TEDDY ROOSEVELT UP THE LITTLE MISSOURI RIVER

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Probably one of the more famous nonpaleontological visitors to traverse through the type area outcrops of the Bullion Creek Formation and the brackish tongues of the Cannonball Formation, and view the stratotype of the Slope Formation, was the future President of the United States of America, Theodore Roosevelt. In September of 1883, Roosevelt stepped off the railway platform at the collection of a few buildings known as Little Missouri. Medora, the better known town site to survive Little Missouri, was then only recently under construction by the Marquis de Morés.

Shortly after his arrival, with guide Joe Ferris, Roosevelt headed south to hunt buffalo. As is easily imagined, "nowhere was there any sign of human life, save for an almost invisible wagon trail zigzagging from side to side of the crazily meandering [Little Missouri] river...They had been traveling south steadily for almost an hour before Roosevelt saw the first settler's log house, near the mouth of Davis Creek..." known as the Custer Trail Ranch, "...named after the doomed colonel who had camped there in 1876" (Figure 1) (Morris, 1979, p. 211, 212). Their camp was located approximately in sec. 10, T. 139 N., R. 102 W. (Chimney Butte Quadrangle, 1979), not far from East River in western Billings County.

"Seen by Roosevelt in the gloom of early evening, it must indeed have seemed like a landscape of death. There were pillars of corpse-blue clay, carved by wind and water into threatening shapes; spectral groves where mist curled around the roots of naked trees; logs of what looked like red, rotting cedar, but which to the touch felt petrified, cold, and hard as marble; drifts of sterile sand, littered with buffalo skulls; bogs which could swallow up the unwary traveler—and his wagon; caves full of Stygian shadow; and, weirdest of all, exposed veins of lignite glowing with the heat of underground fires, lit thousands of years ago by stray bolts of lightning. The smoke seeping out of these veins hung wraithlike in the air, adding a final touch of ghostliness to the scene. Roosevelt could understand why the superstitious Sioux called such territory Mako Shika, 'land bad..." (Morris, 1979, p. 212).

Roosevelt's first night was spent at the Maltese Cross Ranch (later to be Roosevelt's brand), sacked out on the ground in the "small log hut in a mile-wide valley" (Morris, 1979, p. 213). Traveling from Medora, Roosevelt witnessed the numerous petrified stumps common to the Bullion Creek Formation, which is well exposed on the steep river bluffs (see Fastovsky and McSweeney, 1991). The results of spontaneous lignite burns are in evidence everywhere in the valley drainage. The caprock of many ridges is the clinker produced by the burn of the H T Butte lignite, representing the contact between the Bullion Creek and Sentinel Butte Formations. The smoldering of burning lignite can be observed at sites such as "Burning Coal Vein" park along the north edge of Slope County (accessed from U.S. 85). The "caves," usually
representing tunnels produced by rivulets in semiconsolidated sediments, often occur along lines of weakness produced by slumping bluff faces. The Maltese Cross Ranch was located in about sec. 21, T. 139 N., R. 102 W. (Chimney Butte Quadrangle) in a relatively straight reach almost a mile wide.

"In the clear light of early morning [Roosevelt] could see that the Bad Lands were neither hellish nor threatening, but simply and memorably beautiful. The little ranch house, alone in its bottomland, commanded a magnificent view of westward rolling buttes. There sandstone caps broke level: flat bits of flotsam on a tossing sea of clay. The nearer buttes, facing the river, were slashed with layers of blue, yellow, and white. In the middle distance these tints blended into lavender, then the hills rippled paler and more transparent until they dissolved along the horizon, like overlapping lines of watercolor. Random splashes of bright red showed where burning coal seams had baked adjoining layers of clay into porcelain-smooth 'scoria.' Thick black ribs of lignite stuck out of the riverside cliffs...Their proximity to the Little Missouri River told the whole geological story of the Bad Lands. Here two of the four medieval elements—fire and water—had met in titanic conflict. So chaotic was the disorder, wherever Roosevelt looked, that the earth's crust appeared to have cracked under the pressure of volcanic heat. Millions of years of rain had carved the cracks into creeks, the creeks into streams, streams into branchlets, the branchlets into veinlets. Each watercourse multiplied...until it seemed impossible for the pattern to grow more crazy" (Morris, p. 213-214).

Although poetically contrived, representing rocks of nonvolcanic origin, and a chronology of uncertain duration, Roosevelt was in the badlands to escape the rush of New York politics, to test his mettle and absorb, almost mystically, the frontier. As Roosevelt and Ferris forded and reforded the Little Missouri River, late that day they reached their destination, the Lang Ranch at the mouth of Cannonball Creek, which was then known as Little Cannonball Creek (Putnam, 1958). Cannonball Creek empties into the Little Missouri River in sec. 29, T. 135 N., R. 106 W. (Pretty Butte Quadrangle, 1980). The Lang Ranch would become the cattle ranch known as the 777 (at the mouth of Horse Creek) (Slope Saga Committee, 1976) and, later, the Brown Ranch, the hospitable hosts of many a wandering geologist and paleontologist. The strata exposed along Cannonball Creek includes the Cannonball lignite (of Hares, 1928), which represents the formational contact between the Hell Creek and overlying Ludlow Formations (see Hartman, 1993, this volume). The Cretaceous-Tertiary boundary is at an horizon near the base of the lignite.

Roosevelt's search for his elusive buffalo resulted in his experiencing all of the better elements faced by geologists in this well-traveled section of the Little Missouri River.

"He slept enough, at any rate, to be up at dawn. The sound of rain drumming fiercely on the cabin's roof did not deter him from beginning his buffalo hunt immediately. Joe Ferris protested they should wait until the weather cleared, and the Langs warned that he would find the clay slopes round about too greasy to
climb. But 'he had come after buffalo, and buffalo he was going to get, in spite of hell or high water.' At six o'clock Roosevelt and Ferris mounted their horses and rode east into a wilderness of naked, streaming hills. All day the rain continued. The clay slopes, slimy to begin with, dissolved into sticky gumbo, and finally into quagmires that sucked at the horses' hooves, and squirted jets of black mud over the ridges... [Roosevelt] continued to grin through four more days of ceaseless rain. Joe Ferris protested every morning, and was on the point of caving in every evening, but Roosevelt seemed incapable of fatigue or despair" (Morris, 1979, p. 216, 217).

One thing seems clear, Roosevelt, with his naturalist leanings and determination, would have made a fine field paleontologist. Roosevelt eventually shot his buffalo and, in doing so, wandered about the type area of the Slope Formation exposed in T. 135 N., R. 105 W., Slope County (see Hartman, 1993, this volume). It seems too bad that Roosevelt had to ride into Montana to get his trophy.

Notes and Acknowledgments

Edmund Morris (1979) is quoted by permission of the Putnam Publishing Group. Mr. Morris provides an excellent visualization of the badlands of the Little Missouri River and how Roosevelt might have felt on his journey through what was considered by Roosevelt country to stir the blood. As always, I very much appreciate the thorough copy editing of Jane Russell (Energy & Environmental Research Center). All map references are to U.S. Geological Survey 7.5-minute topographic maps.

Figure Explanation

Figure 1 Explanation. This map of the drainage of the Little Missouri River south of Medora includes information of both an historic and modern nature. The placement of ranches, Little Missouri, and route of the Northern Pacific Railroad (NPRR) is circa 1883 and is derived from Putnam (1958) and Hartman (1984). Other abbreviations include Theodore Roosevelt National Park (TRNP). Letters A and B in T. 135 N., R. 105 W. represent the stratotypes of the Slope Formation (A), and Three V (A) and Boyce (B) Tongues of the Cannonball Formation (see Hartman, 1993, this volume).

References


Figure 1
Map of the Little Missouri River Badlands South of Medora
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