THE "WORLD'S BIGGEST ZOO"? ELEPHANTS, ECOLOGICAL CHANGE, AND THE CONTESTED LEGACIES OF CONSERVATION IN THE KRUGER NATIONAL PARK

by

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THESIS ABSTRACT

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This thesis explores landscape change in one of Africa’s biggest parks from the perspectives of its managers, the international conservation community, and media in South Africa and the United States. The surprising history of Kruger's elephant population reflects the complicated relationship between shifting wildlife management approaches, environmental ethics, and understandings of African nature, which continue to influence future conservation priorities. Elephants, because of their capacity to drive ecosystem change, expose a history of conflict over what nature means in the Kruger Park and how it should be managed. Current management philosophies in the park reflect the need to prepare for an uncertain future but also to confront an unsettled inheritance of the past. I delve into the 20th century chronicles of science, landscape aesthetics, wilderness ethics, and international politics that inform conservation in Kruger today.

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INTRODUCTION

"The elusiveness of landscape character is matched
by the intractability of landscape change."
-Marion Shoard,
"Why Landscapes are Harder to Protect Than Buildings"[1]

How do we assess ecological risk? The term implies some protectiveness about what is at stake, as well as a degree of certainty about what is being lost. The stakes seem obvious—a loss of biodiversity, the degraded function of the processes that operate to make a landscape, and eventually the transformation of that landscape into an entirely different kind of ecosystem. But most people, faced with a change to a familiar or beloved place, are concerned with more than its recorded biological specifications. Landscapes carry a host of symbolic and emotional meanings that are harder to quantify but are often extremely potent when ecosystems are felt to be under threat. This is all the more true for protected areas like national parks, whose landscapes are designated by nations and international communities as especially sacred—they represent an immersive connection to nature, and also to forms of non-human life that are harder and harder to encounter elsewhere.

In South Africa's Kruger National Park, where some of Africa's most iconic animals roam an area about the size of New Jersey, the question of ecological risk preoccupies those who are concerned with how the protected area will make its way into

[1] In *Our Past before us: why do we save it*, ed. David Lowenthal & Marcus Binney (London: Maurice Temple Smith, 1981).

the future. Among a number of issues pressing at the park in the 21st century, one of the most difficult and controversial is the role of the world's largest land animal, the African elephant (*Loxodonta Africana*), within its boundaries. Elephants, in their large and unsubtle way, exemplify the quandaries that abound in the Kruger National Park—they are among the most charismatic and ineffable creatures to make their home in the savanna, and one of the primary figureheads of conservation in Africa. But they are also large-scale drivers of landscape change who confound attempts at management; they are ecosystem engineers, agents-provocateurs capable of inflaming fundamental conflicts in the ways that South Africa, and the world, steward the land set aside for posterity.

Kruger's most recent Elephant Management Plan, compiled in 2012, is a ten-year legal document detailing South African National Parks' (SANParks) "wish to manage elephant impacts on biological, cultural, human and stakeholder values."[2] It discusses the history of elephant control in the park, a saga of decision-making and intervention that informs the state of the park today. The plan outlines strategies for balancing a large population of these pachyderms with SANParks' core objectives: "maintaining, or restoring, ecosystem integrity, providing benefits to people, and taking cognisance of aesthetic and wilderness qualities."[3] Notably, in planning for the future, the plan suggests a need to "address the pathology of the past."[4]

Any decision regarding the fate of elephants is contingent on the larger process of determining what it means to maintain the integrity of Kruger's ecosystems. According to

[2] Sam Ferreira et al., *Elephant Management Plan: Kruger National Park 2013-2022* (Skukuza, South Africa: SANParks and Kruger National Park Scientific Services, November 2012), 4.

[3] Ferreira et al., *Elephant Management Plan*, 11.

[4] Ferreira et al., *Elephant Management Plan*, 14.

the broader management plan for the park, the park should be governed according to a collective envisioning of its "desired state"—a consensus among numerous stakeholders about what future conditions in the park should be, allowing for some variation.[5] The optimal set of future conditions is supposed to account for ecological, socio-economic, technological, political, institutional and geographical concerns.[6] Of course, any consensus about what the park is supposed to look like, and how it should be maintained, is a fragile one. It depends on specific histories, on contested definitions of nature and wilderness, and on the complicated heritages of protected areas in South Africa and the world: what the Elephant Management Plan calls "the pathology of the past." This thesis, then, explores that pathology—in decisions about Kruger's ecosystems, meanings assigned to its landscape, and the retrospect always involved in interpreting change. Elephants, in their capacity as agents of change, facilitate the exploration.

The second chapter, **A Brief Timeline of Elephants in the Kruger Park**, provides more background on the trajectory of elephants in Kruger, and illustrates a few of the ways that they've been characterized over the years. It also elaborates on the mechanisms, politics and ethics of culling. The third and fourth chapters—**Early Policies, Official Narratives and Firsthand Opinions About Landscape** and **The Park Becomes an Institution: Scientific Management, Bureaucracy, and Landscape Mythology after Stevenson-Hamilton**—sketch out processes of South African protected area governance in the 20th century, processes that created meaning and identified desirable and undesirable characteristics in Kruger's landscape. They include stakeholder

[5] Ferreira et al., *Elephant Management Plan*, 28.

[6] Ferreira et al., *Elephant Management Plan*, 28.

reactions to management in the eras before and after World War II, and consider professional opinion in contrast to popular rhetoric in South Africa during that time. Various crises examined in these chapters lay groundwork that help contextualize current patterns of rhetoric and action in the park.

The fifth chapter, **Elephants Sans Frontières: The Pretoria-Fort Worth Axis and Scientific Discourse Across Oceans**, expands the community of influence on Kruger's landscape, and its elephants, by including assorted interactions between park staff and a number of American conservationists and scientists. It also details the development of international scientific discourse and organizations associated with it that have been pertinent to management in Kruger. This chapter is focused specifically on the cross-pollination of conservation philosophy and landscape meaning between South Africa and the U.S. (and to a lesser extent other parts of the world), as well as several instances involving the international transfer of personnel and even savanna biomass.

The sixth chapter, **"Suggests Jaunt to Escape Ennui": The Kruger Park in America's Imagination and Rhetoric**, examines the legacies of Kruger in a more diffuse American cultural context, with implications for how international communities might construct their own 'desired state' in Kruger. I collect newspaper articles, travelogues, movies, and other widespread depictions of Kruger in an attempt to show how the park developed as an imagined landscape in American popular culture, and to examine its global cachet as a destination and a symbol of South Africa. The **Epilogue** wraps up threads from my research and thinks about ways to move forward. An appendix, **Selected Kruger Landscapes Re-Photographed**, is a brief collection of images from my fieldwork locating the sites of archival photos. It is meant as a visual anchor for

thinking about landscape change, to provide specific examples of the complexity of savanna time scales and to show human influence in the park.

Kruger is the flagship territory of one of the world's most bio-diverse regions (South Africa has the third highest species diversity in the world), and hosts over a million tourists every year (1,556,916 in 2013).[7] It contains a diverse set of landscapes, mostly classified as subarid to arid wooded savanna, that straddle geology and climate to create a patchwork of at least eight distinct vegetation zones, or, if you're a scientist, thirty five unique landscape types.[8] An elongated, erratic rectangle, it presses up against South Africa's eastern border with Mozambique, and touches Zimbabwe along its narrow northern extremity—it is 350km long but only 60km wide on average, with a wider protrusion in the south, its most accessible area (fig. 1). The north is hotter, tropical and subtropical, while the south is temperate. Kruger is part of the Lowveld, from the Afrikaans word for 'field,' a region in contrast to the plains of South Africa's plateau, known as the Highveld. The eastern part of the park is lowest and most level, plains on top of basalt, and the country slopes up, as it gets closer to South Africa's Great Escarpment, into rippling granitic hills in the west. Although the park's geology is generally split down this long axis, other substrata such as rhyolite and sandstone add to the diversity of the land.

[7] South African National Parks, *2013/2014 Annual Report* (Pretoria: SANParks, 2014), 36.

[8] David Mabunda, Danie J. Pienaar and Johan Verhoef, "The Kruger National Park: A Century of Management and Research," in *The Kruger Experience: Ecology and Management of Savanna Heterogeneity*, ed. Johan T. Du Toit,, Kevin H. Rogers, and Harry C. Biggs (Washington: Island Press, 2003), 15-16.

Figure 1: Map of South Africa, via Mapbox and OpenStreetMap

The park's unique patchwork of conditions also includes five major perennial rivers and countless seasonal water sources, and is overlain by a rainy season that thunders from October to March, falling most heavily in the southwest and least in the northeast. The weather also falls into longer cycles of between fifteen to twenty years—it is a land visited by periodic drought and occasional relative lushness. Organisms of many kinds find themselves a space to thrive here: the diversity of species includes 147 mammals, 505 birds, 119 reptiles, 49 fishes, 34 amphibians, countless invertebrates, and intertwined with all of them, almost two thousand plants.[9] It is land characterized by fluctuation of

[9] Ibid.

almost every imaginable kind—migration, fire, moisture, herbivory, predation and other processes combine into an immeasurably complex cascade of change on every scale and interval of time.

Out of this apparent chaos and caprice emerges a landscape that has become one of Africa's most prominent parks. Here you rarely find the rolling expanses of grass and umbrella tree and the immense migrations of the Serengeti, or the tropical cacophony of equatorial African jungles—when I first drove into the park, it took me almost half an hour to spot any animals amidst the brown expanse of scrubby trees and shrubs. Nonetheless, it is home to a unique set of thrills, scenes, and experiences that draw visitors and attention from all over the world, and, nested within the three-nation Great Limpopo Transfrontier Park System, forms part of one of the largest protected areas on the continent. Scientists and conservationists have been busily at work for over a century trying to preserve it, at every step of the way making decisions about which elements of it are at risk and which of them are most vital to the landscape.

When Kruger, initially demarcated as a game reserve, was declared a National Park in 1926, it was thought to contain only a few transient elephants. In 1902, the area's warden, James Stevenson-Hamilton, reported that although elephants had existed there in great numbers in the past, "as there are no herds in any way adjacent I see no prospect of their returning."[10] By the 1930s, however, a breeding population of at least one hundred was thought to have been re-established from herds in Mozambique, and the first

[10] James Stevenson-Hamilton, "Game Preservation," Transvaal Administration Report, 1903, Box File NK/28/4, Kruger National Park Archive (NKW).

comprehensive aerial census in 1964 counted more than two thousand.[11] By 1970, when almost 9,000 elephants were observed from the air, managers had instituted a program of culling to keep their populations at a fixed quota.[12] Elephant control continued until the 1990s, when it was discontinued amid controversy around effective ecosystem management and animal rights. Today, there are around 17,000 in the park.

For scientists in Kruger, elephants present a fundamental challenge. These large creatures are instrumental in the park's landscape—as megaherbivores, they contribute to ecosystem processes that govern the conditions in the savanna. A savanna removed from the influence of elephants would be missing a critical component of its character, part of an evolutionary cohort going back millions of years. Elephants are typically responsible for 25-50% of plant biomass consumption in their environment, and can eat hundreds of kilograms of vegetable mass each day, packing it into their cauldron gut to be half digested before excretion.[13] They browse woody trees and shrubs, graze on grasses, eat fruit, roots and bulbs, and in the dry winter can strip bark with their teeth. The rate and density of their consumption in itself has profound impacts on the plant communities they interact with, but they also participate more subtly in dictating the patterns of the savanna. They kill trees by uprooting them or pushing them over, breaking off branches, "ringbarking" them, or stripping enough bark to open mortal opportunities for fire, insects, and disease. On the other hand, they disperse the seeds of several species over

[11]S.C.J. Joubert, *Kruger National Park: A History* (Johannesburg: High Branching, 2007), 1:327.

[12] Joubert, *Kruger National Park,* 1: 327, 342-352.

[13] Graham I.H. Kerley et al., "Effects of elephants on ecosystems and biodiversity," in *Elephant Management: A Scientific Assessment of South Africa* ed. R.J. Scholes and K.G. Mennell (Johannesburg: Witwatersrand University Press, 2008), 149, 168.

long distances, including those of *Balanites* trees and *Sclerocarya Birrea,* the iconic marula tree. They directly compete with other herbivores for water and food, but through their effect on vegetation they may also provide opportunities. They trample soil, excavate watering holes, and cycle nutrients like nitrogen and sodium.

Scientists have long been concerned about the effect an abundance of elephants might have on an ecosystem, and in Kruger these concerns once justified culling. Now, with unprecedented numbers in the park, debate intensifies about what their impact might mean for mandated conservation objectives—especially the widely shared goal of preserving biodiversity and protecting vulnerable or endangered species. Elephant density has been implicated in the local extirpation of certain tree species, and ultimately the conversion of woody savanna to grassland in other parts of sub-saharan Africa, with recognized cases at Murchison Falls in Uganda and Tsavo National Park in Kenya.[14] In Kruger a dramatic loss of trees over five meters tall in parts of the park has been attributed in part to elephants, whose effects combine with fire to result in high tree mortality.[15] Changes like this in vegetation composition—decline of tree species like baobabs (*Adansonia digitata*), marulas (*Sclerocarya birrea),* and some *Acacias*—and canopy structure can lead to a host of other cascading or 'knock-on' effects in the ecosystem. The long-term recovery or extirpation of the species affected by elephants, and the predictability of these processes on different spatial and temporal scales, is still

[14] Kerley, "Effects of elephants," 170-172; Robert Guldemond and Rudi Van Aarde, "A Meta-Analysis of the Impact of African Elephants on Savanna Vegetation," *Journal of Wildlife Management* 72, no. 4 (2008): 892-899; Timothy G. O'Connor, Peter S. Goodman and Bruce Clegg, "A functional hypothesis of the threat of local extirpation of woody plant species by elephant in Africa," *Biological Conservation* 136 (2007): 329-345; Marion Valeix et al., "Elephant-induced structural changes in the vegetation and habitat selection by large herbivores in an African savanna," *Biological Conservation* 144 (2011): 902-912.

[15] Ferreira et al., *Elephant Management Plan*, 30-31; Kerley, "Effects of elephants."

up for debate.

Although murky, the nature and mechanisms of elephant induced changes in Kruger seem to be getting clearer. Increasingly advanced monitoring tools and accumulations of ecological research promise some degree of clarity about what the park might look like in a range of future scenarios. To actually evaluate risk, though, and then decide whether and how to take action addressing it, is another matter entirely. It requires a translation of observations into value judgments, predictions into prescriptions. Given the science, the question becomes about what landscape change might mean for the mission of the park. What is gained or lost as the park moves down one path or another, guided or left alone by those who bear responsibility?

It would seem that Kruger's mission in the present day is clearly articulated: to maintain the richness and diversity of the savanna and its associated processes and species. In the global context of conservation, Kruger is a hotspot of biodiversity in need of protection. The park contains an abundance of difference, made possible by a concept that structures much of this conversation—heterogeneity. The landscape is made up of a network of unique, overlapping patches of many different spatial scales that function according to varied, interlocking timetables. The result is a range of conditions in which life can operate—a spatiotemporal mosaic. Elephants contribute to the mosaic, but, in concert with patterns of fire and water, they might also detract from it, for example by killing the tall trees that provide crucial habitat for other organisms.

Managers in the park are guided by a philosophy that promotes heterogeneity in the landscape, or more accurately, seeks to prevent it from becoming too homogenous. They use Strategic Adaptive Management, a system of reflexive evaluation that allows

for decisions to be made based on the best available science—decisions that are revised as their results are monitored. This system applies not only to elephants, but also to fire regimes, water provisioning, invasive species removal, and other trends in the ecosystem that might be cause for concern. A progressive schema, it is a nuanced rebuttal to the rigid "command and control" management that used to predominate in the park.

Ecosystems exist in a constant and often unpredictable state of fluctuation. A fire might rage in one year, a drought may ravage in another, and both return after erratic intervals with a different intensity or extent. This has always been the case. The human lifespan encompasses only a brief portion of the immense variation that a landscape might experience, and an even smaller portion of the evolutionary time it took for a landscape to arrive at the way it is now. The wickedness of trying to manage an ecosystem such as Kruger, as many who work there have observed, is that human intervention can happen in a relative instant, but cascades of consequences occur years down the line. Kruger has only been officially 'managed' for slightly over a century; yet in that time conditions have dramatically changed, and each intervention has left its indelible mark on the character and function of the land.

Setting conservation goals in Kruger seems straightforward, but gets complicated by the long history of humans in this area, one punctuated by rapid, human influenced changes. A century ago, the elephants here had all been killed or driven out, ending a tenure of perhaps 3 million years, one integral to the savanna (their relatives, in the order Proboscidea, of which they are the last, were probably integral to ecosystems all over the

world).[16] The catch in the seemingly obvious mission of conservation here is the idea of 'maintenance,' or in the terminology of national parks, 'preservation.' The trouble is that to maintain something, it must exist in a certain state to begin with. In Kruger, there is almost no objective or reliable benchmark for what this might be—a time before humans, in the cradle of humankind? A time before European colonization? Or before the first evidence of the ivory trade? Certainly archeologists, paleontologists and pollen isotope biologists can provide details about the landscape at certain points in the past, but at which point was it *most* natural, and what role should humans have in nature? And if, at that point, the ecosystem had completely different characteristics—an open grassland, for example—at what cost should it be restored?

Those working in the park have countless tools at their disposal to manipulate its ecosystems. In the case of elephants, they can kill or administer contraception; relocate or disturb; add or subtract water; circumscribe by adding or removing fences; they can also go on the defensive, triaging vulnerable species in enclosures with intense husbandry and zoning off the areas most vulnerable to impact. What they cannot provide alone, as they increasingly acknowledge with humility in their literature, is a mandate for what the park's landscape should be—how it might best embody its status as a national park.

Under strategic adaptive management, park officials allow ecosystems to fluctuate within a set of limits, called "thresholds of potential concern" (TPCs). Kruger's 2008 management plan lists nine sets of biophysical thresholds, including ones for species of intense conservation concern (wild dogs, black rhinos, Swazi impala lilies, pepper bark trees and wild ginger, all endangered), for plant-animal dynamics, and for heterogeneity.

[16] Kerley, "Effects of elephants," 146.

The plan holds that "TPCs specify the measurable 'boundaries' of the desired state, flowing out of the objectives developed for the park. If monitoring (or better still monitoring in combination with predictive modelling) indicates certain or very likely exceedances beyond these limits, then mandatory management options of the adaptive cycle are prompted for evaluation and consideration."[17] The setting of TPCs, then, is the primary mechanism by which the park's ideal landscape, and the justification for reaching it, can be decided on.

This process of envisioning this "desired state" is perpetual and laborious—park staff and cooperating researchers must aspire to consult with everyone with a stake in Kruger to determine their priorities regarding a broad range of agendas. Once a set of principles is agreed upon, the staff is charged with monitoring the TPCs and taking preventative (in the best case) or corrective action when ecosystem fluctuations threaten to breach what is acceptable. The endangered species aspect falls within strong international mandates; most of the rest, what the management plan calls "the 'flip' of the ecosystem or part of it to an undesirable ecological state," is a local issue:

> The basis for identifying "undesirable" ecological states is generally founded on a predictive understanding derived from past monitoring of fluctuations and their causes. Deviations from these patterns might suggest abnormal (possibly anthropogenic or management-induced) perturbations that would require investigation through adaptive management. The KNP is interested especially in irreversibility of management actions arising from decisions taken now which have impacts beyond the 25-year time horizon, as these are effectively irreversible from the point of view of at least the next generation."[18]

It is a growing body of on-the-fly assessments. Using observations from the past

[17] Stefanie Freitag-Ronaldson and Freek Venter, *Kruger National Park Management Plan* (Skukuza: SANParks, 2008).

[18] Freitag-Ronaldson and Venter, *KNP Management Plan*, 47.

as clues, managers have to decide which deviations qualify as abnormal enough to be addressed, and then to address them in a way that minimizes unintended consequences down the road. A 2011 review of these thresholds remarked that, "Current biophysical TPCs can be seen as lying on a continuum of 'empirically well or fairly well understood' through an intermediate position 'informed by expert opinion' right down to 'intelligent early guesswork.'"[19] At least such a process is for the most part within the capacity of well-trained ecologists. The broader consensus about the desired state of the park, though, is a realm of profound contention that gets at the root of old conflicts about the land demarcated as Kruger National Park, and the meaning of nature in South Africa and the world.

The strategic adaptive management process is in many ways a profound attempt at recompense from an institution that has only been accountable to a democracy since 1994. For many years, the state of affairs in Kruger was beholden only to the specific desires of a white South African minority. SANParks, the parastatal parent of the Kruger Park, has as its official mission: "To develop, manage and promote a system of national parks that represents biodiversity and heritage assets by applying best practice, environmental justice, benefit-sharing and sustainable use."[20] In that sense, because of its unique history, Kruger's policies are much more progressive on the whole than its counterparts in America. In order to survive, it needed to come to terms with a problematic legacy and as a result has explicitly incorporated some of the goals of a postcolonial state—"redefining its relationship with stakeholders," according to the management plan, "from one of

[19] H. Biggs, S. Ferreira, S. Freitag-Ronaldson & R. Grant-Biggs, "Taking stock after a decade: Does the 'thresholds of potential concern' concept need a socio-ecological revamp?", *Koedoe* 53, no. 2 (2011).

[20] South African National Parks, *Annual Performance Plan for 2014/15* (2014), 5.

perceived 'fortress conservation' to one of far more open involvement...."[21]

Of course, the sophisticated and thoughtful methods of Strategic Adaptive Management don't translate smoothly into organizational culture, and even if they did the park still faces fundamental choices about how to allocate scarce resources and negotiate an growing set of demands on protected areas.[22] Even in an equitable process of consensus about a "desired state," there are logistical limits to what managers can carry out in pursuit of what is agreed upon, and factors simply out of their control. Furthermore, the mission of co-creating a desired landscape is bound up in historical relationships that continue into the present and certainly influence the meaning and priorities that people assign to the park. SANParks' prescient emphasis on managing Kruger as part of a broader social ecological system places it at the forefront of protected area philosophy in the 21st century, but the question remains as to whether an institution so laden with history and momentum, and so currently beleaguered, can achieve its ambitious goals.

The Elephant Management Plan is a key product of strategic adaptive management.[23] Driven by SANParks primary conservation principle, complexity, the plan outlines an intent to manage elephant impacts—to restore spatial limitations in the landscape and to induce heterogeneity over space and time, in order to increase variation in resource use by elephants.[24] The various prescriptions it includes are a delicate balancing act between the contradictory legacies of the park's history. To ensure the main

[21] Freitag-Ronaldson and Venter, *KNP Management Plan*, 2.

[22] L.K. Swemmer and S. Taljaard, "SANParks, people and adaptive management: Understanding a diverse field of practice during changing times," *Koedoe* 53, no. 2 (2011).

[23] Ferreira et al., *Elephant Management Plan*, 4.

[24] Ferreira et al., *Elephant Management Plan*, 4.

objective, to promote biodiversity, historical management actions (such as artificial water sources) with a modulating influence on elephant populations should be corrected, but no so abruptly as to disrupt tourist experiences or other objectives in Kruger's mandate. The main considerations of the plan besides biodiversity and tourism were human-elephant conflict, community benefit, and notably "aesthetic and ethical issues – e.g. "existence" value of large trees and elephants, the primacy of cultural resources."[25] The plan includes in its stakeholders "academic partners and institutions, non-government organizations and transfrontier participants," who tend to be more affected by policy than by physical interaction with elephants.[26]

One of the difficulties about actions related to elephants, linked to the concerns in Kruger's management plan about the irreversibility of decisions whose impacts extend more than 25 years, is that elephants have long life spans and population cycles. One estimate puts the age at which an elephant stops birthing calves in Kruger at 60 years, with up to a few decades of life after that.[27] For that reason, the elephant plan makes provision for dealing with elephant impacts during the time that populations take to react to intervention, as well as with unanticipated "lag effects" from past management approaches.[28] In the event that the infrastructural modifications don't diffuse elephant impacts quickly enough, the plan authorizes contraception and, if needed, culling to bridge the gap. One such lag effect described in the plan is tourists' expectation of seeing

[25] Ferreira et al., *Elephant Management Plan*, 7.

[26] Ferreira et al., *Elephant Management Plan*, 13.

[27] Rudi van Aarde, "Elephant Population Biology and Ecology," in *Elephant Management: A Scientific Assessment of South Africa*, 100.

[28] Ferreira et al., *Elephant Management Plan*, 12.

"the Big Five" (Kruger's most popular cadre of megafauna: lion, leopard, elephant, buffalo, and rhino), a desire previously satisfied by the installation of artificial water sources, which must close if elephants are to disperse more thoroughly in the park. "Thus," the report advises, "some artificial water distribution may need to be maintained to accommodate short- to medium-term tourist expectations."[29]

The justification for this new plan for elephant management, with its hard-learned caveats about unintended consequences and stakeholder pluralism, depends on a thorough repudiation of the previous era's management legacy. Only because of "the pathology of the past" are stopgap options like culling and contraception on the table.[30] The plan extensively diagnoses the scientific paradigm that governed the culling era—it was based on principles of carrying capacity that were inappropriate for a dynamic landscape like Kruger, it was insular despite changes in science and social attitudes, and it was conflicted between tourism and ecology.[31] One of the primary indictments against culling was a study indicating that the dramatic loss in tall trees in the park actually occurred between 1960 and 1990, peak years of elephant population control.[32]

This history, coupled with the trajectory of the park since apartheid, suggests two things about the landscape and management of Kruger. First, conversations about looming change in the landscape and their associated research efforts (often assigning or revoking agency from ecosystem "culprits" described by earlier generations) underlay

[29] Ferreira et al., *Elephant Management Plan*, 14.

[30] Ferreira et al., *Elephant Management Plan*, 14.

[31] Ferreira et al., *Elephant Management Plan*, 28.

[32] Trollope et al., "Long-term changes in the woody vegetation of the Kruger National Park, with special reference to the effects of elephants and fire," *Koedoe* 41, no. 2 (1998).

some of the most significant interventions in Kruger's ecosystems. Second, paradigms in science can shift much more rapidly and conclusively than the structural realities of Kruger as an institution. A sea change among researchers can certainly cause a philosophical metamorphosis with long term consequences for the land, and even a large turnover in staff, but the basic recipe of the park seems to have endured the fall of apartheid. Its fundamental nature endures, as do some of its most inescapable problems. I frequently encountered tourists and well-informed enthusiasts there who had their own lengthy narratives of living through landscape change in the park. These were usually followed by some "obvious" solutions and a clear attribution of blame, more often than not centered on whomever was presently in charge. Visitors to South Africa's National Parks are still overwhelmingly white, despite making up only 9% of South Africa's population.[33] Black South Africans, who comprise almost 80% of the country, only accounted for 26.1% of total South African visitors to parks for the 2013-14 year.[34]

The park, fifteen years into the new millennium and twenty years removed from apartheid, is certainly a much different entity now, in its espoused principles, its leadership, and the political environment it answers to. It has also made huge strides in both the spirit and letter of its philosophy, towards being reflexive, equitable, and multilateral. The visitor statistics are significant, though. They point to a crucial influence and mechanism of accountability that has stayed relatively continuous through history. Scientists now may upbraid previous management strategies (criticism usually justified in light of current ecology), but they hold fundamentally the same responsibility to the

[33] SANParks *Annual Report 2013/14*, 36.

[34] SANParks *Annual Report 2013/14*, 36.

park's main constituent—tourists.

The Elephant Management Plan, cutting edge as it may be, can't avoid a fundamental truth, which is that Kruger makes its place in the world by attracting people. Just as apartheid-era managers shaped significant portions of park ecology to tourist preferences, SANParks acknowledges today that an elephant management schema will be hard to fully enact, for fear of its repercussions on tourism. Kruger is South Africa's flagship park, and it augments important conservation efforts in less charismatic conservation areas. If anything, the park is beholden more than ever to its currency in travel magazines and nature shows, as slackening state funds force administrators to court revenue in new ways. The elephant schema itself depends on cash.

SANParks is parastatal; as an organization it frames itself as a corporate entity charged with delivering on conservation goals and upholding specific values in its culture, while also fulfilling the more typical duties of a company. Its most recent annual performance plan explains that "the changing and increasingly hostile global socio-economic terrains and climate changes continue to put pressure on entities like ours to find innovative ways of building the responsive and competitive business side of the organisation."[35] Kruger, the revenue leader, is rolling out a number of Public Private Partnerships to appeal to a "higher tier" of luxury customers, including concessions such as the Malelane Safari Lodge, Skukuza Conference Lodge and the newly commercialized Skukuza Airport.[36] A caveat in the elephant management plan reads, "SANParks acknowledges that conversion of some natural and cultural capital has to take place for

[35] SANParks, *Annual Performance Plan 2014/15*, 2.

[36] SANParks, *Annual Performance Plan 2014/15*, 8.

the purpose of sustaining its mandate, but that this should never erode the core values above."[37]

South Africa along with the rest of the world is still trying to affix meaning to this landscape, and the stakes are higher than ever. Climate change guarantees some degree of transformation, and commodity market incentives have recently killed enough rhinos in the park to inspire a $23.7 million counter-poaching donation from the influential Buffet family in America. While science revolutionizes itself exponentially, South Africa struggles to find its way as a post-colonial democracy. The country is nonetheless marked by some of the most progressive and ecologically grounded legislation in the world. Despite sweeping change, attitudes towards African wildlife and savannas are often calcified, and cling to old tropes instead of absorbing newer imaginations of the land. Kruger's elusive character is stubbornly fickle and non-linear, and no amount of organizational intent can shed residual notions in society and culture.

Kruger's biophysical landscape is governed on one level by abiotic and biotic cycles, and by revised, amended, and rewritten policy. Its symbolic, imaginary landscape, though, is no less instrumental, and moves at a different level, in an international network of cultural flyways. This cultural and political landscape has been accreting since this section of the lowveld was first roped off as an attraction. Visitors imagine encountering the big five long before driving through Kruger's gate—they see thousands of depictions of elephants, lions, hyenas, baobabs and savannas before even deciding to make the trip. Tertiary institutions—in academia, natural history, philanthropy, the NGO sphere and media—are critical stakeholders, representing and desiring Kruger for their own reasons,

[37] Ferreira et al., *Elephant Management Plan*, 7.

often just to fold it into to some larger mission in the world.

Publicity is part of the project in national parks everywhere—a kind of feedback loop operates where conservationists encourage public buy-in to their projects, which has the side effect of increasing the number of eyes watching their every move. The "elephant problem" is a window into this constant tension as parks try to practice conservation while making compromises to court the revenue and attention they need for their work to continue. The omnipresence of African nature in the 21st century further ratchets up the tension, adding international pressure from media, conservation groups, activists, and international governments. In this flux of information, deep histories of human experience in the savannah share space with a cacophony of everyday encounters with the same landscape, channeled through travelogues, NGO campaigns, marketing tropes, fashion, and social media. Typical of these mixed messages was the coverage by the BBC of the Great Limpopo Transfrontier park which reported that "Organisers hope [the park] will attract tourists who have been put off by Africa's record of civil war, famine and crime."[38]

Here, a trope resurfaces directly from the first wave of African decolonization in the 20th century: the idea that wildlife parks present an opportunity to travel directly to the "real" Africa, bypassing the fraught, violent spasms of a continent trying to wrench itself loose from centuries of colonial sabotage. In this mix, charismatic megafauna like elephants take on extra prominence as cultural ambassadors, fundraising icons, and human interest stories (recently, an open letter to CBS news signed by 200 writers and academics lambasted news coverage of ebola for humanizing African wildlife at the

[38] *BBC*, "Africa's biggest game park opens," December 9, 2002.

expense of its actual humans).[39] SANParks is aware of the need to be present in these channels, and although limited in its ability to attract the daily spotlight of global wildlife coverage, it uses television, print media and social networking to transmit its brand domestically and abroad. It also closely monitors how it gets portrayed by others, for a while even contracting a media monitory service to evaluate its image—a critical objective, in addition to brand recruitment and mission support, is to maintain credibility with the media as an authority.[40]

Because the park has since its inception epitomized profound struggles over the identity of humans, animals, and the lands they rise out of, I think that its history can be a much-needed lesson in context about post-colonial conservation on the African continent. The dramatic potentials for landscape change instigated by elephants (alongside many other variables on the horizon) should inspire imaginative and empathetic responses to the question of what SANParks could make of the land under its control. A creative investigation of Kruger's "desired state" must evaluate linear narratives about science and wildlife protection as well as fatalistic ones about ecosystem apocalypse and official corruption. Unraveling the generations of official decisions that led up to Kruger's present can reveal only a part of how ecological risks are framed and dealt with. Another side of the story focuses on how stakeholders in a system like this one observe and interpret a landscape over time—in the process assessing whether its managing authority

[39] *The Guardian*, "'The worst of journalism': 200 writers and academics slam CBS coverage of Africa," March 26, 2014.

[40] SANParks, *Annual Report 2013/14,* 46: "The organisation continues to receive acceptable media attention with most matters being graded as neutral/statement of fact and positive coverage. The highest coverage received during the financial year 2013/14, was the plight of the rhino, which has made headlines both in national and international media."

is deserving of trust. Then, at a more diffuse level of culture, how do the stories told about these sanctified areas reinforce particular preferences about nature? Whose understandings of nature are represented when the need arises to voice concerns and desires about a landscape?

The consultation and stakeholder process in Kruger's 2008 management plan sets up ways to incorporate tourist and public preferences into policy, a necessary step towards decisions that are multilateral rather than insular. A further approach towards understanding these sentiments as part of larger dialogue about reflexivity is to analyze them with the same rigor applied to official attitudes—as historical, contingent, and influenced by cultural experience. For example, the Elephant Management Plan rebuts the culling era by tracing the genealogy of its rationale to a set of agricultural stocking principles that are more or less un-practicable in dynamic ecosystems.[41] The plan attributes the persistence of this outdated science to a culture of insularity. In the same way, statements of preference about parks can sometimes be traced to very specific stories about nature and attitudes toward wildlife that might be grouped together to determine the most influential narratives, as well as the most overlooked, to get a sense of the diversity of opinions being expressed.

A major thread running through these chapters is the juxtaposition of a recollected or imaginary landscape against a landscape at the moment it is observed. From caricatured portrayals of Kruger as a jungle in the American press, to detailed descriptions of physical landscapes by visiting scientists, and dire predictions about the future of the ecosystem, the dialogue between hindsight and foresight in conservation has

[41] Ferreira et al., *Elephant Management Plan*, 28.

never seemed more pressing. Two interwoven themes characterize my research in the park—first, the construction of an imaginary Kruger, a set of globalizing landscape ideals and representations of nature that enmeshed the park in specific cultural and political systems, and second, the tangible, biophysical changes in the material conditions of the park, the result of a complex dynamic of interaction between the savanna and its management. The intangible/imaginary and tangible/real bleed into each other throughout Kruger's history, often literally, as in the slaughter of animals to enforce carrying capacity, or the punishment of transgressors across imposed political boundaries.

Despite the sizable growth in protected areas worldwide, the planet finds itself plunged deeper into a sixth mass extinction amongst a host of other pervasive threats to environmental well-being, biodiversity, and environmental justice. Areas like Kruger have long been characterized by grandiose rhetoric about their purpose, but they need to be incorporated into a profoundly new, integrated strategy of environmentalism—one that actively works to address their complicated histories and isolationist way of coping with ecological degradation. The rhetoric throughout most of Kruger's history, as well as those of parks in America, is deeply conservative and problematic as the basis for environmental ethics, particularly given the enormous claims of that ethics as a mandate for the future. In 2011, during a reflective period on Strategic Adaptive Management in Kruger, Stirzaker, Roux and Biggs wrote:

> Scientists not exposed to further study of the humanities, or even an introductory course on the philosophy of science, are often surprised by growing criticism of the very norms most of them regard as self-evident. Even if it were valid to pass off some of these critics as postmodern deconstructionists, scientists still have to heed a call from within their own community about the need to think differently

about contemporary issues facing society[42]

On the other hand, criticisms from the humanities are often aloof, and don't acknowledge practical constraints or credit the good-faith efforts of actors who lack a specific theoretical perspective. In Kruger, as in other areas, being productive within a thorny historical and scientific legacy requires some acceptance of non-ideal circumstances alongside a thoughtful excavation of how they came to be so.

[42] R.J. Stirzaker, D.J. Roux, and H.C. Biggs, "Learning to bridge the gap between adaptive management and organisational culture," *Koedoe* 53, vol. 2 (2011).

CHAPTER II

A BRIEF HISTORY OF ELEPHANTS IN THE KRUGER PARK

"The modern elephant is a pronounced asset in the tourist field, but given certain circumstances it may at times put a spoke in the wheel of authority."
-*Rand Daily Mail*, 1936.

In less than one hundred years, elephants have grown from a fleeting presence in Kruger to some of the park's most iconic and ubiquitous features. Although Stevenson-Hamilton (who continued as warden until 1946) saw "no prospect of their returning to the Sabi Game reserve" in 1902, today they are often the first thrill of a visit to Skukuza, crunching foliage along the entrance road, or bathing in the lush grasses of the Sabi river. In the park's staff village, they frequently raid gardens and cause other havoc during the night—I woke up one morning during my stay to find the metal gate on our driveway twisted and buckled from their energies. They can move silently or with great commotion, depending on the time of day and their intention; sometimes you hear them without seeing, but as often they appear suddenly, without a sound. "The tread of the elephant is astonishingly light," observed Stevenson-Hamilton. "Also, until actual experience has been gained, it is difficult to believe that it can be possible to approach so very close, in forest or bush, to so huge an animal without seeing it."[1] Where rangers in the park first encountered them by horseback or bicycle, the huge pachyderms now cause traffic jams on tar roads. Part of their lasting awe comes from the discrepancy between seeing a picture or video of an elephant and being in one's presence. Ubiquity in media and

[1] James Stevenson-Hamilton, *Animal Life in Africa*, vol. 2, *The Vegetarians* (London: William Heinemann, 1917), 22.

culture creates a deceitful familiarity that real interaction often shakes loose, unsettled by the sheer physicality of an elephant's presence on the land.

Elephants have long been a source of fascination. The legendary American zoologist William T. Hornaday ruminated extensively on the African variety in his *Minds and Manners of Wild Animals*, and specifically mentioned Kruger's population (at the time of his writing only around 100).

> The Kruger Park elephants have habitat in the mopani-forested sections extending northward of the Olifants River, in the direction of the Limpopo. In Africa, the duration of the elephant's life may be 150 years. A captive specimen lived 120 years, but freedom and natural conditions should increase longevity ... It expertly swims wide rivers, being completely at home and a fast traveller in water, and restfully wallows in mud.[2]

His wild estimates of age are double or triple the average, but such detailed description in 1922 showed how quickly Kruger's largest animals had made their reputation abroad—as animals, not just as ivory. In fact, the region is home to the Anglophone West's most iconic 20th century elephant fable—in Rudyard Kipling's *Just so Stories*, "the great grey-green, greasy Limpopo River, all set about with fever-trees" is where the elephant got its trunk.[3]

Before the park was established, elephants in the region were hunted for sport by colonists, but by many more parties for their ivory. That trade dates back at least ten thousand years—it's easy to imagine that somebody has coveted the material for as long as people have exchanged goods. In recorded history, its a commodity is linked with the ebb and flow of power, with corresponding effects on elephant populations during spikes

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[2] William T. Hornaday, *The Minds and Manners of Wild Animals* (New York: Scribner's, 1922).

[3] Rudyard Kipling, *Just So Stories* (1902; repr., Project Gutenberg: 2008), chapter 5. http://www.gutenberg.org/files/2781/2781-h/2781-h.htm.

in demand. The most recently relevant of these spikes were in the 19th century when industrializing Europe and America demanded luxury items, and in the 1970s when demand from Asia was high.[4] When parks were established in South Africa only a very few elephants remained in the country, secluded in the regions most inhospitable to people.

Elephant numbers grew in Kruger, as they bred without interference and migrated from neighboring territories, and with their recovery came attention from managers and the public. Their reemergence was timid, and Stevenson-Hamilton observed in 1917,

> They are not naturally strictly forest-loving animals, but, as occurs with so many other species, continued persecution tends to make them more and more seek the shelter and protection of thick covert, and until very recently the herd in the Transvaal Game Reserve never ventured, even at night, beyond the shelter of a certain large area of very dense bush, which had for many years proved their only safe refuge.[5]

Driven out or into hiding by demand for their byproducts, elephants resurged as icons of a developing wilderness sensibility in South Africa in the 20th century. Their symbolic relationship to Kruger's identity, as quintessential ambassadors of wild African nature, quickly cemented their status as a star species (fig. 2). They percolated into advertising and promotional materials even faster than their population grew, and were ubiquitous in descriptions and depictions of the park well before they became so in the landscape.

Stevenson-Hamilton, short on labor and resources, initially held elephants in fairly low esteem and waited dubiously for them to become useful. "It cannot be said that any very extensive trials of his ability to serve man have, up to now, been made," he

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[4] Jane Carruthers, "Romance, Reverence, Research, Rights: Writing About Elephant Hunting and Management in Southern Africa, c.1830s to 2008," *Koedoe* 52, no. 1 (2010).

[5] Stevenson-Hamilton, *Animal Life in Africa,* 22.

wrote, "and, indeed, it is only within the last few years that he has excited any interest at all, beyond that which he rouses as a provider of ivory for the market, and sport for the hunter."[6] At the time, elephants did not really even fall under the mandate of the reserves, which were primarily for restocking other game species. "In the meantime … it is to be hoped that elephants may go on receiving the partial protection lately accorded to them, in the hope that they may prove useful, apart from the value of their ivory, at some future date."[7]

However, elephants continued to increase and their value to the park as a tourist magnet gave them credibility. Also, their behavior had begun to change:

> These animals were seen in greater numbers by tourists in 1936 than in any previous season. They seem to be losing their shyness, and are found more often near the roads than formerly. They have spread all over the Sections of the Park north of the Olifants River and are encountered equally in Nos. 6, 7, and 8 Sections. The increase of the elephant, which is of course an animal free from enemies except man, is more rapid than is generally believed.… Elephants are addicted to mopani forest where such exists, and this largely explains their preference for the northern portions of the Park. They are seldom encountered far south of the Olifants River except where mopani belts extend.[8]

Now at around 250 individuals, the enormous pachyderms were beginning to make their free will known to staff in the park:

> Towards the end of the year, elephants raided during the night the deserted Letaba tourist camp and did some damage to fencing and trees. During the past few years they have pulled down many notice boards, and done other mischief. One old bull, often seen between the Letaba and Olifants Rivers, has become quite accustomed to cars and takes little notice of them. It would not however be altogether a wise proceeding to get out of a car in his near neighborhood.[9]

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[6] Stevenson-Hamilton, *Animal Life in Africa*, vol. 2, 12.

[7] Stevenson-Hamilton, *Animal Life in Africa*, vol. 2, 16.

[8] Kruger National Park, Warden's Annual Reports, 1936, 4, NK/28/1, NKW.

[9] Warden's Annual Report, 1936, 4.

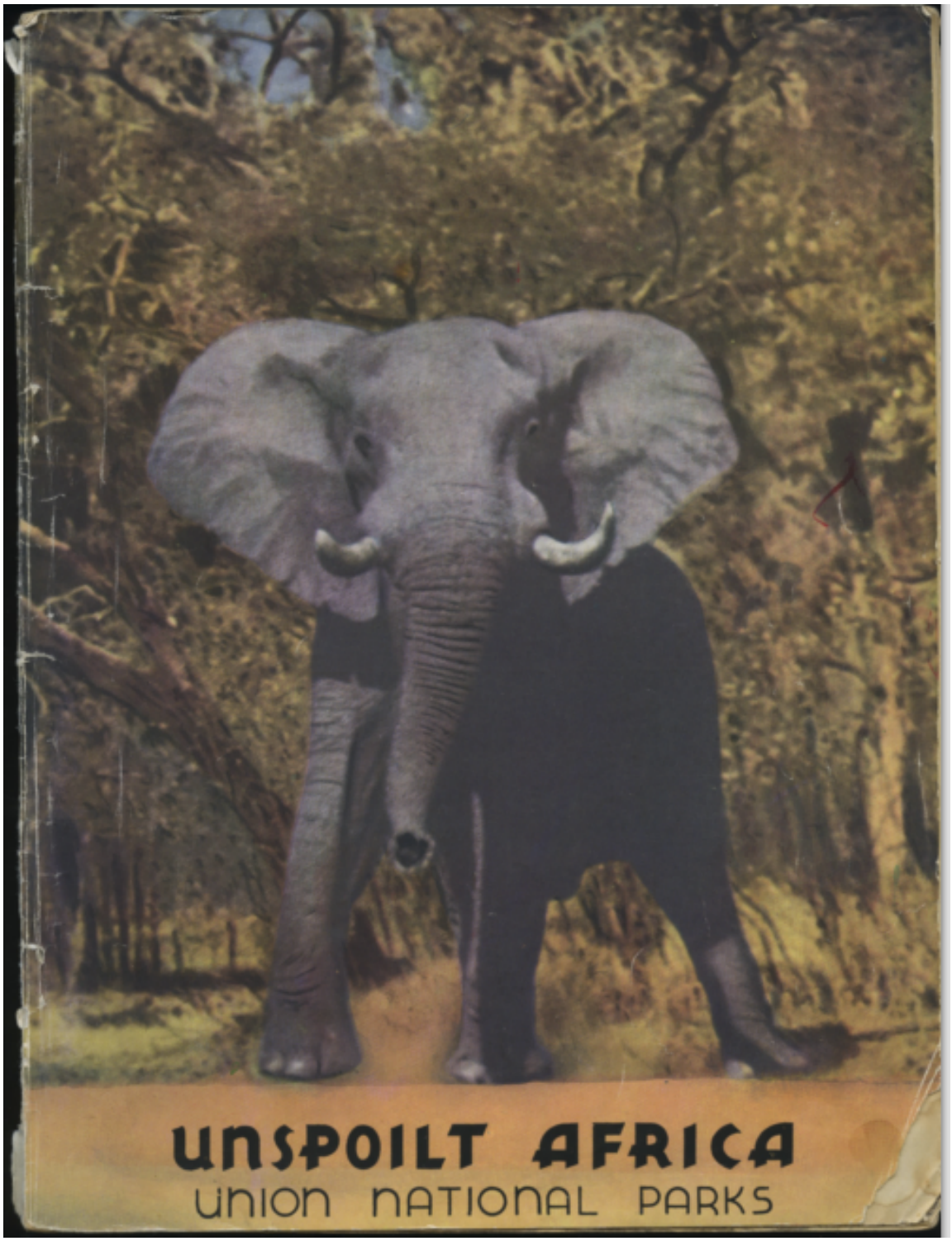

Figure 2. Cover of *Unspoilt Africa* guidebook, 1947, Photograph by Dick Wolff

By this time the park, although still very informal compared to after World War II, operated according to a more holistic set of wildlife preservation principles. Elephants were a part of its environmental schema, a natural recipe that Stevenson-Hamilton became adamant about following. In the context of the larger debate around the role of elephants in the system, though, it was clear that they began to be described as a nuisance as soon as they became a significant presence in the park. Staff warned of the threat that elephants could pose to the tourist experience in the park—not by changing the ecosystem, but by injuring tourists. 1952's Annual Report contained a prediction that "it may well happen that some elephant will be taunted beyond endurance and fail to exact retribution from the culprit but catch some perfectly innocent tourist car unawares and wreck it. It seems incredible that it has not yet happened."[10] Stevenson-Hamilton had observed such behavior in elephants before, writing of a group, "although for some time past almost entirely left alone, they still seem to cherish the memory of former grievances."[11]

In fact an incident of exactly that nature had been reported in a local newspaper and relayed to the warden the previous year. Recounting a terrified flight from an incensed elephant, the victim recounted that "small trees, bushes and shrubs - anything in his path - went down in that headlong rush. It was a terrifying moment and I lost no time in accelerating and getting as far away from the maddened beast as possible ... The animal has obviously developed vicious tendencies and will have to be destroyed,

[10]Warden's Annual Reports, 1952, 33.

[11] Stevenson-Hamilton, *Animal Life in Africa*, vol. 2*,* 21.

otherwise something serious may happen."[12] A few years later, Senior Ranger M. Rowland Jones wrote to the warden about having to shoot a pair of elephants who were taking turns raiding a tourist camp, complaining, "this has spoilt entirely one, if not the most beautiful part in the camp, and the devastation of the rest of the trees in the camp had commenced."[13] The trees destroyed were actually palms, planted for hospitality—a transgression to wonder about.

This was also a time of where a more intimate, anecdotal understanding of elephants' lives in the park began to accumulate. Jones reported in 1954 that "one heavy burnt elephant was seen at Magobane on the Levubu north of Punda Maria. This wretched animal must have been burnt in the Ntali fire nearly twenty miles to the north in the Native Territory about 3 weeks previously. It was in a shocking state but before the Ranger could be summoned to put it out of its misery, a small herd of other[s] gathered around it and they assisted it across the river out of the Park."[14] Kruger's staff pulled snares out of wounded elephants, watched herds migrate across their sections, and listened to reports of transgressions into neighboring properties. These escapades and what they indicated about elephant personality were reported abroad, as in a 1950 *Times-Picayune* article titled "Evidence Shows Elephants Think." The paper described an organized fruit raid, concluding that the "herd of wild pachyderms now ravaging the Transvaal presents new evidence of the animal's good memories and 'thinking' abilities.' The 'outlaws' in question sent scouts out of the park, who returned back from Blyde river

[12] "Rogue Elephant," memo to Warden, July 26, 1951, NK/50/4, NKW.

[13] Senior Ranger to Warden, November 16, 1956, NK/50/4, NKW.

[14] M. Rowland Jones, Yearly Report of Senior Ranger, 1954, 5, NK/28/4, NKW.

to lead 'the migration to greener pastures.'"

In the years after the Second World War and the 1948 election of the Nationalist government, scientific management was instituted in Kruger by a new generation of professional staff, and the elephant population surpassed one thousand in 1960. Concerns about their rapid growth (at 6,500 by 1967) led officials to institute the park's infamous culling policy, which ultimately restricted elephants to a ceiling of seven thousand individuals. Louis Olivier, a now-retired ranger, who started work in the park just after the first culls, remembered the details of the operation before it was streamlined. He related to me, with some distaste,

> when I started with the culling, they would do—shoot—five, six elephants, cutting out, you know, a portion of a herd and doing them. And then we would move in and hack them to pieces, remove the intestines, and then really cut them into pieces and load them by hand…, and then transport them to Skukuza, or to the abattoir near Skukuza, which of course gave a veterinarian or any health inspector the heepie-creepies, that was very unhealthy…. Those trailers which were built in those years by one of our technical staff members there, is still in use at Skukuza, it is a very, very tough two wheel trailer, heavy, heavy duty, which we would hitch behind a four-wheel drive tractor, and then we would recover the carcasses like that, and then we started winching them onto the truck, it was all a process, and the carcasses would then be covered with a huge canvas, such for the sake of people, tourists seeing. The trailer was fitted with tents underneath to catch the blood, because that was spilling on the roads, as we traveled. And, because of lowveld temperatures and of course, yeah, distances and everything, but the temperature is such, we only culled in the afternoons…, and it just happened then that we would travel most of the time during the night, to—and luckily there were not things like digital cameras and cell-phones and Facebook and whatever these things are called that. (*laughs*) we would have been in big trouble with all that photographage [*sic*] would have gone around because you can imagine yourself, it's a bloody business there, not nice to see.[15]

As the operations grew in scope and sophistication the process became more efficient, incorporating helicopters, dart guns and other techniques. Culling quotas were tweaked back and forth according to staff research, and the culling of most animals besides elephant and buffalo was discontinued. In 1980, chief ranger Dirk Ackerman told an American reporter, "we hate doing it, and it always causes an outcry among the public….

[15] Louis Olivier, personal communication, July 22, 2014.

But if we did not cull elephant, we would have not 8,000 but 46,000 within a year and double that soon afterward. Kruger would become simply an elephant park and they would soon starve themselves out of existence."[16] Despite Ackerman's hyper-exponential theory of growth, in more than twenty years since the cessation of culling in Kruger the elephant population has only doubled, to around 17,000.

Olivier, and other people I spoke to who participated in culling operations, maintain that it was the only option available to preserve the integrity of park ecosystems. All have respect for elephants, and were unequivocal about taking no pleasure in the killing. For them, it was part of a duty to a strong conservation and wildlife ethic. Olivier for instance was firmly against more domestic forms of control like captivity. "I don't like animals in that situation," he told me. "You won't ever find my footprints in a zoo. Anyway, I never kept wild animals. I was given permission to keep an elephant bull calf in my first time at Skukuza, I built a pen for it. But then they told me next year, they'll sell it. I said to them no, I put it down. An animal like that can get under your skin so quickly, then together we'll be like that (*intertwines fingers*). So I said no, I'd rather put it down."[17]

Amidst a debate over the humanity of culling methods in the 1970s, several Southern African wildlife and humane society groups along with the IUCN observed a cull and recommended minor changes which were instituted.[18] Otherwise the project continued like this until it was abandoned under mounting international pressure in the

[16] Nat Gibson, "Kruger Park Keeps Leash on Humans," *The Dallas Morning News*, August 31, 1980.

[17] Olivier, 2014.

[18] Joubert, *Kruger National Park,* 3:178.

1990s. Between the start of this program and its moratorium in 1994 park staff killed almost fifteen thousand elephants. The abattoir Olivier mentioned developed into a certified meat production facility, and processed byproducts from elephants to sell.

In the early days, lack of infrastructure and equipment meant that culling was wasteful and messy, and the meat could not be sold because of veterinary restrictions on the park and its lack of hygienic facilities. During this time elephant meat went to some odd places. Olivier remembered, "in 1970 I was moved up, I went camping for months, in the far north of the park, and all that meat was—we deboned the carcasses in the veld, and all the meat only, was transported to Mozambique via Pafuri gate, and the meat was used by the Portuguese Militia in those days to feed the FRELIMO prisoners of war. It was in the hey-day of the civil war in Mozambique in those days."[19]

The prospect of a colonial government feeding a captured insurgency with elephant carcasses is chilling, as are many other details from the culling era, such as the fact that ivory sales were a crucial part of the budget for the South African Defense Force's international operations.[20] Jane Carruthers, a leading environmental historian in South Africa, writes: "Not surprisingly, culling did not generate a literary genre, but it was recorded."[21] Rather than any change of heart borne from the accumulation of gruesome detail among Kruger's staff, the decision to end culling was made outside the park. Changes in international ecology, pressure from NGOs, and negotiations around the Convention on the International Trade in Endangered Species (CITES) prompted the

[19] Olivier, 2014.

[20] Stephen Ellis, "Of elephants and men: Politics and nature conservation in South Africa," *Journal of Southern African Studies* 20, no. 1 (1994): 53-72.

[21] Jane Carruthers, "Romance, Reverence, Research, Rights."

National Parks Board to declare a moratorium on the practice in 1994. In particular, compromises between the Board's Chief Executive Director, Dr. G.A. Robinson, and Dr. Richard Leakey, the influential Kenyan conservationist, were responsible for reconciling South Africa with other countries on issues of elephant management.[22] Leakey visited the abattoir at Skukuza, and remembered being "impressed by the size and scale of the operation, but appalled that this was what wildlife 'management' in the late twentieth century had come to."[23] Olivier, the retired ranger, joked that when culling was halted "there were of course a lot of, I'll call them greenies or bunny-huggers, that rejoiced in that."[24] After culling stopped and apartheid ended, a reevaluation process led to Strategic Adaptive Management and the current Elephant Management Plan—which still acknowledges culling as a possible strategy.

I encountered countless tales of capriciousness, compassion, near escapes and breathless showdowns with elephants, all testifying in some way to their status as moral equals—each interaction was usually told like it had taken place between people. Olivier told me, "because of the culling, definitely because of the role of culling … which played a role in my life and being, I am not that scared of elephants, but I've never lost any respect for them. Animals, elephants, I think they are—I don't think, I know they are highly intelligent."

Elephants' relatability—the gregarious wonder of their behavior and mannerisms—continues to be a primary source of their charisma. William T. Hornaday,

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[22] Joubert, *Kruger National Park,* 2:432-434.

[23] Richard Leakey, quoted in Carruthers, "Romance, Reverence, Research, Rights."

[24] Olivier, 2014.

the zoologist, devoted a lot of effort to describing their social habits and inherent traits. "We repeat that *the most interesting features of a wild animal are its mind, its thoughts, and the results of its reasoning*," he wrote.[25] He drew heavily from his practice as a taxidermist and director of the Bronx Zoo, but importantly also from experiences on his frequent collection trips. "In a wild state," he wrote,

> elephants are quiet and undemonstrative, almost to the point of dullness. They do not domineer, or hector, or quarrel, save when a rogue develops in the ranks, and sets out to make things interesting by the commission of lawless acts. A professional rogue is about everything that an orthodox elephant should not be, and he soon makes of himself so great a nuisance that he is driven out of the herd.[26]

The "lawless acts" he described can be seen in Kruger in the form of uprooted trees, smashed fences, and so on, the torn down signposts in staff memos. More important than his acute observation of musth was how it was framed—the elephants Hornaday saw on his trips behaved distinctly from those captive in his zoo or the performers shackled in traveling circuses. His writing sets up the wild as a precondition for elephant "orthodoxy," where the essence of the creature is greatly determined by its natural environment. This line of thought buttresses the rationale for keeping them in parks like Kruger.

Hornaday wrote that he knew of "no instance on record wherein a *normal elephant* with a *healthy mind* has been guilty of unprovoked homicide, or even of attempting it."[27] His emphasis contained two implications—that elephants can be considered capable of mental wellbeing, and that uncharacteristic behavior resulted from

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[25] Hornaday, *The Minds and Manners of Wild Animals*, 54.

[26] Hornaday, *The Minds and Manners of Wild Animals*, 22.

[27] Hornaday, *The Minds and Manners of Wild Animals*, 116-117.

a lack thereof. Thinking of elephants this way anointed them with moral standing as persons, capable of losing reason through insanity, which, if permanent, could be attributed not to their own defect but to their treatment by humans. Hornaday was particularly invested in these ideas as a zookeeper, and laid out a detailed and idiosyncratic "Wild Animals' Bill of Rights."[28]

The first article of this Bill of Rights declared that "in view of the nearness of the approach of the higher animals to the human level, no just and humane man can deny that those wild animals have certain rights which man is in honor bound to respect."[29] For example, and supporting the idea that humans could be culpable for certain elephant behavior, "an animal in captivity has a right to do all the damage to its surroundings that it can do, and it is not to be punished therefor." While Hornaday sometimes invoked the wild as a natural environment that makes creatures unique, his bill of rights used the term to distinguish a category of "wild animals" from those bred by humans, a condition retained even if an individual was born into captivity.

For elephants, this meant that their standing was commensurate with how closely they approached humanity—not an easy quality to measure. "While many wonderful stories are related of the elephant's sagacity and independent powers of reasoning," Hornaday wrote, "it must be admitted that a greater number of more wonderful anecdotes are told on equally good authority of dogs. But the circumstances in the case are wholly to the advantage of the universal dog, and against the rarely seen elephant."[30] In nature,

[28] Hornaday, *The Minds and Manners of Wild Animals*, 50-53.

[29] Hornaday, *The Minds and Manners of Wild Animals*, 50-53.

[30] Hornaday, *The Minds and Manners of Wild Animals*, 104.

the intelligence and reasoning power of elephants was opaque, and subject only to distant scrutiny. This was especially true of African elephants—Hornaday's conclusions were largely based on the Indian species, which was much better understood and had a pre-colonial legacy of husbandry.

The only real way to glean the circumstances of an elephant's mind, thought Hornaday, was by trial in captivity. In this respect, the most useful data was generated by the circus. "So far as memory may be regarded as an index of an animal's mental capacity, the weight of evidence is most convincingly creditable to the elephant. As a test of memory in an animal, we hold that a trained performance surpasses all others."[31] Hornaday's methodology created a trap for the elephants—the only way to prove that they deserved natural rights was to forsake them and be studied in the zoo or the sideshow. As a zookeeper of some regard, Hornaday would not have agreed that it was trap. His rationale was that "some captive animals"

> are better fed, better protected and are more happy in captivity than similar animals are in a wild state, beset by dangers and harassed by hunger and thirst. It is the opinion of the vast majority of civilized people that there is no higher use to which a wild bird or mammal can be devoted than to place it in perfectly comfortable captivity to be seen by millions of persons who desire to make its acquaintance.[32]

He was certain of this capacity for animal contentedness, a luxurious remove from the daily angst of survival, but the question dogs Kruger into the present. Do wild animals lose something fundamental about their essence when they are bound by human oversight, or can skillful care and husbandry actually improve their lot in life?

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[31] Hornaday, *The Minds and Manners of Wild Animals*, 109.

[32] Hornaday, *The Minds and Manners of Wild Animals*, 109.

Hornaday's outlook on the question was grim. He feared that in Africa, the "great Undeveloped Continent," where elephants were being slaughtered for ivory, the species would last another hundred years at most. By contrast, "a century hence, when the last *africanus* has gone to join the mammoth and the mastodon, his well protected wild congener in India still will be devouring his four hundred pounds of green fodder per day, and the tame ones will be performing to amuse the swarming human millions of this overcrowded world."[33] Hornaday thought that the integration of elephants into official and social structures in India had ensured their longevity. Zoos like his played a part in this integration, for by fostering familiarity they "bred just the reverse of contempt."[34] India's population of elephants today is now only slightly more numerous than South Africa's, despite having almost triple the land.

Hornaday's globetrotting took him from one pole of elephant existence to another: between vast, borderless patchworks of habitat (never "pristine") and the architectural confines of utter captivity. In the years since, the spectrum in between the "wild" and the "zoo" has broadened, and elephants often find themselves in spaces where the endpoints are hard to see. Fewer and fewer of their habitats are free from supervision, and none are free from anthropogenic change. Yet many landscapes where elephants dwell, which could never be perfect snapshots of their evolutionary tableaux, are at least managed as workable simulacra. The question becomes, can the elephants tell the difference? And can humans? Kruger's 21st century mission depends on pushing this delicate boundary, encouraging the wild capacity of these creatures to act as they always have, but softening

[33] Hornaday, *The Minds and Manners of Wild Animals*, 102.

[34] Hornaday, *The Minds and Manners of Wild Animals*, 102.

the blow when elephants collide with the disguised artificiality of their system. Elephants might be changed in the process, as might the savanna—but humans are the only ones who can interpret what change means for the project of conservation.

For much of the 20th century, a fairly small group of people carried out this task. Hornaday's writing suffers from the imperial depravities common in his generation of naturalists. These might include the righteousness he sustained while traveling between occupied countries to kill, stuff, and expatriate African animals. More significantly, his arguments for wildlife rights were couched in elaborate white supremacy. Much of Hornaday's evidence for animal consciousness relied on disparaging the mental capacity of 'primitive' peoples, some of whom he considered "lower in the scale of intelligence than any wild animal species known to me."[35] He outlined a litany of complaints about indigenous peoples across the world, in every instance declaring their lifestyle inferior to that of a compared group of animals. He asked, "Now, have those primitive creatures 'immortal souls?' Are they entitled to call chimpanzees, elephants, bears and dogs 'lower animals?' Do they 'think,' or 'reason,' any more than the animals I have named?"[36]

The zoologist once exhibited a Congolese man, Ota Benga, in the monkey-house at the Bronx Zoo. Besides deeply undermining the claim to empathetic imagination that Hornaday makes in his Wild Animal's Bill of Rights, the event's delighted reception demonstrates how little the American public distinguished between Africa's peoples and its wildlife. A local African-American reverend, James H. Gordon, helped shut down the exhibit, saying, "we think we are worthy of being considered human beings, with

[35] Hornaday, *The Minds and Manners of Wild Animals*, 67.

[36] Hornaday, *The Minds and Manners of Wild Animals*, 67.

souls."[37] Hornaday was unrepentant, harboring deep-seated scorn for the peoples he was accused of exploiting—he frequently mentioned his belief that animals actually ranked higher on the moral continuum than the "lowest' humans." His discussion of human and animal consciousness even contained the rationale for his treatment of Benga, when he speculated that, "If caught young, those savages could be trained by civilized men, and taught to perform many tricks, but so can chimpanzees and elephants."[38] Hornaday's racism was vicious and spiteful, and leaves an important impression. It has often been possible for conservationists to personify other species without confronting destructive social hierarchies that deny personhood to some of their own.

Of course the project of extending rights and moral status to elephants can't be discounted merely because Hornaday was associated with it at one point. In fact, it's probably admirable, as many philosophers of animal ethics cogently argue, and the notion of their personhood or right to exist is a fundamental factor in management decisions for Kruger. But too often in 20th century conservation, the voices that granted agency and character to wildlife were the same ones that implicitly or explicitly participated in dehumanizing large swathes of human society. This was all the more true in South Africa, where conservation was until the 1990s overlaid by the operations and rhetoric of apartheid. How elephants are treated or managed, then, and the degree of personhood or agency attributed to them, usually indicates more about the values that currently prevail than which qualities might intrinsically characterize an elephant. They transform because different philosophies are applied to them rather than because of any change in the

[37] Mitch Keller, "The Scandal at the Zoo," *New York Times*, August 6, 2006.

[38] Hornaday, *The Minds and Manners of Wild Animals*, 69.

condition of being an elephant.

Aside from elephants' basic drive towards life and prosperity, and whatever rights they should be awarded on account of their moral standing, the Elephant Management Plan indicates that they have "existence" value as aesthetic and cultural resources that can be appraised to inform the park's "desired state." Discerning what an elephant, or for that matter a baobab tree, might mean to a particular culture or what its visual impact might be on the senses, involves an investigative process that might have no end, because these qualities are constantly reinterpreted over time, and change relative to one another. Certainly, that makes the process of discernment ideally suited for adaptive management. Observing current aesthetic and cultural values and monitoring how they change is important, but clarity can also be improved by history.

Aesthetic and cultural worth evolve just like the species they are attached to—responding to pressure, dispersed by chance, and surging at opportunities to fill a niche, faring differently in each moment. In neither case is the process predetermined or particularly directional, as has been falsely assumed in both cases—merely circumstantial. If biological evolution can be mapped cladistically, the evolution of cultural value is much more diffuse, but perhaps still clearer than the nuances of aesthetic preference. Maybe cultures leave "genetic" markers of value in the form of signature tropes that can be traced in pieces back to a particular person or movement in time and place. Comparing human culture to biological evolution is dangerous, because history is made by people's choices, often only loosely beholden to biological necessity. Teleology is a factor in Kruger because it was created by a decision, and the fate of its elephants will continue to be governed by intention and some level of intervention.

The value in the metaphor is to bring ecological thinking to bear on human constructs—the concepts of complexity, of interdependence, and of cultural regions with blurry boundaries at every scale of distinction are all useful for thinking about the "existence value" that elephants have come to have in Kruger. Of course, human history is also ecological history, precisely because it is embedded in the formative influence of landscapes and the animals they contain. An elephant roaming through commercial farmland, tearing up peach trees and breaking cattle fences, assumes a much different worth than one displayed to overworked urbanites in a zoo or encountered by vacationers on safari, even if all three scenarios occur simultaneously. The same animal might hold a completely different value for a visiting American than it does for someone whose lineage extends back thousands of years in South Africa; or, if they both grew up in cities at the turn of the new millennium, maybe the meanings converge.

The most obvious answer to the question of elephant's "existence value," that they provide peace of mind as components of a healthy biosphere, is inadequate for Kruger's mission of understanding what tourists and the public want. If this was the consensus, then the staff could carry out their activities in peaceful isolation as natural stewards. The mere existence of an elephant somewhere in the world does not, for the most part, generate its abstract meaning for people. Tourists today make elephants meaningful in part by interacting with them—taking pictures, cracking jokes, following them slowly down the road while eating sandwiches, and so on. Their experience is contextualized and assigned worth based on previous engagement with an elephant *milieu*, itself a small sample from the accumulated cultural history of other people's interactions with the species.

When I see a large tusker, I can assign it significance because of knowledge that has been diffused to me—about elephant age, for example, and also about the demand of ivory, from which I can observe how lucky I am to encounter an individual that in most other places would be quickly killed for profit, a line of thinking that soon leads to attributions of blame and opinions about politics unique to my background. In the 21st century these synapses have been accelerated by globalization and the technology to access huge amounts of media. If I see five thousand advertisements in a day, as the common wisdom goes, how many will feature elephants?

Robert Krulwich, host of the popular syndicated science program *Radiolab*, wrote in a blog post, "Today, when biologists go into the field to look at elephants..., what they are seeing is not the natural behavior of animal society, but the warped behavior of animals who have lost their elders, and who are now flailing in a diminished, disarranged world."[39] His comment drew from the experience of young elephants from Kruger who had been relocated to South Africa's Pilanesberg National Park after a cull. It also referred to a larger context: the struggle of animals, many of whom learn socially, who try to mature and carry on ancient ways of living in a landscape and set of demographics that has been fundamentally transformed. In this sense, in addition to the sheer decrease in numbers that ultimately threatens the genetic viability of a species, the decimation of wildlife is also a sort of cultural genocide—it compromises the development and behavior of the animals who are still living. Who or what animals become as they grow up, it might be argued, characterizes a species no less profoundly than the unique

[39] Robert Krulwich, "Why We Need Grandpas and Grandmas (Part 1)", *krulwich wonders: Robert Krulwich on Science* (blog), *National Public Radio,* December 17, 2013, http://www.npr.org/sections/krulwich/2013/12/16/251672253/why-we-need-grandpas-and-grandmas-part-1

chemical structure of their DNA.

We have access to much more research than Hornaday did—observations in the wild, detailed biological dissections, and sophisticated measuring equipment. We now know that elephants can communicate subsonically across miles; that matriarchs pass down ancient knowledge of water resources and game trails that they retread in times of crisis; that a herd of elephants without elders is capable of almost any kind of bad behavior, but can be quickly disciplined by the presence of a few stern matriarchs, even from the circus; we know (perhaps) that their populations regulate themselves according to available resources, but on longer time scales than many people are prepared to imagine; that clans merge and separate and demarcate territory in very complex ways that affect how they govern the landscape amongst themselves; that young males in musth are capable of immense destruction, not least of which is directed at Kruger's vulnerable population of tall trees; but also, that the longest running continuous study of these creatures, in Kenya's Amboseli, has only lasted half the length of an elephant life. All of this research, and we are left with essentially the same mix of moral and practical challenges to interaction with them, and also damning evidence that the collective 'we' of English-speaking elephant enthusiasts reflects only a tiny fraction of the human beings that put stock in such a relationship.

Elephants in Kruger can be a mourned absence, a celebrated presence, and a nefarious scourge. They are a wicked problem coupled with an inexpressible mystery. Kruger, about which several social histories have been written, carries a weight of cultural violence in its human history that is acknowledged as an important factor in its management. Elephants have their own social history, an intergenerational journey that

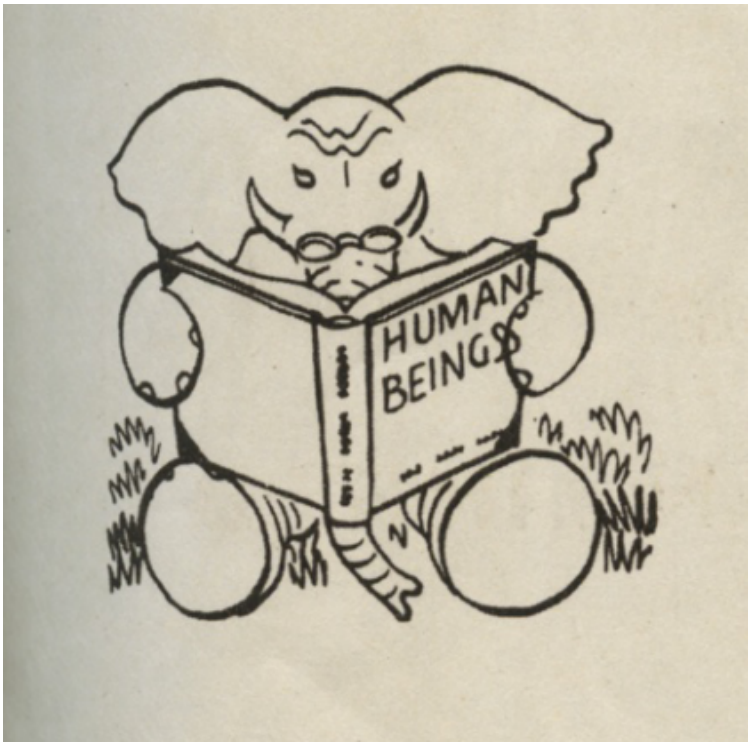

Figure 3. Cartoon from *Unspoilt Africa*, 1948

weaves through and alongside that of the people who have thought and done so many different things in the savanna. They are certainly stakeholders in their own right, according to many who advocate for them, but they are impossible to consult with (fig. 3). In the relationship of elephants to their habitat, to humans, and to humans' relationship to their habitat, we can find a microcosm of the way that the savanna in South Africa has changed or remains timeless, according to an undeniable biophysicality but also to a fickle and specific set of imaginary conditions. The extreme charisma and intelligence of these large pachyderms, sometimes criticized for drawing attention from less anthropomorphized elements of their ecosystem, meant that they became an indispensable icon of the park, and, on a grander scale, of African nature.

CHAPTER III

EARLY POLICIES, OFFICIAL NARRATIVES, AND FIRSTHAND OPINIONS ABOUT LANDSCAPE

"The ideal embodied in [a national park], in addition of course to its popular object of displaying unspoiled nature and giving the public some notion of how Africa appeared before the white man came to it is to try to find the answers to many scientifically interesting questions of natural history, which can only be sought within an area where all the species indigenous to it are permitted to live their natural lives unhampered by artificial aids or restrictions. For instance, we want to know just how wild animals react in habit when freed from the human menace, that is to say how they may be supposed to have lived before Man became a factor to reckon with. We want to see them following their strictly natural habits and not those imposed on them by the terror of human beings, such as we find them to have adopted almost everywhere else. We also would like to learn experimentally how Nature, left entirely alone, manages her own affairs with regard to limitation and increase of various species. Full answers to the above cannot be expected today because a certain amount of artificiality is inevitable, but in the Kruger National Park we have the opportunity of getting nearer the truth than is possible anywhere else in the world today."

-James Stevenson-Hamilton, Warden's Annual Report, 1935[1]

"Without attempting to appease both sides, the National Parks Board of South Africa (NPB) has adopted the philosophy that some form of qualified management may be imperative if it is to succeed in its primary objective of preserving natural ecosystems in their most pristine state possible. It is accepted that in all but highly exceptional cases the ecological composition and processes of natural ecosystems have been affected in one way or another by the activities of man. And where the preservation of their pristine qualities is of prime importance, it can only reasonably be achieved if amends are made to counter the disrupting influence."

-Salomon Joubert, Kruger Park Warden, 1991[2]

The question of what Kruger should look like, and how elephants might threaten

[1] NK/28/1, NKW.

[2] S.C.J. Joubert, "Management of the Kruger National Park: Principles, Policies and Strategies," *Transactions of the Fifty-sixth North American Wildlife and Natural Resources Conference* (Washington D.C.: Wildlife Management Institute, 1991), 27.

that vision, is forever tied to opinions about why, exactly, the park exists—and the value of its landscape, taken to be self-evident, is anything but. In 1936, L.B. Steyn, who would later become Kruger's warden, wrote to A.U. Bourne, the secretary for the Johannesburg Society for the Prevention of Cruelty to Animals:

> As a Ranger in the K.N. Park, I have been in close touch with the visiting public and so have had good opportunity to observe and study the effect and reactions of their contact with nature and wild-life. One of the commonest things noticed, was the general ignorance, or, at best, the extreme vagueness of the average tourist as to the basic idea of a Game Sanctuary. What is the use of protecting wild animals? Of what benefit is it to us in the long run?...Though it may be asserted truthfully, that the "principle" of a Game Sanctuary has come to stay with us, it is not so easy to state the reason why this is so, and I doubt very much whether there are many people who have given this question more than superficial thought.[3]

Steyn had his own answers to these questions (in fact, he was writing to Bourne to propose a book on the subject). Since then, other voices have contributed their own answers, hundreds, if not thousands of times, in official reports, informal memos, tourist pamphlets, and letters from the public. Statements of purpose abound, and are situated in the perspectives of those who pronounce them, as well as the peculiar conditions of the time—including a changing cast of existential threats to one element of the park or another throughout its more than 100 year history. Differences between these statements range from fundamental disagreements about the mission of the park to arguments about how best to carry out shared conservation goals. Each iteration and situated perspective adds to our current understanding of what might be at stake.

The objectives laid out in the Elephant Management Plan come at the end of a long historical mosaic of decision-making which only began to explicitly invoke

[3] L.B. Steyn to A.U. Bourne, December 9th, 1936, NK/13/28, NKW.

scientific justification in the 1950s/60s, and which was only accountable to a democracy starting in 1994. It's unsurprising that, given the widely perceived decline of wildlife and the heavily deployed rhetoric of crisis that originally lead to Kruger's declaration as a National Park, the tenor of the Park has since been that of a fortress besieged. New eras of management, developments in science, changes in South Africa's political climate, and the inevitable fluctuations that characterize the savanna ensured that some element of the park was perpetually on the brink of catastrophe in the eyes of one or another of it's many stakeholders. Hindsight renders many of these concerns overblown or utterly baseless, but others have endured as recurring management problems despite morphing understandings of the park's ecosystems. Public, expert, and lobbyist concern present a complicated muddle in crises ranging from water scarcity to overpopulation: in each case, material conditions, tourist perceptions, trends in biology, and historical momentum aggravated underlying conflicts between different philosophies of conservation. These debates, culminating in the reaction (or non-reaction) of management, carry lessons about rhetoric and action in the park that add up to a necessary context for current management debates. Debates over which elements of the park are threatened are linked at every stage to mission statements about what the state of the park should be.

Kruger is still known overwhelmingly for its charismatic fauna—'the Big Five' being elephant, buffalo (*Syncerus caffer*), lion (*Panthera leo*), leopard (*Panthera pardus*), and rhinoceros (both white, *Ceratotherium simum*, and black, *Diceros bicornis*). However, its original mandate, in line with the lobbies of "penitent butcher" sportsmen

who created it, was only to protect game species of herbivores, particularly antelope.[4] James Stevenson-Hamilton, warden from 1902 until 1946, referred in an early characterization of the government game reserves (before their declaration as Kruger National Park) to "the movement for the preservation of big game, which may be recognised as the outcome of the increasing protest on the part of latter-day civilisation against the ruthless and often wanton destruction of some of the fairest works of Nature."[5] Although he would demonstrate a very nuanced understanding of ecosystem processes by the end of his career, the initial goal of restocking the area with game meant that other elements of the landscape were understood according to their relation to the health and abundance of desired species.[6]

Savanna vegetation was mostly understood as "pasture," and predatory species as threats to game populations. Lending some weight to the theory that many National Parks have achieved their status because their land was not immediately valuable for other interests, Stevenson-Hamilton observed in 1907: "No government of the present day wants to crowd out white settlers in order to maintain a paradise for wild animals, and in fact sites would appear to have been usually selected where the scantiness of the white population, and the abundance of other land available negatived any likelihood of their

[4] See Jane Carruthers' chapter "Imperialists and Sportsmen, 1902-1910," in *The Kruger National Park: A Social and Political History* (Pietermaritzburg: University of Natal Press, 1995).

[5] James Stevenson-Hamilton, "Opposition to Game Reserves," *Journal of the Society for the Preservation of the Flora and Fauna of the Empire* 3 (1907): 53.

[6] For more on the development of Stevenson-Hamilton's views, see Jane Carruthers' biography *Wildlife & Warfare: The Life of James Stevenson-Hamilton* (Pietermaritzburg: University of Natal Press, 2001).

being required for a very considerable time..."[7] At the time, Alfred Milner's reconstruction program after the Anglo-Boer War was encouraging a romantic agrarianism (to British political ends) that may have informed Stevenson-Hamilton's sentiment.[8] Indeed, the area's primary distinguishing features in the early years seemed to be its remoteness, density of bush, and pestilential atmosphere.

In the early years the small staff had its hands full with the basic processes of administering such a large reserve. None being trained naturalists, most ecosystem understanding was a product of on-the-job learning and anecdotal observation, and pressing practical concerns dominated—policing, improvising infrastructure, and trying to account for game. Despite these challenges, and very limited resources, by the time that the area was declared a National Park, Stevenson-Hamilton's understanding of the biological community he presided over had grown remarkably, in line with more than three decades of his own experience and a prolific engagement with contemporary naturalists. By 1920 he began to reject the extermination of "vermin" species, and his characterization of the park grew more inclusive as he began to consider it, as in the title of his eventual book, a "South African Eden."[9] In 1925 he expressed enthusiasm for many different elements of the landscape, writing, "In addition to the unique display of animal life, there are many strikingly beautiful and wild pieces of scenery, and a great field for the botanist and lover of nature generally in the indigenous forest—trees, flowers,

[7] Stevenson-Hamilton, "Opposition to Game Reserves," 55. For more on the 'worthless lands' hypothesis, see Alfred Runte, "Worthless Lands," *National Parks: The American Experience* (University of Nebraska Press: 1997).

[8] K. Fedorowich, "Anglicisation and the Politicisation of British Immigration to South Africa, 1899-1929," *Journal of Imperial and Commonwealth History* 19 (1991): 22–46.

[9] Stevenson-Hamilton, *South African Eden* (London: Cassell and Co., 1937).

and grasses, which, like the fauna, remain as they have existed from time immemorial."[10]

Stevenson-Hamilton's enthusiasm for the full diversity of life in his park reflected his wide reading, correspondence with prominent journals and scientists, and his own proto-ecological view of natural processes. "When man attempts to usurp Nature's function, he is obviously at a hopeless disadvantage," he wrote, "and the result of his efforts are often seen in the deterioration of species which, though still in a wild or semi-wild state, have no natural enemies."[11] Later, he speculated about curves of animal population growth and relationships between predators and prey, writing in 1936 that "The presence of natural enemies is therefore important in every wild life sanctuary if the herbivora are to remain specifically healthy, and the flora is not permanently to suffer."[12] Advocating for the self-regulation of populations of animals, he used the Darwinian phrase, "the struggle for existence."[13] His hands-off philosophy— "Once Nature has established an equilibrium it is to be upset only by exceptional causes"—only grew stronger as his tenure lengthened, and by the time he retired in 1946, his rhetoric had become quite forceful, and he was wary of public opinion.[14] "Yet the idea that in order to safeguard wild life in a wild country, Man must step in with his artificial aids—as though it were a pheasant preserve in England—is one that is widely held," he warned.[15]

Stevenson-Hamilton's opinion of what equilibrium might look like, however, was

[10] Kruger National Park, Excerpts from Warden's Annual Reports, 1925, 2, NK/28/1, NKW.

[11] Excerpts from Warden's Annual Reports, 1925, 5.

[12] Warden's Annual Reports, 1936, 7.

[13] Excerpts from Warden's Annual Reports, 1925, 2.

[14] Warden's Annual Reports, 1935, 10.

[15] Warden's Annual Reports, 1935, 11.

quite different from 21st-century understandings of the savanna ecosystem, particularly in regard to aridity. In fact, he believed the area had been originally composed of "primary rain forest," a coverage of tall trees that was now only found by waterways.[16] In line with contemporary fervor about the drying up of landscapes, he wrote, "My opinion, based on continuous observation since 1902 is that there is a gradual desiccation of the whole eastern lowveld in progress, which an occasional season of heavy rains only temporarily alleviates."[17] He dismissed the trees in the savanna as "stunted fireproof growth," and attributed the stunting to fire. His concerns are the first iteration of a series of theories about long term vegetation change, to be echoed in various forms up until the present day, where bush encroachment and other ecosystem transitions continue to be studied.

Although consistent with many popular themes of conservation today, the Warden's holism, his desire to preserve a primal, pristine nature, also included sentiments more in sync with the prejudices of British paternalism and scientific racism. He romanticized Blacks who still lived in the park, numbers of whom he had estimated at fewer than five thousand in 1905.[18] "The few resident natives live still to a great extent under tribal law," he wrote, "unspoiled by contact with civilization."[19] In racial and pseudo-scientific parlance of the time, this alluded to the concept that Africans in the park represented a glimpse of the world before the fall of man—recapitulation theory, popular at the turn of the 20th century, held that indigenous peoples in India, Africa, and

[16] Quoted in Joubert, *Kruger National Park,* 1: 65.

[17] Quoted in Joubert, *Kruger National Park,* 1: 65.

[18] James Stevenson-Hamilton, "Game Preservation in the Transvaal," *Journal of the Society* 2 (1905): 21.

[19] Warden's Annual Reports, 1935, 11.

to a lesser extent, the Americas were living exactly as the prehistoric ancestors of "civilized" men had lived.[20] Stevenson-Hamilton, being a long-term resident of the park himself, and having worked closely with Africans in his employ, probably had a more nuanced relationship than others who espoused this viewpoint, and certainly one that paled in comparison to the busy architects of apartheid.[21] The fact remains, though, that this caricature of rural or "primitive" blacks as essentially a part of the landscape would play into the primeval image of the park for years to come.

For others, too, the use value of the landscape changed, at times cataclysmically, as when veterinarians destroyed all domestic cattle in the park in 1939, depriving resident Africans of a crucial source of wealth, independence and social relation.[22] David Bunn writes, "in the 1930s, therefore, the Kruger National Park with its settled African residents became a crucial signifier of proper land management. It was an instructive example of the principle of proper stocking; of nature's apparent adherence to the law of carrying capacity; and evidence of how enlightened veld management led to a natural

[20] "In negro Africa you can find existing nearly all the stages of culture through which our own ancestors passed in Britain and in other parts of Europe," observed a National Geographic article in 1909. The article, and an excellent analysis of nature photography and wilderness nostalgia, come from Finis Dunaway's "Hunting with the Camera: Nature Photography, Manliness, and Modern Memory, 1890-1930," *Journal of American Studies* 34, no. 2 (2000). He writes, "Their search for blank spaces and trackless, wild lands elided the presence of humans in Africa: primitive, savage people blurred into the fauna of the landscape…incapable of shaping the land and making history. In contrast, naturalists suggested that modern people lived apart from nature; they returned periodically to the wilderness for revitalization."

[21] For a more detailed history, see Carruthers' chapter "Africans and the Kruger National Park" in *The Kruger National Park: A Social and Political History,* and David Bunn's essay "An Unnatural State: Tourism, Water & Wildlife Photography in the Early Kruger National Park," *Social History & African Environments*, ed. William Beinart and JoAnn McGregor (Oxford: James Currey, 2003).

[22] David Bunn, "A Bushveld Golgotha: Disease, Cattle, and Permeable Borders in the South Western Kruger National Park," Historical Geographies of South Africa Symposium, University of Sussex, April 2002.

succession of ordered grazing patterns…."[23] The cattle purge was a large step towards disassociating (physically and metaphorically) African communities and their systems of animal husbandry from acceptable categories of land use in a "natural" savanna, and Africans living in the park would soon come to be known as "squatters."

Tourism and the Park's Imaginary Landscape in the Public Eye

Stevenson-Hamilton would hold primary decision-making power as warden until 1946, but Kruger's newfound status as a National Park after 1926 brought an explicit focus on white tourism. Despite his scorn for human interference with nature, Stevenson-Hamilton realized that the park needed popular support and national commitment to ensure its survival. Kruger required constant publicity, starting in 1923 with South African Railways' "round-in-nine" route through the savanna.[24] This placed the landscape at the fulcrum of a delicate and always controversial balancing act between public expectations and internal management philosophies. Even in 1925, Stevenson-Hamilton's vision of the park as an attraction seemed very different from his understanding of it as an ecosystem. "However attractive to scientists," he wrote,

> I do not think that the sight of a few isolated animals or herds of a species however rare, would prove permanently so to the bulk of the public, and what should be aimed at is to show large quantities of very tame creatures, close to

[23] Bunn, "The Museum Outdoors: Heritage, Cattle, and Permeable Borders in the South Western Kruger National Park," in *Museum Frictions: Public Cultures/Global Transformations*, ed. Ivan Karp, Corinne A. Kratz, Lynn Szwaja, and Tomás Ybarra-Frausto (Durham: Duke University Press, 2006).

[24] Interestingly, historian Richard Sellars linked the creation of America's first parks to powerful railroad interests—the Northern Pacific Railroad Company, for example, played a significant role in the creation of Yellowstone, having a vested interest in tourism along its routes. See Sellars' *Preserving Nature in the National Parks: A History* (New Haven: Yale University Press, 1997), 9-11.

> hand, displaying little or no fear at the presence of large numbers of human beings, and which need not be sought for painfully and with difficulty, but may be readily observed by the most enexperienced [*sic*] persons at any point of the area which they may choose to visit. With a continuance of the present system of preservation, and an extension of watering facilities, I make no doubt but that at their present rate of compound progression, the numbers and distribution of the animals may justify this ideal at no distant date.[25]

What seems to be Stevenson-Hamilton's rather cynical perspective turned out to be shrewd. For the public, Kruger's value was in its charismatic, quintessentially African fauna, and in the leisurely way they could be viewed.

Visitor attitudes towards wildlife were more inclusive than those of the gentlemen hunters who championed wildlife protection in the earlier part of the century. For one thing, the characterization of 'vermin' species could not explain a peculiar enthusiasm for large predators; in his annual report for 1936, Stevenson-Hamilton wrote, "Visitors were mostly very satisfied with what they saw, which for the majority consists in being able to say they have seen plenty of lions."[26] In his book the following year, he noted "little but lukewarm interest be taken in anything but lions, with giraffe, elephant and hippo tying as bad seconds."[27] The Warden was not shy about playing to the public's fascination with *Panthera leo,* and in 1936 authored a blockbuster spread in Johannesburg's *Rand Daily Mail* alongside other well-known naturalists. Although several other charismatic species were depicted, the feline monarchy was acknowledged as the main attraction, and big cats personified as envoys of the animal kingdom. One illustration of a pride of lions bore the caption: "WHAT THEY WOULD SAY.- 'We, the wild animals of the Kruger

[25] Excerpts from Warden's Annual Reports, 1925, 4.

[26] Warden's Annual Reports, 1936, 7.

[27] Stevenson-Hamilton, *South African Eden*, 233.

National Park, appeal for your sympathy and friendship. You have been our bitter enemies for so long that it takes time to make us understand that a new and happier era has begun for us. Do not betray our trust in you.'"[28]

In an ever-present irony, popular depictions of the park seemed simpler and simpler as its complexity grew apparent to the Warden. The public sought thrills from carnivorous megafauna—annual reports and staff correspondence are riddled with reports of close encounters, including an incident of a lion popping a car tire with its teeth. A prominent South African naturalist, R.C.H. Bigalke, complained, "To the naturalist it seems amazing that the success of a trip to the Park would be judged, as it is in the great majority of cases, by the number of lions that have been seen."[29] In fact, this obsession seems to have been encouraged as a marketing device. One of the earliest guides to the park, titled "A Souvenir of Wildlife," devoted nearly two pages to lions, compared to only a paragraph for all other species except the rare wild dog. "Everyone who comes to the park wants to see a Lion, and the majority of visitors succeed in doing so," it boasted, "under conditions of comfort and safety unknown elsewhere in Africa or in the world outside a Zoo."[30] The cover, an illustration by Hilda Stevenson-Hamilton, depicts an animal tableau with the face of a Lion as its centerpiece. The complacency of the species in the presence of automobiles seemed to satisfy the warden's vision for contented tourists, and he boasted about their tameness and easy observation.

Helped by vivid wildlife photography from the likes of Dick Wolff, P.W. Willis

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[28] *Rand Daily Mail*, "Snapshot Stories of the Park," May 25, 1936.

[29] R.C.H. Bigalke, "Wild Beasts and Birds in their Natural Haunts," *Rand Daily Mail,* May 25, 1936.

[30] Wildlife Protection Society of South Africa*, Souvenir of Wildlife, Kruger National Park* (Johannesburg: Sanford & McDonald, undated 1930s), 5, NK/13/20, NKW.

and Paul Selby, visitors were captivated by an amazing display that seemed like a time capsule compared to the bustling business of modernity. Fascination with lions was understandable (they continue to cause immense traffic jams in the park, as dozens of visitors flock to each sighting), but the focus on charismatic fauna at the time seemed to exclude detailed depictions of its other elements. Even when more of the park was opened up to tourists, including areas in the north, Stevenson-Hamilton observed that "Generally speaking visitors found this new portion [Shingwedsi] rather dull from the sameness of the scenery and lack of game."[31] Differences between popular and 'professional' perception (park staff as well as naturalists) was starkly evident in descriptions of the landscape. Bigalke, in the newspaper, had written: "The whole of the Kruger National Park falls within the vegetation area known as the Eastern Savanna, which is characterised by a continuous covering of grass with isolated trees or trees in denser formation, and which is merely an extension into South Africa of the Tropical African Savanna."[32] Several promotional and informational pamphlets from the same time period, however, used rather different terminology. One of the earliest examples, a picture-book tellingly titled "In Leo's Kingdom," includes captions like, "Disregarding bushes, trees, and other 'puny' obstacles, the elephant sweeps his way though the primeval jungle."[33] Similar descriptions of vegetation, for example "primeval forest," would continue to pop up in guidebooks and public literature.[34]

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[31] Warden's Annual Reports, 1933.

[32] Bigalke, "Wild Beasts and Birds."

[33] *In Leo's Kingdom* (Johannesburg: The Almanac and African Travel Magazine, 1938), 10.

[34] *Unspoilt Africa: Union National Parks* (Pretoria: National Parks Board of Trustees, 1947), 5.

The ignorance of the public on matters of natural history, to the frequent frustration and sometimes humor of the staff, also hinted at how significantly the demographics of park visitors had shifted since its declaration—and how profoundly their attitude towards landscape had changed. "In the early days of the Park, the visitors were nature enthusiasts, people of simple tastes," wrote Stevenson-Hamilton, "yet there is no doubt that our early public, the nature lovers, had been reinforced, and to some extent supplanted by the ordinary holiday-makers from the larger cities, who, apart from the desire to see a lion, which seemed a universal ambition, came to the Park less because they were interested in what it had to display than because a visit thereto was becoming fashionable..."[35] So fashionable, in fact, that an editorial wryly complained, "my friends have all been to the Kruger National Park. The lion has become almost as commonplace as the puppy dog. They have, like so many others, been to the Park in the spirit of Sunday afternoon visitors to the zoo."[36]

In an urbanizing South Africa, landscapes did not hold the same meaning for city-dwellers as it did for people connected to its agrarian or utilitarian values. Despite nearly three centuries of colonization, South African tourists often seemed about as familiar with African fauna as first-time visitors from overseas. "[F]ew of these can have ever before seen a wild animal, except behind bars; to most even the names of the various antelopes are seemingly unknown—wildebeest, for instance, are often thought to be buffaloes; impala are usually referred to as springbuck; once a warthog (at a distance, no

[35] Stevenson-Hamilton, *South African Eden*, 245.

[36] T.C. Robertson, "More Interesting Facts About Lions: When Hunters Became Scientists," *Rand Daily Mail,* May 25, 1936.

doubt) has been set down as a rhinoceros."[37] For proponents of the park, educating the public about these matters became crucial to ensuring its survival. "I am sure that the Kruger National Park, in addition to its most important educative work in teaching people that wild animals are worth preserving for their own sakes and not merely to provide so much meat and leather, has done more than all the zoos and natural history books put together to implant some knowledge of the habits and appearance of the various creatures," wrote Stevenson-Hamilton in 1937.[38]

Of course, public naiveté towards the landscape was useful to some. Beyond the visceral, immediate appeal offered by its charismatic fauna, the park functioned as a tabula rasa for the public imagination, as a living relict of the distant past that could carry a host of meanings about the origins of the South African nation. By appealing generally to nostalgia and romanticism, politicians and other advocates could link Kruger's landscapes to a creation story that was critical to the burgeoning modern state. Prominent politicians like Jan Smuts, P.G.W. Grobler, Deneys Reitz, and Prime Minister J.B.M. Hertzog (notably all "old Boers," veterans of the second Anglo-Boer War) could encourage a classic frontier narrative about the bushveld, the ecosystem through which voortrekker pioneers made their journey into the country's interior.[39] Park advocates shrewdly proposed that it be named after "Oom" (Uncle) Paul Kruger, the iconic president of the old South African Republic that preceded the Transvaal Colony and province. The name was an ideal venue for linking conservation to national identity

[37] Stevenson-Hamilton, *South African Eden*, 233.

[38] Stevenson-Hamilton, *South African Eden*, 233.

[39] Carruthers, *Kruger National Park*, 59-61.

("Few would be willing to oppose the founding of an institution linked with the name of the great President, and one felt that much of any possible opposition would thus automatically collapse," wrote Stevenson-Hamilton).[40]

A window into the past, the park could validate a rugged, wild and sacred Boer heritage, but a heritage that the English could also access. As the South African state consolidated and industrialized, disparate factions could be united in the shared concept of wildlife as national heritage. African fauna had been used to mark South Africa's currency for many years, and in 1926, the year Kruger was declared, a springbok antelope (*Antidorcas marsupialis*) had replaced the King of England on Union postage stamps.[41] Wildlife savvy was a flattering national trait, a narrative of hard-earned competence that was embraced and embellished. Stevenson-Hamilton attested to the speed at which a visit to the area transformed into a historical fantasy in his observations about tourists' apparel: "the style of dress adopted by some, which...would have been eminently suitable for African exploration in the early days, was perhaps an indication that even greater hardships were anticipated during a motor run through the Park than were in reality likely to be encountered."[42] In other words, in the span of the Warden's tenure, safari outfits had lost their functional purpose but were newly ensconced in the fashion of reenactment.

"Civilization has brought many changes to the face of South Africa, but in the

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[40] Stevenson-Hamilton, *South African Eden*, 233. For a fuller analysis of the process of mythologizing the park, see Carruthers' chapters 'Creating a National Park' and 'Politics and the Park' in *Kruger National Park: A Social and Political History*.

[41] William Beinart and Peter Coates, *Environment and History: The Taming of Nature in the USA and South Africa* (London and New York: Routledge, 1995), 77.

[42] Stevenson-Hamilton, *South African Eden*, 245.

Kruger National Park things are much the same as they were in the days before the advent of the white man," boasted a South African Railways pamphlet. "There has been one important change, however, the construction of over a thousand miles of excellent motor roads...."[43] This version of the landscape, a paradoxical haven of both wildlife and luxury, a 'primeval' scene to be viewed from the comfort of very modern amenities, was epitomized in the long-running Parks Board booklet series 'Unspoilt Africa,' the most substantial guide of the early years, running over 100 pages. With an impala silhouetted on its cover, it provided logistical and wildlife information, along with a slew of advertisements. A typical ad depicted an automobile speeding past a pride of lions, as black warriors fire arrows after fleeing antelope in the faded background. "Times Have Changed," proclaimed the ad, which was selling Firestone tires.[44] In this vision of tourism, both the park's original inhabitants and the lesser species of antelope are obsolete—the present drives quickly, seeking thrills from big predators. Other ads featured a pith helmet next to a can of motor oil, an elephant's trunk acting as a fuel pump, and one with a picture of a bulldozer titled, "*Where life is* 'in the raw' you'll find a 'Caterpillar'."[45] Most of the sponsorship in the pamphlet, in fact, was from the kind of industry that, according to one, "moves in the van of civilization."[46]

The park, rather than rebelling against modern industry and nation, was celebrated as their proud result. Despite qualms to the contrary, 'The World's Greatest Game

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[43] South African Railways, Airways, and Harbors: Publicity & Travel, *The Kruger National Park: The World's Greatest Wildlife Sanctuary* (Johannesburg: Messrs. Sholto Douglas & Co., 1947).

[44] *Unspoilt Africa: Union National Parks* (Pretoria: National Parks Board of Trustees, 1938), 22.

[45] *Unspoilt Africa,* 1938, 20, 34, 44.

[46] *Unspoilt Africa,* 1938, 34.

Sanctuary' was the product of a civilized nation, and the pamphlet reminded readers that "the Public are the real curators and protectionists of its amenities."[47] The Parks Board also made clear the value of the veld to national history, touting in particular its role in the classic novel *Jock of the Bushveld*.[48] The imagery and associations promoted in these pamphlets made clear that Kruger was perfect for visualizing the past from the comfortable perspective of the present; Kruger was a timeless, pristine landscape that could stand in the national imagination as a quaint monument to a rugged and blessed cultural beginning. This is not so different from mythologies of the frontier in America. Americans in particular seemed to regard both Native Americans and all the peoples of sub-saharan Africa as a source of noble, pre-modern masculinity.

Although the spirit and the rhetoric of tourists and managers was often quite similar—to restore the area to its 'primeval' state, to maintain a piece of the 'old Africa'; to provide animals with a sanctuary from modernity; to dutifully preserve a shared heritage—it's clear that more concrete understandings of the landscape were divergent. To those familiar with the enduring difficulty that the U.S. National Park Service has in carrying out its dual mandate, the uneasy coexistence of nature protection and public enjoyment in Kruger may be no surprise. In the Stevenson-Hamilton years, as he enthusiastically prepared the park for tourists while eyeing the possibility of over-interference, he expressed concerns that the zeal held by naturalists for restoring ecosystems to their full vigor would cause problems for tourism and public opinion. The Warden, despite being uncomfortable with lion-killing schemes, was terrified of the

[47] *Unspoilt Africa,* 1938, 15.

[48] *Unspoilt Africa,* 1938, 41.

negative public opinion that could arise from an animal attack on a tourist and repeatedly warned that all could be lost. "One fatal accident would of course put an abrupt end to all the amenities which tourists have hitherto enjoyed of seeing lions under conditions unknown elsewhere in the world," he wrote.[49] Bigalke expressed similar concerns regarding a rare, aggressive pachyderm. "Since the black rhinoceros was formerly abundant in the Low Veld, its presence in the Kruger Park is very desirable from the naturalist's point of view, but from the point of view of allowing visitors within the Park the matter is not so simple...In view of the rapidly growing popularity of the Park and *the thoughtless things that visitors* do, the Park authorities probably do not regret that the black rhinoceros is hardly in evidence at present."[50]

Stevenson-Hamilton's long tenure came to a close after the Second World War, amid an increasingly bureaucratic conservation environment and rapidly changing ideas about wildlife management. The park, having started from scratch, was now a bustling destination for tourists. The landscape, physical and imagined, was dramatically different from when he began his term. A robust complement of wildlife roamed the area, accompanied by unprecedented infrastructure, national and international popularity, and civic investment. His time in the park had seen the rise of South Africa's first wildlife NGOs (the Wildlife Protection Society and the Johannesburg Society for the Prevention of Cruelty to Animals among them), and a steady increase in public watchfulness over conditions in the park.

Having kept a fairly tight leash on operations, the retiring warden was wary of its

[49] National Parks Board of Trustees, Kruger National Park Annual Reports, 1933, 10, NK/28/1, NKW.

[50] Bigalke, "Wild Beasts and Birds."

future under different management, and he used his last annual report to express no small amount of trepidation. At this point nearly eighty years old, his accumulated knowledge about the park was impressive, and he was doubtful about those who now proclaimed themselves experts.

> But even now one may see the cloud on the far horizon. 'Development' and 'Improvement,' 'Scientific Research' and 'Ecological Study' are catchwords with a beneficient [*sic*] sound well calculated to allay apprehension. But let those who have at heart the true interests of the unique asset we at present possess be on their guard lest these high sounding terms be merely cloaks for the sinister word 'Exploitation', meaning in this case the diversion of the course of Nature's stream into channels designed to serve some outside interest whether labeled 'scientific' or otherwise, from which, at best, may be expected results divorced from Nature's plan, and at worst the drying up of the water itself.[51]

For the aging warden, who never stopped viewing the park as under siege from all sides, nothing about its future was insured against human designs on the land. His favorite metaphor cast his beloved reserve as Cinderella, who had risen from her lowly, dirty beginnings to become, in all her finery, a wonder of the world.[52] He was already reminiscing about the change in public opinion when he published *South African Eden.* "Perhaps it is best that Cinderella's lowly past should be forgotten in her glorious present. The Park was now 'a splendid national asset'; 'a worthy heritage to be passed on to our descendants'; 'a magnificent example to the rest of the world'; 'a glorious achievement ensuring the safety of our unsurpassed fauna and flora for all time.'" In spite of the sudden abundance of superlatives, a realism begat of experience colored his writing. "I have always felt, about this last panegyric, that 'all time' must imply a very long time; indeed, I should hardly conceive that even an Act of Parliament is capable of conferring

[51] Warden's Annual Reports, 1945.

[52] Stevenson-Hamilton, *South African Eden*, 257

immortality."

And certainly, the language of immortality belied the constant flux of real and imagined conditions in the landscape, which Stevenson-Hamilton had witnessed and which continue to the present day. The warden was a keen observer of both the constructed and the material realities of nature, keeping detailed notes about biological conditions, but also about the vagaries of visitor attitudes and the fickleness of political sentiment. He lived long enough to see aspects of his early career mythologized in the calcifying origin story of the park, and was himself a testament to the always difficult process of translating rhetoric and intention into actionable strategy. Under his command, but also subject to the evolution of 20th-century ideas about nature and wildlife, Kruger had become a social institution. If its goals remained ill-defined, and its symbolic value contested, it had at least risen from a parochial experiment to a sweeping project of national and international interest. Many of the dilemmas that continue to haunt management can be found in the warden's writings and other documents from this time. Contradictions were evident from the beginning—between artifice and wilderness, between the principle of non-interference and its practice, and between commodification and purity—and they would expand and solidify as his free-wheeling era gave way to the increased governance of a high modern institution.[53]

[53] For a good analysis of the failures of centrally planned, high modern institutions, see James C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven: Yale University Press, 1999).

CHAPTER IV

THE PARK BECOMES AN INSTITUTION: SCIENTIFIC MANAGEMENT, BUREAUCRACY, AND LANDSCAPE MYTHOLOGY AFTER STEVENSON-HAMILTON

Real knowledge of Nature is only to be acquired by long study and sustained observation in the field of Nature herself. Technical book study is only a preliminary. The 'biological expert' today is in danger of acquiring a one track mind, enabling him to 'see the trees only' to the exclusion of the surrounding 'forest' itself. This disqualifies him from necessarily being in a position to give advice of value on subjects lying outside the narrow path he is accustomed to tread.... There is in fact a leaning towards a form of bureaucracy, contemptuous of everything but itself, and arrogant in expression of dogma.
–James Stevenson-Hamilton, Warden's Annual Report 1945.

A number of factors contributed to a shift in the park through the late forties and fifties, which would culminate by the 1960s into the formation of a codified, era-defining style of management. The construction of the apartheid state by the newly elected National Party; the maturation of biology and ecology into a professional field with certifiable experts; the fast-growing rates of visitation; and the logistical authority vacuum left in the wake of Stevenson-Hamilton's retirement were all responsible for molding the park into an institution whose key operations might be recognizable today.[1] Much of the policy and rhetoric that continues to shape the landscape of the park, and mediate people's relationship to it, was forged between Stevenson-Hamilton's exit and the wane of apartheid in the last decade of the 20th century.

[1] Jane Carruthers, "Conservation and Wildlife Management in South African National Parks 1930s–1960s," *Journal of the History of Biology* 41 (2008): 203-236.

Rudolf Bigalke, the always vociferous zoologist, was also one of the main agitators for comprehensive, scientific management in the park. In a 1949 complaint to the Parks Board, to which he had recently been appointed, titled "Scientific Administration of the Kruger National Park," he laid out a series of discrepancies about the operations of park staff and its goals. Particularly disputed was Stevenson-Hamilton's claim that "nature should be left entirely alone," which his successor, Warden J.A.B. Sandenburgh, also endorsed. "For a long time I have suspected that this policy was being preached but not practised," wrote Bigalke.[2] He cited the more than 700 animals killed by park staff in the previous three years as evidence, and he accused the larger part of the park's staff of being more comfortable as hunters than as naturalists, noting that "...in advertisements inviting applications for the posts of rangers one looks in vain for any clause requesting candidates to furnish information about their knowledge of the flora and fauna..."[3] Familiar with scientific management practices elsewhere, adamant about the incompetence and inconsistency of park staff, and anxious about public opinion, Bigalke warned that "Such action reduces the whole matter to a farce and exposes this Board to ridicule." He insisted, "We must at all costs avoid creating the impression that the Kruger Park is a shooting-box for a privileged few."[4]

Animals killed by staff may have been the least of the contradictions involved in Stevenson-Hamilton's philosophy of "Keep it Simple, Keep it Wild." His rhetoric appears to have coexisted with the extensive development of artificial watering holes and

[2] R.C.H. Bigalke, *Scientific Administration of the Kruger National Park*, 1949, NK/28/4, NKW.

[3] Bigalke, *Scientific Administration*.

[4] Bigalke, *Scientific Administration*.

dams, tourist infrastructure, and attempts at total fire suppression.[5] It's possible that these measures were political compromises to buttress public support and keep the park afloat. He also may have viewed them as practical necessities that posed no existential threats to the balance of nature. The warden seemed to be most wary of interventions from external authorities that had no apparent interest in such a balance; he was particularly defensive when it came to veterinarians, whose repeated prescriptions to stave off disease in the park he viewed as foolish (he was certainly right about their ineffectiveness); and when accosted by public opinion to destroy lions, he typically dismissed complaints as hysterical and intended to sabotage the park.

Nevertheless, the changes heralded by Bigalke and buttressed by the centrally organized, command and control logic of the apartheid state would entail far more intervention in the landscape than what the old Warden had wrought with his limited resources and idiosyncratic management style. In line with post-World War II trends in wildlife management and Bigalke's damning criticism ("An inconsistency of this kind is to be expected in cases in which it is attempted to conduct national parks without trained staff, and particularly without any research whatever into the problems concerned"), the park would soon become enmeshed into state bureaucracy and begin to hire a 'technically trained' staff to actively manage the environment.

The first step in this development was to hire professionally trained biologists and other scientists to work in the park. Bigalke himself was the first professional scientist appointed as a Member of the Parks Board, in 1949, although he soon left because of

[5] Joubert, *Kruger National Park*, 1:56-61.

political squabbling.[6] His lobbying, as well as the inflammatory Hoek commission to address mismanagement, succeeded in appointing T.G. Nel as the Parks Board's first biologist in 1950.[7] Nel immediately set about conducting experiments in Kruger and publishing scientific bulletins, and the flora and fauna section of the Warden's annual report was turned over to him. Compared to Stevenson-Hamilton's observations about the landscape, Nel's carried the authority of precise, empirical language, but the premeditated nature of the studies and the briefness of his tenure prevented the sort of sweeping, long term conclusions about the park found in the old warden's reports. Nel set research priorities, and also management doctrine, although he apparently had difficulty getting rangers and staff to cooperate.[8]

The priorities set by Nel's research section reaffirmed some of Stevenson-Hamilton's ideas, especially the rhetoric of 'exhibiting' the park in its natural state—a rhetoric that continued to be undermined by increased habitat modification, such as water provisioning and the suppression of ecosystem processes like fire. The policies laid out in the 1950s recommended intervention in biota populations only in extreme cases—where a species is extinct, it should be reintroduced, and those under threat of extinction should be managed only to the point of self-sufficiency. Crucially, the section also recommended that species with no natural predators be monitored for increase and distribution, and cautiously controlled based on 'minimum carrying capacity'. Although carrying capacity has since been critiqued as a simplistic model more suited to agricultural output, the

[6] Carruthers, "Conservation and Wildlife Management," 217.

[7] Carruthers, "Conservation and Wildlife Management," 222.

[8] Joubert, *Kruger National Park*, 1:134-135; Carruthers, "Conservation and Wildlife Management," 223.

research section emphasized that Kruger was not a farm, and it would not be managed as such.[9] Still, 'pasture' continued to be used as the dominant descriptor of savanna grasses, and the Parks Board even proposed that instead of staffing more scientists, ecological research should be conducted under the auspices of the Department of Agriculture.[10]

Nel's studies and research objectives reflected a desire for basic biological understanding of ecosystem components in the parks. He published bulletins, among other things, on elephant sizes and distributions, antelope grazing and watering habitats, and the effects of fencing and of burning. One window into his understanding of the larger human and ecological relationships in the park was a report titled "Tourism, Its Development and Control From the Ecological Point of View." In it, he explained that scientific approval for tourism had waned due to a desire for more definite evidence of its ecological impact. Although he made generalizations that fit easily within the history of conservationist rhetoric ("Man has from time immemorial been a dangerous enemy to the animal and wherever he has shown himself to the animal he has usually evoked a flight reaction"),[11] he used some specific terminology that reveals innovative thinking about human-animal interaction. For example, he grouped animals as either 'Technophile' or 'Technophobian', depending on whether they enjoyed using human 'institutions' like roads and other infrastructure, with eaves-nesting birds as an example of the former and large mammals of the latter.

About what is now called the heterogeneity of the landscape, Nel wrote, "A Park

[9] Joubert, *Kruger National Park,* 1:134-135

[10] Joubert, *Kruger National Park,* 1:136.

[11] T.G. Nel, *Tourism, Its Development and Control From the Ecological Point of View*, undated 1950s, 1, NK/28/4, NKW.

such as the Kruger Park has been described as a gigantic mosaic of various coloured multiform little stones lying alongside, in, on and over one another."[12] Within the mosaic, the park "consists of various subjective milieux, milieux are composed of environments. In the environments again are distinguished the territoria, intimate environments or 'residential areas'; it is that portion of the milieu to which in accordance with the type, the individual, the pair or the herd are attached."[13] These residential areas, he believed, were instrumental to understanding the habits and movements of animals, who, rather than simply drifting randomly across their confined area, operated according to "definite rhythms" that also varied everyday in a "small space-time system," and across longer time scales in a "big space-time system."[14] Articulating what are now often referred to as different spatio-temporal landscape scales, Nel put his finger on the complexity of processes and patterns that ripple through Kruger.

It certainly wasn't a complexity he was afraid of—his observations, far from being idle, were pre-requisites for human oversight. "It should be remembered," he wrote, "that it is particularly the attachment to the intimate 'residential areas' which makes it possible for us, inter alia, to establish National Parks such as the Kruger National Park and enables us to control its Nature."[15] Nel, unlike Stevenson-Hamilton, acknowledged the reality of human management and manipulation of nature in the park, which Stevenson-Hamilton engaged in but seemed to elide. Even as he alluded to the

[12] Nel, *Tourism*, 6.

[13] Nel, *Tourism*, 2.

[14] Nel, *Tourism*, 3.

[15] Nel, *Tourism*, 4.

possibilities of habitat-based governance of wildlife, he took pains to uphold the rhetorical separation between man and nature. "Both a National Park and a Zoo have this in common that they are both in the service of science, education and the delight of visitors," but the difference was that in a park "the minimum animal-man relation is aimed at," and this difference "for the sake of the natural and the biology of the animals must be retained for ever."[16]

Nel gained a colleague in 1951, the botanist H.J. van der Schijff, who first comprehensively surveyed and classified Kruger's vegetation and the influences on it—what van der Schijff referred to as the beginning of ecological research in the park. Although he complained about the total absence of colleagues to discuss his observations with, he drew substantial conclusions about a number of landscape processes, including fire, herbivory, bush encroachment and the role of water sources. Citing English botanist Arthur Tansley's seminal 1939 "The British Islands and Their Vegetation," van der Schijff propagated the theory that natural communities tend towards a fluctuating equilibrium between biotic and abiotic conditions—a balance that would be more or less stable were it not for the influence of "civilized man." While "primitive man" formed a part of this equilibrium, "civilized" man was a "completely dominant agent" whose destruction of the original system meant that now some new equilibrium must be found.[17] This theory would prove crucial in calculating the carrying capacity of the park to justify culling and other quota-based management interventions. Also, though, Van der Schijff's surveys were a comprehensive labor of extreme dedication; vegetation was centered as a

[16] Nel, *Tourism*, 8.

[17] Van der Schijff, "Ekologiese Studie van die Flora van die Nasionale Krugerwildtuin" (doctoral thesis, Potchefstroom University, 1957), 52, translated by F. Kruger.

critical characteristic of Kruger's ecosystem, and one that should be monitored closely for change. His mention of risks to the scarcer tall tree species in the park are especially prescient in light of the park's current Thresholds of Potential Concern.

Although neither van der Schijff nor Nel lasted through the 1950s (resigning, as other scientists did, amid the controversies of the coalescing bureaucracy), they marked a shift in the tenor of the park towards Science (with a capital S) as a key rationale for intervention and management in the landscape.[18] Other additions to Nel's staff were A.M. Brynard and Dr. U. de V. Pienaar, biologists who would both go on to become Wardens of the park (Brynard in 1961, and Pienaar in 1978) during the most intensive period of direct management intervention in Kruger's history. In 1958, Kruger began its in-house research journal *Koedoe*, which continues to this day. No advancement of science, however, could remove the controversies and contradictions of management, which were to deepen as the park's inner workings became accessible to a larger and more informed cast of stakeholders. Perhaps mocking the romanticism of the past, or the complicated contemporary politics around parks, Nel wrote to a colleague in 1956 that "Management in National Wild Life Parks differ from Management outside Parks. A plan of research must take this into consideration (a sanctuary is 'holy')."[19] Nel's sarcasm here, frustrated by internal affairs in the park, expressed how much differently science operated in a landscape that was so freighted with meaning.

As overarching understandings of Kruger as a system continued to develop

[18] Carruthers, "Conservation and Wildlife Management," 219-230.

[19] T.G. Nel to A.D. Cullen, August 30, 1956, D/2, NKW.

alongside the sophistication of its management structure,[20] so did the specific processes of governance and control used to regulate nature in the park. During the 1960s, managers began moving towards the complete monitoring and control of animal and plant species, to be carried out by comprehensive census counts and enforced by complete fencing of the park. In effect, Kruger was becoming a contained dominion, within whose boundaries the system was expected to behave in the ways that originally warranted its declaration as a park.[21] This entailed a lot of policymaking and intervention: prescribed burn rotations to achieve proper vegetation conditions; increased provision of artificial water sources (dams and boreholes) to explicitly choreograph game movements and grazing; extensive animal reintroduction, relocation, and husbandry of scarce or locally extinct species, such as rhino as well as roan and sable antelope; and so on.[22] This governance also encompassed black residents still living within the park, referred to as 'squatters', who also had a census. Their lives and relationships to the landscape were closely monitored by park staff, who developed periodic strategies to remove individuals not in the employ of the park, especially male heads of household.[23] Furthermore, during this era South African blacks were mostly proscribed as tourists in the park, and were instead directed to the adjacent Manyeleti Game Reserve for Africans, in existence in its

[20] See Joubert's 'Organograms' detailing organizational change in *Kruger National Park:* 1.

[21] Joubert, *Kruger National Park,* 1:273-274.

[22] The first significant population of 128 White Rhino was reintroduced during the 1960s. See Joubert, *Kruger National Park*, 1:261.

[23] Various 'squatter' updates are present in annual reports ranging from Stevenson-Hamilton's time all the way through at least the 1970s, in NK/28/1, NKW.

segregated form from 1967 until the 1980s.[24]

While acknowledging the dynamic fluctuations of Kruger's landscapes and its animal populations—and how much more research needed to be done to understand them—the policy for management was to predict changes that could have harmful consequences, and where necessary, preempt them. In this way, scientists and managers involved themselves in a very clinical sense in the operations of park ecosystems, making forecasts with prescriptions to match. Where their interventions backfired or had unexpected side effects, they took palliative measures. There was no more significant arena in this sense than the diagnostics involved in the control of animal populations. In particular, well-established species of large herbivores (elephant, buffalo, wildebeest, zebra, hippo, and during the earlier years, impala, but never giraffe) and their more common predators (lions and hyenas) were the locus of a series of responses to impending or observed threats.

Deciphering a mixture of factors like medium and long term rainfall patterns, animal population cycles, seasonal migration, water distribution, and inter-species relationships, managers decided when, where, and how severely to curtail or augment each species.[25] The threats posed by each population scenario varied, depending on the circumstance. For example, herbivores that heavily utilized a certain area might change the composition of that habitat—especially concerning was any transformation of woodland and shrub savanna to open grassland. This change, or any depletion of

[24] Carruthers, *Kruger National Park*, 99-101. See Edward Teversham's "The Nature of Leisure in the Manyeleti Game Reserve for Africans, 1967-1985," *The International Journal of the History of Sport* 30, no. 16 (2013): 1877-1888. Interestingly, Manyeleti is now a private game reserve but retains its name.

[25] See Joubert, *Kruger National Park,* 1:326-362 and 2:138-190.

available resources in an area, might have damaging impacts on other organisms, including plants but especially other 'game' species, and so must be mitigated. So, an animal that was competing with a rarer animal for food, space or water must be curtailed; or, predators that had increased due to abundance of one prey species might be curbed to relieve pressure on a more vulnerable prey species, like roan or sable antelope. In addition to immediate concerns, there were also overarching calculations of carrying capacity that prescribed the total populations of each species.

Intervening in these processes on such a large scale was only possible with a serious increase in staff and equipment, much of it begged or borrowed in the early days from the military.[26] As a first step managers prescribed rotating burns to change vegetation dynamics and redistribute grazing, or modified artificial watering points to increase or relieve animal densities in certain areas, but the ultimate solution was to relocate and destroy animals on a fairly massive scale. The process of achieving this evolved over the years and was enabled by the availability of immobilization and euthanasia drugs such as M-99 and Scoline. Using crossbows with darts, then tranquilizer guns, and sometimes rifles, the park developed a systematic methodology for culling that operated for almost three decades. During this period park staff killed more than 75,000 medium-to-large herbivores (in terms of bulk and quantity, mostly elephants and buffalo, which continued to be culled all the way until the 1990s) and more than 1,000 lions and hyenas. The undertaking (literally) required the construction of a 'By-products Depot,' where meat, skins, and other carcass leftovers were hauled from all over the park and processed for sale or distribution (fig. 4). A.M. Brynard explained, "There is no reason

[26] Dr. Salomon Joubert, personal communication, July 22, 2014.

whatsoever, why a National Park should not contribute in relieving the world shortage in protein. Apart from this, these products could bring in very useful revenue which in turn could be used to the advantage of Nature Conservation in National Parks."[27]

Figure 4. Culling by-products from Kruger's depot

Kruger, during this era, was mobilizing in the face of a host of crises, not the least of which was unprecedented drought, a periodic occurrence in these ecosystems but no less severe or unpalatable to conservationists for that. Many management policies codified longstanding concerns about environmental change—desiccation, bush encroachment, predator increase, and deforestation among them. But these policies also had to respond to an inherited legacy, the increasing weight of historical management,

[27] A.M. Brynard, Speech to Wildlife Protection Society, 9/26/1966, NK/13/20, NKW.

which they were in turn contributing to. A shift was under way in how management reflected upon its actions—the landscape was becoming so wrapped up in well-documented human intervention that, for those who cast their eyes back, the main challenges started to seem more like the burdens of history than any set of intrinsic problems in nature. Dr. U. de V. Pienaar, instrumental in the interventionist era, wrote that the necessity of animal control should be attributed to "erroneous conservation practices in the past," whose "subsequent undesirable conditions cannot be ascribed to the inherently destructive grazing routines or techniques of the game animals."[28] In spite of this awareness, as is always bound to be the case, Pienaar and the others overseeing Kruger's landscape contributed their own set of changes to the land, which would later be renounced—particularly the prolific redistribution of water and a gruesomely intensive campaign of population control. Many of these policies were modified and reformed with time, but the basic suite of operations and institutional interventions were largely similar until the early 1990s, especially in regards to culling and water provision.

Reflections, Influences, and Reactions to the Interventionist Era

"Time, which so often destroys or disfigures, cannot now rob the South African people of their great heritage in wild-animal and bird life."[29]
–D.F. Malan, former Prime Minister, Union of South Africa, 1954.

With these changes, and in some ways enabling them, came newly deployed rhetoric about the role of nature in South Africa, for which Kruger was the flagship

[28] Pienaar 1965, quoted in Joubert, *Kruger National Park*, 1:286.

[29] D.F. Malan, foreword to *South African Wildlife in Pictures* (South Africa: Central News Agency Limited, 1954).

landscape. After all, everyone employed in the park, however much agency they were given, acted within a broader mandate—from the public, but especially from the government and its politicians. Although Kruger was long deployed for its national symbolism among whites, it was after the 1948 election of the National Party and the subsequent dominance of an aggressive and state-centralized Afrikaner identity that the park was to gain its most explicit political orientation. Public buy-in to Kruger's ecosystems became especially important in the context of a modern, industrializing and (by 1961) stridently independent state.

For one thing, it was an important source of identity in apartheid's driving religious and cultural narrative. D.F. Malan—who led the National Party as Prime Minister after it won victory in the 1948 elections on a platform of strict apartheid—wrote in the foreword to a popular animal guide: "We are an out-doors people, uplifted and inspired by our veld and forestlands and mountains, and our wild creatures are to our great spaces what jewels are to a crown."[30] The guide complemented his foreword with the words of Englishman John Ruskin: "Without perfect sympathy with the animals around us, no gentleman's education, no Christian education, can be of any possible use."[31] The poet and intellectual reportedly uttered this sentiment at an 1877 meeting of England's Society for the Prevention of Cruelty to Animals, from which the conservation-minded chapter in South Africa descended.[32]

This fundamental link between land, wildlife, theology and national character was

[30] D.F. Malan, "South African Wildlife."

[31] D.F. Malan, "South African Wildlife."

[32] John Ruskin, *The Complete Works of John Ruskin, LL. D: Volume 18* (Philadelphia: Reuwee, Wattley & Walsh, 1891), 314-315.

in Malan's use more specific than the version deployed during the park's establishment, which held that wildlife was a common property of empire, or of humanity. Here, nature was the heritage of a specific lifestyle and people, alluding to the Dutch pioneers who featured so prominently in Nationalist history. Fauna was a "tremendous inheritance," at once a gift and a claim to property on behalf of Malan's audience. Like any wise inheritance, it would not be squandered as a passive resource, but could be used to further establish South Africa's place in the world: "It will increasingly prove one of the primary magnets which, through the decades, attract to our land visitors from Europe, America, and elsewhere...Through such contacts we gain many friends and many champions of our country."[33] In a rhetorical association that played out in the establishment of bureaucratic control over nature, Malan firmly linked the romantic past and invigorating 'spirit' of Kruger to the national and international process of state-making.

Rocco Knobel, who served as the first full-time Director of the Parks Board (1953-1979), claimed that parks were a moral prescription that could mitigate the ethical downfall of the younger generation, in line with his previous job in the Dutch Reformed Church.[34] This post-World War II discomfort with modernity and its values seems to hold a certain universal logic; expressing malaise with everyday life and looking for solace in a place seemingly devoid of those concerns. Such a sentiment during the decisive modernism of apartheid, though, had a malignant undertone that implicated blacks in the suite of woes to be escaped. David Bunn describes, as an example of the "inextricable connection between aesthetics and power," the 1960s planting of 500,000 papaya trees

[33] D.F. Malan, "South African Wildlife."

[34] Rocco Knobel, *Proceedings of the Conference on Nature Conservation of the Republic of South Africa and South West Africa* (Skukuza: National Parks Board of Trustees, 1962).

along a popular entrance road to the park, in order to screen black 'shantytowns' from sight.[35] The settlements that were so disruptive to the vista had not just sprung up, but were the beginnings of the government's massive relocation of people into tribalized homelands, or 'Bantustans,' three of which bordered the park.

An 'escape' to the veld wasn't just for personal edification. Knobel described South Africa's National Parks as "high schools of patriotism," invoking J. Horace McFarland, who helped establish the U.S. National Park Service.[36] McFarland, influential president of the American Civic and Planning Association, called parks "the spots in which the casual citizen is likely to become a real citizen, willing to work or fight for the United States."[37] The patriotism to be generated in Kruger and other parks would be increasingly required as white rule in Southern Africa became more tenuous. The surge of independence movements in African states after World War II, especially those bordering South Africa after 1965, placed stewardship of nature within a larger moral justification for disciplined, orderly white governance. P.O. Sauer, the Minister of Lands to whom the Parks Board was responsible, warned a conservation conference that, "The preservation of our fauna in South Africa has become more important than before when we see what is taking place in the rest of Africa."[38]

The idea that black self-governance was incompatible with nature conservation re-

[35] David Bunn, "A Bushveld Golgotha: Disease, Cattle, and Permeable Borders in the South Western Kruger National Park," presented at Historical Geographies of South Africa Symposium, University of Sussex, April 2002.

[36] Knobel, *Conference on Nature Conservation*.

[37] J. Horace McFarland 1916, quoted in *American Civic Planning Annual* (Harrisburg: Mount Pleasant Press, 1948), 1.

[38] P.O. Sauer, introduction, *Proceedings of the Conference on Nature Conservation of the Republic of South Africa and South West Africa* (Pretoria: National Parks Board, 1962).

inscribed earlier fears of environmental apocalypse in Africa by reversing the cause. At the turn of the 20th century, conservationists 'saved' a representative sample of primitive Africa from the onrush of white civilization, a colonial prudence that became self-congratulatory—hailed as an indicator of mature society.[39] Now, in the second half of the century, as white authority was jeopardized, the great rhetorical threat to nature became those who sought reparations for the colonial onslaught in the first place. "Self-government to most of the African states is going to mean the extinction of a great deal of their fauna," said Sauer, "and we in South Africa will probably, in the not too distant future, be the showpiece of the world and serve as a museum for the scientist of what remains of the once great wildlife of the African Continent." White society had gone from the principal menace to African wildlife to its principal savior. Of course, the devastation of African fauna was not mythical, either in the earlier era or in this one, but the move to firmly embed Kruger's mission in the moral framework of apartheid can't be dismissed as a coincidence or as having no implications for the landscape. Politicians capitalized on the association between wildlife management, science, and civilization to present the South African state as the arbiter of an irreplaceable world heritage.

Sauer's remarks about conservation played to the widespread belief about Afrikaners rapport with nature, but this exceptionalism could just as easily have been turned on its head into a story about the disruptive relationship between the apartheid state and nature. Evidence of the fluid cooperation between white conservation authorities and counter-insurgency specialists has been well documented; Stephen Ellis

[39] Stevenson-Hamilton, among others, espoused this view, as did noted South African hunters and conservationists at the turn of the century like F.C. Selous. Sauer remarked at the conference that "the standards of civilization of any country is shown in the efforts of that country to preserve its fauna and flora."

uses Rhodesia's Selous scouts as an example (incidentally named for Southern Africa's most famous 'penitent butcher'), a guerrilla force of trackers and scouts financed in part by the South African Military Intelligence Directorate, who trained in wildlife reserves and recruited members with knowledge of the bush, including some with experience from parks.[40] Similar relationships existed in Namibia's Koevoet unit, and South African Intelligence also collaborated with RENAMO and UNITA, reactionary forces in Mozambique and Angola respectively.[41] These relationships, particularly with the latter two, involved the South African military assisting in the exploitation and sale of wildlife products, especially ivory. One allegation estimates UNITA's killing of elephants at 100,000 over the course of its operations, with well-established channels of ivory sale through South African officials.[42] In this way, the South African state instigated widespread ecosystem destruction elsewhere, even while claiming it mitigated harmful changes by tending the beloved landscapes in Kruger.

Kruger itself was also increasingly valuable as a strategic landscape for the military, as South Africa's counterinsurgency and guerrilla wars across southern Africa deepened.[43] The park, being a sparsely populated expanse on the border of both Mozambique (Portuguese East Africa until 1975) and Zimbabwe (Rhodesia until 1980) was of obvious interest to the apartheid government. A permanent South African Defence Force presence began in the 1970s, with several prominent staff members receiving

[40] Ellis, "Of elephants and men."

[41] Ellis, "Of elephants and men."

[42] Ellis, "Of elephants and men."

[43] Ellis, "Of elephants and men."

training as military officers. [44] Bases along the border were established in the 1980s in response to an influx of refugees from the Mozambican conflict.[45] Although these were clear products of the apartheid government, Kruger's complicated relationship with the military continues into the present as poaching intensifies, and the trappings of war can still be considered an element of its landscape.

Closely affiliated with the machinations of the state were those of industry and business, which, in their public relations, were also able to use Kruger and its African wildlife as strategic tool. There had long been a reciprocal relationship between increasing ecological intervention in the park and industrial technology—water infrastructure, road and facility construction, technology used by the staff (e.g. vehicles, radios, aerial census aircraft), and a host of other functions all provided a wedge for private interests to assert their value to the project of conservation. This insinuation was aided by a near-constant insufficiency of funds in Kruger, so that friendly business relationships were cultivated from the very beginning of the park. On the other side, companies providing crucial commodities, such as gas, food and beer to tourists could also claim to be integral to the experience of "nature" in the park. The pages of park maps, guides, and magazines, as well as NGO newsletters and newspapers were dotted with advertisements that colorfully co-opted Kruger's ecology. "How does the lion remain king of the jungle? For a start, he's got power," read a Ford ad in *Custos,* the Parks Board's in-house magazine; "Power, pride, background and ambition. That's what keeps

[44] Joubert, *Kruger National Park,* 2:267-169.

[45] Joubert, *Kruger National Park,* 2:527-531.

the lions of this world on top."[46] A Total ad showed a dappled, peaceful pair of young Impala and quoted Knobel: "Man cannot create. He cannot even re-create that which he has destroyed. He can only conserve."[47] Another read, "Total strives to safeguard Our Green Heritage," superimposed over a full-page color photo of a buffalo.[48] "Plascon protects and cherishes beauty," soothed the global plastics manufacturer.[49]

Using nature's symbolic value in ads targeted at conservationists, conglomerates presented themselves as invaluable allies to a movement that might normally regard the actions of industry as highly suspect—a swap of cash or goods (ads, donations, or equipment) for symbolism. Reflections on how the South African state and its industry deployed the park in their promotional materials recalls the remarks of literary scholar Lawrence Buell on literary pastoralism and nature writing, which he argues are "always both counterinstitutional and institutionally sponsored. This is a troublesome dichotomy. It is very hard to keep one's eye steady on a target moving in two directions at once…."[50] Whether cynical or earnest, this type of marketing cemented associations that played out in the ways that Kruger is absorbed into the context of society.

A visitor in 1967, noting the park's prescribed burning policy "with deep concern," asked: "What was done to ensure that the following were removed or were not

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[46] Advertisement, *Custos*, December 1971, 4.

[47] Advertisement, *Custos,* December 1971, 2.

[48] Advertisement, *Custos,* August 1978, 2.

[49] Advertisement, *Custos*, November 1987, 19.

[50] Lawrence Buell, "American Pastoral Ideology Reappraised," *American Literary History* 1, no. 1 (1989): 20.

destroyed:- 1. Tortoises. 2. Chameleons and allied lizards. 3. Bushbabies and allied animals. 4. Shrubs, flowers and succulents?" Then the writer warned, "A copy of this letter has been forwarded to the Wildlife Protection and Conservation Society of South Africa"[51]

Of course, Kruger's purpose and value can't just be boiled down to its official and structural uses for the South African state—it was, and continues to be, important for a number of other stakeholders with investments in its landscape and creatures. One organization in particular, the Wildlife Protection Society, closely monitored changes in the park and the ways that the institution addressed them. It communicated its views strongly to management, even as its members were increasingly categorized as enthusiasts rather than professionals. The society, conglomerated from regional groups during the lobbying attempts to declare Kruger a national park in 1926, retained the right to nominate one seat on the Parks Board through most of Kruger's history, and is still active as WESSA (The Wildlife and Environment Society of South Africa).[52] As the park became a full-fledged institution with systematic plans for Kruger's landscape, so too did the Wildlife Protection Society, which began publishing a newsletter after the Second World War and leading its members on regular field excursions in Kruger. Two incidents, a decade apart, illustrate the protective watchfulness of self-identified nature lovers over the landscape and their relationship as an interest group to decision-makers in Kruger.

In the first incident, the secretary of the Wildlife Protection Society sent a pair of

[51] "Letters to the Editor," *Fieldworker* 5, no. 29 (1967).

[52] "Our History," *WESSA*, last modified 2014, http://www.wessa.org.za/who-we-are/our-history.htm.

editorials to Rocco Knobel, the director of the Parks Board, to be fact checked before publication. It was 1955, in the tumult of Kruger's reorganization, and the articles detailed a frustrated litany of concerns about the nature of the park and its lack of transparency. Amidst the vitriol in both is a sense of the immense personal attachment to the fauna of the park—but also, an articulate philosophy towards National Parks that retains remarkable relevance. One began by praising Stevenson-Hamilton's era as one in which "the Kruger National Park was upheld as a model of what an African National Park should be."[53] From that baseline, things had since gotten a lot worse. The root of the author's concern lay in his discovery that certain animals were being regulated by park staff. "I have even heard one ranger state, as his considered opinion, that elephants should 'be controlled, as they are causing considerable damage to the bush'! And this, I may remind you, is in a National Park where all forms of natural life are supposed to remain as secure from human interference as possible."[54] The gravity of this prospect, to the letter-writer, could not be understated. "It is utterly outrageous that in a so-called "Sanctuary" for all wild life, that such things are going on: and it is a disgrace, which, if necessary, shall be published throughout the world." He insisted, "The only form of control, really necessary, is strict control of the human element." Furthermore, "We do not want, either, rangers and wardens over enthusiastic about their own small personal "theories"; anxious to prove how clever they are! What we want, and should demand, are men humble enough to learn their knowledge from Nature itself, realising that Nature

[53] C.T. Astley-Maberly, enclosed in letter from G.B. Treadwell to Director of National Parks Board, April 26, 1955, NK/23/5, NKW. Significantly, Astley-Maberly, a wildlife artist, had been influential in the park's aesthetics during the Stevenson-Hamilton era.

[54] Astley-Maberly, enclosed in Treadwell, April 26, 1955.

works slowly—but very surely—and that they must leave "theories" alone and LEARN FACTS."[55]

The other editorial, focused on the apparent disappearance of most lions from the park except for tame 'circus lions' near Skukuza, bluntly asked, "Are we supposed to believe this stupid conceit and interference of man?...We see man's interference reaping its illbegotten [*sic*] reward everywhere except where nature is left alone…. Let us not upset the balance of nature as we are doing to-day. If we are not very careful, science will very soon bring punishment to ourselves and suffering to our animals."[56] The author also showed nostalgia for a past era, advising that "The less we introduce man made theories into our game Reserves and leave them to nature, rather than the textbooks, the sooner we will again see those magnificent prides of the Stevenson-Hamilton period."[57] The indignant criticisms in these two letters struggled through contradiction—reminiscing about an unregulated era but lambasting the rangers leftover from it, and taking managers to task for being out of step with the principles of modern National parks while at the same time dismissing 'textbook' science. They misrepresented the extent to which their preferred era actually interfered in nature, but there was no contradiction in their rejection of how things were being handled at the moment: "Control is altogether unnecessary!"[58]

The first editorial accused rangers of being "simply 'Game-keepers,' of the old-fashioned and now defunct type" and specifically targeted the Parks Board director,

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[55] Astley-Maberly, enclosed in Treadwell, April 26, 1955.

[56] R. Hewitt Ivy, enclosed in letter from G.B. Treadwell to Director of National Parks Board, April 26, 1955, NK/23/5, NKW.

[57] R. Hewitt Ivy, enclosed in Treadwell, April 26, 1955.

[58] R. Hewitt Ivy, enclosed in Treadwell, April 26, 1955.

writing that "Mr. Knobel is a capable and efficient practical administrator and organiser, but one wonders from whom he gets his advice about matters concerning the fauna itself!"[59] Neither author appreciated being left out of the loop. "And let us remember that it is OUR Park: we, the citizens of South Africa, are its rightful owners," one wrote, "and the Board of Trustees, as well as the resident ranger staff, must answer directly to us, for the way they are managing it." "Surely," concurred the other, "the public have a right to ask, if control is taking place...These are just ordinary questions that the real owners of our Reserve feel we would like answered."[60] The civic duty of South Africans was to hold the situation to account in no uncertain terms—"the South African public must refuse to be lulled by 'comforting' reports, and must insist upon far wider information as to what is being done 'behind the scenes' in their Park."[61] Failing to do so, in the populist rhetoric of the authors, held grave consequences. "The welfare of our Kruger Park fauna must no longer be held, unquestioned in the hands of a few—mostly ill-equipped officials. Unless we awaken to our responsibilities in this connection, we shall deserve our share of the blame if the Kruger National Park eventually degenerates into becoming merely a glorified Zoo..."[62]

Each author was sure that his sentiments were widespread, and both opinions refracted the high-level rhetoric deployed by Malan and park bureaucrats through an individualist lens. If the park and its creatures were indeed a common heritage, then its

[59] Astley-Maberly, enclosed in Treadwell, April 26, 1955.

[60] R. Hewitt Ivy, enclosed in Treadwell, April 26, 1955.

[61] C.T. Astley Maberly, enclosed in Treadwell, April 26, 1955.

[62] C.T. Astley Maberly, enclosed in Treadwell, April 26, 1955.

constituents (the 'real owners') were certainly going to be vocal about how it was managed. If wildlife was property, then the disputes inherent in the politics of a scarce commodity could only grow more heated. Accordingly, none of these criticisms have altogether gone away, and some have strongly resurfaced. The voices of these concerned citizens underlined a central contradiction that ensnarls opinions about whether and how to regulate protected areas—the desire to preserve nature in a desirable state amidst a cascade of changes competes with an equally powerful aversion to obvious manmade artifice in sacred places. For managers at the time, the tradeoff was simple, even though it might hold a tangle of cognitive dissonance on closer examination; 'pristine' was a defined set of conditions that must be maintained.

For his part, Knobel rebutted the letters as completely unfounded (combined, they must have appeared as quite a screed) and provided a few details on the operations in the park. "P.S.," he warned, "Personally I do not think that the publication of the article or the letter can do the Wild Life Protection movement or your Society any good."[63] Managers in the park would remain aware of the potential for such bad publicity, however, and as culling became more intense Pienaar suggested that authorities "provide the necessary propaganda not only to justify such a campaign, but also to convince the general public of the necessity of 'controlling the numbers of an animal species for the sake of its survival.'"[64] A humorous cover of an Honorary Rangers' newsletter in 1970 depicted the debates around management rationale with a monkey pulling papers out of a

[63] Rocco Knobel to G.B. Treadwell, May 5, 1955, NK/23/5, NKW.

[64] Pienaar, quoted in Joubert, *Kruger National Park,* 1:345.

briefcase, exclaiming, “There’s no reason for it….it’s just our policy!” (fig. 5).[65]

Figure 5. Cover of Honorary Rangers News Letter, 1970

[65] *Honorary Rangers News Letter* 4, No. 3 (1970) NK/7/2, NKW.

As was always the case in the park, the potential volatility of public attitudes, and authorities' sensitivity to them, was key to how management presented itself and how changes in the landscape were officially framed. Several of the former staff members I spoke to described various measures they took to keep the more brutal elements of culling out of the public eye—but secrecy was never totally feasible. The more important task was convincing the public that this kind of intervention was ethically valid, and in some cases superior to the regulations that intrinsically occurred in ecosystems (this was not a disingenuous argument, but rather perfectly in line with management values at the time). One example of this comes from the actions and dialogue in response to drought, as the public reaction to animals dying of thirst or starvation during periods of severe aridity was largely one of horror. The agony of such deaths aroused pity and allowed managers to assert that their method—simulating population crashes through culling—was more humane. Pienaar wrote, "Large natural population crashes as a result of thirst or lack of food are difficult to defend. They are incompatible with the conservation idea, and can result in a park that is devoid of animals and not conducive to tourism."[66]

On a broader level, though, the conflict reflected the limited access to information about conditions in the park available to external parties who were trying to monitor it. A second incident concerning the Wildlife Protection Society, in 1964, explicitly asserted a divide in environmental authority between professionals and enthusiasts. It came about as the Society's Field Work Section planned to assist research operations in the park. Its chair, Kosta Babich, wrote to Dr. U. de V. Pienaar (then a park biologist), after agreeing with the Deputy Director of Parks Board that the Society would assist with research in

[66] Joubert, *Kruger National Park,* 2:41, 173.

the park in return for cooperation from staff. Babich inquired about research that was underway and offered that Fieldwork Section could help determine the effects of the new western boundary fence on game, which was a controversial topic.[67] Pienaar belatedly replied that he was "rather taken aback, to say the least" that the Society would be interested in the western fence, as his section had already thoroughly researched it. "It is my considered opinion," he wrote, "that the results obtained by a team of qualified scientists, over a period of many years, must carry considerably more weight (even with sceptics in your own organization), than those that may be forthcoming from a group of laymen without an inkling of the prehistory of the problem, the terrain or of the many factors which have a bearing on it, after a few sporadic visits to the area."[68] This exchange captures a disconnect—between the generational knowledge and operational practices of professional scientists in the park, and the history and experience of even the most interested and influential members of the white public. Scientists sometimes deliberately avoided transparency, where public oblivion served their managerial goals.[69]

The Fieldwork society was eager to help in the supervision and governance of the park, and wildlife enthusiasts who observed threatening changes to their public inheritance lashed out with searing criticism. Kruger's landscape, weighted with all the reasons that people valued it, had coalesced around itself a very modern community of concern—an almost parental relationship between wildlife and a rising class of white-

[67] Kosta Babich to Dr. U. de V. Pienaar, November 14, 1963, NK/23/5, NKW.

[68] Dr. U. de V. Pienaar to Kosta Babich, February 5, 1964, NK/23/5, NKW.

[69] The relationship between the Wildlife Protection Society and Kruger's staff was not as harsh as these two examples make it seem—A.M. Brynard in particular seems to have had a good relationship with the Field Worker section at this time.

collar aficionados. No organization was more parental in this sense than the Honorary Rangers, a sort of civilian corps of park monitors, often retirees, established by the Parks Board and charged with mostly symbolic duties. Honorary Rangers, complementing the Wildlife Protection Society's publication of tourist narratives, frequently sent detailed descriptions of their visits to park officials and inquired about specific management practices. They also, with the permission of park officials, served as zealous disciplinarians, policing the behavior of other tourists by issuing scoldings and reporting offenses to park officials. In doing so, Honorary Rangers voluntarily reinforced the intensive governance practiced by management.

With a growing base of enthusiasm, the mythology about its landscape and history was codified and re-inscribed to a broader audience. Helena Prinsloo, the Park's historian for many years, regularly published accounts in the Honorary Rangers' newsletter, with sweeping titles, such as "Nature Conservation: From Then and There to Here and Now."[70] They were friendly and conspiratorial, and often lionized Stevenson-Hamilton, but also Transvaal president Paul Kruger, perpetuating what appears to be a wholly inaccurate account of his role in declaring the game reserve.[71] Her narratives emphasized smooth, reasoned, and orderly transitions in the park's history. A pointed example of this myth-making involves the name 'Skukuza', still used for the Park's most populous rest camp and staff headquarters. It derives from a Tsonga nickname for Stevenson-Hamilton, which Prinsloo translated as "to change, to make different," but which was later translated as "to scrape clean," an explicit allusion to the dispossession of blacks from the

[70] *Honorary Rangers Newsletter* 4, no. 2 (July 1970), 7.

[71] Jane Carruthers, "Dissecting the Myth: Paul Kruger and the Kruger National Park," *Journal of Southern African Studies* 20, no. 2 (1994): 263-283.

landscape.[72]

The activities of the various interest groups in Kruger's community of concern were not superficial but actually crucial to implementing park policies. Operations that fundamentally altered the landscape of the park, such as the "Water-for-Game" program, relied almost entirely donations solicited from loyal stakeholders. The newsletters of the Wildlife Protection Society and the Honorary Rangers published calls to action, and officials also courted high impact donors like corporations and philanthropists. For this reason, park officials needed to foster relationships with 'enthusiasts' with at least some diligence because they formed Kruger's most effective political lobby.

Custos, the Parks Board magazine (titled after the Board's motto, 'Custos Naturae'), served this purpose well. Started in 1971, it was a glossy affair with full color photos and frequent testimonials from park officials. It was prolific, releasing almost three hundred issues until it ceased in 1998, and in those years it was one of the main official channels to the public. S. G. J. van Niekerk, who was both administrator of the Transvaal and the chair of the Parks Board, declared the magazine "a new milestone in the provision of naturalistic information for our South African population and the English-speaking world which may ask for it."[73] The magazine often featured illustrated profiles of research and intervention in the parks, reports and editorials from rangers and other park staff, and keys to identifying animal and plant species. Its highlights of tree and plant life testify to the broadening of Kruger's narrative to include a more holistic

[72] *Honorary Rangers Newsletter* 4, no. 3 (1970), 7. On translations of 'Skukuza,' see P.E. Raper, *South African Place Names* (Jonathan Ball: Johannesburg & Cape Town, 2004), 347, and Carruthers, *Kruger National Park*, 92.

[73] S.G.J. Niekerk, "Welcome to Custos," *Custos*, December 1971, 2.

vision of the landscape, although animals remained the touchstone, perhaps because they were easier to personify and their behavior and interaction with staff lent themselves to storytelling.

An article by a senior ranger in the 1980 issue demonstrates that Kruger's core landscape function remained intact, despite the nuance gained by broader ecological literacy in the general public. Describing a new wilderness trail in the northwestern corner of the park, it gushed about "a portion of Africa which could easily have been a part of the Garden of Eden."[74] Here, "Magical names ... conjure up visions of an African paradise which attracted many early pioneers" (apparently despite being a lethal zone of malaria and sleeping sickness). Visitors had a chance of "living the wilderness experience and of feeling, hearing, touching and seeing the wonders of unspoilt bush, and of thus becoming one with nature." As old-school Christian theology mixed with a more recent interpretation of eco-spiritual 'oneness,' the park still served a basic escapist fantasy as a place to "shake off the cares and problems of modern life." Modernity, in addition to being stressful, also degraded morals, which an unmediated experience of Kruger could rectify. "So here the lover of peace and solitude, of beauty and harmony may soak up the atmosphere of the true wilderness. He may also come to realise that however advanced our world may be in the fields of science and technology, the wilderness may restore a lost sense of values, and he will join the ranks of those who cherish our wild country."

The new wilderness trails the article referred were a reaction to longstanding concerns that the populous rest camps and bustling roadways in Kruger were impinging on the experience of real nature. Artifice debased the autonomy of the landscape,

[74] T.W. Dearlove, "A Third Wilderness Trail for Kruger National Park," *Custos*, July 1980, 8.

continuing the debate about whether Kruger was a true wilderness or had more in common with a theme park. The trails were also Kruger's attempts to provide a tiered experience for visitors, arranged on a spectrum of price versus authenticity, with car touring and rest camp hamburgers on one end and 'rustic camps' and guided walks on the other. Amidst rhetoric from all sides that rejected too much modern luxury as corrosive, another kind of luxury crept in—the relative luxury that mediated the landscape for the visitor. In the Transvaal, Kruger competed for its claim to most authentic wild Africa with more exclusive, meticulously sculpted private reserves and lodges, and so was always hopelessly outmatched in providing a 'personalized' safari experience. It also competed with luxury safari experiences in other countries, especially Kenya, another iconic hub for savanna conservation and tourism.

Concerns about authenticity and interference, coupled with value-laden hierarchies of 'unspoilt' nature set a pattern of dialogue and management that still characterizes the park. These are crystalized in the manuscript of a 1975 article by James Clarke, assistant editor of the *Johannesburg Star*, sent for comment to Salomon Joubert, at the time the park's Chief Research Officer. Its tagline was, "Is Kruger park really just a glorified zoo these days?" and "Just what is the future of South Africa's most important national park?"[75] The investigation, more reasoned than the invective from the Wildlife Protection Society in the earlier example and sanctioned by park officials, gave weight to widespread public sentiment. At the time, the controversy was over a tarmac road cutting north-south through the center of the park—a military necessity that was also sold as a tourism expedient. Flying over the park with the census team, Clarke remarked that the

[75] James Clark to S.J.C. Joubert, November 14, 1975, NK/23/5, NKW.

road was a "livid scar across virgin bush," and that, if the census had "been counting bulldozers and graders, we'd have been a lot busier. At one time I saw a herd of five in a massive pit." He also castigated other out-of-place developments in the park, writing that the new entrance gate was "reminiscent of a Kentucky Fried Chicken outlet," and that the Satara rest camp had "all the charm of a Stalag." In contrast to these encroachments, his most memorable view was of an inaccessible landscape seen from the air, "across a wide grassy plain to the blue of the Lebombo mountains in the far distance. It was every bit as breath-taking a vista as some of the more famous plains of East Africa."[76] In referencing perhaps Africa's most quintessential 'wild' landscape (which is really the product of long abiding human-ecological interactions), Clarke made it clear that he, like many others who imagined Kruger a certain way, had no particular stake in the park's endemic ecological processes, but rather that he valued the park for what it could represent. Although light-hearted, his writing for one of South Africa's major newspapers revealed trepidation about conditions in the park—what was in jeopardy for him, in common with a vocal group of white South Africans, was an "intimate, rustic" relationship to nature.

Clarke's correspondence with Joubert was good-natured and constructive, and Joubert made no attempt to change his mind other than to clarify some factual errors. Joubert wrote that, "By and large the criticisms expressed in your article are ones which we have received before from tourists" and so weren't very surprising.[77] Clarke, despite his concerns, was hopeful about the park:

> Somebody said recently that Kruger Park was at the crossroads. I believe it is beyond the crossroads. It is now heading in a discernable direction after a rough

[76] James Clark to S.J.C. Joubert, November 14, 1975.

[77] S.J.C. Joubert to James Clarke, December 3, 1975, NK/23/5, NKW.

> period which included the worst recorded drought, the heaviest flood, overgrazing, trampling, culling and some unfortunate development. But a lot has been learned. On the research and wildlife management side the Park has made tremendous strides. As a research centre it is rivaling the famous ones of East Africa...And in time, once the dust has settled in its northern area and the proposed rustic camps are complete, Kruger could emerge as the most varied and fascinating national park in the world.[78]

Only a decade after Clarke's writing, South Africa itself was in a tumultuous 'rough period,' as the anti-apartheid struggle escalated in its final decade. In a 1985 issue of *Custos*, Clarke wrote a column entitled "Nature Reserves on the Increase."[79] In it, he opined that "this is just about the most unlikely time in South Africa's history to expect any headway in proclaiming new natural areas: after all, rural development is making huge demands: we have flood and drought problems—and politicians, generally, are having to concentrate on some very fancy footwork." He congratulated several black homelands for establishing parks and offered a prescription for success: "Now if the politicians would carry on encouraging this trend, AND try to present a less morose political atmosphere, why, we'd be the most popular region in the world."[80]

[78] James Clarke to S.J.C. Joubert, November 14, 1975, NK/23/5, NKW.

[79] *Custos*, June 1985, 40.

[80] *Custos*, June 1985, 40.

CHAPTER V

ELEPHANTS SANS FRONTIÈRES: THE PRETORIA-FORT WORT AXIS AND SCIENTIFIC DISCOURSE WITHOUT BORDERS

On January 20, 1967, 18 young African elephants clambered off of the SS *Eugene Lykes* onto a wharf in New Orleans.[1] The pachyderms had lost weight, despite having eaten more than 40,000 pounds of alfalfa on their voyage—a voyage that took them from the Kruger National Park by rail to Mozambique, then by freighter to the Gulf Coast. The fate of these enormous animals, and many others like them, was a microcosm of the intimate relationship between the park and the larger world of conservation it was enmeshed in.

When scientists in Kruger developed the means to tranquilize and relocate large animals, a new kind of wildlife transaction became possible, and the news spread quickly. By the end of the 1960s, requests to buy the park's exotic fauna were coming in from all over the world. It just so happened that park authorities had recently decided to cap the allowable populations of the area's most prevalent species—among them elephants, buffalo, hippos, wildebeest, zebra, lions and hyena. Operating according to rangeland theories, scientists labored to prevent 'overstocking' in order to enforce an ecosystem equilibrium. Surplus animals, if they could not be relocated or sold, were killed.

The freshly expatriated elephants found themselves in Louisiana because of a patron—millionaire Arthur Jones, who personally oversaw their capture. An experienced

[1] "Ship Unloads 18 Elephants," *The Times-Picayune*, January 21, 1967.

pilot, entrepreneur, hunter and mercenary, Jones was behind countless schemes to capture and import exotic animals. He dealt with creatures from Mexican tarantulas to Indian cobras, and produced a syndicated television show called 'Wild Cargo'. On a visit to Kruger to film wildlife, he arranged with the director of South Africa's National Parks Board and park biologists to acquire a few of the elephants slated for death. And so, in 1966, the Louisiana businessman bought a herd of elephants for nearly 10,000 South African Rand (nearly $100,000 today), and initiated their long journey.[2]

Jones fondly described himself as "about 64,000 miles to the right of Attila the Hun." A fitness tycoon, he was never complacent with his fortune, and often said publicly that the only three things worth pursuing in life were "younger women, faster airplanes, and bigger crocodiles."[3] His exploits echo those of other colonial marauders—after his World War II stint as a navy pilot, he flew to 'untouched' African ecosystems to shoot animals with both guns and movie cameras. A widely quoted sentiment—that he had shot 600 elephants and 73 men, but felt worse about the elephants—brings to mind the Victorian 'penitent butchers' in Africa who ruthlessly mixed warfare with big game hunting. When Jones flew 63 baby elephants out of Zimbabwe in a Boeing 707, ABC news reported that "to the local people, it was the best show to hit town since Dr. Livingston passed this way thumping his bible a century ago." Jones shared with his predecessors (such as F.C. Selous and Roosevelt) an apocalyptic vision of the future of African wildlife, predicting "that the African elephant will be extinct on the African continent before the end of this century." His conservation strategy in that instance didn't

[2] "Preliminary and Final Account: Mr. Arthur Jones," *Kruger National Park*, September 1966. File #.

[3] Stephen Miller, "Nautilus Inventor Pumped Up Fitness, But Lost Women, Planes, Crocodiles," *Wall Street Journal*, September 1, 2007.

involve much more than shipping them back to his Florida ranch.

"We're picking up elephants which would otherwise be shot, and we're gonna give 'em an opportunity to survive," Jones said.[4] Asked by an ABC correspondent why these elephants needed Arthur Jones from Florida to save them, he replied, "Don't hold your breath 'til any government helps anything. Governments by the very nature of governments are good at wasting money, at destroying resources, at creating problems. ... It's my money... I made it, and I'll spend it any way I choose."[5] Despite such iconoclasm, and his defamation suits against broadcasters, Jones was applauded in many news outlets for his daring rescues. Later, however, the real fate of his large herd of swamp-dwelling African elephants (almost a hundred) became clear—an unscrupulous and haphazard dispersal to wildlife parks, zoos, circuses and private owners.[6]

Jones' high-volume transaction with South African National Parks was enabled by the realignment of the Park during this era. Systematic, technological management was possible on an unprecedented scale, and park ecosystems were being manipulated by a new generation of professional scientists under the auspices of state bureaucracy (Jones: "There are good scientists. Someday I hope to meet one. There are honest scientists. Someday I hope to meet one. There are brilliant scientists. Someday I hope to meet one").[7] The ability to efficiently move the largest land animals to literally anywhere else

[4] "Flying Elephants," ABC News 20/20, 1984. These quotes are in reference to the Zimbabwe herd.

[5] Inventor of the Nautilus exercise machine, he held the dubious honor in 1983 of being the poorest member of the Forbes 400 list. His public statements also included: "I'm about 64,000 miles to the right of Attila the Hun" and, "I am a male chauvinist: I think women are wonderful, I think every man should own several."

[6] Jones v. American Broadcasting Companies, Inc., 694 F. Supp. 1542 (M.D. Florida 1988).

on earth signaled a host of other changes in Kruger's network of human and ecological relationships. In 1965, Dr. U. de V. Pienaar, then Kruger's chief biologist, remarked, "We are, however, standing on the threshold of a new era, and I would like to believe that this will be known in the future as the era of the perpetuation and strengthening of our natural ecosystem."[8]

Of course, African elephants had been moving around the globe well before Jones arranged for his batch from Kruger—the most famous of which, Jumbo, predated them on the American continent by almost a century (his journey was also less than scientific, and he met his fate as a circus animal in 1885, hit by a train in a rail-yard in Ontario, Canada).[9] A long history of dubious transactions involving elephants and many other large savanna creatures can be traced all over the world, first as corpses and later as live attractions. The elephants that made their way to Louisiana in the 1960s were connected by filaments—historical, cultural, scientific—to the fluid international networks that envelop Kruger and its ecosystems.

It might be construed from the last two chapters that South Africa acted alone in conceptualizing its landscapes in the ways described and that the ensuing manipulations of Kruger's savanna were the unique strategy of an alienated apartheid culture. But the history of Kruger is anything but isolated. Its identity was and continues to be co-created internationally, with significant input from the United States. In this sense, its landscape

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[7] See Carruthers, "Conservation and Wildlife Management." On Arthur Jones: in a letter to Rocco Knobel, Director of the South African Parks Board on May 15, 1966 (NK/1/4, NKW) Jones complimented the 'calibre' of the men he met in Kruger. His generalization about scientists was made on television later.

[8] Pienaar 1965A, quoted in Joubert, *Kruger National Park,* 1:343.

[9] "The Great Jumbo Killed; Struck By the Locomotive of a Freight Train," *New York Times*, September 17, 1885.

is a reverberating surface that absorbs and refracts the global politics of conservation—echoes that accumulate in the past and linger in the chorus of current affairs in African parks. This history can be told in the stories of scientists, officials and organizations that collaborated in attempting to decipher and administer landscapes many thousands of miles apart. It can also be told in the ways that Kruger diffused across *white* cultures, an imaginary set of relationships that nonetheless make their way by suggestion into the physical landscape. America was the progenitor of national parks and an insistently global supplier of 'expertise' as well as an exporter and enforcer of park culture (although English and Dutch histories of conservation also influence Kruger). Tracing these changing sensibilities with an eye for what remains the same today is crucial to assessing the standing of contemporary conservation.

Evidence of Kruger's great scientific interest to Americans might begin when William Temple Hornaday donated $1000 to South Africa's National Parks Board of Trustees in 1928.[10] Hornaday's contribution, in addition to being useful (it was at least a tenth of Kruger's yearly budget, and considerably more than its tourism revenue), was part of chain of emblematic relationships between science in South Africa and in the American West. During the campaign to declare the landscape a park before 1926, Hornaday had encouraged James Stevenson-Hamilton, writing to him, "Stick to it! The stake is a great one. When it is really done, it will be an imperishable monument to each and all of you who have worked and fought for it. I am sure you will none of you give up

[10] National Parks Board of Trustees, Kruger National Park Annual Reports, 1928, 8, NK/28/1, NKW.

until you get it."[11] The taxidermist-turned-conservationist, keeper of the world's second largest elephant (after Jumbo) at the Bronx Zoo, was also the foremost witness to the extermination of the American Buffalo—an event that, along with the establishment of Yellowstone, was frequently invoked in the fight to declare Kruger a national park. America's Buffalo catastrophe and its flagship park continued to be baselines for conservationists in South Africa to judge their efforts.[12]

Before the establishment of the Park, however, it makes as much sense to look at the British and European dialogue about conservation. This carried the most weight at the beginning of Stevenson-Hamilton's tenure, as he was both a Scot and an officer of the empire. The turn of the 20th century saw the formalization of a broad imperial conservation ethos—a revealingly forthright 1900 London agreement was the "Convention Designed To Ensure The Conservation Of Various Species Of Wild Animals In Africa, Which Are Useful To Man Or Inoffensive."[13] Although fairly toothless, it was a barometer for attitudes about nature in the European colonial powers that attended: Great Britain, Germany, Portugal, France, Spain, and Italy. Its provisions were also reflected in early policies in South Africa—restriction of hunting, issuing of licenses, destruction of so-called 'harmful' species, prohibition of 'primitive' hunting techniques (nets and pitfall traps), and, importantly, the establishment of protected

[11] Stevenson-Hamilton, *South African Eden*, 202.

[12] Minister of Lands P.W. Grobler, who pushed through the National Parks Act, used the success of American parks while urging parliament towards legislation (*South African Eden*, 210).

[13] Convention Designed To Ensure The Conservation Of Various Species Of Wild Animals In Africa, Which Are Useful To Man Or Inoffensive, U.K.-Germany-Spain-Congo-France-Italy-Portugal, May 19, 1900; also see John M. MacKenzie, *The Empire of Nature* (Manchester: Manchester University Press, 1988), 202, 207.

reserves.[14] Of course, policies always have exceptions, and the London Agreement contained caveats. The restrictions it advised could be relaxed, "either in order to permit the collection of specimens for museums or zoological gardens, or for any other scientific purpose, or in cases where such relaxation is desirable for important administrative reasons."[15] This loophole was firmly in line with the sensibilities of elite sportsmen who, under criticism, often took cover behind a mantra of 'specimen collection.'[16] Conspicuously absent from the hunting regulations of the London agreement is any language concerning 'wise-use' or the 'public good,' ideas that were crucial to the establishment of the first American National Parks decades before. In defining African fauna as an asset of empire, though, it contributed to the enduring premise that wildlife is international property and should be managed as such.

Stevenson-Hamilton's international stature as a naturalist increased with his continued study of Kruger, and he was a member of the influential Society for the Preservation of the Flora and Fauna of the Empire, founded in 1903. In the first issue its journal, Rhys Williams, the journal's editor, wrote that the Society was formed for the purpose of "encouraging the protection of the wild fauna in all British possessions. The members regard it as one of the heritages of the Empire, which, if it be once lost, can never be replaced."[17] The Society carried the voice of British self-interest, but its membership suggests that national allegiance was not its primary motivation. The editors

[14] *Convention to Ensure Conservation*, 1900.

[15] *Convention to Ensure Conservation*, 1900.

[16] Ronald Tobias, *Film and the American Moral Vision of Nature: Theodore Roosevelt to Walt Disney* (East Lansing: Michigan State University Press, 2011), 88.

[17] Rhys Williams, *Journal of the Society for the Preservation of the Flora and Fauna of the Empire* 1 (1904), 9-10.

of its *Journal* (starting with Rhys Williams) were more concerned with establishing a far-reaching network of information exchange—one that could be used both to empower local administrators and to remotely advocate for the creation of protected areas. The dialogue in its pages involved many more voices than simply those from the British mainland, and the Society's rapidly swelling roster was a testament to South Africa's place in the larger world of conservation.[18] During the South African War, one of its future members, the English hunter and naturalist Abel Chapman, drew up recommendations for the creation of a 'national game reserve' in the Transvaal.[19] By the fourth volume in 1908, South Africa claimed more honorary members than any other colonial territory, among them E.F. Bourke, Pretoria's first elected mayor, and Arthur Lawley, then Lieutenant Governer of the Traansvaal.[20]

South Africans drew on empire-wide systems of thought as they supervised game reserves, and in return provided the Society with rich narratives of animal savagery and adventure that fed the park's growing mythos. Besides South African and English members, prominent Americans participated in the Society, among them Hornaday and Theodore Roosevelt. The reach of the Society's publications shows that the globalization of African wildlife was well under way, and the narratives in the *Journal* are key to understanding the role of the savanna in the American imagination, as well as the reciprocal American influence on South African designs on nature. The very first edition of the *Journal*, among various dryly factual updates on colonial wildlife and census data,

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[18] Rhys Williams, ed., "List of Members," *Journal of the Society* 4 (1908): 4-7.

[19] Carruthers, *Kruger National Park*, 32-33; Williams, "List of Members," 5.

[20] Williams, ed., "List of Members."

included a riveting tale titled "In the Lion's Jaws," by Ranger Harry Wolhuter.[21] Attacked at nightfall by two lions, he fended them off singlehandedly. His vivid "campaign against 'Felis Leo'" must have made an impact on the masculine imaginations of sportsmen like Roosevelt, whose endorsement of the *Journal* was printed in its fourth volume.[22]

Indeed, Roosevelt took more than a passing interest in dispatches from the Transvaal Game Reserves—in 1912 he specifically requested a copy of Stevenson-Hamilton's first book, *Animal Life in Africa*, from Scribner's.[23] While South Africa exported its tales of wildlife and hunting, its science and policy were constantly compared to their American precedents and contemporaries. The *Journal of the Society* is dotted with references to Yellowstone, and various members invoked great cautionary significance from the American destruction of bison in the West. In subsequent years it would publish detailed and regular updates about the Sabi and Singwetsi reserves written by Stevenson-Hamilton, who was one of the publication's most influential voices.[24]

The question of how to conserve South Africa's landscape in the early years was dominated by the observation that it had already been decimated. Stevenson-Hamilton's initial reports listed many of the animals now considered icons of Kruger as extinct or rare, including elephants, white and black rhino, and giraffe, as well as eland, sable and

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[21] Harry Wolhuter, "In the Lion's Jaws," *Journal of the Society* 1 (1904): 42-48.

[22] Wolhuter, "Lion's Jaws," 48; "Extract from Message from the Hon. Theodore Roosevelt, President of the United States," *Journal of the Society* 4 (1908): 8.

[23] Assistant Secretary for Theodore Roosevelt to Charles Scribner's Sons, July 6, 1912, Theodore Roosevelt Papers, Library of Congress Manuscript Division, Theodore Roosevelt Digital Library, Dickinson State University.

[24] David K. Prendergast and William M. Adams, "Colonial wildlife conservation and the Origins of the Society for the Preservation of the Wild Fauna of the Empire (1903–1914)," *Oryx* 37 (2003): 255.

roan antelope.[25] He blamed their extermination on Boers and gun-toting Africans, reflecting an elitism that characterized the Society. He wrote in 1907, "it is not with the sportsmen that we are concerned, but rather with those who fancy that their livelihood has been interfered with, as well as with the only too numerous section whose sporting instincts are undeveloped, or perhaps stunted."[26] This disdain for commercial or subsistence hunting, codified in the 1900 London convention, was shared by wildlife managers elsewhere, including American naturalists, and the journal devoted many pages to strategies for regulating how and when animals could be killed.[27]

In South Africa such restrictions especially targeted Africans who depended on animal goods. Stevenson-Hamilton wrote in the journal, "These strict rules work admirably as regards the Kaffirs [*sic*], who, instead of spending their days in the pursuit of game or loafing in their villages, are now induced to devote more time to the cultivation of the land, the rearing of livestock, and, as regards the younger men, to the earning of wages in the service of Europeans."[28] Notably, although the African pastoral presence in the landscape was later condemned and its remnants obscured, here the Warden endorsed it as an aid to his mission. Scorn for subsistence lifestyles was international, and game laws had the material benefit of driving indigenous peoples into dependency on European economic structures. A few years earlier and nearly 10,000 miles away, Wyoming, aided by Roosevelt's Boone and Crocket Club (an interest group

[25] James Stevenson-Hamilton, "Game Preservation in the Transvaal," *Journal of the Society* 2: 27-34.

[26] James Stevenson-Hamilton, "Opposition to Game Reserves," *Journal of the Society* 3: 54.

[27] Finis Dunaway, "Hunting with the Camera: Nature Photography, Manliness, and Modern Memory, 1890-1930," *Journal of American Studies* 34, no. 2 (2000): 219.

[28] Stevenson-Hamilton, "Game Preservation," 21.

very similar to the British Society), had revoked Native American treaty rights to hunting in the vast Yellowstone National Park, forcing them into dependency on federal rations and governance.[29]

In 1933, only a few years after the passage South Africa's National Parks Act, the Society for the Preservation of the Flora and Fauna of the Empire worked with English statesmen to organize in London a new "Convention Relative To The Preservation Of Fauna And Flora In Their Natural State." The Parks Board lobbied for its vice chair, H.B. Papenfus, to be South Africa's delegate, but the government chose Charles te Water, High Commissioner of the Union, instead.[30] The belated successor to the 1900 convention wasn't ratified by all parties, but was still codified to various extents in British colonial doctrine and was a milestone of pre-World War II conservation.[31] It firmly established international standards for national parks, leaving no doubt as to their mission and urging their creation in a timely manner wherever possible. Although it was a convention of the European colonial powers, observers from the United States were present.[32] National Parks were to be "placed under public control," and were to be protected explicitly for "the propagation, protection and preservation of wild animal life and wild vegetation, and for the preservation of objects of aesthetic, geological, prehistoric, historical, archaeological, or other scientific interest for the benefit,

[29] Mark David Spence, *Dispossessing the Wilderness: Indian Removal and the Making of the National Parks* (New York, Oxford: Oxford University Press, 1999), 62-70.

[30] Parks Board of Trustees, Kruger Park Annual Reports, 1933, 14, NK/28/1, NKW.

[31] MacKenzie, *Empire of Nature*, 217.

[32] MacKenzie, *Empire of Nature*, 216.

advantage, and enjoyment of the general public."[33]

In 1935, Kruger's 'objects of scientific interest' were inspected by a duo from Harvard's Museum of Comparative Zoology—its director, Dr. Thomas Barbour, and his research assistant Margaret Dewar Porter. As conservation continued to institutionalize and to leverage scientific authority, elite Americans tried to formalize their role as arbiters of wildlife protection worldwide. The Boone and Crockett Club, founded by Theodore Roosevelt in 1887, was one group of such Americans, and it was on their behalf that Barbour and Porter made an extensive tour of South Africa's National Parks. The Club had become an increasingly successful, well-connected and confident society on all matters domestic, and by the 1930s had begun to entertain ideas of its mission on a much larger scale. In a report submitted to the Club in 1930, Harold J. Coolidge Jr. (also affiliated with the Harvard Museum) wrote:

> I feel that here may be a chance for the Club to do a very important bit of work in connection with the saving of the Fauna of the world for all time. We have pretty well solved the problem for our own country…So far, the other nations of the world have made less progress. They are calling on us to help them solve their problems and I believe that the backing of the Boone and Crockett Club here...would be of great help.[34]

The Boone and Crockett Club, lent gravitas by its audacious scientific positivism and racialized aspirations to resource stewardship, laid claim to a worldwide heritage of nature like the Society for the Preservation of the Flora and Fauna of the Empire before

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[33] Convention Relative To The Preservation of Fauna and Flora in Their Natural State, U.K.-Belgium-Egypt-France-India-Italy-Portugal-South Africa-Spain-Sudan-Tanzania, November 8, 1933. By comparison, the U.S. Organic Act of 1916 defined the fundamental purpose of parks as being to "conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations."

[34] Coolidge would help found the IUCN and serve as its president, as well as the WWF; Minutes from Annual Meeting of the Boone and Crockett Club, Jan 10, 1930, Box 39/11, Boone and Crockett Club Records, Archives and Special Collections, Maureen and Mike Mansfield Library, The University of Montana-Missoula.

them.[35] Its members had prestigious connections or inherited legacies—Selous, the Victorian sportsman, dined at Club President Madison Grant's house, and the Club secretary was Theodore Roosevelt's son Kermit.[36] Coolidge's report prompted the formation of The American Committee for International Wildlife Protection.[37] As an offshoot of the club, the Committee's executive and advisory boards included representatives from museums and universities nationwide, as well as from the British Society.[38]

Barbour and Porter's report, "Notes on South African Wild Life Conservation Parks and Reserves," was another contribution to the American Committee's project of monitoring, analyzing and influencing the progress of international wildlife protection.[39] The Club frequently encountered South Africans, and was particularly interested in the country's National Parks.[40] Its members often dispensed advice and lobbied South African officials and its press for stronger wildlife protections. Using Kruger as a baseline, the report observed developments in other key reserves like Addo, Hluhluwe and Umfolozi, and the Drakensberg. Both a scientific record and an entertaining travelogue, the naturalists' report offered policy prescriptions alongside colorful

[35] On the racialized stewardship of natural resources, see Boone and Crockett Club president Madison Grant's book *The Passing of the Great Race* (New York: Charles Scribner's Sons, 1916).

[36] "Dinner to F.C. Selous," *Forest and Stream*, April 30, 1910.

[37] Minutes from Boone and Crockett Meeting, Jan 10, 1930.

[38] Minutes from Boone and Crockett Meeting, Jan 10, 1930. In 1930 the Club others organized donations from significant American institutions to be disbursed to their counterpart in England. One contribution at a subsequent meeting allocated $7,550, indicating how seriously Americans took the cause.

[39] Thomas Barbour and Margaret D. Porter, *Notes on South African Wild Life Parks and Reserves,* Special Publication of the American Committee for International Wild Life Protection, no. 7 (Cambridge, 1935), 32.

[40] Minutes from Annual Meeting of Boone and Crockett Club, Dec 16, 1936, Box 40/1, Boone and Crockett Club Records.

observations and Kodak Eastman photographs.

Immediately evident in the report is how familiar the Club already was with Kruger. Barbour had previously toured it with his family and the zoologist and photographer Herbert Lang and explained that "the general conditions obtaining throughout the Kruger Park are too well known to merit lengthy exposition."[41] The naturalists had not come to describe the ecosystem, but rather to update their interested lobby on the progress of conservation—to offer an appraisal of South Africa's arrangements to save its fauna for eternity, in line with Coolidge's mission statement. Barbour and Porter focused on providing a series of keenly interested updates on various species and commented on the larger measures being taken in their interest. They noted, in addition to an abundance of lions, that, "Mr. Papenfus, the chairman of the Parks board, is particularly concerned over the increase of elephants in the northern part of the Kruger Park," a shadow of the management dilemma to come.[42]

Although growing broader, the species considered appropriate in the park still excluded some of Kruger's major organisms. "Crocodiles have been pretty well cleared out of the Park," the naturalists observed.[43] "At first this seems rather a pity … but the same species of crocodile which occurs in the Park occurs all over tropical Africa and Madagascar.... The crocodiles certainly did for many bushbuck and inyala before they were exterminated."[44] Their rationale of global stewardship—an accounting project of

[41] Barbour and Porter, *South African Parks*, 32.

[42] Barbour and Porter, *South African Parks*, 12.

[43] Barbour and Porter, *South African Parks*, 14.

[44] Barbour and Porter, *South African Parks*, 14.

interesting fauna—could forgive a glaring absence in a landscape if the missing element was present anywhere else. In other words, because the park was a bank of animals that could be withdrawn from and deposited to, permitting the continental sheet to balance, there was no need for concern or pity. Without any apparent self-consciousness, Stevenson-Hamilton wrote in 1912 that "Poison has proved extremely valuable in getting rid of crocodiles and I propose to use it more and more for this purpose."[45] The status of other animals must have been well-known to Barbour especially, as he was well acquainted with the warden. In that respect, the attention commanded by the proxies of the American Committee was remarkable. Although missing Stevenson-Hamilton and Harry Wolhunter this time around, the Americans were hosted by countless other conservationists and officials, including the secretary of the National Parks Board in Pretoria and representatives from the Transvaal museum and Stellenbosch University.[46]

"I have pestered the International Committee and many warm friends in South Africa so frequently in the past that I am a little hesitant about mentioning again the very unfortunate existence of some farms and native reserves," wrote Barbour, "which constrict the south central section of the Park so that it is much narrower than is desirable."[47] The authors were strict in their prescriptions—they ardently condemned human settlements and aggressively recommended new acquisitions of land. In Natal, they proposed an expanded and integrated National Park where the general public would

[45] Warden's Annual Reports, 1912, 10, NK/28/1, NKW.

[46] Barbour and Porter, *South African Parks*, 33.

[47] Barbour and Porter, *South African Parks*, 14.

never be allowed.[48] The specter of extermination lurked all around the park, and their scorn for those who might threaten park animals was palpable and followed class distinctions: "We believe that every American reader of these notes will be astounded and shocked beyond words to learn…that the filthy camps of slovenly poor white biltong-hunters may be found right along the very boundaries of the game reserves."[49]

Park staff received the report approvingly, and they commiserated with the American Committee about the state of scientific knowledge and environmental literacy. John C. Phillips, the Committee's chairman, wrote to ranger L.B. Steyn (who would become warden in 1953) from Cambridge, endorsing plans for the joint publication of a "historical-phychological [*sic*] survey of man's relations to wild life."[50] "Like you," he wrote,

> I have been up against the most discouraging queries about the reasons behind the protection of vanishing species, and unfortunately our case is not always easy to explain even to intelligent groups...If we had a popular, well-written treatise on the subject, something very different from the erudite classical works which have appeared abundantly, we could give it very wide distribution, perhaps handing it out to visitors at our National Parks, or selling it for a small sum. It should be free from sloppy sentimentality, of course.[51]

Phillips wanted popular but precise literature, part of a movement towards professionalizing science and institutionalizing conservation—the archaic and romantic must give way to the modern and practical if the Committee's mission were to succeed. This change was evident in newer guidebooks, such as R.C.H. Bigalke's 1939 "A Guide

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[48] Barbour and Porter, *South African Parks*, 10.

[49] Barbour and Porter, *South African Parks*, 10.

[50] John C. Phillips to L.B. Steyn, March 17, 1936, NK/17/1, NKW.

[51] Phillips to Steyn, 1936.

to Some of the Common Animals of the Kruger Park," which eschewed personified animal japery in favor of scientific names and detailed descriptions of anatomy, habitat, and behavior.[52]

As empires faltered in the tensions leading up to World War II, notes from the Boone and Crockett Club escalated in their sense of duty towards global wildlife. In 1939, the executive secretary reported, "In view of the present unfortunate situation in Europe and the unsettled condition of world affairs we feel that we in this country are more than ever responsible for carrying on the work of International Conservation."[53] Its members became instrumental in founding the International Union for Conservation of Nature and the World Wildlife Fund, whose influence and spending power defines the modern era of protected area conservation.

Elephants Without Borders: Transnational Interactions in Kruger After World War II

Elephants were deeply enmeshed in these international shifts. Their movements across borders and oceans, exemplified by Arthur Jones' small herd, were accompanied by flows of research and personnel, which were enabled in Kruger by relationships between the park and interested parties abroad. Commenting on the present-day interdependence of commercial South African game ranchers and American hunters, Rob

[52] R.C.H. Bigalke, *A Guide to Some of the Common Animals of the Kruger Park* (Pretoria: J.L. Van Schaik, Ltd., 1939).

[53] Minutes from Annual Meeting of the Boone and Crockett Club, December 8, 1939, Box 40/1, Boone and Crockett Club Records.

Nixon has described this relationship as the "Pretoria-Fort Worth axis."[54] Judging by the professional correspondence in the archives at Skukuza, such an axis seems also to apply to interactions between professional scientists in South Africa and America. Wildlife and ecosystem research hubs in Texas and the American West are part of the story of ecosystem management in Kruger, as are many other prominent American institutions that concern themselves with international conservation.

In the second half of the 20th century, research in Kruger flourished even as growing international condemnation of apartheid isolated the southern tip of Africa. One explanation might come from the understanding bound to be gained by trained researchers in this experiment of unprecedented scale and sophistication—they reflected on and continually revised a complex set of prescriptions in order to achieve their goal, which itself gained nuance as their understanding deepened. From a perspective more critical of the parks' major policies during this period, scientific management intensified parallel to an apartheid regime trying to keep abreast of modernity, representing a conveniently neutral field of engagement with the global community. Either way, the park's mission was bound up in international relations from its beginning, and Americans in particular played a steady role. The unfolding story of the savanna in this period includes the United States, and for that matter the whole swirling business of global conservation.

Following Stevenson-Hamilton's retirement, and amidst sweeping global restructuring, Kruger emerged as a prototypical laboratory for protected area

[54] Rob Nixon, "Stranger in the Ecovillage," in Postcolonial Ecologies: Literatures of the Environment, ed. DeLoughrey and Handley (Oxford University Press, 2011), 163.

management and ecosystem intervention that attracted the attention of scientists all over the world. It was the realignment of Kruger with the command and control logic of apartheid—towards professionalization, centralization, and scientific intervention in the landscape—that enabled a set of affairs where its elephants could suddenly find themselves foraging in the swamps of Louisiana. During this transition, the National Parks Service of the United States in particular served as both reference point and interlocutor. In 1946, Peter Campbell, the son of a prominent member of South Africa's Parks Board of Trustees, wrote to his father from Yosemite, remarking that it "must be nearly the same size as the Kruger Park and has thousands upon thousands of visitors every year. You people on the Parks Board would learn a lot on how to accommodate the public and yet keep the place natural."[55]

Although managers in Kruger had closely observed developments in American wildlife science and protected area management for years, changing leadership and reorganization provided an opportunity to model some new approaches. R.C.H. Bigalke drew on comparisons to American parks as he lobbied to appoint professional scientific authorities in Kruger. Referencing a U.S. Wildlife Society newsletter from 1947, he warned of the "pyramiding of misfortunes" that could result from the lack of scientists in senior positions. "If the Board intends to administer the Kruger National Park in a satisfactory manner it cannot dispence with the services of technically trained men and will have to follow the example of the United States, Canada and Britain in this manner," he wrote.[56]

[55] Peter Campbell to W.A.C. Campbell June 19, 1946, NK/17/1, NKW.

[56] R.C.H. Bigalke, *Scientific Administration of the Kruger National Park*, 1949, NK/28/4, NKW.

In 1951 Victor Cahalane, chief biologist of the U.S. National Park Service, toured South Africa's National Parks over the course of four months and made extensive recommendations on all fronts. Whereas the most prominent previous visit, the Harvard zoologists in 1936, was commissioned an interest group and was intended for an American audience, Cahalane's trip was as a leading authority from a government institution, and he explicitly prescribed strategies for South Africa's parks.

Cahalane's most immediate and overarching concern was that parks should be centralized and systematic across the country—he emphasized a comprehensive survey of nationally significant landscapes and species, with 'master plans' for each area, and advocated strongly for public management. "While the public spirit and conservation-mindedness of all these landowners in preserving rare species is truly admirable, the future of these species is best assured if adequate stocks are in public ownership. There they will be comparatively free from the vicissitudes and hazards which affect the plans of all men"[57] Authority should be structured under a "strong, efficient national office," ensuring a unified parks body capable of efficiency, consistent policies, and personnel with a wide range of skills. He also suggested a system of nomenclature for parks along the lines of what the Park Service used—e.g., national parks, wildlife refuges, recreation areas.

For Kruger specifically, Cahalane proposed a host of changes. He too thought that park boundaries were inadequate, as they excluded significant portions of the watershed and game migrations—the central range of the park was too narrow, and the boundaries

[57] Victor Cahalane, *A Report to the National Parks Board of Trustees of South Africa* (Washington, D.C.: Department of the Interior Duplicating Section 7245, 1951).

should be moved westward. The suggestion added to the complexity of the land deals being debated at the time, and he warned that in his experience these negotiations were vulnerable to "non-park interests."[58] "Nonetheless," he wrote, "the advantages of such a move are so exigent that it might be worth-while to sacrifice some of the northern extremity of the park in an exchange for lands on the west-central boundary."[59]

Predicting the infrastructure critiques leveled by the *Star's* James Clarke in 1975, Cahalane counseled against "highly engineered speedways" like the proposed north-south route through the length of the part. He liked dirt roads, which could hold imprints of animal tracks, but they became untenable if dust could not be managed; likewise, paved roads were practical, but also led to speeding.[60] Fencing of boundaries was also a bad idea, "however, it may become necessary, from the viewpoint of public relations, to accede to the demands of the farmers."[61] Perhaps alluding to Yellowstone and other parks with reputations for problem animals, he noted approvingly that most animals hadn't been 'pauperized' by tourists, but was disturbed by the tenacity of baboons, and "furthermore, the presentation of wildlife in the role of mendicants on the roadside is completely out of keeping in a national park."[62]

On more comprehensive ecosystem issues, Cahalane took note of his savanna context and applied an American perspective. He was very impressed by how rarely he encountered weak or crippled animals in Kruger, attributing their scarcity to healthy

[58] Cahalane, *Report to the Parks Board*, 6.

[59] Ibid, 6.

[60] Ibid, 7-8.

[61] Ibid, 13.

[62] Ibid, 11.

populations of predator species. He lamented that "in partial consequence of [America's] unfortunate decimation or extermination of large predators, the more notable 'wildlife' parks of the United States are afflicted with enduring range problems which far exceed the worst which I saw anywhere in Africa."[63] He endorsed the reintroduction of native species (mindful of subspecies accuracy) but advised the removal of non-native ones, especially flora, from the park.[64] Likewise, he favored complete exclusion of domestic grazers from the landscape, and even suggested intensive rangeland restoration techniques like plowing and re-seeding. He waffled on two key ecosystem functions, water and burning. Artificial water sources were necessary, he thought, but he bemoaned the topical ugliness of dams, and the unsolved problem of overgrazing near perennial water. He had followed the debate around fire, particularly its influence on tree-grass composition, but was still "convinced that its prohibition in Kruger Park has proven beneficial," and should be continued while more research was conducted.[65]

These were fairly thoughtful prescriptions for everyday management concerns, but the real value of his report was a set of mission statements about the park that reflected his core philosophy:

> Kruger and Kalahari National Parks are justly renowned as wildlife sanctuaries. They are more than animal 'farms.' They are extensive samples of a South Africa which elsewhere is no more. A major factor in the fame and fascination of these parks consists in their naturalness. Insofar as possible, their landscapes should be preserved unmarred by the works of man. Their wildlife should not be too strictly regulated. Cyclic shifts in populations are normal occurrences. The 'untidiness' of nature, such as a forest broken and

[63] Ibid, 9.

[64] Ibid, 14.

[65] Ibid, 17.

pushed over by elephants, should remain for all to see and wonder at.[66]

This outlook, like statements often made through park history, seemed to contain a contradiction. Cahalane advocated some fairly drastic human interventions (manipulating fire, water and vegetation), but his goal was to preserve a primeval landscape in its natural condition. The more "natural" that managers tried to keep the park, the more intervention it would require. Although quite adamant about not running a zoo or a farm, their prescriptions shared the underlying aspiration of those institutions—to engineer the land towards a specific experience and condition. Like Cahalane, the upcoming generation of scientists in Kruger eventually allowed for some natural fluctuations in animal populations, but a thoroughly 'hands off' approach would only be implemented in the 1990s, and even now remains controversial. Cahalane did have reservations, and echoed Stevenson-Hamilton's misgivings, warning that "long-lasting harm can be brought about by ill-advised interference with natural forces and processes." He noted that wildlife managers in America were "literally 'feeling their way,'" and that it must be even more so the case in Kruger.[67]

It should be heeded that Cahalane was not far removed from the notions of race that enabled and perpetuated apartheid—a significant portion of his report is dedicated to the San peoples, South Africa's oldest extant ethno-linguistic cluster. "It might be possible," he suggested, "for the National Parks Board to arrange for inclusion of Bushmen as part of the native fauna in one or more of the existing reserves."[68] His

[66] Ibid, 11.

[67] Ibid, 9.

[68] Ibid, 21.

description of these peoples as animals was no different than Hornaday's writing three decades earlier—in fact, Ota Benga had even been falsely described as a 'Bushman' at the Bronx Zoo.[69] Like most conservationists at the time, Cahalane's vision of a pristine ecosystem, whether it was a window into 'unspoilt' Africa or the 'primitive' vastnesses of the American wilderness, either excluded indigenous peoples or dehumanized them as passive features of the landscape, a notion all the more absurd in a country with one of the longest records of human habitation on the planet. Sadly, such a regressive viewpoint at least suggested a role for these peoples in the landscape, where apartheid actively denied even that.

Cahalane's visit came at the beginning of a new era in Kruger, and although affirmative action under the National Party government prioritized the contributions of Afrikaner scientists, Americans continued to influence science and policy. T.G. Nel, in his capacity as Kruger's first full-time biologist, got himself up to speed on American wildlife science in an extremely prolific way—immediately after his appointment he solicited information from every state fish and game department in America. He received circulars from the federal Fish and Wildlife Service, and used their bibliographies to track down studies that were relevant to Kruger's management goals. He mailed dozens of form letters and personalized requests for information about wildlife management and research methodology, for deer, big game and waterfowl especially. "Although the list mentioned is very long," he wrote to Colorado's Game and Fish Commission, "reports on these projects are of the utmost importance to us here in Africa and your co-operation

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[69] "Bushman Shares a Cage with Bronx Park Apes," *New York Times,* September 9, 1906.

will be appreciated."[70] He asked a similar commission in Florida to "please keep my name on your mailing list."[71]

Nel solicited the most from western states (Arizona, Colorado, Idaho, and California all got long, detailed requests), and he indicated that the projects he was considering in Kruger were of the same nature as those undertaken by Americans. For example, he thanked the California Department of Fish and Game for a specific program, writing, "I want to mention my appreciation for the regular progress reports we are receiving from dr. Biswell. It is of great assistance to us, as we are busy with a very similar project."[72] Dr. Harold Biswell was busy at the time burning arid chaparral ranches to clear woody vegetation and promote grasses for grazing—he became instrumental in the acceptance of fire and prescribed burns in California parks and American wild lands.[73] Nel's inquiries linked longstanding concerns in Kruger about vegetation change and grazing (particularly 'bush encroachment') with corresponding dialogues in the American West. His first annual report, in 1951, overwhelmingly listed correspondence with the United States and Canada, compared to a meager list of South African resources.[74] Since elephants and other megaherbivores influence the interplay between woody vegetation and grasses in the savanna, such a reliance on American literature meant that Nel was drawing on experience from a set of landscapes with no herbivores of

[70] T.G. Nel to Colorado State Game and Fish Commission June 26, 1956, NK/17/1, NKW.

[71] T.G. Nel to Florida Game and Fresh Water Fish Commission June 26, 1956, NK/17/1, NKW.

[72] T.G. Nel to California Department of Fish and Game June 26, 1956, NK/17/1, NKW.

[73] Jan W. van Wagtendonk, "Dr. Biswell's Influence on the Development of Prescribed Burning in California," in *The Biswell Symposium: Fire Issues and Solutions in Urban Interface and Wildland Ecosystems* (Albany, CA: Forest Service Pacific Southwest Research Station, 1995).

[74] T.G. Nel, Annual Report of the Biologist, 1951, NK/28/4, NKW.

analogous massive body size.

Nel's voluminous consumption of American literature distinguished him as a thorough scientist, but it also betrayed an agenda congruent with those of more politically minded South Africans. P.O. Sauer, the Minister of Lands, boasted a few years later about South Africa's dominance in the realm of natural and animal stewardship:

> From time to time I receive letters and communications from well-meaning international organisations offering their help to us in our endeavors to preserve our flora and fauna. It is then encumbent [sic] on me, in a tactful way to thank them for their interest and to point out to them that in most cases they can come to South Africa for advice and that they could enrich their knowledge by studying our methods and would benefit by our experience of these problems.[75]

Science, in this case ecology, can be wielded as a source of national pride, but its paradigms bleed through international boundaries and its practitioners were rarely ignorant of developments elsewhere, especially by this point in the 20th century. Nel's prolific correspondence also included countless letters to Europe and elsewhere in the African colonies, and he even conducted something of a meta-analysis, sending questionnaires to every National Park he could locate. He dispensed research advice to other parks in Africa, and also personally hosted Arthur Bischoff, a game manager from California's Department of Fish and Game, on his visit to Kruger.[76] In 1956, he was invited as South Africa's first delegate to join the IUCN's international Commission on Ecology, which paid "special attention to the relationship between the scientific knowledge of landscapes and programmes of land management and who will encourage the understanding and application of ecology to practical programmes of land

[75] Sauer, *Conference on Nature Conservation* (1962), 4.

[76] T.G. Nel to Arthur I. Bischoff July 24, 1956, NK/17/1, NKW.

management and nature protection."[77]

Although Dr. Nel's term in the park was short and overburdened, his labors set Kruger on the path it would follow for the next several decades and clearly linked its development with the burgeoning maneuvers of ecologists all over the world, and especially in America. These relationships were not purely translational—although swapping information on similar ecosystems was an important part of informing policy, scientists in South Africa also relied on how internationalized the study of African landscapes and wildlife had already become. For example, when Nel examined elephants that had been shot in the 1950s for raiding farms, he compared their measurements to the remains of 'Khartoum'—the New York Zoo's famous house elephant, who died in 1931.[78] To further entangle these histories, Khartoum's original curator was none other than William T. Hornaday, who had encouraged and helped to finance Kruger's declaration decades before Nel worked in the park.

When Nel detailed the elephant measurements, he used as reference research on African and Asian elephants across geography and history, from ancient Rome (Pliny the Elder's *Naturalis Historia*) to 18th-century British India (John Corse's *Observations on the Manners, Habits, and Natural History of the Elephant*), to contemporary France and Germany (Albert Jeannin's 1947 book *L'éléphant d'Afrique* and publications from the

[77] Victor Westhoff to T.G. Nel, August 23, 1956, NK/17/1, NKW.

[78] T.G. Nel, *Discussion on Certain Measurements of a Number of Elephants in KNP*, National Parks Board of Trustees bulletin, no. 5 (Skukuza, April 4, 27, 1951), D/1/1, NKW; Pittsburgh Post-Gazette, "Elephant Gains in Death What He Missed in Life; He's Bigger Than Jumbo" Oct 28, 1931.

Frankfurt Zoological Gardens).[79] Although mentioning a few South Africans, his citations reaffirm the dominant and interdependent science production of the British empire and the United States—well-studied Asian elephants in colonial India, elephant physiology experiments from the Carnegie Institution in Washington, D.C., and African elephant sizes (including those measured by F.C. Selous) from *Life Histories of African Game Animals,* authored by Teddy Roosevelt and zoologist Edmund Heller.[80]

If Dr. Nel's relationship with fish and game managers and rangeland scientists in America reflected the development of animal husbandry in the Anglophone world, agronomy and forestry, so his elephant research depended on the history of hunting, taxidermy and zoology. He relied on zoos and natural history museums for information on pachyderms, networks whose ground had been laid by colonial sportsmen. Productive and ongoing links between Kruger's ecosystems and the highly curated environments of zoos and museums further complicate the frequent accusation of over-management, typically framed by the question of whether or not Kruger is itself a zoo. As Arthur Jones demonstrated in the 1960s, Kruger was a portal through which African animals could be teleported across evolutionary history into North America, and mined for knowledge *ex situ,* dead or alive. Empirical understanding—behavior and vital statistics (zoos) or anatomy and taxonomy (museums)—came along with a broader but still intimate knowledge dispersed to Americans with leisure time for circuses, zoos, and natural

[79] From Corse's observations: "Since the remotest ages, the elephant, on account of his size, his sagacity, and his wonderful docility, has attracted the notice, and excited the admiration of philosophers and naturalists, both ancient and modern; and few travellers into Asia, or Africa, have omitted giving some account of him." John Corse, *Observations on the Manners, Habits, and Natural History, of the Elephant* (London: Royal Society of London, 1799).

[80] T.G. Nel, *Discussion on Certain Measurements*; Theodore Roosevelt and Edmund Heller, *Life Histories of African Game Animals* vol. 2 (New York: Charles Scribner's Sons, 1913), 735.

history. But the portal went both ways, channeling influential people from those American institutions into the park to study *in situ*, or at least to exchange correspondence with those who did. J.T. Geddes (Secretary of the Natal Parks, Game and Fish Preservation Board), speaking about the first major translocation of rhinos from Natal parks into Kruger, summarized his reading of the relationship:

> It is desirable here to say quite frankly that the Natal Parks Board is also selling some of these rhinos to selected Zoological Gardens in Europe and America. It is well known that animals like the European Bison are back in reserved areas to-day solely because zoos saved them from extinction and we consider this sale to zoos to be an added insurance against the loss of the species. In addition, of course, it has to be admitted that we are selling the animals at a profit which will adequately cover the tremendous initial and capital cost of "Operation Rhino"[81]

Kruger also basically shares its heritage with the metropolitan wildlife attractions that it is often decried for resembling. One volume cited by Dr. Nel in his elephant bulletin was preeminent British taxidermist Rowland Ward's ambitious *Records of Big Game*, a quintessential bridge between hunting and zoology (fig. 6). It foreshadowed the later symbiosis between those who try to manage wildlife in 'natural environments' and those who engage with it in the explicitly artificial realms of enclosure, dissection, and inventory. Ward, whose father had collected specimens alongside John James Audubon, here assembled his most comprehensive records of "the distribution, characteristics, dimensions, weights, and horn & tusk measurements of the different species."[82] It was a clearinghouse for reported trophy kills by American, European and colonial sportsmen across the world. In reading it, Nel accessed information generated by the same cadre of

[81] J.T. Geddes-Page, "The Establishment and Re-Establishment of Wild Animals on Farms, in Nature Reserves and National Parks," in *Proceedings of the Conference on Nature Conservation of the Republic of South Africa and South West Africa* (Pretoria: National Parks Board, 1962).

[82] Rowland Ward, *Records of Big Game* 4th ed. (London: Rowland Ward Limited, 1903), subtitle.

international elites who agitated the 20th-century wave of wildlife conservation and institutionalized natural science.

Ward's fourth edition catalogued specimens from, among other hunter-collectors, Theodore Roosevelt; F.C. Selous and his friend Abel Chapman (who had originally sketched out the reserves that are now Kruger); the American naturalist George Bird Grinnell; and the British scion Walter Rothschild, as well as from specimen aggregators such as the British and Paris museums.[83] The nationalist Minister of Lands corroborated the significance of these gentlemen in 1962, linking sportsmen in the U.S. and South Africa: "South Africa is a land of hunters, but it must not for one moment be thought that a true hunter is not also a great preserver of the fauna of his country. In the United States of America the greatest workers for the protection of wildlife, have been the hunters of that country."[84] Ward's compendium includes 'big game' from all over the world—a spider's web of wildlife interactions overseen by a small group of influential people, its legacy overlays the development of scientific knowledge in Kruger.

Dr. Nel's research and correspondence indicate that Kruger's ecological or scientific meaning (and the concomitant study and action directed at its landscapes by authorities) was not quite the sovereign arena that politicians boasted of. The science of the savanna was and continues to be influenced by knowledge stored in the centers of empire, a relationship reinforced by the growing scope and mobility of scientists in America and Europe. The relative weight of these influences in the park fluctuates through history in line with South Africa's political status and periodic shifts in the

[83] Rowland Ward, *Records of Big Game.*

[84] Sauer, *Conference on Nature Conservation* (1962), 11.

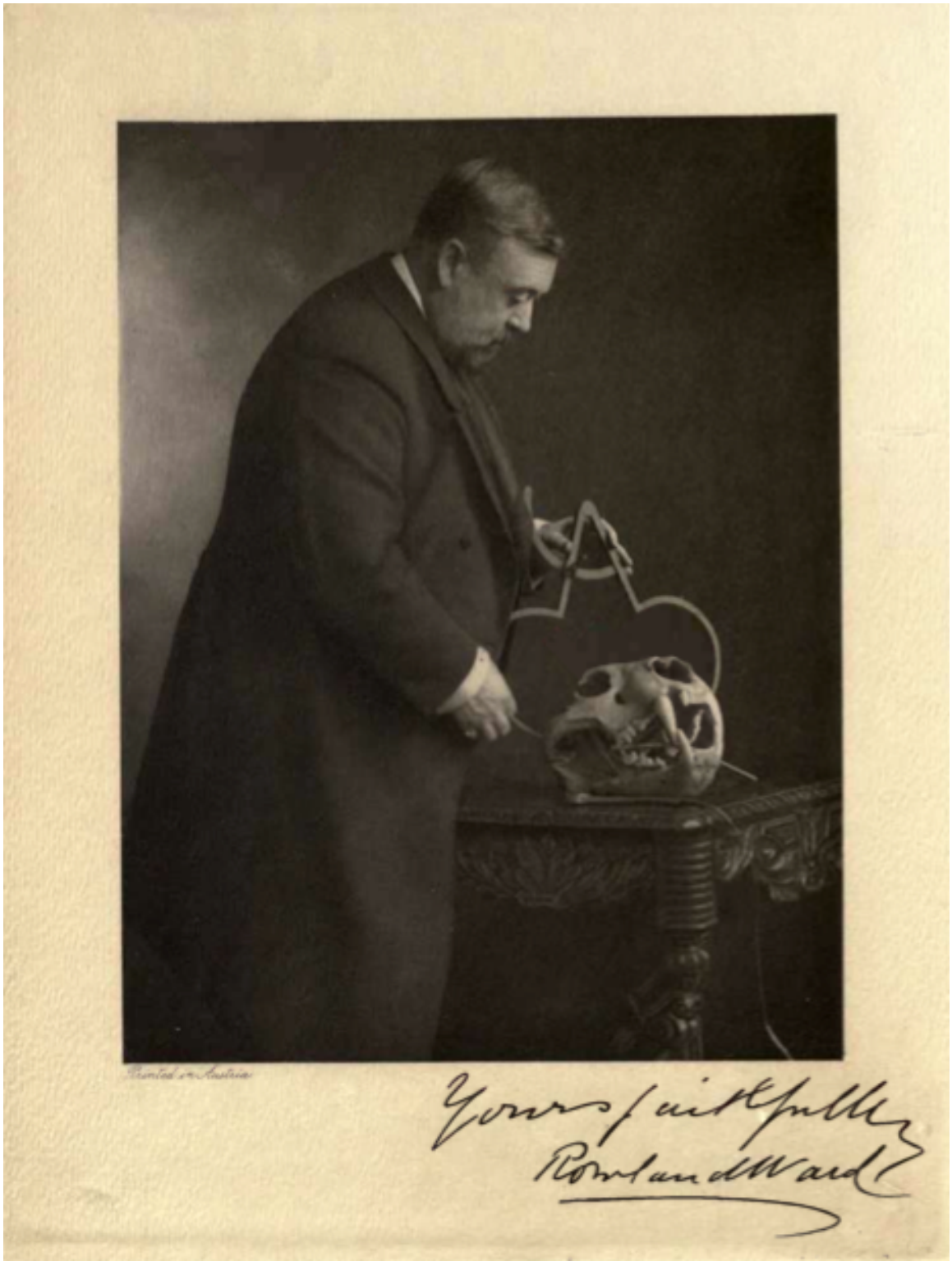

Figure6. Portrait of Rowland Ward, from *Records of Big Game*, 1903

locus of international conservation. Ward's *Records of Big Game* are a microcosm of these shifts—the series continued long after he died, classically published in London's Piccadilly district in Ward's taxidermy facility, "The Jungle," which also served as a clubhouse for sportsmen of stature. In 1982 the rights to *Records of Big Game* were sold to Game Conservation International, an organization formed by American sportsmen in San Antonio, Texas.[85] Today it falls under South African ownership, with the 29th edition published just this year in Johannesburg.[86]

By the second half of the 20th century, conservation strategy in protected areas had become an official international enterprise, along with related assessments of the worth and meaning held in landscapes. In the summer of 1962, Rocco Knobel, director of South Africa's National Parks Board, traveled to Seattle, Washington to speak at the First World Conference on National Parks. Organized by the IUCN and hosted by the U.S. Department of the Interior and the Park Service, the conference was a landmark gathering of prominent figures in the parks movement and conservation. A special bill had even been rushed through Congress to allow the federal government to officially participate, especially Secretary of the Interior Stewart Udall and National Park Service Director Conrad L. Wirth.[87] John F. Kennedy wrote a welcome letter to the delegates, urging the growth and development of protected areas as essential releases from industrial civilization. "Throughout history," he wrote, "much of the most productive human

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[85] "Our History," Rowland Ward, accessed August 30, 2015, https://www.rowlandward.co.za/content/default.aspx?pid=47&MainPage=4&SubPage=0

[86] Jane Halse, ed., *Rowland Ward's Records of Big Game*, 29th ed. (Johannesburg: Rowland Ward, 2014).

[87] Alexander B. Adams, ed., *First World Conference on National Parks* (Washington, D.C.: National Park Service, 1962), xxix.

thought, many of our cultural concepts, have been shaped in the out-of-doors."[88]

The proceedings were a confluence of 1960s environmental politics and traditional juggernauts of wildlife conservation. The conference chair was Harold J. Coolidge, the Boone and Crockett member who had declared responsibility three decades earlier for the "saving of the Fauna of the world for all time," now chairman of the IUCN's International Commission on National Parks.[89] Another conference official, Horace J. Albright, was also a Boone and Crockett alum, and key to the formation and development of the U.S. National Park Service (amongst his legacies, he served as the service's second director, and as superintendent of Yellowstone and Yosemite). It was a worldwide affair with 262 delegates from 63 countries, but the proceedings were infused with the American context, due to both the country's claim to origination of the national park idea and its 117 delegates.[90]

Udall gave the keynote address on the Fourth of July. The seminal official of America's wild lands after the Second World War titled his speech "Nature Islands for the World." His message contained an uneasy contradiction, perhaps because it was situated between '60s era ecological holism and older notions of wildlife sanctuary, or between contemporary American environmentalism and the narrower stockpiling mission of colonial wildlife parks. On the one hand, he tapped into the narratives of pervasive industrial degradation that would come to a head a few months later in Rachel Carson's *Silent Spring*. He emphasized air and water pollution, universal disruptors of the

[88] John F. Kennedy, welcome to *First World Conference on National Parks* (Washington, D.C.: National Park Service, 1962).

[89] Adams, ed., *First World Conference on Parks*, 357.

[90] Adams, ed., *First World Conference on Parks*, 11, 433-461.

interconnected life that made the planet habitable. Man's technological capacity and ambition was limitless, but the space race brought new perspective on shared resources and problems—"the earth is our home."[91] Globalization and development seemed to make this shared fate all the more certain, and Udall's message was profoundly unifying. Prescribing shared stewardship of natural resources for the common good, he predicted that "In an era of noise and pollution and jostle and blight" the next generation would value the right to outdoor solitude and natural beauty as highly as constitutional rights like free speech and fair trials.[92] Compared to rhetoric before and since, Udall was even fairly radical, denouncing the "false gods of materialism" in favor of a realization that the "natural world lies at the very center of an environment that is both lifegiving and life-promoting."[93]

On the other hand, Udall's messages about national parks were compartmentalized, and seemingly belied his emphasis on an interconnected biosphere. He quoted Prince Phillip of the United Kingdom, who at a World Wildlife Fund meeting "likened our situation today to that of the Great Flood. When it was threatened, Noah, at the Lord's command, constructed an ark of sufficient size to provide protection and survival for all of the animals, two by two.... If we, too, move in time to take protective action, the conservation leaders of this generation may well become the Noahs of the

[91] Stewart Udall, "Nature Islands for the World," in Adams, *First World Conference on Parks*, 2.

[92] Udall, "Nature Islands for the World," 4.

[93] Udall, "Nature Islands for the World," 2.

20th century."[94] Everyone at the conference could agree, he thought, that "nature-islands of solitude and repose are an indispensable ingredient of modern civilization," and that "wildlands form the only perfect wildlife habitat, and constitute an irreplaceable science laboratory where we can measure the world in its natural balance against the world in its manmade imbalance."[95] While the 1960s narrative called for combating universal problems of environmental quality, the parks philosophy set aside 'islands' or 'arks' as penance for inevitable destruction. Udall declared an inevitable human capacity to pursue "the common cause of conservation of resources," while being at the same time certain of the opposite:

> So great is the power of men and nations to enlarge the machine-dominated portion of the world that it is not an exaggeration to say that few opportunities for conservation projects of grand scope will remain by the year 2000. Let me put the case even more strongly: With few exceptions the places of superior scenic beauty, the unspoiled landscapes, the spacious refuges for wildlife, the nature parks and nature reserves of significant size and grandeur that our generation saves will be all that is preserved. We are the architects who must design the remaining temples; those who follow will have the mundane tasks of management and housekeeping.[96]

The act of building shrines to nature, temples to a shared heritage (in need only of occasional sweeping and dusting, it's implied) locks ecosystems in place as historical curiosities—echoing the sentiments underlying Kruger's declaration more closely than those of the relatively comprehensive, tiered network of environmental reform being planned in America (among bills bearing Udall's influence were the Clean Air Act, Clean Water Act, Solid Waste Disposal Act, and Endangered Species Act, in addition to

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[94] Udall, "Nature Islands for the World," 7. King Phillip, instrumental in the development of the WWF, also was associated with members of South Africa's neo-Nazi 'Broederbund' in raising funds for conservation.

[95] Udall, "Nature Islands for the World," 3, 5.

[96] Udall, "Nature Islands for the World," 3.

legislation protecting landscapes). Perhaps this combination of ambition and cosmic fate was the result of the heady implications of the time—Congress was deliberating over what would become the Wilderness and National Outdoor Recreation Acts, and it might have really looked like the whole world was in the ultimate push for natural stewardship.

Udall's deadline for setting aside parklands, the year 2000, deferred to the same predestined course of human development elaborated by Selous and Roosevelt at the turn of the last century—this time, the closing of the frontier was to happen on a planetary scale. Sigurd Olson, an influential environmentalist and wilderness advocate who also addressed the conference, remarked that "The space age of today is a far cry from the elemental world [Henry David Thoreau] knew, for we have opened up a veritable Pandora's box of treasures which has changed entirely the pattern of our lives … Climates may be changed, ocean currents and rivers rerouted, and our environment shaped to suit our needs. Science is moving so rapidly, we are stunned by its progress."[97] The breadth and complexity of the change foreseen by Olson would seem to undercut the usefulness of Udall's permanently demarcated "nature islands." While critical for the species and ecosystems they contained, these secluded bastions were often treated like the legacies of a dwindling set of landscapes rather than a real attempt to deal with the contingencies of the ecological future. Nevertheless, Udall possessed immense motivational energy, which he channeled in to his closing line: "the objectives are clear—the air is electric with challenge. In the words of President Kennedy, 'Let us begin.'"[98]

Udall's magnanimous call to action involved concrete but flexible principles—"In

[97] Sigurd Olson, "A Philosophical Concept," in Adams, *First World Conference on Parks*, 46.

[98] Udall, "Nature Islands for the World," 4.

the end, each country must develop the kind of park or nature reserve system that suits the needs and aspirations of its people—and the economics of its land base."[99] He offered the assistance of America's Park Service as well as its Peace Corps in efforts to establish and manage parks abroad but also emphasized the need for mutual learning and teaching, a fluid exchange of park personnel between the northern and southern hemispheres. His pluralism represented more than just token efforts at cooperation—he was active in desegregation movements throughout his career including during his tenure as Secretary of the Interior. However, in discussing Africa's parks, he acceded to the principles developed in 1933 by the imperial nations, remarking that the gathering was similar to the present occasion, and that "The inspired people who attended that conference designed what are still accepted as the basic rules for preservation."[100]

John S. Owen, an attendee from Tanganyika (now mainland Tanzania), painted a different picture of African parks—as imperial institutions that needed to convince post-colonial governments of their relevance and appeal to long-deprived populations. Owen was complimentary of the conservation commitment of his country's new government, but shrewdly warned that concessions were in order for those whose historical access to wildlife and farmland had been revoked by parks. With help from foundations abroad, Owen described intensive outreach attempts, supported by international foundations—the training of local conservation staff, and production of park literature in Swahili. While insistent on proving the value of protected areas to new governments, a large part of Owen's hope seemed to focus on their value to their historic cultural base: "We believe

[99] Udall, "Nature Islands for the World," 8.

[100] Udall, "Nature Islands for the World," 9.

this problem is likely to be solved within the next 5 to 10 years for the following reasons," he said. "The middle classes in Europe and the States are getting more and more money, are being subjected to a greater and greater pressure by a materialistic civilization, are willing and able to go further and further afield 'to get away from it all' during their holidays, and are finding the cost of doing so getting less and less, due to the steady decrease in the cost of air transport."[101] Owen's view was that African governments needed to be convinced not only of parks' intrinsic value, but also of their economic worth as magnets for the increasingly mobile tourists from the colonial core.

Rocco Knobel's contribution to the conference dovetailed with many of the themes in the conference, but came from an attitude of intense white nationalism and apartheid's religious narratives of moral decay and urban degeneration. Although sharing some qualities with Udall, like biblical terminology, his philosophy was uniquely tailored to South Africa's ideological climate. In a speech presented to the conference section "Optimum Use of National Parks and Equivalent Reserves," he made clear that the value of park landscapes, rather than being primarily ecological, was their essential moral and spiritual agency—nature's capacity to address a decline in the passion and ethics of young people. Aligning himself with the populist side of the ongoing debate about national parks' dual mandate, he said, "For many generations people have held the belief that nature should be protected for nature's sake," he wrote, but "such a policy is unwise and is virtually impossible."[102] Science was certainly important, but ultimately

[101] John S. Owen, "National Parks of Tanganyika," in Adams, *First World Conference on Parks*, 52-53.

[102] Rocco Knobel, "Scientific and Popular Use: A Conflict," in Adams, *First World Conference on Parks*, 159.

subordinate to economic value, which could be measured in tourist revenue and also in geopolitical standing: "Generally speaking, the natural beauty of any country is a major item of invisible trade...exported in the form of good will and appreciation of that country."[103] Economic value in turn was subordinate to cultural value. Knobel thought everyone at the conference could agree that "The most important value of a national park, therefore, appears to be the re-creational value, not in the narrow sense of physical recreation, but in the true sense of the word which includes spiritual, intellectual, and physical renewal."[104]

Reflecting his prior occupation as a social worker in South Africa's Dutch Reformed Church, Knobel seemed to view parks as a thoroughly metropolitan prescription. Bemoaning a generalized loss of 'avocation,' his philosophy channeled the white pastoral nostalgia that also fueled Kruger's creation mythology:

> The capacity for achievement and originality appears to belong to earlier generations. Several sociologists and psychologists have pointed out that most leaders originate from the country folk (rural areas), and that the psychotic conditions which prevail and the large numbers of suicides are attributable to the tension of the rushed and artificial mode of city life. The primary disadvantage of densely populated areas is the unnatural way of life. Everything is man made; and persons born and reared under these circumstances, many of whom have to struggle continually to exist, often cannot rise above a mundane and materialistic life. Our national parks give us the opportunity to escape from ourselves and from the artificial and sophisticated surroundings, so that we can react normally to the stimulation of creation.[105]

Rather than a passive stockpile of animals or ecosystems, Knobel's parks were wellsprings of social progress, a crucial step in the development of new generations of

[103] Knobel, "Scientific and Popular Use," 162-163.

[104] Knobel, "Scientific and Popular Use," 163.

[105] Knobel, "Scientific and Popular Use," 163.

white South Africans, calling to mind apartheid's programs of affirmative action for poor Afrikaners.

> It is in places like this that one can commune with nature, where the theologian and the philosopher, the artist and the poet, the preacher and the author, the tradesman and the teacher, the housewife and the child, the musician and the scientist—in brief all normal humans—can find inspiration for their various careers, and where balanced personalities and characters may be formed.[106]

Of course, for blacks during apartheid, "places like this" also meant "but not this one." The architects of apartheid negotiated with the chiefs of communal lands to create separate reserves—one such was the Manyeleti Game Reserve for Africans that abutted Kruger. Kruger itself was for whites, especially Afrikaaners like Knobel, a font of innate cultural wisdom that could reconnect lost urbanites to the mythologized *volk* tradition, and fit perfectly within the schema of an apartheid state. Prime Minister D.F. Malan had expressed the same views in his introduction to the 1954 wildlife pamphlet in Chapter 3.

Knobel's remarks at the conference resembled Udall's less than those of Conrad L. Wirth, the other official representative of the U.S. government in attendance. The head of the National Park Service invoked Thomas Jefferson's pastoral ideals to describe the value of parks to American culture:

> While our forefathers were carving a civilization from the wilderness, the land in turn made enduring impressions on their minds and thoughts. Jefferson saw the qualities of perseverance, independence, and initiative being developed and refined, as the American character was shaped on vast stretches of virgin prairie, beside rolling rivers and in lonely mountain passes. It is in the national parks that these influences on the United States can be maintained and kept pure, so that this and future generations may know and feel—and benefit from—the same wonderous [*sic*] exposure that our forefathers experienced.[107]

The similarity of myth and its implication links the frontier experience in both countries

[106] Knobel, "Scientific and Popular Use," 162.

[107] Conrad L. Wirth, "National Parks", in Adams, *First World Conference on Parks*, 14.

as crucial to the framing of national parks, with real consequences for the ways their landscapes are valued and acted upon. Treating them not as lived-in or dynamic landscapes but rather as "pure" or "virgin" territory that need to be maintained alongside a nation's moral character suggests a very different set of management principles and political alignment than the intense focus by contemporary left-wing environmental movements on livability and holistic interdependence. One illustration of this difference might be the spraying of DDT in national parks that continued through Wirth's tenure.[108] If these myths aligned with any serious environmental movement it might have been deep ecology, with its focus on the complete sovereignty of wilderness, but even there the similarity was precluded by Turnerian rhetoric that insisted on the closure and development of every frontier. Interestingly, the discussion moderator for the section that Knobel participated in was David Brower, the influential executive director of the Sierra Club.[109] In the 'rapporteur' for that section Knobel's speech was the most heavily praised and quoted.

In Knobel's recipe for conservation, the optimum use of the park was flexible depending on the spiritual gravity of the scene encountered—managers needed to account for the effects of visitor density on human experience as well as on park ecosystems.[110] There was enormous difference between areas "where most observers wish to have complete silence to perceive the omnipotence of God and the insignificance of man," and

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[108] Sellars, *Preserving Nature in the National Parks*, 162.

[109] Knobel, "Scientific and Popular Use," 148.

[110] Knobel, "Scientific and Popular Use," 163.

other places where solitude was less important to the experience. "In the one instance, the presence of people is disturbing, while in the other their presence is comforting."[111] Knobel's religious and idealistic language echoed the transcendentalism in the U.S. Parks movement, but his grounded perception of park ecology was strikingly different from Udall's characterization of a park as a "perfect wildlife habitat" and "irreplaceable science laboratory," a baseline against which the degradation of the outside world could be measured. Knobel, in contrast, described an ecological reality that managers in Kruger and other South African parks used to justify intervention. "In very few areas can we still refer to unspoiled nature and sound ecological units," he wrote. "Natural preserves have been interfered with to such an extent that balanced ecological units are very rare. We must therefore accept the fact that we have to manage our parks on a scientific basis and cannot rely on nature to keep a natural balance, as too many extraneous factors are present."[112]

Knobel's assessment seems more prescient in light of current understandings of ecosystem dynamics, even though in practice the interventions in Kruger rarely succeeded in mimicking the savanna's crucial ecosystem processes, and instead mostly repressed them. A side benefit for Knobel of this necessary intervention, though, which may have been deplorable to classic American preservationists like Brower, was the economic harvest of "protein" that came from park culling operations. Although American parks were certainly still involved in active wildlife management, they had

[111] Knobel, "Scientific and Popular Use," 164.

[112] Knobel, "Scientific and Popular Use," 161.

more trouble admitting it—as in the case of wolves in Yellowstone in the 1960s.[113] Knobel, in referring to protein and in so readily advocating intervention may have been influenced by a different strain of thought—that of Sir Julian Huxley. The influential biologist, eugenicist and transhumanist left his mark on international conservation movements through prominent roles as a founding member of the World Wildlife Fund and first director of UNESCO. In a widely quoted 1961 UNESCO dispatch on Africa's threatened wildlife, Huxley summed up his recommendations in the slogan "Profit, Protein, Pride and Prestige."[114] Profit came from tourist revenue, and protein from game culling, with gains in pride for local people and in international prestige for the country they belonged to. Huxley was quoted several times in the conference proceedings, and his slogan showed up later in defense of culling in a 1967 issue of South Africa's *Fieldworker* newsletter.[115]

Huxley's special interest in African wildlife contained a diversity of sentiments about land use. He was a smart and contextual biologist, but his deep understanding of human-ecological interaction in the countries he discussed did not preclude a typically colonial attitude about Africans. "In the modern world," he wrote, "as Africa is beginning to realize, a country without a National Park can hardly be regarded as civilized. And for an African territory to abolish National Parks already set up or to destroy its existing wild life resource would shock the world and incur the reproach of barbarism and

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[113] See Alston Chase, "The Wolf Mystery," in *Playing God in Yellowstone: The Destruction of America's First National Park* (Boston: Mariner Books, 1987).

[114] Sir Julian Huxley, "Poaching," *The Unesco Courier*, no. 9 (September 1961): 8-15.

[115] "Definitions for Fieldworkers," *Fieldworker* 6, no. 26 (1967): 12-13.

ignorance."[116] He dismissed 'traditional' African interactions with wildlife, except where communities worked with Europeans to develop new approaches to land tenure and conservation.

Like Harold Coolidge, Huxley, in his 70s at the time of Knobel's speech, was a bridge between the older school of wildlife protection and the burgeoning official institutions that would carry the mission into the 21st century. One institution in particular, the World Wildlife Fund, linked Coolidge and Huxley (both founding members), and their respective histories (in the American Boone and Crockett Club and British Society for the Protection of the Flora and Fauna of the Empire) to the South African state and ultimately to the international politics of Kruger's landscape. (Kruger is now also part of a UNESCO biosphere preserve.) The foundation of WWF international in Switzerland was intimately linked to the South African apartheid state—one of South Africa's preeminent businessmen, Anton Rupert, initiated the organization's branch in the country, the South African Nature Foundation, and served on the WWF International's board of trustees and executive committee.[117]

In the close orbit of leading nationalist politicians and as a long-time member of the Afrikaner Broederbund—a Nazi sympathizing secret society influential in the construction of apartheid—Rupert was also a friend of Prince Bernhard of the Netherlands, who became the first president of the WWF in 1961. In fact, Rupert's influence and recommendations led to the creation of the 1001 club, WWF International's exclusive cadre of wealthy and influential donors (with a contribution of

[116] Sir Julian Huxley, "Wildlife as a World Asset," *The Unesco Courier*, no. 9 (September 1961): 15-18.

[117] Ellis, "Of elephants and men."

$10,000 each, this group was responsible for the organizations initial $10 million endowment).[118] Members of this club reportedly included Henry Ford II, David Rockefeller, several Rothschilds, and also the South African Harry F. Oppenheimer, patriarch of the Anglo-American Gold and De Beers Diamond dynasties, two of Africa's largest mining conglomerates.[119] Although organized more formally into NGOs, this new wave of international conservation, epitomized by the WWF, represented in large part the agendas and sensibilities of the same network of elite international businessmen who had always been the driving lobby in colonial game protection—among them the very same business leaders at the forefront of colonial extraction and environmental destruction. Rather than aligning parks with progressive environmental strategies, these associations incorporated them into a plutocratic ethic as mementos to all that was being eagerly destroyed. Perhaps this is where the real distinction lies between a wilderness and a zoo.

As if to confirm this, the conference in Seattle that Knobel travelled to in 1962 listed among its major sponsors (over $1000) John D. and Laurence S. Rockefeller, the Ford Foundation, the WWF, and the American Conservation Association (later to merge into the WWF). Coolidge admonished conference-goers to cooperate with these burgeoning institutions, saying, "I hope that all delegates and observers will feel that they have the responsibility as members of this launching conference to carry out its mandate and to work with the IUCN, FAO, UNESCO, World Wildlife Fund, International Committee for Bird Preservation, and other international agencies on a worldwide

[118] Ellis, "Of elephants and men."

[119] Marja Spierenburg and Harry Wels, "Conservative Philanthropists, Royalty and Business Elites in Nature Conservation in Southern Africa," *Antipode* 42, no. 3 (2010): 647–670.

program."[120]

These organizations, although increasingly diffuse and evolving, were a key intersection between African nature and Western philosophies of business and landscape. NGOs were able to maintain essentially colonial relationships in parks even after post-colonial independence in many African states. In South Africa, which couldn't be called post-colonial until 1994, the professionalization and internationalization of science combined with an increasing number of local white scientists. Their experience would make the country a hub for ecology and conservation on the continent into the present day. Kruger, although possessing a robust staff and mission compared to many other African parks, still interacted fluidly with the American community of scientists and conservationists even throughout the country's isolation during the apartheid era.

Policy was transferred and exchanged at the highest levels in official conferences like the one in Seattle, and by international lobbies and non-governmental bodies like those who sponsored it. Participating in these bodies but autonomous from them to some extent were scientists who, through person-to-person interaction, continued to hitch together research projects and distribute the production of knowledge in Kruger across borders and oceans. When Arthur Jones arranged the first international share of the park's culling operations, his contract read: "The purpose of this document is to outline the conditions under which a number of elephants will be removed alive from Kruger National Park for shipment to the United States of America."[121] While the park continued

[120] Harold J. Coolidge, "Future Prospects for International Cooperation in the Field of National Parks and Reserves," in Adams, *First World Conference on Parks*, 359.

[121] Arthur Jones, Outline of Elephant Cropping Plan for Kruger National Park, February 28, 1966, NK/1/4, NKW.

to charge private interests for animals and their byproducts, scientists in Kruger undertook a parallel trade, harvesting and shipping specimens for analysis by American colleagues. Reinforcing earlier networks between African ecosystems and zoological and natural history institutions overseas, parcels of biological material made their way from Kruger to research facilities overseas, a physical substrate underlying the larger exchange taking place.

Little pieces of Kruger's ecosystem ended up in places like Pullman, Washington, where Dr. I.O. Buss and others at Washington State University analyzed shipments of elephant tissue from the park. Understanding elephant biology, particularly the mechanisms of reproduction, was crucial to the project of culling, but such intensive research often required more than what the park could bring to bear locally. Culling operations produced huge amounts of 'byproduct', which if not sold could be systematized into biological data. Buss, having visited the park to collect specimens during its culling operation, was in frequent contact with park staff on a variety of projects, and often requested particular tissues—ovaries, fetal samples, and sperm, gathered from what Dr. Pienaar referred to as "freshly destroyed elephants (fig. 7)."[122]

The park's overworked staff, busy carrying out an ambitious culling mandate among other programs, focused its cooperation on outside research that had direct management implications. "We feel that you have first option on any unused material and with your experience could mean more to our understanding of the biology of Kruger elephants," wrote G.L. Smuts, Kruger's research officer, to Buss. "We are also not

[122] Dr. U. de V. Pienaar to Irven O. Buss, November 16, 1971, D/1/1, NKW.

pleased with the apparent ease with which certain people obtain and utilize material simply for their own personal benefit (academic) thereby taking up the time of our limited research staff and doing little justice to the concept 'nature conservation'"[123]

Buss, for his part, got from Kruger cherished field experience with a highly organized team of managers. In July of 1972 he wrote to Smuts, "I think of all of you and the culling operation which must be in full swing or more probably about half completed by now. Surely I wish I were there."[124] The mobility of Buss and his graduate students at Washington State allowed for comparative studies of elephants across African countries, and also across species. T.G. Nel had earlier contextualized Kruger's elephant population by accumulating second-hand observations from all over the world, while eBuss was often able to do this work firsthand. He compared samples from Kruger to elephants he had collected in Uganda, and understood such data in relation to his American colleagues' contemporary work on Asian elephants in zoos and in the wild.[125]

In addition to the excised flesh specimens generated by culling, the large-scale wildlife operation was a spectacle in itself that attracted observers from America. One memo, from a ranger at Mhlanganene to the Nature Conservator, A.M. Brynard, mentioned a visitor that had attended a cull and offered some aesthetic advice.

> ...that pleasant American, Bob McCulley, made a suggestion which I forgot to pass on to you the other day. It was that, during the elephant catching (personally I shall always think of it as 'Operation Arthur') the Bantu employed on the work should be issued with new overalls, carefully inscribed on the back with the words 'KRUGER PARK'. This will ensure that wherever the film is shown, there will

[123] G.L. Smuts to I.O. Buss, December 9, 1971, D/1/1, NKW.

[124] Irven O. Buss to G.L. Smuts, July 6, 1972, D/1/1, NKW.

[125] Irven O. Buss to G.L. Smuts, July 6, 1972, D/1/1, NKW.

be no doubt as to which country was making it.[126]

The McCulley referred to was probably Robert D. McCulley, a fire expert and Forest Service official soon to be head of the Pacific Southwest Research Station in California.[127] The catching and transport of elephants instigated by Arthur Jones (thus 'Operation Arthur') was just beginning at the time of this memo in 1966—McCulley and other interested Americans played a role not only in the logistics of these operations, but in how they were framed for presentation to the world. Culling showed the park at the forefront of new management techniques, with a uniformed and efficient labor pool. It demonstrated to visiting scientists that South Africa was, as its politicians boasted, excelling in the stewardship of its natural heritage. The increased collaboration between South Africans and Americans in the savanna placed the park at the nexus of international conservation, but also allowed South African professionals to stake their claim in the world as skillful arbiters of nature. Arthur Jones himself, notoriously mistrustful of scientists, seemed to make an exception for Kruger's staff, writing to Knobel in 1966 that, "it was a pleasure meeting and working with men of the caliber of those that I met in Pretoria and Skukuza, and we are all looking forward to working with you again."[128]

Staff in Kruger maintained personal contact with others at the cutting edge of American wildlife science. A letter in 1972 from G.L. Smuts contains an exchange with

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[126] Staff memo from Mhlanganene to A.M. Brynard, Kruger National Park, July 15, 1966, D/1/1, NKW.

[127] "PSW Station Celebrates 75th Anniversary on July 1," *for your information* (Albany, CA: Forest Service Pacific Southwest Research Station, 2001).

[128] Arthur Jones to R. Knobel, May 15, 1966. D/1/1, NKW.

Figure 7. Letters between I.O. Buss and G.L. Smuts

John J. Craighead, one of the most influential researchers of the 20th century.[129] Craighead, among other achievements, developed radio telemetry for tracking animals, and Smuts proposed a collaborative effort to track the park's elephants. Their correspondence links developments in Kruger once again to those in Yellowstone, where Craighead and his brother came up with their groundbreaking techniques to study and monitor large, mobile populations of mammals. Smuts also referred to a meeting at a wildlife conference in Calgary between Craighead's collaborator, Helmut K. Buechner, a senior ecologist at the Smithsonian institution, and Salomon Joubert, later to become Kruger's warden. Buechner and Craighead were instrumental in developing satellite tracking for wildlife research, a tool that continues to be used in Kruger and elsewhere to monitor animal populations.[130] In fact, Buechner and I.O. Buss had together conducted a successful aerial census of Murchison Falls' elephant population—staff in Kruger would adapt their flyover technique for monitoring the park's animal populations.[131] Large mammal ecology, a field that remains fundamental to Kruger's management of elephants and its other most charismatic species, was thus another uniquely international initiative, made possible by a transfer of technology and expertise that could be adapted to protected areas across the world.

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[129] G.L. Smuts to John J. Craighead, March 14, 1972, NK/17/1, NKW.

[130] See Buechner and Craighead et al., "Satellites for Research on Free-Roaming Animals," *BioScience* 21 (1971): 1201-1205. In addition to influential studies in Yellowstone, innovations in animal tracking and capture, and extensive contributions to global ecology research, John Craighead and his brother Frank contributed to the inception of the U.S. Wild & Scenic Rivers Act.

[131] U. de V. Pienaar, P. Van Wyk and N. Fairall, "An areal census of elephant and buffalo in the Kruger National Park and the implication thereof on intended management schemes," *Koedoe* 9, no. 1 (1966): 40-107.

In addition to swapping very practical techniques and strategies with scientists like Craighead, the architects of Kruger's era of management intervention in the 1960s and 1970s corresponded with influential American 'big-picture' conservationists. Norman Myers at U.C. Berkeley, credited with the notion of "biodiversity hot-spots," was particularly interested in the rationale and parameters of elephant culling quotas and sent his questions to Dr. Pienaar, by that point Kruger's 'Nature Conservator,' the park's head official (no longer warden). "I am following this whole topic of cropping in savannah Africa as closely as I possibly can," Myers wrote.[132] Their exchanges traced the contours of an international debate around culling as a conservation strategy, dropping references to major conservationists in Southern Africa and America.

Pienaar, updating Myers, wrote that "Bill Bainbridge is leaving Zambia and is looking for a position in South Africa. Apparently Luangwa is now in the same position as Queen Elizabeth—shocking degradation of the habitat (some 20,000 elephants on less than 4,000 sq. miles!), and now they want to discontinue the whole project before it has had the slightest chance to prove itself. The whole administration is also being Africanized."[133] Pienaar, by invoking the flight of a prominent conservationist (Bainbridge) from Zambia's national park and linking it to the country's decolonization, further reinforced South Africa's expertise and moral authority on the subject of wildlife management. The specter of a degraded landscape like Uganda's Queen Elizabeth park, caused by a glut of elephants in another recently independent country, was starkly contrasted against the efficient, stable and scientific management in Kruger, supervised

[132] Norman Myers to Dr. U. de V. Pienaar, December 10, 1970, NK/17/1, NKW.

[133] Dr, U. de V. Pienaar to N. Myers, April 28, 1970, NK/17/1, NKW.

by a white bureaucracy in the region's colonial stronghold.

Myers wrote to Pienaar that "in Uganda and Tanzania (possibly) there seems to be a good deal of trouble (to say the least!) ... and Allan Savory seems to think that commercial cropping in Rhodesia [today Zimbabwe] has not gone at all the way it should."[134] Savory, today a very prominent grazing ecologist with sweeping and controversial prescriptions for climate change, was at the time of Myers' writing a Rhodesian biologist and Member of Parliament. Before going into exile to protest white rule, he helped orchestrate massive elephant culling operations in the country's protected areas. In a blockbuster TED talk in 2013, Savory reminisced about that decision, and his involvement in the 1950s in "setting aside marvelous areas as future national parks."[135] The culling strategy he developed was a reaction to the perceived desertification of the land, whose cause he explained in his talk: "no sooner did we remove the hunting, drum-beating people to protect the animals, than the land began to deteriorate, as you see in this park that we formed."

Only a few years before Savory's instigated culling operations in Rhodesia, Stewart Udall had upheld the 1933 London Convention as the law of the land for African conservationists at the First World Conference on National Parks. Savory and other scientists were apparently the first to explicitly break the 1933 London Convention, when Rhodesia's Wildlife Conservation Act in 1960 allowed experiments with game cropping

[134] Norman Myers to Dr. U. de V. Pienaar, December 10, 1970, NK/17/1, NKW.

[135] Allan Savory, "How to fight desertification and reverse climate change," Filmed February 2013. TED video, 22:19. Posted February 2008. http://www.ted.com/index.php/talks/michael_pollan_gives_a_plant_s_eye_view.html.

for profit to incentivize landowner conservation.[136] His research indicated that elephant numbers would have to be lowered, and with the cooperation of other government researchers Rhodesia proceeded to shoot around 40,000 elephants, a decision that Savory remembers as "the saddest and greatest blunder of my life."[137]

If Savory harbored reservations about culling at the time of Myers' correspondence with Dr. Pienaar in 1970, they were not evident the previous year, when he published an article in *Oryx* that encouraged control of elephant stocks in Rhodesian parks. He argued that the solutions to habitat degradation lay in new techniques developed for private game ranching and livestock management.[138] Any consensus about culling at the time, however, was a tumultuous one. In 1970 *Oryx* published a rebuttal to Savory's article, written by researchers from Zambia's Luangwa Park. "Is it always necessary," asked its authors, "to cull large populations of wild animals such as elephants and hippos when they appear to be destroying their habitat?"[139] They argued that culling was not the solution, and that dry-season fire was the real culprit in vegetation loss—not explicitly disagreeing with Pienaar's report of "shocking degradation" in Luangwa, but shifting the agent of change from megaherbivores to another poorly understood ecological process.

Also around this time, Kruger's in-house biologists (P. Van Wyk and N. Fairall)

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[136] Brian Child, "Conservation in Transition," in *Evolution and Innovation in Wildlife Conservation: Parks and Game Ranches to Transfrontier Conservation Areas*, ed. Helen Suicha and Brian Child (London: Earthscan, 2009), 8.

[137] Allan Savory, "How to fight desertification."

[138] Allan Savory, "Crisis in Rhodesia," *Oryx* 10, no. 1 (1969): 25-30.

[139] R.M. Lawton and Mary Gough, "Elephants or Fire—Which to Blame?," *Oryx* 10, no. 4 (1970): 244-248.

published an article that, while concluding that all of the park's herbivores needed culling, contained doubts about the ultimate threat of tree loss. Elephants did indeed damage vegetation near water in the dry season, and their "cumulative effect over a period of years … is one of havoc and devastation."[140] However, the biologists observed that the park actually seemed to be gaining woody biomass and wrote, "If this argument holds true, then the Kruger Park suffers, with the exception of a few relatively small abused areas, rather from general bush encroachment than from denuding of woody growth by the elephant (and or fire)."[141] Much of this early research relied explicitly on expertise from other African parks, often generated by Americans. Kruger's biologists cited, in addition to Kruger's own reports, research from the Tsavo, Serengeti, Murchison Falls, and Nairobi National Parks. Both I.O. Buss and Helmut K. Buechner were listed, along with George A. Petrides, the prolific wildlife biologist from Michigan State University who also worked briefly as a professor of wildlife management at Texas A&M.

Myers, in his letter to Pienaar, relayed contact with more influential voices in the carrying capacity debate: "Last weekend I spoke to Archie Mossman here, and he is staggered at the way things have gone since he was there with Ray Dasmann ten years ago. Shades of the past ... !"[142] Mossman and Dasmann, both biologists of stature (Dasmann would become chief ecologist at the IUCN), are credited with the paradigm shift towards wildlife ranching in Southern Africa, a form of land use that now takes up

[140] P. Van Wyk and N. Fairall, "The influence of the African Elephant on the vegetation of the Kruger National Park," *Koedoe* 12, no. 1 (1969): 57-89.

[141] Van Wyk and Fairall, "influence of African Elephant."

[142] Norman Myers to Dr. U. de V. Pienaar, December 10, 1970, NK/17/1, NKW.

approximately one sixth of South Africa's total area.[143] Their work in Rhodesia further blurred the distinction between the practices of wildlife management and of ranching. In a report for the IUCN, funded by the WWF, Mossman reviewed years of research in Southern Africa and concluded: "One can 'farm in a zoo'."[144] Science in this new era converged across seemingly fundamental distinctions—some of the very distinctions often used rhetorically to defend Kruger's identity. The wilderness, the cattle pen, the zoo and the laboratory met in Kruger's landscape, enmeshed together in the pedigrees of its resident and visiting experts.

In the 1950s T.G. Nel explored American management strategies through correspondence and research. By the end of the 1960s, this interaction had transcended literature to become a full-blown import/export of scientists. In 1965, the University of Pretoria sent Jacobus du Plessis Bothma to get a doctorate in wildlife biology at Texas A&M under James G. Teer, who would later become president of the Wildlife Society.[145] Upon his return, Bothma was appointed as the Eugéne Marais chair of Wildlife Management, a new position at the University of Pretoria (funded, incidentally, by Anton Rupert). He went on to a long and successful career as a biologist and director of the university's Centre for Wildlife Management—his research on many aspects of Kruger's ecosystem is widely cited.

Fritz Eloff, the head of the university's department of zoology, facilitated

[143] Dhoya Snijders, "Wild property and its boundaries – on wildlife policy and rural consequences in South Africa," *The Journal of Peasant Studies* 39, no. 2 (2012): 503-520.

[144] Sue Lee Mossman and Archie S. Mossman, "Wildlife Utilization and Game Ranching: Report on a study of recent progress in this field in southern Africa," IUCN OCCASIONAL PAPER No. 17, 1976.

[145] James G. Teer, *It's a Long Way from Llano: The Journey of a Wildlife Biologist* (College Station: Texas A&M University Press, 2009), 34.

Bothma's journey abroad. The influential professor, who also served as director of the National Parks Board, wanted a South African trained in wildlife biology to head a new teaching program at Pretoria. In the meantime, he invited a succession of Americans to teach the school's first postgraduate course in wildlife management, starting with George Petrides (the biologist from Michigan State University) in 1965.[146] Teer, who supervised Bothma's doctorate, taught in Pretoria in 1969 gave input to the fledgling program. Joseph L. Schuster, head of A&M's department of rangeland ecology and management, visited Kruger in 1973 and struck up a correspondence with Piet van Wyk, one of the park's groundbreaking biologists, who had shown him around.

These relationships are at the heart of what Nixon called the "Pretoria-Fort Worth Axis." Almost every American scientist who contributed during this period to the development of management and landscape understanding in Kruger hailed from a land-grant university—Texas A&M, UC Berkeley, Washington State University, Michigan State University, and others. In this sense, much of the expertise that has flowed into Kruger's landscape represents a direct extension of one of America's principal techno-scientific projects. The money, expertise and history of these institutions as hubs of industry and agriculture positioned them to dominate the field of international wildlife science, provided it could be framed in ways that channeled the American experience of wilderness—one of conquest and sequestration, with "nature islands" to be monitored, controlled and kept by any means pristine.

During my research, I repeatedly encountered the legacy of Aldo Leopold, whose

[146] Jane Carruthers, "Wilding the farm or farming the wild"? The evolution of scientific game ranching in South Africa from the 1960s to the present," *Transactions of the Royal Society of South Africa* 63, no. 2 (2008): 177.

writing was often cited as a major influence by the conservationists I met. His impact, especially on the second generation of professional scientists in Kruger (those starting to work around 1970) was to contextualize their mission within the field of ecology and ethically, in laying out principles for human relationships to the land. One particular Leopoldian phrase captured the angst and quandary of protected areas in a way that stuck with several of those I spoke to: "Parks are made to bring the music to the many, but by the time many are attuned to hear it there is little left but noise."[147] In this sentiment, the naturalist couches the value of parks in the observation that they are a last resort—an amenity laid on top of an already depleted landscape. It speaks to the grim struggle of conservation against time, but also to the specter of commodification, a fear that nature can be devalued by development. These problems did not escape those working in Kruger, especially as they began to examine the limits of a system hemmed in by ecologically arbitrary boundaries.

Besides his seminal and popular conservation ethic, Leopold articulated one of the first modern concepts of 'game management.' In "Wildlife in American Culture," he posed a question exceedingly relevant to Kruger. "Wildlife management is trying to convert hunting from exploitation to cropping. If the conversion takes place, how will it affect cultural values?"[148] The larger implication here was the notion that something might be lost when an unmediated experience of wildlife or landscape (what he called 'split-rail values') gives way to a circumscribed one, like buying a permit to hunt—or

[147] Aldo Leopold, *A Sand County Almanac,* (1949; repr., New York: Ballantine Books, 1966), 158.

[148] Aldo Leopold, "Wildlife in American Culture," *The Journal of Wildlife Management* 7, no. 1 (1943): 1-6.

encountering an elephant clan in Kruger, knowing that the herd's every move is recorded by GPS collar as part of an involved bureaucracy of control. Many of us are still left to ponder this question, but Leopold answered it confidently. "The experience of managing land for wildlife crops has the same value as any other form of farming; it is a reminder of the man-earth relation. Moreover ethical restraints are involved."[149] Although it sacrificed a component of the quintessentially American (but also, for that matter, South African) pioneer identity, for Leopold the deliberate management of wildlife compensated by developing the relationship between people and the land, an ethical mandate that could be easily ducked on the unconstrained frontier. Such a relationship, he hoped, would be populist—he was skeptical of science's claims of authority to the exclusion of the public. He wrote that "the whole structure of biological education is aimed to perpetuate the professional research monopoly."[150]

One fundamental difference between the landscapes Leopold studied and Kruger would seem to be the fluidity of boundaries—many of Leopold's game animals thrived in agricultural mosaics in ways that are harder to imagine working out for an elephant. A compatibility between economic and animal land use, though, is the essence of present-day game ranching in Southern Africa, and Kruger's elephants frequently overcome considerable obstacles to enter adjacent farms. In "The Forester's Role in Game Management" Leopold pondered, "Is there any escape from the fundamental logic of asking [the Department of Agriculture] to extend to farmers the ideas and techniques of

[149] Leopold, "Wildlife in American Culture."

[150] Leopold, "Wildlife in American Culture."

game management?"[151] He saw that parochial fields of expertise could not address the complexity of landscape ecology, and wrote, "if game management were ornithology or mammalogy, the answer would be simple. But it is neither of these. It is a specialized branch of applied ecology, and deals with forestry, agronomy, animal husbandry, and all other land cropping activities, quite as much as with birds and mammals." He called for new programs of education aimed at creating professionals in "game administration."[152] Leopold prefigured the efforts of R.C.H. Bigalke and later, Fritz Eloff, in their efforts to professionalize a pragmatic science of wildlife management in Kruger.

Leopold may as well have been thinking of Kruger—his writing contains both the logic of culling and its *mea culpa.* He harbored no doubt that managing wildlife was necessary, but argued that the appropriate techniques would not come from research, but instead from accumulated practical experience. While urgent, research was "the lantern for guiding practice, rather than the material of which practice is originally compounded." Under this rationale, the only way scientists in Kruger could practice proper "wild husbandry" was by long-term trial and error; in other words, the trajectory of culling in the park, broadly outlined, was a feasible approach to generating knowledge. "The moral is that every game school should have a *piece of land* on which its research findings are tried out, and from which the subject matter of its research projects is drawn," wrote Leopold, and

> There seems to be a current tendency to assume that management is something to be fabricated out of the findings of research, and therefore something to be deferred pending the accumulation of a large quantity of such findings. I formerly entertained this assumption myself. It is logical and convincing—in the abstract.

[151] Aldo Leopold, "The Forester's Role in Game Management," *Journal of Forestry* 29 (1931): 25-31.

[152] Leopold, "The Forester's Role."

> On more thorough reflection, however, I doubt its practical validity.[153]

In this vein, he offered a definition, that "game research is finding out things to do to the land to make it produce game; game management is the art of doing these things; game administration is the public function of fostering and supervising the practice of game management." In Kruger, many of the early ideas for 'things to do to the land' originated elsewhere—only leading by practice could generate enough data to shed light on the contours of a particular project. In some fields, this self-fulfilling mission was straightforward, as in the biological analysis of elephant reproduction enabled by culling. In the bigger picture, however, a primary criticism of the park's interventionist era is how little learning was actually accomplished, despite the scope and duration of culling. A report leading up to the review of Kruger's elephant policy in 1996 stated,

> An impressive volume of data on climatic conditions, vegetation dynamics and elephant population dynamics and movement patterns are available, but there is a paucity of data analysis and interpretation.... During this time no attempt has been made to instigate an 'adaptive management' approach, where actions are designed to provide information on the state and function of the ecosystem in a genuine attempt to find out how the system works.[154]

So, despite a precedent rationale for game cropping and professional claims of a contemporary scientific basis, according to current staff the park did not actually learn by doing, but rather stagnated in its approach. This claim seems to reverse the Leopoldian approach, arguing that managers in the 1960s and 1970s did exactly the opposite by fabricating a management strategy out of inadequate research, which gained enough momentum to leave a lasting imprint on the land. Nevertheless, Leopold's writing proves

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[153] Leopold, "The Forester's Role."

[154] M.G.L. Mills et al., *Background Information for the National Parks Board's Review of the Kruger National Park's Elephant Management Policy*, Kruger Park Scientific Services No. 1/96 (1996), 34.

that culling, or the deliberate manipulation of 'wild' animal populations, is not inimical to conservation but is instead one of its enduring premises. Viewing Kruger's wildlife as a "land crop" to be cultivated was a preexisting concept, not one propagated uniquely by South Africa.

Leopold is not relevant to Kruger simply because of his observations, prescient as they may be about management to come. His literary and conceptual legacy was complimented by a human one—his son, Aldo Starker Leopold, was part of the instrumental next generation of wildlife biologists whose work would make its way abroad to parks like Kruger. A professor of zoology at Berkeley for more than 30 years, he influenced the field of wildlife management in government and in NGOs. Dassman, whose wildlife stocking in Rhodesia influenced debates about culling and carrying capacity, was the younger Leopold's protégé.[155] A. Starker Leopold served on the National Council of the First World Conference on National Parks, and a year later was commissioned by Stewart Udall to head the National Park Service's watershed wildlife management review.

The ensuing 1963 Leopold Report was the watershed evaluation of the American National Park Service. In 1955, only four years after visiting South Africa's struggling Parks Board and reassuring them that American scientists were also 'feeling their way' forward, Victor Cahalane resigned in frustration from his position as the Service's chief biologist.[156] Kruger's own management structure had been similarly challenged and re-

[155] Elaine Woo, "Raymond F. Dasmann, 83; a Founding Father of Environmentalism," *Los Angeles Times*, November 9, 2002.

[156] Sellars, 168.

worked by the Hoek Commission in 1951, which concluded that the practice of nature conservation in Kruger was woefully inadequate and set the stage for the staff to be organized professionally based on the American model.[157] The Leopold report, prompted by intense controversy around elk culling in Yellowstone, similarly shook up the Park Service's claim to natural stewardship, exposing pervasive anti-science attitudes and arbitrary management quotas.

The Craighead brothers, who helped set up large mammal tracking in Kruger, also butted heads with park bureaucracy during their work in Yellowstone. They had fitted the park's vulnerable population of grizzly bears with ID tags to study their relationship to dumps, which the service planned to remove. The Craigheads believed that removing the dumps all at once would cause the already vulnerable species to crash, while the Park Service was appalled at the aesthetic disruption caused by the dumps and the bears' unnatural feeding habits. When the dumps were removed, and the Craigheads' request to monitor tagged bear populations was denied on the grounds of inhibiting public enjoyment of natural scenery, their project fizzled. Scores of bears were killed after dispersing from the dumps, but bear populations survived the closure by a narrow margin.[158] The quarrel and Leopold's report show prominent scientists struggling for institutional support, complicated by deep rifts in opinion about what parks should look like, how much the tourist experience should be prioritized, and what role scientists played in decision hierarchies. Linked by network of connections to counterparts in South Africa, these incidents are a testament to the similarity of themes in the management of

[157] Carruthers, "Conservation and Wildlife Management," 219.

[158] Sellars, 249-253.

parks in both countries—especially the role of science in determining park goals.

South African and American scientists were intimately bound together in understanding their unique populations of megafauna and deciphering the processes at work in the landscapes they were charged to conserve. These understandings, by establishing empirical rationales for intervention, left an imprint on the landscape and on subsequent efforts to determine how best to encourage or impede change in Kruger. This network of professional knowledge, however, was much more broad than a bilateral relationship between two countries. American scientists had their say in conservation strategy all over the world, and the South Africans who developed expertise in their country's flagship park traveled and corresponded all over Africa.

These networks are a tribute to the initiative and ingenuity of an intensely passionate and curious group of colleagues, a group that cobbled together scarce resources and time to fast-track vital understandings about ecology. In other ways, though, the interconnectedness of such a group, and their power to set international agendas, extended the reach and the repercussions of their actions. Decisions made about culling and, more fundamentally about what a conserved landscape should look like, are now often regarded as hubris, part of a failed 20th century project to 'command and control' the infinite complexities of nature. The more salient concern, though, might be that these individuals were always bound up to some extent in the insularity and historical circumstance of their demographic—as white men, as critical or uncritical agents of empire, and as subjects of the larger social and political currents that enveloped them.

This is no less the case today. Looking for evidence of an international paradigm shift in conservation often reveals connective tissue from the past, vibrant and healthy, if

unexamined. All of the scientists mentioned in this chapter belonged to one or several of the NGOs whose lineages leapt across the metropoles and peripheries of empire—the Wildlife Society, the IUCN, the WWF, and others. Ray Dasmann, for example, who trained under the younger Leopold and worked on game cropping in Southern Africa, went on to create UNESCO's Man and Biosphere program, which now includes Kruger in one of its reserves.

In the transition period after apartheid, Americans formed a core component among the international scientists who participated in the redefinition of Kruger's goals, and they continue to be instrumental in major research programs of the park. For instance, Dr. Greg Asner at Stanford runs an otherwise prohibitive LiDaR program that gathers fine-scale vegetation data, one of the most valuable and exciting tools for assessing landscape change from the air.

At the same time, the influence of elite groups has not changed.[159] There remains an underlying conflict of interest even in a landscape dedicated to the preservation and propagation of biodiversity, social justice and community-ecosystem coexistence. It is that, as Slavoj Žižek argues, the same people build with one hand an institution to address a problem that they perpetuate with the other.[160] De Beers and Anglo American are two of the most destructive and colonial companies still in existence, for example, yet they are major sponsors of mainstream green NGOs. English billionaire Richard Branson owns Ulusaba, a deluxe private game lodge abutting Kruger (incidentally, Allan Savory's Earth

[159] Spierenburg and Wels, "Conservative Philanthropists."

[160] Slavoj Žižek, "First as Tragedy, then as Farce," (lecture, Royal Society for the encouragement of Arts, Manufactures and Commerce, London, November 24, 2009.

Institute is an ongoing finalist in Branson's Virgin Earth Challenge, a massive carbon sequestration contest).[161] In Public Private Partnerships (PPPs), Kruger leases land to luxury safari lodges operated by international concessionaires, seeking the increased funding that comes from "upmarket" facilities.[162]

Today, in South African parks and in much of the world, nationality is less correlated with a scientist's chosen geography than it has ever been. A homogenizing set of principles could be one trend, in light of the history just covered; but a new scientific cosmopolitanism might also present an opportunity for cooperation and boundary pushing. The onus is on the Americans in the interaction to deeply consider the international legacies that grease their paths abroad, even those that today seem to do noble work. It is by no means certain that Ken Burns' boast about national parks ('America's Best Idea') has proven to be the case at all in South Africa.[163] These areas—the ecosystems they contain—are crucial biological sinks that are in some cases all that remain of certain organisms, habitats and processes, but their export reflects less a history of logical foresight and egalitarianism than one of empire.

The geographer Brian Child writes that "the juxtaposition of new and old narratives…. suggests a conservation agency in the throes of rapid change. For instance Kruger National Park was famously self-reliant to the extent that it even employed its own gunsmiths, so talk of 'outsourcing elements of non-core competency' is indicative of

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[161] See Richard Branson's 'Ulusaba Lodge,' and "The Finalists," Virgin Earth Challenge, accessed August 30, http://www.virginearth.com/finalists/.

[162] SANParks, *Annual Performance Plan 2014/15*, 35.

[163] *The National Parks: America's Best Idea*, directed by Ken Burns (2009; Public Broadcasting Service), DVD.

radical change, not only in the conservationists' language but in their intentions."[164] Child points to the current privatization of certain "non-core" park elements, laid out in SANParks management plans, as a breach of historic park sovereignty, but international skill-sharing and research outsourcing characterize the entire history of the park. Key elements of the park's competency come from the interlocking apparatuses of international conservation.

As institutions from the Northern Hemisphere exert more and more influence in all economic sectors of the global south (South Africa recently broke its categorical rejection of World Bank loans), international conservation will likely become bound all the more tightly in a mimicry of colonial power relations. Reflexivity and environmental justice, espoused by SANParks, and many in the U.S. environmental movement, are thus all the more existentially necessary in developing new policies in parks, but also in challenging the credibility and influence of corrosive industrial titans that perpetuate human and ecological violence in Africa.

Kruger's landscape priorities become a lot more complex if we expand the assumed group of stakeholders to the elite international business interests who have played a role throughout the park's history, especially the influential tycoons involved in America's national parks and NGOs. The pressure and expertise of America's conservation apparatus, and the American scientists who visited and advised their South African colleagues, are woven through Kruger's history of landscape preferences, park objectives and management actions, and nest the park in a dynamic international web of

[164] Brian Child, "Recent Innovations in Conservation," in *Evolution and Innovation in Wildlife Conservation: Parks and Game Ranches to Transfrontier Conservation Areas*, ed. Helen Suicha and Brian Child (London: Earthscan, 2009), 280.

conservation that undergirds its present circumstance.

CHAPTER VI

"SUGGESTS JAUNT TO ESCAPE ENNUI": THE KRUGER PARK IN AMERICA'S IMAGINATION AND RHETORIC

In 1949, an American newspaper columnist recalled, "I think I forgot to mention that at White River, the little town which is the gateway to Kruger National Park, the world's largest wild game preserve, the feature attraction at the movie house when we were there was Johnny Weissmuller in the old, old Tarzan of the Apes picture. White River citizens packed the place to watch the antics of the moth-eaten Hollywood animals when all they had to do to see the same animals in their native habitat was to walk about a mile to the gates of the park."[1]

Kruger's ecosystems are characterized by their endemism, and South Africa is the third most bio-diverse country in the world. But by virtue of both being on the 'dark continent' and having a white colonial past, it remains common to interpret its landscape through a very general set of metonyms for African nature. White River's enthusiasm for a vision of nature created at an MGM studio outside of Los Angeles seems absurd. This kind of encounter, though, demonstrates how Kruger, home to a unique ecological and biophysical reality, also participates in a more generalized and fluid cultural traffic that profoundly determines its meaning in the world, and the value attached to its iconic elephants.

In 1927, soon after the declaration of Kruger National Park, a *New York Times*

[1] Henry McLemore, *Dallas Morning News*, October 7, 1949.

headline declared: "BIGGEST ZOO IS A VAST JUNGLE: South Africa Sets Aside 8,000 Square Miles to Preserve Its Wildlife."[2] 'Zoo' and 'Jungle' particularly fit this headline into a longer trajectory of depicting African ecosystems—casting Kruger's semi-arid landscape as a 'jungle' tapped into dominant narratives of tropical Africa, and the teeming hordes of animals that made it a 'zoo' clearly laid out the imaginative function an African park, implying enclosure, governance, exhibition, and ultimately, animal husbandry, very different qualities than the naturalized, sublime scenery to be found in American parks. *The New York Times* seemed to agree with Stevenson-Hamilton's early ideas about how the savanna should be presented to the public—as a drive-through animal theme park.

South African savannas have long held sway over American imaginations. *The Saturday Evening Post* published an article in 1848 with the headline: "The Lion Hunt: A Man's Sport in South Africa." An action-packed tale of a deadly lion encounter in the veld, the story placed typical emphasis on the "savage dignity" and "inherent wildness" of native guides with the "wild monarch of the wilderness" roaring over them.[3] As conservation became vogue by the beginning of the 20th century, these narratives took a more repentant turn. The accounts of Frederick Courteney Selous, a hunter of legendary status in Southern Africa, were immensely popular overseas. He was a member of the British Society for the Protection of the Flora and Fauna of the Empire, and in fact was a boyhood friend of Abel Chapman, the naturalist who sketched out an early proposal for

[2] Claire Price, "BIGGEST ZOO IS A VAST JUNGLE," *New York Times*, January 9, 1927.

[3] "The Lion Hunt," *Saturday Evening Post*, December 2, 1848.

the boundaries of Kruger.[4] Selous' widely read accounts of adventure, war, and the pursuit of game took place largely in the northeast Transvaal and present-day Zimbabwe, and their cultural import, so soon before the establishment of Kruger, are a groundwork for understanding how so many influential Americans came to have a stake in the far-away savanna.[5]

Selous was the epitome of a globetrotting sportsman. A prolific cartographer, explorer, tracker, and naturalist, he was also a well-connected international agent who was bound up in military expansion and conquest. Among his many powerful friends were Cecil Rhodes and Theodore Roosevelt, the latter of whom was endlessly fascinated by his tales and enlisted Selous to co-organize his infamous presidential safari in East Africa in 1909.[6] It is hard to overstate the hunter's influence on English-speaking imaginations: having inspired at least Rider Haggard's famous hero Allan Quatermain, his experiences may have also served as a basis for Ernest Hemingway's *Snows of Kilimanjaro*.[7] In Roosevelt's words, "[Selous] was exactly what the man of the open, the outdoors man of the adventurous life, who is also a cultivated man, should be."[8] His accounts, or those of his admirers (like his friend and biographer J.G. Millais), appeared ubiquitously in influential American publications, including *Outlook*, *Harper's Weekly*,

[4] Jane Carruthers, "Chapman, Abel (1851–1929)," *Oxford Dictionary of National Biography*, accessed March 17, 2014, http://www.oxforddnb.com/view/article/64726.

[5] See especially Selous' *Travel and Adventure in Southeast Africa* (London: Rowland Ward and Co., 1893) and *A Hunter's Wanderings in Africa*, (London: Macmillan and Co., 1907).

[6] Tobias, *Film and Nature*, 87.

[7] E. Mandaringan and T.J. Stapleton, "The Literary Legacy of Frederick Courteney Selous," *History in Africa* 25 (1988): 199-218; Robert D. Madison, "Hemingway and Selous: A Source for Snows?," *Hemingway Review* 8, no. 1 (1988).

[8] Theodore Roosevelt, "Frederick Courteney Selous," *Outlook Magazine*, March 7, 1917.

The Youth's Companion, *Life, Popular Science Monthly* and *Forum*, and his books were highly recommended in literary reviews. Selous's writing also appeared in *Forest and Stream*, the bastion of early American conservation edited by the naturalist George Bird Grinnell.

Selous cannily harnessed the thrill induced in armchair audiences by African nature. About lions, he dryly remarked that "Suddenly released in a London drawing-room, I feel sure they could not fail to produce a very marked effect."[9] His tone was tailored to the sensibilities of elites back home and in America, and he inspired hero-worship there—his obituary was authored by Roosevelt, America's own beloved playboy naturalist. "He faced death habitually," Roosevelt wrote. "Again and again he escaped by a hair's breadth, thanks only to his cool head and steady hand."[10] Selous used his celebrity to send cautionary messages to Americans about nature in Africa. His dark 1909 editorial, titled "The Destruction of African Game," compared the decline of species in the American West to the similarly degraded landscape that he was a witness to in South Africa:

> elephants, rhinoceroses—both the black and white species—buffaloes and hippopotami existed in prodigious numbers through-out the northern and eastern districts of the Transvaal, and from the Orange River to the Limpopo …nor was it possible for a traveler in all that vast expanse of country to pass a night in the veld out of earshot of the lion's roar…To-day there is but a poor remnant of all this abounding and varied fauna left. The march of civilization has destroyed it.[11]

The Society for the Preservation of the Flora and Fauna of the Empire, in which Selous participated, agreed with his assessment, and its explicit object was "to create a sound

[9] Roosevelt, "Frederick Courteney Selous," *Outlook.*

[10] Roosevelt, "Frederick Courteney Selous," *Outlook.*

[11] Selous, "The Destruction of African Game," *Forest and Stream*, January 23, 1909

public opinion on the subject at home."[12] A few years earlier, its delegate to Whitehall had informed the Colonial Secretary about the "most remarkable force of public opinion"

> which has grown up throughout the United States and also in Canada, taking the form of a determination not to allow the same fate to befall the other game as has unfortunately befallen the buffalo …. Of course, in South Africa there is no effective public opinion to enforce and support such things as game laws; but I do not think we are claiming too much when we say that in the future, if South Africa is to become a largely populated and flourishing portion of this empire, similar public opinion will arise; and our great fear is that it will arise too late.[13]

Selous, like many others, was probably informed by American philosophies towards the West as much as he influenced theirs towards Africa. As a boy, he "used to devour ravenously the works of Ballantyne, Mayne Reid, Catlin, and other writers of fact and fiction concerning the wonders of the great continent of North America."[14] These seminal characterizations, where sweeping landscapes of adventure and wilderness retreat before the march of civilization, undoubtedly put Selous in contact with what William Cronon called the two primary cultural constructs of American wilderness conservation—the sublime and the frontier.[15] But in the African wilderness, the comfortable sublime that characterized American protected areas was nowhere to be found. In the savanna, thrill came from daring and danger, in man's skillful confrontation and conquest of exotic terrors (only later would animals take on a more benign role in Kruger, and praise of the area's scenery still pales in comparison to the transcendental

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[12] Rhys Williams, ed., preface to *Journal of the Society* 4 (1908): 3.

[13] S.H. Whitbread, quoted in "Minutes of Proceedings at a Deputation from the Society for the Preservation of the Fauna of the Empire to the Right Hon. Alfred Lyttelton (His Majesty's Secretary for the Colonies)," *Journal of the Society* 2 (1905): 16.

[14] Frederick Courteney Selous, *Sport and Travel: East and West* (London: Longmans, Green, and Co., 1900), 143.

[15] William Cronon, "The Trouble with Wilderness; or, Getting Back to the Wrong Nature," in *Uncommon Ground: Rethinking the Human Place in Nature* (New York: W.W. Norton & Co., 1996).

rapture described in American parks).[16] America's deep-rooted expansionism quickly seized on the 'dark continent,' and its hunters and naturalists, fed by tales of adventure like Selous's, imagined a new frontier in Africa.[17] Selous, for his part, pined for America's version, writing about a trip to the Rockies:

> The America I desired to visit was the America of my boyish dreams, the land of vast rolling plains, over which the shaggy bisons—now, alas! extinct—once ranged in such countless multitudes, and of rugged mountain ranges where the wapiti [elk], once so plentiful, still roams warily, never now showing his magnificently antlered head beyond the shadow of the dark pine forest, if he can possibly avoid doing so. In a word, I wished to see wild America if there was any left, not the new Europe of the Eastern States.[18]

Almost everywhere that he complained about the destruction of game he included prescriptions for its redress: he proposed that game reserves be established, within which "no European or native is allowed to shoot or hunt game on any pretext whatsoever, and no natives are allowed to live in them."[19] He was insistent that "the natives are not allowed to possess firearms, and that the destruction of game by them by other means is carefully regulated and restricted."[20] This was not based only in African experience. Traveling in Alaska, Selous wrote, "The Indians, now no longer armed only with the archaic weapons of their forefathers, but with Winchester rifles of the latest pattern, kill what they will, without any restraint, and find a market at the mining camps for all that

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[16] Beinart and Coates, *Environment and History*, 76.

[17] Dunaway, "Hunting with a Camera," 209.

[18] Selous, *Sport and Travel*, 143.

[19] Ibid.

[20] Selous, "Destruction of African Game," *Forest and Stream*.

they bring in."[21]

These sentiments are relevant because they play into how Kruger's landscape, and the changes within it, have been assigned national and international context. Focusing culpability on pre-colonial inhabitants may have been the forced middle ground in a cognitive dissonance that riddled these narratives of environmental collapse. On the one hand, Selous, like the Americans he befriended, longed for the untrammeled expanses of the mythical past. But on the other, he and they were committed colonial determinists who couldn't conceive of societal progress without the conquering march of white civilization.

Selous, although popular as a gentleman hunter, was also a fairly ruthless agent of imperialism—among other campaigns he helped Cecil Rhodes orchestrate the occupation of Mashonaland (later to become part of Southern Rhodesia).[22] "That I may live to see that far-off country, endeared to me by so many stirring reminiscences, grow and increase in prosperity until it has become a rich and prosperous portion of the British Empire, is my most earnest desire," he gushed.[23] Game reserves such as Kruger were essential to this prosperity, a sort of paean to the frontier from the vantage point of civilization—later echoed by Rocco Knobel and South African politicians during apartheid. Environmental problems that lingered after settlement often fell on the only remaining scapegoats. "Mr. Selous pointed out that the question of the slaughter of game animals by natives was an

[21] Frederick Courteney Selous, *Recent Hunting Trips in British North America* (New York: Witherby & Co., 1907), 10.

[22] Selous, *Travel and Adventure*, 310-313; Mandaringan and Stapleton, "Literary Legacy of Selous."

[23] Selous, *Travel and Adventure*, ix.

important one," read the Society's journal in 1904, "and should not be overlooked."[24]

After Kruger's official declaration in 1926, the park started appearing officially in American conservationist publications, but more importantly in popular travelogues and advertisements about South Africa in the American press (fig. 8). The same year that William T. Hornaday donated to its budget, the Parks Board of Trustees reported another sign of interest—the Hearst Film Corporation had taken footage in the park, presumably as part of the conglomerate's Metrotone newsreel program. The program, a partnership with MGM, beamed images of the park into movie theaters across America as the prelude to featured attractions.[25]

The aesthetic and historical value to be found in African landscapes was specifically recognized by the 1933 "Convention Relative To The Preservation Of Fauna And Flora In Their Natural State," the colonial document that had enunciated the purpose of African parks. It charged that such features were to be preserved "for the benefit, advantage, and enjoyment of the general public."[26] In this philosophy, shared by the U.S., parks were neither commodities to be maintained nor forbidden sanctuaries to be cloistered for their own sake, but a tidal zone somewhere in between. To be looked at and experienced was core to their mission. Park advocates tried to instigate tourism by touting the wonder of 'Unspoilt Africa,' allowing those with the means and mobility to experience the stuff of movies and serialized adventure. Unlike parks in African

[24] Rhys Williams, ed., preface to *Journal of the Society* 1 (1904): 4.

[25] Parks Board of Trustees, Kruger National Park Annual Reports, 1928, 6.

[26] Convention Relative To The Preservation of Fauna and Flora in Their Natural State, U.K.-Belgium-Egypt-France-India-Italy-Portugal-South Africa-Spain-Sudan-Tanzania, November 8, 1933.

THE WORLD'S GREATEST WILD ANIMAL PARADISE

Zebra and wildebeest photographed in the very early morning at one of their drinking holes in the wilds of Kruger National Park, South Africa, a game preserve which is 250 miles long and 150 miles wide and contains hundreds of thousands of wild animals of all kinds. A wildebeest is an animal similar in many respects to the North American bison.

M-G-M News Photo.

Figure 8. Rotogravure, M-G-M News Photo, *Times-Picayune*, September 23, 1928

countries with small colonial populations, the focus on public interaction in South Africa shifted Kruger away from the sensibilities of a hunting elite towards those of a broader group of modern white citizens.[27]

The growing urban leisure class was far enough removed from a landscape like Kruger to enjoy revisiting it as a vacation, or something more—a cultural identifier, a spiritual restoration. One signal of this change in Kruger was the immediate popularity of lions. These animals which had been exterminated as vermin, anathema to settlers, were

[27] MacKenzie, *Empire of Nature*, 267.

suddenly the star attraction, primed by years of visual and literary celebrity and suddenly made accessible for viewing (other animals, like hyenas, remained detestable). Big cats could be encountered in person, but African wildlife could also function from afar as films and photographs framed and captioned the imaginative landscape in Kruger so it could be accessed overseas. Photographers such as P.W. Willis and the American Paul Selby were granted special access to Kruger's watering holes by park administrators, and they published their photographs internationally.[28]

Wildlife, first judged by commodity value, then by trophy value, now underwent reclassification based on new cultural prestige and sightseeing appeal.[29] This succession of values did not involve complete replacement, as each informed the next. For example, animals with high commodity or trophy value might also have sightseeing value—elephants, whose highly valued ivory made living outside protected areas largely untenable, were all the more thrilling to observe because of their commoditized destruction elsewhere. Amateur photography may actually have disseminated the values of trophy hunting by encouraging a broader type of 'shooting' to capture sought after specimens.

South Africans who fervently supported the national park model in Kruger looked to America for guidance. Especially before World War II, their park was far less structured than America's, with no paved roads and limited formal facilities. "The fact was," bemoaned the warden, "the place had been thrown open to the public long before it was ready for their reception. Practically everything remained to be done in order to

[28] Bunn, "An Unnatural State," 202.

[29] Ibid.

transform the wild, trackless, primitive bit of Africa which the Sabi Reserve was in 1926, into a mild imitation of the American Yellowstone Park, with hardly any money for the purpose."[30] It turned out that one of the first visits by American tourists to the park ended in disaster—stranded in a muddy rainstorm and rescued by park staff, they also caught malaria, and, according to Stevenson-Hamilton, gave the park some very bad press when they got home.[31]

The warden identified a different set of desires in visitors from abroad, perhaps because of an inference about the accommodation expected by their tax bracket, but perhaps also because of an awareness that the park had to compete with so many other quintessentially 'African' destinations. Regardless, "Something had to be done for overseas visitors," he reflected.[32] Despite its local and international popularity, the pressure exercised on Kruger by visitors was still far less than its American counterparts, which were swarmed by a total of 3 million in 1929.[33] As infrastructure developed, however, South Africans became wary of a 'Coney Island' effect, appreciating that their experience was less structured than most other parks, including elsewhere in Africa.[34] Kruger at the time was less a theme park than a series of rutted tracks. "Many old-fashioned people appeared to think that up-to-date hotels on the American model would be out of place; would, in fact, mar the character of the surroundings," observed the

[30] Stevenson-Hamilton, *South African Eden*, 222.

[31] Ibid.

[32] Stevenson-Hamilton, *South African Eden*, 237.

[33] Beinart and Coates, *Environment and History*, 79.

[34] Bunn, "An Unnatural State," 206.

warden.[35] In fact, heady language about nature's symbolic and rejuvenating qualities would seem to have been undercut by a prevailing hooliganism in the early years—largely unsupervised, many visitors used the landscape as a resort for speeding, drinking beer, taunting animals and blaring music (some still do, but there are fines). For its first South African visitors the savanna offered a freewheeling expanse for social capers, with enough risk and novelty to access what the warden called "that most exhilarating of all feelings, the memory of danger met and happily surmounted."[36]

The conversation about development never ends, and is a Rorschach test for what visitors believe this landscape represents, and how the park incorporates or rejects those notions. Preferences, as the park accumulates more history, come to be shaped by an increasingly loaded set of expectations, memories, and cultural tropes.

For his part, Stevenson-Hamilton spent a lot of time thinking about what might set Kruger apart:

> There exist fundamental distinctions between the great South African National Park and those of the United States of America, whose example first inspired in my mind the conception which later matured. In the latter, the attractions are mainly scenic, the animals play a secondary role; the various dangers of the primitive African bush are absent…In fact, while the American National Parks are rightly known as 'Playgrounds for the People', the Kruger National Park may more fitly be designated as 'A Sanctuary for the Fauna, to which the Public is admitted.[37]

The warden, like many others, viewed the animals he so closely observed as Kruger's main characters—all other purposes for him were subsumed to that custodial relationship,

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[35] Stevenson-Hamilton, *South African Eden*, 245.

[36] Stevenson-Hamilton, *South African Eden*, 234.

[37] Stevenson-Hamilton, *South African Eden*, 247.

including populist aspirations like those of the U.S. National Park Service. Such frequent comparison to America's parks, especially its highly trafficked 'crown jewel,' was for the widely-read Stevenson-Hamilton partially a result of osmosis. There was also a physical link: the secretary of the Parks Board during part of this period had once been an employee in Yellowstone, and in addition he had worked in the tourism department of South African Railways, which established the first facilities and transportation into the park for sightseers and played a significant role in Kruger's marketing.[38]

When Barbour and Porter (the naturalists from the Harvard museum) visited in 1935, they too were unequivocal about the function of the park and shared prevailing concerns about the role of mass tourism. Concerned with the stewardship of animals, they scorned almost any human presence, a stance which bled into an aesthetic of African nature that was easily ruffled—having warned about native reserves and 'slovenly' hunting camps outside the park, they found much to be disturbed by inside it as well. "It is most unfortunate that the new rest huts, instead of being the old South African rondavels scattered about, are square box-like buildings in long lines, and when these are backed up by ranks of dirty white tents, the effect of a slovenly military encampment is all too realistic," they wrote.[39] In an enduring sleight of hand, the Americans endorsed thatch-roof huts designed to evoke a non-European theme in the land, yet condemned the tenure of the Africans whose dwellings were imitated. The experience of exotic wildlife was framed for visitors by the appropriated visual legacy of those from whom the landscape had been wrested.

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[38] Stevenson-Hamilton, *South African Eden*, 222.

[39] Barbour and Porter, *South African Parks*, 31.

Perhaps because they were zoologists, the authors reserved a significant amount of derision for many who did visit the park, whose crassness and simple expectations they could not understand. The report lingered on the subject of "Leontophilia": "all about empty tins, banana skins, orange peels, paper bags, candy boxes—these betoken the fact that lions may be seen here regularly. For most of the day a serried line of motley motor cars is ranged strategically so that the lolling occupants may gaze fatuously at some three or four fat, lazy lions rolling or dozing in the shade."[40] Finding in 'Unspoilt Africa' a garbage-spewing traffic jam and a domestic looking tableaux of lazy carnivores, on top of the park's ugly modern buildings, the naturalists were disgusted. This was less a philosophical conflict than a matter of taste—they issued another series of gripes about the park's bedding, linens and food. The park should be wilder and less mundane, but at the same time have more sophisticated amenities. As it stood, it was a hardship for overseas visitors, "yet it is these very visitors who carry the fame of the Park far and wide."[41]

The Americans found solace from this ramshackle aesthetic affront in the isolated north of the park, in the area between Punda Maria and the Pafuri and Limpopo Rivers. Riverine forests and "stately" baobabs distinguished it from the central Mopane forests and the scrubby Acacia in the south, where "except for the animals, there are few natural features ... which arrest the attention."[42] In contrast, the relative inaccessibility of the north was an advantage, for "the most beautiful part of the Park is the one which it is

[40] Barbour and Porter, *South African Parks*, 13.

[41] Barbour and Porter, *South African Parks*, 31.

[42] Barbour and Porter, *South African Parks*, 32.

most important to preserve as undisturbed and tranquil as possible."[43] Their misanthropy did not extend to their audience at home, or to their many hosts, and they pointed out "the extraordinary fact that Americans have not yet learned to appreciate the ease with which many of the most strikingly interesting parts of South Africa can be visited. [T]he Tourist Department of the Government of the Union of South Africa is extremely efficient in aiding one to plan details concerning journeys by rail or motor and can provide much other useful information as well."[44]

As the American Committee made their observations, the American press was following the park closely. Articles and advertisements appeared about Kruger in magazines and newspapers, such as *The North American Review, The Living Age, Forum and Century* and *The New York Times,* which solidified its reputation as a world-class travel destination. They also extended typical attitudes towards African wildlife and people. When the *Times* characterized the park as the world's 'Biggest Zoo,' it offered a full-page spread with large action photos of hippos, giraffe and wildebeest.[45] It counted each prominent animal species, and even made note of the two recovering elephant herds in the park. The *Times* denigrated commercial and subsistence hunting, referring to "years of indiscriminate butchery" by white biltong hunters and "heavy damage" inflicted by native poachers and their dogs.[46] It deployed both the broad colonial language of race ('natives') and a specifically English class-based condescension ("indiscriminate

[43] Barbour and Porter, *South African Parks*, 32.

[44] Barbour and Porter, *South African Parks*, 4.

[45] Claire Price, "Biggest Zoo is a Vast Jungle," *New York Times*, Jan. 9, 1927.

[46] Price, "Biggest Zoo."

butchers") The article predicted that "the reservation with its 130,000 head of wild animals shall be ultimately as accessible as Yellowstone to the ordinary tourist. [I]t is hoped to make it not only a great scientific centre, but also the greatest tourist resort in the world for men who 'shoot' big game with cameras."[47]

The business of attracting a new class of American tourist to South Africa was well under way by the 1930s, and periodicals published chiefly romantic and entrepreneurial travelogues in which Kruger's wildlife featured front and center. For Americans, the all-inclusive safari was a firmly upper class privilege, and exclusivity informed how Kruger was described. A column in *The North American Review* called "Notes of a Cosmopolitan" described South Africa's opulent rapture: "Her particular brand of clear unadulterated sunshine wraps you round when you first reach her shores and leaves an indelible impression of radiance on your entire South African experience…. It gleams on the sweating back of your rickshaw boy as he pulls you in all his barbaric glory."[48] For the lavish American traveler, Africa's people and animals were exotic facilitators of a marvelous and comfortable odyssey into the past, where the dangers of frontier life, decades past, were resurrected as harmless novelties. "Just over in the Transvaal, Kruger National Park spreads itself luxuriously," and "visitors to the park are conscious of less ferocity in the animals and able to enjoy them without molestation."[49] Both animals and black South Africans appeared in the American press as agreeable wards of the state—the cosmopolitan travelogue noted that fauna "thrive under the

[47] Price, "Biggest Zoo."

[48] Barbara E. Scott Fisher, "Notes of a Cosmopolitan," *North American Review,* October 1934.

[49] Fisher, "Cosmopolitan."

protection of the sanctuary of which they seem to be consciously aware," and an article in *The Living Age* described Africans, who "willingly take over all the heavy work that the whites lay upon their shoulders."[50]

The benevolent custodial spirit that seemed to reign in Kruger in its first decades allowed visitors to think of it as a time capsule, furthering the degree of escape it could provide. Kruger was central in campaigns to attract visitors to South Africa, which was praised as "charming," "colorful," and "fascinating." The travel agency Thomas Cook and Son (in partnership with American Express) frequently requested photos and literature from park staff, and offered overseas tourism in complete packages with Kruger as a selling point. Other ads were distributed by the Government Travel Bureau of South Africa. Marketers promised relaxation and rejuvenation ("You will find new life in South Africa!") alongside new thrills ("To see *the unusual....* To do *something different*), but the exotic was cushioned by familiar activities like golf, tennis and angling and enjoyed via hotels and highways.[51] South Africa was, in the words of one blurb, "where an enterprising white civilization is growing amid the age-old forces of native superstitions and tribal customs"; in another, where "colorful, quaint, primitive Bantu life still exists side by side with modern civilization."[52] Repetitive iconography established its main characters—wildlife, antique tribal customs, and frontier history. Springbok, wildebeest and lions adorned slogans alongside Zulu tribesmen. In one, a Voortrekker wagon train

[50] Colin Ross, "The Black and White of It," *The Living Age,* January 15, 1927.

[51] Thos. Cook & Son, advertisement, *Forum and Century*, February 1934; Thos. Cook & Son, advertisement, *North American Review*, March 1933; Government Travel Bureau of South Africa, advertisement, *The Living Age*, May 1929.

[52] Thos. Cook & Son, advertisement, *Forum and Century*, October 1935; Government Travel, advertisement, 1929.

recedes into the mountainous distance, shepherded by a shirtless African under the heading, "Leave beaten trails! Come to South Africa."[53]

Descriptions of Kruger and updates about its wildlife appeared in American newspapers as blurbs, captioned pictures and nationally syndicated columns. In 1935, Mary L. Jobe Akeley spent nine months in Southern Africa—her impressions were reported in syndication under the headline "Suggests Jaunt in South Africa to Escape Ennui."[54] The celebrated African explorer and widow of legendary filmmaker Carl Akeley (whose camera enabled the first generation of wildlife documentary), she visited Kruger to study and film and observed in it "almost a complete balance of nature."[55] She described an ideal symbiosis between lions and antelope, and the article went on to write that the park was "an ideal place to study animals, for it has greater variety of species than any other section of like area in Africa..., all living in their natural wild environment." In stark contrast to the 'zoo' or the stereotypical 'jungle,' this Kruger was a naturalist's paradise, described in grandly geographic terms—"bordered by mountains, watered by great rivers" and "covered with rank growing grass and dense thorn vegetation."

Akeley, like many others, described Kruger's ecosystems in evocative detail, but as the park's celebrity continued to grow it could not escape frequent sensationalism. Certain terms cropped up again and again—'untouched' and 'trackless' in addition to the perennial 'zoo' and 'jungle'. Nuanced depictions of ecology competed with these cultural imprints on the landscape—and scientific understandings of the ecosystem changed much

[53] "Come to South Africa," advertisement, November 1930, *Forum and Century*.

[54] "Suggests Jaunt in South Africa to Escape Ennui," *New Orleans Times-Picayune*, September 27, 1936, 7.

[55] "Suggests Jaunt."

faster than latent tropes. Megafauna especially had such currency as household names that they often subsumed Kruger's unique qualities into the imaginary, sensational Africa so embedded in white popular imaginations. One 1944 article, in the *Dallas Morning News*, literally transposed the story of Tarzan onto Kruger—in its preposterous telling, rangers had captured a long-elusive "naked black giant," the "fearless master of lions, leopards and buffalo," whose bestial characteristics earned the headline, "Giant Black Who Out-Tarzaned Tarzan."[56] This "lord of the jungle," a "flitting, shadowy figure in the parklands," played directly to the oldest and most caricatured fantasies about Africa.

Edgar Rice Burroughs' fabled character, Tarzan, himself embodied a scenario of coexistence with African wildlife that required him to become bestial and cultureless, a 'reversion' that delighted Burroughs' audience. The white Tarzan is a rugged and likable protagonist who tries to reclaim his humanity by reincorporating himself into society, but the *Dallas Morning News* reversed the narrative to one of regression. The "giant black" had renounced civilization, and so found himself in a "white man's jail" being examined for mental defect, corralled for his transgressions against state wildlife. The American reporting was sensational, but Tarzan's cultural traction was evidenced much closer to Kruger by the people who packed the movie house in White River to see him portrayed on film.

Such themes dogged Kruger after the Second World War, although losing some of their overt colonial baggage. The transnational shipments of megafauna inaugurated by Arthur Jones in the 1960s were incarnations of a globalized wildlife ethics, present like never before in pop culture and politics. Tarzan's primitive animal associations were

[56] "Giant Black Who Out-Tarzaned Tarzan," *Dallas Morning News*, April 27, 1944.

supplanted by more modern, but still intimate narratives of animal husbandry in Africa. Jones' television series, *Wild Cargo*, advertised his skilled, confident wrangling in countries across the world. Strange genre Westerns filmed with savanna wildlife reinforced the cultural cross-pollination between frontier myths and their contingent landscapes. In the 1967 television series *Cowboy in Africa,* ranching, outlaws and intrepid lone rangers are as comfortable in the African savanna as in the 'Wild West,' but cattle are replaced with more exotic fare, and six-shooters and spurs are augmented by walkie-talkies and tranquilizer darts. [57]

The movements that scientists and conservationists took advantage of—new technology, post-war globalization and lingering colonial networks—also accelerated the diffusion of African nature into the consciousness of the English-speaking world. Themes starting in this era remain ubiquitous—brave wildlife veterinarians, "lion whisperers," and playboy conservationists abound in media and pop culture about Africa. It was the era of National Geographic documentaries, land rovers, Peter Beard, and Jane Goodall. William Beinart writes that these narratives represented "simultaneous protection and intrusion," where the pressure to cordon off pristine African spaces was enabled by the pervasive presence of white scientists, tourists and media in 'wild' ecosystems. [58] The custodial, sentimental bond between the peoples of Western metropoles and the wildlife of their former colonies continued to strengthen, helped along by movies, photographs,

[57] Ivan Tors and Andy White, *Cowboy in Africa*, season 1, aired September 1967-April 1968 (New York City: American Broadcasting Company), television series; see also *Africa: Texas Style*, directed by Andrew Marton (Paramount, 1967), film.

[58] William Beinart, "The Renaturing of African Animals: Film and Literature, 1950s and 1960s," in Paul Slack, *Environments and Historical Change* (Oxford: Oxford University Press, 1999), 163.

and a steady stream of 'animal-interest' stories and conservation updates in the press. Beinart writes,

> These popular representations were not without their ramifications for Africa. The images of African animals projected at this time were essentially for Western people, a moment largely, if not exclusively, in European and American culture. They were part of a late imperial phase which asserted the need to conquer and control nature in distant parts of the world, from the ocean depths to the top of Everest, even if those at the interface with nature also admitted to doubts—and assumed responsibilities— in connection with that conquest. Thus although elements of the conservationist project were deeply subversive of an earlier imperial ethos, they were not directly a challenge to the pre-eminence of western ideas.[59]

The first part of Beinart's point would seem especially true in Kruger, where depictions of conservation were often directed abroad. When, during Jones' elephant capture, a visiting American suggested that the uniforms of park staff be clearly labeled for the camera, he was acknowledging the influence of the outside gaze. If foreign viewers could locate the sophisticated operation within Kruger and South Africa, the park's reputation for natural stewardship would receive an international boost. When Jones purchased his elephants from Kruger, the American presented the park with documentary footage of the capture operation as part of the transaction—in no small sense a 'cashing' in of wildlife for publicity at home and abroad.

The second part of Beinart's point, that despite subversive nuances these conservation missions did not directly challenge the narrative of empire, is evidenced in much of the American dialogue about African conservation, whose tropes remained remarkably stable through political change. Although at times framed in opposition to specific imperial or industrial development, popular portrayals of African conservation

[59] Beinart, "Renaturing of African Animals," 163.

often reflected older colonial tenets. A 1954 newspaper article, "Animals Roam Free in Fenceless Zoo: Man Captive in Kruger Park," couched the park within a broader South African tourist experience whose allure relied on colonial history and industrial modernity. "The very vastness of the one-time 'Dark Continent,' with its year-round summers, its primitive native kraals in sharp contrast to its modern skyscraper cities, its storied diamond mines, and its wild natural beauty, makes this country a mecca for the tourist who is seeking new sites, new adventure," it read.[60]

For the travelogue, the skyscrapers and mines (operated through brutal colonial labor programs) were as indispensable as nature and 'primitive' culture in providing South Africa's unique experience. Its description of Kruger is drawn not from the actual landscape of the park, but from the exotic fantasies that have always operated in the colonial imagination. Kruger is not really characterized by 'year-round summers' and despite its semi-arid vegetation "the awesome thrill of the jungle" was "never absent." Even as management had intensified in half-century prior to this description, Kruger still functioned for the tourist as "wild and virgin brush country," a "fabulous 'zoo without bars'" that could be enjoyed with remarkable luxury.[61] The "spine-tingling roars of lions and the other wild cries of the African night" abided just outside the light of a campfire.

This experience of African nature evoked rugged escapades on the 'Dark Continent,' now commodified ("All this, and bedding too, for approximately 70 cents a

[60] "Animals Roam Free in Fenceless Zoo: Man Captive in Kruger Park," *The Times-Picayune*, May 16, 1954.

[61] 'Man,' set in eternal opposition to the 'virgin bush' by Victorian sportsmen and many subsequent narrators of the savanna, is continuously juxtaposed as an aggressor to the feminine aspects of nature. Although 'mankind' is used by most in passing with no intention of misogyny, its implications for wilderness are nonetheless drawn out in many examples of writing about Kruger.

night!") into a safe middle class excursion.[62] A 1971 American Express advertisement offered a pithy summary this new kind of exotic travel: "Adventure yes. Haphazard, no."[63] Descriptions of the park overseas were geared specifically towards the new mobility of Americans. "It is difficult to believe," read the *Times-Picayune*, "that less than four days by air separate the American tourist from this amazing place but actually it's quite common nowadays to hear of a traveler leaving his hometown on a Friday evening and setting out on his 'safari' through the Kruger Park on the following Tuesday."[64] Only a "half-day from bustling cities," Kruger could serve international urbanites almost as easily as South Africa's own.

Most coverage of Kruger could not resist invoking both wilderness and zoos, and phrases are recycled wholesale across decades of reporting on the park. A newspaper article in 1967, "Animal Preserve Proves Lasting Tourist Magnet," described it as "a virgin bush country in which Dallas County would fit eight times with room left over for dozens of Marsalis Park Zoos."[65] For the author, the process of defining Kruger involved discovering what made it stand out from the more pedestrian wildlife attractions at home, especially because the park lacked the kind of breathtaking scenery to be enjoyed in the absence of wildlife. "Although my own tastes lean more toward the gorgeous Cape scenery," she wrote, "I soon found myself caught up in the game of spying game. As one's eyes get better trained, it becomes more fun. At first the Kruger Park had looked to

[62] "Animals Roam Free," *Times-Picayune*."

[63] "The World. You have to see it to believe it," *The Times-Picayune*, December 5, 1971.

[64] "Animals Roam Free," *Times-Picayune*."

[65] Jean Simmons, *Dallas Morning News*, March 12, 1967.

me about as full of wild animals as Fair Park, and I mean outside the Museum of Natural History." Here, Rob Nixon's 'Pretoria-Fort Worth axis' operated as a storytelling device—a Texas reporter contextualized Kruger in relation to domestic attractions in the same genre. The difference was the experience of a game sighting, a trophy to be taken home in anecdote and picture form, where the author could finally boast that, "now I, too, can remember to the mile and to the hour where we saw our first elephants looming ahead of us on the road."

The accessibility of Kruger and the growth of its amenities perhaps encouraged its comparison to American attractions. A 1965 *New York Times* travelogue relayed a trip through Kruger like this: "so we strained our eyes for the first glimpse of the savage wild life. One hour and just about 10 miles later, we finally saw our first animal—a small deer (to be precise, an impala)—that went bounding across the road. 'You could do as well in the Berkshires,' someone said."[66] Kruger, being in Africa, answered to a high bar for novelty, and was derided when it seemed too analogous to an American counterpart. The author also tried to elaborate the difference between Kruger's landscape and a zoo, writing that "the disillusion was only temporary, but it is worth mentioning because it makes the point that a game park is not a zoo. One can never know what he will find, or where…. In planning a trip, try to imagine how many days you can stand to be sealed in a car. Such calculations will lead one to the essential difference between this game reserve and any zoo: Here, it is the people who are caged."[67]

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[66] Joseph Lelyveld, "GEARED FOR GAME : Slow Speed Ahead Is Key to Spotting Wildlife in Kruger National Park," *New York Times*, December 19, 1965.

[67] Lelyveld, "GEARED FOR GAME."

What is strikingly absent from the comparison is any attention to the value of the landscape as a whole—a tour of the park was framed as an interaction between humans and the charismatic animals they have come to see. In this scenario Kruger really did just function as an inverted zoo, where tourists sacrifice pedestrian freedom and the certainty of seeing particular animals for the thrill of a chance encounter. Only the scenery in the north of the park merited a description as "more interesting," and after encountering giraffes and elephants the author remarked, "that left only the lions of the animals we particularly wanted to see."[68] This compartmentalized experience of nature, like a novel game of I Spy, seems to have fundamentally restricted a more nuanced embrace of the elements of Kruger's ecosystem that make it truly unique.

A symptom of this mindset today might be what is sometimes called "game fatigue"—Kruger's most ubiquitous creatures become so boring to visitors as to become an active detriment to their experience, promising flashes of movement that, when identified, foreclose the potential for a new or more charismatic sighting. I encountered this frequently while driving around the park with large groups, sometimes with whole classes of fauna (like birds) ruled out as 'boring' or commonplace, not to mention the plants and other kingdoms of life that make up the bulk of the park. As driving time in the park lengthens, the criteria for a thrilling encounter become progressively steeper. Louis Olivier, the retired ranger, confirmed the experience hierarchy that often governs tourist experience:

> The majority, by far, of people visiting Kruger will ask you where to find the lion, firstly, secondly, where to find the lion, thirdly, where are lions, and then they'll start with elephants, and rhino, and buffalo, and other—animals. The bigger

[68] Lelyveld, "GEARED FOR GAME."

> mammals is first on their list. But you do get people interested in vegetation, and those people who came to me and ask me for directions, I would always refer them to Pafuri [a visitor camp in the far north of the park]. Pafuri's got unique and really sort of tropical vegetation there along the Levuvhu river. Beautiful.[69]

Even for tourists explicitly interested in vegetation, it was the appeal of the "tropical" far north of the park, admired by the visiting Americans Barbour and Porter in 1935 and reiterated by *The New York Times* three decades later, that Olivier typically recommended.

Tourists frustrated by the long, devoid stretches of road in Kruger but also chafing at the proscribed interactions in zoos may have found their medium in American safari parks, which are perhaps the ultimate manifestations of incessant comparison between those poles of wildlife interaction. The parks dot the country, novel creations where exotic animals roam without cages, a jumble of expatriate fauna coexisting in habitats from the swamps of Florida and Louisiana to the forested valleys of Oregon. They offer an experience with more freedom than a zoo but more reliability and structure than Kruger. The first major park of this kind, Lion Country Safari near West Palm Beach in Florida, opened in 1967. "The Preserve—patterned after England's Lions of Longleat (featured recently in Life), which was in turn patterned after famed Kruger National Park in South Africa—is open from 9 in the morning to dusk, every day of the week," read an article in The *Dallas Morning News*.[70] Featuring elephants, lions, rhinoceros, zebra, wildebeest and antelope of all kinds, Lion Country continues to offer a 'drive-through' safari experience to American tourists, and its model spread all around the country in the

[69] Louis Olivier, personal communication, July 22, 2014.

[70] Kent Ruth, "Lion Country Safari Offers Eyeball-to-Eyeball Hunting," *Dallas Morning News*, November 12, 1967.

form of franchises and copycats. “Our preserve is just like Kruger,” a Lion Country official is quoted as saying in the article, “with this exception. We guarantee you’ll see more wild animals.”

Lion Country and parks like it are the strange result of America’s vivid imagination about Africa, but also of the increased flow of live animals out of African parks. Kruger was a locus for such exports, and was connected to these overseas simulacra (Lions of Longleat as well as Lion Country) by networks of animal traders. For example, the Chipperfield circus dynasty in England brokered animal deals for North American and European attractions, at one point requesting fifty elephants from Kruger.[71] In 1980, a former Lion Country Safari franchise in Grand Prairie, Texas received 33 young elephants from Kruger’s surplus, some of which were later dispersed to circuses and zoos.[72] The tangled relationship in safari parks between African landscapes, wildlife, and American tourists was further convoluted in a 1971 Lion Country advertisement titled “Rhino Roundup.” Detailing the organizations massive requirement for live animals for new parks in Georgia and Texas, it read, “you are invited to share the thrills with Lion Country Safari’s expert Capture Crews in eastern and southern Africa in rounding up the needed animals (not as an observer, but as a participant).”[73]

Businesses like Lion Country marketed ‘drive-through’ experiences fashioned after Kruger and also involved tourists in the meta-processes of global wildlife networks,

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[71] Jimmy Chipperfield to National Parks Board of Trustees, June 20, 1973, NK/1/4, NKW.

[72] Cheryl Taylor, “Pack of pachyderms arrives,” *Dallas Morning News*, June 26, 1980: “After 10 hours on flatbed trucks en route from Houston and a 19-day ship ride, the last of the bunch was expected to leave its crate at midnight, workers estimated.”

[73] Advertisment, *Dallas Morning News*, November 17, 1971.

as demonstrated by the 1971 "Rhino Roundup" promotion. A newspaper's compliment that "everything about Lion Country Safari is imaginative" could also serve as a deeper analysis of its role. Facsimiles of African nature, these parks were the commercialized physical deposits of imagined landscapes, a transfer of real animals from their evolved habitat to one of prescribed fantasy. In cramming together exotic creatures, they homogenized unique ecologies—a lion from Kruger could be presented side by side with a Bengal tiger. Fences between predators and prey were hidden from view, but the contrivance was unmistakable in every aspect. The apparent paradox of the "Rhino Roundup" is that Lion Country advertised the ecological wellspring of its caricature to the very tourists whose perception of authenticity it depended on. This perhaps proves Beinart's point that the appeal of conservation lay not only in the animals themselves, but also in the admiration and thrill of sophisticated husbandry, a modern awe for the international control of nature. In fact, safari parks often depended on threats to African creatures, like Kruger's culling quotas, to legitimize the prospect of captivity abroad. The keepers of these parks were in turn legitimized by their similarity to the Victorian sportsmen who created the fantasy, and the National Parks, in the first place—Lion Country's visionary was described in the newspaper as "looking every inch the Great White Hunter just in from darkest Africa."[74]

The entrenchment of creatures from Kruger (some of whom might still be alive) in affluent American suburbs like West Palm Beach shows how extensive the Euro-American traffic in African natures had become by the late 1960s. This intercontinental

[74] Ruth, "Lion Country Safari."

familiarity sits in stark contrast to the restrictions placed on African peoples during apartheid—until its fall, an American in Grand Prairie, Texas had a better chance to observe a Kruger elephant than any number of people living directly on Kruger's border. Both in its public presentation and its management discourses, Kruger faced outward towards the world far more readily than inward, towards its own doorstep.

William Beinart has characterized the conversation about African wildlife during this time as between white people across continents—this explains the angst found in American newspapers about post-colonial stewardship of nature, which echoed the rhetoric of the South African National Parks Board.[75] "Kruger National Park...will probably be one of the last elephant reserves in the world in ten years' time," reported one article, relaying the opinion of a big game photographer who "bases his opinion on the rapid extinction of wild animals on the continent of Africa in many of the newly independent states. Their economies are not secure enough to afford the luxury of the upkeep of game reserves that were formerly administered by colonial powers."[76] Another article, titled, "Man Undoing Noah's Preservation Program," went even further, portraying the rise of black nationalism and African independence movements as a biblical threat to wildlife:

> As things are going, conceivably Kruger park may be the only surviving big African nature-reserve. For with the achievement of revolutionary independence in tropical Africa, every animal worth eating or skinning is being slaughtered by the Africans, who now possess firearms and no longer are restrained by stern colonial authority…. Revolutionary movements often destroy the animal creation as well as social institutions.[77]

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[75] Beinart, "Renaturing of African Animals," 165.

[76] "Elephant World Shrinks Says Wildlife Observer," *The Times-Picayune*, July 16, 1961.

[77] Russel Kirk, "Man Undoing Noah's Preservation Program," *The Times-Picayune*, June 1, 1965.

The author designated Kruger as the 'ark' in which African wildlife find salvation, and South Africa as a "stern colonial authority" that would maintain it as credible authorities on the continent dwindled. The article's theological gravitas and its implicit endorsement of apartheid mirrored the rhetoric of South African Parks Board officials like Rocco Knobel.

Kruger's portrayal in America during the peak years of anti-apartheid struggle adds to the evidence that conservation in the park was anything but subversive in its relationship to the South African state. The American mainstream in many ways did everything it could to avoid the topic of apartheid—in one infamous incident in 1985, NBC tried to censor an anti-apartheid wall decoration in the background of a scene in the *Cosby Show*.[78] "Politics aside," wrote a journalist in 1982, "the Republic of South Africa is beautiful to behold, a world of snow-clad mountains, lakes, forests and grasslands. And record numbers of Americans are discovering the same."[79] By claiming to be apolitical the author actually reinforced an apartheid narrative that put human rights in the background, centering the country's most appealing tourist identity by encouraging Americans to visit despite the turmoil. This purported neutrality was exposed as an endorsement of apartheid by a significant omission in a description of South African cultural history. The author wrote that the "republic owes its heritage largely to the Dutch, British, French, Germans, Indians and Malays," thereby denying any African claims to national identity. Another article, from 1980, directly correlated the harsh policies of

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[78] Ta-Nehisi Coates, "'This Is How We Lost to the White Man': The audacity of Bill Cosby's black conservatism," *The Atlantic*, May 2008.

[79] Karen Jordan, "Touring South Africa Fun," *The Mobile Press-Register,* December 12, 1982.

apartheid with the successful management of Kruger, by way of a rather extreme euphemism: "like every other national undertaking in this country, Kruger is run with no-nonsense rules and strict law enforcement."[80]

American portrayals of Kruger often passively supported apartheid with their gentleness and narrow focus, but some actively buttressed the edifice of apartheid mythology. A 1976 article repeated the assertion that Kruger was an "ark for animals," and went on to claim that "this is where the killing stopped, first, in Africa," disregarding the intensive culling operations underway at the time.[81] More insidiously, it managed to further embellish the story of how the park's rest camp and airstrip came to be named Skukuza, claiming that they "bear the name the Zulus [*sic*] gave to the park's first warden, Scottish-born Col. James Stevenson-Hamilton, who first came out here to fight the Boer War. He was named 'he who changed the world,' [*sic*] because he stopped the killing of animals."[82] This was not just the glossed simplification of hurried writing, because the article was packed with specific details about the park, whose presence boosted the credibility of an enduring myth from anecdote to well-researched fact. The same went for the article's attribution of the park's existence to "the foresight of President Paul Kruger, who feared that hunters and farmers would wipe out all the wildness here."[83] This inaccurate account, thoroughly dismissed by Jane Carruthers, was a component of the

[80] Nat Gibson, "Kruger Park Keeps Leash on Humans," *The Dallas Morning News*, August 31, 1980.

[81] Dororthy Erwin, "The Kruger Park is an Ark for Animals," *The Dallas Morning News,* May 23, 1976.

[82] Erwin, "Kruger Park is an Ark."

[83] Erwin, "Kruger Park is an Ark."

folkloric history that supported apartheid.[84]

In all of these scenarios, Kruger functioned as a public relations olive branch, a wild area of such international interest that it could eclipse glaring disparities in South African society. The park retained this reputational currency even as South Africa was banned from other popular world forums like the Olympics, where it was not allowed to compete from 1964 to 1992. Avery Brundage, a representative of the International Olympic Committee, even visited Kruger in 1968 while refusing to officially meet with the South Africa's Olympic Games Commission, exhibiting a stark contrast in perception between the park and South Africa's other institutions.[85] Kruger's landscape and South Africa's international presence in the realm of wildlife management were afforded a political distance from the apartheid government—perhaps because South Africans were so prominent in the international organizations, like the World Wildlife Fund and the IUCN, that shaped public opinion about whether countries were fulfilling their conservation mandates.

This political distance may also result from the purported independence of Kruger's endeavor—that it operates almost like its own state, more related to other parks across the world than to South African society. This theme has only deepened after apartheid, as NGOs, international funding and self-sustaining business models eclipse the role of the state in Kruger. In this sense, then, Kruger may actually be worth comparing to other powerful ventures in South Africa, like the mining conglomerates Anglo-American (now even larger as Anglo American Platinum) and De Beers, which remained

[84] Carruthers, "Dissecting the Myth."

[85] "South Africa Stands Firm," *The Dallas Morning News,* April 16, 1968.

institutionally intact during the transition away from apartheid in part because of their great multinational interest. Looked at another way, these conglomerates, which profit from landscape exploitation, used the same strategy as the apartheid government to burnish their international image—investing in conservation, financially and, more significant, symbolically.

If Kruger's landscape has been a powerful tool for international statecraft and industry, it follows that some of the most dominant interpretations of its meaning would come from the highest echelons of society. While Kruger's imaginary qualities diffused into daily newspapers and other widespread media in America, they were accompanied by dialogues about African landscapes by prominent tastemakers in popular culture. The safari has retained its cultural cachet well after the colonial era, further weighting Beinart's argument that African animals have been historically reserved for interaction with white people. In 1975, Richard Burton and Elizabeth Taylor famously jaunted in the park before their second marriage in Botswana—they played with big cats and added a celebrity spin on the park's wildlife operations (fig. 9). Kruger had become a touchstone icon of African wildlife, a household name that could be dropped in passing, as in a syndicated interview with Lyndon Johnson's heart surgeon, who said about the President's San Antonia Ranch, "it appears he's got as many wild animals as in the Kruger National Park."[86]

The photographer Peter Beard represented the continuity of colonial mores even more directly. His germinal 1965 book, *The End of the Game*, contained photographs and observations about elephant overpopulation in Kenya's Tsavo Park, and he soon extended

[86] "Barnard Says LBJ Looks Fit," *The Dallas Morning News*, December 30, 1967.

his work to cover the elephants in Uganda's Murchison Falls. Beard, an American art photographer, spent his life making work about his relationship to Africa. His oeuvre, widely published and now sought by collectors, is intimately tied to his acquisition of

Figure 9*:* "Richard Burton stretches to feed a young giraffe in South Africa's Kruger Game Park on Oct. 22, 1975, while Elizabeth Taylor checks it is all going down the right way. It's milk in the bottle and it took four of them to satisfy the young fellow's thirst." *Associated Press*.

Hog Ranch, a property in Kenya adjacent to the famous coffee plantation that provides the setting for Karen Blixen's memoir *Out of Africa*. The Danish Baroness and her writings made a strong impression on her friend Beard, who strove to experience her version of Africa and interpret it for American high society. Beard was the playboy heir

to railroad and tobacco fortunes and an infamous socialite in circles that included Andy Warhol, Jacqueline Kennedy Onassis and Salvador Dali. He wove his mythical Africa into the American pop cultural fabric, photographing elephants for *Life* and fashion for *Vogue*, holding celebrity soirées in Soho and Montauk, and popularizing a "virile safari style."[87]

Beard's playboy safari pursuits eschewed the techno-scientific atmosphere of postwar conservation in favor of a fervent nostalgia for the 'old Africa,' a place of danger and adventure with "a darkness you could feel," in his widely quoted description of the continent. While contemporary travelogues like boasted of Africa's new comfort and accessibility, Beard—following in the footsteps of F.C. Selous and Teddy Roosevelt—viewed such development as anathema. Just as Selous had identified South African railroads as a destroyers of romance, so Beard denounced paved roads. In his way, Beard continued the legacy of earlier American conservationists by portraying the only authentic experience of African nature as one of trackless expanses and solitary adventure, reinforcing a narrative where African landscapes were the playgrounds for curious aristocrats and no one else (Beard: "It's the best place to be, but it's also increasingly diminished. Like Long Island").[88] Beard, like Roosevelt before him, identified strongly with the 'raw' masculinity he perceived in African peoples like the Maasai, but also like Roosevelt and his eugenicist friends, he made no room in his imaginary landscape for

[87] Robert Kolker, "Taming Peter Beard," *New York Magazine*, February 24, 2013.

[88] Peter Beard and Richard Ruggerio, interviewed by Alec Baldwin, *Here's the Thing*, WNYC, October 22, 2012.

modern or sovereign African peoples, calling them "population pollution."[89]

Rob Nixon, critiquing one of Beard's last publications, wrote that he "grabs every chance to secure his pedigree as a romantic adventurer. But how do we explain a 21st-century writer waxing nostalgic for an 'Eden' whose seemingly paradisiacal emptiness resulted largely from forced removals by the British? How do we explain Beard's brisk-sketch exoticisms … How to explain the book's Rider Haggardish, Victorian-wannabe subtitle?"[90] Beard's style of pining, what Nixon calls a "sepia-toned nostalgia," maintains its grasp on the American imagination, reinforced by reboots and updates of the 'lost Africa' genre, from predictable adaptations like the film version of *Out of Africa* starring Robert Redford and Meryl Streep, to convoluted new forms like the CBS reality show *Survivor: Africa*.

Norman Myers, the seminal biologist from U.C. Berkeley who closely followed the onset of the intervention management era in Kruger, revealed being influenced by these cultural products of empire in an 1998 interview. Asked about his childhood, he reminisced: "I got hold of the Tarzan books, and the Rider Haggard books about Africa, and I was so enchanted by the news of all those lush environments, those jungles and the savannas and lions and elephants, and goodness knows what. And really that made a very, very big impression on me which was, I would say, one of the chief factors that steered me toward Africa when I finally left college at the age of 22."[91] Myers' influence on 21st

[89] Beard, interviewed by Baldwin.

[90] Rob Nixon, "Zara's Tales': Talk to the Animals," *The New York Times*, December 5, 2004.

[91] "Conversations with History: Norman Myers," UC Berkeley Institute of International Studies, 11/11/1998. (http://globetrotter.berkeley.edu/people/Myers/)

century conservation, as one of the earliest proponents of the concept of biodiversity, is hard to understate. He advises many of the most prominent international environmental bodies, and has received numerous awards, including being named one of *TIME* magazine's "Heroes of the Environment" in 2007. Myers' profile in *TIME* mentioned his work in Kenya as a wildlife photographer, but omitted his origins in 1958 as a colonial administrator there, during a period that Myers fondly referred to as "the great days of empire."[92] The biologist, despite being at the forefront of some of the most uniquely modern concepts in conservation, got to his ideas about landscape by following the well-trodden cultural pathways of frontier and empire that guided generations of others in his position.

Myers, like Beard and other prominent voices in the postwar dialogue about African nature, is preoccupied by many of the same themes developed by earlier Euro-American conservation lobbies. Although falling mostly outside their established scientific acumen and credentials, the weight of authority vested in these prominent "Heroes of the Environment" often anoints them as political arbiters. Their opinions about where and how to attribute blame for environmental problems are valued, which can sometimes obscure research from other fields. For example, Myers is a members of Population Matters, a neo-Malthusian nonprofit concerned with promoting smaller family size as a solution to environmental problems (Myers' company is shared here by David Attenborough, Jane Goodall, and Paul Ehrlich, among others). Although an apparently common-sense issue, it is not an agreed upon or clear-cut solution to environmental problems and hopelessly diffuses responsibility for them. It also lands squarely in the

[92] Laura Blue, "Norman Myers," *TIME*, October 17, 2007; "Conversations with History," UC Berkely.

lineage of American conservation with its ties to eugenics, and in apartheid's obsession with scientific racism.[93] The underlying point is that prominent conservation authorities, influenced strongly by their cultural lineage, often act politically in the dialogues of international conservation, blurring the lines between professional expertise and ideological background. Like other actors in the networks that govern Kruger's landscape, they are beholden to a complicated past even as they break new ground in certain arenas.

Another American biologist with ties to Kruger, James Teer (who helped train a new generation of South African wildlife managers at the University of Pretoria), related his own romantic vision of Southern Africa. Recollecting a hunting trip, he wrote:

> We slept in tents, ate at tables covered with white tablecloths, and had wine and great food. Our meals were made from our kills. Much of the meat was given to local people. Our campfire talk was filled with exaggerations (not lies) to suit the mood created by our wine. It was every man's nirvana. Two of us refused to go home. I cabled my department head at Texas A&M as follows: "Send severance pay immediately. Valhalla rediscovered!" He did not respond. And in my mind, I remain in Africa still.[94]

Tropes about Kruger and African nature might be forgiven for being carelessly recycled without thorough consideration of what they imply, and how they transport troubled histories into the present. Intertwined caricatures of wildlife, landscape, race and gender have immense cultural momentum that explains their presence now and into the future. After all, copywriters at travel magazines have deadlines, editors have themes and audiences to please, and marketers have destinations to sell, and all rely on shared

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[93] In fact, this narrative follows very similar logic to the original logic of Kruger's culling scheme—exponential growth with no foreseeable stabilization—when in both cases research proves the relationship to be much more complicated. See Betsy Hartmann, "10 Reasons Why Population Control is not the Solution to Global Warming," *Different Takes* no. 57 (2009); Diane C. Bates, "Population, Demography, and the Environment," in Kenneth Alan Gould and Tammy Lewis, *Twenty Lessons in Environmental Sociology* (Oxford: Oxford University Press, 2014), 107-124.

[94] James G. Teer, *It's a Long Way from Llano*, 118.

understandings of nature to engage the public. More significant than simple recycling, and what ultimately may create more trouble for Kruger's landscape and its invested peoples, are tropes that are actively embellished into the present, naturalizing old relationships into comfortable references to the circumstances of the future. Consider a travelogue from the *Times-Picayune* in 1982 entitled "Dark Continent Comes to Light." In the midst of apartheid, the writer was able to make the claim that "today, light focuses on the darkness, and what appears is an incredible young country. Like a good woman, South Africa discloses a wealth of charms."[95] This short article, well after significant critiques of empire became commonplace, managed not only to reinforce Joseph Conrad's legacy and the racial stereotype of primitive Africa, but also to reify a Victorian notion of gender and youth and its application to wilderness.

In an interesting rhetorical update to an old trope, Kruger is now compared to Disneyland as often as to a zoo. Echoing the "Coney Island" phobia of early 20th century park visitors, the theme park is widely invoked as the antithesis of what Kruger should be. The *New York Times* ran an article in 1990 titled, "African Wildlife Parks: Is Less Wild the Way of the Future?" Accompanied by a picture of a Kruger guard passing a litter bag to a tourist through a sedan window, it characterized the park as "a highly managed animal kingdom, one that has a predetermined number of various species…. Many visitors to Africa seeking sweeping vistas of wilderness and untrammeled game find Kruger a Disneyland version of a national park, with its well-ordered roads and 30-mile-

[95] Vincent Randazzo, "Dark Continent Comes to Light," *The Times-Picayune*, December 5, 1982.

an-hour speed limit."[96] This comparison is a permutation of the zoo/wilderness question, but with new implications about sloppy sentimentality and pop cultural design in addition to concerns about overly prescribed experience and domesticity.

If spectators in White River in 1949 were thrilled by *Tarzan*, and Norman Myers was similarly inspired, American visitors to Kruger today remain no less influenced by Edgar Rice Burroughs, precisely because of Disney's influence on African nature. Cultural mainstays like the company's animated *Tarzan* and, more relevant to the savanna, *The Lion King*, ensure a strange sort of ecological literacy for foreign visitors in the park. On my first visit, as an ecology student, our group frequently used classic Disney characters to identify real-life creatures—familiarity with the Rowan Atkinson-voiced 'Zazu' allowed us to immediately recognize the omnipresent hornbills, just as the character 'Pumba' allowed for warthogs. This literacy is superficially limited to charismatic fauna, and the film takes its inspiration from the Great Rift Valley nearly a thousand miles away, further evidence of how African wildlife and landscapes are homogenized in American imaginations. The unmistakable pleasures of personified animal viewing aside, we came to the park with a fairly developed idea of what to expect, having been exposed from an early age to a torrent of images and stories about African animals with largely consistent themes. A fundamental pre-occupation with African wildlife and "primitive" peoples still thrives in American media, broadly the same in tone as it has been for decades.[97]

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[96] Jane Perlez, "African Wildlife Parks: Is Less Wild the Way of the Future?," *The New York Times*, January 23, 1990.

[97] See Catherine A. Lutz and Jane L. Collins, *Reading National Geographic* (Chicago: The University of Chicago Press, 1993).

This intimate but distant familiarity, coupled with the global celebrity of animals that have received centuries of personification from the English-speaking world, helps to explain the outcry over culling the early 1990s. The moratorium that followed came not from within the park or even necessarily from South Africa, but from a coalition of global animal rights groups and media pressures that took ownership, in no uncertain terms, of the elephants in Kruger. The debate put morality at center stage, bringing with it the accumulated and often-contradictory values of American and European animal lovers, and showing how much influence the international audience has on the trajectory of ecological change in Kruger.

The interpretations laid out in this chapter are by no means the only narratives at work—the great potential of Kruger's landscape is that it holds many different meanings, and any one of them might carry the potential for a more productive, inclusive and ecologically robust vision of the park. Post-apartheid South Africa has many new conversations about heritage that feature the characters and voices of people who have been excluded or caricatured in safari stereotypes.[98] In 1999, the South African writer and academic Njabulo S. Ndebele wrote an essay titled "Game Lodges and Leisure Colonialists: caught in the process of becoming," describing his experience as a black visitor to previously reserved "natural" spaces. Laying out his thoughts about the nature of this relationship, he wrote:

> But there is a possible escape route. It is to engage the white leisure colonialist and the owners of the game lodge in a cultural contest, in which the cultural history of the game lodge is deconstructed and a new structure and content of

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[98] See Terence Ranger, "Whose Heritage? The Case of the Matobo National Park," *Journal of Southern African Studies* 15, no. 2 (1989): 217-249 for a good discussion of this idea.

> leisure are brought into being as expressions of a new society…. How can the game lodge become more than an antiquated colonial outpost routinely (yet probably unintentionally) tolerated by black governments?... Surely who we are and who we finally become is bound up with all these questions and contradictions! Surely we are an inseparable part of Africa, our home! Yet our history intricately binds us to the rest of the world, and such ties cannot be broken without a serious threat to our survival. And again: we are very much ourselves, we have many demons to exorcise, and yet much has been achieved that we can build on. We remain complex and we have a responsibility to confront that fact. Our survival will depend on our ability to develop successful skills in carving coherent and sustainable meanings out of this definitive field of complexity.[99]

This journey of redefinition and place-making by conservation's most disenfranchised people is set against the recent resurgence of apartheid characters and storylines, like this line from an article, "Rhino's Dying Breath Signals General's Return to War," published in 2013: "'On the planet, this is the last cache,' Jooste said, sitting in his hunter green starched uniform behind a desk decorated with a bayonet and a dark wooden rhino statue at his office in the Kruger Park. 'We are fighting an insurgency war.'"[100] Johan Jooste, an apartheid-era South African Defense Force general, fought against independence movements in Angola, and is now in charge of anti-poaching operations in the park, a relationship and history that American reporting has not so far been able or willing to contextualize.

The themes that have arisen in the American imagination about Kruger carry more weight now than ever, as its NGOs and business magnates pour billions into securing their ideal version of an African landscape. Some, like Richard Branson with his exclusive lodge adjacent to Kruger, explicitly adopt a version of Beard's 'safari chic,'

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[99] Njabulo S. Ndebele, "Game Lodges and Leisure Colonialists: caught in the process of becoming," in *Fine Lines from the Box: Further Thoughts about Our Country* (Johannesburg: Umuzi, 2007).

[100] Franz Wild, "Rhino's Dying Breath Signals General's Return to War," *Bloomberg Business*, May 2, 2013.

more recently defined by Rob Nixon as "a white nature industry whose marketing premise is the managed wildness of the eco-archaic," where luxury, colonial history and solitary, tailored experiences of nature represent the most desired version of the lowveld savanna.[101] South Africa is increasingly staking its reputation and economy on tourism, and currently frames a visit with the question, "What's Your Big 5?" No matter how nuanced understandings of park ecology become, its future will always be influenced by what people expect to get out of it, an expectation with great potential for change that is nonetheless rooted strongly in history and culture. As African nature becomes even more globalized and fetishized luxury safaris proliferate, Americans are drawn in all directions in pursuit of charismatic fauna. Popular depictions of Kruger struggle to differentiate it from the dominant history of expectation and present an interpretation of the savanna that is in line with South Africa's progressive environmental goals (fig. 10).

[101] Nixon, "Stranger in the Ecovillage," 172.

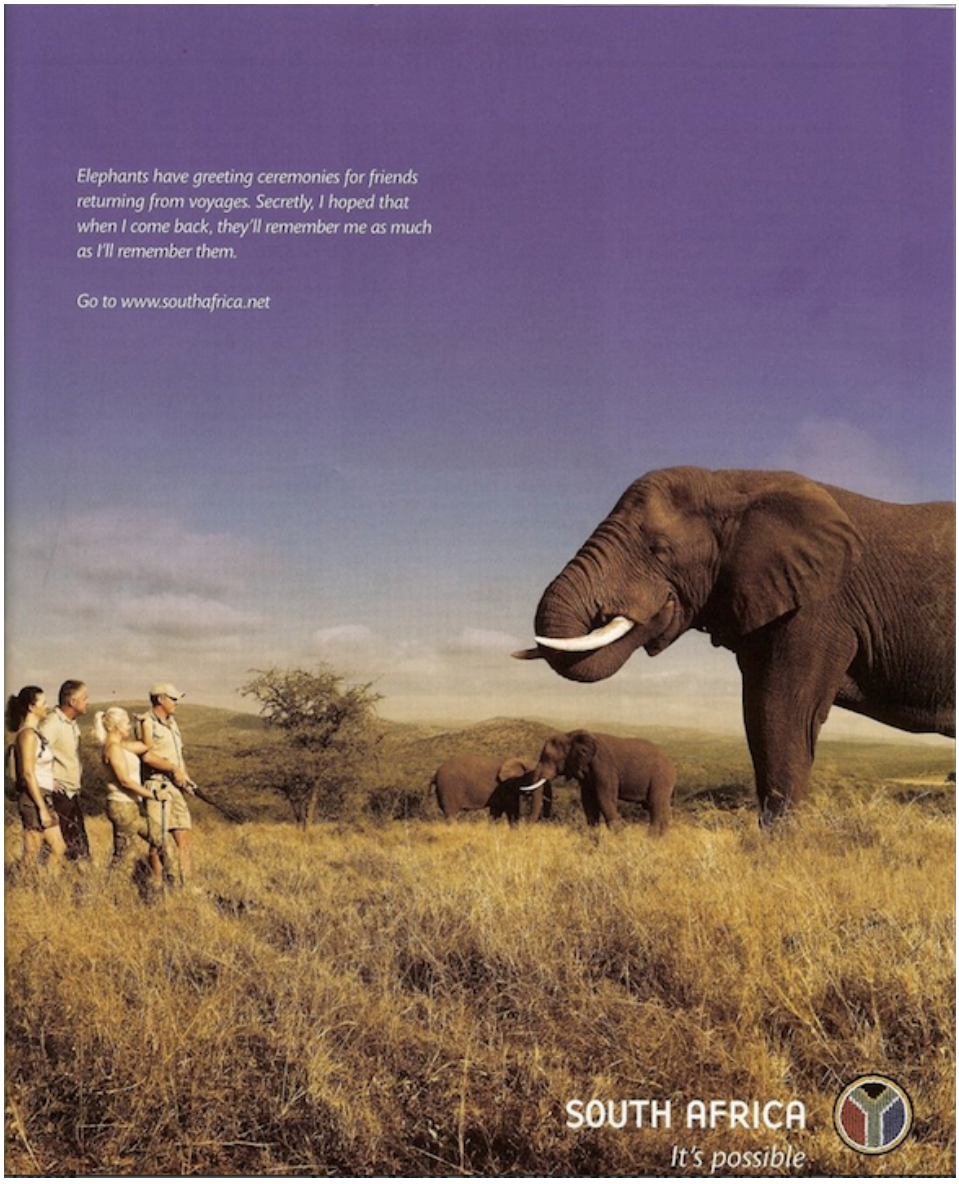

Figure 10. South Africa Tourism Advertisment, 2008.

CHAPTER VII

EPILOGUE

Adaptive management will remain the approach of choice because there is some progress, and no known alternative to managing this complex ecosystem. It is simply not an option to return to the easily-understood ''implementable" solutions (such as culling, regular prescribed burning, or artificial water provision) that demonstrably did not work.
-Brian Van Wilgen and Harry C. Biggs, 2011.[1]

I've assembled this research in a way that made sense to me, in (what I hope is) a linear and clearly delineated narrative. While working, though, I found it much more helpful to think of this hundred year period as an interlocking series of mostly recursive themes—some of what Stevenson-Hamilton wrote about in the 1920s and '30s turned out have more in common with my current understanding of ecology than the speculations of PhD biologists in the 1960s and '70s. Certain phrases, specters, complaints and incidents arose again and again, as well as the names of a number of long-lived and influential conservationists whose obituaries I had to keep checking because they reappeared so far apart in the narrative.

Many of those to whom I've spoken, and whose letters, speeches and reports I've read often invoke 'learning by doing' as a mantra when it comes to ecology, especially the idea of 'best available science' as justification for management interventions that don't hold up in retrospect. I certainly don't question the good intentions of dedicated conservation biologists in this regard. However, in a larger sense, the 'best-available science' argument presents the trial and error of university-trained, mostly white, male, English-speaking scientists as the best option available—ignoring a suite of ecological

[1] B.W. Wilgen and H. C. Biggs, "A critical assessment of adaptive ecosystem management in a large savanna protected area in South Africa," *Biological Conservation* 144 (2011): 1179.

practices and systems of knowledge of potentially equal value, whose knowers were ripped from the land and excluded from all decision making processes and management prescriptions until very recently. An example of this train of thought comes from U.S. parks and forests, where burning practices, after centuries of mismanagement, are after all re-aligning with Native American management regimes that predated settler-colonialism.

Elizabeth DeLoughrey and George B. Handley write that "to speak of postcolonial ecology is to foreground a spatial imagination made possible by the experience of place. Place has infinite meanings and morphologies: it might be defined geographically, in terms of the expansion of empire; environmentally, in terms of wilderness or urban settings; genealogically, in linking communal ancestry to land; as well as phenomenologically, connecting body to place."[2] My research focused on dominant, often empire-based narratives around landscape change that created policy—but it's important to note that other experiences of the land are clearly subversive relative to what I have emphasized. Among them, Njabulo S. Ndebele and Edward Teversham have written about non-white experiences of parks, wildlife and eco-tourism; Nadine Gordimer has imagined Kruger's landscape through the eyes of fleeing Mozambican refugees in "The Ultimate Safari"; and David Bunn has examined the unique relationship between black and white rangers in Kruger.[3]

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[2] Elizabeth DeLoughrey and George B. Handley, "Introduction: Towards an Aesthetics of the Earth," in *Postcolonial Ecologies: Literatures of the Environment* (Oxford University Press, 2011), 4. Their work here draws on writing by the postcolonial scholar Edward Said.

[3] Ndebele, "Game Lodges and Leisure Colonialists"; Teversham, "Nature of Leisure in Manyeleti"; Nadine Gordimer, "The Ultimate Safari," in "Birthday Issue!," special issue, *Granta* 28 (September 1989); Bunn, "The Museum Outdoors," 370-372.

Although it's perhaps even more daunting to confront the colossal impacts of colonization on landscapes in South Africa than it is in the rest of the world, my above point about the 'best available science' illustrates how thoroughly the myth of an unoccupied landscape has percolated into the character of a park like Kruger. If this savanna was indeed *terra nullius* before it was legally ensconced, as park rhetoric claimed at its height, then it's only logical that a long process of trial and error would have to be endured before proper understanding or management of its treasures could be feasible. But of course it wasn't, and to pretend otherwise was one of the great ad horrible conceits of apartheid—but not apartheid alone, for much of the world's protected areas bear wounds from similar creation myths. Perhaps the wound in South Africa is particularly salty, for here is the cradle of humanity, the savanna edge being the landscape that formed our original niche. It is the place where people have lived the longest along the land and its creatures. To start from scratch a mere century ago seems like a hopeless way to make 'progress' in our relation to it.

Patterns of exclusion lace Kruger. They are justified by nostalgia, elitism, or momentum, incidences or continuances of colonial and postcolonial violence and disenfranchisement, unexamined and profoundly European wilderness values, and ongoing disputes over the basic nature and tenancy of land. All have emerged in some way from Kruger's past. Such a history does not preclude, in any way, the very real and necessarily ongoing work of sustaining unique and irreplaceable flora and fauna in the service of functioning, resilient ecosystems. But these specters did not disappear in the post-1994 era, and one of the necessary critiques of global neoliberalism is that the conservation strategies associated with it often perpetuate practices and rhetoric eerily

similar to those from South Africa's troubled past. In so recent a democracy, the quick resale of freshly won sovereign land to white CEOs from Connecticut, or easy continuity of land and money for apartheid's extraction magnates, fundamentally challenges the premise that "nature" as it is typically portrayed in Kruger has anything to do with subjective good.

Discussions of national parks often overlook political implications, and sometimes actively avoid them. But politics sanctify the geographic and legal boundaries of these areas, all too often during a point in history when input was restricted to a miniscule group of powerful stakeholders. It's also clear that some of those tasked with managing these land today actively resent those early choices (I've heard several complaints about Kruger's boundaries). Fundamental to Kruger's process of Strategic Adaptive Management is the belated realization, on behalf of the institution, that parks hold meaning for many groups of people—they can be sublime havens that provide psychological escape from modern stresses, long-running experiments in the service of scientific hypotheses, or, for many, expropriated landscapes with violent histories. They are not static, nor are they isolated from the realities of the world, as many of us would hope. On the ground, ecosystems transform according to cultural priorities that are themselves always in flux. An evolving ethic of conservation must address the magnitude to which societies profoundly envelop the ecology of their "nature islands," havens that are often designated precisely to escape such influence.

Kruger Park's management is forward thinking in many ways and can be considered unique in its conservation practices. Staff acknowledge that conservation is fruitless unless carried out in an environment of adaptive thinking and self-reflective,

critical analysis. A deeper understanding of the ways that Kruger's unique properties produce sentiment might help to design strategy. Regardless, by thoroughly examining the history of the current situation, and proposing new and goals for protected area management, we can be thoughtful about how to move forward with key ecological decisions. Conservation as it is practiced today is well intentioned but in many cases fails to critically examine itself—I think this is part of the reason why it has failed to prevent the ongoing global degradation of ecosystems.

Kruger is the property of a state with strong imperatives towards environmental justice, human rights and sustainability. In contrast, huge swaths of South Africa's ecology are bound up in privately owned game reserves. Hopelessly outcompeted in the realm of luxury, the question for Kruger is whether it can escape its origins and paradoxes in the fraught stewardship of public lands. The influence of very foreign ideas about nature, transported in by wagon train or warship, is far-ranging and growing fast alongside accelerating globalization.

One only has to explore Kruger for a single day alongside a Tsonga field ranger, listening to the common and scientific names of countless plants, to realize how much local drive there is for ecological literacy, and how much latent botanical knowledge might reside in many of South Africa's languages and cultures, gained through long and complicated histories of experience in the *veld*. Doctorate ecologists, doing fieldwork with a game guard like my friend Velley, defer to his precise understanding of species in any season or stage of growth. Someone I spoke to who lives adjacent to the park called its practices 'nepotistic,' a word that certainly applied for much of its history but should not now, twenty years after apartheid. The conditions there are a direct result of choice on

the one hand, and force on the other. Choices made by white colonists, and eventually the apartheid government, about which landscapes to wrest control of, then about which to preserve as "nature", and lastly which to abandon to a coerced majority. This decision largely endure despite all the attempts to rectify them—if Kruger is saddled with a complicated past, then it is a microcosm of its country.

Dr. Freek Venter, who worked on the 2008 Management Plan, acknowledged the complicated history of the park both socially and ecologically, but held an optimistic outlook on the future:

> I think that is what we still don't understand, you know. We may think that the system will be better off just on its own, without human interference, without us touching any of the poor animals. But I don't think we understand, really, still, the consequences…. Where's it going to end?... We really don't understand that. It's going to be so fantastic to learn from what is going to happen there. With the climate cycles—it looks like there's not only those ten year cycles, but there's possibly also longer term—that there was a very wet period at the beginning of the 1900s, and then there's droughts, and now it's getting maybe wetter again, and you get climate change coming in, changing things and so on, so people will have to be prepared to think on their feet and make decisions, and not try to control everything. Watch, this is going to be a fantastic story.[4]

I've begun thinking of Kruger as being subject to two domains, expressed in an earthy metaphor about the ground and the sky. On the ground are administrators, scientists, workers, animals, plants, rivers, fires and all the other factors making real-time, physical changes to the ecosystem. In the sky hover politics, moral justification, international trends, journalism, and public attitudes. And just like any bifurcation, it doesn't work to think of earth and sky as entirely separate. Sometimes rain falls from the sky to the ground; clouds gather and cast shade; strong winds blow and ripple its surface; all of these things affect what takes place on the ground. On the other hand, sometimes

[4] Freek Venter, personal communication, August 26, 2014.

disturbances move up—lakes and river evaporate, changing the moisture loads in the sky; fires billow smoke, releasing particulate matter; and so on and so forth. In the same way, it happens that some rather gruesome pictures of dead elephants shown around the world might stop park staff from culling them; their killing might have started in the first place because of calculations copied onto a couple hundred sheets of white paper and mailed around the world. A tourist, seeing an animal dying of thirst in front of 50 or 100 other tourists might change, through collective outcry, the way that water is distributed in the savanna. We are left to ponder how actions will reverberate into the future—taken and not taken, under whose advice and for what purpose. Meanwhile, elephants' wrinkly bodies and absorbent brains still thrum with the echoes of ecologies past.

APPENDIX

A LITANY OF CHANGE: SELECTED KRUGER LANDSCAPES RE-PHOTOGRAPHED

"The gnarled, twisted, and stunted appearance of practically all the trees is due mainly, if not entirely, to the grass fires." –Stevenson-Hamilton, Annual Report, 1912

If it were possible to create time-lapse film of the whole park, you could observe modifications to Kruger's landscape flicker in and out of existence during its brief history under official governance. The film might play something like the following: fences jut up and then back down along the western border and around various animal bomas, research exclosures, and the settlements of tourists and staff. Megafauna and herds of smaller, rarer animals pop in and then disappear as they die off, are killed, or migrate elsewhere. Water sources like rivers, spruits and pans glisten and fade annually, as wet and dry seasons interchange, and by the decade or quarter century as droughts come and go; they are supplemented by the staccato glimmers of windmills, pumping and then dry, and the lumbering multi-year protrusion of major dams and their ensuing expanses of still water.

Tall canopies of marula, acacia, fig, fever and balonites trees expand, contract, or suddenly disappear according to the whims of bull elephants, browsing and grazing herbivores, fire, water, and boring insects. Elders surrender to or reclaim their arid grid of map from fast-moving shrubs and grasses that wager their own fates on similar whims, and ancient leadwood trees don't move an inch. And fire—suppressed, encouraged, erupting, spreading slowly in the understory or raging in a time-lapse frame across huge

distances and all layers of vegetation; incinerating here, leaving patches frayed and scorched there, but wholly untouched in other places; racing down gentle slopes across narrow, sandy streams or launching tumbling firebrands across dry chasms.

Vehicles, giant and small, speckle the park's roadways and beaten tracks, more and more numerous and sophisticated as the years go by; tourist cars, tiny dots, are sedans, luxury rovers, and passenger vans, crammed with snacks, cameras, binoculars and guides, alongside rectangular service vehicles hauling groceries, building materials, and laborers from nearby towns, or countries. They share the road with research vehicles speeding to early morning capture operations or the backwoods birthdays of old colleagues, watched over by rangers on horses, bicycles and then trucks, by police cars and eventually by beige military caravans. Machines in the sky move too quickly to make it into the time-lapse: commercial airliners landing at the airstrips of rest camps and private lodges, fixed wing planes crammed with queasy researchers flying the annual census, helicopters on poaching patrol, and the occasional airlift of a badly burnt or out of place rhino.

Such an all-seeing depiction of the park will never be possible, but other tools, such as re-photography, have long been used to document change. Dr. Timm Hoffman at the University of Capetown uses it with enough ecological accuracy to draw conclusions about land use change in South Africa.[1] Sometimes just existing on either side of a long

[1] M. Timm Hoffman and R. Rohde, "Long-term changes in the vegetation of southern Africa as revealed by repeat photography," In L. Zietsman, ed., *Observations on environmental change in South Africa*, 79-83. Stellenbosch: Sunmedia, 2011; M. Timm Hoffman, "Changing patterns of rural land use and land cover in South Africa and their implications for land reform," *Journal of Southern African Studies* 40, no. 4 (2014): 705-725; B. Reimers, C.L. Griffiths, T. Hoffman, "Repeat photography as a tool for detecting and monitoring historical changes in South African coastal habitats," *African Journal Of Marine Science* 36, no. 3 (2014): 387-398.

interval makes a set of images powerful. They have also been used to question assumptions, examine themes, or interpret perspectives in ways that subvert conventional notions of a landscape. The photographers Mark Klett and Byron Wolfe painstakingly restaged classic vistas in *Yosemite Through Time*, disturbing Ansel Adams' ethereal mystique and the sly artifices of Carlton Watkins while also exposing the tangled mythology of the park's origins.[2]

Stevenson-Hamilton, by the end of his career in the 1940s, already understood the value of photographs in detecting landscape change in Kruger. "In certain portions of the Park," he wrote, "it is obvious by comparing photographs taken 20 years ago with the present appearance of the country, that there has been a great interest of certain types of secondary forest - or scrub brush."[3] Kruger ran a fixed-point photographic monitoring program, which I drew on. It had been conceived as a low-cost, low-effort way to monitor changes across the whole park—a single person with a truck and a camera. Developments in satellite photography and LiDaR led to the surveys being phased out. The digitized photos only go back to the 1980s, however, so to get an idea of earlier landscapes I dealt with whatever photographs I could find in the SANParks archives in Skukuza and Pretoria. I was frequently astonished by my colleague, a game guard, who, in the process of watching out for lions and elephants, would frequently snatch up a two-inch thumbnail print and within a few seconds relocate the individual tree in question.

The sites I managed to visit in Kruger were sometimes fascinating for how much they'd changed. Grassy plains around Pretoriuskop in the early 1900s, speckled by shrubs

[2] Mark Klett, Byron Wolfe and Rebecca Solnit, *Yosemite in Time: Ice Ages, Tree Clocks, Ghost Rivers* (San Antonio: Trinity University Press, 2008).

[3] Warden's Annual Reports, 1944, 7, NK/28/1, NKW.

and punctuated by *koppies*, are now covered in trees, especially tall thickets of *Dichrostachys cinerea,* or sickle bush (fig. 11). Studying differences in a scene across intervals can show change, but might also be totally opaque about what causes it, or what its timescale might be. Pretoriuskop, with its complicated history, signifies the difficulties of deciding what parts of a landscape to conserve. The area has been used for farming and pastoralism, the expiration of which is evidenced by the gory earthen contours of mass veterinary cattle graves. Elephants were slow to return to the area, but now their spoor is found even at the tops of rocky, inhospitable knolls. It is the site of the oldest rest camp in the park, which was the first to open to year-round tourism, and it continues to develop (fig. 12).[4] Its landscape holds a history of people figuring out what to do with it, shown literally by square rows of experimental burn plots, part of one of the longest running fire projects of its kind (fig. 13). At Manungu, a vista that was photographed six decades earlier by the botanist H.J. van der Schijff, is now a sickle bush thicket. Van der Schijff photographed not too long after a fire—from the picture alone, it would be hard to tell if decades have passed, or just a few years, long enough for the quick, aggressive trees to grow (fig. 14).

Some sites really do demonstrate an eerily vanished human footprint. Standing almost certainly near the site of an encampment on an open plain, I could see the landmark hills from my reference photo on the horizon, but I stood in dense forest (fig. 15). Others, like the Lindanda tree, site of Harry Wolhuter's infamous story, "In the Lions Jaws," expose the active process of myth making. I had seen a placard, but was having no luck matching the snag of the designated tree up against Stevenson-Hamilton's

[4] Joubert, *Kruger National Park*, 1: 233.

photo, when I encountered the section ranger. He told me that what was left of the tree had been moved here as a tourist attraction years before, having no connection to its original setting. A remote little dirt road looped around the arbitrary monument (fig. 16).

The sites that had the most impact on me were those that didn't seem to have changed at all, where diminutive but resilient vegetation, that in places looks only a few years old, no taller than my shoulder, remains in place decade after decade. Another, more confounding version of this occurred in photos that had only been taken a decade ago but had become completely devoid of distinguishing features, wiped clear by fire, even big trees sometimes having been toppled and incinerated in the relative span of an instant. It was clear that organisms were often operating on very different schedules—driving through a stand of leadwood (*Combretum Imberbe)*, I was stunned to learn that snags that appeared freshly deceased may have stood for as long as 80 years, and then lain for a similar span after they had fallen. I even heard a story about their thick wood smoldering for months after a fire. One that I re-photographed, at a popular watering hole near Tshokwane, was no different except for its arrangement of bird's nests (fig. 17).

Humans, too, have varying time scales, in part because of what they leave behind, intentionally but also by way of their echoing presence in ecosystems. Perhaps the most poignant bookend to my re-photography took place at the derelict Selati railroad bridge in Skukuza—a century after its unfinished foundations were finally completed, and the whole saga of tourism in Kruger began. The bridge, in common, somehow, with the Sabi riverbed, had not a stone out of place (fig. 18).

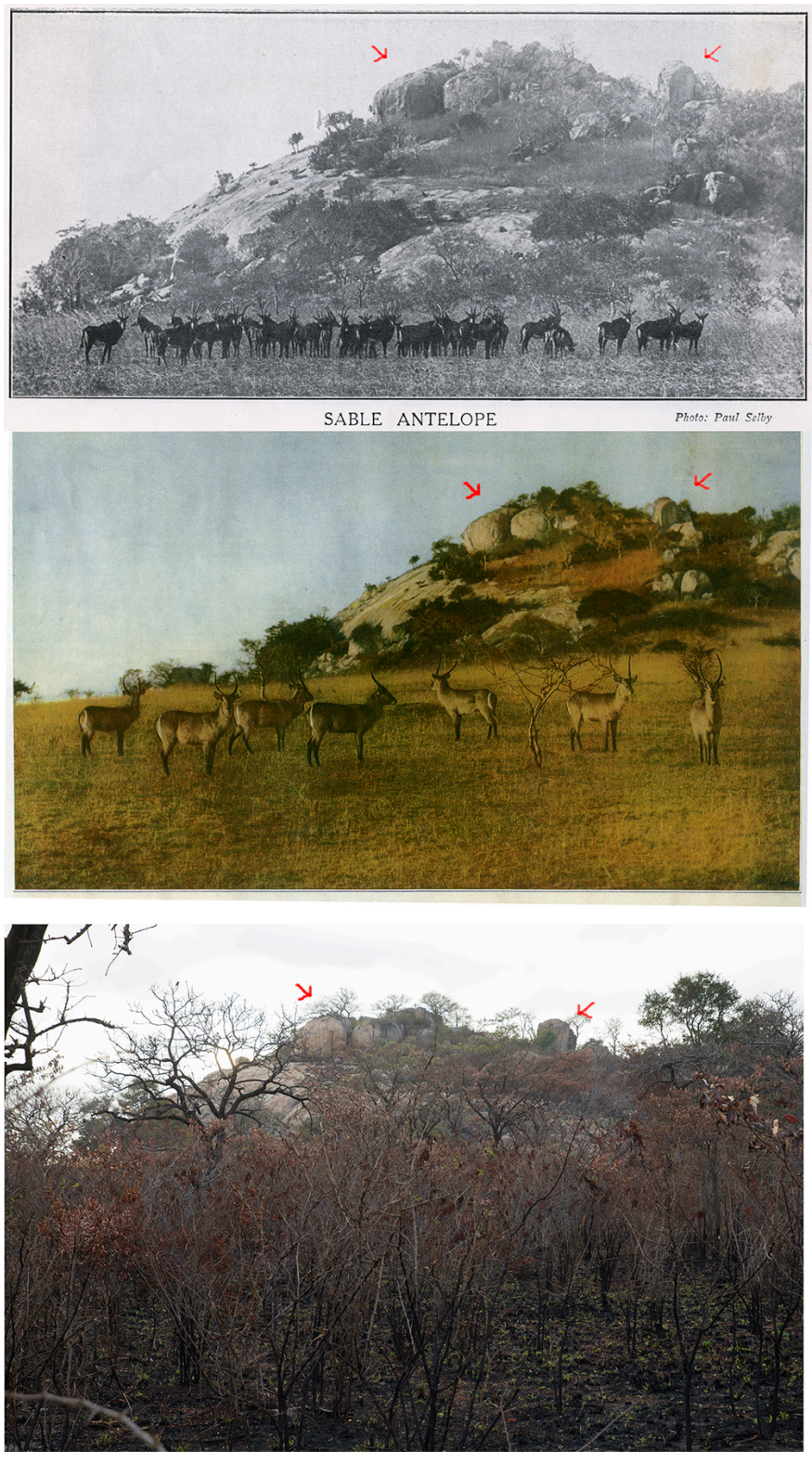

Figure 11. Photographs of Manungu, near Pretoriuskop. Top, Paul Selby, 1926; middle, unkown hand-colored photograph, *c.* 1930; bottom, Moore, 2014. Red arrows indicate consistent landmarks.

Figure 12. Pretoriuskop in *Unspoilt Africa* 1937 (top), re-photographed 2014 (bottom)

Figure 13. Satellite photo of experimental burn plots around Pretoriuskop. Copyright Google Earth, 2015.

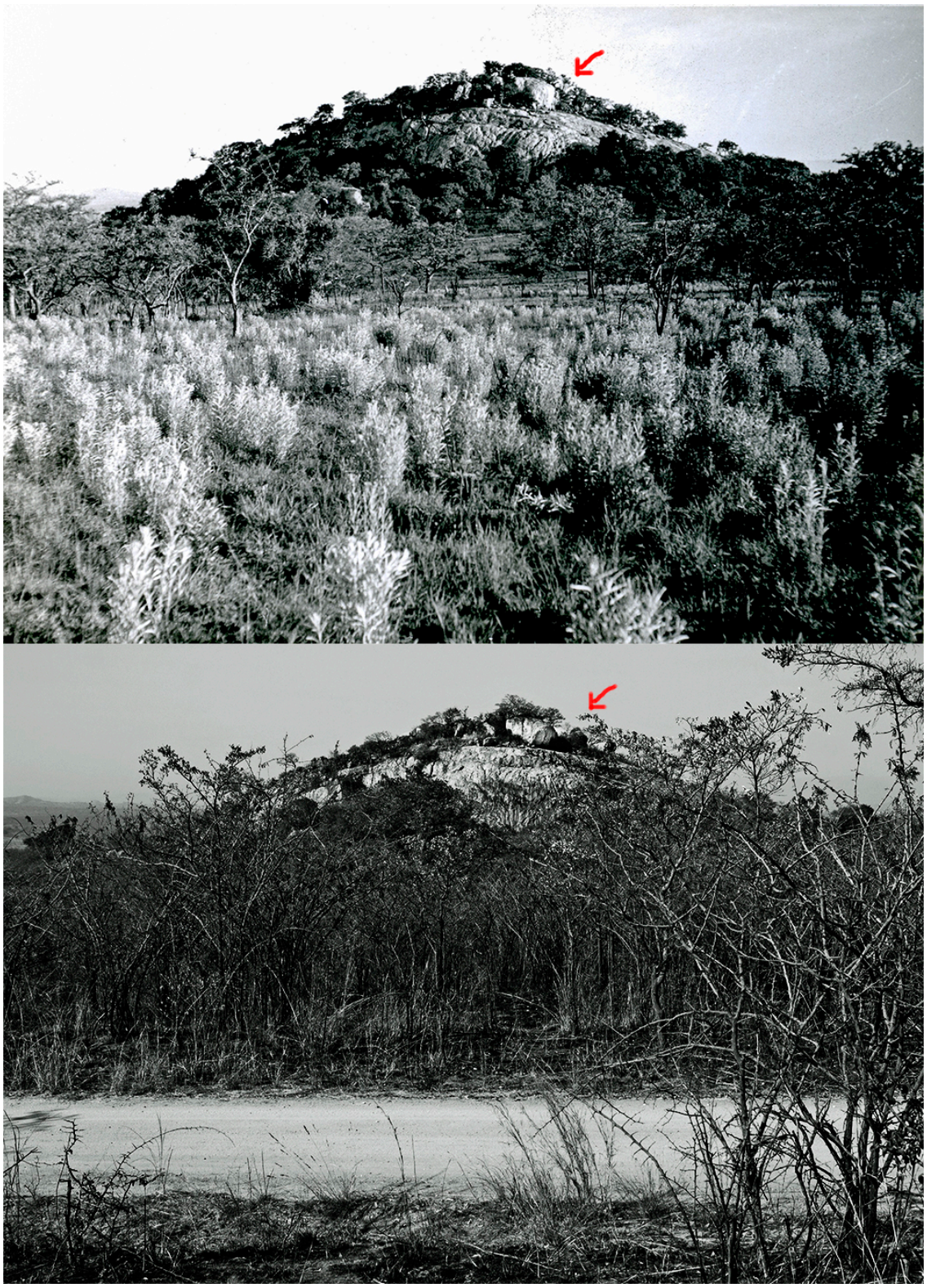

Figure 14. Manungu photographed by Van der Schijff, 1957 (top), Moore, 2014 (bottom)

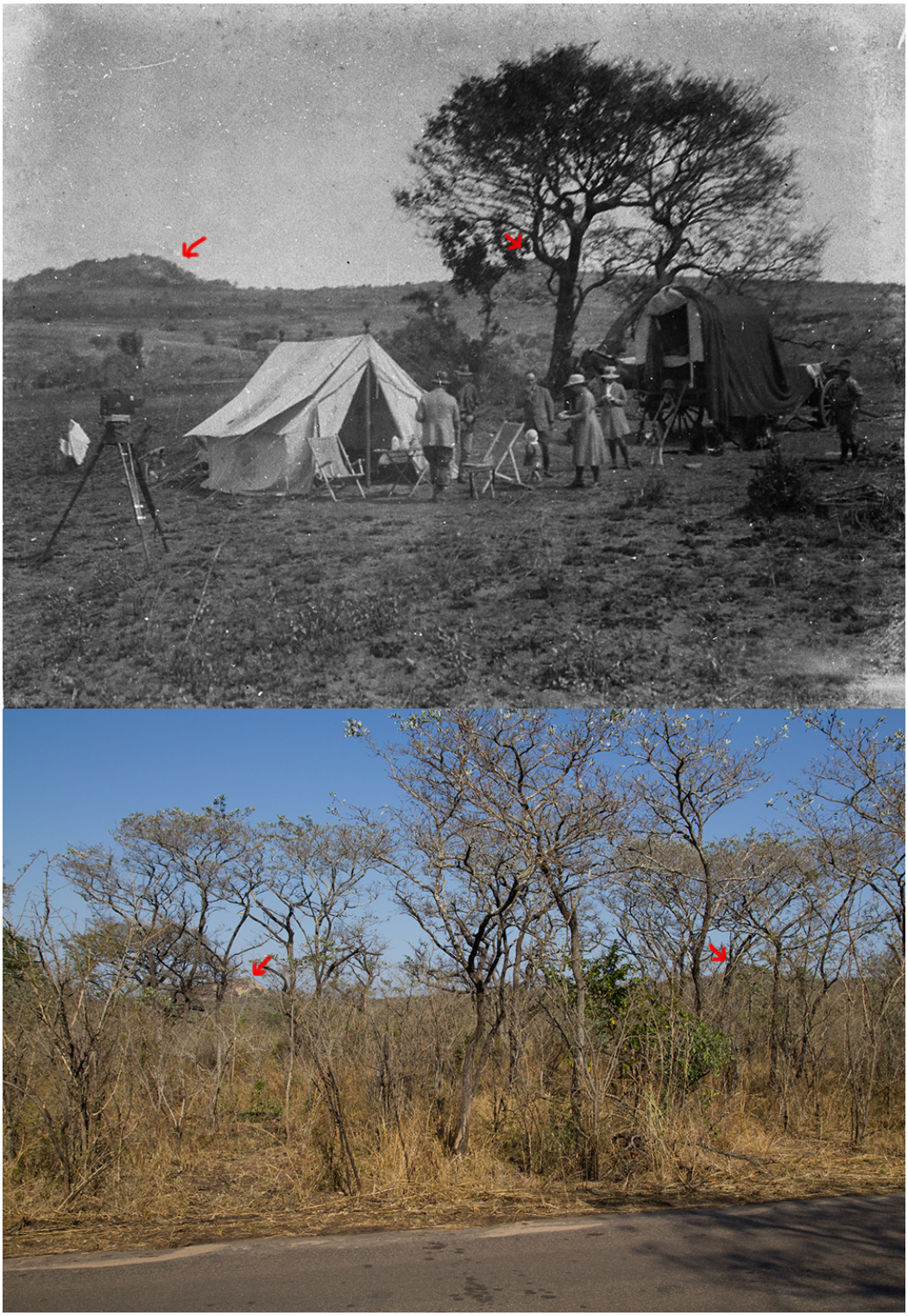

Figure 15. Encampment near Pretoriuskop, *c.* 1900 (top), re-photographed 2014 (bottom)

Figure 16. Wolhuter Memorial Plaque, N'Wanetsi Section, Kruger National Park

Figure 17. Leeupan, near Tshokwane. *C.* 1950s (top), re-photographed 2014 (bottom)

Figure 18. Selati Railway Bridge, *C.* 1908 (top), re-photographed 2014 (bottom).

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