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Two Views of the Serengeti: One True, One Myth

Sinclair, A.R.E., C. Packer, S.A.R. Mduma and J.M. Fryxell (eds.). *Serengeti III: Human Impacts on Ecosystem Dynamics*. Chicago: University of Chicago Press. 2008. x+522 pp. (Hardcover). ISBN 978-0-226-760339. (Paperback). ISBN 978-0-226-76034-6.

Shetler, J.B. *Imagining Serengeti: A History of Landscape Memory in Tanzania from Earliest Times to the Present*. Athens: Ohio University Press. 2007. xiii+378 pp. (Hardcover). ISBN 978-0-8214-1749-2. (Paperback). ISBN 978-0-8214-1750-8.

Serengeti III is the third book that has come to print on the ecological studies conducted in the Serengeti ecosystem. The first book appeared in 1979, while the second was published in 1995.^{1,2} The first two books of the series dealt primarily with wildlife issues and if indigenous people were mentioned at all, it was in the pejorative as 'poachers.' As this new volume is subtitled *Human Impacts on Ecosystem Dynamics*, I was expecting a more balanced presentation of human-wildlife conflicts, but that turned out not to be the case.

Serengeti III contains 16 chapters by 57 authors, forty-one of whom are from Western Europe or North America, primarily the United States. Of the 16 authors that list a Tanzania or Kenya address, a large number are either from the West or have been trained in the West. Of the 16 senior authors, 15 are from the U.S., Canada, or Western Europe, while the one with a Kenya address was born in the United States and educated in Britain. In addition, the authors fail to acknowledge, or even mention, many of the major works that historians, social scientists and others have published on wildlife-human issues in Africa. The research by Brockington,³ Chatty and Colchester,⁴ Duffy,⁵ Gibson,⁶ Igoe,^{7,8} Leach and Mearns,⁹ Neumann,¹⁰ and Steinhart,¹¹ among others, is not cited, let alone discussed by any of the authors. The same is true of Garland's¹² excellent dissertation on wildlife management in Tanzania, as well as Shetler's historical research in Tanzania. Two of Neumann's papers are cited on pages 356 and 486, but only in contexts that ignore his primary thesis. Needless to say, this biases the analyses and conclusions presented in *Serengeti III*.

The message of *Serengeti III* can be summarized in a few sentences. According to the authors, "The Serengeti is one of the premier natural ecosystems in the world" (p. 301), and "The Serengeti is a large, mostly pristine ecosystem [and] as such is one of the most positive examples of conservation in the world, and is a treasure for the entire planet" (p. 434). That

is to say, the book's fundamental premise is that the Serengeti is a wilderness without a human history of any importance. However, according to the authors, this idyllic state of nature is threatened by the indigenous people surrounding the park, who as the authors admit are some of the poorest people on Earth and who receive few benefits from western preservation. "The main conclusion is that unless human population increase in areas surrounding protected areas is stopped, or even reversed, the future of conservation in both the community areas and the protected areas will be seriously compromised" (p. 484). Judging by the general tone of *Serengeti III*, one wonders what ultimate solution the authors have in mind? Or is this simply a call to expropriate additional indigenous lands to create even larger buffer zones around the park?¹⁸ Having identified what they see as the problem, the authors offer no solution. Although, it is a clear from Norton-Griffiths' research (Chapter 13) that the reason the Maasai are opting for private ownership of land in the adjacent Mara region of Kenya is because private property is more difficult for the government to confiscate in the name of preserving wildlife for foreign tourists and other elites, than is communal property. This view by western ecologists is in stark contrast to that presented by historian Jan Shetler in *Imagining Serengeti*, which is based on her ethnographic and oral history research with indigenous peoples, presently living to the west of Serengeti National Park. According to historical documents, the western Serengeti people, as well as the Maasai, were forcefully removed from the national park and the surrounding conservation areas to create an imagined wilderness, untouched by the hand of man.¹⁸ This is a pattern that has been repeated throughout Africa and around the world.¹⁸ In virtually every national park and wildlife reserve in eastern and southern Africa, indigenous people were forcefully removed, without compensation, to create elite pleasuring grounds.³ The reason western Serengeti people, in addition to virtually every other indigenous people in Africa are 'poachers' is because colonial governments planted the flag and claimed all of Africa for king and country, thus depriving the indigenous people of their land and wildlife birthrights.¹⁰ Those who objected were subjugated by the European force of arms.

Although indigenous disdain for colonial land and wildlife laws, in part, drove the African independence movement, black central governments have done little to correct this colonial injustice.⁶ Instead, westernized black elites have continued to deprive the indigenous people of their land and wildlife — officially in the name of economic development, nation building, or preservation, and unofficially in rent-seeking behaviour; that is, graft and corruption.³¹ It should

come as no surprise that the black elites, who control the present government, are of different ethnic affiliations than the indigenous people displaced in the name of preservation.¹⁸ For instance, Dr. Shetler tried to obtain permission from the government officials to go into Serengeti National Park to document former human habitation sites, but her request was denied (p. 3).

According to Dr. Shetler, “Although the park claims that western Serengeti peoples are recent immigrants, their ancestors have been part of this landscape for a very long time and have helped create the ‘natural’ [ecosystem] that tourists enjoy today. Serengeti is a profoundly humanized landscape” (p. 31). “Ecological evidence demonstrates that humans have had a profound effect in both creating and maintaining the unique Serengeti ecosystem largely through the deliberate and controlled use of fire” (p. 33). For an example of how aboriginal-set fires created ecosystems heretofore thought to have been spawned by nature see Kay.¹³ “None of this evidence necessarily means that western Serengeti peoples were natural conservationists who never had an adverse effect on the environment. Their purpose was to use the land’s resources for their own benefit rather than for the sake of the land itself” (p. 39).

Far from being a ‘natural’ ecosystem, Serengeti is entirely an artifact of colonial processes. It began when the British government in Kenya forced the Maasai from their ancestral lands.¹⁸ Some Maasai then moved south into Tanzania and forced the area’s indigenous pastoral people west, who in turn put pressure on the indigenous people in western Serengeti. This ethnic conflict created a no-man’s land or buffer zone in the Serengeti and led to an abnormal increase in wildlife — for a discussion of aboriginal buffer zones between warring groups in North America see Kay,¹⁴ while Ford¹⁵ provides numerous examples of buffer zones in East Africa.³² At the same time European-introduced livestock diseases decimated local cattle herds, which led to the starvation of untold numbers of indigenous people, along with renewed violence between ethnic groups.¹⁸ “It was in this context of disaster, migration and radical social transformation [all induced by colonial processes] that the Europeans observed a largely ‘uninhabited,’ but only recently abandoned, Serengeti, at the beginning of the twentieth century” (p. 165). “...an empty wilderness [had been] created where peoples had once lived” (p. 136).

Imagining Serengeti then explains how white colonial game departments and elite sport hunters, “Evoking a racist orientation...” (p. 108), went on to maintain the ‘wilderness’ image prior to the establishment of the national park.¹¹ More importantly, “these new landscapes of ‘planned wilderness’ created by Britain’s hunting elite in fact became the image [of Africa] itself in European paintings and literature” (p. 181), an image that dominates western ecological thinking to this day.¹⁸

Therefore, we have two views of the Serengeti. One true, one not, but which is which? Based on the archaeological and

genetic data, there can be no denying that hominids evolved in Africa, as did our species, *Homo sapiens*, approximately 100,000 years before the present time. Thus, what is more unnatural than an African ecosystem without hominid hunters and fire-starters? Unless, of course, one does not believe in evolution. That being said, a case could be made that *Serengeti III* is akin to theology, as its fundamental premises are based on something other than fact. *Imagining Serengeti*, on the other hand, chronicles yet again the ‘Myth of Wild Africa,’¹⁶ a lesson western ecological science has still to comprehend.¹⁸ Personally, I was trained as a wildlife ecologist — range scientist — but, unlike others, I have learnt that much of what passes for mainstream environmental ‘science’ is actually a myth.^{17,19,24}

According to *Serengeti III*, historically there were few indigenous people in Africa and today’s population density and growth are unprecedented. However, is this too another myth? In the Americas, it is becoming increasingly evident that there were tens of millions of aboriginal people before European-introduced diseases, such as smallpox, decimated indigenous populations, often 150 years or more before the actual white contact.²⁰⁻²³ Could a similar situation have occurred in Africa? I see little biological reason why that could not have been the case. However if it did, it happened much earlier, because Arabic traders plied Africa’s east coast for at least 800 years before the Europeans arrived. It would not surprise me if smallpox and other introduced diseases made it to the Cape prior to the Dutch landfall. *Serengeti III* documents the devastating impact human-introduced diseases have had and are having on the park’s wildlife. There is no reason to think that Arabic or European-introduced diseases did not have a similar negative effect on indigenous human populations. If that is in fact what happened, then today’s human population densities may not be outside the historical norm.

Reviewers suggested that the last paragraph is speculative and I concur, but it is informed speculation, based on what happened in the Americas. In South America, for instance, after Pizarro sacked the Inca Empire he ordered Captain Orellana to explore the Amazon River from its Peruvian headwaters to the Atlantic Ocean in the never-ending Spanish quest for gold. Friar Gaspar de Carvajal accompanied Orellana and left a detailed account of the 1541-1542 expedition; the first Europeans to enter the Amazon Basin.²⁵ Until recently, the good Friar was considered a teller of tall tales, or worse, for he reported dense populations of native people throughout the entire downstream voyage, with untold numbers of people and descriptions of huge settlements, where later explorers found only scattered hunter-gatherers or low-density, slash-and-burn agriculturalists.

In the last few years, however, exceedingly fertile black and brown earths have come to light in the Amazon.²⁶ Soils that were created by humans and which could support sustained agriculture and correspondingly large human populations. Preliminary calculations suggest that the

Amazon's anthropogenic soils cover an area the size of Spain and France combined. Similarly, as the 'virgin' rain forest has been stripped from the upper Amazon and turned into cattle pastures, massive human-made earthworks over immense areas have been discovered fueling accounts of 'lost civilizations.'²⁷ It is becoming increasingly clear that millions and millions of aboriginal people were lost to the European-introduced disease after Friar Carvajal left his eyewitness account. Needless to say, everything most people think they know about the Amazon must be revised, especially notions of 'wilderness.' Depopulation estimates run to 90% or more, as they do in North America where similar cases occurred.²⁰⁻²³

Based on archaeological data, the Limpopo Valley in southern Africa too was once densely populated, but that Iron Age civilization vanished around AD 1150 for reasons which are still unknown.^{28,29} Interestingly, non-native black rats (*Rattus rattus*), a human commensal, appeared in the Botswana and South African archaeological sites by the middle of the eighth century.^{28,29} According to Plug and Voigt,²⁸ "The presence of *Rattus rattus* combined with [known] east [African] coast [trade] lines, would have opened the way for the transmissions of virulent epidemics such as those which swept through Europe in the twelfth century"¹³ — this reference is to the Black Death, or bubonic plague, which is spread to humans by fleas carried by black rats. If this disease was introduced by black rats and made it as far as South Africa by AD 800, so could a host of foreign pathogens. Historians and anthropologists have focused on the impact the slave, ivory and gold trades had on the indigenous people in southern and East Africa, when a more disruptive force was probably the transmission of introduced disease from indigenous group to indigenous group, well before the Arabic or European overland penetration. Christie³⁰ documented how cholera was transmitted from the Far East to East Africa by trade routes during the early British rule, yet those same trade routes had been in use for several hundred years. In North America, as introduced diseases decimated Native Americans, who were THE keystone predators, wildlife numbers irrupted to unnatural levels.^{17,24} Logic and biology would suggest that the same thing happened in Africa, confounding ecological interpretations about the original state of nature, such as those assumed in *Serengeti III*.

NOTES

1. Sinclair, A.R.E. and M. Norton-Griffiths, editors. 1979. *Serengeti: Dynamics of an ecosystem*. Chicago: University of Chicago Press.
2. Sinclair, A.R.E. and P. Arcese, editors. 1995. *Serengeti II: Dynamics, management, and conservation of an ecosystem*. Chicago: University of Chicago Press.
3. Brockington, D. 2002. *Fortress conservation: The preservation of the Mkomazi game reserve, Tanzania*. Indiana: Indiana University Press.
4. Chatty, D. and M. Colchester, editors. 2002. *Conservation and mobile indigenous peoples: Displacement, forced settlement, and sustainable development*. New York: Berghahn Books.
5. Duffy, R. 2000. *Killing for conservation: Wildlife policy in Zimbabwe*. Indiana: Indiana University Press.
6. Gibson, C.C. 1999. *Politicians and poachers: The political economy of wildlife policy in Africa*. Cambridge: Cambridge University Press.
7. Igoe, J. 2004. *Conservation and globalization: A study of national parks and indigenous communities from East Africa to South Dakota*. California: Wadsworth/Thomson Learning.
8. Igoe, J. and T. Kelsall, editors. 2005. *Between a rock and a hard place: African NGO's, donors and the state*. North Carolina: Carolina Academic Press.
9. Leach, M. and R. Mearns. 1996. *The lie of the land: Challenging received wisdom on the African environment*. Indiana: Indiana University Press.
10. Neumann, R.P. 1998. *Imposing wilderness: Struggles over livelihood and nature preservation in Africa*. California: University of California Press.
11. Steinhart, E.I. 2006. *Black poachers white hunters: A social history of hunting in colonial Kenya*. Oxford: James Currey Ltd.
12. Garland, E. 2006. *State of nature: Colonial power, neoliberal capital, and wildlife management in Tanzania*. Ph.D. Dissertation, University of Chicago, Chicago, Illinois, USA.
13. Kay, C.E. 2007. Are lightning fires unnatural? A comparison of aboriginal and lightning ignition rates in the United States. *Tall Timbers Fire Ecology Conference* 23: 16-28. In this paper, I presented data on known lightning-ignition rates for every national forest in the U.S. I then compared those data with potential aboriginal-ignition rates, based on estimates of the number of fires started per person per year and estimates of Native American population densities prior to 1492. Those data indicate that aboriginal-set fires were 270 to 35,000 times more frequent than known lightning ignitions. Finally, I presented several examples of vegetation communities created and maintained by aboriginal burning.
14. Kay, C.E. 2007. Were native people keystone predators? A continuous-time analysis of wildlife observations made by Lewis and Clark in 1804-1806. *Canadian Field-Naturalist* 121: 1-16.
15. Ford, J. 1971. *The role of the trypanosomiasis in African ecology: A study of the tsetse-fly problem*. London: Oxford University Press.
16. Adams, J.S. and T.O. McShane. 1992. *The myth of wild Africa: Conservation without illusions*. New York: W.W. Norton and Company.
17. Kay, C.E. and R.T. Simmons, editors. 2002. *Wilderness and political ecology: Aboriginal influences and the original state of nature*. Salt Lake City: University of Utah Press.
18. Dowie, M. 2009. *Conservation refugees: The hundred-year conflict between global conservation and native peoples*. Cambridge: MIT Press.
19. Wagner, F.H. 2006. *Yellowstone's destabilized ecosystem: Elk effects, science and policy conflict*. New York: Oxford University Press.
20. Dobyns, H.F. 1983. *Their numbers become thinned: Native American population dynamics in Eastern North America*. Knoxville: University of Tennessee Press.
21. Ramenofsky, A.F. 1987. *Vectors of death: The archaeology of European contact*. New Mexico: University of New Mexico Press.
22. Stannard, D.E. 1992. *American holocaust: The conquest of the new world*. New York: Oxford University Press.
23. Rosenbaum, A.S., editor. 1998. *Is the holocaust unique? Perspectives on comparative genocide*. Colorado: Westview Press.
24. Kay, C.E. 1998. Are ecosystems structured from the top-down or bottom-up? A new look at an old debate. *Wildlife Society Bulletin* 26: 449-462.
25. Heaton, H.C., editor. 1934. *The discovery of the Amazon according to the account of Friar Gaspar de Carvajal and other documents*. American Geographic Society Special Publication 17. Worcester: Commonwealth Press. Reprinted by Pittsburg: Kessinger Publishing.
26. Woods, W.I., W.G. Teixeira, J. Lehman, E. Steiner, A. WunklerPrins and L. Rebellato, editors. 2008. *Amazonia dark earths: Wim Sombroek's vision*. New York: Springer.
27. Parssinen, M., D. Schaan and A. Ranzl. 2009. Pre-Columbian geometric earthworks in the upper purus: A complex society in Western Amazonia. *Antiquity* (in press).
28. Plug, I. and E.A. Vogit. 1985. Archaeological studies of iron age communities in Southern Africa. *Advances in World Archaeology* 4:

29. Plug, I. 2000. Overview of Iron Age fauna from the Limpopo valley. *South African Archaeology Society Goodwin Series* 8: 117-126.
30. Christie, J. 1876. *Cholera epidemics in East Africa*. London: MacMillan and Company.
31. Norton-Griffiths, M. 2007. How many wildebeest do you need? *World Economics* 8: 41-64.
32. For an example of a modern, wildlife-filled buffer zone, or no-man's land, between groups at war, see - Kim, K.C. 1997. Preserving biodiversity on Korea's demilitarized zone. *Science* 242-243.

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