
Stop 53. Badlands

Arrival datetime: Wednesday, July 17, 6:00PM
Sites visited: Mount Rushmore National Memorial,
National Woodcarving Museum,
Geology Museum, Badlands National
Park
Accommodations: Cedar Pass Lodge
States traveled: South Dakota

On the road through the park to Mount Rushmore, there were several places where you could see the white faces of the Presidents from a few miles away. Despite the distance, the expressions on the faces were clear, stern but wise.. Most of the glimpses were framed by

trees, and one was framed by a single lane square tunnel blasted from granite. The statue commands attention, so we stopped continuously at these compelling visions. We did not reach the monument until 10:00AM



Mount Rushmore.

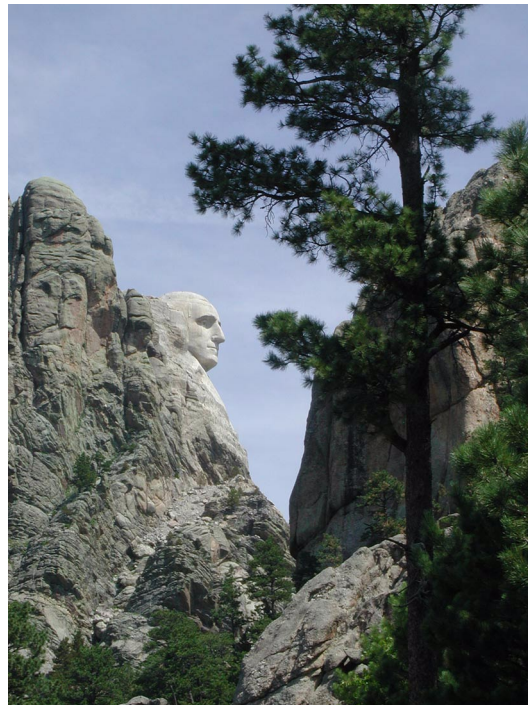
The light was still very good, the facial expressions were no less realistic from the viewing platform a few hundred feet below. We wandered about until joining a 10:30AM Ranger-led walk along the Presidential Trail to the statue's base. The Ranger described how the statue was the idea of a marketing professional employed by the State of South Dakota. The man happened to have once been a campaign manager for Teddy Roosevelt. He managed to get the federal government to kick in funding and also to get a renowned artist to accept the commission. The Ranger went on to describe how the object and location of the statue was debated. The State had wanted it along a major highway, but the artist could find no good rock there. She explained how even the current mountain lacked enough good granite in strategic locations to properly finish the statue. That fact, and the fact that the artist died before the work was finished, combined to leave the statue forever unfinished. However, it did accomplish its aim as it brought visitors to the state, and, consequentially, it brought the Ranger her summer job. She was a schoolteacher the rest of the year.

We toured the artist studio to see the model of what the statue would have looked like had it been finished. We saw part of the film, but having got the real story from the Ranger, we grew bored with the whitewashed version and moved on. A "Blackhills and Badlands Association" map had enticed us to visit two museums in the area: a Woodcarving Museum, and a Geology Museum.

The Woodcarving Museum turned out to be the collected life's work of a man who created animated woodcarvings. His most



Artist's model of Mount Rushmore.



Mount Rushmore side view.

famous perhaps is the Presidential exhibit at Disney World. This collection was not uninteresting, but the Presidential exhibit at Disney World is much better. The Museum had none of the type of woodcarving that we prefer, smooth varnished objects d' art.

The Geology Museum was in the South Dakota School of Mining. It was by far more comprehensive and fascinating. We



Animated woodcarving exhibit. often had been fascinated by the composition of the rocks on our travels, and this place had unusual rock samples from every part of the world. It also had reconstructed fossils skeletons and gold nuggets. It easily met its tourist map description as “a must for rock hounds.”

From the Geology Museum, we headed east. We had thought we had left the land of sandstone buttes, but here we reentered it. The only difference was that there was grass growing on some of these buttes. It was not meadow grass, but prairie grass. It seemed to grow only on the shorter, flatter buttes, leaving the tallest buttes and stiff peaks to their sandstone tiers. The tiers were all a dusty tan, though some were blushed with pink and others tinged with white. Now and then, there were gray green domes or slopes. We had arrived at the Badlands.

Cedar Pass Lodge had finally answered the phone the morning we left home. We must have called six times since the previous autumn. Once we got someone who told us to call a different number and ask for Glenda. That number never answered either. When we finally did make the reservation on April 1, we were

unable to get a confirmation number. But we were assured we would receive one in the mail, and until then, we could just drop the name Glenda. As it turned out, we did not need a number or Glenda to check in. It looked like the place was empty and had just opened for the season. They were in still the process of stocking the gift shop.

Our room was full of flies. Michael spent a good fifteen minutes killing them all with the fly swatter hanging in the room. Luckily, there was air conditioning so he did not have to open the dirty windows and patch the ill-fitting screens. It was late, but we managed to hit some overlooks on the scenic loop drive before sunset.



Sunset in the Badlands.

Jennifer had now been without a phone in the room for almost a week, but her Blackberry occasionally kicked in as we passed close to big cities. Somehow, she had gotten some email to answer on her Blackberry, but as in most park, there was no Blackberry or cell phone signal with which to answer. The only phone was a pay phone outside of the lodge’s restaurant, so the morning found her leaning against the front of the building,



A morning Ranger Prairie walk.

chatting with people from work in the heat while Michael ordered breakfast.

We got to the Visitor Center in time for the morning Ranger Prairie walk. We learned that the Badlands are called the badlands because since they were a landscape of plateaus, mesas, and buttes, with no common floor. Pioneers could not get through them with wagons. Pioneers had also named Cedar Pass. They mistook the juniper that dotted the oasis for cedar, with which they were much more familiar. We also learned that the grass on top of the buttes actually held them together, just like the yuccas sometimes hold the sand together at the tops of dunes in New Mexico. We saw close up examples of these “sod tables” of all sizes.

Next, we attended a Ranger-led “Geology Hike.” We learned that during the dinosaur age, the land here had been underwater, so it is mostly composed of silt turned to sandstone. During those times when it was dry, stream beds ran through it depositing stones, distant volcanoes deposited ash, and animals died in fossil-friendly soil. The occasionally deposited layers formed rock that was harder than sandstone so slower to erode. The sandstone eroded through several layers of the harder rock, creating a landscape where all the exposed rock is so crumbly you can dust away rock layers with your fingers. In some areas hoodoos and spires have formed, looking like city skylines or pointy-topped turrets from the distance. The Ranger told us that this area, like Rocky Mountain National Park,

is sitting on top of a layer of magma that is slowly rising. This adds to the depth of the canyons between the peaks of harder rock.

We extended the geology hike for another mile by taking a different path from the parking area to which the geology hike returned. There was a “Notch” in the peak we climbed, through which we saw sweeping overlooks of the White River Valley to the South and several rows of eroded buttes to the North. We then drove along the Badlands Loop Road. It displayed more breadth and depth of the views to the south. All the exposed rock we had so far seen was horizontally striped with

slightly different hues of tan or dusty pink, very beautiful if you like stripes.

We stopped at a fossil exhibit where various mammal fossils were displayed where they were found, protected by clear plastic domes. Most were in the pig family. Both Rangers had told us, “fossils were everywhere.” So we hiked up some surrounding mounds to see if we could find any. We had learned from the Rangers that there were no limitations on where you could walk or what you could examine in the park. The only rule was the “take only memories, leave only footprints” motto. The reason why the “don’t destroy the natural environment” rules here were absent was that the entire top layer of this



View of the badlands from the Notch.

environment eroded away every year anyway. It was impossible for a human to do permanent damage without heavy equipment. If we thought a piece of white rock might be a fossil, we could dust the soil on top of it away without fingertips, and every time, what we thought was a rock would crumble away as well. We found no fossils but did notice multi-colored rocks on the white sand between them. They looked like those you would find at the bottom of a stream, though they had rougher edges.

We continued our drive, next coming across yellow, gold hued mounds of sand with red blotches rather than stripes. The Ranger at the Geology Hike had told us we would see them, but they were bigger and brighter than we had expected. Jennifer walked on a few of the gold mounds and some red ones side by side. She picked up handfuls of the dirt beneath her feet and it dissolved into dust even more easily than that of the fossil beds.



Jennifer walking on gold and red mounds.

Our next stop was a paleontology excavation in progress, nicknamed the “pig dig” for the primary type of prehistoric animal found in the park. This exhibit buzzed with excitement. A professor was directing a graduate student

on the finer points of chiseling out a pig skull. The firm red skeleton was surrounded by crumbly tan sandstone. Numerous other bones surrounded the skull. Neatly labeled plaster cases bore evidence that these were not the first bones to have been uncovered. Six or so more graduate students and one visiting professor were hanging about watching or waiting for the professor to examine a bit of their work. A three-foot high, five-foot long model of the animal they were excavating was displayed on the edge of the pit.

Our Geology Hike Ranger was there watching the dig. He explained the roles of all the players and how they mapped the site in three dimensions in order to properly label the bones and reassemble them when they arrived at the University. We told him how much we appreciated the yellow mound he told us about. He had us fill out a comment card on him for the National Park Service.

We were taking pictures with our digital camera. Jennifer asked the supervising professor if he would like copies of them via email. He happily gave us his email address. Then he called us into the pit to show us an exciting new discovery. Just that day, they had discovered a tooth and part of a jaw. It appeared to be of a species similar to the one they were excavating. But its size indicated that this newly discovered animal was three times the size of the one they had already mapped out. We returned the favor of sharing the discovery by taking pictures of it.

Though it was still extremely hot, 101°, the sky had started to get cloudy and a storm threatened. A similar event had



Exciting new discovery, a tooth (left) and part of a jaw (right).

occurred in the morning. But to the disappointment of the locals, no rain came at either time. It had not rained since July 4th and then only $\frac{1}{4}$ inch. The loop road had turned to dirt, but we bravely continued despite the threatening rain. We again saw prairie dogs and bison.

Leaving the dirt road at the northwest park entrance, we went to dinner in the neighboring town of Wall. We stopped in Wall Drug to experience the famous

tourist trap first hand, congratulating ourselves on only buying a Wall Street Journal. That is, until we realized that the Journal we had bought was 3 days old. The best bet for dinner looked like a diner, then Dairy Queen for desert. We drove back into the park on the paved Pinnacles entrance, stopping at an overlook here and there to take advantage of the different lighting provided by setting sun. Yet all hues were still faded and dusty.

Miles traveled: 271
Arrival datetime: Wednesday, July 17, 6:00PM
Departure datetime: Friday, July 19, 8:50AM
Departure weather: 79° Sunny