

# Science, Emotion, and Advocacy

## An Interview with Richard Leakey

As part of the events associated with the opening of the Draper Museum of Natural History at the Buffalo Bill Historical Center in Cody, Wyoming, Kenyan scientist and conservationist Richard Leakey was invited to deliver several addresses, including the keynote speech during the opening ceremony on June 4, 2002.

Dr. Leakey, son of the renowned paleoanthropologists Mary and Louis Leakey, was born in Kenya in 1944. His remarkable early fossil discoveries, funded by the National Geographic Society, led to his appointment, at the age of twenty-five, as director of the National Museums of Kenya, a position he held for about twenty years. In 1989, he was appointed director of Kenya's Department of Wildlife and Conservation Management (later the Kenya Wildlife Service), a position he held until 1994, and again from 1998 to 1999, followed by a two-year term as head of civil service and secretary to the Cabinet. He continues to be embroiled in Kenya's stormy political scene, and has survived beatings, relentless political intrigues, and a plane crash in which he lost both lower legs; many still believe this crash was an assassination attempt.

Dr. Leakey's scientific achievements, his leadership in fighting political corruption and the destruction of Kenya's natural resources, and his prominence as a global spokesman for conservation have resulted in many awards, including Gold Medals from the Royal Geographic Society and the



Dr. Leakey. BBHC photo.

Scottish Geographical Society, the Hubbard Medal of the National Geographic Society, and numerous honorary doctorates. His books include *Origins: The Origin of Humankind*; *The Sixth Extinction*; and most recently, *Wildlife Wars: My Fight to Save Natural Treasures*.

This interview was conducted by former *Yellowstone Science* editor Paul Schullery and Yellowstone chief of public affairs Marsha Karle, at the Buffalo Bill Historical Center following

the opening ceremonies for the Draper Museum. It originally appeared in *Yellowstone Science*, Volume 10, Number 3 (summer 2002).

### **Museums in Greater Yellowstone**

**YS:** Let's start with where we are today, at this outstanding new natural history exhibit. To newcomers, it might seem odd that the Greater Yellowstone Ecosystem should be blessed with so many fine museums, and now we have the Draper Museum of Natural History to add to the list. With so many wonders of nature available, why are museums important in this region? In other words, why should people visiting this extraordinary region go into a museum—especially a natural history museum—when they can stay outside and experience the real thing instead?

**RL:** To me, as a former museum person and educator and writer, there is an initial “Wow!” value to a canyon or a forest or a bear or an elephant. And then the wow-value is quickly dissipated. To really understand what it is that wowed you, and to give it context and depth, is very rarely possible for somebody looking at the real thing, because they're generally not with people who have the time [to explain it all]. And yet if you can understand the wow, the drama, the awe, through displays and interactive information kits and things of that kind, the life of the wow, the life of the awe, is automatically increased and becomes deeper.... So I think that there is a role for museums, but the museums are very seldom tied to something as specific as one ecosystem. They're very seldom designed

from the outset to do that task.

**YS:** But the Draper Museum is exceptionally well designed to do it.

**RL:** I find this museum [the Draper Museum of Natural History] exciting in that it appears that in the last four years a group of people have come together and thought about the value of having something like this. But I've said to Chuck [Charles Preston, curator of the Draper Museum], and I've said it to a number of people, I think you've done a great job getting this far but the tough work is ahead. Can you now provide the continuing excitement of the facility and make sure that the awe of Yellowstone and the ecosystem continues to be pushed at people who are coming through? Have you got the energy and the money to keep the place doing that job? And I think this is relevant to say: can you persuade people on a different turf, that is the park people, that you're a complement not a competitor? And no, this can't replace the real thing, but the real thing can't give what this gives to the average visitor. . . .

**YS:** Perhaps you will also be reassured to know that, though it is true that on the higher political level, the management leadership of the national park and of the community of Cody are sometimes at odds, the specialists in education in the park and the specialists here at the museum almost always are on good terms.

**RL:** Yes, and that's the important thing. The politics of administration and leadership of institutions and

communities is in part a turf issue of course, and I've played that game too. I know what that's about. One of the points I try to make is that I come at these questions [only] partly as a scientist. I'm a farmer; I've put quite a bit of money into land. I've been a politician, and I've been an administrator at the highest level you get, so I've seen this sort of issue from every corner of the box. And I understand the difficulties. I think it's very challenging.

### **Yellowstone and the Perception of Nature**

**YS:** During the speeches you've given this week, you've said that when you were young you heard of Yellowstone and found a certain inspiration in knowing that Yellowstone was this formative force in the early conservation movement. We think it is significant that Yellowstone now often benefits from other parks in return. Yellowstone's role has changed. Where once, other nations referred to their premier park as their "Yellowstone," now Yellowstone is sometimes referred to as the "American Serengeti." As another example, for the past several years Yellowstone has been getting advice from Costa Rica in the legal and political complications of bioprospecting.

**RL:** There are some very interesting licensing agreement questions, I'm aware.

**YS:** Right. And we also imagine we can learn from the African parks. In Yellowstone we deal constantly with the very emotional issue of death in the natural world. Many Americans

still tend to like their natural world to be tidy and well-mannered, and natural violence often shocks them. But that is what wild nature is about. If nature decides that this adorable little elk calf, or that baby bison, is going to be eaten by a grizzly bear, then so be it. If nature decides that the forest must burn, that is what we in Yellowstone would like to have happen. National park management has come a long way from the time, only a few decades ago, when American national parks were portrayed as peaceable kingdoms. Can you offer us any words of encouragement, from your African experience, on how to address these issues so people understand them better?

**RL:** I would have thought that the exposure of predator-prey interaction and the kills that predators make and people watch—the tearing apart of carcasses and flesh—this surely is something that if any visitor goes to an African park, that's what they want to see. They want to see a cheetah kill. I think basically that's easy.

I think the problem with perception is in the role of fire. I think there are plenty of arguments around as to whether parks should be burnt or allowed to burn, or what is the management regime policy that you want to adopt. And I think those are going to be issues that will continue to raise sentiment. But I think it is quite clear that a very good argument can be made for the beneficial effects of fire on certain habitats.

**YS:** We've made it, or at least tried to.

**RL:** Yeah, and I think one of the

points that needs to be made, and I think now it is beginning to happen more than it was twenty years ago is that clearly Yellowstone National Park as an entity needs a little extension in terms of area, particularly in winter foraging [lands], which are currently taken up by irrigated agriculture and ranchers. I think the fact that organizations such as The Nature Conservancy are beginning to get into negotiating easements and next-generation property rights is very positive, because you will make it easier for people to understand that a fire can be beneficial and there are other places these animals can move to as these places regenerate.

**YS:** But it is only part of the equation we face in reconciling the public to the realities of nature. In 1988, we had enormous fires. They were within the known size range of historical fires here, but they were shocking. Then, the following winter was the first reasonably severe winter in several years. The grazing animals lost forage to the fires, then, after several easy winters were faced with more severe winter conditions that they were not physiologically prepared for. Ecological circumstances kind of ganged up on the wildlife. The winter mortality turned into almost as ugly a controversy as the fires had been. It wasn't our finest hour in trying to celebrate the deeper beauties of wild nature.

**RL:** Of course. This happens in many countries.

**YS:** Most of us in America were raised to think of nature as a smoothly func-

tioning machine. Yellowstone has been teaching us otherwise, and it has been a hard lesson for many people to learn.

**RL:** As you well know, the idea of nature being a balance is nonsense. If we had [balance] there would be no nature. It is the imbalance that provides the dynamic for diversity.

### **Yellowstone as a Global Asset**

**YS:** Yellowstone is constantly embroiled in what might be called property issues. These are not so much the issues involving private property holders near the park, as they are issues involving the very idea of who owns Yellowstone. In other words, who gets to decide what's "best" for the park, and what management direction should be. It is a long-standing complaint of the park's national constituencies that the regional constituency has too much say, and the locals always feel put upon by the more remote interests.

**RL:** Yes, but I think if you step away from Yellowstone being the sort of property of the people who live around it and you see that Yellowstone is in fact the property of America, the United States. And indeed it is part of the globe's assets. And it would be, you know, understandable but nonetheless very selfish to perpetuate the myth that this is a local activity, any more than the Serengeti is. There are obligations.

And the constituency is not your ranchers. They are part of your constituency, but the people in Nairobi, who probably are entitled to feel that



Scientific debate continues over the ecological similarities and differences between African wildland parks and Yellowstone, but they have become almost interchangeable as symbols of the conservation of large predator-prey systems. Above: Amboseli National Park, Kenya, *Darren Ireland photo*. Below: Hayden Valley, Yellowstone National Park, *Renée Evanoff photo*.



they are part of the same constituency, you see, are ensuring that this ecosystem is sustained. That's a shift in

thinking.... It is a hard shift. I can understand people getting upset if wolves eat their stock, but you know, at



the end of the day, isn't it more important to have wolves running free, and accommodate the people whose stock's being eaten?

**YS:** By the way, you have contributed to making that shift. In your speeches this week you have offered such hearty congratulations to the regional people who constructed this wonderful museum—a museum that interprets Yellowstone as part of a globally significant ecosystem—that you have almost certainly helped some skeptical people better rationalize the museum's message, when up to now they may not have been sure they agreed with it.

**RL:** Several people have said that to me.

**YS:** Yellowstone's problems often seem irresolvable, and vast amounts of energy and money go into trying to settle them. But at least some of the people who have listened to you describe the problems and issues facing Kenyan parks must have paused to wonder: we must seem like real whiners to you. The luxuries we've got, not only in the wealth of wild lands and wild animals but also in the economic and legal wherewithal to care for these things, don't seem reflected in the constant bickering we do over problems that are trivial compared to what you face in Kenya. An occasional group of bison or wolves cross a boundary or kill some livestock, but most of the trouble they cause is social and political.

**RL:** It is very true. Yeah. I mean, you know, if a troop of baboons comes

onto your property, they can destroy everything. Fast. And then you talk about a herd of elephants, and it's hopeless.

**YS:** That leads back to this matter of how the national park gets along with its neighbors, and for that matter with its former tenants. In one of your speeches, you brought up the long tradition of guilt that plagues many national parks. Either there is guilt because the land was originally stolen from Native Americans, or it was stolen from white people who themselves stole it from Native Americans, or in some other way someone is believed to have suffered loss for the sake of creating the park.

On the other hand, you seem to be agreeing with the people who, though they acknowledge those past sins, say it's too late to keep punishing ourselves about them. These people say, "That's all true; those things happened and they were wrong. But it doesn't matter any more because these places, these last few wild enclaves and their wild inhabitants, are so important as global ecological baselines that we can no longer afford to feel guilty about what happened long ago."

**RL:** Absolutely right. And it doesn't help policymaking if you're doing it on a defensive starting point. If you look at what's happened to the rest of the country, and it has been taken over by motor bikes and trail riders and agriculture and irrigation, etcetera, etcetera, thank goodness somebody said, well it's not going to happen here. Because that's for the good of everybody.

**YS:** So, if things have reached a state that we just have to come to terms with past mistakes in dealing with the native people, how about the current local communities, which in Yellowstone's case are mostly composed of Euro-Americans? Where should they fit in the deliberations over park management? How does that work in Africa? How much say do your border towns have in how the parks are managed?

**RL:** Well, it's certainly very much part of the debate in Africa, the role of communities adjacent to parks as stakeholders. I would take a tougher line than I used to and say that, yeah, I understand they're stakeholders, but the people who live around a nuclear reactor are theoretically stakeholders, and the people who live around a hydroelectric dam setup are stakeholders. Why is it that national parks have to bend over backwards to give the local community greater rights, or access, or benefit, when none of the other national enterprises that benefit the whole country are similarly taxed with a double level of involvement?

And I think it's this guilt thing. I think that it's different here [in the United States], but perhaps not that different. I mean, we clearly wouldn't have kept this environment as it is if it hadn't been the park.

**YS:** It seems certain that without the federal reservation, the Yellowstone Plateau would now be settled and its various resources intensively and commercially developed. Long ago.

**RL:** Yeah. You know, you can't now

reverse the clock. It's a pity. But certain people say, well the Maasai have lived with wildlife for centuries; why are you telling them they can't interact? Well, of course they have, and indeed the wildlife survived because they didn't interfere with it. They didn't interfere with it because they didn't need to. They didn't have to put children through college, and buy medications for their mother-in-law, and run a vehicle, and insure it. But once you get into a modern economy, once you get into the dynamics of being part of a twenty-first century economic enterprise state, you can't any longer live with the values you had before. Sadly.

It used to be sufficient for people to harvest the forest. But there were less than a tenth of the people wishing to harvest it, and they weren't harvesting it to sell hardwood timber to make coffins for people on the west coast of America. Now, cutting down one tree per person per year doesn't pay the bills. They need to cut down a hundred trees. And there are a hundred times more people than there were then. So you can't change one side of the equation and not the other.

**YS:** In the past ten years or so, we've witnessed a heartening political and social process in greater Yellowstone, in which Native American tribes have been re-enfranchised in the dialogues over the management of the park. But it has also pointed up what you have just described, that the economic conditions and human population levels are so different that so far there seems to be no equitable or politically palatable way to "restore" those cultures to this landscape.

**RL:** It can't be done. It's a pity, but it can't be done.

**YS:** A challenging element of the relationship between parks and native peoples in this country is subsistence hunting. You certainly have subsistence hunting in Kenya.

**RL:** But not in national parks....

### **The Role of Scientists in National Parks**

**YS:** The scientific community, if there is such a thing, has always been divided on the question of advocacy. Some scientists insist that their role is to stay aloof of political controversy, while others engage in it. Is it like that in Kenya? For example, in your book, *Wildlife Wars*, you talk about several biologists you've worked with who have made the choice to become advocates. How are they perceived by their

colleagues? Has their activism affected their professional standing?

**RL:** I don't think there is any doubt at all that there is a role for everybody. Take Jane Goodall. She hasn't done any science in chimpanzees for many, many years. And yet her advocacy—the desperate state of wild chimpanzees and the need to consider ways in which the great apes can be secured for the future—I mean, it's been enormously powerful.

**YS:** The world seems to agree that she's a hero of the highest order.

**RL:** And I think the scientists may have looked down on her when she started her advocacy, but I think today Jane is widely respected for having made an enormous contribution to changing the status of the chimps and other great apes to a point where the



Wildlife (such as this lioness on a zebra kill in Masai Mara National Reserve, Kenya) kill hundreds of humans in Kenya each year. Such extensive loss of human life is a significant difference between African and North American national parks. *Darren Ireland photo.*



politics of their conservation are actually being discussed by politicians, which is how it should be.

And I think people like Cynthia Moss and Joyce Poole [elephant researchers in Kenya] and others are doing the same thing in other areas, so I think one has to be very careful. I wouldn't want to criticize those scientists who are simply committed to trying to understand systems and produce evidence upon which policy can be made. That is a very valuable and significant role. But at the same time, they [scientists] are human, and they are constituents, and they may have at times a point of view, and I think those who do go into advocacy are to be encouraged.

I think where people go wrong is that they often suggest that their [scientists'] advocacy should be more relevant because they are scientific. I don't agree. You don't have to be scientific to be relevant. And so we tend to be a little more polarized than is necessary. And I think some of the African scientists have done tremendous things for the good of wildlife. I don't look down on them. I strongly encourage them. But you know, it's very rare that you have time to do both for very long. You have to do one or the other. Without being in any way putting it down, I mean there is a certain cynicism in it, if you look at the skills of writing grant applications. I mean, even the purest scientist is having to be quite skilled at advocacy.

**YS:** Let's move from the philosophical to the more immediately practical. As in most American national parks, managers in Yellowstone are required

by law to know a great deal about certain animal species, in order to manage them according to legislative mandates. This often involves attaching some pretty substantial technology to the individual animals. As long as there have been radio collars and other tags and markers in Yellowstone, there has been debate over their appropriateness. Is this an issue in Kenya?

**RL:** Oh, yes. The debate is equally heated and I'm very ambivalent. I think the research has to be done and I think it's important for us to know the answers to a lot of these questions that do require intervention. What I'm not sure is whether a lot of this scientific work has to be done on the same "patch" [of land] as your prime wildlife photography and tourism. And I think that in some of the larger parks a little more effort could be made to tag animals that are not going to be seen every day by hundreds of visitors.

I mean, there's no question that people do get annoyed if they photograph a rhino and it's got an orange collar on it. They didn't come all that way to do that. And yeah, it is important that the rhino's movements be understood, but I think there needs to be a little more sensitivity about the value of the public appreciation. Because we're in a market. I think if you're watching a group of wild dogs and some scientist comes over the horizon and starts shooting them with darts, [you are right to say] what the hell's going on here, I came from the other side of the world to see these animals, and what are you doing? Go and do it somewhere else. So there are

both sides to the story.

**YS:** In Yellowstone, a fundamental guideline is that research shouldn't be conducted here if it can be conducted just as well outside the park, perhaps on lands where there are fewer competing interests. But often the legal and research needs leave managers no choice. And on the positive side, visitors could easily encounter several researchers in the course of their visit, and with a little luck may come away with a heightened understanding of the animals, or of why the information matters so much here.

**RL:** But you don't [want to] do it to death. There is always a danger, [and I'm speaking] as a previous administrator, that we're so busy gathering data that we don't actually ever understand what the data is telling us as managers. We lose sight of the core business. And I think it's always important to try to keep a balance.

### **Experiencing Wildlife in Parks**

**YS:** One of the most interesting aspects of wildlife appreciation in Yellowstone involves what might be called a personality cult of the wild animal. Ever since the early days of roadside bear feeding, visitors have come to know a surprising number of Yellowstone animals as individuals. Today, there are grizzly bears and wolves that park visitors have in some cases literally watched grow up. Many of our most serious wildlife watchers know these animals by name, or, more often, by their research number. Some of our most devoted visitors come here in good part to observe and get reac-

quainted with specific animals. Does that happen in your parks?

**RL:** I think much less so. We have very few repeat visitors in our national parks; so many of our visitors are overseas tourists who come once.

**YS:** But your guides probably know some animals more specifically?

**RL:** Guides may know.

**YS:** In a way, those animals that are so well known, even if they are still living entirely without human assistance (such as feeding), are kind of the sacrificial animals in the population. Their social role is to be habituated enough to make it possible for us to get this extraordinary glimpse into the life of the wild, but any time an animal is placed in that position it seems that some of its wildness—its remoteness from us—might be compromised.

**RL:** I think that's true, but ultimately, you know, a modern state has to have soldiers and politicians and doctors, and some of these animals are contributing to the good of their species.

**YS:** It is true that they are serving rather like emissaries from their species to ours.

**RL:** That's right. One has to be realistic, you know? They're part of the team. *(General laughter)*.

**YS:** Another element of the visitor experience of wildlife involves professional photographers and filmers. Everybody has a camera any more, but

we're talking here about the commercial enterprises that are attracted to national parks for ease of access to remarkable wildlife viewing. How do you deal with that use in Kenyan parks?

**RL:** Again, in Kenya it is slightly different. I think we've been slightly too mercenary in putting a financial price on access and I think we often forget that good photographs and good films sell the product and we are dependent on visitors, and we should not underestimate the advantages we're getting without just the money.

Perhaps a second aspect is [that] some of these [Kenyan park] areas are for those who want to drive off-road. They create precedents and a lot of photographers want to do things that are possibly more dangerous than they would be here. There are many more dangerous species in an African park, and it does require a degree of knowledge and experience to get away with walking in some of these areas on foot to get the buffalo, rhino, elephant. At the end of the day, bad publicity arises from somebody getting trampled or gored and so one is careful.

But we do make concessions. I don't know if you take the *National Geographic*, but there was a Mzima Springs article [November, 2001] with underwater pictures of hippo and different fish. They had special access to one of the springs that the public can't visit, and were there for a year and a half. And so we do facilitate that sort of thing. [But] if someone wants to make a commercial ad for a four-wheel drive vehicle against a backdrop of spectacular wildlife and scenery,

then we make them pay for that.

**YS:** So do we. Another interesting complication of managing large wild animals is human safety. One of the most dramatic differences in North American and Kenyan wildlife experiences is that we rarely have someone killed by an animal, especially in the parks.

**RL:** I think we have much more, absolutely, not necessarily photographers, but the number of people killed by wildlife incidents is I should think 150 or 200 a year—buffalo, rhino, and so on. It's very common.

**YS:** In your book, *Wildlife Wars*, you describe the revelation you experienced in Amboseli National Park in southern Kenya, when elephant researcher Joyce Poole drove you into the midst of a family of elephants. By introducing you to the animals as individuals, and explaining their little quirks, she revealed just how complex their family and social world was. You were director of the Kenyan Wildlife Service (KWS) at the time, and were engaged in stopping the catastrophic slaughter of elephants by poachers, but you said you had never had the kind of sympathetic close encounter that would allow you to understand what elephants really were. Poole was being criticized by other ecologists for introducing too much "sentiment" into her scientific study, and treating her study subjects too much like they were people. Here is what you said:

For the first time, though, I realized that my job involved far more than merely ensuring that a certain number of elephants continued to exist in our parks. KWS was doing much more than that: we were protecting sentient creatures with babies and sisters and fami-

lies. I fell asleep laughing at myself. In the space of one hour, I had become a “sentimental” convert.

That statement resonates powerfully in today’s Yellowstone. Old-time ecologists, old-time biologists and managers complain that the new constituents of wildlife are perceiving these animals as furry people. This returns to the rise of personality appeal in individual animals, mentioned earlier. As that kind of sensitivity increases, do you think it’s likely that we’ll reach the point in national parks that we will value the animal’s lives as much as human lives? Will we get to the point where we will come out and say that a human’s life in greater Yellowstone is worth no more than this grizzly bear’s life?

**RL:** I wouldn’t have thought so. I am sure people come out and say that, but it doesn’t mean it’s true.

It’s very different to say that an animal’s life has no value and only a human life does have value. I don’t think there’s any question that if we were a group of people together, and we were given an opportunity to help somebody, we would choose to help our family first. It doesn’t make them any more valuable. You do something to save your child or your wife or your cousins, before Joe Doe over the hill.

I also think this is possibly a consequence of the Judaeo-Christian theology to have dominion over the earth, and to have that great chasm between us and them. I think what we do is say that it’s not a chasm, it’s part of a continuum, but it’s not going to drive me to only eating lettuces. I can tell you, I’m part of the food chain. I enjoy being part of the food chain, and there

it is. But it doesn’t mean that I don’t have a far greater appreciation in the way I conduct my life and my job when it comes to looking after my responsibilities to know that an elephant is much more than simply a four-legged chunk of meat.

But this is true of civil right, you know. There were those people who had the temerity to suggest the slaves should be slaves—that there was something fundamentally wrong in putting people in servitude and bondage. But others said, where are we going? [They asked] Where is this leading? Then you want good race relations—where’s that taking us? I don’t think it’s just an increasingly enormously valuable storehouse of knowledge that successive generations of humans are gaining.

[Saying these wild animals have] “personality” is wrong. They have character. They have a degree of cognition that we never suspected. Now, I think that it is quite clear that a bison has sentimental feeling, but perhaps less humor than some of the social primates.

**YS:** Or than the wolves.

**RL:** Or than the wolves. But you know, as we learn more we can put some of these things in better perspective. I’m not sure if you shoot a bison that the rest of the troop feels the loss. But I’m pretty sure that if you shoot out a wolf in a pack you have a far bigger impact than with bison. And I think with elephants it’s more certain, and with chimpanzees it’s much more significant. With humans it is even more significant. So I don’t think we

should be ashamed of being aware [of it].

And yes, the old timers don't want any sentimentality and they accuse you of anthropomorphism. Well, anthropomorphism isn't a package you get from somewhere else. It's a concept. And our behavioral traits we're beginning to see in other creatures. I think it's a little arrogant to think [these observations are] anthropomorphic, but that's the only way we can describe them. Our vocabulary is tied to our own experience. You know, what humans have done to humans is outrageous, [as is] what we continue to do to our environment, including the other species who live in it. I'm not sure it's *equally* outrageous. What is equal?

### Parting Advice

**YS:** It's clear from the story you tell in *Wildlife Wars* that as director of wildlife management in Kenya you were able to take a thoroughly disenchanting and discouraged government department and—after you'd dis-

missed the corrupt people—turn it into a vital, productive agency that did its job with energy and a great deal of pride. There are many in the National Park Service today who could use a boost. What would you say to this agency's leadership that might help get us through a difficult period?

**RL:** I think everybody works for somebody somewhere. And I think it behooves those who have people working under them to make everybody feel part of the team and to appreciate other people's efforts. I think it's when the hierarchy of management [honors] the individual sacrifice and commitment that people are making, and when people are rewarded for that commitment—not necessarily financially but by the right words and the right actions—that you can build a much stronger team that will go through much greater difficulty than if everybody's just punching a number. That's what I would say. It is a collective effort.

