BISON M

Konza Prairie, Mid-October, Mid-Day

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The beginning of the day was tumultuous. We had started early, driving from Lawrence to the Konza Prairie, beneath a glowering sky. For forty minutes, our progress on I-70 was stalled midway as highway managers had determined to keep traffic coming to the K-State game down to a slow crawl. Fearful that I would miss my appointment with Dr. Eva Horne, Assistant Director of the Konza Prairie Biological Station (KPBS), as soon as two lanes were opened again, I drove the last thirty miles like a wild animal let out of the chute. My friends, Muriel Cohan and Patrick Suzeau, members of the University of Kansas Dance Faculty, who were accompanying me, could not have anticipated in advance such ferocious behavior. Pulling away from the Administrative Offices of the KPBS, as we arrived a half an hour late, was a red Subaru. It was Dr. Horne, who had agreed to introduce us to the Konza bison, no longer called "buffalo" and scientifically known as the American Plains Bison (*Bison bison bison*).

From childhood, I had heard, "Oh, give me a home where the buffalo roam . . . And the skies are not cloudy all day." But on this mid-October day, as Dr. Horne drove us up a rugged two-track to see where the bison were not entirely free to roam, the skies were definitely cloudy. We came to the first in a series of gates which keep the Konza bison herd in segregated groups, clouds swelling and rumbling over the prairie. I looked out the car window to see this expansive sea of grass rolling toward a horizon and to see distant rain beginning to dissolve this horizon. I realized again that the prairie, like the original seabed it once was, though expansive, is not flat. It undulates, rising up into low mesas, settling down into open stretches. Shadows and trees are caught in the troughs of its grassy waves. From the beginning of our journey, Dr. Horne made it clear to us that bison are a critical part of the KPBS's study of a healthy prairie ecosystem. The present herd—now numbering 300 with ninety-seven of these calves—are the descendants of thirty bison, donated by the Fort Riley Military Reservation in 1987. The subjects of diverse and ongoing research projects, they now have 2400 acres of fenced tallgrass prairie for roaming, grazing, mating, frolicking, wallowing, and, inevitably, ruminating.

LATTERS

Bison in Snow. Photo by Chad Hedinger

The politicians, entrepreneurs, land developers, railroad men, hunters, farmers, entertainers such as "Buffalo" Bill Cody, all of whom were engaged in the intentional extermination of bison from North American prairies, were oblivious to the interrelationships among living beings on the prairie, with the health of one depending on the health of all. They were oblivious from the early years of the nineteenth century through 1885, by which time they had reduced the fifty million or more bison inhabiting the continent to eighty-three, thereby forcing Native People, whose communities needed bison for bodily and cultural sustenance, onto reservations. In 1851, Herman Melville, writing *Moby-Dick* and concerned about the extinction of whales in the continent's oceans, anxiously compared whales to bison; "Consider the humped herds of whales with the humped herds of buffalo, which, not forty years ago, overspread by tens of thousands the prairies of Illinois and Missouri, and shook their iron manes and scowled with their thunder-clotted brows upon the sites of populous river-capitals, where now the polite broker sells you land at a dollar an inch; in such a comparison an irresistible argument would seem furnished, to show that the hunted whale cannot now escape speedy extinction."

Part of my education in becoming a Kansan was learning the grasses—Big Bluestem, Little Bluestem, Indian Grass, Switchgrass—and coming to appreciate the astonishing diversity of grasses and flowers—in all colors, with multiple shapes—in a healthy prairie. But I'd not associated trees with a prairie until Dr. Horne pointed to a stand of trees darkening an area down below us. "Red cedars," she said. "Without bison, the entire Konza would be cedar woods." The bisons' rubbing against the cedars not only eliminates these trees, but their presence also limits invasive shrubs, such as lavender dogwood. The bisons' day-in, day-out munching of grasses and their excrement keep the prairie flourishing. Like fire on the prairie, their grazing increases both the variety of plant species and the abundance of birds, Upland Sandpipers and Grasshopper Sparrows in particular. When a bison wallows in a select patch of earth, rolling and rollicking on its back and kicking up its heels, alleviating itself of flies and

Cow and Calf. Photo by Chad Hedinger

enjoying the sport, the prairie habitat is also changed. Dampness is generated, and the bison wallow becomes a moist, mini-wetland with its own diverse species, including tadpoles, fairy shrimp, and chorus frogs. And when a bison dies (males live from ten to twelve years, cows to eighteen), like a whale fall, the bison body remains where it collapses, returning all of its nutrients to prairie earth.

Dr. Horne stopped the car. We were nearly surrounded. The members of a small group of female bison and their calves had found us. Curious and hoping that we might have come bearing treats—bison candy made of alfalfa, grain, and molasses, in particular—they were eager to see us. Around mid-October, treats are used to bring bison in from the prairie to the corrals at research headquarters for their annual check-up and for about thirty individuals to be selected out for sale, a process which keeps the herd healthy and at a manageable size. But now we were surrounded! Cows and yearling calves wandered nonchalantly up to the car, nosed at our windows, stood in the middle of the road, looking yearningly. Some wandered off, but seemed to keep one eye turned toward us.

We were in the midst of a matriarchy comprised of about thirty adult females, their daughters, their calves, and a number of older juveniles. We learned, as we waited for the bison to give up their yearning for treats, that male and female bison self-segregate. (Females, who weigh 900 to 1000 pounds, are half the size of the males who can be 2000 pounds, i.e., one ton! Indeed, the largest mammal on the North American, South American, or European continent!) This matriarchal group surrounding us, however, included some young males, not only this year's growing boys, but also those young males who had lingered on with their mothers from last year or the year before. By five years old, if not before, young bulls leave the matriarchal groups, forming their own fraternities, before they join the club of truly big boys. The youngsters in the group surrounding us were not only smaller and a rust color in comparison to their dark-haired mothers, but their small horns—mere nubbins—identified them as newly born this year. Their mothers were readily identified y their immense humps of muscle and their sharply pointed horns curving slightly forward. Wolves are not permitted on the Konza, but the horns of a mother bison, protecting her calf, could toss a preying wolf sky high. Also distinguishing this contented group of cows were the open wounds, alive with flie , raw and suppurating, on most of their haunches: the certain sign that a male had recently come visiting them, bracing his hooves on their backs, inseminating all those who were ready.[1]

Gestation for young bison is almost the same as it is for young humans: 285 days. Young bison grow quickly, suckling rich milk from the four teats of their mothers' udders very soon after bi th. Twin bison are seldom born, so the newborn gets it all. (Although, as Dr. Horne explained, one shouldn't consider milking a bison! A signific nt difference between wild bison and domesticated cattle is that the latter can be milked; the former would protest demonstratively.) That initial drink, which begins life, lasts for about thirty minutes, and then the calf is ready to hit the trail with his mom.

Walt Whitman came up with several answers for his poetic question, "What is the grass?" But for a bison, there is only one answer: Food and Drink, for grass supplies both nourishment and water. Born with four stomachs, bison quickly learn to eat grass the live-long day, chew it, regurgitate it, digest it, repeatedly and endlessly for all of their days. They graze and fertilize the prairie's grasses continuously wherever they travel, in whatever season, including winter when, indifferent to the snow settled on their backs, they dig through the snow on the ground to the grasses below. On the KPBS, however, lucky bison are provided with additional grass in the event of an ice storm.

Bison eyesight is adequate. But unlike domestic cattle with their long luxurious eyelashes, a bison's short eyelashes do not gather ice in a storm. Their nostrils are, however, enormous, their sense of smell acute, their pelage shaggy and thick, helping them endure easily in rain, sleet, snow, and even on burning prairies. Leaving this placid maternal group, Dr. Horne was quick to observe a young bull, limping and wandering about at the tail-end, and noted the number of his ear tag, indicating his birth year. "Wolf bait," said Dr. Horne, "Had we been here two centuries ago." I assumed he would be one of those chosen for culling this year.

[1]For much of my factual information regarding bison, I am grateful to the website: library.sandiegozoo.org/factsheets/bison/bison.html

Bison on Konza. Photo by Chad Hedinger

The rain continued as we drove on, meandering up on the two-track along a higher plane. Ahead, the horizon seemed to have melted into the earth although I might have been confused by the fog on our windshields. Gradually, however, ahead of us another group of females, with their calves and young followers, over a hundred of them, began to become clear, standing stolidly in the rain. I thought of the metaphors for bison which nineteenth-century explorers and travelers, seeing them moving in their millions, had devised, trying to express their astonishment: "one robe . . . the plains were black and appeared as if in motion"; "numerous as the locusts of Egypt"; "as if the ground itself was moving like the sea"; "one black, moving mass spread out far and wide"; "forests of cedar . . . a low, black and undefined ppearance, but occasionally shifting to nd fro like the dark shadows of a cloud."[2] These Konza bison were not, however, on the move. Easily gregarious, they seemed simply to be enjoying one another's company, content with grazing and with each other's companionship. Some of them wandered nonchalantly toward our car, checking to see if we had come bearing treats, but most were complacently grazing in the rain, while those spread out over the prairie beyond us in the mist, remained vague and distant outlines. As the rain intensified, nd as many of the herd folded their legs beneath them to sit down, those in the distant fog gradually seemed to turn into immense boulders. Defined as being "nomadic nd non-territorial," these bison seemed just settling in for a long, rainy day.

Among this herd of matriarchs and their off pring, one particularly enormous individual stood out. His immensity gave him away as a male, and Dr. Horne identified him as probably the single individual responsible for the wounds on the haunches of the females in the fi st group we'd encountered. In an image which might have been chosen by one of those nineteenth-century writers, he loomed above the females in this group like a thunder cloud. Rain dripped from his beard, and he stood stolid, his harem gathered around him. Gradually, as he remained standing, the females stooped and kneeled down all around him. We learned not only that a group of all male bison were located beyond the next gate, ready to rush forward if we opened it, but also that this single, imperial individual had probably already serviced both of the two groups of females we'd seen.

Male bison, leaving their mothers and other females at two or three, become part of a bachelor group of young males before they join a group of older males. The older and heavier a male bison, the more dominant he is among his peers. However, no one stays in power forever. Young bulls act out aggression in play; however, when the older boys go at it, they are ferociously serious. Bellowing, stamping, snorting, roaring, they approach each other, shaking the pantaloons on their forelegs, holding their short tails up high. Dr. Horne told us that their roaring can sound astonishingly like ferocious bears. Tension mounts during these stand-off , and soon one bull bashes another head on. The thick mat of hair on their foreheads serves as their football helmets, probably giving them more protection than the helmets in use all over the United States on this football Saturday. However, an energized bison can gore his opponent with a quick thrust of one of his sharp, short horns. Or he may just threaten his opponent, nodding his head vigorously up and down until the other bull submits, turning his head submissively sideways and retreating. Competing with each other, a male may take a break to wallow and then to urinate in the wallow. He then rolls in the water before resuming his stand-off, empowered and odiferous. When it is not mating season, older male bison may become pals, or simply wander off ac oss the prairie, alone and

[2] See Harold P. Danz, *Of Bison and Man* (Niwot, CO: University of Colorado Press, 1997, 2016)

solitary, providing photographers with his iconic silhouette against the setting sun, perfect for a calendar of western images.

In the KPBS, following the October round-up, bison herds are brought together for health examinations and culling. No longer is it possible on the Konza to see herds miles wide, moving as a single, immense organism, as nineteenth-century writers described them. However, even while this matriarchal herd before us became increasingly somnolent as the rains increased, I was imagining bison on the move: calves safe in the interior, females circling the calves, males predominately on the outside, creating a protective, moving barricade. I imagined them walking together, speeding to a trot, galloping, bounding. I had read that when prompted (by wolves or arrows which were no longer in sight here on the Konza), bison could run at forty miles per hour and leap over barbed wire fences. Ten years ago, at Yellowstone National Park, in early spring I'd also watched a matriarchal herd—grandmothers, mothers, young calves—swim together across a flooded river, the older members of the clan nudging the younger members to swim on to dry land downstream. I have worried to this day about an elderly bison left behind on the river bank in this spring rush.

Ahead of us, beyond this immense group of cows, lay another gate, and on the other side of this gate, Dr. Horne told us, that gang of rambunctious young males. Also ahead of us was lightning. It seared the sky, one jagged streak following another. Bison are as impervious to lightning storms as they are to ice storms. They just keep on grazing. Dr. Horne was concerned about our safety, however. She wouldn't put it past the eager, young guys up ahead to push beyond the gate as she was opening it. At Yellowstone, I remembered, we were told that bison have proven more dangerous to visitors than grizzlies. Dr. Horne was also concerned about the lightning zig-zagging through the clouds. We turned back, pelted by rain.

At the KPBS administrative buildings, a few rain-soaked bison had wandered into pens of their own accord. "Looking for nitrogen," said Dr. Horne, explaining that not only was it available in the corral but also that the necessity for certain minerals in their diet could motivate bison to migrate. Soon these pens would be full of Konza's bison; they would be weighed, tested, inoculated, and 275 would be selected to stay on the Konza with some purchased for ranches, for meat packing plants, for private farms. No Konza bison, however, would be migrating.

Those selected to stay are a token of the millions known to Native Peoples in spirit and in story, of the millions seen and recorded by early white explorers, of the millions slaughtered to near extinction by whites seeking their own gain. But with bison no longer reduced to mountains of bones on Kansas plains, their hides turned into coats, their tongues into culinary delicacies, no longer harnessed to pull carts or ridden in rodeos, with bison now not only appearing on several state seals (Indiana, Iowa, Kansas, North Dakota, Wyoming, and the Department of the Interior) as well as having been chosen in 2016 to be the nation's national animal, perhaps these 275 American Plains Bison on the Konza prairie, along with over 500,000 others on the North American continent, will continue to be cherished as an intrinsic part of our shared earth community.

WHERE BISON MAY BE SEEN IN KANSAS:

Dillinger's Lazy Heart Ranch: Wheaton, Kansas
Frontier Park: Hays, Kansas
Historic Scott State Lake: Scott City, Kansas
Konza Prairie Biological Station: Manhattan, Kansas
Maxwell Wildlife Refuge: Canton, Kansas
Red Buffalo Ranch: Sedan, Kansas
Tallgrass Prairie National Preserve: Chase County
Ted Turner's Z Bar Ranch: Barber County