



Dodo Birds and the Anthropogenic Wonderlands of Harri Kallio

Sarah Bezan

To cite this article: Sarah Bezan (2019) Dodo Birds and the Anthropogenic Wonderlands of Harri Kallio, Parallax, 25:4, 427-445, DOI: [10.1080/13534645.2020.1731010](https://doi.org/10.1080/13534645.2020.1731010)

To link to this article: <https://doi.org/10.1080/13534645.2020.1731010>



Published online: 04 Jun 2020.



Submit your article to this journal [↗](#)



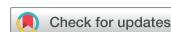
Article views: 82



View related articles [↗](#)



View Crossmark data [↗](#)



Dodo Birds and the Anthropogenic Wonderlands of Harri Kallio

Sarah Bezan

The dodo bird is buried deep in simulacra. Extending from the early modern period to the present, stratified layers of dodo representations in the form of illustrations, paintings and written records, along with an abundance of creative portrayals in a wide range of media, compose what has become a kind of ‘fossil record’ of the extinct *Raphus cucullatus*.¹ In this record of literary and creative representations, Lewis Carroll’s *Alice’s Adventures in Wonderland* — published in 1865 with artwork by prominent English illustrator Sir John Tenniel — marks a critical turning point at which anthropogenic (or human-driven) extinction was no longer dismissed as nonsense.²

The publication of Carroll’s novel occurred coterminously with the discovery of partially fossilized dodo remains from the Mare aux Songes basin on Mauritius island.³ This conflagration of events in turn captured the imaginations of Victorians who, alongside mid-nineteenth-century natural scientists, began to widely recognize and accept that human activity could extinguish a modern species. Secured in part by Carroll’s writing and by the display of a dodo skeleton at the Oxford University Museum of Natural History in 1868,⁴ the ‘popular iconisation’⁵ of the dodo arguably presented nineteenth-century audiences with an ‘extinction imaginary’ within which to account for the human’s destructive agency.⁶

With the turn of the twenty-first century, Carroll’s original text serves as the inspiration for a subterranean descent into anthropogenic wonderlands. In *The Dodo and Mauritius Island: Imaginary Encounters* (2004), a series of colour photographs of meticulously constructed dodo models situated in the lush landscapes of Mauritius, Finnish artist Harri Kallio explores the relationship between lost species and their habitats. The series, borne out of Kallio’s intensive study of rare dodo fossils and museum specimens from around the world, imaginatively re-stages anatomically accurate dodo bird sculptures within a prelapsarian habitat rendered *mutatis mutandis* (restored but with the necessary changes: the removal of Dutch and French colonizers).⁷ Nestled into rainforest foliage or shaded beneath riverside groves of moss-sheathed ox trees, Kallio’s reanimated dodos are posed and photographed in a natural environment that has been interminably altered by more than three centuries of anthropogenic extinctions.

In this essay, I argue that *The Dodo and Mauritius Island: Imaginary Encounters* presents a logical proposition in aesthetic form: an invitation to speculate on the senselessness of species loss. Kallio’s aesthetic proposition is itself inspired



Figure 1. Harri Kallio, *Riviere des Anguilles #3*, 2001 (colour photograph), Mauritius.

by Carroll, whose contributions to the literary nonsense genre exist alongside the original mathematical formulations he outlines in the 1896 publication of *Symbolic Logic*.⁸ Reflecting on the nature of wonder, absurdity and absence, I investigate how Kallio's series illustrates what I define as the *symbolic logic of extinction imaginaries*. Kallio's project is premised on a speculative 'if... then' proposition – that is, if Dutch and French colonizers had *not* settled upon Mauritius island, then would the dodo still be alive today? – that I argue distends the temporal and spatial logics of extinction. My analysis, drawn from Gilles Deleuze's theorization of depths and surfaces, events and sense-making, is that extinction imaginaries are tethered to a seemingly discordant process of sense-making that is always simultaneously an act of *nonsense*, an unmaking of logical steps that might retroactively retrace the coordinates and causalities of species loss. Out of time and place, Kallio's dodos push at the zealous proclivity to settle on the *event* of extinction.

Kallio's ostensibly true-to-life models of the dodo establish a relationship between an imagined subject (contemporary viewers) and an imagined object (the extinct dodo) stationed in a lost habitat. Yet what is important for Kallio's creative practice is not the construction of a model based on prior pictorial representations of the dodo (most of which were based on poorly mounted and badly preserved taxidermy specimens, or from over-fed captive dodos sketched *ad vivum*),⁹ but the production of a carbon copy of the dodo based on the fossil materials available. These fossil archives, and the meaning

that is made from them in Kallio's creative vision, is illustrative of what Michel Foucault considers in *The Order of Things* as the 'imagination of resemblance', which in the case of the fossil exemplifies the repetition of the order of nature and which also serves as a disruption of time and space.¹⁰ Elaborating on the work of Lynne Huffer, who interprets Foucault's fossils as 'out of sync' in an anthropogenic age driven by the geomorphic forces of the human,¹¹ I explore how Kallio's use of dodo fossil archives heightens this disruption of time and space through the making of mirror-image models. As I will argue, the making of these dodo models intensifies the fantasy of the dodo's return within the shimmering surfaces and disorienting depths of the extinction imaginary (Figure 1).

By bringing to the surface what now only exists below, Kallio's series brings further nuance to our understanding of animal borderlands that might separate living, endangered, extinct and (perhaps one-day) de-extinct animals. The symbolic logic of extinction imaginaries, situated in relational structures of meaning between extant and extinct species, and between the *here* of the living and the *there* of the dead, challenges our perception of these imaginary borderlines. In the context of the dodo's recent candidacy for genetic rescue and resurrection by the Revive and Restore Network,¹² we might see Kallio's series as a species revivalist representation that, in its speculative return of the dodo to its habitat, showcases *animal atopias*—the placeless places of extinct animals. As we advance further into the twenty-first century, it is becoming increasingly clear that our environs ought not to be conceived, as Cary Wolfe observes, as 'a realm apart, untouched and unshaped by human affairs'.¹³ This is true of Kallio's photographs of dodo bird sculptures, which are throughout the series juxtaposed with wide-angled compositions of emptied landscapes around the island – spaces that have in recent decades become subject to massive deforestation, pollution and industrial development. The panoramic vistas that appear alongside the dodo images in Kallio's collection are bereft of a number of species once endemic to the island, including parrots, tortoises, the giant skink, the Round Island burrowing boa, owls, starlings, and the Small Mauritian flying fox, to name a few. In my critique of animal atopias, then, I seek to unravel how the extinction iconographies of the dodo illuminate – but also, conversely, overshadow – the threat of continued biodiversity loss on the island. Kallio's work adds to the extinction iconographies of the dodo (which I define as the collection of verbal and visual representations of extinct animal icons that circulate prominently and ubiquitously as representatives of extinction processes) by revealing their embeddedness in species-level narratives but also in conceptions of shifting ecologies and habitats that are transformed in the wake of species loss.¹⁴ Indeed, as a project that, according to Carol Freeman, 'recreates both a place and an animal that no longer exist',¹⁵ *The Dodo and Mauritius Island: Imaginary Encounters* invites us to explore how the processes of anthropogenic extinction create spaces to which we can never properly return.

How Kallio fills these atopic spaces is the focus of the latter part of this essay. In the representation of animal atopias, how should we understand the

absence of extinct species like the dodo? Unlike prehistoric mass extinctions, which took place unobserved by humans (and which are deemed ‘natural’ processes), is the phenomena of anthropogenic extinction an ‘artificial’ process of un-worlding? Do Kallio’s dodos ‘make worlds’, and if so, do these models allow us to evaluate and interpret the phenomena of extinction, which often evades our comprehension due to their planetary scale and complexity? As a response to these questions, I propose that Kallio’s project serves as a case study for the *expressive postures of extinction*. Unlike the zoopraxiscopic grid of dodo skeletons that appears in the first half of Kallio’s book, which functions as a static timeline of the fossil in the discursive space of the natural history museum, the posed dodo models in the second half of the book exhibit corporeal gestures that make extinction visible. Gleaning insights from eco-art historian Amanda Boetzkes, who discusses how performative gestures in contemporary art can make systemic phenomena like climate change both thinkable and figurable,¹⁶ I want to show how creative representations of the dodo can help us to apprehend the senseless and tragic global movement of species loss. For Kallio, the movement of extinction becomes visible not merely in the fossil, but through the fossil’s gestures.

1. The Symbolic Logic of Extinction Imaginaries

Extinction imaginaries figure centrally in critical scholarship of the dodo by thinkers like Ursula Heise, who regards the faculty of imagination as the basis for elegiac expression. A noteworthy passage from award-winning science journalist David Quammen’s *The Song of the Dodo: Island Biogeography in an Age of Extinction* (1996), discussed in Heise’s book, *Imagining Extinction: The Cultural Meanings of Endangered Species* (2016),¹⁷ elucidates how this elegiac expression is mapped onto the envisaged event of extinction. Quammen sets the scene for the death of the last dodo by recurrently imploring his readers to *imagine*:

Imagine, for instance, that the last dodo didn’t perish on Iversen’s inlet. Imagine a single survivor, a lonely fugitive at large on mainland Mauritius at the end of the seventeenth century. Imagine this fugitive as a female[...]Imagine that she was thirty years old, or thirty-five, an ancient age for most sorts of bird but not impossible for a member of such a large-bodied species[...]In the dark of an early morning of 1667, say, during a rainstorm, she took cover beneath a cold stone ledge at the base of one of the Black River cliffs. She drew her head down against her body, fluffed her feathers for warmth, squinted in patient misery. She waited. She didn’t know it, nor did anyone else, but she was the only dodo on Earth. When the storm passed, she never opened her eyes. This is extinction.¹⁸

Through an imperative command to imagine the loss of the last individual (or ending)¹⁹ of the *Raphus cucullatus* species, Quammen invites his readers

to conjure an image of the dodo that is, according to Heise, both real and completely imaginary: ‘real in that the extinction of the species and its anthropogenic causes cannot be wished away; imaginary in that she is entirely made up as an icon of regret for those dimensions that are destroyed by modernization and colonization’.²⁰ These anthropogenic causes, embedded as they are within imperialist and capitalist regimes that define animal life as either ‘useful’ or ‘exterminable’, may signal the loss of the last dodo as a logical outcome of the success of these regimes. For Heise, however, the tragic dimensions of extinction, while often deeply felt, are tethered to intangible processes that have far-reaching effects which cannot be fully sensed or perceived (that is: witnessed, recorded or accounted for).

While Quammen’s elegiac portrayal of the last dodo attempts to locate an entry point for understanding the tragic dimensions of species loss, it is an affective meditation on what is a ‘real’ but ultimately unknowable *event* of the dodo’s extinction. By imagining the time and place of the last dodo’s death (which is unaccounted for in the surviving archives), Quammen’s apocryphal scene characterizes what is a persistent fascination with extinction dating on the part of natural scientists, who often aim to foreclose any ambiguity about the event of extinction. In a 2003 issue of *Nature*, for instance, David L. Roberts and Andrew R. Solow begin with a proposition: if the last sighting was in 1674, then when exactly did the dodo become extinct? Utilizing algebraic and statistical methods (which they apply to written and visual records of dodo sightings sourced mainly from the diaries of Dutch mariners), Roberts and Solow write that the dodo likely went extinct in 1690, nearly thirty years after its most recent sighting.²¹ The sighting record, arranged in a formula complete with vectors and symbols that represent the distribution of sightings, relies upon the value of human eye-witnesses in calculating the disappearance of the dodo. The use of logical reasoning and mathematic principles in this context, at least for our purposes, can be understood as the effort made on the part of natural scientists to settle on a probability of truth regarding the death of the last dodo. The trouble, however, is that extinction is an event *and* a process; unfolding on a global scale both within and beyond the perceptive view of human eye-witnesses, extinction accedes to – but also evades – any attempt at logical reasoning. In other words, to understand extinction is to engage in speculative propositions.

Lewis Carroll’s own writing on symbolic logic, much like the modern mathematical principles employed by Roberts and Solow, relies upon deductive methods to reach affirmative (or truthful) conclusions about the world. But as with his literary writings, which unravel into word play and nonsense, Carroll’s symbolic logic designates a turn among nineteenth-century logicians towards an emerging awareness of the instability of representational systems. The arbitrary link between signs and referents (well-known to readers of structuralist and post-structuralist theory, which is rooted in early iterations of mathematical logic during the Victorian period)²² is important for understanding Carroll’s legacy as a logician and a writer of nonsense fiction. As

literary scholar Andrea K. Hendersen suggests, Carroll's oeuvre is concerned with the order and classification of things (symbolic logic) but also in the 'multiplication of representational systems' that give way to 'ungroundedness'.²³ This is because 'the things of nature', according to Hendersen, 'are repeatedly found to be abstractions'.²⁴ Logical systems, it seems, have their uses and their limits. Likewise, we ought to see the value in grounding our conclusions in the interpretation of quantitative data (a record of sightings of the dodo) but also in the act of seeking answers to qualitative questions (what is extinction?). Concrete and abstract, sensical and nonsensical: this is the nature of anthropogenic extinction.

To understand how extinction imaginaries illuminate the abstract processes of species loss, we might begin with exploring that which is nonsensical about anthropogenic extinction. This is, in part, the project of American writer Thomas Pynchon's *Gravity's Rainbow* (1973), which fictionalizes a search for a formula that will initiate the deployment of V-2 rockets by the Germans at the end of World War II, causing untold destruction to both human and nonhuman beings. Pynchon, a 'mathematician of prose' (and author of nonsense poetry, which appears throughout the novel), writes that the key to understanding this formula lies in its conditioned stimulus: the symbol 'x' that will unleash the catastrophic sequence of events tied to the V-2 explosion.^{25,26}

Much of Pynchon's book unfolds in response to such imagined propositions, including a particularly evocative scene that describes the dodo's extinction. Seventeenth-century Dutch adventurer Frans van der Groov, a character who appears briefly in the novel, is responsible for 'systematically killing off the native dodoes for reasons he could not explain'.²⁷ Along with an account of the senselessness of van der Groov's violence, the narrator articulates what is ultimately a 'failed' settlement of Dutch colonizers on Mauritius, who – just like the dodo – would be gone by the turn of the eighteenth century. With or without the established occupation of the island by colonizers, van der Groov surmises, the fate of the dodoes is certain: in both scenarios, 'eventually, the dodoes die'.²⁸

This passage appears in Part 1 of the novel, entitled 'Beyond the Zero', which begins with an epigraph by German aerospace engineer Wernher von Braun, who states that 'nature does not know extinction; all it knows is transformation'.²⁹ The zero (indicating ground zero, the zone closest to a bomb's detonation) can in the dodo passage be interpreted as the *ground zero of extinction*. van der Groov's discovery of a dodo bird egg laying in a grass hummock is the 'one' left at ground zero. Although he aims his gun at the dodo embryo, which is 'still one, inside the egg, with the ancestral chain, not to be broken out for more than its blink of world's light', van der Groov finally decides to leave the egg behind undisturbed before rejoining his hunting party, certain that 'a cycle was finished'³⁰ – in other words, that the bird will soon be extinct. For Pynchon, the event of the dodo's extinction inevitably occurs at ground zero, but the event itself is unknowable.

In Carroll's *Alice's Adventures in Wonderland*, events extend simultaneously into the past and the future, lacking sense and direction. The meaning of events is showcased in the chapter entitled 'A Caucus-Race and a Long Tale'. In this chapter, the Dodo appears alongside Alice, a Duck, a Mouse, an Eaglet and a Lory, who are discussing how to dry themselves after their immersion in the Pool of Tears (cried by a much-bigger Alice in the previous chapter). The Dodo announces the running of a Caucus-Race with which to dry themselves. The members of the party run hither and thither: 'they began running when they liked, and left off when they liked, so that it was not easy to know when the race was over' until at last, 'the Dodo suddenly called out, "The race is over!", and they all crowded round it, panting, and asking, "But who has won?"'.³¹ The Dodo (already a symbol of extinction in the minds of Carroll's readers) declares the race over, but with the race course unmarked and everyone proclaimed a winner, the end of the race is somewhat absurd. If the end of the race is understood as an 'event,' it cannot be regarded as *singular* but rather as *multiple*, since it comes to an end for all the members of the party who participate in running it.

The end of the race, much like the extinction of a species, is an instantaneous – as well as a simultaneous and multiplicitous – event. This is the meaning of sense and nonsense that is captured in Alice's repeated refrain throughout the book: *Which way, which way?* – a question that according to Deleuze 'has no answer, since it is the characteristic of sense not to have any direction or "good sense". Rather, sense always goes to both directions at once, to the infinitely subdivided and elongated past-future'.³² This chapter from Carroll's book delineates what Deleuze argues is the time of *Aion* (the past-future) and *Chronos* (the present). Running through *Aion* is the Instant, which is 'endlessly displaced on this line and is always missing from its own place[...]the instant is *atopon*, without place'.³³ The Instant, as with the event of species extinction, occurs but is also jarringly out of time and place and therefore difficult to pinpoint. Understood this way, the Dodo of Carroll's story symbolizes the singularity and multiplicity of extinction, which is at once grounded and ungrounded in sense.

The symbolic logic that operates within the extinction imaginary – seen from the formula of the V-2 in Pynchon's novel and in the algebraic expression of dodo sightings developed by Roberts and Solow – reveals the tendency to seek a logical explanation for human-driven acts of death and destruction. Yet in recognition of the abstractions of nature and the reality of shifting representational systems inspired by Carroll's thinking, we should also recognize the senselessness of anthropogenic extinction in the making of extinction imaginaries. It is this play at the border of sense and nonsense, surface and depth, that I argue is the basis of Kallio's photographic series.

2. Animal Atopias: The Placeless Places of Extinct Animals

While Kallio (channelling Carroll) creatively plays with depths and surfaces in the logic of sense, his project never entirely plummets into the depths. For

‘everything in depth’, Deleuze explains, ‘is horrible, everything is nonsense’.³⁴ The depth is as necessary to the surface as sense is to nonsense, but as Deleuze suggests, Alice’s adventure underground is actually about ‘her climb to the surface, her disavowal of false depth and her discovery that *everything happens at the border*’.³⁵ The border between surface and depth is essential to my interpretation of Kallio’s use of modeling as a jointly artistic and scientific method that reanimates the fossil image through the faculty of imagination (inspired by Carroll’s Dodo character). I propose that Kallio’s mirror-image models of the dodo imaginatively bring the fossil out of the depths and onto the surface, thereby illuminating animal atopias: the placeless places of extinct animals. Animal atopias are habitats that were once occupied by living animals, but which, following the extinction of a species, are filled with remains that serve as their only surviving traces. Laid beneath the strata, these fossil forms and the impressions they leave behind beneath the surface become spaces of structured absence that capture the process of extinction in the geological record. By thinking with and beyond the event of extinction, Kallio reveals the extent to which a fossil makes manifest the impressions of the extinct animal body while also serving as a materially constitutive component of its environment. For Kallio, then, *the fossil is both a body and a landscape*: the extinct animal fossil figures as a negative photographic image of its absent presence but also becomes a habitus for the animals that follow its extinction. In this way, the fossil image of the dodo in Kallio’s series reverberates across the border that separates extinct and extant species.

My theorization of animal atopias hinges on Deleuze’s discussion of the Instant (the event of extinction) as *atopon*, out of place, but is also further shaped by John Miller’s analysis of zooheterotopias. Modifying Foucault’s conception of the heterotopia as a mirrored surface that exists outside of, and reflects back on, familiar geographies and cultural institutions, Miller contends that the zooheterotopia characterizes spaces of cryptid animals like the yeti that cryptozoologists yearn to find alive, and which are believed to be hidden beyond ‘the reach of imperial modernity’.³⁶ Like Miller, I aim to foreground how nonhuman animals are spatially conceptualized. However, I propose that as the confirmed casualties of colonization, the extinct species of animal atopias function as an absent presence that, through their fossil remains, becomes enclosed into the very strata of its former habitat, thereby reshaping the matter and meaning of the landscape beyond the event of extinction. As such, I see animal atopias as representative of the material persistence of anthropogenically extinct animals that are themselves made into the places their living forms have vacated.

As places that *were* but can never again *be*, animal atopias are fuelled not by the radical plausibility of hidden existence (as in the zooheterotopia) but by the fantasy of resurrected resemblances. Kallio’s series produces this fantasy through what Foucault discusses as the ‘imagination of resemblance’, which attributes the possibility of resemblance to the faculty of the imagination.³⁷ To illustrate this point, I return again to *Riviere des Anguilles* #3 (refer to



Figure 2. Harri Kallio, *Cambridge University, Department of Zoology*, 2004 (colour photograph).

Figure 1) in its portrayal of a dodo model reflected in a pool of water. By bringing the fossil out of the depths through an inverted image, Kallio creates a disorienting perspective that places the viewer right side up (or the dodo upside-down) in order to reflect on the shimmering surfaces of the dodo's mirrored silhouette, which emerges at the border of land and water. The dodo model's feet, appearing on the bottom centre of the image, are comically out of place yet represent the actual depths of the fossil record within which the dodo now resides. Much like Carroll's *Symbolic Logic*, which Carroll himself treats as an act of 'mental recreation'³⁸ – a form of play and make-believe that engages with the things of the world – the symbolic logic of Kallio's extinction imaginary is a fantasy of resurrection that recreates the body of the dodo at this symbolic border.

This resurrection is made possible by Kallio's scientific imagination, through which accurate measurements and blueprints of the dodo's height, width, and overall build (as determined from fossil materials and skeletons housed

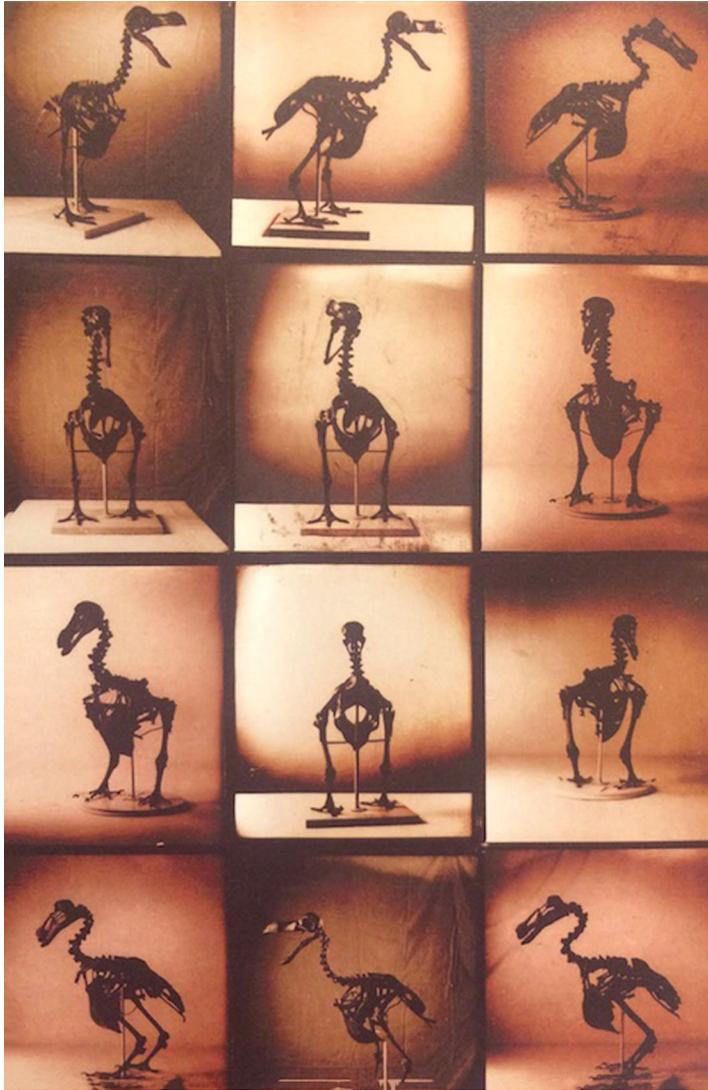


Figure 3. Harri Kallio, *Dodo Fossil Skeletons*, 2004 (sepia photograph).

in natural history museums) are accounted for in the production of his systematically scaled sculptures. Kallio explains, however, that

my idea was not so much to carry out a scientific reconstruction, but rather to place back into the landscape of Mauritius the Dodo of *Alice in Wonderland* – a character faithful to its appearances in art history, a character that is part myth and part real.³⁹

If the making of models, whether for artistic or scientific purposes, is a process of creating an authentic version of something that is thought to exist (or



Figure 4. Harri Kallio, *Le Gris Gris #2*, 2001 (colour photograph), Mauritius.

have once existed) in the real world,⁴⁰ then Kallio's project is similarly predicated on the art of resemblance. Comparable to illustrator Sir John Tenniel, who reinterprets Carroll's text through a 'professional understanding of the visual codes and illustrative techniques of his day',⁴¹ Kallio revives Carroll's Dodo in order to protract its real and mythical signification into the twenty-first century landscapes of Mauritius.

The process of making the 'real' dodo begins in Kallio's studio space. The research he conducts is captured in his superimposed images of dodo models (Figure 2), in which Kallio layers a sepia-toned image of his own animated dodo model upon colour photographs of fossil skeletons from Cambridge University's Department of Zoology and the London Natural History Museum. In these images, the dodo models are represented in the white, blank space of the gallery, and as such are devoid of any relational structures of meaning — either to other dodos, or to their own natural environment. The images that appear in this section of Kallio's book are enlargements of a zoopraxiscopic grid, which in form emulates the stop-motion animation practice of Victorian photographer Eadweard Muybridge (Figure 3). This grid depicts a fossil skeleton from a wide range of angles (but in a static posture), allowing Kallio to entreat his viewers to examine how these composite skeletons 'enable the potential anatomy of the Dodo to be visualised'.⁴² Ordered and arranged into the forms of the blueprint and grid, the dodo prototype in these images documents Kallio's observance of models that adhere to the



Figure 5. Harri Kallio, *Mont Blanc #2*, 2001 (colour photograph), Mauritius.

principle of close resemblance, but which also push back against this ideal through their expressive postures (as I explain in the next section).

While Kallio's dodos are 'characters' in the Carrollian sense, they are also fossil images positioned on the surface of the island, rising from the depths of the fossil record like spectres (Figure 4). Indeed, the fossil is a place, and is also out of place; it is an 'out of sync' archival object that momentarily breaks free from the strata, to extract from Lynne Huffer's Foucauldian analysis of fossil impressions.⁴³ In the landscape, but no longer belonging to it, these mirror-image models are staged in a way that 'gives the viewer,' as curator Carlo McCormick insists, 'an impossible sense of animation'.⁴⁴ Setting the zoopraxiscopic grid in motion, Kallio animates the fossil image, and in so doing recreates both dodo bird bodies and the landscapes upon and within which they reside.

The ghostly blueprint (Figure 2) and zoopraxiscopic grid (Figure 3) secure a sense of Kallio's adherence to the principle of close resemblance, but the making of the 'mythical' dodo in the series arises from the depiction of imagined subjective-objective encounters between dodos and human eye-witnesses. Two scenarios emerge as a result: on the one hand, Kallio constructs images that are imagined to resemble 'Mauritius Island as it was hundreds of years ago, before the first settlers[s] arrival'; on the other, they recreate 'the moment of the Dodos' first encounters with people' (who may be contemporary human subjects, rather than original Dutch and French settlers).⁴⁵ By extension, Kallio's dodos are depicted in one of two ways: as shadowy figures

that gesture to their own absence (Figure 4), or as benignly curious and sometimes forebodingly suspicious creatures that directly face their human observers (Figure 5). As such, Kallio's anthropogenic wonderlands, as evidenced particularly by the casted shadows of dodo-spectres in *Le Gris Gris #2* (Figure 4), blend together time and space that is both *before* and *after* extinction, thereby distending extinction's spatio-temporal logics through the impressions of the fossil image.

Flittering at the periphery of these images, and vividly portrayed in the panoramic vistas that appear between them, is the potent reality of ecological decline in present-day Mauritius. As Kallio explains to his viewers, the history of invasion on Mauritius has led to the depletion, or in a number of cases the decimation, of populations of endemic species. 'The "original" Mauritius Island landscape,' Kallio writes, 'is just as extinct as the Dodo'.⁴⁶ The vacuity of species loss is represented in panoramic and aerial photographs of Lion Mountain (Figure 6), Black River Gorges, Riviere des Anguilles, and the Combo Nature Reserve, which take up six double-fold pages within the book. Captured on a planetary scale (an aerial view of vast swaths of landscape emptied of animal forms of life), these images of Mauritius are juxtaposed with the dodo figures posed along blue-green ocean fronts or trekking through the dense undergrowth of the forest floor, reminding viewers of the spaces left behind by the multitude of species that have gone extinct since the arrival of colonizers to the island. In its appraisal of the effects of anthropogenic activity, the collection therefore reflects upon how extinction is made visible, and at times invisible, in the places of extinct animals.

3. The Expressive Postures of Extinction

To make extinction thinkable and figurable, we have to understand its expressive postures. To do this, I want to expand on the observations of art historian Amanda Boetzkas, who proposes that climate change (much like extinction) is a systemic problem that requires 'form and contour' in order to secure a line of interpretation.⁴⁷ The making of extinction's form and contour, as Kallio shows us, is a means of making visible that which is often invisible. In *The Dodo and Mauritius Island: Imaginary Encounters*, the animation of the fossil image is amplified through expressive postures of the dodo that appear to move through the time and space of their reclaimed milieu. These expressive postures are mainly captured by Kallio's long-exposure photographs, which amplify the 'impressioning' activity of photography that is itself, according to Joanna Zylinska, a kind of fossilization. Oscillating from movement to stasis and back again, these expressive postures of the dodo capture an imagined snapshot of the global movement of species loss.

Kallio's models adhere to a principle of close resemblance (based on the prototype of rare fossil materials), but also push back against this ideal through their expressive postures and characterization. Kallio's Carrollian dodos include postures that feature the craning of the neck, the flapping of



Figure 6. Harri Kallio, *Lion Mountain #1*, 2001 (colour photograph), Mauritius.

wings, and the absurd or comedic angling of the head into what seems to be, in some cases, a complaisant curiosity and in others, a glowering stare. While we can interpret the photographs of clustered and theatrically assembled dodos as examples of postmodern parody, given their engagement in a ‘play of simulation’ with the familiar image of the dodo in Carroll’s literary imagination, I would suggest that beyond the superficial absurdity of these assemblages, Kallio’s dodo photographs showcase a fully composite (as opposed to a disarticulated) fossil image that reclaims its natural habitat.⁴⁸

As a form of narrative re-enactment and re-staging, these assemblages ignite emotional or affective responses in audiences through the imagined encounter between humans and dodo birds. This re-enactment counters the fragmented figure of the dodo, which in both its fossil assemblages and pictorial representations has been for centuries disjointed and displaced: with ‘a foot in the British Museum’ and ‘a head in Copenhagen,’ as poet Henry Carlile writes, the dodo is ‘scattered over the world’.⁴⁹ The record of pictorial representation that Kallio so laboriously chronicles – beginning with early eyewitness accounts and drawings from Portuguese and Dutch sailors and extending to the collection of prints and paintings by seventeenth-century Dutch artist Roelandt Savery – depicts classically paradisiacal landscapes produced at a time when the dodo was already long removed from its habitat as ‘another exotic amongst a panoply of “wonders”’ brought back to the continent by the Dutch East India Company enterprise.⁵⁰ Given this history, Kallio’s



Figure 7. Harri Kallio, *Combo Reserve #3*, 2004 (colour photograph), Mauritius.

project diverges from traditional iconographies by participating in the making of the dodo image that is no longer based on its profound dissociation from its natural habitat. As fully composite forms that take place in their original milieu, these dodo models enact the expressive postures of extinction through their own sense-making responses.

Through their expressive postures, Kallio's dodo models both see and respond to the human observers they encounter, but are also depicted actively fleeing from human contact. By extension these observers, put into the shoes of colonizers imaginatively encountering the prelapsarian world of dodos, are the eyewitnesses (and re-staged perpetrators) of colonization's early effects. The proposition of Kallio's aesthetic project, then, is one of *imagining* and *witnessing* the extinction and revival of an extinct species through the doubled 'impressioning' of the photographic medium. As Joanna Zylinska argues, this process is due to the light-year passage of time that is conveyed through the rays of the sun,⁵¹ and which pass through the camera in the making of long exposure photographs (see Figure 7). Like the fossil record, Zylinska continues, photography and fossilization are both 'impressioning' activities that secure snapshots of corporeal movement in deep time.⁵² While this amplifies the expressive gestures of Kallio's dodo models, it also figures the human into the processes of extinction through its appearance as a blurred, predatory silhouette, as seen in *Combo Nature Reserve*

#3 (Figure 7). The form and contour of anthropogenic extinction, for Kallio, is one of human–animal encounter, which furthermore serves to foreground the phenomenological experience of dodos as a *sense-making species*: animals capable of sensing and responding to their environment. To be sure, the expressive postures of extinction model the act of going-extinct as a process, but they also capture the loss of the ‘sensed world’ of the dodo, which is co-constituted, according to Mick Smith, through the dodo’s particular ‘mode of experiencing the ecology of Mauritius’.⁵³

The making and unmaking of the world of the dodo, as demonstrated in *Combo Reserve #3*, is predicated on the presence of the human at extinction’s ground zero. The process of extinction here is made visible, and therefore thinkable, through imaginary encounters that recreate a world that was and can no longer be. While the iconography of the dodo to some extent overshadows the extinction of other species lost on Mauritius, the dodo’s return to the island, coupled with its expressive postures, activates an affective and intellectual curiosity that pushes Kallio’s viewers into the expansive terrain of the imagination, where the dodo’s demise is figured as a loss of a species that can no longer *make sense* in phenomenological terms. The expressive postures of extinction, in turn, serve as a mental exercise that pushes and pulls at the spatio-temporal logics of the extinction imaginary and the phenomenological world(s) to which they refer.

Through these moments of ‘re-worlding’ that bring forward the lost dodo species out of the shimmering surfaces and disorienting depths of the extinction imaginary, Kallio’s creative project is both a real and imagined pilgrimage to the spaces of anthropogenic extinction. *The Dodo and Mauritius Island: Imaginary Encounters* takes viewers beyond the logic of sense (namely, all that we can glean of colonialism’s devastating effects) and into the nonsense of anthropogenic extinction. This is place where the nonsensicality of species loss can be expressed as an act of witnessing that which is now impossible to see and know firsthand of the event of extinction and of the phenomenological experience of extinct animals. Journeying through the depths of the fossil record to the surface of a planet rapidly diminishing in numbers of animal forms of life, Kallio constructs an extinction imaginary grounded upon the appearance of embodied witnesses who can attest to both the sense—and more importantly the senselessness—of species loss.

Notes

I wish to gratefully acknowledge Dr. Robert McKay for his thoughtful and incisive comments on an earlier draft of this article. Many thanks as well to the peer reviewer for their feedback, to the British Academy for funding this research, and to Harri Kallio for his generous support.

¹ The dodo, a large flightless pigeon endemic to the island of Mauritius off the coast of Madagascar, is widely believed to have gone extinct in the seventeenth century following the arrival of Dutch and French settlers.

² For an overview of cultural engagements with the dodo prior to the nineteenth century, see Charles Hoge, “The Dodo in

the Long Eighteenth Century: An Exploration of the Gray Ghost Outside of the English Sentimental Eye”, 688. I note, however, that while the dodo may have been first recognized as an anthropogenically-extinct species, it is not the first animal to go extinct as a result of encounters with the human. A number of paleontologists argue that human-animal encounters in the late Pleistocene and Holocene epochs gave rise to the loss of species like the sabretooth cat, Irish elk, and woolly mammoths, mainly due to overhunting and habitat loss. Consult Ross Barnett, *The Missing Lynx: The Past and Future of Britain’s Lost Mammals*, 2019.

³ Kenneth F. Rijdsdijk et al., “A Review of the Dodo and its Ecosystem: Insights From a Vertebrate Concentration Lagerstätte in Mauritius”, 7.

⁴ M. Nowak-Kemp and J.P. Hume, “The Oxford Dodo, Part 2: From Curiosity to Icon and Its Role in Displays, Education, and Research”, 298-299.

⁵ Turvey and Cheke, “Dead as a Dodo,” 157.

⁶ While the extinction of prehistoric species became widely understood by public audiences in the eighteenth century (see Martin J.S. Rudwick, *Scenes From Deep Time: Early Pictorial Representations of the Prehistoric World*, Chicago: University of Chicago Press, 1992), it is nevertheless the case that the facts of anthropogenic extinction became more broadly accepted during the mid-nineteenth century. I argue an extinction imaginary is created when public audiences — with or without the help of creative practitioners — reflect on the impact of humans in inciting species loss.

⁷ *Oxford English Dictionary*, “mutatis mutandis, *adv*”. Defined as “with the necessary changes; with due alteration of details (used when comparing two or more cases or situations)”.

⁸ This text was published not under the *nom de plume* of Lewis Carroll, but under his real name, Charles Dodgson.

⁹ For a full historical account of dodo representations (and misrepresentations), see Hume, “The History of the Dodo,” 69–93.

¹⁰ Foucault, *Order of Things*, 70.

¹¹ Huffer, “Foucault’s Fossils,” 82.

¹² Novak, “Dodo Bird De-Extinction?,” Revive and Restore Network website (accessed 1 Sept. 2019), <https://reviverestore.org/dodo-bird-de-extinction-the-dialogue-has-begun-in-the-island->

[nation-of-mauritius/](https://reviverestore.org/dodo-bird-de-extinction-the-dialogue-has-begun-in-the-island-nation-of-mauritius/). This project aims to revive extinct species through biotechnological methods, including synthetic biology and gene editing.

¹³ Wolfe, “Foreword”, vii.

¹⁴ I explain this more fully in my article, “The Endling Taxidermy of Lonesome George: Iconographies of Extinction at the End of the Line” in *Configurations: The Journal of Literature, Science and Technology* vol. 27, no. 2, 2019, 211.

¹⁵ Freeman, “Reconstructing the Animal,” 8.

¹⁶ Boetzkes, “Ecological Postures,” forthcoming.

¹⁷ Refer to Heise’s discussion in *Imagining Extinction*, 38.

¹⁸ Quammen, *The Song of the Dodo*, 275.

¹⁹ Jørgensen, “Endling, the Power of the Last”, 119.

²⁰ Heise, 38.

²¹ Roberts and Solow, “When Did the Dodo?,” 245. See also Cheke, “Speculation, Statistics, Facts,” 624.

²² Hendersen, “Symbolic Logic,” 78.

²³ Hendersen, 90.

²⁴ *Ibid.*, 94.

²⁵ Sissman, “Hieronymus and Robert Bosch,” 139.

²⁶ Pynchon, 99.

²⁷ *Ibid.*, 128.

²⁸ *Ibid.*, 132.

²⁹ *Ibid.*, 1.

³⁰ *Ibid.*, 129.

³¹ Carroll, *Alice’s Adventures in Wonderland*, 26.

³² Deleuze, *Logic of Sense*, 79.

³³ *Ibid.*, 171.

³⁴ Deleuze, “Lewis Carroll,” 21.

³⁵ Deleuze, *Logic of Sense*, 10, my emphasis.

³⁶ Miller, “Zooheterotopias,” 151.

³⁷ Foucault, *Order of Things*, 75.

³⁸ Carroll, “Introduction,” xvii.

³⁹ Kallio, *The Dodo and Mauritius Island*, 12.

⁴⁰ Toon, “Imagination in Scientific Modeling,” 451.

⁴¹ Lovell-Smith, “The Animals of Wonderland,” 383.

⁴² Kallio, 29.

⁴³ Huffer, 82.

⁴⁴ McCormick, “Harri Kallio,” 70.

⁴⁵ Kallio, 74.

⁴⁶ *Ibid.*

⁴⁷ Boetzkes, 2.

⁴⁸ Kearney, *Poetics of Imagining*, 7.

⁴⁹ Carlile, “Dodo”, 87.

⁵⁰ Lawrence, “Assembling the Dodo in Early,” 395.

⁵¹ Zylinska, 62.

⁵² Ibid., 56-57.

⁵³ Smith, "Ecological Community," 22.

Bibliography

- Barnett, Ross. *The Missing Lynx: The Past and Future of Britain's Lost Mammals*. London: Bloomsbury, 2019.
- Boetzkes, Amanda. "Ecological Postures for a Climate Realism." In *Climate Realism*, eds. Lynn Badia, Marija Cetinic, and Jeff Diamanti. New York: Fordham University Press, 2020 (forthcoming).
- Carlile, Henry. "Dodo." *Poetry* 126, no. 2 (May 1975): 87.
- Carroll, Lewis. *Alice's Adventures in Wonderland*, 150th Anniversary Edition, Illustrated by Salvador Dalí. New York: National Museum of Mathematics, 2015.
- Carroll, Lewis. *Symbolic Logic*. New York: Dover Publications, 1958.
- Cheke, Anthony S. "Speculation, Statistics, Facts, and the Dodo's Extinction Date." *Historical Biology* 27, no. 5 (2015): 624-633.
- Deleuze, Gilles. "Lewis Carroll." In *Essays Critical and Clinical*. Translated by Daniel W. Smith and Michael A. Greco, 21-23. London: Verso, 1998.
- Deleuze, Gilles. *Logic of Sense*. Translated by Constatin V. Boundras, Mark Lester, and Charles J. Stivale. London: Bloomsbury, 1990.
- Foucault, Michel. *Order of Things*. The translator(s). London: Routledge, 2002.
- Freeman, Carol. "Reconstructing the Animal." In *Reconstructing the Animal: Exploring a Re-Thinking of Animals and Human-Animal Relationships Through the Work of Contemporary Artists*. Hobart: University of Tasmania Press, 2011, 4-11.
- Heise, Ursula. *Imagining Extinction: The Cultural Meanings of Endangered Species*. Chicago: University of Chicago Press, 2016.
- Hendersen, Andrea K. "Symbolic Logic and the Logic of Symbolism." *Critical Inquiry* 41, 1 (Autumn 2014), 78-101.
- Hoge, Charles. "The Dodo in the Long Eighteenth Century: An Exploration of the Gray Ghost Outside of the English Sentimental Eye." In *University of Toronto Quarterly*, 83, no. 3 (Summer 2014), 687-704.
- Huffer, Lynne. "Foucault's Fossils: Life Itself and the Return to Nature in Feminist Philosophy." In *Anthropocene Feminism*, edited by Richard Grusin, 65-88. Minneapolis: University of Minnesota Press, 2017.
- Hume, Julian P. "The Dodo: From Extinction to the Fossil Record." *Geology Today* 28 no. 4 (July-August 2012), 147-151.
- Hume, Julian P. "The History of the Dodo *Raphus Cucullatus* and the Penguin of Mauritius." *Historical Biology* 18 no. 2 (2006), 69-93.
- Jørgensen, Dolly. "Endling, the Power of the Last in an Extinction-Prone World." *Environmental Philosophy* 14, no. 1 (2017), 119-34.
- Kallio, Harri. *The Dodo and Mauritius Island: Imaginary Encounters*. Stockport, UK: Dewi Lewis Publishing, 2004.
- Kearney, Richard. *Poetics of Imagining: Modern to Post-Modern*. Edinburgh: The University of Edinburgh Press, 1998.
- Lawrence, Natalie. "Assembling the Dodo in Early Modern Natural History." *British Journal for the History of Science* 48 no. 3 (September 2015), 387-408.
- Lovell-Smith, Rose. "The Animals of Wonderland: Tenniel as Carroll's Reader." *Criticism* 45 no. 4 (Fall 2003), 383-415.
- McCormick, Carlo. "Harri Kallio: Through the Looking Glass Backwards." *Aperture* 183 (Summer 2006), 70-75.

- Miller, John. "Zooheterotopias." In *The Globalization of Space*, edited by Mariangela Palladino and John Miller, 149–164. London: Pickering and Chatto, 2015.
- Nowak-Kemp, M and Hume, J.P. "The Oxford Dodo, Part 1: The Museum History of the Tradescant Dodo: Ownership, Displays, and Audience." *Historical Biology* 29 no. 2 (2017), 234–247.
- Nowak-Kemp, M and Hume, J.P. "The Oxford Dodo, Part 2: From Curiosity to Icon and Its Role in Displays, Education, and Research." *Historical Biology* 29 no. 3 (2017), 296–307.
- Pynchon, Thomas. *Gravity's Rainbow*. London: Vintage Books, 2000.
- Quammen, David. *The Song of the Dodo: Island Biogeography in an Age of Extinction*. New York: Scribner, 1996.
- Rijsdijk, Kenneth F. et al, "A Review of the Dodo and Its Ecosystem: Insights from a Vertebrate Concentration Lagerstätte in Mauritius." *Journal of Vertebrate Paleontology* 35 no. 1 (2015), 3–20.
- Roberts, David L and Solow, Andrew R. "When Did the Dodo Become Extinct." *Nature* 426 (November 2003), 235.
- Smith, Mick. "Ecological Community, the Sense of the World, and Senseless Extinction." *Environmental Humanities* 2 (2013), 21–41.
- Thorsen, Liv Emma, Rader Karen A., and Dodd, Adam. *Animals on Display: The Creaturely in Museums, Zoos, and Natural History*. University Park: Pennsylvania State University Press, 2013.
- Toon, Adam. "Imagination in Scientific Modeling." *The Routledge Handbook of Philosophy of Imagination*, edited by Amy Kind, 451–462. London: Routledge, 2016.
- Turvey, Samuel T. and Cheke, Anthony S. "Dead as a Dodo: The Fortuitous Rise to Fame of an Extinction Icon." *Historical Biology* 20 no. 2 (2008), 149–163.
- Wolfe, Cary. "Foreword." In *Extinction Studies: Stories of Time, Death, and Generations*, edited by Deborah Bird Rose, Thom van Dooren, and Matthew Chrulew, vii–xvi. New York: Columbia University Press, 2017.
- Zylinska, Joanna. "Photography After Extinction." In *After Extinction*, edited by Richard Grusin, 51–70. Minneapolis: University of Minnesota Press, 2018.

Sarah Bezan is Newton International Fellow at The University of Sheffield Animal Studies Research Centre, where she researches visual and verbal narratives of evolution and extinction. She has contributed articles to *Mosaic*, the *Journal for Critical Animal Studies*, and *Antennae: Journal of Nature in Visual Culture*, among others. With Susan McHugh, she co-edited a special issue on "Taxidermic Forms and Fictions" that recently appeared in *Configurations: the Journal of Literature, Science, and Technology*. Her first book: *Dead Darwin: Necro-Ecologies in Neo-Victorian Culture*, is forthcoming with Manchester University Press. She is also currently at work on a book project on species loss and revival in a biotechnological age. Email: s.bezan@sheffield.ac.uk.