlational approaches necessarily take an 'algorithmic' form of 'if this . . . then that', has enabled recent developments in high tech computation and the ready availability of sensors, the Internet of Things, to put correlational 'Big Data' approaches increasingly to the fore in Anthropocene policy governance. The characteristics of islands in particular, as enclosed relational spaces of interdependency, are often said to make them 'by their very nature, agile in size and governance' – useful factors in becoming an innovation 'testbed'. They can move quickly to trial and scale new technology, providing innovators, big and small, with real-world environments for testing new ways of working (Handforth, 2020).

'How do you turn these islands into a living IoT [Internet of Things] lab? Just add 500,000 sensors' (Solana, 2017). In Spain's Balearic Islands, referred to in this quote, the movements and relational interactions of island life can become seen or datafied through their translation into digital sequences, via their registration through sensory equipment, now so cheap as to become increasingly ubiquitous. Perhaps the most obvious example of this is Singapore, where, as *Smart Island Journal* (no date) says:

> Making technology all pervasive, permeating every sphere of activity, Singapore became an Intelligent Island by year 2000. But technology does not cease to evolve, so Singapore has a constant focus on it and now has a 10-year plan to become the world's first Smart Nation by 2025! Sensors will be rolled out across the country to further improve the quality of life for its citizens.

Such digital sensing operates through the Correlational logic outlined, enabling the unseen to be seen through the registration of effects, in these cases, upon the material body of the sensor. Thus, the prevalence of Correlational logics in an extremely wide range of practices today where working with islands is widely understood as central to the generation of new approaches, and in the 'smart island' trope: from the prolific use of Big Data combined with extensive networks of sensors detecting changing island coastlines and rising sea levels (United Nations Climate Change, 2019), to

the remote sensing of coral bleaching around islands as a bio-sensor of environmental change (Foo and Asner, 2019), to the growing interest in algorithmic correlation with social media feeds to see emerging island disasters (Whyte, 2017). Through such examples, we see how working with islands as key sites for understanding relational entanglements and feedbacks produces novel forms and leads the way for the generation of Correlational onto-epistemologies in contemporary Anthropocene thinking.

Storiation

Correlation approaches work to establish island onto-epistemologies as crucial to survival in the Anthropocene. They generate forms of knowing that are capable of grasping entities as having attributes and affordances in relation, rather than possessing fixed and distinct 'essences'. Correlation is dependent on regular, reiterated patterns of interaction. Whilst different from the modern logics of causation, it therefore still operates to generate scalable forms of calculation, measurement, and comparison – like measures of ocean acidity as registers of global warming. As with our discussion of island-oriented ontology above, (onto)epistemological work derived from island experience and imaginaries also takes a less modern or more 'disruptive' form; which we are conceptualising as Storiation. Storiation works with islands to speculatively bring to the forefront of thought *intra*-actions and effects (rather than inter-relations) through their afterlives and their ongoing and transformative traces. Storiation tends towards holding together entities and effects in ways that problematise and go beyond modernist framings of spatial and temporal locations of objects and events.

As one of the key thinkers for Storiation, Timothy Morton (2013: 36), argues, in the Anthropocene 'there is no "away"'; what we do 'sticks' and objects and experiences can appear to us through their legacies and afterlives which we can read in their ongoing material effects. The most obvious example is that there is no isolated island anywhere on the planet which has escaped global warming (Morton, 2016). This powerfully illuminates how

we all today live *within* the vast multi-dimensional forces of transforming planetary conditions. When we turn on the ignition of our car, buy a plastic bottle, or catch a plane, we contribute to what Morton (2013) calls the 'hyperobject' of global warming, which unfolds through trillions of spatiotemporal relations. Some of these play out immediately, in the intensified hurricanes hitting islands around the world every year. Others stretch out for hundreds of thousands of years; the length of time it takes for carbon to dissolve in the oceans surrounding islands. Thus, in working with islands we come to see a world which holds strange 'attractors' and interconnections, rather than one of clear separations, linear causality, or a hierarchy of branching 'trees'. For authors like Morton (2016), the effects of entangled relation mean that engaging islands can provide valuable insights into the 'afterlife' of objects and events in ways which transform our previous understanding of them as isolated or contained. The future, then, acts back upon the past as the 'afterlife' of relational effects continue to reverberate across time and space in 'strange', 'weird', or 'quantum' ways (Barad, 2019).

DeLoughrey's *Allegories of the Anthropocene* (2019) foregrounds how feminist insights have played an important role in the development of the Storiation analytic. Examining the work of Marshallese poet Kathy Jetñil-Kijiner, DeLoughrey (2019: 1) opens with Kathy Jetñil-Kijiner's poem 'Tell Them':

> tell them about the water – how we have seen it rising
> flooding across our cemeteries
> gushing over the sea walls
> and crashing against our homes
>
> Tell them what it's like
> to see the entire ocean_level_with the land

For DeLoughrey, the key point for Anthropocene thinking is that Jetñil-Kijiner's work 'does not employ an aerial, god's-eye view of the tropical island' (2019: 193), one which segments time and space, in a modernist way. Moreover, Jetñil-Kijiner's work 'deliberately minimises [islanders] historical participation in the arena of politics and science to bring forward an allegorical disjuncture

between the experience of place ("we see/what is in our own backyard") and the abstract realm that "we don't know" (the politics of science)' (2019: 4). *Allegories* thus draws upon feminist, postcolonial, and Indigenous perspectives not only to challenge the mainland god's eye view, but to foreground how the narrative use of disjuncture and rupture 'demands a multiscalar method of telescoping between space (planet) and place (island)' (2019: 2).

Allegory challenges linear histories of 'pasts' as 'events' separated from the present and works at 'uncovering other (feminized) "roots" and agents' (2019: 25), telescoping together that which a modernist methodology seeks to exclude or to disavow. For Storiation, what is of central interest are the traces, hauntings, spectres, and ongoing effects of coloniality and modernity. Storiation as an analytic disrupts linear understandings of causality as much as non-linear stories of complex ordering from chaos. For Vicky Kirby (2011: xi), interactive life (exemplified by island life) can be understood as 'textual' as 'life reads and writes itself', enabling Storiation to be understood as 'weird', 'strange', or 'spooky', in ways which foreground how the languages of 'feedback effects' fail to capture how entities do not pre-exist feedback effects or communication but are constituted with them. Storiation holds together entities and relations, causes and effects, and operates to expand onto-epistemological thinking. Onto-epistemological approaches of Storiation seek to speculate from the world rather than about it and to move beyond subject- or human-centred approaches to thought.

In Storiation, effects circulate in weird or strange ways, transforming our understandings of entities and of relations. Evolution on islands appears less as an increase in complex inter-relational efficiencies – as forms of being are perfected as they adapt for different environments – than as a weird carnival of contradictions, holding and including freaks, accidents, and mutations, and seeing these as fundamental to the working of systems and processes. One such example, perhaps the most emblematic of all the islands of the Anthropocene, is the Great Pacific Garbage Patch, a floating gyre of plastics, 'roughly the size of Texas, containing approximately 3.5 million tons of trash. Shoes, toys, bags,

pacifiers, wrappers, toothbrushes, and bottles too numerous to count' (Alaimo, 2016: 130). As Alaimo (2016: 130) states: '[e]veryday, ostensibly benign human stuff becomes nightmarish as it floats forever in the sea. The recognition that these banal objects, intended for momentary human use, pollute for eternity renders them surreally malevolent'. Objects and items can play fundamentally different roles – have very different lives and afterlives – but these cannot be separated from each other; they are intimately connected in the analytical approach of Storiation.

Here we can see that relational processes of emergence might be destructive rather than productive. But Storiation as 'death work', as Deborah Bird Rose stated (2017), is still productive of worlds. The detritus of consumerism, like colourful plastic bottle caps, has an afterlife in which they pass from one more-than-human assemblage to another:

> One bottle cap – such a negligible bit of stuff to humans – may persist in killing birds and fish for hundreds (thousands?) of years. There is something uncanny about ordinary human objects becoming the stuff of horror and destruction; these effects are magnified by the strange jumbling of scale in which a tiny bit of plastic can wreak havoc on the ecologies of the vast seas. (Alaimo, 2016: 130)

There is 'no away' and no 'past' in the Anthropocene, and here Storiation is not merely a way of seeing relations of environmental damage on islands; there is much of modernity that needs to be confronted through the tracing of legacies that are constitutive of the present rather than part of the past. Christina Sharpe's (2016: 22) *In the Wake* does precisely this in developing an analytic of life in the wake of slavery and in highlighting that the effects of chattel slavery on Caribbean islands and its afterlives are ongoing in the present:

> These are questions of temporality, the *longue durée*, the residence and hold time of the wake. At stake, then is to stay in this wake time toward inhabiting a blackened consciousness that would rupture the structural silences produced and facilitated by, and that produce and facilitate, Black social and physical death. (Sharpe, 2016: 22)

Thus Storiation – the material effects or registrations of being in the world – troubles the separations of space and time of modernity unlike approaches of Correlation (see also Gergan et al., 2020; Veland and Lynch, 2016). It is through Storiation that islands most powerfully enable the rewriting of modernity's attempts to construct a linear temporality in which the past and the future point in opposite directions. In the Anthropocene, whatever they say is 'over' or 'finished' is very much still with us.

This point is forcefully made by work in contemporary Black and Indigenous Studies which has increasingly drawn attention to how *island* tropes and island scholarship can be generative for critical thinking (Davis et al., 2019; King, 2019; Lopez, 2020; Neimanis, 2019; Perez, 2020a, 2020b; Sharpe, 2016). As DeLoughrey (2010: 705) says, the oceans surrounding Caribbean islands foreground places 'where the haunting of the past overtakes the present subject'. Such concerns are recurrent in many contemporary publications, such as Tiffany Lethabo King's (2019) *The Black Shoals: Offshore Formations of Black and Native Studies*, which draws heavily upon the Barbadian historian and poet Kamau Brathwaite (1999). Brathwaite's onto-epistemology of 'tidalectics' not only profoundly disrupts mainland, continental, and modern frameworks of space-time, and binaries of human/nature, it shows how Caribbean islanders emerge, literally as new forms of life, in the wake of colonialism:

> Why is our psychology not dialectical – successfully dialectical – in the way that Western philosophy has assumed people's lives should be, but **tidalectic**, like our grandmother's – our nanna's – action, like the movement of the ocean she's walking on, coming from one continent/continuum, touching another, and then receding ('reading') from the island(s) into the perhaps creative chaos of the(ir) future . . . (Brathwaite, 1999: 34; italtics and bold in original).

Brathwaite's island onto-epistemology illustrates well how Storiation speaks of intra-action and the holding together of dynamic forces and attractions, not inter-action between pre-defined and separate entities (see also Barad, 2019). Brathwaite's

'nanna' will surely at times stand back and critically reflect upon the conditions of colonialism, but the key point for Brathwaite's onto-epistemology is that it is her daily routines and embodied movements themselves which are the dynamic forces holding in – living on in and maintaining the legacies of – the wake of colonialism. Here there is no critical separation, binaries, or linear understanding; the situation is one of a dynamic holding together of hauntings and traces 'receding ("reading") from the island(s) into the perhaps creative chaos of the(ir) future . . . .' (Brathwaite, 1999: 34). This comes out particularly well in the tropes which Brathwaite employs to characterise colonialism on islands. Tidalectics thus speaks of how the focus upon intra-action deeply problematises modern notions of separate entities, predictive time, and flat space, instead favouring a more speculative process of thought that decentres the subject, starting from island and islander materiality.

For King (2019: 207), Brathwaite is a key figure for understanding how (island) life lives on in the wake of colonialism, and his 'old woman of Caribbean history engaged in the morning ritual of sweeping who walked on the water with sand in her toes', bears powerful witness to the ongoing praxes and meanings of what it is to be a Black(ened) human in the wake of slavery and the legacies of colonialism in the Anthropocene. As King (2019: 207) makes clear, Brathwaite could not have developed his powerfully influential approach without working with islands, and this is centrally because in mainland or continental thinking:

> Land is not the traditional element used to analogize Black flux or think about dynamic, fluid, and ever moving Black diasporic subjectivity. Rarely does land evoke the kind of flexibility, elusiveness and trickster-like qualities that Black diasporic life symbolizes in the Western Hemisphere. (King, 2019: 207, see also Wang, 2020)

Thus, Brathwaite is a key figure in the critical tradition of working with islands, which is today powerfully drawn upon for the onto-epistemology of Storiation. As Edmond and Smith's (2006: 12) *Islands in History and Representation* illustrates:

This refusal of islands to perform as required suggests ways in which they can be turned back against continents . . . offering a model of how to live complexly rather than through the simplifications and essentialisms that have characteristically been projected onto islands.

Similarly, in the recent works of Wolfe (2017), Barad (2019), Farrier (2019), and Clark and Szerszynski (2020), which we do not have space to examine here, islands are understood as intensive or amplifying sites for registering the hauntings and traces of relations, that do not cut the past from the present: storiations of the differentiating powers of colonialism, of the emergence of tidalectic psychologies living on in the wake, of species long extinct, of the consumerisms that haunt islands in strange ways – storiations of how there is no 'away' and no 'past' in the Anthropocene (Ghosh, 2016; Morton, 2013).

Conclusion: A critical agenda for island studies in the Anthropocene

There is little doubt that the widespread contemporary interest in islands mirrors the rise of non-modern, relational, non-linear, and more-than-human thinking across many academic disciplines and policy practices. But we want to make the argument that the engagement with islands in many debates today is not merely caught up in the slipstream of contemporary social and philosophical trends, but is actually crucial to the ontological and onto-epistemological framing and tools with which the new epoch of the Anthropocene is being grasped. When we think of natural scientists establishing the immanent ontological framing of life as relational, Glissant enabling Patchworks as a distinct process ontology of relational becoming, the tropes of island sensitivities and affordances registering climate change via Correlation, and Brathwaite's thinking with islands as holding forces, across the cuts of time and space, enabling Storiation – islands are not on the periphery but central to the overarching problematic of the Anthropocene today: moving beyond the modernist paradigm of thought and understanding.

Again, we do not see islands as simply the illustrative figures for the Anthropocene; *for* global warming, sea-level rises, intensifying hurricanes and typhoons, nuclear and other boundary-defying pollutants; or as only *symbolic* for the development of new Anthropocene ontologies and epistemologies. This would be to deny that certain geographical forms and cultures matter for the development of thought in the world. It would be to suggest that there really is a human/nature divide where the material world plays no part whatsoever in the generation of thought. We believe that islands have risen in importance in and for the generation of Anthropocene thinking because the island is a key figure for understanding what Colebrook and Weinstein (2017), Colebrook (2019), and Giraud (2019) have called the central problematic of 'relational entanglement' which pervades contemporary Anthropocene thinking. To date, many authors have written *about* islands in the Anthropocene, but they have not taken as their key or overriding focus how working *with* islands as the originary and liminal sites of relational entanglements and feedbacks is also driving thought and practice today.

Not only thinking about but *with* islands has become a key resource for the development of non-modern relational ontologies and onto-epistemologies in the Anthropocene. This places particular importance upon islands themselves as key areas of thought, pushing what was once a rather peripheral field of study – island studies – to the forefront of interdisciplinary thought in the Anthropocene. We are not sure that either island studies or Anthropocene thinking has *fully* grasped the depth and extent to which this is taking place. The focus of much critical island studies still largely remains within the confines and parameters of how the modern episteme reductively grasps islands, with the associated purpose of research being to foreground the importance (the critical reality) of more disruptive relational ontologies and epistemologies. Yet, it is not least because the development of relational approaches is in the world, associated with an increasingly widespread receptivity to these patterns of social thought and ways of knowing, that we think some of the key stakes for island

scholarship now need to be updated. To put this succinctly, the figure of the island is playing an important and generative role in a very broad range of fields. Islands are not on the periphery anymore, of either scholarship or international policy-making.

We suggest, therefore, that there is now a need to not only critically focus upon how the modern episteme reductively grasps islands (to be clear, this is still important), but to also establish a new, open, and convivial, critical research agenda focused upon how islands are being enrolled in the Anthropocene as key sites for understanding relational entanglements, in and for the generation of many different forms of relational ontology and ways of knowing.[5] As noted, our personal approach to this broader critical agenda is less focused upon stressing what island thinking and practices should be, and more about analytically drawing out and examining the various ways in which these conceptualisations are today being developed in and for Anthropocene thinking.[6] Central to this, as we said earlier, is how working with islands or relational thought per se is not one homogenous 'other' to modernist or mainland approaches, and so it is important to start a new conversation about how we engage in working through the rich variety of possibilities and opportunites that these approaches afford. In this article, we have heuristically distinguished the analytics of Resilience, Patchworks, Correlation, and Storiation, but no doubt there will be many other ways of examining how the figure of the island is being brought into relational thought in contemporary Anthropocene thinking. Thus, we see this article – developed further in our book *Anthropocene Islands: Entangled Worlds* (Pugh and Chandler, 2021) – as just an initial opening for a new critical agenda for island studies in the Anthropocene.

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Notes

1. Here we suggest that scholarship might be further interested in exploring how, or indeed whether, approaches to Anthropocene scholarship in China, India, and other large continental mainlands, are changing through how they draw upon and engage islands.

2. We are not the first to use the term 'Anthropocene Islands', given the vast amount of contemporary work on islands in the Anthropocene it is not surprising that the term has been employed in an number of projects and works, each operationalising it in their own specific ways to think through islands as sites for Anthropocene thinking. So far as we are aware, the term was first used at the Tallinn Architecture Biennale (TAB). On 14th of September, 2017, TAB launched the Exhibition 'Anthropocene Island' (ecoLogicStudio, 2017); an impressive design involving scientists, social scientists, artists, and many others, examining how work with islands can generate innovative approaches to resilience. Another example is Peggy Cyphers and others (2019) exhibition 'Anthropocene Island: Colonization, Native Species and Invaders'. This uses the term in order to register the ongoing legacies and hauntings of capitalist consumerism, specifically plastic, and how islands amplify and illustrate how there is therefore no 'away' in the Anthropocene. A third usage of 'Anthropocene Islands' has been employed in Amelia Moore's (2019) *Destination Anthropocene: Science and Tourism in The Bahamas*. Moore (2019: 5) uses the term to describe a framework for anthropology in the Anthropocene, 'stemming from the discursive and practical entanglement of science and tourism, which I call "Anthropocene Islands"'. Here Moore (2019: 19) reflects the widespread contemporary focus upon how islands are important sites for thinking about the Anthropocene: "Small islands show how the Anthropocene idea has both material and symbolic consequences and that it is redefining specific locales and geologic features. Small islands have therefore become one location from which anthropologists can now 'think the Anthropocene' and study the consequences of the Anthropocene idea. We can no longer think of small islands as simply existing outside of the scientific strategies that construe them as singular spaces. From this angle not only are islands sites that generate thought – *islands themselves* are ways of conceiving the world."
Based upon ethnographic fieldwork into science, tourism and the Bahamas, Moore draws attention to how islands are key sites for examining contingent relations between class, race, capital accumulation, exploitation, and other forces, as these manifest and are expressed in global environmental change. As outlined in this paper, our own project examines how and why islands, as liminal figures of modernity, have risen to contemporary prominence in and for the generation of non-modern, relational approaches to Anthropocene thinking. We are developing this project in publications, including the forthcoming book *Anthropocene Islands: Entangled Worlds*, and by establishing an 'Anthropocene Islands' reading group, a permanent section of *Island Studies Journal* called 'Anthropocene Islands', and a range of other related activities (see anthropoceneislands.online).

3. Thanks to Stephanie Wakefield for drawing our attention to this interview.

4. Glissant (1997) capitalises 'Relation'. We will therefore also do so when referring to his work.

5. Thanks to Godfrey Baldacchino for this important observation about Patchwork ontologies.

6. Here we differ from the more normative approach taken by Peters and Steinberg's (2019) in their recently published *Dialogues in Human Geography* article and forum. They develop a 'more-than-wet-ontology' by building upon their previous work which stresses how 'the ocean provides a fertile environment for reconceptualising understandings of space, time, movement and experiences of being in a transformative and mobile world' (Peters and Steinberg, 2019: 293). What we are interested in, more analytically speaking, are the broader schematic shifts which are taking place in thinking – how certain geographical forms, such as the island, are prominently rising to the surface as

increasingly important for the development of thought and for Anthropocene thinking in particular.

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