

Extinction Voices, Extinction Silences: Reflecting on a Decolonial Role for Natural History Exhibits in Promoting Thinking about Global Ecological Crisis, Using a Case Study from Bristol Museums

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Abstract

Between August–December 2019, Bristol Museum & Art Gallery covered 32 animals in its World Wildlife Gallery with transparent black veils, to highlight the global ecological crisis. Each veiled animal represented a species extinct or at high to extreme risk of extinction. The intervention, called *Extinction Voices*, responded to calls from local schoolchildren and the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) for transformative change in addressing this critical challenge. It gained international recognition, and generated conversation and action by visitors and the museum sector. This article explores the motivations and curatorial choices behind the intervention and how audiences responded. Its focus is a journey of critical reflection – on the intervention's mainstream environmental framing, the institution's colonial roots and their impact on its contemporary narratives. In turn, the article considers the possibilities that open exploration of silenced colonial histories brings for museums and the global ecological crisis.

Key words: Museums, extinction, structural racism, decolonization, environmental justice

Introduction

Colonialism has profound human consequences. It is an expression of power that relies upon oppression, extraction of resources and silencing other ways of being and knowing. Many museums in the UK are part of the legacy of British colonialism through the collections they steward, their institutional histories, structures and wealth, and the stories they tell.¹

Whilst work on decolonization in museums accelerated across the UK following the Black Lives Matter protests of 2020 in response to the murder of George Floyd, links between museum collections or exhibits, colonialism and environmental crisis remain less well explored.² This article shares the journey of Bristol Museum & Art Gallery in critically reflecting on these connections, in the specific context of natural history displays, global wildlife extinction, and asymmetric environmental devastation.

The article draws on the practice-based learning of the museum's Senior Curator for Natural Science, co-author Isla Gladstone, supported by colleagues and critical friends.³ It is also developed through critical interrogation by co-author Persephone Pearl, who co-directs ONCA, an educational arts organization with a core aim of supporting young people's empowerment, resilience and wellbeing around climate and environmental change. Persephone's interrogation is informed by reflections on racism and environmentalist practice gained through the journey of Remembrance Day for Lost Species (also known as RDLs or Lost Species Day),⁴ which she co-founded in 2010 following a visit to Bristol Museum & Art Gallery and an encounter with a taxidermied thylacine in a poorly-lit cabinet.⁵

Bristol Museum & Art Gallery's first exploration of the contemporary relevance of its traditional displays in engaging visitors with global ecological crisis began with an intervention in its World Wildlife Gallery called *Extinction Voices* (August–December 2019). This intervention

has been described as part of a ‘first wave’ of critical exhibitions that ‘foreground the specific anthropogenic roots of recent and ongoing extinctions’ through natural history displays (O’Key 2020: 636). Despite its modest budget, it gained national and international recognition.⁶ *Extinction Voices* sought to elevate messaging about the extinction threat to species on display, and disrupt their cultural familiarity, by covering species at risk with transparent black veils. Further, it sought to promote emotional connection with the crisis, generate conversation and gather collective visitor voices about extinction.

Whilst the impact of the *Extinction Voices* intervention on museum visitors and wider stakeholders illustrated the enormous potential for historic natural history displays to speak to people about critical contemporary challenges, the intervention also brought external interrogation of its ‘mainstream’ environmentalism of the Global North,⁷ in explaining reasons for and actions against global wildlife extinction. This has led the museum team to examine the gallery as a whole from a decolonial and anti-racist perspective. As for many museums, “‘natural’ objects have tended to stand as naturalised and thereby neutralised specimens without a history or politics’ (O’Key 2020: 636; Das and Lowe 2018). Breaking institutional silos, curators and archivists from the natural history, world cultures, and British Empire and Commonwealth collections have collaborated to connect practice and collection histories at the intersection of decolonization and ecological crisis.⁸

The structure of this article follows a curatorial timeline from the World Wildlife Gallery’s permanent interpretation before *Extinction Voices*, to the intervention itself, to critical reflections on the intervention’s framing and the relevance of the institution’s colonial roots to its contemporary extinction narratives. We propose future frameworks we recognize require the benefit of wider expertise, including from critical historians and anti-racist thinkers, but which also bring together valuable perspectives on using creative practice to bridge social and environmental justice within the context of colonial museum collections, and draw on extensive practice-based experience. We hope this work contributes a useful sectoral reflection for exhibitions centring extinction, and contributes to wider conversations about colonialism, local history and social justice in cultural institutions.

Our article contributes a case study to a wider body of work exploring the contemporary value of natural history exhibits in cultivating reflective thinking about future extinctions (e.g. Cameron 2015; Wehner 2017; Guasco 2021).⁹ It connects work on natural history displays and global ecological crisis to emerging decolonial practice in UK natural history collections, which itself stems from the leadership work of Das and Lowe 2018 (e.g. Ashby and Machin 2021; Gelsthorpe 2021).

Throughout this paper we use ‘the institution’ interchangeably with ‘the museum’ to refer to Bristol Museum & Art Gallery and previous versions of this organization, incorporating the collections of ‘natural science’ and ‘world cultures’ first drawn together as part of the Bristol Institution for the Advancement of Science, Literature and the Arts which opened in 1823 (see Copp 1985 for a full history).

Before *Extinction Voices*: the World Wildlife Gallery

Bristol Museum & Art Gallery’s World Wildlife Gallery was moved to its current location in 2001, but the arrangements of taxidermied animals forming its backbone have changed little for decades. Large wood and glass cases incorporate a stratigraphy of approaches to display adopted throughout the museum’s history, all of which use the specimens to illustrate scientific principles. The current arrangement, thought to date from the 1940s,¹⁰ focuses on geographic groupings. Interspersed across this are taxonomic groupings of birds traditional to the museum’s earliest cabinets, and large habitat dioramas commissioned between 1898 and 1930 when interest in environmental context was emerging (Robin 2009; Would 2020). One element of the historic displays is missing – trophy heads no longer adorn the walls, replaced by a panel explaining collecting methods of the past.

The present gallery’s permanent interpretation is low-key, comprising understated wall panels dating from 2001 when the displays were moved from the museum’s rear hall, and small card labels updated since the 1990s to replace old calligraphy labels.¹¹ The focus

is on biogeography and habitat, but of interest to this paper are two sub-themes exploring ‘the causes of modern extinction’ and ‘why we have animal specimens’.

Extinction is presented in the gallery’s panels as: ‘a natural process. However, since the first appearance of people, we have been influencing these natural processes and have increased the rate of extinction’. Factors driving extinction worldwide are presented as broad and largely distanced from UK visitors, for example ‘trophy hunting’ or ‘traditional beliefs’. The specimen labels, each with a standard list of data – name, habitat, food, behaviour, conservation – refer almost exclusively to ‘hunting’ or ‘habitat destruction’. There are three extinct species in this gallery, and many more threatened with extinction, but none are highlighted by more than a small line of text. The solution offered by the current interpretation is: ‘Conservationists are attempting to monitor populations of wild animals and to intervene before they become extinct’.

Panel descriptions of ‘why the museum has animal specimens’ indicate a distancing from the institution’s past. The main sources are listed as private donors and Bristol Zoo, and most collecting is said to have finished in the Victorian era. As we will detail later, this obscures a much more active and recent history. Explanations of the collection’s modern role indicate a mix of certainty in modern scientific value, and a conflict. A panel exploring changing attitudes to wildlife asks ‘Trophy or cruelty? Science or spectacle?’.

Decades of under-funding and low prioritization by museum directors¹² – common across UK natural history collections (e.g. Poliquin 2008, Mulhearn 2013) – and a necessary focus for staff on an events programme and facilitating access to stored collections, have left this significant global collection under-interrogated. This under-funding, distancing and lack of critical language in the gallery form the backdrop to the 2019 *Extinction Voices* intervention.



Figure 1: Taxidermy specimens in taxonomic groupings on display in May 1940, prior to amalgamation of the museum’s collections into the city’s art gallery building post-war © Bristol Culture

The motivation to intervene: one million species and 31 letters

In May 2019, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) published a landmark Global Assessment Report (Brondizio *et al.* 2019). The headlines were devastating: '1,000,000 species threatened with extinction', 'nature's dangerous decline "unprecedented"', "transformative changes" needed to restore and protect nature'. According to IPBES Chair Sir Robert Watson, 'it is not too late to make a difference, but only if we start now at every level from local to global'.¹³

Later that month, the head of the museum service received 31 letters from children aged nine to 11 years old from Freshford Church School, Bath, complaining about the tiger exhibit in the World Wildlife Gallery:

As we entered the world wildlife room, we were appalled on seeing these poor animals stuffed and put behind glass, with a purpose of nothing. Many laughed and made fun of the tiger, but after going back [to school] and finding out more none of us were laughing.

The absence of information led us to believe the tiger was threatening and angry. However, if we had been informed of its story, we would have seen it differently.

I was unbelievably heart-broken that this tiger had been killed unjustly, and yet does not carry a legacy of any form; other than to entertain.

I am sure you will agree that we must learn about this tiger's history in order to understand the present. We must understand the present to save our future.

Does it not bother you that tiger numbers are dropping rapidly and your museum is doing nothing to help?

Bristol Museum has a duty to deliver: your museum needs to stop hiding the truth and change for the better of our planet.

Extracts from 31 letters written by pupils in Years 5 and 6, Freshford Church School, May 2019

The children had taken special interest in the tiger display during a school visit. They had noticed people laughing at it, but also a gold inscription at the top of its diorama case reading 'Shot and presented by His Majesty King George V, 1911. Chitwan, Nepal'. When the children researched this story they were shocked and devastated. This tiger was one of 39 shot by the King and his hunting party over just ten days in December 1911, along with 18 rhinos and four sloth bears (Rookmaaker *et al.* 2005). But the children were more upset that the museum was not telling this story. Without information, this was a tiger of entertainment. With its story, it could help visitors learn from the past and have a legacy by raising awareness of tiger threats today. The children understood the potential power of this specimen, and expected the museum to raise its voice for nature.

In this context, the way the World Wildlife Gallery was presented moved from an inevitable consequence of decades of low resource to a place of problematic silence. A taxidermied thylacine intermingled with other species from its continent, its label so discreet many visitors did not realise it was extinct. This specimen was being viewed and comprehended by many modern visitors as it would have been when first on display in 1915, when thylacines were still encountered in the wild. How many more specimens would soon represent extinct species? Would curators simply update the conservation status on their labels? The gallery is considered a popular, family-friendly space. But what is the encounter in connection with extinction? Informal evaluation revealed many museum visitors and staff had no idea of the magnitude of threatened species represented. Instead of informing visitors, did the low-key nature of its interpretation mean the gallery was providing a familiarity, a permanence that desensitized visitors to extinction risk, and even exacerbated the problem?

Curatorial choices: how to respond

Together, the IPBES report and children's letters provided drivers to intervene to change the status quo in the gallery, to uncover the potential of its specimens to engage visitors with critical issues and activate change. The significance of the global extinction threat and the children's demands for a response brought urgency to the task. Experts from across the museum – from design, engagement, formal learning, participation, marketing, visitor services, audience research, conservation and curation – worked to discover a low cost, high impact solution.

Central to the intervention was finding a way to elevate messaging about extinction risk. Twenty-nine specimens in the gallery represent species classified by the International Union for Conservation of Nature (IUCN)¹⁴ as 'threatened' or at high, very high, or extreme risk of extinction; three represent species already extinct. The museum's 3D designer, Simon Fenn, synthesized the team's conversations to conceive the method: all threatened specimens would be covered with a transparent black material, or 'veil'. The visual language of the veil drew from British Victorian mourning dress. The veils were intended to disrupt visitors' expected cultural encounter; to represent a losing from sight, a distancing, or silencing of nature; to create a tangible and emotional connection to the extinction crisis that distilled numbers and headlines into real species, and museum specimens much loved by visitors. To make the intended meaning clear, the IUCN status for each species – extinct, critically endangered, endangered or vulnerable – was hung on an oversized label alongside the specimen, along with signage asking 'Can you imagine a world without these animals?'

The intervention's title *Extinction Voices* represented a focus on the visitor voice. Its introduction adapted a quote by environmentalist Paul Hawken to read 'Nature is noisy. It walks, it crawls, it swims, it swoops, it buzzes. But extinction is silent. It has no voice except our own'. At the centre of the gallery, an accumulative co-created *Extinction Tree* carried the message 'It's not too late to make a difference' and encouraged visitors to add a leaf to build a collective of thoughts, ideas and actions. The use of veils aimed to function not only as a message, but as a vehicle to conversation.

To support the emergence of visitors' ideas in the *Extinction Tree*, the exhibition signage contained ideas for individual action. Drivers of nature loss worldwide, articulated in the IPBES report, were translated into ideas for Bristol visitors, from checking forest-friendly logos on packaging to reducing plastics. The signage offered facts and statistics and invited audiences to 'be their [endangered species]' voice' – intending to convey the idea that everyone can make a positive difference.

Short histories of five animal specimens, selected by the Freshford school children whom the museum invited to collaborate, were told for the first time in the gallery, using graphics and accessible anecdotes. The children had instinctively understood how taxidermied animals' biographies can make them visible as individuals, as outlined for example by Samuel Alberti's *The Afterlives of Animals* (Alberti 2011).

The physical veiling of the taxidermied animals over a period of three days was a powerful experience for curators. Dressed in face masks, aprons and gloves, to protect staff from toxic historic pesticides preserving the specimens from decay, placing the veils was fragile work, carrying with it feelings of responsibility towards the individual animals and message, and an anxiety about the low-cost nature of the intervention and the public response.

The response: an awakening

From the moment visitors entered the gallery, it was clear the veils transformed the connection with extinction in this space.

Observed visits evaluating the cognitive, emotional and affective interactions of 25 visitor groups were undertaken by volunteers, recording conversation extracts against objectives in a framework designed by the museum's 'User Researcher' team. All visitor groups during a set time period were observed, with signage alerting to this process. The observations revealed the veils' message was clear, with 96 per cent of groups quickly understanding their meaning, most frequently referencing 'endangered'. Over half of the groups (56 per cent) expressed surprise at how many species, or which species, were threatened. The veils promoted conversation about extinction in all groups, most often child-led. An emotional

response was expressed by 76 per cent, ranging from 'that's so sad' to visible tears from some adults. Remaining groups, most often children, were more factual. Observations also recorded support for the intervention, and interest in the *Extinction Tree*, for example, visitors commenting 'it's good they've done this', and 'Look, this is the voice of the people'. One group complained they couldn't see the animals. Dwell time in the gallery increased by up to 500 per cent (to 20 minutes).



Figure 2: *The Extinction Voices* intervention, Bristol Museum & Art Gallery a: overview of 'Australia' case, b: close up of chimpanzee © Bristol Culture



Figure 3: *Extinction Voices, the Extinction Tree with visitors' comments left as 'leaves'* © Bristol Culture

During the three-month intervention, there were 145,422 visits to the museum, of which a high proportion are expected to have visited the gallery, based on the usual visitor journey. Visitors of diverse nationalities and ages left hundreds of comments on the *Extinction Tree*, which spilled out across gallery walls. These covered themes from individual to government action; creative thinking; emotions; and gratitude for the intervention, for example: 'No To Single Use', 'Go vegan', 'Workers Power + environmental action = democratisation and protection of the planet', 'I love wildlife', 'We have failed', 'I am cros [sic]', amid hundreds of other leaf messages.

Any complaints referred to disappointment at not seeing the specimens, not at the intervention's message. For example: 'what's the point of saying something will become extinct if you can't see what it is?' and 'my grandchildren were disappointed not to see them'. Comments on Twitter and Facebook most often used the terms 'powerful', 'thought-provoking', 'moving', 'sad' and 'striking'. Social media comments from sector professionals included 'meaningful', 'relevant', 'contemporary', 'responsive' and 'hope other institutions follow their

lead'. Perhaps most importantly, the Freshford children's teachers reported that the children felt empowered and listened to.

The intervention aimed to generate local engagement but received more widespread attention including articles in the national and international press,¹⁵ short films receiving up to 69,000 social media views, and an invitation to become the first UK institution and seventh museum globally to join the 'United for #Biodiversity' global coalition.¹⁶

Extinction Voices also inspired other organizations to raise their voices for nature – including veiling the Giant Deer at Crystal Palace and demonstrations by Bristol's wildlife filmmakers.¹⁷ It inspired the methodology for national action #ArtStrike for #ClimateStrike.¹⁸

Interrogating the intervention's voice: language and solidarity matter

Despite the positive reception, the intervention deserves to be critiqued in retrospect. Even in its conscious intention to amplify some marginalized perspectives (UK children and endangered animal species), the exhibition signage replicated problematic tropes and assumptions from the mainstream, largely white-dominated, Western environmental movement. Whilst maintaining a positive overall view of the intervention and recognizing the potency of the veils, this critique recognizes flaws in language and assumptions drawn from mainstream environmental practice.

1. Proposing individual actions rather than systemic critique. For example, 'What can we do?' suggestions on the interpretive panels focused on individual actions around consumption (e.g. 'keep filling up your water bottle instead of buying new plastic'), rather than on increasing critical awareness of systemic drivers of harms. This seemingly apolitical or neutral voice in fact upheld the status quo around individualistic, consumerist capitalism, which is predicated on social inequality.

2. Using a globalizing rhetoric that obscured diverse and multiple perspectives. *Extinction Voices* separated 'humans' from 'nature' and referred to a non-specific 'we': Who exactly was the 'we' being referred to? This language conflated Eurocentric actors and audiences with 'humans', obscuring multiple and diverse ways of living and relating. This raises the question that Audra Mitchell and Aadita Chaudhury ask in their 2020 essay, 'Worlding Beyond "the" "End" of "the World": White Apocalyptic Visions and BIPOC Futurisms': Who is 'deemed capable of and entitled to "save the world" and determine its future?' (Mitchell and Chaudhury 2020: 312). The centring of 'we' and 'us' by white writers and environmentalists invokes a logic by which:

responsibility for ecological threats is attributed to "humans" in general, and the assignment of specific culpability is avoided... [A]ccurately attributing *responsibility* is crucial to opening up futures in which it is possible to dismantle the structural oppressions that unequally distribute harms and *chances* for collective survival (Mitchell and Chaudhury 2020: 314).

Future project iterations may offer opportunities to encourage young people to develop critical discernment around language and to ask questions like, 'what do you mean by "us" and "we"?', 'who's actually doing this, and why?'



Figure 4: *Extinction Voices* – example of intervention signage.

3. Lacking Indigenous, Black, People of Colour and local voices. The signage invited audiences to '*be their [i.e. animals] voice*' – an appeal intended to be empowering and accessible, but rested on problematic assumptions that echoed the values underpinning the museum's colonial origins, as we discuss below. Indigenous and local human communities' perspectives, knowledge systems and needs were not present at all. This exemplified a referencing of white scholars and organizations, creating a space where alternative worldviews were absent and thus unable to challenge the assumptions of the curatorial voice. Mitchell and Chaudhury (2020: 311-2) describe the overwhelming force of 'broad, everyday, structural ways in which underlying *logics* of whiteness and white supremacy frame and permeate *mainstream* paradigms and discourses, including those identified as liberal, humanitarian or progressive', and warn 'even amongst whites who consciously and explicitly disavow racism, unconscious, habitual, normalised, structurally-embedded assumptions circulate, and are reproduced in ways that perpetuate race as a global power structure'.

4. Missing opportunities to problematize colonial narratives around wildlife collection, captivity and conservation in the re-telling of five specimens' stories, which failed to consider species loss in the context of historic and contemporary racism. For example, the panel telling the story of Anne and Henry the orang utans simply states 'they were brought from the wild in 1947' and gives anecdotes from their lives at Bristol Zoo. The signage missed an opportunity to talk about the indigenous peoples and cultures of Borneo, and historic and contemporary social and environmental pressures, including wildlife trade driven by collections.

5. Adopting a narrative of urgency. In response to the IPBES calls for action and the children's letters, the signage used language such as: 'Time is running out', 'Climate change caused by humans', 'Catastrophic'. This language, although familiar and seemingly appropriate, risks justifying harms to indigenous communities in the pursuit of conservation by any means necessary. The rhetoric 'humans are destroying nature faster than ever before in our history' obscures centuries of colonial oppression and harm to local and indigenous communities and ways of life. As the Wretched of the Earth coalition stated in an open letter in 2019:

Another truth is that for many, the bleakness is not something of "the future". For those of us who are indigenous, working class, black, brown, queer, trans or disabled, the experience of structural violence became part of our birthright.¹⁹

In a continuation of centuries of betrayals, this habit of obscurity can also harm the prospects of building trust and coalitions between historically colonizer and colonized populations. As indigenous scholar Kyle Powys Whyte puts it: 'Such narratives can erase certain populations, such as indigenous peoples, who approach climate change having already been through transformations of their societies induced by colonial violence' (Whyte 2018). It is not ethical or truthful to separate storytelling about animal extinctions from discussions of the genocides of colonialism and capitalism. In order to tell the story of the thylacine, for example, it is morally imperative to talk about historic genocidal intent against indigenous Tasmanian people. Ecocides are often driven by explicitly genocidal strategies to harm and kill people who are in the way of 'development'. Another infamous historic example is the extermination of bison in continental North America, with Lieutenant Colonel Dodge exhorting an officer to 'Kill every buffalo you can! Every buffalo dead is an Indian gone' (Smits 1994).

6. Risking collusion in 'fortress conservation'. The intervention signage did not talk about grassroots, local-led or indigenous-centred environmental and land defence projects, and its language around the causes of biodiversity loss arguably fed into narratives around the need for fortress environmentalism, i.e. the creation of protected areas for terrestrial or marine wildlife by the coerced displacement or exclusion of existing inhabitants. For example, the panel on wildlife poaching failed to mention livelihoods, poverty, access to land, social and environmental justice, structural power, or international market drivers.²⁰

7. Mourning is a problematic response to species extinctions in the future as well as in the past. The language of the black veils is mourning – intended to convey extinction or endangerment; the meaning is clear, but potentially problematic. There is a need for spaces for reflection and attention to what Britt Wray refers to as the 'disenfranchised' grief many people feel around ecological change and loss.²¹ However, if these spaces are not held with sensitivity to the intersecting and uneven harms of climate impacts, they risk exacerbating injuries faced by communities of colour and indigenous peoples due to structural racism and environmental change. The language of mourning used for predicted extinctions

also risks making these extinctions seem inevitable. This is ethically problematic once we recognize specific species' ongoingness is interdependent with the ongoingness of specific places, cultures and ways of life.

These criticisms reflect and are intended to emphasize the vital role of critical education, and of using creative practice to bridge social and environmental justice and build international and intergenerational solidarity. Museums must consider how they can most effectively and meaningfully show solidarity with the people whose voices they have historically ignored or silenced, as well as with young people, which involves interdisciplinary collaborations. The fact visitors' dwell time in the gallery for the duration of the intervention increased by up to 500 per cent indicates the potency of creative interventions to increase engagement with difficult issues. Also striking is the leading role taken by children and young people in the conversations, and the profundity of the Freshford children's experience.

Colonial origins, silences in the displays, and why these matter to narratives about extinction crisis

Following issues highlighted in *Extinction Voices*' interpretation, Bristol's curatorial team are examining the colonial origins of the museum's world wildlife collections, to foreground colonial legacies in its displays and reflect critically on why these matter to exhibiting extinction threat. Within the scope of this paper, we illustrate these connections through a Western scientific genus significant throughout the institution's history, and also part of the *Extinction Voices* intervention: the gorilla.

The institution's first material encounter with the gorilla was in 1847, when Captain George Wagstaff/e²² of the ship *John Cabot* procured for second curator Samuel Stutchbury (1798-1859) (Crane 1983) '3 skulls of an extraordinary large and new species of Chimpanzee from the Gaboon [sic] district of West Africa'.²³ The following year, two further crania were donated by Captain Harris and Second Officer Mr Townsend of the ship *Englishman* from the 'River Danger, Gaboon District, W. Africa'.²⁴ Examining this first encounter exposes problematic structures and ways of thinking which must be acknowledged in the museum's practices going forward.

First, it brings into focus issues of power, extraction and links with the transatlantic trafficking of enslaved Africans. The acquisition illustrates that from its early days, the museum used Bristol's imperial global networks of power and extraction to secure specimens of world species. Contrary to narratives in the current gallery portraying the museum as a passive receiver of specimens donated from 'distant places', the museum's earliest annual reports record the committee urging use of Bristol's 'extensive foreign commerce' and 'captains and agents' to build its collections, with a focus on natural sciences (Giles 2008: 94). Stutchbury's lecture notes on the acquisition of the gorilla skulls explain: 'Upon my first coming to Bristol 15 or 16 years ago, I made myself acquainted with many masters of ships, and more especially those whose business carried them to the shores of Africa'.²⁵ At this time, Bristol's trade with Africa was for natural resources such as palm oil, timber and ivory, building on routes and sources of wealth with deep links to the trafficking of enslaved Africans (Giles 2008).

Second, the gorilla story highlights scientific racism. The institution had a role in the early development of Western scientific knowledge of 'world' (non-European) wildlife, and a deep entanglement with racist structures. The institution's first material encounter with the gorilla was also the first in Europe (Hull and Cooper 2017). Stutchbury secured specimens for prominent comparative anatomist Richard Owen (Owen 1848, 1849, 1862) in an attempt interpreted as a race for the type specimen of this 'extraordinary' new species.²⁶ To secure specimens from overseas, Stutchbury published a booklet, *Brief Directions for Preserving and Bringing Home Objects of Natural History* (Stutchbury 1832), which he distributed to ships' captains (Copp 1985). Appended was a list of 'desiderata' giving distressing but clear evidence of structural racism:

Desiderata for the Bristol Institution. Mammalia.
Human Skeleton, male and female; also Skulls of all the well marked varieties, annexing the name of the tribe, and country to which they belonged.
Oran Outang, adult, Skin and Skeleton, found of the size of man in Borneo, and other Eastern Isles... (Stutchbury 1832: 15).



Figure 5: Gorilla skull BRSMG Ab1993, acquired for Bristol Museum curator Samuel Stutchbury from West Africa by Captain Wagstaff/e, 1847 © Bristol Culture

Third, the gorilla narrative includes hierarchies, lenses and erasure of knowledge. It illustrates a silencing of the voices and knowledge systems of originating communities. In his 1849 paper describing the gorilla crania, Owen shares:

Captain Wagstaff reached Bristol in a broken state of health, and died soon after his arrival. The only information relative to these rare and valuable contributions to zoology which Mr. Stutchbury was able to obtain from him was that the natives, when they succeed in killing one of these Chimpanzees, make a 'fetish' of the cranium. The specimens bore indications of the sacred marks in broad red stripes crossed by a white stripe, of some pigment which could be washed off (Owen 1849: 391).

Owen's next comments other and dismiss indigenous communities: 'Their superstitious reverence of these hideous remains of their formidable and dreaded enemy adds to the difficulty which a stranger has to contend with in obtaining specimens' (Owen 1849: 391).

Viewed from the perspective of these origins, the permanent displays can be seen to maintain a structurally racist hierarchy, lens and erasure of knowledge, and embody multiple systemic silences. Not addressing these issues risks not only alienating audiences, but framing extinction threats and actions in ways that inadvertently perpetuate injustice, oppression and harm. The interpretation used in *Extinction Voices* drew from mainstream environmental narratives, but its problematic aspects can be seen as rooted in thinking embedded in the structures of this gallery.

The gallery continues to present animals originating from outside Europe as known by Western science alone. This erasure is common to narratives beyond the museum, as Amir (2019a) explains: 'The gorillas of Africa are known around the world, but African stories

of gorillas are not. Indigenous knowledge of gorillas is almost entirely absent from the global canon'. Retaining this epistemology alone risks promoting assumptions that only Western scientists have the 'right expertise to make nature "speak"'²⁷ and problematic thinking such as blaming local communities for driving extinction (Amir 2019b). For example, a 1999 museum description of the gorilla skulls with traces of red and white pigment as 'fetishes' is followed by 'This belief still continues to be a threat to gorilla conservation in parts of Africa today'. Imperial collecting histories are absent or presented uncritically, which 'perpetuates structural



Figure 6: Museum label from gorilla skull BRSMG Ab1996 © Bristol Culture

racism within modern society by whitewashing a history where science, racism, and colonial power were inherently entwined' (Das and Lowe 2018: 4). One example is Alfred the gorilla, an 'icon' for the museum. As one of the first gorillas to survive any length of time in captivity when he lived at Bristol Zoo from 1930-1948, he captured the hearts and minds of Bristolians who continue to visit him to this day. The story of Alfred's life at the zoo has been extensively curated, but his history in Central Africa has been little interrogated. This includes unproblematic references to being 'suckled by a local woman' before being purchased by a colonial trader. Recent research has revealed exploitation of African women in this context by live animal collectors, which whilst not necessarily connected to Alfred's story illustrates need for more in-depth understanding.²⁸

Throughout the museum's history, taxidermied animals have been displayed to illustrate scientific principles, largely without interpretation that would foster thinking about them as individual beings. It is clear from the *Extinction Voices* intervention that museum visitors have a connection with these 'animal-objects' (Wehner 2017), and that curators treat them with respect and ethical responsibility. However, Mikulak (2009) reminds us of the importance of attending to cultural representations of a 'silent' nature, where life forms are turned into 'any number of commodities, stripped of their labor and decontextualized from a narrative that connects them to land and life' (Mikulak 2009). '[T]he move from nature as an "object" to the idea that it can be possessed and exploited is an easy one'.²⁹

Calls to action against extinctions in a framework that continues to erase co-existing human communities also risks continued injustice against invisibilized local communities, or not acknowledging environmental threats that may have directly affected Bristol's diaspora communities.³⁰

Future decolonial possibilities

Acknowledging structures of colonial power, racism and inequality in Bristol's natural history displays, the ways these still privilege white voices, and risks of perpetuating ongoing harms when used as a basis for narratives of threatened species, is a first step towards future decolonial approaches. This is part of wider work by the museum service initiated in 2019/20 to actively address its colonial heritage, with three initial aims: 1) to understand and dismantle the barriers the institution's colonial heritage presents, 2) to recognize the trauma and suffering it causes, and 3) to represent, celebrate and co-produce with communities disadvantaged by the legacies of colonialism, including people of colour, source communities and diaspora communities.³¹

What is the future role for these displays in promoting thinking and doing against global ecological crisis? Drawing together our critical interrogations allows us to consider if their silences present decolonial possibilities, in processes that acknowledge and aim to disrupt colonial structures whilst centring participatory collaborations with originating, diaspora and marginalized communities.

First, we suggest the displays present valuable opportunities to reflect on structural racism in mainstream environmental narratives. The origins of the collections also represent the roots of the city of Bristol's development of knowledge about global wildlife. They provide a window to racist and objectifying structures for city practitioners in fields underpinned by this history – from conservation to wildlife filmmaking (e.g. Adams and Mulligan 2003; Amir 2019b) – where confusion about such structures is still prevalent but where honest exploration can facilitate solidarity (Griffith and Bevan 2021). The museum space, with staff expertise in curation, creative design and engagement, offers opportunities for accessible dialogue, such as Bristol Museums' facilitation of city-wide conversation following the toppling of the Colston statue, through the exhibition *The Colston Statue: What Next?*³²

Second, these displays offer tangible connection with colonial histories and systemic critique of global ecological crisis. If presented critically in ways that de-privilege the colonialist voice, specimen histories provide points of contact with often invisibilized systems of power, extraction, exploitation and erasure underlying global extinctions (e.g. Rose *et al.* 2017; Brondizio *et al.* 2019). Instead of the globalizing language used in *Extinction Voices*, this offers possibilities to attend to specific histories and responsibilities and generate new understandings (Mitchell and Chaudhury 2020).



Figure 7: Farm at Bonny, photograph by J.A. Green, Nigeria, about 1900. Given by Mr S. Jones. British Empire and Commonwealth Collection 2003/174/1/44. © Bristol Culture

For example, Alfred the gorilla's story could help explore entwined harms to gorillas and people in Central Africa and Bristol, and rethink ahistorical language such as 'habitat loss'. Wider collections could help complexify this language, illuminating timelines of colonial impacts on local communities through hunting, demarcation, extractive industries and agriculture, or

illustrating complex global networks connecting animals, conservation and filmmaking during the twentieth century. An example is an image chosen by Nigerian photographer George Osodi from Bristol's British Empire and Commonwealth Collections³³ for the exhibition *Empire through the lens*. The photograph shows early exploitation by the palm trade in about 1900 (Figure 7). Osodi shares, 'I witnessed the destruction of the palm oil industry to be replaced by the new farming interest: Oil'.³⁴ Prior to the palm industry, Bonny Island had been a trading centre for the transatlantic slave trade.³⁵

Third, the displays offer possibilities to recognize silenced ways of knowing and living in interdependence with 'nature', de-centring the European gaze on these issues and considering diverse ecological paradigms: 'In spite of their colonial history, natural history museums are well-placed to relate decolonial narratives because the stories, work, and knowledge of non-white peoples remain manifest in natural history collections and museum spaces' (Das and Lowe 2018: 6). If welcomed by affected communities, colonial era cultural artefacts collected contemporaneously with natural specimens offer additional potential to explore thinking beyond a separation of nature and culture, through knowledges 'bound in unique lifeways – customs, habits, behaviours, material and symbolic features of culture emergent from the land and sea' (Wildcat 2009: 17). What possibility for different connections does re-examining the red and white marks erased from the museum's first gorilla skulls present?

In this context, acknowledgements must be made with care: 'The production of knowledge, new knowledge and transformed "old" knowledge, ideas about the nature of knowledge and the validity of specific forms of knowledge, became as much commodities of colonial exploitation as other natural resources' (Tuhiwai Smith 2012: 62). Intentional silences, respecting source community wishes, may 'rebuild trust and avoid repeating the condescension of colonial regimes' (Mason and Sayner 2019: 15). Collections may also offer opportunities for originating communities to recover lost knowledge and, if welcomed, share insights (Lui-Chivizhe 2017).

Co-curation offers possibilities for new syntheses and deconstructions. An example is work by Community Centred Knowledge practitioner Mama D. Ujuaje and Bristol Museum & Art Gallery's curator Rhian Rowson, using embodied practice as a decolonial tool to critique dominant narratives and open up pluriversality (Ujuaje and Chang 2020).³⁶ Curator of Indigenous Perspectives at Manchester Museum, Alexandra Alberda, also explores pluralizing storytelling and knowledge sharing across Western scientific, traditional ecological knowledge and indigenous perspectives.³⁷

Finally, we consider a role for these displays in encountering preserved nonhuman beings and difficult histories. In exploring a redressing of harms and injustice, we must be cautious of the progressivist temporal order of the colonial project and 'saviourist' tendencies insisting on solutions. Is the future work instead in creating 'situations and encounters that force us to sit with those injustices and be humbled by them'?³⁸ To 'stay with the trouble', as ecofeminist scholar Donna Haraway puts it (Haraway 2016), and learn to build kinship networks of mutual care and collaboration that extend far beyond Bristol and the UK. Professor Tahani Nadim's Bureau of troubles at Berlin's Museum für Naturkunde offers precedent with its commitment to Haraway's call: '[W]e try to sound out and stick with the disconcertments that haunt imperial institutions such as museums, the categories and standards of collecting, describing and managing (parts of) natures, and the ongoing relations of coloniality'.³⁹

Conclusions

Extinction Voices showed the enormous potential of historic natural history displays to engage museum visitors and stakeholders with contemporary global challenges. It also demonstrated the importance of listening, and the power of a low-cost, creative approach to generate a responsive, accessible space for intergenerational conversation and emotional connection with difficult issues.

The intervention has been acknowledged for connecting historic collections to contemporary action against global wildlife extinction (e.g. O'Key 2020; Guasco 2021). However, it also brought learning on the importance of paying attention to the latent silences of an organization's colonial histories, positionality and power before using its voice to call for

urgency and action, to avoid perpetuating injustices and the harms of its past. Narratives of urgency in response to the extinction crisis are common. Our case study highlights the need for care in urgency, and for slowness to create space for representation in voice.

Through a decolonial approach, the displays' silences offer different possibilities – exploring colonial histories and contemporary systems, under-represented voices, and diverse paradigms. This is in line with the IPBES report finding that 'we need to understand the history and global interconnection of complex demographic and economic indirect drivers of change, as well as the social values that underpin them',⁴⁰ and recognize the rights and epistemologies of indigenous and local communities.

Is it possible for a colonial collection to carve a new space in the context of ecological crisis? What changes do impacted communities want? How would a decolonized gallery look and feel? These questions are complex and addressing them will require ongoing interdisciplinary and stakeholder collaboration and creative practice. In January 2022 the museum was awarded £90,000 by the Esmée Fairbairn Collections Fund – delivered by the UK's Museums Association – to develop this work through a two year project *Extinction Silences: exploring legacies of colonial violence and new ecological possibilities*.⁴¹

Natural history collections across the UK are shifting focus as they consider the future roles of their displays in the face of environmental, decolonial and social challenges – augmenting more traditional approaches. Bristol's work sits within a spectrum of UK examples that include the Grant Museum of Zoology's interrogation of its institutional history in *Displays of Power: A Natural History of Empire*;⁴² the Horniman Museum's environmental intervention series including *Let's Beat Plastic Pollution*;⁴³ and the *Indigenising Manchester Museum* programme.⁴⁴ Internationally these shifts are seen in works such as *The Future of Natural History Museums* (Dorfman 2018) and *Curating the Future: Museums, Communities and Climate Change* (Newell et al. 2017).

In the labour of decolonizing – engaging with and responding to entwined ecological and social harms – museum collections are vital resources: sitting at the intersection of social and environmental histories, presents and futures, and providing accessible spaces for engagement and conversation. This article is offered in a spirit of curiosity and openness to challenge, critique and reflective development as Bristol Museum & Art Gallery staff and critical friends work towards decolonizing the museum's practice. We hope this case study can serve as a resource for other organizations, while recognizing sensitivities to the particular contexts different cultural institutions sit within (e.g. see the Museums Association's work on contexts across the UK).⁴⁵

Any efforts to decolonize natural history collections must be underpinned by an ethos of intersectional environmentalism that amplifies Black, Indigenous and People of Colour voices past and present⁴⁶ and recognizes that injustices to marginalized communities and the earth are interconnected. This moment, as heralded by the IPBES report, the intersectional environmental movement, and museum-wide commitments towards decolonizing and ecological emergency, marks an important sectoral opportunity to disrupt colonial structures and commit to visions of transformative change and system-wide reorganization, including paradigms, goals and values.

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Notes

- 1 Museums Association, 'Supporting Decolonisation in Museums', 2021, 4. <https://www.museumsassociation.org/campaigns/decolonising-museums/supporting-decolonisation-in-museums/>, accessed 24 February 2022.
- 2 Colin Sterling and Rodney Harrison, 'Climate Crisis: How Museums Could Inspire Radical Action', *The Conversation* 2020. <https://theconversation.com/climate-crisis-how-museums-could-inspire-radical-action-142531>, accessed 24 February 2022; <https://www.museumsassociation.org/campaigns/climate-crisis/>, accessed 24 February 2022; <http://www.natsca.org/natsca-2021>, accessed 24 February 2022; <https://www.natsca.org/natsca-decolonising>, accessed 24 February 2022.
- 3 In particular, Bristol Museums & Archives staff: Lisa Graves (World Cultures Curator), Nicky Sugar (British Empire & Commonwealth Collection Archivist), Rhian Rowson (Natural History Curator), Deborah Hutchinson (Geology Curator), Kate Fox, Engagement Officer.
- 4 <https://www.lostspeciesday.org/>, accessed 30 March 2021; Persephone Pearl, Rachel Porter and Emily Laurens, 'On Racism and Environmental Practice', Remembrance Day for Lost Species 2019. <https://www.lostspeciesday.org/?p=1458>, accessed 30 March 2021.
- 5 Jeremy Hance, 'Why Don't We Grieve for Extinct Species?', *The Guardian* 2016. <https://www.theguardian.com/environment/radical-conservation/2016/nov/19/extinction-remembrance-day-theatre-ritual-thylacine-grief>, accessed 30 March 2021.
- 6 Examples of national and international recognition: Alex Morss, 'Museum Shrouds Endangered Wildlife Exhibits in Mourning Veil', *The Guardian* 2019. <https://www.theguardian.com/environment/2019/aug/14/museum-shrouds-endangered-wildlife-exhibits-in-mourning-veil>, accessed 30 March 2021; Bristol Museums' Blog, 'Bristol Museum & Art Gallery Joins Global Biodiversity Coalition', 2020. <https://www.bristolmuseums.org.uk/blog/bristol-museum-art-gallery-joins-global-biodiversity-coalition/>, accessed 30 March 2021.
- 7 We follow use of language in Bell (2021), in particular, chapter 7 (Griffith and Bevan 2021).
- 8 <https://www.bristolmuseums.org.uk/tag/decolonisation/>, accessed 30 March 2021.
- 9 <https://dolly.jorgensenweb.net/extinction/>, accessed 24 February 2022.
- 10 Ray Barnett, Head of Collections & Archives, Bristol Museums, personal communication, 28 January 2021 and 25 February 2022.
- 11 Ray Barnett, pers. comm., 25 February 2022.
- 12 Ray Barnett, pers. comm., 25 February 2022.
- 13 <https://ipbes.net/news/Media-Release-Global-Assessment>, accessed 30 March 2021.
- 14 IUCN Red List of Threatened Species. <https://www.iucnredlist.org/>, accessed 30 March 2021.
- 15 Morss, 'Museum Shrouds Endangered Wildlife Exhibits'; Manuel Charr, 'Bristol Museum Highlights Extinction Crisis', *Museum Next* 2019. <https://www.museumnext.com/article/bristol-museum-highlights-extinction-crisis/>, accessed 30 March 2021; Dominic Rech, 'A Museum has Draped its Wildlife Exhibits in Shrouds to Highlight the Extinction Crisis', *CNN* 2019. <https://edition.cnn.com/style/article/animal-exhibits-mourn-bristol-intl-scli-scjn/index.html>, accessed 30 March 2021.

- 16 <https://www.bristolmuseums.org.uk/blog/bristol-museum-art-gallery-joins-global-biodiversity-coalition/>, accessed 30 March 2021.
- 17 <https://cpdinosaurs.org/blog/post/artstrike-extinction-megaloceros>, accessed 30 March 2021.
- 18 <https://www.museumnext.com/article/get-involved-with-artstrike/>, accessed 30 March 2021.
- 19 Wretched of the Earth, 'An Open Letter to Extinction Rebellion', Red Pepper 2019. <https://www.redpepper.org.uk/an-open-letter-to-extinction-rebellion/>, accessed 30 March 2021.
- 20 Cornered By Protected Areas. <https://www.corneredbypas.com/>, accessed 30 March 2021.
- 21 Britt Wray, 'Why Activism isn't *Really* the Cure for Eco-anxiety and Eco-grief', Gen Dread 2020. <https://gendread.substack.com/p/why-activism-isnt-really-the-cure>, accessed 30 March 2021.
- 22 Both spellings used in original archives and literature.
- 23 Bristol Museums, Donations book entry 2323, 1848.
- 24 Bristol Museums, Donations book entry 2324, 1848.
- 25 Bristol Museums, Geology File no. STU 28, Stutchbury MS notes.
- 26 Bristol Museums' Blog, 'Gorilla Skulls – Not Quite Our “Type”', n.d. <http://museums.bristol.gov.uk/narratives.php?irn=10716>, accessed 30 March 2021.
- 27 Doerthe Rosenow, 'Rapid Response: More Haste, Less Speed – Why Extinction Rebellion Needs to Slow Down', Discover Society 2019. <https://archive.discoversociety.org/2019/04/30/rapid-response-more-haste-less-speed-why-extinction-rebellion-needs-to-slow-down/>, accessed March 2021.
- 28 Rebecca Machin, 'Mo Koundje: How Gorilla Histories Can Help Decolonise Our Collections'. https://www.youtube.com/watch?v=AOH_XmgGIZM&list=PLFpRHLr77s_owdHaXNhZFrpWNO2zwFAgl&index=4, accessed 30 March 2021.
- 29 <https://archive.discoversociety.org/2019/04/30/rapid-response-more-haste-less-speed-why-extinction-rebellion-needs-to-slow-down/>, accessed March 2021.
- 30 For work on interdependence, see <https://onca.org.uk/2021/11/10/interdependence-lost-species-day-2021-programme/> accessed 27 February 2022; Vigil for the Smooth Handfish Panel, 'How Do Grief, Ritual and Creativity Serve the Climate Crisis?'. <https://www.youtube.com/watch?v=lm3G35en-rM>, accessed 27 February 2022.
- 31 <https://www.bristolmuseums.org.uk/tag/decolonisation/>, accessed 30 March 2021.
- 32 M Shed, 'The Colston Statue: What Next?', 2022. <https://www.bristolmuseums.org.uk/m-shed/whats-on/the-colston-statue-what-next/>, accessed 27 February 2022; Tim Cole and Joanna Burch-Brown *et al.* 'The Colston Statue: What Next? "We are Bristol" History Commission Full Report', 2022. https://www.bristol.gov.uk/documents/20182/5147235/History_Commission_Full_Report_Final.pdf/ecd6f803-13e0-8827-e1a6-059d5d490dec?t=1643895879630, accessed 27 February 2022.
- 33 <https://www.bristolmuseums.org.uk/bristol-archives/whats-at/british-empire-commonwealth-collection/>, accessed 30 March 2021.

- ³⁴ George Osodi, 'Bonny Oil Palm', Empire Through the Lens, 2017. <https://exhibitions.bristolmuseums.org.uk/empire-through-the-lens/>, accessed 30 March 2021.
- ³⁵ In 'Bonny Oil Palm', Empire Through the Lens, 2017. <https://exhibitions.bristolmuseums.org.uk/empire-through-the-lens/>, accessed 30 March 2021.
- ³⁶ Mama D. Ujuaje and Rhian Rowson, 'Legacies of Jamaica: A Not So Elegant Priest!'. https://www.youtube.com/watch?v=jEwJZ7Xwgnc&list=PLFpRHLr77s_owdHaXNhZFrpWNO2zwFAgl&index=13, accessed 30 March 2021.
- ³⁷ Alexandra Alberda, 'Indigenuity and Storytelling: Pluralising Natural Sciences and Environmental Knowledges', 2021. https://www.youtube.com/watch?v=NwX5F4p1jkl&list=PLFpRHLr77s_rJV7YY1qM72uR11xdbqmx8&index=28, accessed 28 February 2022.
- ³⁸ We thank an anonymous reviewer for this question, direction towards the work of Donna Haraway and Tahani Nadim, and the ideas encompassed in this section.
- ³⁹ <https://www.museumfuernaturkunde.berlin/en/science/bureau-troubles>, accessed 28 February 2022.
- ⁴⁰ <https://ipbes.net/news/Media-Release-Global-Assessment>, accessed 30 March 2021.
- ⁴¹ <https://www.museumsassociation.org/funding/esmee-fairbairn-collections-fund/2021-awardees/>, accessed 28 February 2022.
- ⁴² <https://www.ucl.ac.uk/culture/whats-on/displays-power-natural-history-empire>, accessed 28 February 2022.
- ⁴³ <https://www.horniman.ac.uk/story/lets-beat-plastic-pollution/>, accessed 28 February 2022.
- ⁴⁴ <https://documents.manchester.ac.uk/display.aspx?DocID=52743>, accessed 28 February 2022.
- ⁴⁵ Museums Association, 'Supporting Decolonisation in Museums'.
- ⁴⁶ <https://www.intersectionalenvironmentalist.com/>, accessed 30 March 2021.

References

- Adams, W.M. and Mulligan, M. (eds) (2003) *Decolonizing Nature: Strategies for Conservation in a Post-Colonial Era*, London: Routledge.
- Alberti, S.J. (ed) (2011) *The Afterlives of Animals: A Museum Menagerie*, University of Virginia Press.
- Amir, A.P.H. (2019a) 'Who Knows What About Gorillas? Indigenous Knowledge, Global Justice, and Human-Gorilla Relations', *IK: Other Ways of Knowing*, 5 1-40.
- (2019b) 'Folk Filmmaking: A Participatory Method for Engaging Indigenous Ethics and Improving Understanding', *Conservation and Society*, 17 (2) 123-34.
- Ashby, J. and Machin, R. (2021) 'Legacies of Colonial Violence in Natural History Collections', *Journal of Natural Science Collections*, 8 44-54.
- Bell, K. (ed) (2021) *Diversity and Inclusion in Environmentalism*, London: Routledge.

- Brondizio, E.S., Settele, J., Díaz, S. and Ngo, H.T. (eds) (2019) *IPBES, Global Assessment Report on Biodiversity and Ecosystem Services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services*, Bonn: IPBES Secretariat.
- Cameron, F. (2015) 'Ecologizing Experimentations: A Method and Manifesto for Composing a Post-humanist Museum', in Fiona R. Cameron and Brett Neilson (eds) *Climate Change and Museum Futures*, 16-33, London: Routledge.
- Copp, C.J.T. (1985) 'The Growth and Significance of the Nineteenth Century Shell Collections in the City of Bristol Museum and Art Gallery', *Biology Curators Group Newsletter*, 4 (1) 10-25.
- Crane, M.D. (1983) 'Samuel Stutchbury (1798-1859), Naturalist and Geologist', *Notes and Records of the Royal Society of London*, 37 189-200.
- Das, S. and Lowe, M. (2018) 'Nature Read in Black and White: Decolonial Approaches to Interpreting Natural History Collections', *Journal of Natural Science Collections*, 6 4-14.
- Dorfman, E. (2018) *The Future of Natural History Museums*, London and New York: Routledge.
- Guasco, A. (2021) "'As Dead as a Dodo": Extinction Narratives and Multispecies Justice in the Museum', *Environment and Planning E: Nature and Space*, 4 (3) 1055-76.
- Gelsthorpe, D. (2021) 'Decolonising Manchester Museum's Mineral Collection – A Call to Action', *Journal of Natural Science Collections*, 9 12-28.
- Giles, S. (2008) 'Maritime Collections at Bristol's City Museum and Art Gallery', *Journal of Museum Ethnography*, 20 94-105.
- Griffith, R. and Bevan, G. (2021) 'The Demand for Racial Equality and Environmental Justice: Learning from Bristol's Black and Green Programme', in Karen Bell (ed) *Diversity and Inclusion in Environmentalism*, 98-117, London: Routledge.
- Haraway, D.J. (2016) *Staying with the Trouble*, Durham and London: Duke University Press.
- Hull, G. and Cooper, J.E. (2017) *Gorilla Pathology and Health: With a Catalogue of Preserved Materials*, London: Elsevier.
- Lui-Chivizhe, L. (2017) 'Telling Torres Strait History through Turtle', in Jennifer Newell, Libby Robin and Kirsten Wehner (eds) *Curating the Future: Museums, Communities and Climate Change*, 118-27, London: Routledge.
- Mason, R. and Sayner, J. (2019) 'Bringing Museal Silences into Focus: Eight Ways of Thinking about Silence in Museums', *International Journal of Heritage Studies*, 25 (1) 5-20.
- Mikulak, M. (2009) 'The Silence That Can Speak: Nature, Ethics, and Interspecies Cosmopolitics', *Environmental Philosophy*, 6 (2) 73-92.
- Mitchell, A. and Chaudhury, A. (2020) 'Worlding Beyond "the" "End" of "the World": White Apocalyptic Visions and BIPOC Futurisms', *International Relations*, 34 (3) 309-32 <https://journals.sagepub.com/doi/abs/10.1177/0047117820948936>
- Mulhearn, D. (2013) 'Facing Extinction', *Museums Journal*, April, 24-9.

- Newell, J., Robin, L. and Wehner, K. (2017) 'Introduction', in Jennifer Newell, Libby Robin and Kirsten Wehner (eds) *Curating the Future: Museums, Communities and Climate Change*, 1-16, London: Routledge.
- O'Key, D. (2020) 'Why Look at Taxidermy Animals? Exhibiting, Curating and Mourning the Sixth Mass Extinction Event', *International Journal of Heritage Studies*, 27 (6) 635-53 <https://www.tandfonline.com/doi/abs/10.1080/13527258.2020.1844276>
- Owen, R. (1848) 'On a New Species of Chimpanzee', *Proceedings of the Zoological Society of London*, 16 27-35.
- (1849) 'Osteological Contributions to the Natural History of the Chimpanzees. (Troglodytes, Geoffrey), Including the Description of the Skull of a Large Species (Troglodytes gorilla, Savage) Discovered by Thomas S. Savage, M.D., in the Gaboon Country, West Africa', *Transactions of the Zoological Society of London*, 3 381-422.
- (1862) 'Description of the Cranium of an Adult Gorilla from the River Danger, West Coast of Africa, Indicative of a Variety of the Great Chimpanzee (*Troglodytes gorilla*)', *Transactions of the Zoological Society of London*, 4 75-88.
- Poliquin, R. (2008) 'The Matter and Meaning of Museum Taxidermy', *Museum and Society*, 6 (2) 123-34.
- Robin, L. (2009) 'Dead Museum Animals', *reCollections*, 4 (2) https://recollections.nma.gov.au/issues/vol_4_no_2/papers/dead_museum_animals
- Rookmaaker, K., Nelson B. and Dorrington, D. (2005) 'The Royal Hunt of Tiger and Rhinoceros in the Nepalese Terai in 1911', *Pachyderm*, 38 89-97.
- Rose, D.B., van Dooren, T. and M. Chrulaw (2017) *Extinction Studies: Stories of Time, Death, and Generations*, New York: Columbia University Press.
- Smits, D.D. (1994) 'The Frontier Army and the Destruction of the Buffalo: 1865-1883', *The Western Historical Quarterly*, 25 (3) 312-38 <http://www.jstor.org/stable/971110>
- Stutchbury, S. (1832) *Brief Directions for Preserving and Bringing Home Objects of Natural History*, Bristol: Bristol Institution.
- Tuhiwai Smith, L. (2012) *Decolonizing Methodologies: Research and Indigenous Peoples*, London: Zed Books Ltd.
- Ujuaje, M.D. and Chang, M. (2020) 'Systems of Food and Systems of Violence: An Intervention for the Special Issue on "Community Self Organisation, Sustainability and Resilience in Food Systems"', *Sustainability*, 12 (17) 7092 [doi:10.3390/su12177092](https://doi.org/10.3390/su12177092)
- Wehner, K. (2017) 'Towards an Ecological Museology: Responding to the Animal-Objects of the Australian Institute of Anatomy Collection', in Jennifer Newell, Libby Robin and Kirsten Wehner (eds) *Curating the Future: Museums, Communities and Climate Change*, 85-100, London: Routledge.
- Whyte, K. (2018) 'Indigenous Science (Fiction) for the Anthropocene: Ancestral Dystopias and Fantasies of Climate Change Crises', *Environment and Planning E: Nature and Space*, 1 (1-2) 224-42 https://www.researchgate.net/publication/325453561_Indigenous_science_fiction_for_the_Anthropocene_Ancestral_dystopias_and_fantasies_of_climate_change_crises

Wildcat, D.R. (2009) *Red Alert! Saving the Planet with Indigenous Knowledge*, Golden, Colorado: Fulcrum.

Would, A. (2020) 'Tactile Taxidermy: The Revival of Animal Skins in the Early Twentieth Century Museum', *Environment and History*, 1-26 <https://doi.org/10.3197/096734020X15900760737329>

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