

# Interview with Dan Flores

## Author of *The Natural West* and *American Serengeti*

By Clay S. Jenkinson

**WPO: Why did you write *American Serengeti*?**

**DF:** I think much of it had to do with the time I lived on the Great Plains back in the 1980's and early 1990's. I was fascinated with that landscape. I was seeing it a full century after all the big animals had disappeared, and it struck me as kind of a blank slate really, a tabula rasa, in a number of ways. Certainly there were farms and ranches and highways and towns, but I knew from having read its history that this was a landscape that for much of the seventeenth, eighteenth, and nineteenth centuries had struck people around the world as one of the great spectacles of the globe, primarily because of its wildlife.

I was excited about the place, but I was also trying to get some handle on what the long-term history of the Great Plains had been, why it had gone in the particular arc it had gone. Over time I worked on one animal after another. I started by writing about bison and trying to figure out what really happened to bison in the nineteenth century rather than just accepting the word of other writers who had addressed the problem. I tried to do some original research, proceeding through one animal after another. Because I owned horses, I wrote about wild horses, and I wrote about pronghorns and wolves and coyotes. Ultimately I realized that what I was doing was trying to answer in my own mind what had happened to all these animals, and what had happened to this world that had ceased to exist long before I ever came along.

**WPO: Today when groups go down the Missouri through the White Cliffs or hike on the Lolo Trail, participants will say, "Oh, it looks unchanged, it looks just as Lewis and Clark must have seen it." That must strike you as a very ironic thought?**

**DF:** It is a very ironic thought. What really drew Lewis and Clark, as well as James Audubon, George Caitlin, Karl Bodmer, Prince Maximilian, and many others to the Great Plains was what nineteenth-century observers, particularly Europeans, referred to as prairie fever.

When I speak to groups I take delight in pointing out to them that when we talk about the West today, we are in fact talking about the part of the West that we now tend to think of as flyover country and don't pay any attention to at all. The Great Plains was really the center of all the intrigue and all the action in the eighteenth and nineteenth centuries. This prairie fever that Lewis and Clark experienced, that Coronado had experienced in the 1540's, was part of the mystique of the West.

Until precious metals were discovered, no one paid much attention to the Rockies, the Cascades, the Sierra Nevada. And nobody paid much attention to the Southwest. Everybody was focused in those earlier times on the Great Plains. That is one of the great ironies.

People who float the Missouri River today or go to the White Cliffs can certainly look at the landscape, as I was doing in the 1980's and 90's, and know the topography is still there. And in some places the ecology is still there, although a lot of that has been erased too. But the truth is that

the marvelous world that existed for tens of thousands of years is now gone. The only way we're able to get a handle on it is to try to recreate what that world was.

**WPO: Unpack the concept of *prairie fever*.**

**DF:** In the 1820's and 1830's, the first group of European elite, participants in what in England were called the field sports – hunting and fishing - became intrigued by two places. The spread of Europeans around the world had revealed these locations to them as marvelous possibilities for field sports. One was East Africa, and the other was the American Great Plains.

Starting in the 1830's for both places, East Africa and the American Great Plains became the focus of a series of what would eventually be called safari hunts, although we didn't have the word yet and wouldn't acquire it until the 1850's. Both places began to attract people in search of grand adventure in these wild places, and the term they came to use for it was *prairie fever*.

That term became very widespread, especially in England, Germany, and France from 1830 to around 1870. Once the animals were gone, on the American Great Plains at least, prairie fever began to dissipate and disappear. We even lost the term. Nobody recognizes it now.

**WPO: You know the Great Plains as well as anyone alive, but when you really started to think about this and look into it, were you a little self-critical that though you had loved the Great Plains so completely, it was in the absence of what the Great Plains really were? Did this come as a kind of revelation to you that you'd been seeing it partly right, but also partly wrong?**

**DF:** I was certainly entranced with the topography, the intersecting plains of horizontal yellow grasslands receding into the distance, the mountain ranges off on the horizon, viewed through an opalescent atmosphere, blue cones of mountain ranges. The topography and the climate – fifteen hours of blue sky and sunshine in a day – really entranced me.

But you're right. There's no question that after exploring up and down the Plains in the 80's and 90's I began to realize that I was just getting a fraction of the original magic. In *American Serengeti* I close the introduction with a wonderful quote from Henry David Thoreau, sitting down to his journals in 1857 after reading the accounts of Massachusetts when the earliest English settlers had arrived:

*I take infinite pains to know all the phenomena of the spring, for instance, thinking that I have here the entire poem, and then, to my chagrin, I hear that it is but an imperfect copy that I possess and have read, that my ancestors have torn out many of the first leaves and grandest passages, and mutilated it in many places.*

Thoreau realized that in his own time, he was experiencing this diminished world. Someone had come along, some demigod he said, and plucked from the heavens the best of the stars. What he wanted to experience was the entire heaven and the entire earth. That's what I began to realize I was missing when I was falling love with the Great Plains, that whole appreciation for what had once been there. The entire heaven and the entire earth of the Great Plains was such a larger feature of the world than anything I was experiencing 100 years later. I had miscalculated. I was not sad to be in love with the topography, but I was missing some of those tremendous animals that people were describing a century before me.

**WPO: This is kind of a metaphysical question. The Mandan would say if you take away our language, you take away our culture, because our culture is embedded in the language and the language is embedded in the land, and those things are a whole. If we switch to English we can call something a badger or a cottonwood or a river, but it has been spiritually severed from the deep structure of a holistic culture. Can the same thing be said of the Great Plains, that they are not really the Great Plains any more, that they're now Great Plains-like or a remnant of the Great Plains, but without bison and antelopes and elk and grizzly bears and wolves?**

**DF:** I like your Mandan language analogy. That is precisely what has happened. I've even encountered people who to this day refer to the Great Plains as the Midwest, because we now grow wheat on the Great Plains. They are linking it to Iowa and Illinois and the country further east because in modern terms, it shares an economic base with those places.

But if you know something about the history of the Great Plains, you recognize that it doesn't share an ecology with those places. It was something completely different. It was really, as Lewis and Clark discovered, the place where the American West began. As you traveled from the East and got to present-day Nebraska along the Missouri River, you began encountering a whole new world, the world of the American West. Without those animals there, as these people have inferred by using the term Midwest for the Great Plains, you don't have that allure any more.

**WPO: On August 23, 1804 Lewis and Clark encountered the expedition's first buffalo. On September 7, they saw their first prairie dog village, and on September 14, their first pronghorn antelope. They encountered their first treelessness. When they got out of that northeastern lip of Nebraska and passed Vermillion, South Dakota, they were suddenly in a new world. Everything up until then was basically familiar to the European mind. But suddenly they were looking at something that was altogether new to them.**

**DF:** I looked at this through the experiences of Lewis and Clark as well as those of a lot of other people. John C. Fremont, for example, heading west from Missouri. I've also looked at northeastern Oklahoma west of Tulsa, as various naturalists traveled from the East to the West. It's a transformation that occurred within the space of less than a month, and for some people it happened in about a two-week span, where you left the familiar animals and landscapes of the East and suddenly were in this wild new world. It was not only the topography, but also the more open kind of grassland and of course one animal after another.

You're right. It's the middle of August to the middle of September for Lewis and Clark when they encounter the first prairie dogs, the first coyotes, which they think are foxes until they shoot one and lay it out on the grass in front of them. Clark said it was not a fox but some kind of wolf. They gave it the name prairie wolf. They followed this up with pronghorns and mule deer a few days later. It's a magical transformation, from the eastern, wooded, more humid kind of life of eastern North America to the arid country of the American West.

**WPO: Lewis, in the three-volume account that he proposed to write and never did, planned to write what he called a dissertation on treelessness. Can you talk about treelessness as a surprise to the European mind?**

**DF:** It really was a surprise. In English we hardly had a word for it. We had to borrow a French word, prairie, in order to provide an account of what these landscapes were. Meriwether Lewis at one point said the country looked like a bowling green. It was the only thing he could come up with, a sort of artificially manicured outdoor bowling lane, to describe this vast extent of country stretching off to the horizon.

It's a kind of place that I think became intoxicating to a lot of people from Western Europe who all came out of thickly forested, very humid and wet settings. It's probably why the term and the whole idea of prairie fever caught on so among the adventuring elite of nineteenth-century Europe. They were attracted to the opportunities that these animals provided in terms of hunting – bison, pronghorn, elk, and bears visible in open country – but they were also entranced by the fact that you could see so far.

It's hard not to speculate that what they were really experiencing was a rediscovery, 45,000 years after leaving Africa, of the African plains. It's a kind of genetic memory that many people around the world seem to have. Because we evolved in that kind of setting, we are entranced when we encounter it elsewhere, much later on in our history, even though we don't actually know why. Part of landscape architecture in Europe was the attempt to recreate this kind of thing, vast extensive lawns in these big estates with plants scattered trees here and there to create this open, park-like effect that you could get on the Great Plains or in East Africa.

**WPO: If you are from Maine or from France today and you venture onto the Great Plains from either direction, is there enough of that primordial African memory remaining, even in the denuded Plains, to still enchant?**

**DF:** I think there is, especially on the Northern Plains where there is more intact grassland. So much of the Southern Plains today has been converted to cropland that it may be more difficult in that part of the world.

I can offer you up a personal experience. I grew up in Louisiana. My family is an old Louisiana family that goes back to the founding of the colony in the early 1700's. Eight generations have grown up and lived in Louisiana. I struggled for a long time to figure out why I was so entranced with the West. I didn't discover until I was about 36 years old at a family reunion back in Louisiana, that when I was a child, my family went on a vacation into New Mexico, to Carlsbad Caverns National Park. We then drove north through New Mexico and finally circled back around to Louisiana via West Texas. I was too young to remember the experience – I was barely four – but I always had these dreams of open landscapes and red cliffs and bright blue skies with cotton ball clouds. I had these dreams my whole childhood without being able to figure out why. As a result, when I was sixteen and had a driver's license, the first thing I did was to drive directly west from Louisiana across Texas into Colorado and New Mexico. I can still remember the excitement that I felt in getting out west of Dallas and Fort Worth and seeing the sunset. As the sky began to grow black I began to see the lights of these little scattered towns out in West Texas, thirty miles away or more. To be able to see that far was tremendously exciting because I had grown up in Louisiana where you couldn't see 150 feet through the woods.

That magic of being able to see is probably still intrinsic of that old memory we have of our evolutionary homeland. This is the country where we blinked into consciousness, out in the open savannahs of Africa. When we get out to the Great Plains today, if one is sensitive to it, you can still experience some of that excitement.

**WPO: If that's true, why did we work so strenuously to erase it? Why did we overwhelm it, exterminate it, introduce European grasses, plant wheat, fence it off, remove the Indians, kill the buffalo, pave it where possible, give it over to the military? If it represents something so central to the consciousness of humankind from our origins on the plains of Africa, why were we so eager to damage it?**

**DF:** If you read someone like John James Audubon and his account of going up the Missouri River into North Dakota and Montana in 1843, at the time we were dismantling the Great Plains and destroying one of the ecological wonders of the world, that's the reaction you'll have. He was describing one of these planetary spectacles that were really hard to come by elsewhere around the globe.

I think one of the reasons is that at the time that people like Audubon and later travelers in the 1860's and 1870's are out in the West, we don't yet know who we are. Charles Darwin's *On the Origin of Species* was published in 1859 to of course a lot of pushback. When you read the accounts of people who were in the West in the 1870's and 80's, they were not thinking of themselves in terms of coming out of an African evolutionary experience. They were thinking of themselves as Christians who came out of a European background, which was as far back as they could remember. Their past was Europe.

It's also speaking in terms of Christianity telling us that we're special. We are the only creatures on the planet with souls. All of these other creatures are just mindless and soulless automatons here for us to use. We can do anything we want with them. And since there was no regulation of freedom of action in the late nineteenth century in the American West, out on the Great Plains there was basically no regulation at all. Maybe some of the mining communities came up with miner's law and miner's culture that limited what people could do.

The American government had never regulated the hunting of animals, and it wouldn't do so until 1900. The result is that we just indulged this selfish gene where we let the unregulated market dictate what we were going to do to the place, and we destroyed everything in sight. We look back on it now and we say we were doing it for various reasons: we were introducing Christianity to the American West; we were providing an entrée for ranchers and homesteads. But I think when we were destroying all of those animals, nobody was thinking much in those terms. This is what unlimited freedom, American style, is all about. They just let the market run the show, and they shot down everything that moved.

**WPO: If we had done something remarkable, it might have been worth it to do what we did to the West and to the Great Plains. But we didn't. We produced Chadron and Aberdeen and West Oklahoma, these dusty ramshackle towns. We brought on the dust bowl. You can't say we built a monument of any sort. It's distinctive, it's wonderful, and you love it for it's own peculiarities and its own kinds of improbabilities, but could anybody who looked at this say that the trade was worth it?**

**DF:** I don't think so. I was doing a talk a couple of weeks ago in Colorado, and I had someone in the audience say, "But what about all the libraries and the schools and all the farms and ranches we created as a result of having destroyed this?" My response was to acknowledge that while I benefit from schools and libraries, and I admire the well-run farms and ranches, my whole point about having lost this world is that we didn't even preserve any good representative, Yellowstone-like piece of it. Not anywhere.

All it would really take is to preserve one good, two- or three-million-acre area where this original world could have survived. I'm content to let other places do as they wish. If Boise City, Oklahoma is proud of its area and location and history, that's all great, but I still would like to have something like the great game parks that in Africa: Kruger National Park in South Africa; Serengeti National Park in Tanzania. I just don't understand why in the history of what we think of as a progressive First World nation, we chose to totally destroy all of it, to not even preserve any good semblance of what was there for thousands and thousands of years.

**WPO: You mentioned Thoreau's great passage about Massachusetts and the stars being plucked from the sky. Who, in the history of writing about the Great Plains, got closest to understanding that issue?**

**DF:** Let me read a brief one. This particular guy, the Earl of Dunraven, was one of those European elites going on safari in the West. In his case it was after the Civil War, in the 1860's and 70's. He was a little unlike the earlier safari hunters. Sir George Gore in the 1850's, for example, had one of the goriest slaughterhouse hunts ever engaged in in the West. But Dunraven was from a more educated background than Gore, and he tended to hang out in England with actors and poets and writers, so he was maybe a little more sensitive about what was going on.

Dunraven participated in a particular hunt in 1869, fifteen years before the bison and wild horse herds and the other big herds were gone. After riding for about fifteen minutes through an elk herd where he and his companions basically shot every animal in sight, Dunraven experienced a strange ennui where he seemed to almost glimpse the future of the prairie. When he got home that night he sat down and wrote in his journal. It's just a couple of sentences, but I've always thought that this was somebody who really got what they were doing. He wrote this:

*In a second it was all gone. There was not a living creature to be seen, and the oppressive silence was unbroken by the faintest sound. I looked all around the horizon: not a sign of life; everything seemed dull, dead, quiet, unutterably sad and melancholy.*

What I think he was experiencing was the death rattle of prairie fever. With all those animals gone, prairie fever dissipated like smoke in the wind.

**WPO: Let's go to Catlin. Talk of loss, Catlin made that extraordinary statement about just leaving it all alone and creating a Native American Park. When you read that, even today, you think: (a) where did that come from, and (b) was anybody listening? Was there any traction for a statement like that? Talk about Catlin and the Great Plains.**

**DF:** Catlin was clearly one of those people like the Earl of Dunraven. Despite the fact that Dunraven was shooting animals right and left, he did at least have some kind of emotional reaction to the disappearance of all these animals. Catlin was on the Missouri just a decade before Audubon, and Audubon was jealous as hell and annoyed by Catlin. He said the book Catlin wrote was nothing but humbug.

As entranced as Audubon was by the wildlife of the Great Plains, he didn't feel that way about the Native People. And clearly, George Catlin did. And I think that provided him with an entrée into that world. He was able to see it to some extent through the eyes of the Native People that he was traveling with and painting.

I think Catlin is almost a special instance. There is a famous story about him going into Andrew Jackson's office when Jackson was President, pleading against the forced removal of Native Peoples. He was almost the only person, other than the Cherokees and the Choctaws themselves, who made an argument like that. So Catlin to me is an unusual figure.

Because he went to Europe in the 1830's and did what could be called the first Wild West Show, preceding Bill Cody by half a century, attempting to present to Europeans what the West was really like, he was able to get a version of his own sentiment of the West into how Europeans viewed the West. And I think Europeans have sort of hung on to that, maybe as a result of Catlin's presence among them. They still feel like the West is a special place, whereas Americans sometime in the nineteenth-century and maybe still today to a certain extent became so pragmatic and matter-of-fact about it. We so believed in the idea of freedom of action, the idea that we can do anything we want to do, that we somehow just watched all this vanish in front of us and never looked back on it. It was not our fault, just the inevitable march of civilization.

We've employed a kind of conspiracy theory explanation for what happened to the animal life of the Great Plains. We've basically come up with this idea that it's the government in combination with the military that does it all, that kills all the animals, and so it's not really us. It reminds me of nothing so much, having grown up in the South, as the Southern explanation for the Civil War. The Civil War was clearly about slavery, but Southerners through the 1870's and 1880's and clearly through much of the twentieth century, argue that it wasn't about slavery at all. It was about state's rights and the Southern way of life. It didn't have anything to do with slavery. It's an historical explanation that makes us feel better about ourselves, but it's not very helpful in determining what actually happened in the past.

**WPO: Given the spirit of the American people in the 1820's, 30's, 40's and 50's, given our greed and sense of progress, our sense of ourselves as the world's most extraordinary people, and the industrialization that made all of this possible, where are you are the question of inevitability? Would it have been possible for the United States to listen to Catlin, to leave portions of the Great Plains alone, not necessarily for spiritual or aesthetic reasons, but as a dumping ground for Native peoples? Was it possible, given who we were in the age of Jackson through the age of Grant, that we could have chosen not to take all of it?**

**DF:** I don't know about the period from Jackson to Grant. I can't come up with much of an argument for saying that from the 1830's to the 1860's we might have done that. I think you could advance an argument that we certainly could have done so from the 1870's onward. It was in the 1870's that we came up with the beginnings of the policy that initially produced the National Forests in the mountains of the West. It was very pragmatic, not a spiritual setting aside of the grand landscapes of the Rockies. But it does have to do with our learning about Western reality, the fact that the West was primarily an arid region and the primary sources of water were in the mountains. So the movement that resulted ultimately by the 1890's of setting aside the forest reserves in the Rockies, the Cascades, and the Sierra Nevada, had to do with protecting the watersheds of the high mountains. That was where the water came from that made settlement of the West possible. When we set aside those lands and removed them from homesteading, we were doing it for a more practical and pragmatic reason.

That particular policy corresponds to the same time period with the movement to start setting aside National Parks. If you use Yellowstone in 1872 as the beginning of the National Parks movement, then you can see that there was a sensibility about setting aside these landscapes. The

Americans, after all, were largely Europeans, or Euro-Americans at that time, and when they set aside parks in the mountains, what they were thinking of was that these are the parts of America that most closely resemble the grand landscapes of western Europe, like the Alps. Because of our particular history, and because of the part of the globe that we came from, we brought with us this idea that high mountains have a special sacred and romantic quality.

Because Western Europeans didn't come from a landscape with vast open plains, we didn't turn to the American Great Plains and see the same thing. We tended to see a landscape there with a lot of animals, but everybody who wanted to homestead in those early years traveled through the Great Plains in search of country that looked more like Western Europe, such as that along the Willamette River in Oregon. So I think part of it has to do with our history, who we are as a people, where we came from, what we regarded as being important landscapes.

The fact that we did create two areas of set-aside landscapes in the late nineteenth century, National Forests and National Parks, indicates to me that we could have done the same thing with the Great Plains if someone had been willing to take George Catlin seriously. I can come up with a lot of people who loved the Great Plains and reacted positively to them, but hardly anyone that I have read said that Catlin had a great idea in setting aside a National Park on the Great Plains.

**WPO: Do you have any sense of how widely read Catlin was?**

**DF:** I think he was pretty widely read, though I don't really know that he was by modern terms. His book which came out in 1838, *Letters and Notes on the Indians of North America*, was pretty widely read, but I don't know that it would be what we call a best-seller. In some ways he obscured his message because he buried it deep in the second of a two-volume work. Also, because he was a painter, a lot of people bought that book to look at the realistic images of a part of the country that hardly anyone had ever seen firsthand. So I'm not sure how closely he was read or how seriously his recommendations were taken.

**WPO: Talk about what we lost. Had we listened to Catlin - imagine the American Prairie Reserve on steroids, imagine 30 million acres – we would have something extraordinarily rare in the world. What did we lose in not harkening to him and others who had that sense?**

**DF:** I think one can probably look at Eastern and Southern Africa and get a sense of that. The Maasai Mara National Reserve, the Serengeti National Park, these are places that made sure that Africa did manage to hang on to these kind of reserves, places that insured the survivability into our own time of its great wildlife abundance. A hundred years ago everyone considered that abundance to be one of the marvels of the world, and many people still do. But I think that is what we could have had. We somehow just didn't pay attention to what England was doing in Eastern and South Africa at the time.

I'm not really sure why that was the case. Certainly the people who were pressing the conservation program, the National Forests and the National Parks, were decidedly focused on the mountains and the great canyons of the American West. They didn't think of the Great Plains this way. They were setting aside the parks for scenic reasons, and they didn't think of the Great Plains as being scenic. Also, by the time they were doing this, the animals of the Great Plains were either gone or almost gone. But had we done it, it would have changed the history of the American Great Plains.



Had we set aside on the Missouri River somewhere in North Dakota or eastern Montana, as Catlin recommended, a two- or three-million acre park the size of Yellowstone, and if we still had grizzly bears and gray wolves and great herds of bison and elk and bighorns, that would of course be attractive to the entire world. And if one had been in place at the beginning of the twentieth century in the Dakotas or in Montana, it would have produced copycat clones further south. We would have ended up with the National Park of a million acres we tried to get on the Southern Plains around Palo Duro Canyon.

That would have changed the history of the American Great Plains. It would have changed the apprehension that people have of the Great Plains. I have people tell me all the time that when they drive across the West they drive across the Great Plains at night so they don't have to look at it, so that in the morning there are mountains on the horizon to distract their attention from this vast landscape, this empty country with its few little flea-bitten, windblown towns here and there. If we had done something like this, or if we do it in the future, as American Prairie Reserve is trying to do in Montana now, it's going to change the history of this region of the country. It's the only region in the United States that constantly struggles to hang on to a population of people, where many young people leave and go somewhere else. Everywhere else, the Rocky Mountains and the Southwest, the Coasts, the Pacific Northwest, those places are all dealing with growth while the Great Plains is dealing with the reverse.

**WPO: That raises another question. Why, when the Poppers produced their thesis, or when the American Prairie Reserve works as a private/public partnership, do the people who live on the Great Plains react with such kneejerk hostility and the sense of being completely outraged and appalled by these notions?**

**DF:** The Poppers, being from New Jersey, didn't play well on the Great Plains. It turns out that today you can be from New York and New Jersey and it plays well in rural areas of the country. But back in the 80's when the Poppers were proposing the Buffalo Commons, it was held against them that they were from Rutgers and that they taught at a university in New Jersey back on the East Coast. For me the mistake they made, and my guess is that Frank and Deborah Popper ultimately came to think the same thing, was that they tended to argue in these really general kind of futures that the American Great Plains as a whole was going to depopulate and could be returned to a buffalo commons.

I think the difference between what they were doing and what the American Prairie Reserve is doing is that the APR is now telling people up and down the Great Plains that what your granddaddies and great-granddaddies did was wrong, and you're going to have to leave and go somewhere else because we're going to turn buffalo out across the Plains. Their focus is on a very specific spot, sort of like these parks in Africa. Africa hasn't converted the entire stretch of country from South Africa up to Kenya and Tanzania into a grand game park. They've got these very specific locations.

It seems to me that there is still a lot of resentment towards APR on the part of ranchers in the area. A lot of it I think has to do with the sense they have that they are being told that what their ancestors did was wrong. Nobody likes to hear that. So they react in this kneejerk way. Not all of them. There are plenty of them that are looking at something like the APR as a great opportunity to contribute the conservation future of the West and of the United States. But some of them still hold out this idea that their grandparents settled this country and now you're telling us that everything they did is wrong and you want it back, and we're not going to stand for it.

**WPO: So it's not so much that they are opposed to the idea, but that somehow it hurts their feelings, the sense that what we did was a mistake, that we failed, that there is no future for the paradigm that they and their ancestors have been following. But that might be the case.**

**DF:** It might indeed be the case. And as I said, there are certainly plenty of ranchers who are more like the Earl of Dunraven, more sensitive to the arc of history and not so inclined to be offended at the thought that what their ancestors did in the past was in fact an error. I look back on my family's eight generations in Louisiana. At one time we had an awful lot of land along a stream called Bayou Pierre. We cut down a lot of the trees, and when the East Texas oilfield came in we invited people to come in and drill oil wells. I have to look back and think that some of my ancestors didn't make the right choices. When you think in historical terms you have to give people in past generations their due. They were confronting the conditions of their own time, not the conditions that we confront now. But it makes it possible for me to look back at my ancestors and wish they hadn't done some of the things they did. I would love to see some of that land on Bayou Pierre belong to the Kisatchie National Forest and be part of the conversation process back home in Louisiana, rather than knowing it was destroyed by the oil industry in the 1930's. I think that's what some of these ranchers are confronting. Some of them must be willing to look back and realize that what their ancestors did worked for a time but it's maybe not the best thing for the future of this part of the West.

**WPO: Something of what you are saying is about ambivalence. We got to a certain point where in a way we had accomplished what we wanted to do. We had spread Anglo-European American civilization from sea to shining sea. At that point the culture could begin to breath a little bit, and not be so easily offended by any talk of restraint. You see someone like Theodore Roosevelt. He was a big game hunter and certainly 100% in favor of American industrial progress, but he also feels the sense of loss. There is this whole theme of the vanishing west and the vanishing Indian. Can you talk about how the culture began to come out from under the intoxication of conquest and begin to feel that maybe some things should be saved, that maybe the bison should be saved, maybe the elk should be saved?**

**DF:** It does interest me that most of the people who are interested in saving some of the wildlife of the West, in saving some of the landscapes of the West, tend to come out of the East. They tend to come from New York, from Massachusetts, the Grinnells, the Pinchots, the Roosevelts. This is the case almost everywhere. The cry to stop the destruction doesn't come from the hinterland of the American West. It tends to come from the East Coast and increasing from the West Coast. John Muir was creating the Sierra Club in those same years. I'm not sure that I quite grasp why that is the case, except that it's the illumination of the West's position in many instances with regard to regulation, to environmentalism, and to conservation programs. Oftentimes it is the people who are on the scene in the West who resist and resent the idea of progressive set asides for environmental or conservation programs.

For Roosevelt and for Grinnell, I think the West represented a last chance to get it right. They were from a part of the country that had already gone through this frontiering process where there is no regulation on progress whatsoever, where you can go ahead and wipe out all the whitetail deer, kill all of the black bears, trap out all of the beavers, cut out all the trees. People in the East had already seen this happen, whereas I think a lot of folks in the West still regarded the West in

the 1870's and 80's and 90's as this land of unlimited resources and opportunity. It almost takes people who have the experience of having seen a landscape and a wildlife bounty be destroyed to look at the West and suggest that we need to do something before it's all gone

We should begin to think in terms not of America as the land of the selfish gene, where everybody gets unlimited freedom and can dam up any river they want to, kill off any species of animal they want to, and do it all in the name of freedom and God Bless America, but instead begin to think in terms of what we need to do to act in the common interest. We need to do some of these things for the common good. I sometimes tell people that the nineteenth-century West reminds me of those experiments that biologists do where they put a bacterium in a petri dish and provide it with a food source. What often happens is the bacterium eats out the food resource until it's gone, and then it dies. The petri dish becomes completely the scene of death. It's almost like that is what we were trying to do in the nineteenth-century West, and what the biologists say you do to prevent that from happening is to introduce a second bacterium that acts as a halt on the spread and consumption of the first one.

To me that is what conservation was doing at the end of the nineteenth and the beginning of the twentieth century. That why men like Gifford Pinchot, George Bird Grinnell, and Theodore Roosevelt see a world that if they allow it to simply continue to be exploited, is going to be completely destroyed. So they try to provide some kind of margin, the beginnings of a kind of regulation of freedom of action. What we got as a result of the Boone and Crockett Club was the beginning of state laws to try to control the take of wildlife all across the country including the West, the beginning involvement of the Federal Government for the first time with the Lacey Act of 1900, making it the destruction and shipping of wildlife from one state to another illegal. It was the very beginnings of trying to provide a kind of a control on the unlimited destruction that had brought many parts of the country down and was threatening to do the same to the American West.

### **WPO: What do you know about John Lacey, an unsung hero in this movement?**

**DF:** I know he was from Iowa. I've read some of his testimony on the floor of Congress when he was introducing the Lacey Act. And there was more than one Lacey Act. He was not the very first to introduce legislation in Congress to try to regulate the destruction of animal life in the West. Representatives from California and Illinois made an attempt back in the 1870's. The Bison Act was passed the first time it was proposed in Congress, but President Grant failed to sign it into action. They told themselves on the floor of Congress that Grant was actually a supporter of that bill; he had just been otherwise occupied and had missed the opportunity to sign it into action. So they introduced it again in 1876, but this happened to be the same summer as the Battle of Little Big Horn. Congress got so upset over that and the implications for Indian policies that they ended up not passing the bill.

So there had been efforts since the middle 1870's to pass Federal legislation to control the destruction of wildlife. But John Lacey came along and aimed his first bill, the Lacey Act of 1900, at the market hunt. The legislation prevented the interstate shipment of animals that were killed for the market. It attempted to curtail the market hunt first, because that was what was killing most of these animals. They were being killed basically for a market, be it local, regional, or national. Lacey was the first representative who was successful at getting Congress to support a bill at the national level that would begin to curtail this destruction.

**WPO: What brought about Lacey's commitment to these ideals? You wouldn't have expected it to come from the heartland.**

**DF:** No you wouldn't. But one of the bills from the 1870's that attempted to end the bison hunt, to at least stop the killing of female bison on the Great Plains, was introduced by a representative from Illinois. This time it was not from the East Coast, but again it was from the more settled part of the United States where people have already witnessed the stages that the West was going through. They seemed more sensitive to the directional arc; they realized that if this kept going, total destruction was going to be the result. It happened back in Illinois, it happened back in New York.

At the time that Theodore Roosevelt was proposing the beginning of National Wildlife Refuges in the American West, New York had no more whitetail deer, no more black bears. These guys had seen the results of this unregulated market hunting. I think that's why they saw this as one last shot at getting it right, at not doing what had been done on the Eastern Seaboard or the Midwest.

**WPO: Let's talk about Roosevelt. Charles Wilkinson once said that it is impossible to exaggerate Theodore Roosevelt's conservation achievement. And yet Roosevelt is such a strange and paradoxical creature, a big game hunter with a lust for killing that overtook him at times, particularly in Africa. What do you make of him?**

**DF:** I'm a tremendous admirer of Roosevelt. I always have been. And I think Charles Wilkinson is right; you cannot overestimate what he did. The Progressive Conservation Program is the foundation for everything we have done since, including things like the Endangered Species Act. We had to have that program in place before we would have ever done anything else in the environmental realm, so I don't think you can overestimate him.

The fact that Roosevelt comes from the particular background that he does doesn't really surprise me. He grew up hunting, and he never gave up his lust for being a hunter. Certainly when he went to Africa the newspaper had a field day showing all the animals of Africa hiding up in trees and Roosevelt coming over the horizon. But this is how, through hunting and fishing and what those old Europeans called the field sports, most people who become entranced with conservation get into it in the first place.

Aldo Leopold, the great ecologist of the twentieth century, got into ecology and understanding conservation through that same avenue. In Leopold's case, because he lived in a later time, it became a little bit easier for him to decide that, having shot a wolf down in southern New Mexico and having watched the green fire die in her eyes, he was never going to do that again. It had been a mistake, and he pledged to try to understand the role that predators play in the world, and to do his best to bring his expertise to the light of the world.

Roosevelt was operating in a different time. That avenue of becoming a non-hunter, as Leopold did, maybe wasn't quite available to him. He remained an adventurer all his life, nearly dying on that trip into South America several years later.

**WPO: Roosevelt says in his western books something like this: "It's a pity that the buffalo is going to go extinct, but it certainly is. Although in my heart I wish we could keep it, because it is the signature creature of the Great Plains of the American West, it is inevitable that this must be case because any wild population of bison is incompatible with the spread of civilization. Although I find it heartbreaking to see this happen, I realize that it must happen, and that on the whole it's a good thing**

**that is happening.” It’s a very nuanced and ambivalent attitude, but his net position was that if it goes extinct, we have to accept that, and in a sense it’s good, it’s the price of civilization.**

**DF:** Even John Muir used words very similar to those to express the same sentiment, which clearly was widespread among this particular group of people at the beginning of the twentieth century. It was so widespread that Hornaday’s American Bison Society, the organization that saved the bison from extinction, proposed that they would not be wild animals in the future American West. Put them in Yellowstone, put them in Wind Cave, put them here and there scattered across the landscape, but always in parks and wildlife ranges, in preserves. They were in effect zoo animals, looked at by the public as confined animals.

We have to confront the reality of that today with the propensity of bison to try to migrate off the Yellowstone Plateau down to lower elevations that are out of Yellowstone Park. Our continuing inclination as they are exiting the park is to either haze them back in or shoot them or allow someone to come in and shoot them.

The American Bison Society became the organization that was responsible for keeping bison from becoming extinct and for distributing the few animals that were remaining around from breeder to breeder in an attempt to prevent the genetic bottlenecks that developed because the populations tended to be very regional and isolated. So what Roosevelt was expressing, which was even more widespread than his own sentiment, became the reality of how we managed to preserve bison.

**WPO: Today when we look at bison we see half a million alive in Canada and the United States. On some Indian reservations there is a semblance of wildness at least, some unfenced country, and the APR is doing what it can in this regard. But you are saying that we shouldn’t fool ourselves, these are not bison in a state of nature. These are bison that have been permitted in small enclaves to maybe cheer us up, but this cannot be regarded as the saving of the bison?**

**DF:** That’s exactly what I’m saying. Think about it. Compared to elk, pronghorns, mule deer, compared to any other of the commonly hunted wildlife of the American West which are allowed to roam the National Forests, the BLM lands, without any kind of real attempt to keep them isolated in particular places, bison have not been given that opportunity. You do not have wild herds of bison roaming the National Forests the way you do elk. It’s the primary animal from this slaughterhouse of the nineteenth century that we did manage to save but it almost requires an asterisk. It’s been named as the iconic wildlife symbol of the United States, but it’s not a wild animal. We don’t allow bison to be wild. Canada has basically followed our lead and done the same thing. Until we have bison roaming around on the public lands in the National Forests and out on the BLM lands, we’re going to need that asterisk.

**WPO: With the exception of the APR and its vision, can we do that? Could we turn them loose in the National Forests and allow BLM lands to have some encroachment?**

**DF:** I think we could do it. There has been a small wild herd in the Henry Mountains in Utah. The problem, of course, is that bison and grizzly bears are doing the same thing, and it’s one of the wonderful things happening up in Montana. Every spring now when the grizzlies wake up they follow this ancient instinct to go out onto the plains. For grizzly bears that was their original range

because that's where the bison population was. And so I think the same thing is going to be true of bison, the same thing that happens today in Yellowstone during winters. They want to leave the high elevations and go down into lower elevations the way they have done for 400,000 years in North America. If you do have them up in the National Forests, they're probably going to begin exiting pretty much the way elk do in the fall.

When I was living in the Bitterroot Valley south of Missoula while teaching at the University of Montana, I watched herds of elk run through that landscape and tear up the barbed wire fences, running from hunters. That's been the primary criticism of having bison roaming wild through the landscape. You can hardly build a fence that they can't walk through. Property damage has made a lot of people say that this is impossible. We live in a landscape that is widely fenced because we are a private property nation, and if you have bison roaming around the countryside, they are going to be destroying fences right and left, to a much greater extent than the elk herds do.

**WPO: What if Ryan Zinke called you and said, "Dan, I want you to take a map of the American West and to designate a handful of places that, like the Henry Mountains, could permit a kind of organic recovery of the bison. We may have to award some special grants to give ranchers and home owners sturdier fences and there will have to be compensation packages for those who suffer property damage." Could you designate a number of places that would be suitable for a modest re-wilding of the bison?"**

**DF:** Yes, I think I could. I certainly have a couple of places in mind. The Red River Valley country of West Texas would be one. It does not have very much of a human population any more. There is a scattering of towns but very few people living in them. There are fences and other things, and there are places with absentee owners, but that would be one.

I think the American Prairie Reserve has come up with another one. And Southeastern Colorado is another place I would argue for. In fact I know a conservation organization, the Southern Plains Land Trust out of Denver, that has a 40,000-acre ranch in Southeastern Colorado with a herd of bison on it. One of the things that they do and the APR does is that whenever they add property to the ever-growing ranch they are creating, they take down all the fences. They remove interior fences as a first step to let these animals roam. That is what APR does whenever they add a ranch to their reserve up in Montana. A large part of their work is taking down interior fencing with the idea that ultimately there will be only a single perimeter fence about however big an aggregate of land they come up with. They're talking about 3 to 3.5 million acres ultimately. They will probably have to have a perimeter fence but no interior fences at all.

**WPO: What about Native American Reservations in this regard?**

**DF:** There are a couple of them. I know the Cheyenne River Reservation in South Dakota and the Crow Reservation in Eastern Montana have also removed interior fencing. Because the Indian Reservations often tend to harvest their animals or allow hunts, they have developed a strategy where they take a portable meat packing plant out into the grasslands to do their butchering on site. They don't have to drive the animals to some spot for butchering, and they can keep them wild. They are trying to do a modified version of wild bison on the landscape. I don't know the details, but I think the Crow are doing something similar. And the Intertribal Bison Cooperative has pushed for this kind of thing. What they have argued for is that bison don't need to be ranched like

domestic cattle. They need to be wild in these big pastures. So the idea is that you don't need to drive them in whenever you are going to harvest some of them.

**WPO: Let's go to William Hornaday. He had kind of a Pauline conversion experience out there in May of 1886 and decided to dedicate a part of the rest of his life to the conservation of the bison. Then he went back and produced that magnificent glass box bison array at the Smithsonian that was there until 1957, and those bison are now up in Fort Benton. What do you have to say about Hornaday's role in all this?**

**DF:** I am a great admirer of Hornaday as well. Like Roosevelt, he comes to his conservation sentiments largely as a result of having been a hunter. It is just a common projector for people in the nineteenth and early twentieth centuries and probably to the present. Many approaches to conservation, particularly wildlife management, tend to draw kids from rural backgrounds that grew up hunting and fishing. In a way they mimic the Hornadays and the Roosevelts of earlier times.

Hornaday has in some respects a little bit of a mixed legacy. The environmental historians at the University of Montana were a little miffed at him as he became more and more of a conservationist and became more and more convinced that market hunting was what was destroying most of wildlife. There is no question that he was absolutely correct, but he tended to argue that among the most unsavory of market hunters were American minorities. He tended to single out African Americans in the South, newly immigrated Italians, Southern Europeans in places like Pennsylvania, and he tended to argue that those people had none of the advanced notions of the modern American Sportsman.

The Italians hunted songbirds, for example, and according to Hornaday they didn't understand that we were trying to pass laws to protect songbirds. And it was Hornaday who coined the term potshot, which he ascribed to the way African American hunters of the South hunted bobwhite quail. Hornaday said that unlike progressive hunters who would hunt these quail only when the dogs pointed them and the hunters flushed them and shot them in the air, the African Americans would line up a bunch of birds on the ground and take a shot from "pot" in an attempt to kill an entire covey with a single shot. So the environmental historians were a little bit miffed at Hornaday's politically incorrect take on minorities a hundred years ago.

Hornaday did far more good than ill. He was the guy who developed the first idea about what had happened to the bison with his 1889 book *The Extirpation of the American Bison*, published by the Government Printing Office. It essentially argues that bison were taken out by the market hunt. It was not some kind of grand government conspiracy. It was the unregulated market hunt. That becomes the theme of much of his writing. He wrote another book in 1913, *Our Vanishing Wildlife* that argued the same thing.

He became the Director of the Bronx Zoo and did great things by helping found the American Bison Society. By understanding rudimentary genetics, Hornaday facilitated the transfer of bison from one locality to another across the West so that there are as few genetic bottlenecks as possible in trying to produce a healthy bison herd for the future.

**WPO: The most glaring example of his racial insensitivity is that scene up west of Miles City. He killed a giant bull and left it overnight, and when he came back and saw that some Native Peoples had taken the meat and left the skull and painted it and adorned it, Hornaday threw a fit. He had not even a glimmering as to whether**

**this was an act of defiance or an act of acknowledging the sacred nature of the bison to this culture.**

**DF:** What they came to on that morning of October 17, 1886, as Harvey Brown writes in his diary, was the aftermath of a ceremony. The Indians had found that big bull during the night after Hornaday's guys had shot it, and they had performed a ceremony around it. But Hornaday seemed to be oblivious to that. Some of the other guys seemed to understand what had happened. Harvey Brown talks about there being circular moccasin tracks all around the bison. One side of the head was painted red, and the other side was painted yellow. Polka dots were painted on, and there were tassels of feathers tied to the horns. It clearly was a ceremony, but it seemed to be outside of Hornaday's experience. He threw a fit about it.

**WPO: Do you have any sense about what Native Peoples these would have been?**

**DF:** It's difficult to know in that part of the country. There were a lot of Indians from further west that were hunting out in Eastern Montana. This is the period that produced Samuel Walking Coyote, a Salish Indian from west of the continental divide. He went back from Eastern Montana and had two calves follow him back, and that become the beginnings of that famous Pablo-Allard herd of bison, basically the National Bison Refuge animals. It's hard to know who it was.

**WPO: How close did we come to extinction? Estimates vary, but in your mind what was the lowest number that ever existed?**

**DF:** Hornaday thought there were 1,086 left about 1887. He was counting those in Canada too. I don't of anyone who knew more about the numbers of bison that were out there than Hornaday did, so I've usually used his figure. I've seen other figures of half that number. I hope it was 1,000, because I fear that if the number was lower than that, the genetics of a population that small would make it really difficult to try to grow a sizeable population of bison. I hope that there were more than 1,000 when they started distributing the bulls from the Pablo-Allard herd down to Charles Goodnight and to Buffalo Jones and to the Bronx Zoo. They kept trying to distribute these animals around from one place to another so that they could get a better genetic mix.

**WPO: At one time there were 30 million, 60 million, estimates vary. When you think even in terms of the Jurassic idea of regeneration from DNA, when you think of the idea that this creature nearly blinked out, it just takes your breath away.**

**DF:** It does take your breath away. One of the themes of *American Serengeti* is how frequently this happened to the other species of the Great Plains; how far down they were drawn at the end of the nineteenth century. We now think there were probably fifteen million pronghorns, about half the number of the bison. And we drew those animals down to slightly more than 13,000 by about 1905. The same thing happened with grizzly bears, which probably had a population of 60,000 in the lower 48 only a hundred years ago. We drew those animals down to only about 350 to 400.

And wolves. Montana has this remarkable story about wolves. When Montana was a territory, it was using up two-thirds of its territorial budget in the 1870's and 80's to pay bounties on gray wolves and coyotes. Montana between 1883 and 1928 paid bounties on more than 886,000 coyotes and about 112,000 gray wolves. It wasn't until the 1920's that Montana finally stopped paying bounties on gray wolves, because there were virtually none left. One of the last years they paid



bounties on gray wolves was 1920, and they paid bounties on only seventeen. That was down from more than 20,000 in 1889 alone.

We had this happen with animal after animal. Not just bison. That's the one we talk about at cocktail parties, but it happened with so many of these other creatures too.

**WPO: There is the debate about the Great Man/Great Woman theory of history. What is the place of someone like Roosevelt or Hornaday in all this, or Grinnell or Samuel Walking Coyote? You can look at it another way and just say that our culture, American Civilization, having stepped up to the brink of this abyss, where we were going to and almost did wipe out absolutely everything, that something checked us, something caught in our throats, something caught in our consciousness, and beginning in the 1870's we began to ease back, in a very careful and cautious way, from that absolutism. Does that make any sense?**

**DF:** I think that's precisely what happened. As I mentioned earlier, what it required was a generation of people who had already seen it happen somewhere else in the United States or in the world. George Perkins Marsh, that great American diplomat who wrote *Man and Nature*, really the first book that was an environmental history of the relationship between humans and the natural world, had served as a diplomat all over the world. He had observed what had happened in Southern France, in China, in the Middle East, and he used those experiences to write a book in the 1860's that cautioned Americans against going as far as the story had gone in these other parts of the world.

That is one of the themes of what happens with people such as Grinnell and Roosevelt and Hornaday. They had seen what the result of this untrammelled, unregulated freedom was, and they understood that if we allowed this to happen, it was going to wipe out everything that was left in the American West, the last part of the United States where it was possible to do something to stop this trend.

I've noticed the same thing in looking at big picture history. If you look at the Pleistocene extinction, when 32 genera of large mammals become extinct in North America, it is the biggest ecological collapse in America since human beings have lived here. But it looks as if in the wake of it, Indian people who experienced it and saw it happen adopted a much more cautious way of interacting with the world around them.

When the Chaco Civilization collapsed over in the Four Corners about a thousand years ago, the Pueblo people in New Mexico who carried on after the collapse of this great civilization did the same thing. They adopted a much more careful, more constrictive way of using natural resources because they'd had this experience in the past.

It's almost an argument for saying that we humans don't take action about environmental calamities until it's too late or it's almost too late. In the case of the American West, it was almost too late. But we managed to step in just in time. We lost carrier pigeons, we lost Carolina parakeets, we lost something like sixteen species of birds, fish and mammals in the late nineteenth and early twentieth centuries, but we prevented animals like bison and pronghorns and grizzly bears and gray wolves from being completely extirpated in North America. We managed to hang on to a tiny remnant so later generations could rebuild those populations.

**WPO: On the one hand you could say that the culture created individuals like Hornaday and Roosevelt and Grinnell to do the work that they did. On the other**

**hand, you could say that if Roosevelt had been a different sort of person, and Hornaday had never gone west for the Smithsonian, we may have lost the bison.**

**DF:** Indeed, we might have. I think most history is based on contingency development that sets the historical arc off in some new direction. It may well have been that Roosevelt and Hornaday were the contingency. They were the ones who were on the scene at the moment. I am reluctant to do the Great Man History thing, but it took someone, some small group of people with a lot of power, and in Grinnell's case a bully pulpit in a magazine that he could write for and use to convert others. It took some small number of them to make this change. The arc of history was going in a direction that would have wiped everything out. At the last minute these guys managed to arrest that development, to hold it in place for a few years until the science of wildlife management could begin to start making amends by bringing some of these creatures back.

Wildlife management at the beginning of the twentieth century was mostly interested in the animals that people wanted to hunt. They ignored predators and birds of prey and all kinds of other creatures. Nonetheless they did manage to save a lot of them, and ultimately someone like Aldo Leopold came along for wildlife management to play the kind of role that Roosevelt had played earlier, setting the discipline in a more progressive and thoughtful direction.

**WPO: If you think about that in the largest possible perspective, the role of Yellowstone National Park is going to be a key in this story. For example, Roosevelt went there in 1903 with John Burroughs, and he actually ordered up dogs so that he could kill mountain lions. But he eventually thought better of it, getting sort of talked out of it because of the optics. And the Park winds up being not just a sanctuary but in some sense a symbol of an emerging new attitude.**

**DF:** I think it does. It takes a while. One of the things I write about in *Coyote America* is that in the beginning, the idea with the parks was to exterminate all the predators. Roosevelt was there in 1903, when there were still lions on the scene. Within another couple of decades, there were hardly any mountain lions in Yellowstone. And gray wolves in particular were exterminated in Yellowstone, as well as in Glacier and the other National Parks, by about 1926.

At about the same time, the Park Service allowed the Park Directors to follow the lead of the Biological Survey and attempt to poison coyotes into oblivion in the parks. Charles Grinnell, a nephew of James Bird Grinnell and a biologist in California, along with a fellow biologist, wrote an article in 1916 for a national mammalogy magazine. They argued that maybe we should let the predators remain in the parks and preserved them as vignettes of original America, with the predators in place to allow us to study how this all worked over the thousands of years before Euro-Americans were ever on the scene.

It took until the late 1930's for the Park Service to finally agree that this was the logical thing. The Biological Survey, which was charged with wiping out predators across the country and especially in the West, wanted to keep poisoning and trapping inside the parks, and the parks let them do that until about 1936 or 1937. Finally, the Park Service and the Biological Survey sent out the Murie brothers, Adolph and Olaus, to finally do science on the role that coyotes played in the prey/predator balance in Yellowstone and in the Grand Tetons. The Muries, after studying coyotes in those two places, published works that said that in trying to wipe these animals out, we didn't realize that these animals are not actually threats to the large mammals populations in these parks at all. They primarily eat rodents and rabbits, and 85% of what they do in the world is beneficial to humans.

We got the whole thing backwards. But this study didn't come out until 1940. That whole period from 1900 to 1940, we had gotten the parks in place, and we had mammalogists like Charles Grinnell arguing that we needed to leave these predators in place in the parks, but it took until 1940 for the Parks Service to agree that it wasn't a bad idea.

**WPO: Let's say that you or someone like you who doesn't carry any Jeffersonian or nineteenth-century baggage is dropped into Eastern Montana somewhere in 1804. Look around you. When you talk about an *American Serengeti*, what does that observer see?**

**DF:** That observer in 1804 would see a wildlife bounty difficult for anyone in the twenty-first century to imagine being present in the United States. One of the things that would be so startling and exciting about it is that you would be able to look across the landscape and, in plain view, as far as the eye could see, you would probably see a few thousand bison, scattered in small herds of 35 to 50 animals. You would see probably as many elk and pronghorn bands or herds as bison. You would see at a glance hundreds of wolves. And here I want to point out that today you could drive back and forth through Nebraska and the Dakotas for weeks at a time and not see a single wolf. You could do it for months at a time. Even years.

In 1804 you would have had hundreds of them in sight at any moment in time. You would probably see kill sites where grizzly bears, gray wolves, coyotes, magpies, and ravens would all be contesting for the best portion. You would probably see bighorn rams on the cliffs above the Missouri River.

Give it another twenty years, and you would have seen bands of wild horses beginning to spread across the landscape, assuming the same function on the landscape that zebras play in Africa, and with good reason since the zebras of Africa are descended from America's wild horses. Horses evolved in North America and then spread around the globe. They disappeared in the Pleistocene extinctions of 10,000 years ago, but were overspreading the Great Plains and occupying their original niche in the ecology of the region all through the 1700's and 1800's. By the 1820's they were up on the Missouri River in Lewis and Clark country.

You would have seen, in other words, a diversity of wildlife. There would have been prairie dog towns, burrowing owls, coyotes, swift foxes, plus all the aforementioned large animals and their predators. It would be impossible to see any of these anywhere else in America today. Not even in the Lamar Valley in Yellowstone, which is the closest we can come today to seeing what primeval American was like. But the Lamar Valley, being up in the high mountains, doesn't have the wildlife riches that the Great Plains would have had in 1804.

You have to use your mind to imagine it. You have to have a mental time machine to go back and experience what it must have been like. You can read Lewis and Clark, you can read Catlin, and you can read Audubon. You can read a wide variety of other people, but forming the idea in your head is a difficult thing to do without a lot of concentration and effort.

**WPO: What's in the grass, and what's in the sky?**

**DF:** I've always loved Meriwether Lewis's description of "a bowling green in fine order." That was a spring scene with the new grass coming up. Native People regularly burned the grasslands, and there were natural fires started by lightning that burned the landscape as well. So the ecology will not feature very much shrub growth except along the rivers, where there will be a cottonwood

and willow riparian canopy. The uplands are going to be solid grass, buffalo grass, blue grama, as far as the eyes can see.

The skies of course are going to be spectacularly blue as they are in the Great Plains. It's the kind of world that would certainly have given anyone prairie fever. It made people think. William Dunbar, a scientist in Mississippi who was a confidant of Thomas Jefferson, wrote Jefferson when he was thinking of sending exploring expeditions out into the West. Dunbar told him that those expeditions were going to enter a country called the "grand prairie," and that the hunters he had talked to who had seen that country had said it was the very best place in America.

**WPO: When you're standing out in Montana now, or out in New Mexico or Eastern Colorado, and you can conjure up this picture because of your imagination and your creativity and because of some very hard work and serious research, how do you avoid just aching?**

**DF:** I don't avoid it. I do ache, but I live in my own time. I have to grapple with the time that my ancestors and the world have given me. As Thoreau said in that passage we were talking about earlier where he described wanting to experience an entire heaven and an entire earth, he goes on to say, "But of course I am that citizen whom I pity." And I'm afraid that's my line in life. I am that citizen whom I pity. I don't get to see this. I don't get to see what was there in 1804. But in my time, just as Roosevelt and Hornaday and the Grinnell's did, I get an opportunity, with projects like Heartland Ranch for the Southern Plains Land Trust in Southeastern Colorado and the American Prairie Reserve up in Montana, to try to do what I can to recover it, to bring it back. That's the charge today.

Some historians have argued that America's great contribution to world conservation in the nineteenth century was the idea of the National Parks, which have now been exported around the globe. And in the twentieth century our greatest contribution to conservation was the Wilderness Act of 1964 that created permanent wild lands in North America of the kinds of landscapes Americans had interacted with, the landscapes that had converted us from Europeans or Africans into Americans.

I think in the twenty-first century this is our great conservation opportunity, to somehow rectify culture's error and history's error, to make parts of the Great Plains resemble this American Serengeti that they once were. It's a monumental project, and it's going to take decades to do. It's not going to be resolved by some President and a signature on a document. It's going to take an awful lot of work and an awful lot of time and an awful lot of money. And it's going to take animals like grizzly bears and gray wolves colonizing out of the Rockies out onto the plains again and discovering once more the possibilities of life there. I think this is the opportunity we have. So while I pity the fact that I didn't get to see what Lewis and Clark saw in 1804, I'll do my best with the time that I have.

**WPO: When you talk about the American Serengeti or the American Eden, you have not really mentioned the other species of the Great Plains, indigenous peoples. I know that never escapes your thought.**

**DF:** No, it doesn't escape my thought. I've argued at various times in considering possibilities for recreating the American Serengeti of doing something like George Catlin proposed in the early 1830's. He proposed a Nation's Park, but one that gave special rights to the Native People who were there, who got to occupy that Nation's Park. What we are going to have to grapple with in

this century as we try to restore some semblance of the American Serengeti, at least in some parts of the Great Plains, is giving Native Peoples special rights and privileges in these landscapes.

I don't know if the APR has considered this. I think they feel as if a realization of the project is so far out in the future that they've got plenty of time to think about what kinds of things they will do. I know that they work very closely with the tribes in the area. If I had the opportunity to design a future for something like the APR, I would make sure that it included the Native Peoples, not only because of their longstanding history in the region but because they're the one population on the Great Plains that's not moving away. Native People tend to stay in place on their land, and it's the one population that in demographic terms is actually growing on the Great Plains.

We are going to have to give Native People some special rights and privileges. I'm not sure exactly what all that might be. It may not entitle them to necessarily live permanently on APR land or whatever other American Serengeti lands we end up getting. It may mean that they get to conduct extended fall hunts just the way their ancestors did. I'm sympathetic enough to the status and the history of Native Peoples on the Plains that I think they deserve this and I think they will want this. I think they will have to be players in deciding what the management strategies are going to be in the future.

**WPO: Native Peoples were living on this land and, as you say, they worked out some sort of a restraining mechanism in their culture's combination of economics and spirituality that enabled them to live pretty lightly on the Great Plains after the great drawdown of the megafauna. Contrast that with us, who have never learned to live lightly on the Plains and who are resisting every attempt to get there. How do account for the fact that these two cultures run such very different software?**

**DF:** I suspect that it took some pretty hard thinking in the aftermath of the Pleistocene extinctions to produce this 8,000-year-plus ability of culture after culture on the Great Plains to live there without destroying that world. They were very clearly dedicated to the preservation of that world. They so wanted the Great Plains to be this enormous grassland that they clearly burned it to keep the areal extent at its maximum as a great hunting grounds. They were dedicated to the proposition of keeping this place in exactly the condition that it found itself in after the extinction of the big megafauna of the Pleistocene years.

Some people have argued that the hunting pressure on animals like bison was sufficient to actually shape the evolution of bison. One of the things we know is that after the Pleistocene extinctions, bison became much smaller animals than the giant creatures of the Pleistocene had been. There is an argument among some paleontologists that it was Indian hunting pressure that shrank these animals in size because they provided for a more rapid generational turnover in the bison population and kept their numbers up.

Other people have argued that one thing you can say about bison and Indians, at least until the advent of the market and the coming of horse culture, is that bison were better adapted to the Great Plains than human beings were. That may be one of the explanations, along with those you mentioned – the spirituality in terms of their understanding of how the world worked – that contributed to this longstanding process.

One of the things I was really intrigued with in *American Serengeti* was how Native ceremonies played into their idea of how the Great Plains worked. By examining the ceremonial lives of so many different Plains Indians, I was able to discover that virtually every group had an idea about a time in the past when the animals had all disappeared. They didn't look on the past as this steady state of animals having always been there. They always had a story about how in the past the

animals had all disappeared, and how it took the actions of some culture hero to restore the animals.

That culture hero was usually but not always a male. The Cheyenne had a woman who played a major role in their ceremonial life. The hero tended to reconfirm the kinship ties between humans and wild animals, and then to create a ceremony whereby once a year, his or her Plains people would reenact a time in the past when the animals had disappeared, accompanied by the steps one had to go through to release the animals from the ground and cause them to overspread the Plains once again.

It's this kind of ceremonial, deep time tie and understanding, part religion and part Native science, that informed their ideas of how the world worked and their role in it. Unfortunately, what we bring out of Europe was a worldview that has its origins in the Judeo-Christian tradition that sets humans apart from all other animals. We're the only ones made in the image of God. We're the only ones that have souls. Everything else lacks a soul and was put here for our use.

Then the Scientific Revolution took up that idea. Descartes famously referred to animals as automatons. And so we got to the Americas and elsewhere around the globe, and we simply didn't have the kinds of ties, the ceremonial ties to the creatures that enable us to understand both them and ourselves. The result is the dramatic difference between eight to nine thousand years of peaceful coexistence between Native People and wildlife in the West, and the Euro-American experience of within a century enacting what as far as I have been able to tell is the largest single destruction of animal life discoverable anywhere in modern world history.

**WPO: Say that again.**

**DF:** I believe that when we as Anglo-Europeans arrived in North America, we Euro-Americans executed what is the single largest destruction of animal life discoverable in the historical record.

**WPO: You could say that we are just slow learners, that we are slowly developing a more ecological view of the world, that restraining mechanisms are starting to creep into the Euro-American consciousness. Or you could say that it's a handful of people like you who shame the rest of us into not being what we apparently so desperately want to continue to be. Do you believe that America is moving towards a significantly more enlightened attitude towards the land and what's on the land?**

**DF:** Yes, I do. I think we are moving towards a more enlightened relationship with the world, overcoming these historical and cultural traditions that we came out of, the Judeo-Christian tradition that sets us apart, a scientific revolution that makes it possible to exploit and destroy the world, and a kind of uniquely American focus on individual freedom and the right of the individual to do whatever he or she wishes.

I think we approach the future with a particular burden. It's why we have such difficulty, for example, in the face of something like global climate change, which is scientifically self-evident. We find it difficult to constrain these other impulses, like economic freedom, and look a catastrophe in the face and do something about it before it's either too late or almost too late.

That is a pattern in human history. We do well with fight or flight, but we don't do well at looking down the timeline and seeing looming problems and being able to confront them. We tend to wait until there is true disaster, and then we can take action.

**WPO: On the one hand, you say we're moving towards a more enlightened view of life, of the world, and of our place in it. On the other hand, you say we tend to be brinksmen, and here we are when the unmistakable evidence of global climate change, which could actually put our very existence into jeopardy, and we're still in appalling resistance.**

**DF:** And I mean both of those things. There is a larger contingent of people in the world today who have an enlightened view of how human beings are going to have to interact with the world. Partly I think that's true because many of us have accepted who we are, that we come out of Darwinian evolution and therefore we're simply another species. That of course changes the way we look at other animals. We suddenly no longer look at the other creatures of the world as either automatons or soulless devices that a deity put in place for us to use.

I think there is an ever-growing contingent of people in the world who think this, and sometimes we are in charge of the game. At certain times in modern American history, we have been in charge of the game. We were in charge of it during the Progressive Era. We were probably in charge of it during the New Deal, and during the 1960's and maybe as recently as Obama's administration. But there is another contingent out there that is hanging on desperately to those old, ancient human traditions. And coming particularly out of the European experience makes us resist until the very end. What we are confronting is a clash between these two contingents. One of the reasons the United States and so much of the world seems to be so sharply divided politically, one side against the other, is that these two disparate worldviews are competing for the future of humanity.

**WPO: I have friends who work on the Missouri River, and they start by stipulating so much. We have to keep the dams and we can't remove any housing projects in the flood plain, that sort of thing. Then they wind up doing a little for the sturgeon and a little for the piping plover and a little for cottonwood restoration. These are great idealists, and they are making important progressive breakthroughs. But when you look at it, it's a few acres here, a few acres there, a stand of trees here, maybe a modest recovery of the pallid sturgeon. The same is true when we talk about these enclaves like the APR and others. We're talking about small improvements around the margins, but we're not talking about big ideas. You just talked about the moments of big ideas, the Progressive Movement, the New Deal, Lyndon Johnson's 1960's. Why are we so impoverished at this point in American history that even on the centennial of the American Parks Service there isn't room in our souls for big ideas?**

**DF:** That's a great question. I think the Right that is in power in the United States today believes it is implementing big ideas. They believe in their tax cuts, their dismantling of the Environmental Protection Agency, their return to a kind of economic freedom of action; they believe that those are big ideas. They probably are big ideas. They're probably big ideas that in the directional arc of human history are actually holding us back from being able to realize an ability to survive.

With something as big as climate change looming over us, these little projects that you describe on the Missouri River, returning the pallid sturgeon to some resemblance of its original population or saving some cottonwood groves, things that are locally beneficial and make people happy and proud, are going to pale in the face of what we are confronting. There are arguments out there that

we are going to lose as much as sixty percent of the species diversity on the planet if we let climate change proceed. These are all projections, and the other side of the debate argues that we are not going to change the whole economy of the United States or the western world based on these kinds of projections.

So I think we are battling big ideas. And to me, something like the APR that is envisioning three-and-a-half million acres of restored American Serengeti and the recreation of a world that existed for ten thousand years, that's not a small idea. That's a pretty big idea. But the biggest one is the one that is looming over us, the elephant in the room, and that's global climate change. It's difficult to get a good handle on what we are going to do. We've got the purveyors of all these great cultural principles of yesteryear arguing that this is what made America great, that we're going to have to continue doing this into the future, all despite some pretty good evidence that if you just keep on doing this, it's going to lead to pretty drastic loss.

**WPO: What is so impressive about the American Prairie Reserve is the cleverness of it. Instead of a top-down, “we come in and take over and shame everyone” approach, this is a beautiful private-public partnership working with ranchers, working with the BLM, taking a gradualist approach with deep respect for the traditional heritage ranching community. Talk a little about why this is so brilliantly conceived.**

**DF:** I have a brother who lives in Dallas. He's twelve years older than me. He went off to college and became a petroleum engineer and he has worked in the oil industry in Dallas his entire life. He is, as you might expect, a strong Republican, a strong conservative, very much a believer in the free market and letting capitalism work. And my brother has made annual contributions to American Prairie Reserve ever since I told him about it.

I gave a talk at the National Cowboy Poets Gathering in Elko, Nevada. I gave the keynote, and I talked about American Prairie Reserve as this re-creation of one of these Old West visions that so many of us hold dear. One of the things we all have in common at Cowboy Poets is that everyone is in love with the Old West, some with the Marshall Dillon West, some with the Rawhide West, some with the Cattle Trail West. There are at least a few of us from the Lewis and Clark West, the first contact with this American Eden kind of world. I was able to convince people at Cowboy Poets Gathering that the APR was a great idea in part because it was private and public. They posted my talk online and my brother saw it, listened to it, talked to me about APR, and has been a regular contributor ever since.

On the other hand, most of the people who contribute to APR are on the other side of the political fence. The genius of it is that it's a project aiming at the future, and unlike almost all other projects in America in which the right and the left fight, this somehow draws together people from both sides. That's a remarkable thing, and it may be a kind of marker as to how we want to approach conservation projects of this size in the future. They are arguably creating the paradigm for the twenty-first century for resource and land use questions in the American West.

**WPO: What about your own philosophy and your methodology. You come across as kind of an unsentimental romantic, or a hardheaded romantic, because you're challenging some myths. One of those myths is that it was the official policy of the United States to exterminate the buffalo in order to cut out from the Native Peoples any chance of significant resistance. You challenge that in your book. But you also say that it's a mistake to regard Native Americans as these super spiritualists, that**



**they're actually using kind of hard science. You kill too many megafauna, the whole system collapses. It's not necessarily the white man's notion of the deep spirituality of Native Americans – to be sure that's there – but that's not the only way to see questions like this.**

**DF:** In both instances I think you are exactly right. The old trope, that there had been a conspiracy between the policy makers and politicians in Washington and the American military to enable the market's destruction of the buffalo in order to bring the Plains Indians to heel and to force them onto the reservations, is one of those stories in Western history that has gone unexamined for too long. Reading Hornaday is what brought me to investigate. Hornaday's original take in 1889 had been that it was the market that had brought about the destruction of bison, and yet by sometime around 1930, popular writers began arguing this conspiracy theory. It made me curious about where the idea had come from.

As a research project, I did a couple of things. First of all I tracked back to the original mentions of this theory. The first place I found it turned out to be a very interesting one: in the memoir of a former buffalo hunter by the name of John Cook. He published a book in 1907 called *The Border and the Buffalo*. Cook's argument in that book became the substance of the conspiracy theory, which was this: In the 1870's, Texas had been considering a bill to outlaw the hunting of buffalo on the Texas public lands. Philip Sheridan showed up in Austin when he heard about this to make an impassioned plea in front of the Texas legislature. Sheridan got up and delivered what is the most famous and often quoted speech in the history of the nineteenth-century buffalo story. Sheridan said, "In fact, what you should do is don't pass this bill. Instead you should give these buffalo hunters a medal showing a dead buffalo on one side, and a discouraged Plains Indian on the other, because they are doing the work of civilization. They are going to enable us to control the Indians, to get these animals off the Plains, and to replace them with the longhorn and the festive cowboy."

I realized that this is the origin of the story. Then I started looking more closely at it, and I realized that Cook introduces it with a disclaimer. He introduces the Sheridan speech and the account of the Texas Legislature with the line: "It is said." A passive voice attribution to no one in particular, but "It is said." Then I looked in all the books about buffalo by all the journalists and popular writers from the 1940's up to Dee Brown's *Bury My Heart at Wounded Knee*, and they all just repeat this story verbatim. So I was immediately suspicious because of the timing of it.

Cook's book came out in 1907, right in the middle of the Progressive Movement. It was a time when many of the people in the Progressive Movement were disparaging the buffalo hunters and the greed with which they had killed all these animals. There were other buffalo hunters at the time, like J. Wright Moore down in Texas, who were just like John Cook, very combative about it. Moore went around in parades and had this standard speech he delivered: "A single homesteader family was worth more than all the buffalo from the Brazos River to the Platte. So we were doing civilization's work and we were acting on behalf of the government."

What I did as a historian was the logical thing. You try to run this stuff to ground. I had a graduate student at the University of Montana who belonged to the Buffalo Field Campaign at Yellowstone. He was very interested in this story, and he wanted to demonstrate the veracity of it. So over spring break in about 2002, I sent him to Austin, Texas, set him up with a contact at the Lyndon Johnson Library, and told him to research the story and come up with all the surrounding context he could about the bill that Texas was trying to pass and about the speech that John Cook attributes to Philip Sheridan. When he came back from a week of working in the archives in Texas, he told a story that I will admit didn't really surprise me. He said that first of all, the Texas Legislature never considered a bill to outlaw buffalo hunting. In fact, and I verified this myself, the

national contingent from Texas at the National Congress in the 1870's were doing everything they could to fight the passage of a national bill that was being considered during the Grant administration. The second thing he discovered was that the Texas Legislature maintained a very careful record of everyone who spoke in front of the legislature and delivered testimony, and Philip Sheridan's name was not there.

What I realized was that in the middle of a progressive conservation attack on these buffalo hunters, John Cook had invented this story. And none of the popular writers who made this a part of their explanation for what happened to the buffalo had ever bothered to go back and confirm whether or not this had actually taken place. In fact, I had a friend who was working at the National Archives, and I shared this story with him. He sent me a copy of a telegram that Philip Sheridan had actually sent from the West in 1878, widely read in Washington, where Sheridan argued that we needed to stop the buffalo hunt in the West at once because it was going to impoverish Western Indians to a point where the government was going to end up having to feed them because they were not going to have any wildlife to kill and subsist on.

What I discovered out of all of this is that for a century we have been telling a story about what happened to buffalo in the nineteenth century that was very similar to the explanation that we were throwing out there for the Civil War, that the Civil War wasn't fought over slavery but rather states' rights for the South. The lost cause explanation had become the primary explanation in the twentieth century for the Civil War, just as this government conspiracy to kill all the buffalo had become the twentieth-century explanation for what happened to those animals.

**WPO: So first of all, Texas didn't even consider that bill. Secondly, Sheridan never gave that speech, which puts it in the same camp as Chief Seattle's speech and Chief Joseph's surrender speech and a whole range of other faux speeches that were invented by white onlookers during this period. And finally, the exact opposite is true: Sheridan, for not romantic reasons, was saying that if you kill off all the buffalo, you suddenly have Native Peoples that you have to take care of. Every element of this flies in the face of the mythology?**

**DF:** One of the other things about Philip Sheridan is that he spent the rest of his life working to stop poaching at Yellowstone National Park. He became a fellow traveler with George Bird Grinnell and William Hornaday, working in the National Parks, particularly Yellowstone, to stop the poaching of animals. So he has become this national sacrifice figure to this notion. You can go online today and buy t-shirts with Philip Sheridan's face on the front and that speech on the back. But just like Chief Seattle's speech, it's all a myth. It's something that was created by a self-interested writer who, as a former buffalo hunter, wanted himself to be considered a hero of American civilization rather than this pariah who had killed all those animals.

**WPO: And what about Native science as opposed to an exclusively spiritual view?**

**DF:** From carefully considering the story of Native Peoples, I know that there is a kind of a new age, even environmentalist and certainly Western European inclination to want to think of Indian Peoples as noble savages. But having studied very carefully what actually happened in all this wildlife destruction in the West, and without any kind of ax to grind but rather just in an effort to find out what happened, I realized that what really did occur with Native Peoples was that they got caught up in the global market just as everybody else did.

They ended up getting caught up in it partly because of the technological advantages that they derived from doing so. Those advantages ranged from horses that reconstituted their whole culture on the Great Plains and in the West, to firearms, to being able to repair firearms, to having access to powder and ball and flint and all the rest.

If you were a group that participated in trade with the American Fur Company or the Rocky Mountain Fur Company or anyone else, and your rivals down the Missouri River didn't participate in that trade, you could very quickly overrun them, overtake their resources and their land, because of the technological advantages that were available through that trade. The result was that in the eighteenth and nineteenth centuries, every Indian group worth their salt, from the Pawnee to the Lakota to the Comanche, mounted up on horses, traded for guns, traded for powder, and traded for flint. And of course what they traded was the animal life of their world.

They originally traded beavers and beaver pelts. Entire wars were fought in the Great Lakes area over new regions of beaver populations. In the nineteenth century, beginning right after Lewis and Clark, American traders began carrying all these technological gewgaws up the rivers, offering them for trade to the Native People, who in return quickly became the procurers of the fur-bearing animals. Later on, as you get into the middle and late nineteenth century when the beaver trade was gone, everything turned to buffalo. Animals killed by Indian men were processed by Indian women into fine robes for trade, providing the primary resource that enabled Indians groups like the Lakota to expand across the West, take away the land of the Pawnee, take away the lands of the Crow. It allowed the Comanche do the same thing on the Southern Plains. It was the groups that become players in the global market that became the most successful. And as a result of becoming susceptible to the global market, the drawdown of wildlife became pretty dramatic, and Indians were right in the middle of it.

To your original question, I would say that my argument has always been that in terms of the view that Indians saw animals as sacred and kin, that doesn't go away. It's still in place, in part because Native science has an explanation for the origins of these animals that is very different from the Western worldview. Their explanation is that as long as they keep performing the ceremonies, those ancient ceremonies given to them by their culture heroes, the animals will keep emerging out of the ground. That is the source: they emerge from the ground and overspread the country, and as long as you do the ceremonies, the animals will continue to emerge.

The idea is not that they have to come up with some sort of wildlife management program where they only take the bulls and leave the females to breed and that sort of stuff. It's the spiritual view of the cause/effect relationship of how buffalo and pronghorns and elk are regenerated from the earth and now Native People harvest them that enables Native People to continue to play a role in the market hunt but to keep these ceremonies right to the end. The Ghost Dance in 1890 was about causing the buffalo to regenerate out of the ground and overspread the Plains again.

In a way you have to say that Native science, as careful as it was with observation of the habits and traits of individual animals, doesn't reach a point where Native Peoples are doing these whole species evaluations of how you keep numbers of animals up. They're doing a spiritual explanation of how the animals keep regenerating out of the ground as long as you do the ceremonies. So when they got to the end and the Ghost Dance didn't produce animals coming out of the ground, photographers like Edward Curtis went around to people like the Lakota and asked them if they had an explanation for what had happened to the buffalo? The answer they got over and over again was *wakan*. It's a mystery. We don't know. We did the ceremonies, but the animals didn't re-emerge. There has obviously been some sort of significant transgression that we don't know about. It's a mystery.

**WPO: Let's go to Lewis and Clark. In North Dakota, Patrick Gass says, "Oh these Mandan, after they kill a bunch of buffalo they stick a head out, they stick a skull out, and they put grass in its mouth. That's how stupid and ignorant they are." But Joseph Whitehouse, another journal keeper, says, "You know, maybe there is something to this." So you can see from these very different ways of looking at a ceremony that Western Civilization would have a hard time making sense of. At the same time you have the Buffalo Calling Dance amongst the Mandan. Lewis and Clark's men go, and they see it as a way to have sex. They completely miss the point of the dance. These are great intersections to look at the two cultures trying to make sense of each other.**

**DF:** They are. It's almost like a science fiction confrontation of an alien species landing on a planet and confronting a culture it has never seen before. Each group understands the other group through the context of their own previous cultural traditions. It doesn't seem to me to be anything to marvel at. Members of the Lewis and Clark party and even George Catlin tended to miss what ceremonies were about when they observed them. They missed the underlying meaning in particular. The Buffalo Calling Dance was all about reestablishing the kinship between humans and bison, because that's what causes bison to be willing to give themselves up to keep human beings alive. But the Lewis and Clark men completely missed that.

The same thing can be said from the other side of the equation. The Native People would get the game ever more quickly as the decades went on, but in their initial encounters they had a difficult time understanding exactly what these white men seemed to want and what kinds of thoughts were in their heads. The truth is that we're all humans and human nature being what it is, we share impulses and desires and wants, but that cultural overlay is sometimes tricky.

**WPO: When Lewis and Clark were in North Dakota, one of the Canadians who was down from the Fort Assiniboine area quoted the prominent Hidatsa Chief Le Borgne: "What is it with these guys? They leave their homes and travel thousands of miles, they live in the middle of nowhere, they live like animals, and all for beaver skins. You can't put a beaver skin over your body. It has no utility. A buffalo robe we could understand, there are a lot of things that make sense, but coming out here for a beaver skin just seems like a profoundly stupid thing to do." If you look at that, it's a tremendous deconstruction of the beaver trade from a Native American point of view. As you say, they soon got on board, but there are those moments where the two cultures find each other inexplicable and therefore create insight.**

**DF:** It's one of the wonderful things to read in the primary sources, especially if you can get at the Native point of view, which you can't always get. But every once in a while you'll get someone who listens to them well enough and who's got a translator good enough that they can begin to get some sense of exactly what is being described.

The Blackfeet never did participate in the beaver trade. They were perfectly willing to trap gray wolves and even poison them with strychnine to trade to Europeans, but they wouldn't participate in the beaver trade. To them beaver were what enabled there to be water available to their camps and their horses out on the Great Plains. It was beavers that dammed up streams and created water for the camps. They didn't want to kill off the beavers and destroy the possibility for travel. They had that same kind of reaction when they found out that the whites wanted them to

trap beaver. They thought it was a crazy idea, directly detrimental to their travel across the high grounds of the Plains.

**WPO: Let's do a rapid-fire thing now. Let's go through each of these species, one at a time. How many were on the Great Plains in 1805 when Lewis and Clark arrived? What do their numbers look like today? What is the difference? We'll start with the easy one, buffalo. We came very close to extinction.**

**DF:** Here is what I would say to buffalo. The Little Ice Age was still underway in the northern hemisphere in 1805. That's why Lewis and Clark, camped in the Bitterroot Valley in early September, saw snow all the way down to the bottom of the mountains. In the beginning of the nineteenth century, buffalo numbers were going to be up because of the unusual climate regime of the Little Ice Age. So there was probably something like 28 to 30 million animals, which was a high point for the carrying capacity of bison in the American West.

By the middle of the nineteenth century, the Little Ice Age had come to an end. This was one of the factors that reduced bison to about ten or twelve million by the time of the Civil War. There was also a Great Plains-wide drought starting in 1856 and lasting until 1864. The drought probably reduced the carrying capacity for bison by something close to 40%. By the 1880's there were only a few more than 1,000, according to Hornaday. And today we have something like 400,000, getting close to half a million as a result of the bison on ranches. But a lot of the animals on ranches are not full-blooded bison. Their genetic legacy descends from cattle to a certain extent.

**WPO: What about grizzly bears?**

**DF:** Across all of North America in 1805, there were about 100,000, and in the lower 48 between about fifty and sixty thousand. Their major range was out on the Great Plains, and they were out on the Great Plains largely because of the bison population there. Grizzly bears tend to feed on dead bison carcasses along the rivers.

By the end of the nineteenth century there were fewer than 500 of them left. Today we have more than that even in the greater Yellowstone ecosystem. The primary question today is whether or not grizzly bears, their endangered species status having been relinquished to state management, are going to end up with hunting seasons in Wyoming and Idaho. Montana is not going to do a hunting season, at least not at first.

**WPO: Lewis and Clark saw their first grizzly bear somewhere south of Bismarck on October 20, 1804, and there were grizzly bears all the way into the Minnesota Lake Country at the time. Today they are really reduced to tiny remnants.**

**DF:** Reduced to tiny remnants and driven into the mountains. That's one of the major features of grizzly bear life today. They were driven into the mountains and off the plains just the way elk and many other species were. But grizzly bears continue every spring to move out onto the Great Plains. A grizzly got within about fifty miles of the APR country last spring. One of the things that the APR people are hoping for is that once grizzly bears find the APR bison, they will become a population there.

**WPO: Elk?**

**DF:** Elk were probably in the range of about eight to ten million animals across much of North America in 1805. Their range was rapidly being pushed westward, and the great bulk of them were west of the Mississippi by that time. They were also primarily plains animals, found mostly out across the grasslands. By the end of the nineteenth century their numbers had been reduced to only a few thousand. I don't have an exact figure for them, but they were also driven into the mountains, where they have largely remained. Like gray wolves and grizzlies, however, elk are now pushing out onto the plains. There are elk populations, for example, in western Oklahoma and out into southeastern Colorado.

### **WPO: Wolves?**

**DF:** Their population in 1805, when Lewis and Clark were entering the West, was between a quarter- and a half-million animals. They were the keystone predators of the Great Plains. Josiah Gregg, the author of *Commerce of the Prairies*, the famous Great Plains book from the 1840's, pointed out that you would think that the bison, being a much larger animal, was the keystone animal of the Great Plains. But in fact, Gregg said, it was the gray wolf. The gray wolf was the signature animal of the Great Plains.

The wolf population benefitted from the bison slaughter and from the slaughter of elk and pronghorns, and so wolf numbers grew to a maximum size in the 1870's and 1880's. But strychnine was invented in Pennsylvania in the 1840's, and as people went west, it became an act of civilization to scatter strychnine bait around killed animals. As a result, the wolf population, along with the coyote population, the raven and magpie populations, was rapidly drawn down by poison.

By the time we get to the 1920's, we are into the decade of the last few animals left on the American Great Plains. An animal named Snowflake was the last one in Montana, killed in 1923. The last animal killed in the Dakotas was the famous Custer Wolf, also killed in the early 1920's. And an animal named Three Toes, a female wolf who in 1920's Colorado could not find a mate and ended up mating with a collie ranch dog, was killed by hunters from the Biological Survey along with her collie paramour and their hybrid offspring in 1923. Wolves disappeared. The last ones were killed in Yellowstone Park in 1926, and for all practical purposes wolves were extirpated across the West by the middle 1920's.

### **WPO: But now wolves are back.**

**DF:** Now we have about 1400 gray wolves in the Northern Rockies. Our successful reintroduction of gray wolves in Yellowstone National Park and in the Northern Rockies of Montana and Idaho in 1995-96 has produced a population that reached a high point of about 1700 animals. But wolves were declared completely recovered from Endangered Species Status in 2011-12, and their management was turned over to the states. Idaho, Montana, and Wyoming then instituted wolf-hunting seasons, and that has drawn down the number from 1700 to about 1300 to 1400 wolves.

Our attempts to recover wolves in the Southwest has not been nearly so successful. Mexican wolves have never risen above a population of about 115-120 animals. The animals in the Southwest are still managed by the Federal Government, and we did just get a new rule a couple of years ago to the Endangered Species Act that will allow a total population of gray wolves in the Southwest of 325 animals. Those animals will be allowed to recover from the Texas state line to the California border and south of Interstate 40. There is hope that the gray wolves will be allowed to recover north of Interstate 40 into the Southern Rockies of Colorado, and into the Grand Canyon

country, but so far the rule as written is that Interstate 40, which runs across northern New Mexico and northern Arizona south of the Grand Canyon, will be as far north as these wolves will be permitted to recover.

**WPO: Big Horn Sheep?**

**DF:** I cannot tell you the numbers at the time of the Lewis and Clark expedition. I don't know if anyone knows how many there were at that time. We do know that they were widespread across the Missouri River, especially in the Badlands of South Dakota and North Dakota. Those animals had been killed off in the Badlands and along the Missouri River by 1905. We have tried to do big horn sheep recovery across the West since the nadir of those animals in 1905. The number that exists today is in the range of about 3,000, spread across the West from Big Bend National Park all the way up to the Badlands and Theodore Roosevelt National Park.

**WPO: Mule deer?**

**DF:** Mule deer population is also hard to say for 1805, but the figures that are out there are between fifteen and twenty million animals. This is not an animal that I investigated closely in *American Serengeti*, but mule deer populations were drawn down pretty sharply. Since the early 1900's and since the advent of state wildlife management programs, mule deer populations have come back fairly well. There are still places, in Utah for instance, where there are bounties placed on coyotes despite the fact that all the science indicates that coyotes are not major predators of mule deer. Utah in 2010 passed a mule deer protection act placing \$50 bounties on coyotes in order to keep mule deer populations up. The populations are fairly stable around most of the West, but nothing like they were in 1805.

**WPO: And whitetail deer are ubiquitous?**

**DF:** Not only are they ubiquitous, but they have actually spread their range. They are one of the animals, like coyotes, that started out primarily in one part of the country and have now spread across almost all of the United States. After a severe drawdown in the nineteenth century where whitetail populations vanished from some states, they've been successfully reintroduced to the point where there are probably more whitetail deer now in the United States than there were in 1805.

**WPO: Prairie dogs?**

**DF:** Prairie dog populations have been drastically reduced from the time of Lewis and Clark. They saw prairie dog towns that had populations of millions of animals. Largely as the result of the widespread poisoning of coyotes and the deliberate poisoning of prairie dog towns in the twentieth century, they have been dragged down drastically across the entire West. We no longer have those giant prairie dog towns. Their predator, the black-footed ferret, has also been drawn down to the point where they have had to be reintroduced into prairie dog towns across the U.S. But it was largely the poisoning of the twentieth century that almost destroyed prairie dog towns across the Great Plains and the rest of the West.

**WPO: Coyotes occupy a strange niche. What do you say about that?**

**DF:** Coyotes are a very interesting story. What really got me interested in writing a book about coyotes was doing the research on this American Serengeti story and coming across so many instances in the late nineteenth century where people were describing the disappearance of bison, the disappearance of elk, the disappearance of mule deer, the disappearance of pronghorns, the disappearance of wolves, but then they'd say that no matter how hard we try, we don't seem to be able to vanquish coyotes.

I ended up writing a book, *Coyote America*, which came out two years ago. I'm happy to say was a New York Times bestseller and the winner of two national literary prizes. It is basically the story of this species from its evolutionary origins five million years ago down to its spread across all of North America in the twentieth century, and an attempt to explain why that happened while so many of these other animals were nearly extirpated from North America. It is a fascinating story.

Because coyotes co-evolved alongside gray wolves, they evolved a set of evolutionary adaptations that enabled them to survive harassment. When gray wolf harassment was replaced by human harassment, it released in coyotes these evolutionary adaptations. We passed a law in 1931 and appropriated ten million dollars to erase coyotes from North America, and the only thing that law and that effort to erase them did was to release these adaptations and allow them to spread across the entire continent, even into our biggest cities. New York City is their latest frontier.

My argument is that coyotes, because of their evolutionary adaptations, are mimicking those that also evolved in human beings. Coyotes are a kind of avatar for humans across North America, engaging in a manifest destiny that, contrary to our own, went from the West to the East, in the opposite direction. It's one of those environmental stories that are completely counterintuitive.

### **WPO: Pronghorns?**

**DF:** The figure was probably fifteen million in 1800, and by the beginning of the twentieth century they were down to 13,000 animals. A lot of it was the result of being killed for the market after the buffalo were gone, when many hunters turned their guns on elk and deer and particularly on pronghorns. Another reason is that, having evolved for the open plains, pronghorns never developed the ability to leap over things. When we started building barbed wire fences across the Plains, the normal pronghorn strategy of fleeing just ahead of blizzards by migrating south was curtailed, and they stacked up against barbed wire fences and died by the tens of thousands. There were some pretty horrible descriptions in the 1890's of pronghorns stacked up against fences as far as you could see. But we brought them back because, like several of these others, they are a huntable species.

I think that for the Great Plains, the animals that are the biggest issues are the predators. We've allowed pronghorns and mule deer and elk to remain, but we haven't allowed bison to be wild animals on the Plains, we haven't allowed grizzly bears to be wild animals on the Plains, and we haven't allowed gray wolves to be wild animals on the Plains. All of those are kept at arm's length in the parks or the National Forests of the Rockies. When a wolf, for example, got into South Dakota about five years ago in a story I talk about in *American Serengeti*, the Governor of South Dakota said that the state was just too civilized to have wolves. Those animals, the big predators, along with bison, are simply not being allowed under the current regime to run free across the original American Serengeti.

The US and Canadian population of pronghorns hovers around 700,000 today, half of them in Wyoming.



**WPO: There is nothing more beautiful than watching a pronghorn skid under a fence. It is like poetry in motion.**

**DF:** True. And what people who are progressive-minded about having pronghorns on the landscape realize is that you put the bottom wire in a barbed wire fence at least 18-20 inches above the ground. That allows them to get through, except in a big snowfall.

**WPO: Now what about Native Americans on the Great Plains?**

**DF:** The Native American population of North America in 1800 was probably about 3.5 to 5 million people. That's north of the Rio Grande River. On the Great Plains the population was probably between 450,000 and 600,000. That population was of course drawn down drastically during the nineteenth and early twentieth centuries, largely as a result of disease epidemics. But there was also obviously cultural attrition on a level that is almost impossible to comprehend.

In our best progressive efforts we tried to acculturate and assimilate Native Peoples into mainstream America. The effect was to demoralize whole generations of Native People. Some of them, to be sure, successfully made the transition and were assimilated, but the large bulk of American Indians were not. Most of them still live west of the Mississippi River on traditional or reservation lands. The largest group is off the Great Plains; the Navajos are now the largest group in North America.

Certainly Indian populations have recovered, probably to the levels that they were at in 1800. Another of those ironies that we were talking about earlier is that on the Great Plains, the one population of people that is actually increasing in numbers is the Native People. They have remained in their native hope of hope, and they are a growing population on the Great Plains.

Their habitat is desperately shrunken. And we obviously no longer have laws that prohibit Native Americans from leaving their reservations. Like all the rest of us Americans, they can go anywhere they want to go. But they live, for reasons of tribal cohesion, on their tribal lands. It's a way to perpetuate their cultures. The difficult problem with that is the economic issue of making a go of it on tribal lands. Certainly gaming has helped.

**WPO: Reviewing your responses, we have buffalo, grizzly bears, elk, wolves, coyotes, big horn sheep, mule deer, whitetail deer, prairie dogs, pronghorns, and Native Americans, all still here, with none on the deep endangered list. What is the closest we have now to a real concern about survivability in the twenty-first century of any of these groups?**

**DF:** I think all of the animals have been restored to a level where they are not immediately threatened.

**WPO: As you've gone through this then-and-now roster, do you wind up hopeful, neutral, or depressed by your own analysis of where they were and where we are and what you regard as this sort of cautious progressive enlightenment that's going on now?**

**DF:** One of the things I've realized, and I know this largely as a result of the response to *American Serengeti* by its readers, is that by writing that book I have enabled people to imagine a world they had never imagined. *American Serengeti* won the Stubbendieck Great Plains Distinguished

Book Prize from the Center of Great Plains Studies, and it was also in the New York Review of Books, so it has come to the attention of quite a number of people. The American Prairie Reserve, at least for a while, was giving copies away to new members. It has given a growing population of people a sense of what was there. I think a lot of people just drove across the Great Plains and thought of it as this throwaway landscape, this landscape that you tried to get through as fast as you could because it's flat as a table and there's nothing out there. They saw it as a kind of pathetic expression of a part of North America that somehow holds the East and the West together.

I think that having written that book, and having enabled people to imagine this world that they hadn't imagined, I've taken some heart in the fact that there was a lot of discussion, and there has been a lot of discussion at most of the conferences that I have been to, about how to get some semblance of this ancient American Serengeti world back. Not just in Montana, but in other parts of the West as well. So while in the big picture I look back on the American Serengeti as a world that none of us is ever going to get to relive, I also think of restoring some semblance of it as one of the projects of the twenty-first century. And if we do, I think I'll be optimistic about that. I will not be colored too much by the ache for what was lost, but optimistic about hopes for what we might regain. In other words, I think we might be able to put a few of Thoreau's back in the sky.