

THE SCULPTURED LAND

"The Bad Lands grade all the way from those that are almost rolling in character to those that are so fantastically broken in form and so bizarre in color as to seem hardly properly to belong to this earth."

—Theodore Roosevelt

The badlands topography of the Little Missouri River Valley is the dominant natural resource of Theodore Roosevelt National Memorial Park. Numerous tablelands, buttes, and hills, ranging in elevation from 1,952 to 2,855 feet, compose its surface. Many creeks and streams, cutting soft strata into canyons, gorges, ravines, and gullies, lace its bottoms. Here the forces of nature have shaped a broken country of curious beauty that leaves few visitors unmoved.

The badlands stretch from the river to the headwaters of the creeks tributary to it. Most of the streams are so close together that the rough country along one merges into the rough country along the next, eroding a continuous strip of badlands along both sides of the river. Yet grass-covered plateaus lie amid some of the tributaries, and on the fringes the badlands cut into rolling plains of grass.

WIND AND WATER The geological processes of millions of years produced this arresting topography. Wind and water eroded a thick series of flat-lying sediments known as the Fort Union formation. This erosion is still going on, sculpturing ever-changing land forms.

In the North Unit of the park are great masses of blue bentonitic clay, which, when moistened, become soft and slip downward. In that unit too are impressive tilted slump blocks, formed when huge sections of the cliffs slowly dropped as their base eroded away.

Millions of years ago, during the Paleocene epoch, the rock layers of this region were generally deposited in streams, lakes, and swamps. The dense vegetation that later grew in places was also deposited in layers, in time forming beds of soft, impure coal, called lignite. You can see these layers on many eroded hillsides.

Sometimes the lignite beds catch fire from lightning or other natural causes and burn slowly for years. You can see one such burning seam on a side trip that starts near the South Unit's east entrance. A field exhibit at the spot explains the process.

These burning layers usually bake the nearby clay layers into a red, bricklike substance—locally called "scoria," or clinker. Outcrops of red scoria occur at many places in the park.

COTTONWOODS AND JUNIPERS Though the climate is semiarid, trees grow in favorable places. Dense stands of cottonwoods line the course of the Little Missouri River. Northern slopes, cooler and more moist than southern, support a woodlands type of vegetation. Several species of junipers, for example, are common. In great contrast, only semiarid plant types such as sparse grasses and cactus usually grow on southern slopes.

Common shrubs in the park include sagebrush, rabbitbrush, sumac, chokecherry, American plum, dogwood, and currant.

Along the trails in early summer are colorful displays of prairie rose, the State flower of North Dakota. Other plentiful wildflowers are phlox, pasqueflower, redmallow, coneflower, goldenrod, aster, and scoria lily.

PRONGHORNS AND PRAIRIE DOGS Animal life in the park is diverse, though some of the native mammals have disappeared from this area since Roosevelt's time. One of the larger mammals here is the fleet, wary pronghorn. A small herd of bison has been reintroduced.

Along the park roads are several "towns" of the black-tailed prairie dog. These quick-moving rodents, though they do not hibernate, sometimes stay underground all winter, living on fat stored up in the summer and fall.

The park is rich in birdlife. Ask at the visitor center for a bird checklist. Magpies, hawks, falcons, eagles, owls, woodpeckers, flickers, sparrows, larks, swallows, wrens, flycatchers, and many other common species are found here.

Be alert on the trails, and be careful where you put your hands when climbing during the summer. The prairie rattlesnake, while scarce, can occasionally be found in the park.

IN THE SOUTH UNIT look for these natural features:

Burning Coal Vein, believed to have been ignited by a natural cause in 1951. Here you can witness nature producing the type of rock known as "scoria," and the road will take you past many scenes that no doubt intrigued Theodore Roosevelt.

Wind Canyon, probably the best example in the Badlands of erosion accelerated by the force of wind. The view from the brink is nothing short of spectacular.

Petrified forests, or petrified stumps, exist at several locations within the park, ranging from a few inconspicuous specimens to groups with stumps of 3 or more feet in diameter and logs 5 or more feet long. These areas can only be reached on foot or by horseback.

Buck Hill is the highest, most prominent formation in the Painted Canyon region of the park. Here on the northeastern slope is one of this area's best stands of juniper and green ash. Here too is the best opportunity in the South Unit for a panoramic view of the intricate badlands scenery. This area is not accessible by car.

IN THE NORTH UNIT take the drive of about 13 miles along the northern edge to see the colorful strata, varied topographic forms, and weird erosional patterns carved by the meandering Little Missouri River. Grasses of the high plains and characteristic shrubs and trees will be of special interest. On the prairie next to the badlands rim you can see evidence of glacial erratic rocks deposited by a glacier that once blocked and changed the course of the Little Missouri.

Be sure to take the Caprock-Coulee Nature Trail, a ¾-mile self-guiding walk. At the end of the walk, you can either retrace your steps or continue for 4¼ miles on a trail that loops back to the starting point.

Along the way you may see a deer browsing in the tall grass or a porcupine devouring some delicious bark high up in a cottonwood. In the distance a coyote or two may be searching for food.

Here you will see the river in action and get an idea of how sediments are carried and deposited by running water. The banks of the river are constantly changing by being eroded in one place and built

up by deposition elsewhere. Though the river is frequently overloaded with more sediment than it can carry, it is probably still cleaning and deepening its channel.

The river plain also has a good lesson in plant ecology. Note that cottonwoods are the first to grow in the newly deposited sediments along the river's edge. They stabilize the soil and provide shade. This creates an environment suitable for less hardy trees like ash and elm, and eventually the ash and elm will crowd out the cottonwoods.

ABOUT YOUR VISIT To approach the North and South Units, east-west travelers can take U.S. 2 and 10. If traveling north-south, U.S. 85 leads to both units. This highway intersects U.S. 2 near Williston and U.S. 10 about 18 miles east of Medora. The Elkhorn Ranch site can be reached only by rough dirt road. Make local inquiry before attempting this drive.

The park is open all year, with spring, summer, and fall being the best seasons to visit it. When entering the South Unit, use the Medora entrance and make the visitor center your first stop. Here are exhibits that will acquaint you with the park's history and natural history. Located here too is Theodore Roosevelt's Maltese Cross cabin.

Camping and picnicking. There are campgrounds and picnic grounds in both units. Campgrounds can accommodate both tents and trailers, but utility connections for trailers are not available. Firewood, water, and restrooms are provided. Meals, supplies, and overnight lodging are not available in the park but may be obtained in nearby towns.

Naturalist services. During summer park naturalists conduct evening programs in the campgrounds. You can obtain information about these programs at the visitor center or entrance stations.

Entrance Fees are collected under the provisions of the Land and Water Conservation Fund Act of 1965. The Federal Recreation Area Entrance Permit will admit the driver and passengers of a private automobile. Individual daily and seasonal permits may also be purchased. Fees are not charged for persons under 16 years of age.

ADMINISTRATION Congress established Theodore Roosevelt National Memorial Park in 1947. It covers about 110 square miles in three separate units: one near Medora, a second near Watford City, and the third, the Elkhorn Ranch site, along the Little Missouri River midway between the other two. The park is administered by the National Park Service, U. S. Department of the Interior.

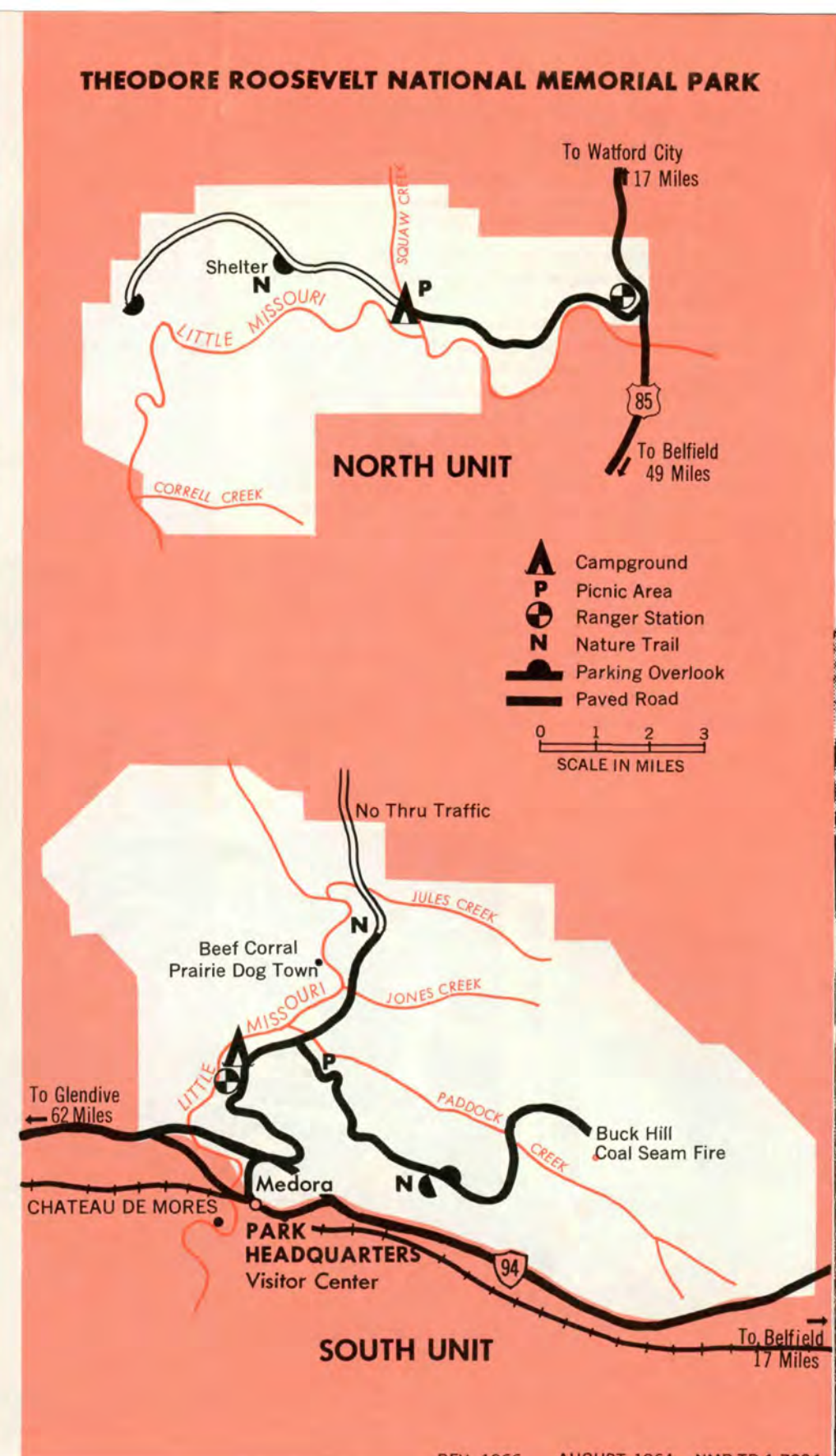
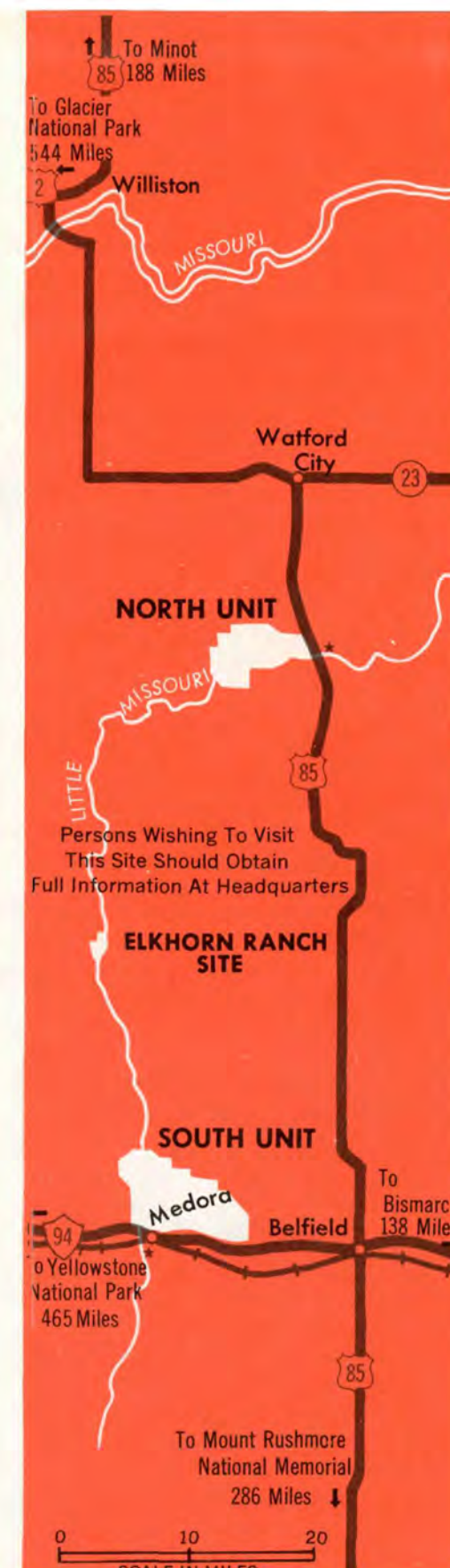
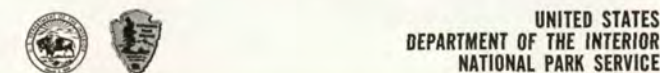
The National Park System, of which this park is a unit, is dedicated to conserving the scenic, scientific, and historic heritage of the United States for the benefit and enjoyment of the people.

A superintendent, whose address is Medora, N. Dak. 58645, is in immediate charge of the park.

THE DEPARTMENT OF THE INTERIOR—the Nation's principal natural resource agency—has a special obligation to assure that our expendable resources are conserved, that our renewable resources are managed to produce optimum benefits, and that all resources contribute to the progress and prosperity of the United States, now and in the future.

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington, D.C. 20402 - Price 10 cents

REPRINT 1966 GPO : 1966 O-217-567



THEODORE ROOSEVELT NATIONAL MEMORIAL PARK, NORTH DAKOTA



REV. 1966 AUGUST 1964 NMP-TR-1,7004

"If it had not been for what I learned during those years I spent here in North Dakota, I never in the world would have been president of the United States."

Theodore Roosevelt, *Fargo Forum*, September 5, 1910.

HERE in western North Dakota, in a "land of vast silent spaces," eroded by centuries of running water, are memorialized Theodore Roosevelt's contributions to the conservation of this country's natural resources and his part in developing the northern open-range cattle industry. Plants, animals, and landscape remain much the same as Roosevelt saw them on his first visit in 1883.

No other President has been as closely identified with the Dakotas and Great Plains. From his experience in the Little Missouri Badlands and throughout the West, Roosevelt came to appreciate the vital need for a national conservation ethic. Before becoming President, he helped organize the Boone and Crockett Club, dedicated to preserving America's big game. He also warned that the United States was exhausting its forest supplies more rapidly than they were being produced.

As President he championed the conservation of America's scenic, natural, and historical resources. Among the significant legislation passed during his administration was the Antiquities Act of 1906, which provided that natural and historic areas of exceptional merit could be set aside for posterity by Presidential proclamation. Under this act Roosevelt established the first 16 national monuments. "When the historian . . . shall speak of Theodore Roosevelt," wrote Robert M. LaFollette in appraisal, "he is likely to say that he did many notable things, but that his greatest work was inspiring and actually beginning a world movement for staying territorial waste and saving for the human race the things on which alone a peaceful, progressive, and happy life can be founded."

"GRAND, DISMAL AND MAJESTIC" When the first explorers and trappers penetrated this region in the early 1800's, they encountered Crow, Cheyenne, and Gros Ventre Indians living along the Missouri River from the mouth of the Knife River to the mouth of the Yellowstone. For these tribes the Little Missouri basin, just southwest, was a frequent hunting ground.

White men probably first saw the Little Missouri Badlands in 1804. That year the Canadian *voyageur* Jean Baptiste LePage descended the Little Missouri River and joined the Lewis and Clark Expedition in winter camp at Fort Mandan, northwest of Bismarck. For the next two decades a number of trapping and exploring expeditions passed the mouth of the Little Missouri on their way farther west, but left no records of probes into that river's upper reaches.

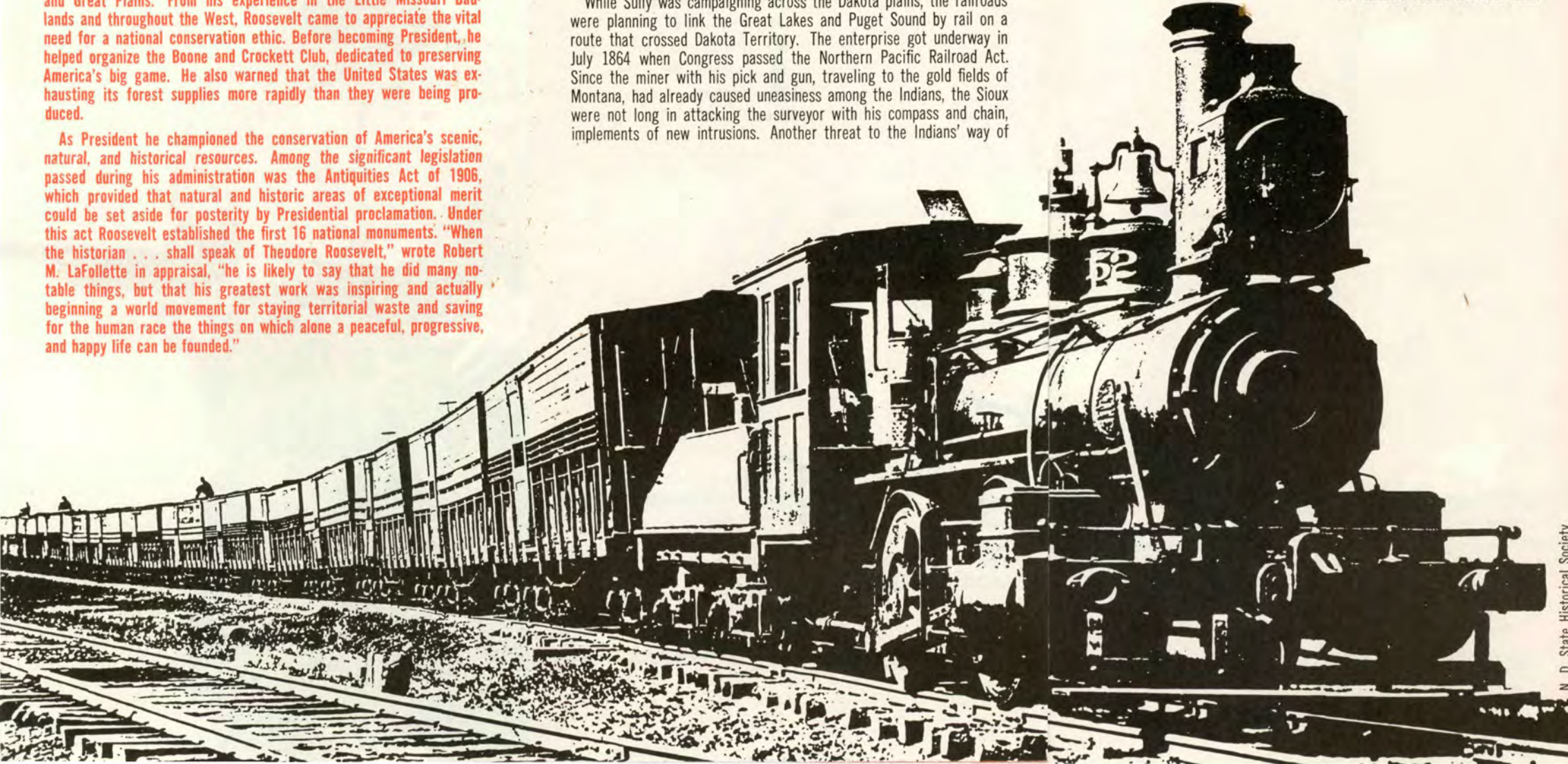
The region first came to the attention of the American people through the campaign of Brig. Gen. Alfred Sully against the Sioux in 1864. It was during this campaign that Sully, according to tradition, said that the Badlands looked like "hell with the fires out." In his official report he described the country as "grand, dismal and majestic."

While Sully was campaigning across the Dakota plains, the railroads were planning to link the Great Lakes and Puget Sound by rail on a route that crossed Dakota Territory. The enterprise got underway in July 1864 when Congress passed the Northern Pacific Railroad Act. Since the miner with his pick and gun, traveling to the gold fields of Montana, had already caused uneasiness among the Indians, the Sioux were not long in attacking the surveyor with his compass and chain, implements of new intrusions. Another threat to the Indians' way of

life was the slaughter of the bison herds by railroad construction farther south. It was not surprising, then, that the Indians tried to prevent construction of the Northern Pacific rail line west of the Missouri River.

Through the middle 1870's the Sioux were strong enough to resist the white man's westward movements. Railroad survey parties were sometimes halted by Indian attacks, causing the army to furnish escorts. Yet the main hold-up of construction beyond Bismarck was the bankruptcy of the Northern Pacific in 1873. By the time of the railroad's reorganization in 1879, Sioux power, except for sporadic attacks, had been broken, and the push now resumed.

Link to eastern markets:
the Northern Pacific livestock train.



N. D. State Historical Society

T. R.'s brands, registered in the *Stockgrowers Journal*, Miles City, Mont.

CHIMNEY BUTTE RANCH.
THEODORE ROOSEVELT, Proprietor.
FERRIS & MERRIFIELD, Managers.



P. O. address,
Little Missouri,
D. T. Range,
Little Missouri,
8 miles south
of railroad.

as in cut
on left
hip and
right
side, both or
either, and

down cut dewlap.
Horse brand, on left hip.



ELKHORN RANCH.
THEODORE ROOSEVELT, Proprietor.
SEAWALL & DOW, Managers.

P. O. address, Lit-
tle Missouri, D. T.
Range, Little Mis-
souri, twenty-five
miles north of rail-
road.



as in cut, on
left side, Δ
on right, Δ
or the re-
verse.

Horse brand,
on right or
left should-
er.



CONCORD CATTLE COMPANY.

T. R.'s WESTERN YEARS Roosevelt first came to the Badlands in September 1883 to hunt bison and other big game. During his visit he spent several evenings discussing with ranchers the prospects for the cattle industry in the Badlands.

At St. Paul, Minn., on September 27, 1883, Roosevelt contracted with Sylvane Ferris and William Merrifield for the placement of some 400 cattle on the Chimney Butte Ranch, named for a nearby landmark. This ranch later became known as the Maltese Cross Ranch after its distinctive brand. (In 1959 the ranch cabin occupied by Roosevelt was moved from the State capitol grounds in Bismarck to a site next to the Medora visitor center.)

Returning to New York, Roosevelt was elected to the State Assembly in November 1883. But 3 months later personal tragedy struck. Within a single night, both his wife and mother died. Stunned by the blow, Roosevelt nevertheless continued as a legislator. In June 1884 the now restless Roosevelt returned to the Little Missouri.

Roosevelt's cattle had successfully endured the winter of 1883-84, so he bought another thousand head and established his own ranch, the Elkhorn, about 35 miles north of Medora on the left bank of the Little Missouri. (Neither the ranchhouse nor any other original buildings remain today, but an accurate reproduction of the ranch is on display in the visitor center at Medora.)

Roosevelt's ranching operations prospered until the winter of 1886-87 when, as one writer said, "nature and economics seemed to conspire together for the entire overthrow of the open-range cattle industry." The *Bismarck Tribune* described the winter as "in many respects the worst on record." The exact extent of Roosevelt's losses is unknown, but his biographers believe that he lost about 60 per cent of his cattle.

In the Badlands Roosevelt found a new life, seasoned with hardship and adventure. "The country is growing on me more and more," he wrote his sister. "It has a curious, fantastic beauty of its own." Later he was able to boast: "I have been three weeks on the round-up and have worked as hard as any of the cowboys . . . Yesterday I was eighteen hours in the saddle—from 4 a.m. to 10 p.m.—having an hour each for dinner and tea. I can now do cowboy work pretty well."

Roosevelt spent short periods in the Badlands during the late summer or early autumn of 1887, 1888, 1890 1892, 1893, and 1896. But these were also years of political success, making it increasingly difficult for him to give attention to his ranching ventures. By 1897 his herds had so dwindled that he decided to sell out. Before leaving for Cuba in 1898 with the "Rough Riders," Roosevelt sold his cattle interests to Sylvane Ferris. His ranching losses in the Badlands totaled over \$20,000, but it was money well spent, for his health had improved remarkably and he had tested himself as a man.

THE MARQUIS DE MORES A contemporary, and some say a rival, of Roosevelt in the Badlands was the Marquis de Mores, a wealthy French nobleman. The Marquis founded the village of Medora, naming it for his wife. He attempted to establish a meat-packing industry and cattle empire in the Badlands. But these enterprises failed, and the Marquis left this region after a few years for other ventures abroad. His statue now stands in Medora, and the Chateau de Mores, a historic site maintained by the State of North Dakota, is situated across the river from the town.

"We knew toil and hardship and hunger and thirst; and we saw men die violent deaths as they worked among the horses and cattle; but we felt the best of hardy life in our veins, and ours was the glory of work and the joy of living."



THEODORE ROOSEVELT

NATIONAL MEMORIAL PARK,
NORTH DAKOTA