Prison Zooing and Conservation: Human and Animal Caging in a Time of Ecological Catastrophe

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Abstract: Prisons are responsible for the social and biological death of the humans trapped within them, the animals whom it coerces prisoners to farm and slaughter, free-living animals displaced by prison building, as well as the ecosystems and waters destroyed by prison effluent which makes the lives of those dependent upon these systems and resources for survival, unliveable. In the context of the Sixth Extinction, the prison is at once one of the most resource intensive institutions contributing to Anthropogenic climate change and biodiversity loss, and paradoxically, in the last two decades, sometimes positioned similarly to zoos as an ecological saviour of threatened species. The most established example of this is the Sustainability in Prisons Project that operates in many United States prisons. Specific to conservation, it trains prisoners – often in partnerships with zoos – to captively rear endangered animals and plants. There is also a zoo located on the grounds of a Florida prison in which prisoners care for abandoned animals, which is open to the public for tours. This article argues that the current initiatives of prison zoos and prison conservation programs reflect the trajectory of animal zoo eras and human zoos, with unique implications: two institutions of captivity, the zoo and the prison, now reify each other under the auspices of ecological conservation – a project whose need and operation continues the racialized and anthropocentric projects that gave it rise.

Keywords: prison zoo; prison conservation; extinction; Sustainability in Prison Project

Introduction

It is widely accepted that we are in the geological epoch of the so-called Anthropocene[1] – a time when human activity has fundamentally and irreversibly altered the earth's systems, biotas, and functioning. Climate change, the acidification of oceans, and the invention and production of novel chemicals, substances, and technologies such as plastics, nuclear bombs, and pesticides, for example, are often presented as the most obvious markers of the Anthropocene (Maslin and Lewis 171-80). Scientists argue, however, that the strongest indicator of this new period of geological time is the rate of biodiversity loss currently underway. Climate change and species extinctions are interrelated, but it is the fact that species are becoming extinct at 1,000 to 10,000 times the natural rate that marks a new geological epoch (Ceballos et al. 'Accelerated Modern'). Ceballos et al. have suggested that were it not for human activity, it would have taken 800 to 10,000 years for these losses to occur, rather than the approximately 100 years in which these extinctions have taken place ('Accelerated Modern'. Such extinctions have led scholars to declare that we are living in the Sixth Extinction, a time of calamitous eliminations in animal, insect, and plant species that will be dire for all life on earth (Heise).

In a time of anthropogenic climate disaster and mass extinction, prisons are paradoxically being positioned as places that can be sustainable and steward conservation. Not only has there been a 'greening' of incarceration in Canada and the United States since the mid-2000s (Jewkes and Moran), but some have argued that in a context of climate change, prison building is a more responsible use of land than animal agriculture or water-intensive crops, such as cotton and almonds ('The Economy of Incarceration'). 'Greening' the prison is often described by administrations as achieving Leaders in Energy and Environmental Design (LEED) certification[2], introducing recycling programs, or providing technology for video-based court appearances and thus lowering transportation-related emissions (Jewkes and Moran; Piché et al.). LEED certification is a 'difficult and costly' process that 'has had little real impact' on reducing environmental degradation or affecting nonhuman populations (Jewkes and Moran 455). Because the prison is foremost a large security facility, 'whose security requirements prohibit the use of materials that would be utilized in other types of construction', it is unlikely to ever have a low environmental impact (Jewkes and Moran 456). In addition to lights and

surveillance technology that are constantly operating, prisons often consume 'more water per square metre than standard building types' (Jewkes and Moran 460). The upfront costs of sustainable design and materials are also higher than the industry's minimum requirements – costs that jurisdictions and taxpayers are often unwilling to pay (Jewkes and Moran). The public relations material touting the prison's sustainable initiatives does not address the fact that prisons commonly violate clean air acts in terms of emissions, as well as poison surrounding ecosystems, animal habitats, water ways, and communities through chemical and sewage runoff contra clean water regulations (Tsolkas; Prison Ecology Project; Corporate Watch). Instead, the discourse of sustainability siloes the issue into one about building materials, rather than taking the prison to be an institution that occupies territories, consumes resources, and produces ecological devastation.

Despite its impossibility, the narrative of a sustainable prison has been politically successful. For one thing, it distracts from the ongoing settler,[3] racist, and gendered[4] violence occurring in these institutions (Dilts; Owusu-Bempah; Kojola and Pellow). Secondly, like narratives about supposedly 'Indigenizing' the prison, or so-called 'gender-responsive' corrections, environmentally responsible incarceration provides justification for carceral expansion (Struthers Montford and Moore; Guenther). Both increasing existing capacity at established prisons and building new prisons has in part been justified through an appeal to eco-friendly architectural designs and other environmentally friendly practices (Mazurek et al.). The sustainable prison is a more recent narrative addition to the longstanding discourses of the prison's supposed contributions to public safety, rehabilitation, economic stimulus, and job creation used to sell prisons to communities (Piché et al.). Scholars have questioned whether the 'greening' of the prison is anything more than strategic public relations messaging that ultimately sustains the prison *at the expense* of the environment. Under a neoliberal guise of being committed to the environment, such initiatives stymie abolition efforts by positioning it as progressive and responsive to current realities, appease prison reformists, and result in long-term cost savings for penal jurisdictions (Jewkes and Moran; Piché et al.). While there has been some academic literature on the prison as a site of both human and animal oppression in practices such as the rodeo (Gillespie) and animal agriculture (Struthers Montford), attention

has not yet been paid to prison zoos or conservation initiatives. Inasmuch as the prison is currently being positioned as a location of ecological conservation, manifest in captive rearing programs, I argue that this is another iteration of prison greenwashing where the prison, a driver of climate change and extinction, is positioned as a response to these very issues.

This article provides a critical analysis of recent prison endeavours to counter extinctions of plant and animal species through various prison training programs and partnerships, as well as some prisons establishing zoos onsite in the aim of conservation. To contextualize these practices, I briefly outline historical places of captivity, such as human zoos, that have kept racialized and disabled persons and animals in close proximity, producing racialized, gendered, and colonial sciences and hierarchies of life. This article will explore the shifting pedagogical and scientific raisons-d'être that have shaped the ways that humans and non-humans are incarcerated near to, or directly with one another. I argue that the current initiatives of prison zoos and prison conservation programs reflect the trajectory of animal zoo eras and human zoos, with unique implications: two institutions of captivity, the zoo and the prison, now reify each other under the auspices of ecological conservation. Prison conservation is then a project whose need and operation continues and merges the racialized and anthropocentric projects of human and animal zooing.

Eras of human and animal zooing

Zoo exhibits reflect the scientific, cultural, and social priorities of a given time and era (Blanshard). Zoos themselves are sites of curated knowledge and viewing. To be zooable is to be cageable, with subjects of display and pedagogical messages changing with each era of zooing. There are four general stages in animal zooing (Morin). In the 18th and 19th centuries, the zoo functioned as a display of human power over nonhumans in which menageries contained rows of cages of animals arranged at first for private viewing by western aristocrats, and later for the public. These collections of animals laid the foundation for the exhibition of animalized humans in zoological gardens, and the crossing of the 'human-animal' boundary became an object of exhibition and scientific curiosity. In effect, the zoo often put racialized and sexualized humans

in proximity to animals, and would do so under the guise of western scientific progress. The display of humans with animals was most pronounced in the 19th and early parts of the 20th century. The 19th century involved 1) the professionalization of exhibition, for 2) public consumption, and this occurred within a broader context of growing academic interest in constructing differences between colonial and noncolonial powers. Ideas about an 'indeterminate' race between whites and animals were proposed and circulating broadly within scientific communities searching for and establishing 'the missing link' (Blanchard et al. 17). In effect, the West was attempting to understand the world, and this was an era in which human zoos became distinctly racialized. Zooed subjects were no longer just 'displayed' but were 'investigated' as specimens (Blanchard et al.).

Through the procurement and display of individuals from colonized locations, scientific discourses constructed notions of *biological* racial superiority and inferiority that justified broader colonial projects. Saartje Baartman, a Khoikhoi woman exhibited as the 'Hottentot Venus', became representative of an entire race, as western European experts used her as a basis from which to generalize. Specifically, they claimed that her skull was more alike to that of a monkey than to whites, thereby representing an earlier race of humans, and that her sexual organs were also less evolved and indicated hypersexuality. Baartman was thus deemed by Western scientists to be more ruled by her body than her mind, like animals, in comparison to the supposedly most evolved humans (Tuvel; Boëtsch and Blanchard). Similarly, Ota Benga, a Congolese man, was displayed by the Bronx Zoo in 1906 as the 'missing link' between whites and primates. Caged and advertised with monkeys, he was encouraged to play with his co-detainees for visitors to observe. Zookeepers would toss bones into Benga's cage, and photographs featured him holding a chimpanzee. Benga was also constructed as 'the Congolese cannibal' (Hasian Jr and Muller 286). Not only is such a gaze colonial, it is a collective manner of inventing race. In this case, race(s) are invented by placing those who are purportedly not quite human and not quite animal together in the racial borderlands, in order to make claims about the similarity of non-whites to specific animals (Hasian Jr and Muller; Kim). By the 1930s, human zoos began to fall out of favour and by the mid-20th century the explicit domination of human others was no longer palatable to broader audiences (Blanchard).

The exhibition of animals would also undergo a rhetorical shift. Following WWII, animal zoos shifted to more of a 'living museum' (Morin 128) model in which explicit displays of human dominance were substituted for enclosures meant to resemble natural habitats and zoo rhetoric emphasized the protection of species and their habitats, ecological harmony, and public awareness. Concurrent with this shift was the professionalization of zooing, and biologists and zoologists brought academic credibility to the zoo. The late 20th century saw another shift in which the conservation discourse became further entrenched and the zoo was rebranded as a 'conservation centre' (Morin). The conservation centre claims to be concerned with human-caused extinctions and species decline, and as such, locates itself as part of the remedy. Alongside the conservation zoo emerges the 'disneyfied' zoo in which parks are organized around the human consumption of foods, goods, and merchandise while caged animals continue to exist as entertainment despite claims of progressive zooing (Morin).

Overall, the zoo, whether framed as a conservation centre or animal theme park, fails to promote the interests of its current animal residents or those of their species. Zoos cage individual animals under a rhetoric of protecting the collective species, yet biodiversity loss continues at unprecedented rates and animals are not returned to the wild after being taken or born into captivity. Zoos also kill animals found to have 'duplicate' gene pools (Morin). The 2016 killing of Harambe, a Western lowland gorilla at the Cincinnati Zoo, shows the zoo's reduction of individual animals' value to diverse genetic samples. Harambe was shot after a child crawled into his enclosure, even though he was not displaying threatening behaviours. Indeed, Harambe appeared to be protecting the child. Following his death, the zoo immediately extracted semen from his corpse (Kim). The power of the gaze is also unequal: zooed animals often have no escape from the view of visitors, and their 'natural' habitats are in fact unnatural and do not meet species' specific needs. These can include, for example, concrete enclosures painted to resemble plant vegetation that do little more than enhance the visitors' experience (Gruen). It is also the case that the zoo fails to educate the public about animals, with hunters, for example, being better educated about animals than zoo-goers – an education that does not lead to the protection of animals nor to the promotion of their best interests (Jamieson). Given

the failures of the zoo to achieve its purported ends of conservation, and the distinctly colonial and scientifically racist history of human-animal exhibition, how then can we situate the prison's recent turn to animal zooing and ecological conservation?

The prison-zoo

The zoo at the Stock Island Detention Center in Florida might be the most well-known example of a prison zoo in North America. Started in 1994 and referred to as a 'petting zoo', (Sorace) 'sheriff's zoo', (Sorace) 'animal farm', (Miranda) 'children's animal farm', (Monroe County Sherriff's Office) and 'more of a sanctuary for abused, neglected, and abandoned animals that become "forever residents"', (Myers) the 'Monroe County Sherriff's Office Animal Farm' is a USDA accredited zoo (Myers). The zoo began as a space for ducks underneath the prison after a deputy noticed that ducks were being killed by passing vehicles. As awareness spread in Monroe County that the prison was accepting animals, local residents brought other animals to the zoo. Approximately a decade following its opening, the zoo was on the brink of closure, having received multiple citations from the USDA. At this point, Jeanne Selander,[5] a marine biologist, stepped in as the zoo's curator with a view to improvements and compliance (Segal). Today, the zoo has approximately 150 'residents', including 'a sloth, a lemur, kinkajous, exotic snakes and lizards, rabbits, ducks, geese, pigs, miniature horses, birds and more' (PBS).

Prisoners working as 'zookeepers' are assigned to this detail through the prison's work program, and more than 1500 prisoners have worked at the zoo since Selander became curator in 2006. To qualify, prisoners must be considered 'low risk', non-violent, and not have a record of abusing animals or children (Segal). Criteria such as these are consistent with the paternalism of the prison which continues to decide who is worth 'saving', with risk typically serving as proxy for racialization, poverty, gender non-conformity, and repeated contact with the criminal punishment system (Hannah-Moffat; Harcourt; Struthers Montford and Hannah-Moffat). The zoo is largely framed as a rehabilitative and positive experience for prisoners who have the 'privilege' (Sorace) of this work assignment, and for the animal residents. For example, those struggling with substance abuse have reported that the zoo helped them maintain sobriety.

Overall, it is positioned as a way to counter the idleness of incarceration by providing prisoners with purpose and allows them to be productive – qualities that will benefit their reintegration upon release (Segal). Selander has claimed that those who work at the zoo experience lower levels of anxiety and are calmer because of their exposure to animals, and that 'many of the inmates have told me that the animals have saved them, that this farm has been a salvation during their time of incarceration' (Selander). The animals are also positioned as teachers. Ghost, a blind and formerly abandoned and emaciated horse, 'teaches patience to the inmates. They have to be gentle and build trust in order to care for him because he frightens easily' (Raff as cited in Segal).

The interpersonal bonds established between prisoners and animal residents are also described as unique and transformative. For Selander, this is the result of prisoners and animals having similar experiences of trauma: 'they can see the parallels between the animals and themselves – many of the animals have been abused or abandoned, formerly unloved or discarded, yet they still find a way to love –and they love unconditionally' (Selander). It is through caring for animals that Selander believes prisoners can change and learn to establish compassionate bonds – changes that provide second chances to both humans and animals (TODAY). Working at the zoo, however, is not without its emotional difficulties. Selander reports that prisoners grieve when animals die or are euthanized (Expert Perspectives), and there was a case of animal cruelty by a worker who was feeding resident iguanas to a resident alligator (Sorace). Those who witnessed this described being 'distraught' and 'heartbroken,' especially over an iguana named Mojo who had been a resident of the zoo for more than a decade and whom they considered a companion (Sorace). This evinces the limits of the prison's paternalism as the admission criteria for working at the prison zoo failed to prevent structural violence.

The zoo and its animals are in many ways positioned as benefitting prisoners through relationships of mutual care, and the attachment prisoners develop to the animals is evinced through former prisoners returning during the zoo's open house tours 'with their families to show them the animals they love and cared for' (Selander). Interpersonally, it is likely the case that humans and animals can form important bonds in the prison. The subjectivity of prison zoo

animals is subsumed by their positioning as vehicles for human improvement, while little is known about their experiences and how they fare in these settings. The existence of valued interpersonal multi-species relationships must also be considered within the broader context in which these bonds are formed: the prison, and the zoo within the prison. It remains the case that environments of captivity are uniquely traumatic for both humans and non-human animals and can cause a range of physical, psychological, and neurological symptoms and changes, many of which are irreversible (Guenther; Pierce & Bekoff). In the case of those involved in the prison zoo, prisoners will return to life outside captivity, whereas the animals will live out their lives inside.

Morin argues that the 'nooz' – new zoo (xx) – represents a later stage in animal captivity and represents the animal sanctuary or reserve, in that it is specifically designed for animals rather than their display. Given the various labels used to describe the Stock Island Zoo, including 'sanctuary', it is worth considering to what degree it encapsulates elements of both zoos and sanctuaries. Of note at Stock Island is that the non-human residents live out their natural lives and are not bred, prized, or selected for their genetic diversity, and nor do they exist as specimens. Indeed, unlike the zoo, they are often referred to as individual subjects with their own interests. Like sanctuaries, Stock Island's residents are those who have been discarded, abused, or unhoused. Conversely, the environment at the Stock Island Zoo is one in which animals are in foreign environments that will likely curtail the expression of species-specific behaviours necessary for their wellbeing. It also does not have adequate space including varying territories/environments required for the thriving of members of diverse species,[6] nor is there a thorough emergency management plan. For example, Kim Raff, a visual artist who did a photo project on the Stock Island Zoo, indicates that the prison and staff have been enterprising in transforming the available space into animal housing. However laudable, her description indicates that this is a space modified for animals, but not designed for them. She states, 'visually, it was so amazing to see that stereotypical, industrial looking building, very white walls, not a lot of windows – to see that juxtaposed with these animals running around' (as quoted in Segal). Furthermore, Selander has had to evacuate the animals by herself during natural disasters:

> Through the years, she's spent nights hunkered down in a sleeping bag in an on-site shed during approaching storms. She's coaxed horses and alpacas onto an elevator in the detention center, where the animals were sheltered in cells (the inmates were evacuated) and under her solo care during and after 2017's Hurricane Irma. (Myers)

Here, carceral spaces designed to house humans are quickly repurposed as zoo spaces during natural disasters. Sanctuaries are often described as sites of mutual care, where humans and animals take care of one another, and many prisoners' experiences are consistent with this notion. As evident in the passage above, Selander also takes an embodied approach to caring for the animals at Stock Island, rather than applying theoretical or objective approach to 'population' management – another aspect consistent with sanctuary practices (Pachirat). If the Stock Island residents were mere 'specimens' like at a zoo, Selander could have taken the view that they were replaceable rather than evacuating with them. Structurally however, the institution does view them as a replaceable population in that there is not an emergency evacuation plan in place.

While animals are not 'zooed' in the sense of being treated merely as genetically diverse marvels at Stock Island, they are displayed. Its operations are almost entirely funded by donations, and free tours are available to individuals twice a month and to groups by appointment. Over 300 visitors tour the zoo during each of the bi-monthly, two-hour open house events (Segal). Pictures of these tours show animals being held by prisoners so that zoo goers can interact with the animals, and it does not appear that the animals have meaningful avenues for nonparticipation. The inability to escape the gaze of the visitor is characteristic of zoos, although some sanctuaries have also fallen into the cyclical trap of commodifying their residents through tours and merchandise sales to fundraise for its operation. The autonomy to avoid visitors, or human contact at all, typically defines a sanctuary approach to respecting individual animals' choice and allowing them to live their lives with as little imposition of human culture as possible (Pachirat). The photographs of tours also raise questions as to whether the open houses function as a form of prison tourism. Selander wears a khaki uniform with Monroe County Sheriff's Office badges on both the arms and chest of her shirt, and the prisoners wear

prison issued orange clothing that reads 'MONROE COUNTY JAIL' on the front and/or backs of their shirts (Segal). In this way, Selander's uniform visually represents the law and order of the Sherriff's Office over that of the prisoners, whose clothing visually separates them from the public and maintains their othered status. It is perhaps the case that it is this representation of 'danger', along with the dual captivity of animals and humans, that makes the zoo tours so well attended.

It is also worth considering to what extent such tours function to cultivate 'good feelings' about the prison and its role in society, since the prison zoo is rhetorically framed as saving the prisoners and the animals. While it might be the case that the prison zoo is the best work placement option for prisoners and animals in a context of extreme constraints (idleness or less desirable work assignments for prisoners, and death due to neglect and habitat loss for animals), on a structural level such locations promote a parasitic form of life in which 'putatively "innocent" members of society receive identifiable material, psychic, and symbolic benefits and privileges from mass incarceration and its direct relation to hetero-patriarchal white supremacy in the United States' (Dilts 198).

Greenwashing the prison

Whereas the Stock Island Zoo focuses on providing space to residents for the duration of their lives, there are also zoo and conservation partnerships in and with prisons that focus on biodiversity conservation rather than animals as individuals. White and Graham make passing references to formerly incarcerated persons in Britain working to promote honeybee survival, prisoners in Australia rehabilitating native birds in conservation centres, and survey the overall thrust of the Sustainability in Prisons Project (SPP)[7] activities that focus on vegetable gardening, composting in prisons, recycling, beekeeping, landscaping to support local and migratory animal populations, and animal and plant conservation projects. They argue that such programs, while resulting in 'more natural beauty and resource conservation' still require critical analyses (858).

Therefore, I examine SPP's animal and plant conservation initiatives relative to the context and interrelatedness of settler colonialism, the Anthropocene and the Sixth Extinction, and the prison.

The SPP was the first prison conservation program established in the US and was started by academics at Evergreen State College and the Washington State Department in 2003. According to the SPP, conservation entails 'preserving and protecting something valuable, such as a species, landscape, and/or other natural resources' (Sustainability in Prisons Project). The rationale guiding this program is that the rate of species and biodiversity loss outpaces the rate at which they can be replaced, but more can be done, and resource constraints impede such efforts. Prisoners then exist as an unutilized 'resource' in the fight against extinction: 'including incarcerated people in conservation and science could tap into the positive potential of over 2 million inmates at over 4000 prisons and jails in the US and create new partnerships to support large-scale habitat restoration and ecological research' (Kaye et al. 90). All Washington state prisons now have SPP programs, and eight other states now offer SPP programs in some of their institutions. SPP partnerships include other state institutions and NGOs such as bureaus of land management, the Department of Defense, departments of fish and wildlife, zoos, youth authorities, and colleges, for example (Kaye et al.).

Conservation projects target plants and animal species that are threatened or listed as endangered. At the Washington Snake River Correctional Institute for men, the SPP program seeks to conserve the greater sage grouse by cultivating sagebrush. The greater sage grouse requires large territories of connected sagebrush for cover and nourishment at various points throughout their lifecycles – brush that has been largely destroyed by wildfire, causing habitat fragmentation and large species decline. Prisoners work with partners to container-grow 'genetically appropriate Wyoming big sagebrush' from seeds taken by the sites where the plant plugs will be placed. The program produces approximately 10,000 container plants a year and has the capacity to produce 80,000 plants. At the Coffee Creek and Oak Creek correctional facilities for adult women and female youths, respectively, a violet and Oregon silverspot butterfly conservation program operates in partnership with the Oregon Zoo. Like the sage grouse, the habitats and food supply of these butterflies has been severely impacted, resulting in

extensive population declines. The Oregon Zoo operates a captive breeding program for the butterflies, but there do not exist enough early blue violets to support the butterflies upon their release. Therefore, the adult and youth prisoners grow and plant 60,000 early blue violets that are then planted at restoration sites and/or fed to the larvae at the zoo (Kaye et al.).

The Cedar Creek Correctional Centre for men in Littlerock, Washington captively reared Oregon spotted frogs from 2009-2015, and was the first prison program to work with a threatened or endangered species. These frogs are listed as endangered at the state level and threatened at the federal level, and four area zoos also run captive rearing programs. Habitat loss, invasive plants, and predation by exotic bull frogs are factors that have driven the frogs' population decline. During their first pilot program, the prison program raised 550 Oregon spotted frogs, had a 77% egg-to-adult survivorship rate, and was awarded the North American Conservation Award for Best Rearing Facility for three consecutive years. Another prison-zoo-college-and-Fish and Wildlife partnership is the captive rearing of the federally endangered Taylor's Checkerspot butterfly at the Mission Creek Correctional Centre for women in Washington state. Only a few isolated populations of these butterflies now exist, and the Oregon Zoo's rearing facility did not have the capacity to support the conservation of these butterflies, thus leading to the construction of the new facility at Mission Creek. In 2012 and 2013, more than 4000 butterflies were born and released from the Mission Creek facility, with a 95% survivorship rate. SPP programs are not only focused on specific plant-animal conservation projects; some initiatives target entire ecosystems. Three prisons in Washington State work on the SPP plant nursery program that grows plant plugs and sows seeds taken from the Prairie-oak landscapes in the Puget lowlands, which are rare ecosystems found in the Pacific Northwest. The prairies, plants, and animals that depend on these ecosystems have largely been decimated due to human development and fire suppression. Between 2009-2013, the nurseries cultivated close to 1 million plant plugs from 63 species of plants, with prisoner involvement increasing nursery production three-fold (Kaye et al.).

Prisoners involved in SPP projects receive scientific training, and attend lectures on the various ecosystems, animals, plants, ecologies, and environments which their project seeks to conserve. Some also receive training in research methods, study design, and are listed as co-

authors on academic publications (Kaye et al.). The SPP says of prisoner involvement in the program: 'essentially these are college level internships, and successful technicians are awarded SPP certificates' (Sustainability in Prisons Project). Academics and scientists endorsing the program are keen to expand its operations, noting that international and national prison administrations have expressed interest in starting SPP programs at their institutions. They cite calmer prisons due to the therapeutic benefits of caring for animals and plants, individual and collective responsibility and care, better staff and prisoner attitudes toward environmental sustainability, lower operating costs for prisons, and that vocational programs (in general) are linked to lower recidivism outcomes and a higher likelihood of post-release employment (Kaye et al.).

The forms of species and biodiversity conservation described above are integral and necessary to continued life on earth and represent an ethical relationship between humans and the more-than-human world. In fact, the species reared and conserved in prisons, such as butterflies and violets, are taken by human cultures to be some of the gentlest forms of life. Extending this, these programs allow the prison to represent itself as gentle, idyllic, and ethical. Fundamentally, however, these are still institutions of environmental, human, and social death and degradation. Such programs and their related justifications are like other 'green' prison training programs, such as e-waste recycling labour, animal agriculture, vegetable farming and horticulture, and prison-recycling programs which promise prisoner, environmental, and prison-wide benefits, despite programs such as e-waste recycling being physically hazardous, especially when protective equipment is not provided (White and Graham). Animal agriculture is also a leading driver of anthropogenic climate change and mass extinction, yet it is marketed as green by the prison (White and Graham; Weis). Thus, while the SPP's conservation programs are certainly responsive to the crises of the Sixth Extinction, the role of the prison in environmental, species, and ecosystem degradation remains unacknowledged.

From a prison abolitionist perspective, these conservation and sustainability programs represent yet more financial, psychological, and social investments in the prison, instead of investments in community capacity and improvement in the material conditions that render persons vulnerable to criminalization. The prison, like conservation itself, is responsive rather

than preventative. We should invest in the prevention of offending and criminalization and of extinctions, rather than incarcerating people who can then participate in conservation programs, or incarcerating animals in zoos for the sake of conservation. The ecological, personal, and vocational benefits of these programs can be achieved in the community, and such programs can still be tied to the prevention of criminalization. After all, the most eco-friendly approach to responding to harm is not to make prisons more sustainable, but to decarcerate and build community capacity. For example, conservation programs could operate as a 'humane job' (Coulter) – good for people, animals, and the environment – in partnership with communities made vulnerable to criminalization, in order to provide training, certification, and employment opportunities while addressing species and biodiversity losses.

We should also interrogate why the prison has been chosen as the site to develop these programs, especially given that prison labour operates outside of health and safety regulations and minimum wage requirements, and does not include overtime, vacation days or pay (House and Struthers Montford). Are captive prisoners then the most efficient means for captive rearing and other forms of ecological conservation? Indeed, those who design and administer the SPP position prisoners as an idle and captive population who can be mobilized to respond to species and biodiversity losses:

> we see no better use for time behind bars than the restoration of landscapes and the potential rehabilitation of incarcerated citizens… imagine the environmental good that could be done if [every US prison and county jail] … rear[ed] and reintroduce[d] just one species. (Kaye et al. 95)

Here, the prison is positioned as an ecological saviour within a context of environmental crises and climate destabilization brought about by colonialism, yet colonialism remains unacknowledged, as do the relationships between colonialism and the Anthropocene, the conservation movement, the zoo, and the prison (Lewis and Maslin; Davis and Todd; Kiiwetinepinesiik Stark; Hasian Jr and Muller). In addition to available prisoner workforces, the prison could also be an attractive a site for conservation initiatives because it remains incredibly well-funded, even in times of fiscal austerity, while biodiversity conservation is chronically underfunded, deprioritized by governments, and often reliant on private philanthropy (Kim;

Anyango-van Zwieten). Prison conservation, I argue, is another iteration of the 'greening of justice' (White and Graham; Jewkes and Moran) that produces good feelings toward the criminal punishment system, promulgates its 'carceral enjoyments', and ensures its continued receipt of resources (Dilts).

Conclusion

In this article, I have sought to extend scholarship on captivity that takes up the spatial and intellectual similarities between the zoo, the construction of colonial, racial, and gendered sciences, and the prison to consider the prison's relationship and contribution to extinction and its self-positioning as a remedy to ecological catastrophe. These histories, I contend, manifest in the location of the prison zoo where colonial legacies of conservation and incarceration coalesce. Racialized individuals and animals are again captive, this time in spaces explicitly designed for incarceration – institutions positioned as not only saviours of 'criminals' but now of 'species'. Captivity, in both the prison and zoo, is now justified for conservation purposes – in response to problems that such institutions cannot prevent, but actually cause. The prison zoo might represent the next era of zooing, this time in a doubly-carceral setting. Yet, the best way to counter animal extinction is to protect their habitats, and this requires a fundamentally de-anthropocentric and decolonial shift in how we relate to one another and the more-than-human world (Crist; Davis and Todd). The zoo's captivity fails to conserve (Morin). The captivity of the prison also fails to prevent 'crime' while driving the extinctions it is now in the business of countering. As the Sixth Extinction progresses with continued catastrophic implications and prison conservation programs are set to expand, advocacy at the intersections of the environmental movement and the anti-prison movement could focus on shoring up government support for the prevention of biodiversity decline, as well as increasing community capacity to prevent harm and criminalization. Future research could also examine prison zoos and conservation programs from critical feminist, labour, ethological/animal, and punishment perspectives.

Notes

[1] The Anthropocene is still not formally recognized as a defined geological unit in the Geological Time Scale. The Subcommission on Quaternary Stratigraphy of the International Commission on Stratigraphy, has established an Anthropocene Working Group continues to consult, study, and assess how to formalize the Anthropocene, which would terminate the Meghalayan Stage/Age of the Holocene Epoch. (See Anthropocene Working Group, 'Subcommission on Quaternary Stratigraphy', 21 May 2019, http://quaternary.stratigraphy.org/working-groups/anthropocene/). Additionally, this term is heavily debated and critiqued by scholars in disciplines outside of geology as overly general and depolitcal (Crist) and some suggest alternative names such as the Capitalocene (see Jason W. Moore, editor, *Anthropocene or Capitalocene?: Nature, History, and the Crisis of Capitalism* (PM Press, 2016), amongst others).

[2] LEED certification entails an evaluation of the building's efficiency relevant to energy consumption, water use, CO_2 emissions, as well as the quality of the indoor environment and sensitivity and preservation of surrounding resources. See 'What Is LEED? » Sustainability » Boston University', accessed 13 October 2020, https://www.bu.edu/sustainability/what-were-doing/green-buildings/leed/.

[3] See for example, Robert Nichols, 'The Colonialism of Incarceration', *Radical Philosophy Review* 17, no. 2 (2014): 435–55; Kelly Struthers Montford and Dawn Moore, 'The Prison as Reserve: Governmentality, Phenomenology, and Indigenizing the Prison (Studies)', *New Criminal Law Review: An International and Interdisciplinary Journal* 21, no. 4 (1 November 2018): 640–63, https://doi.org/10.1525/nclr.2018.21.4.640.

[4] See for example, Pat Carlen and Anne Worrall, *Analysing Women's Imprisonment* (Routledge, 2013); Kelly Hannah-Moffat, *Punishment in Disguise: Penal Governance and Federal Imprisonment of Women in Canada* (University of Toronto Press, 2001).

[5] Selander is also described as the 'animal farm supervisor' (Selander), and in this role is a non-sworn deputy with the Monroe County Sherriff's office (Miranda). Colloquially, she is known as 'farmer Jeannie' and has also worked as a horse trainer, shrimp farmer, and zoo aquarium diver, amongst others (Myers).

[6] Captivity is itself the most inappropriate environment for wild animals. In the context of this form of captivity and species-specific environments and enclosures, it is likely the case that deficiencies in the setting are due to underfunding, as prisoners working in the zoo have built improved enclosures as they have been able (Miranda).

[7] The SPP now includes programs on: 'environmental education, conservation, sustainable operations, community contributions, and restorative nature' (Sustainability in Prisons Project).

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