

The Buffalo Bone Commerce On The Northern Plains

By LeRoy Barnett

The destruction of the buffalo for its flesh and hide is considered, by most people, to be the end of the animal's place in North American history. That the remains of the bison became, for a brief time, one of the major exports of the prairie region, is a fact unappreciated by all but a few students of the continent's past. The time has come, therefore, to add a new chapter to the story of the buffalo by showing the value of its bones as an industrial resource.

The business of buying and selling buffalo bones appears to have started about 1868 when the coming of the railroad to the Great Plains region first made it profitable to ship the bones to Eastern carbon and fertilizer factories. With a cash value suddenly placed upon the abundant but formerly useless bones which littered the prairies, large numbers of people began searching them out. Soon, millions of pounds of skeletons, rising like little white mountains above the landscape, were piled at nearly every siding along the routes of the Union Pacific, Kansas Pacific and Santa Fe railroads. Since most of the cargo carried by these lines was destined for western markets, the roads welcomed the bones as a valuable payload for their returning freight cars.

As the railroads spread over the continent, the assembled bones greeted the advancing roads like macabre construction landmarks. These piles of chaotic anatomy represented the most readily available resource on the prairies, and all across much of the Great Plains the first cargo shipped from nearly every siding or settlement was a carload of buffalo bones. This traffic continued for a few years in most localities and then proceeded further down the line to "whiter pastures." Though seldom amounting to very much in any one place, the total quantity of bones collected on the midcontinent grasslands was sufficient to annually fill nearly 5,000 boxcars. With the average freight charge per car figuring around \$100, the roads that transported the bones grossed about \$500,000 from the traffic each year. Such a profitable trade was of no little importance to railroads struggling for existence on the sparsely-settled plains.

But eastboard freight trains were not the only ones to benefit from the newly-established traffic. Penniless farmers could realize perhaps \$8.00 per ton by gathering bones and thus obtain money to purchase the necessities of life. Most immigrants and homesteaders required at least a year to get established and often arrived on the plains too late in the year to plant grains and too broke to buy provisions. Grangers who found themselves in such a predicament had little alternative but to earn a living by picking bones until their homesteads could be broken, back-set, sowed and harvested. Bison bones, then, were really the first crop gathered by many prairie farmers in the Great Plains region.

Others who benefited from the trade were frontier teamsters who, hauling supplies to remote military posts and settlements, were able to increase their profits by gathering bones on the return trip. And the Indians, destitute from the extermination of the buffalo, were able to once again sustain themselves by collecting and selling bones. Many metis took up hunting skeletons, sometimes traveling more than 100 miles to gather up a load. With carts filled they would then head for the nearest railhead to sell their loads and some shopkeeper would allow them to take out in trade the value of their pickings. While such a subsistence was difficult for the Indians and metis, it did enable a large portion of them to make a living and keep the nomadic life to which they were accustomed.

With a myriad of bone pickers scavenging the prairies, it was less than a decade before the central plains had been cleared of bones. But by that time new railroads were moving into the northern and southern grasslands. The arrival of the roads brought low-cost transportation to new areas, permitting the shipment of bones to begin in previously untapped territories. Before long the gathering and selling of buffalo bones—a pursuit that had started in Kansas and Nebraska—was underway from Texas to Saskatchewan.

The intense exploitation of any unrennewable resource will eventually lead to its exhaustion and the buffalo bone business was not exempt from that economic fact of life. By the early 1890's the railroads had opened up the last isolated tracts of what had been the buffalo's range, and within a few years' time the last of the bones had been thrown into wagons and hauled to markets. Inhabitants of the Great Plains were no longer able to make ends meet by gleaning skeletons from the prairie and mills dependent upon buffalo bones for raw materials were forced to find alternative sources.

As the bone gathering business disappeared from the North American grasslands, so did recognition of its importance to the building of that region. During the course of the trade more than two million tons of bones were collected and sold to eastern factories for rendering into charcoal filters and manurial phosphate. This \$40,000,000 commerce brought money to the Great Plains at a time when many residents there needed the additional income simply to survive.



-Rufus F. Zogbaum, Artist. *Harper's Weekly*, January 15, 1887.



-Paul Frenzeny, Artist. *Illustrated London News*, October 29, 1887.



-Photo Collection, *State Historical Society of North Dakota*.





The handbill illustrated to the right was probably issued in the late 1860's and, interestingly enough, is printed on the back of a \$100 State of Missouri Defense Bond of the Civil War period.

Research indicates that the A. B. Mayer Manufacturing Company of St. Louis was established in 1863 as a dealer in paper, rags, scrap metal and bones. A decade later, in response to a widespread demand for bone products and an increased supply of raw materials from the western plains, the firm expanded into the production of fertilizer and carbon black. The manurial phosphate prepared by the company was made at the Anchor Fertilizer Works in St. Louis, while its char material was processed at the Anchor Bone Factory in nearby Lowell, Missouri. About 50 employees were required to operate the two factories.

Like most of its competitors, the Mayer Manufacturing Company had to actively seek dealers who could provide it with raw materials. One of the methods commonly used was to circulate such handbills throughout the areas where bones were being gathered and bought.

WANTED!

Dry Buffalo Bones,
 And All Other Kinds of BONES,
Tanking, Horns, Hoofs,
Rags, Scrap Iron, Old
Metals, &c., &c.



A. B. MAYER,
 Wholesale and Retail Dealer and Manufacturer of
Bone Black, Fertilizers, &c.
 OFFICE AND WAREHOUSE,
1014 to 1022 N. 12th St.,
ST. LOUIS, MO.
ANCHOR BONE FACTORY, LOWELL, MO.
Anchor Fertilizing Works,
 Foot of Harrison Street, ST. LOUIS, MO.
FRED. MAYER, Manager.

This field of buffalo bones was located near Lloydminster, Alberta, and is believed to be the location of a large buffalo corral or kill site used by Cree Indians under chief Poundmaker, about 1874.

—Courtesy Public Archives of Canada



—Courtesy of Dr. John Muscalus and the Historical Paper Money Research Institute, Bridgeport, Pa.

Profile of a Buffalo Bone Dealer: Borden Hicks

Borden Mills Hicks traveled from Michigan to Dakota Territory in 1881 to make a new home at the young village of Jamestown, on the Northern Pacific main line west of Fargo. In 1882 he established himself in the fuel business, rapidly becoming the leading dealer in wood and coal in his adopted community. By the following year he had expanded his operations to include the buying and selling of buffalo bones, a commodity that was being brought to market in large quantities by settlers in that neighborhood. As the local supply of bones began to dwindle in 1884 and Hicks moved on to other buying points. By 1887 his business was taking him into Montana and the Prairie Provinces of Canada. He was then shipping more than 300 carloads of bones a year. In 1889 Hicks moved to Minneapolis, Minnesota, which he found to be a more convenient place to manage his affairs. He remained there as a "dealer in buffalo bones" until the resource was exhausted at the end of 1896.

Illustrated below is an invoice issued by Hicks in 1894 to a North Portal, Saskatchewan, man covering a transaction involving thirteen tons of bones. Note how freight costs and customs fees have eaten up the profit of the seller.

-Courtesy of Mrs. C. K. Dorsey

#135

Minneapolis, Minn. Aug 14 1894

B. M. HICKS,

DEALER IN BUFFALO BONES.

*In account with Mr. N. A. Dorsey
N. Portal*

Date Shipment.	Stations Shipped From.	Car Int.	Car No.	Net Weight.	Price Per Ton.	Gross Settlement.	Balance Due on Each Car.
<i>Jun 22</i>	<i>Estevan</i>	<i>L.P.</i>	<i>17734</i>	<i>26250</i>	<i>15.00</i>	<i>19487</i>	
	<i>Less freight charges</i>			<i>63.00</i>			
	<i>L.P. 1800</i>	<i>on</i>	<i>26550</i>	<i>532 1/2</i>	<i>86.29</i>		
	<i>Customs</i>				<i>1.45</i>		
	<i>Mis. bent</i>	<i>on</i>	<i>27300</i>	<i>@ 14¢</i>	<i>38.22</i>		
	<i>Switching</i>				<i>2.00</i>	<i>127.96</i>	<i>68.91</i>
	<i>Advance</i>						<i>50.00</i>
	<i>Balance due</i>						<i>\$18.91</i>

The Devils Lake Bone Trade

One day in the spring of 1885 a twenty-year-old former bank clerk from Pennsylvania detrained at the St. Paul, Minneapolis and Manitoba depot at Devils Lake, Dakota Territory. Major Israel McCreight (his first name was Major) set off for town to look for a job.

Beyond the depot he was confronted by a pile of bones nearly 100 feet long and a dozen feet high. This great stack of skeletons, he was told, was the product of a commerce that was fast changing the looks of the regional landscape. Only a few years before the surrounding grasslands had been covered with an osseous mantle, the residue of the great slaughter that had destroyed the American bison. But the arrival of the railroad had made it possible to ship these remains to Midwest manufacturers and a demand was created for buffalo bones at Devils Lake. Indians, metis and settlers, stimulated by the offer of \$6.00 per ton, set forth with carts and wagons to gather up the fragments of the vanished herds. They brought large quantities of bones to the Manitoba freight yards and the rick of sun-bleached bones that had captured McCreight's interest was a monument created by that trade.

As early as 1883 the Indians had reportedly started collecting bones for the Devils Lake market. Indians of the Fort Totten reservation accumulated 700 tons of bones that

—*Courtesy Travel Division, North Dakota State Highway Department*



A metis bone-picker perches atop the cargo on his half-loaded cart in this view taken at Devils Lake in July of 1885. Note that deer antlers and other non-buffalo bones are clearly visible in both this photograph and that on the opposite page.

year and piled them up at the southern end of the lake. Captain Edward Heerman, who operated a small steamer on the lake, hauled these pickings across to the northern shore where they were loaded onto boxcars and shipped east.

Perhaps even greater amounts of bones were brought into Devils Lake the following year when the metis and settlers became involved in the profitable trade. The Indians were really not inclined to gather bones, for their superstitions counseled against the activity and most did not have the wagons and horses with which to transport them. But the metis had no such compunctions and with their Red River carts they soon became the principal figures in the local bone commerce. Their labors, in addition to those of the settlers, produced "large quantities" of bones for the Devils Lake market in 1884.

The buffalo bone industry started big again in 1885 and with the enterprise such an important feature of the Devils Lake economy it was to be expected that Major McCreight's search for employment should involve him in that trade. Within a few days after his arrival the young Easterner was working as an agent for one of the major bone-buyers in town, negotiating with incoming pickers for the purchase of their loads. Those with bones to sell, usually the metis, would come to the greenhorn from Pennsylvania to find out how much he would offer for their cargoes. If the quoted price was acceptable, the owners of the carts or wagons would guide their bone-laden vehicles onto the scales by McCreight's office and have the gross weight recorded on a ticket. Then, with receipt in hand, the teamsters would drive their freight to the dumping grounds at the railroad and return to the scales to have their rigs weighed empty. After some calculations to determine the net weight, McCreight would pay the holder of each voucher in cash for the value of his load.

The bones that had been discharged by the pickers at the freight yards remained piled by a siding until the railroad company could provide boxcars. McCreight would then hire a couple of men to load the cars. When about ten tons of bones had filled the car to the top, the doors would be shut and sealed and the cargo sent on its way. Most of the bones that left Devils Lake—and other places as well—were shipped to carbon and chemical works in Chicago, Detroit and St. Louis. There they were processed into charcoal filters and fertilizer.

McCreight had other duties to perform for his employer, but buying and shipping bones took much of his working time. As early as May, 1885, there were about twenty teams a day bringing loads into town and each wagon had to be guided through the weighing and unloading process. During



Bones of many animals litter the south shore of Devils Lake near Fort Totten in this view which was presented to the State Historical Society in 1929 by Capt. Edward E. Heerman. Capt. Heerman hauled these bones and many additional tons to market at the Devils Lake railhead on board his steamer, the MINNIE H.

—Photo Collection, State Historical Society of North Dakota

June the burden increased as a metis train of about 60 carts began making weekly visits to the local bone market. This large influx of bones continued at Devils Lake until the early part of July, when the business, and McCreight's hectic labors, nearly ceased.

The cause was some strong competition from merchants in the neighboring community of Bartlett, about 20 miles to the east. Hoping to attract the bone trade which was going to Devils Lake, those buyers pushed the price up to \$12.00 per ton and within two months had captured the lion's share of the business.

The Devils Lake buyers reacted by raising their offering price to \$10.00 and then to \$20.00 a ton. Within a few days the bone mart at Bartlett was abandoned and the focus of the local commerce returned to Devils Lake. Not until 1887 was Bartlett able to recover much of the traffic it had lost and by then most of the bones were gone from the plains and the big money had moved further west.

The *Devils Lake Inter-Ocean* reported that the metis were "hustling" on account of the high price. McCreight later recalled that they filed into town with their carts and wagons heaped with bones, forming processions that sometimes stretched for a mile across the prairie. Each rig, depending upon the size of its box, held from 500 to 1200 pounds, and one caravan might bring in as much as \$200 worth of bones even when the price was low.

The most common form of transport used by the metis bone pickers was a carrier known regionally as the Red River cart. These sturdy, high-wheeled conveyances, some with basket racks built along the sides, were constructed entirely of wood and held together by the adroit use of wooden pegs. To these heavy rigs, McCreight observed, the metis "harnessed and hitched, with raw hide thongs and ropes,

whatever domestic beast they happened to possess that was large enough to drag it along."

These pickers seldom traveled alone. McCreight remembered that about 50 or more families would usually band together and travel to a campsite where the bison remains were thick. Then, as a group, they would spend a few days leisurely roaming about the prairie filling their rigs with bones. As the various parties secured their loads, they would drive to an agreed rendezvous and wait for the other members to finish their work. When all of the carts had been packed to capacity, the entire troop would form into line and set out for the nearest or most lucrative bone market.

According to McCreight, nearly all of the bone trains had an established order of march. Most traveled in single file with the headman of the outfit in the van. Behind followed the other male adults, each one walking in front of his team to keep it in pace with the leader. Atop the bones perched the baggage, women and young, while the offspring able to ride or walk usually ranged alongside the family cart. Those individuals without a vehicle to tend often spread out along the line of advance to hunt for small game. And in the rear of the procession, or sometimes scattered within its midst, came the retinue of dogs, ponies and livestock that accompanied every group.

These bands of metis pickers normally halted about a half mile from their destination. There, at a place with abundant grass and water, they unloaded their equipment from the carts and made camp. The leaders then hiked into town to seek bids from the local bone buyers. When a satisfactory bargain had been struck, they returned to camp and drove their carts to town where, in a ritual already described, the vehicles were scaled, unloaded and reweighed before crowds of curious onlookers.

The arrival of a metis bone train at Devils Lake was a big event both for the pickers and the local businessmen. To the Indians it meant a festive period when items like blankets, beads, tobacco, cheap meats and other supplies could be purchased. To the shopkeepers it meant a time of large sales and, in many cases, even greater profits. The members of a bone gathering outfit usually remained near town for a week or more, scouting the stores for bargains until every penny had been spent. Then the group would strike camp and set out on another tour, to return once more when their carts had been filled with bones. And so the summers passed, said McCreight, with scarcely a day in which some bone-picking band was not encamped on the city's outskirts.

Since the supply of buffalo bones around Devils Lake

had nearly been consumed in 1884, the metis were forced to drive increasing distances to fill their carts. So thoroughly had the prairies been gleaned near town that their search sometimes took them up to 150 miles in advance of the railroad. These long hauls continued until 1886 when the St. Paul, Minneapolis and Manitoba began pushing west towards the Souris River. As rival trading points were established along the new railroad closer to where the bone supply could be found, fewer and fewer wagons made their way back to the Devils Lake market. By the summer of 1886 McCreight was unable to compete with fellow merchants up the line, so he, along with most other local dealers, left the business for some other pursuit. By the end of 1887 the once-prosperous Devils Lake bone trade had dwindled to nothing.

A metis cart caravan loaded with buffalo bones from the surrounding prairies has just arrived at the St. Paul, Minneapolis & Manitoba railway yards in Devils Lake in this view which was made in about 1885.

—Photo Collection, State Historical Society of North Dakota





The human drama engendered by the buffalo bone trade has intrigued and inspired many artists. This poignant scene is an oil on canvas done in 1962 by Ernest Berke and entitled, "The Money Crop."

—Courtesy Kennedy Galleries, Inc., New York, N.Y.

The Minot Bone Trade

With the construction westward from Devils Lake of the St. Paul, Minneapolis and Manitoba Railway in 1886, Minot became the new focus of the northern plains bone trade. Actually, as early as 1885 metis bone gatherers had moved into the Souris River loop and the supply of bones further east had dwindled. The quantity of bones hauled from the Ward County region totalled up to about 225 tons in that first year.

As the railroad approached the new townsite bone buyers stockpiled their purchases. When the tracklayers arrived huge mounds of skeletons were to be seen all along the new railroad yards. Freight crews had moved out 600 tons of bones before the end of 1886.

The commerce in bones had started big at Minot and the future of the business showed even greater promise for the days to come. But in the spring of 1887 an economic depression struck the bone processing industry and many factories were forced to close. Those who remained in business sharply curtailed operations. This contraction of the bone market, coupled with a 8% increase in freight rates, stalled the industry all over the northern Great Plains.

The decline in demand for skeletons caused a similar slide in their value on the prairies. A newspaper item in May of 1887 noted that "the price of bones has dropped considerably within the last year, being at the present time worth \$5.00 per ton at Minot and \$4.00 west of that point." Despite the low price, however, some pickers did stay active. In late June a Minot correspondent reported to the *Villard Leader* that "quite a number of Indians and half-breeds are on our streets now-a-days. They are gathering bones and drawing them into town." These nomads from the Turtle Mountain country must have had much success in filling their carts, for Clement Lounsbury, visiting Minot that year, remembered seeing one pile of bones which weighed more than 175 tons. Minot's total exports of bones for 1887 was 375 tons which, although a drop from the previous season, still represented the "chief commodity" sent out from the station.

The same amount of bones, 375 tons, were shipped out the next year, though a much greater quantity of bison remains had been harvested by those in the trade. This unusual situation was chiefly due to the practices of a single bone-buying firm which had moved into Minot. Fred Stoltze and Eli Warner, who operated a line of lumber yards, also owned the Northwestern Bone Syndicate which purchased bones throughout northern Dakota. The company purchased bones whether there was a demand for them or not, and later sold their accumulated stocks to manufacturers when the going price for bones was high. In 1888 there was little demand for bones in the East, but the Syndicate kept buying at Minot and built a large stockpile for the time when the market price improved. This mound of bones extended from Main Street eastward almost as far as Third Street.

The Syndicate reaped the rewards of its speculation in 1889, for the nation's economy recovered and the value of bone shot up. A spur track was built to the bone pile and they

were loaded out for the factories of St. Louis. The advancing price also meant a better rate for the bone-pickers, and great numbers of people were encouraged to scour the prairies. Lewis F. Crawford, writing in his *History of North Dakota*, claimed that for months the discharge of bones at Minot totaled 100 loads a day. While an obvious exaggeration, the statement does not bend the truth by much. A local newspaper reported in May of 1889 that "there were nearly 300 wagon loads of bones unloaded in the yards here last week, and still they come. Bones are worth \$10.00 at the present time."

As had been the case in Minot since the bone commerce began there, the major figures supporting the trade continued to be the metis. As soon as the grass was high enough for grazing in the spring, these people would band together with their animals and hunt for bones. All summer long they scoured the plains, returning to town as a unit whenever their carts were filled. Most of the rigs they used were made completely of wood and the sound of wheels on ungreased axles was like a thousand fingernails being drawn across a pane of glass. The noise could be heard for miles and Minoters knew that a bone-train was approaching long before it appeared. Often more than 50 teams would file into town, forming a line that stretched from the railroad to a point beyond Eighth Avenue. Each conveyance had to wait to be weighed on the railroad scales and then its cargo would be dumped at a siding in the yards.

As the area around Minot became settled, homesteaders made increasing contributions to the trade in bones. This was particularly true between 1887 and 1889 when low rainfall forced many grangers to harvest bones instead of grain. Those farmers found bones their principal cash crop in those years and loads of skeletons were brought to town "like loads of wheat in the fall." One early settler recalled, "My father, my two sisters and I used two teams and two wagons on our bone-gathering forays." Leaving early each morning, "my oldest sister and I would take one outfit and my dad and younger sister the other. When we had our loads, we would take them to town and sell them for about \$12.00 per ton. We hauled 14 tons of buffalo bones to Minot, and believe me when I say, I don't know how we would have lived if it had not been for the money we got that way."

A few misguided settlers came to Minot specifically to gather buffalo bones. Railroad publicists, land agents and others lured some gullible immigrants to the area with the promise they would get rich picking bones. But what they usually gained was a sore back, some callouses and a lesson. Mr. and Mrs. Ole Otterness were two of these hapless victims who hoped to buy some farmland with the money earned from bone gathering. While Otterness combed the foothills



—Courtesy Minot State College

Bone-laden wagons and carts line the Main Street of Minot in this pair of unusual views. They show the same scene from opposite directions. The view at the top looks north toward the railroad grounds, while that below looks to the south and was taken from a vantage point on the roof of a porch. The photographs were made by Carl B. Brown on July 3, 1889. One hundred and three teams, accompanied by about 500 metis, hauled bones into town that day to be on hand for the Fourth of July celebration.

—Courtesy Minot Daily News



looking for bones in the grass, his wife got as many as she could find within walking distance of their shack. By the end of the summer their labors had netted them less than \$100 and the couple's dreams of quick wealth had vanished.

Whether metis or settler, nearly all of the bone scavengers sold their gleanings to the Northwestern Bone Syndicate. Olaf Olson was the principal representative for the concern at Minot, but was assisted by other local agents like Carl Aurland, J. Long and P. Lee. Providing competition was a buyer named Ed Kelly, the only independent dealer in town. Kelly, it is said, once bid up the price to \$18.00 per ton, but when pickers came to him, he said that he was filled up and sent them to his competition. After the Syndicate had purchased bones at the inflated rate for several days, Kelly's ruse was discovered and the market returned to normal. Such rivalry must have been good for Minot's bone trade, for between them the two operations shipped 2,775 tons in 1889.

During 1890 Minot dealers purchased over 2,200 tons of bones at an average cost of \$8.00 per ton. Unfortunately, only 780 tons had been shipped to market before the price suddenly fell, leaving the dealers with an enormous inventory on their hands. The unshipped bones, amounting to some 1,400 tons, had been placed close to a siding to facilitate loading. But with the decision to hold the bones until the market improved, the railroad agent had to insist that the pile be moved for the winter. A contract was let and the skeletons transferred away from the tracks at a cost of \$400.

Clement Lounsberry saw the pile being moved and did some rapid computations. "I found that the bones of the buffalo," he wrote, "after bleaching on the prairies, weigh from 45 to 52 pounds." Taking an average of 50 pounds per animal, the stockpiled skeletons that fall of 1890 represented the remains of more than 56,000 animals. If Lounsberry correctly assessed the weight of bones per animal—and his estimate is more conservative than that given by the Bone Syndicate—then the remains of a quarter-million buffalo were brought to Minot during the first six years of its existence.

The trade in bones resumed in 1891 with the large stockpile in the freight yards being shipped out to the East. The supply of bones began to dwindle as bone gatherers were forced to range farther and farther out on the prairies to make up their loads. The metis pickers had already begun to move on west to Montana, leaving only a few local settlers to hunt for bones. These hard pressed farmers often could not find enough bones to support themselves, so some began to raid Indian graveyards in an effort to acquire more bones. The processing mills did not care what creature supplied their raw material, but Fred Stoltze did have compunctions about dealing in human bones. This led to a controversy with his partner and, as a result, the Northwestern Bone Syndicate was dissolved in 1891.

Some wagon loads straggled into Minot after 1891, but they amounted to little more than a hundred tons at the most. For all practical purposes the resource which had largely supported the town since its founding was gone.

This large pile of buffalo bones was accumulated along a siding in the St. Paul, Minneapolis & Manitoba railway yards at Minot, probably during the summer of 1889. The photographer's name is unknown.

—Photo Collection, State Historical Society of North Dakota





The above illustration was drawn by Martin Garretson for his book, *THE AMERICAN BISON* (New York Zoological Society, 1938). While his pen has greatly exaggerated the actual number of skeletons found lying upon the plains, his depiction of the need to remove the bones before tilling the soil is accurate. F. J. Clifford, writing in the *DEARBORN (Michigan) INDEPENDENT* of June 16, 1923, noted that many of the sun-bleached bones "had to be gathered anyway before the sod-buster could mow any of the prairie grass, as one of the hard bones was sure to break the sickle of his mower." A. G. Divet, a young Richland County farmhand in 1882, complained that bison bones "were an obstacle to the breaking of the land, and had to be removed from the path of the plows."

—*Courtesy Denver Public Library, Conservation Library Center, American Bison Society file of Edmund Seymour*



This dramatic oil on canvas by John Henry Moser (1854-1913), entitled "Where the Millions Have Gone," appeared as an illustration in William Hornaday's nineteenth-century monograph, *THE EXTERMINATION OF THE AMERICAN BISON*. The original, painted in 1888, measures 45½ by 61 inches and is in the possession of the Smithsonian Institution.

—*Courtesy National Collection of Fine Arts, Smithsonian Institution, Washington, D.C.*

The Saskatoon Bone Trade

A new industry has sprung up in the Northwest. It is the shipment of buffalo bones to St. Paul. During the past four days 4 carloads of buffalo bones—48 tons—valued at \$312, and consigned to M. L. McKenzie, of St. Paul, have passed through here. They were shipped to F. F. Tims of Regina. The bones are used in the manufacture of a fertilizer.

This announcement from the October 23, 1884, issue of the *Moosomin* (Saskatchewan) *Courier* heralded the start of the great Canadian buffalo bone commerce. Late nineteenth-century travelers and settlers on the Canadian prairies found a countryside strewn with the wreckage of the great buffalo slaughter. Since 1868 the major bone-processing firms of the United States had relied upon the plains of the American West to provide their resource needs, but by the mid-1880's the supply of raw materials was starting to dwindle. The field agents of these companies then turned to the prairies north of the International Boundary for a new source of bones.

As the *Courier* news item declared, the first large quantities of Canadian bones were shipped to U.S. mills from Regina in 1884. Throughout the following years the metis and a few settlers continued to collect bones and haul them to shipping points along the route of the Canadian Pacific railroad. By late in 1889 nearly all of the accessible skeletons near the tracks had been mustered at sidings between Indian Head and Medicine Hat, leaving many bone-hunters waiting for one of several proposed branch lines to open up new areas for their trade.

One region they looked forward to exploiting was the country between the Qu'Appelle Valley and the Saskatchewan

River, a nearly uninhabited land that was "literally white with buffalo bones." In 1890 the railroad began building out of Regina across this bone-littered terrain toward the town of Saskatoon, and the scavengers assembled all along the right-of-way to harvest the "crop." By August these hunters, mainly French-Canadian Indians from the north, had brought "some \$7,000 worth of bones" to railway sidings between Lumsden and the end of the line. Other metis, unable to find work near Battleford, began collecting the bones that lay between the elbow of the North Branch and the South Saskatchewan River. By fall they and other prairie gleaners had delivered "as many as 50,000 heads at Saskatoon, together with as many of the bones of the carcasses as the pickers could find."

During the fall of 1890 most of these metis ranged up to 12 to 15 miles from Saskatoon with their carts, each wandering at random about the prairie until his rig was filled. The conveyances were normally pulled by oxen, could hold 800 to 1,000 pounds of bones when carefully packed and gave the teamster a return of about \$3.00 a load. But the more affluent pickers had basket racks "12 or 14 feet long and 3 feet high" attached to the sides of their carts, enabling them to haul nearly 2,500 pounds per trip.

Weary settlers rest from their bone gathering labors alongside of this sod house located on the prairies of southern Saskatchewan. This photograph, entitled "The Beginning of Better Things," was taken by Ernest Brown in about 1885.

—Courtesy Public Archives of Canada



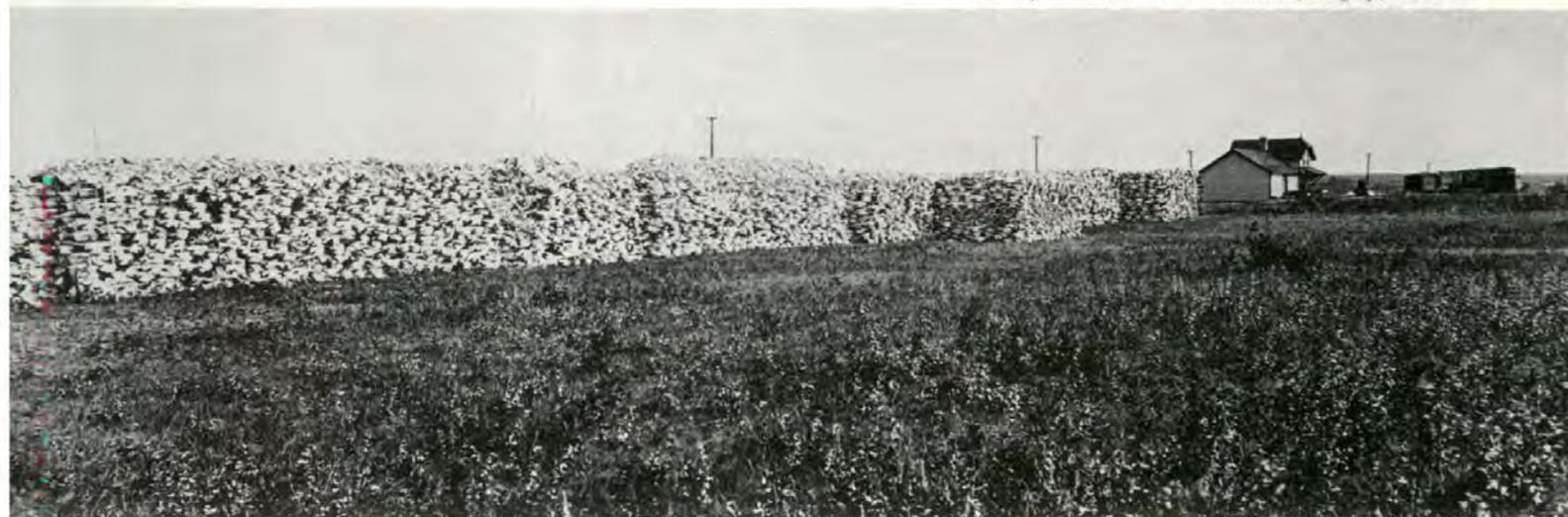
W. H. Duncan opened a store at Saskatoon in 1890 and as the metis began bringing bones into town, offered to accept them in trade for goods. The idea was readily accepted by the metis, since barter was a way of life with them, and hundreds of tons of bones were hauled to Duncan's market in exchange for credit at \$5.00 to \$7.00 per ton. This early dealer left records indicating that his business attained rather impressive dimensions, for his diary showed four carloads shipped out on September 6, 1890, "seven carloads on the 9th of the same month, four on the 10th, and six on the 17th."

As the trade increased during the 1890's, the volume of sun-bleached bones brought to Saskatoon exceeded the capacity of the railroad to haul them away. When this occurred the bone-buyers were forced to stack their investments along the sidings at the station while additional freight cars were sought. The skeletons were organized into neat rectangular piles 8 feet wide, 8 feet high and 35 feet long—the same dimensions as a boxcar—"thus making it easy for

the owners to take inventory of the stock on hand." Each "rick" was constructed by interlocking the horns of the skulls to form a perimeter, with the loose bones making up the center. At one time in 1890 the remnants of over 25,000 animals were arranged in this fashion at the Saskatoon depot awaiting transportation.

Throughout much of May, 1891, sheets of flame raced across the broad expanse of open prairie around Saskatoon. The tall grass that covered the surrounding area often made it difficult to find skeletons, so the metis bone pickers fired the prairie to facilitate their work. "Extensive damage" was reported on the west side of the river on account of the incendiary activities, and "great stretches of wood" were destroyed. Despite the destruction it caused, the method was very effective. A settler, traveling across a freshly burned-over section, remarked that "the buffalo bones showed white and the whole country looked like a very stony Ontario summer-fallow."

—Courtesy Glenbow-Alberta Institute, Calgary, Alberta



Neat "ricks" of buffalo bones line the siding at Saskatoon in this view attributed to Hugh Lumsden and believed to have been taken on August 9, 1890. The rapid accumulation of bones completely outstripped the ability of the railroad to move them away. Such scenes were typical at Saskatoon and other stations in that region from 1890 to 1893.

By mid-June of that year the metis had brought the remains of more than 100,000 animals to the Saskatoon market. Duncan was pretty much out of business in 1891, but others such as James Leslie, Andrew Blair and Grace Fletcher were ready to buy. Mrs. Fletcher had the first store on the west side of the river and, on account of her location, "probably had the biggest share of the bone trade in the earliest years." By the end of June she and her competitors had shipped 35 carloads and many more bones were piled at the depot.

Again the railroad was unable to ship the bones out quickly enough. By August the remains of about 168,000 buffalo were estimated to be in just one pile near the station, and there were other smaller ricks in the freight yards as well. "It was no unusual sight at the depot," said one witness, "to see 50 or 60 cords of these bones stacked up waiting shipment." At times the skeletons temporarily stored there

extended from "23rd Street to a point at the riverbank, close to the present railroad bridge."

During that summer the bone hunters trading at Saskatoon had to travel over 20 miles from town to fill their carts. Most decided to band together for security and company into what were known as bone-picking outfits. These caravans of carts and wagons usually searched as a unit, often forming a train which stretched, when in motion, for a mile or more across the plains. "Positions at or near the front of the procession were competed for," with the better horses and men enjoying "the prestige of leadership," while the slower animals and subordinate drivers "sweated amid the dust at the rear."

The accumulation of bones continued at Saskatoon with only a few carloads leaving the station each week. More ricks of skulls were built at the depot, making the local freight yards appear more and more like a huge uncovered

cemetery. The railroad moved in more freight cars but they were unable to make much of an impression on the vast accumulation. Just one shipper, and there were at least four operating in the area, was said to be loading 10 to 15 cars every day.

In December cold weather froze the bone stacks into place and brought the trade to a temporary halt. Hugh Lumsden, passing through Saskatoon late in the year, found the ricks of bones stored there stretching for 800 feet beside the tracks. During his travels that year he noted similar accumulations from 50 to 400 feet in length at practically every siding between Duck Lake and Regina.

Again in the spring of 1892 the metis bone hunters set prairie fires but this time craftily ignited the grass near the tracks of the Canadian Pacific. This made it appear as if sparks from a locomotive were responsible for each blaze, bringing public wrath upon the railroad instead of themselves. The buyers at Saskatoon in June of 1892 were largely the same individuals who had been active the previous year. Shortly thereafter, however, James Leslie sold his store and set himself up as a cattleman at Brightwater Marsh near Dundurn. He then began buying bones at his ranch and offered to pay spot cash, since he no longer had goods to trade. This practice was nearly unheard of around Saskatoon at the time, and many pickers began driving their loads to the new market south of town where they could get money to spend. Even so, most of the bones sold in the region still went to Saskatoon.

Throughout 1892 and into the following year the Saskatoon bone trade continued to flourish. Huge ricks of care-

fully stacked bones continued to line the railroad yards and long strings of boxcars arrived at intervals to haul them to the processing mills. But by 1893 the search was taking bone-hunters far afield, most of them traveling to or beyond "where Watrous is now located on the East, Rosetown on the West, Rosthern on the North, and Bladworth on the South." The purchase price rose accordingly, ranging from \$6.50 to \$8.50 per ton.

James Leslie, the Dundurn rancher and bone-buyer, had "signed a contract with the Northwestern Fertilizer Company of Chicago" in which that concern agreed to take all of the skeletons he could obtain. This agreement ultimately brought him most of the bone trade of the region but it also nearly proved his undoing when, in late 1893, a financial panic hit the United States and the Chicago manufacturer had to close its doors. "At once the importing firm refused to accept the carloads of bones coming from Leslie but, there being no agent at Dundurn, the shipper was not getting the telegram instructions to stop deliveries." Uninformed about the fate of his buyer, Leslie continued to send bones to the mill's receiving yards. Soon, 35 carloads from Dundurn were resting in the Chicago railroad yards "with nobody willing to accept the responsibility of paying for the freight. After some weeks the Chicago company returned to operations and began taking the Saskatchewan bones, but Leslie's losses were heavy nevertheless."

Though Leslie was able to survive the depression of 1893, most of his competitors did not fare as well. Many dealers around Saskatoon were forced out of business, while others who could see that the supply of bones was nearly

The standard 35-foot freight car of the 1890's could hold somewhat more than 12 tons of bones, which was the minimum amount accepted for shipment by the Canadian Pacific railroad. Bone merchants normally hired a few metis for \$4 to \$5 to handle the loading. They would nail wooden slats inside the car door, enabling them to load the skeletons nearly to the roof. This scene, photographed by a man named Buell, took place on a western Canada railroad siding about 1890.

—Courtesy Glenbow-Alberta Institute, Calgary, Alberta



gone simply left the trade for more promising pursuits. But despite their inability to weather the economic slump, buyers in the Saskatoon vicinity made a respectable showing when better times ruled the market. From late 1890 until the month of the crisis, James Leslie shipped 750 carloads of bones from the district, with other dealers accounting for about 2,500 carloads more during the same three-year period. As the average freight car of the era carried 15 tons of bones and the bones of one bison weighed about 50 pounds when dry, the shipments from the Saskatoon area represented the remains of nearly 2,000,000 animals.

A party of metis bone collectors pose for the photographer at the Gull Lake, Saskatchewan, railroad siding sometime during the 1890's in this view by Trueman and Caple of Vancouver, B.C. Note the antlers being held aloft by the man at the center of the picture. A passage from Hugo MaGuire's "Reminiscences of Incidents in the Maple Creek, Gull Lake and Shaunavon, Saskatchewan areas," though unrelated, probably describes the scene quite accurately. "In 1896 a lot of the half-breeds were gathering buffalo bones in the south country and trailing to Gull Lake Station where they piled them up by the track and Charles Reid, merchant of Swift Current, shipped them."

—Courtesy Glenbow-Alberta Institute, Calgary, Alberta



Bone Processing Industries

The Michigan Carbon Works of Detroit was created in 1873 to destructively distill bones into animal charcoal. The product was in great demand in this country then as a material for filtering and purifying sugar syrup and most of the supply used by American refiners was imported from Europe. Realizing that immense quantities of bones were available in the western states, the company's organizers decided to enter the business and produce a domestic carbon.

From this modest beginning the Michigan Carbon Works soon expanded to manufacturing glue, fertilizer, neats foot oil and other chemicals from bones. Only a decade after its founding the concern was annually preparing about 5,000 tons of bone black, 4,000 tons of fertilizer and 150 tons of glue. The bulk of the bone supplies used were shipped in from the Great Plains.

By 1894 the company had become "unquestionably the largest industry of Detroit," producing 20,000 tons of fertilizer each year in addition to substantial amounts of other bone-derived products. The photographs on the opposite page, possibly taken a year later, show that not only was the firm's rank among local industries impressive, but its resource demands were equally profound. A trade publication, *American Fertilizer*, noted in February, 1896, that "several huge piles of bones are on the premises. One of these piles has just been photographed. It seems to be about 20 feet high,

20 feet wide and 300 feet long. The total amount of bones in stock last month was over 5,000 tons."

It was probably unusual for the Michigan Carbon Works to have such a huge supply of bones on hand, but by the early 1890's it was evident to those in the business that the supply of bison remains would soon be exhausted. In anticipation of this, many of the processors bought large reserves of buffalo bones while they were still available. The mountain of skeletons accumulated by the Detroit firm almost surely was a result of that practice. Within a few months the stockpile was gone and the company began using phosphate rock for fertilizer and bones from India for its other products.

Two other major buyers of buffalo bones in the Midwest were the Northwestern Fertilizer Company and the Empire Carbon Works of East St. Louis. According to George Back, president of the latter firm, about 70% of all bison bones that entered commerce were processed in the St. Louis area. His mill alone, according to available records, purchased "more than one and a quarter million tons" at a cost of about \$28,000,000. When the purchases of other companies are added, a sum of two million tons of bones, worth over \$40,000,000, is arrived at for the entire industry. The *Topeka (Kansas) Mail and Breeze*, in reporting on the business, claimed that the quantity of skeletons involved in the trade "would make a string of boxcars 7,575 miles long—enough to more than fill two tracks from New York to San Francisco."



-Courtesy Burton Historical Collection, Detroit Public Library, Detroit, Michigan

