

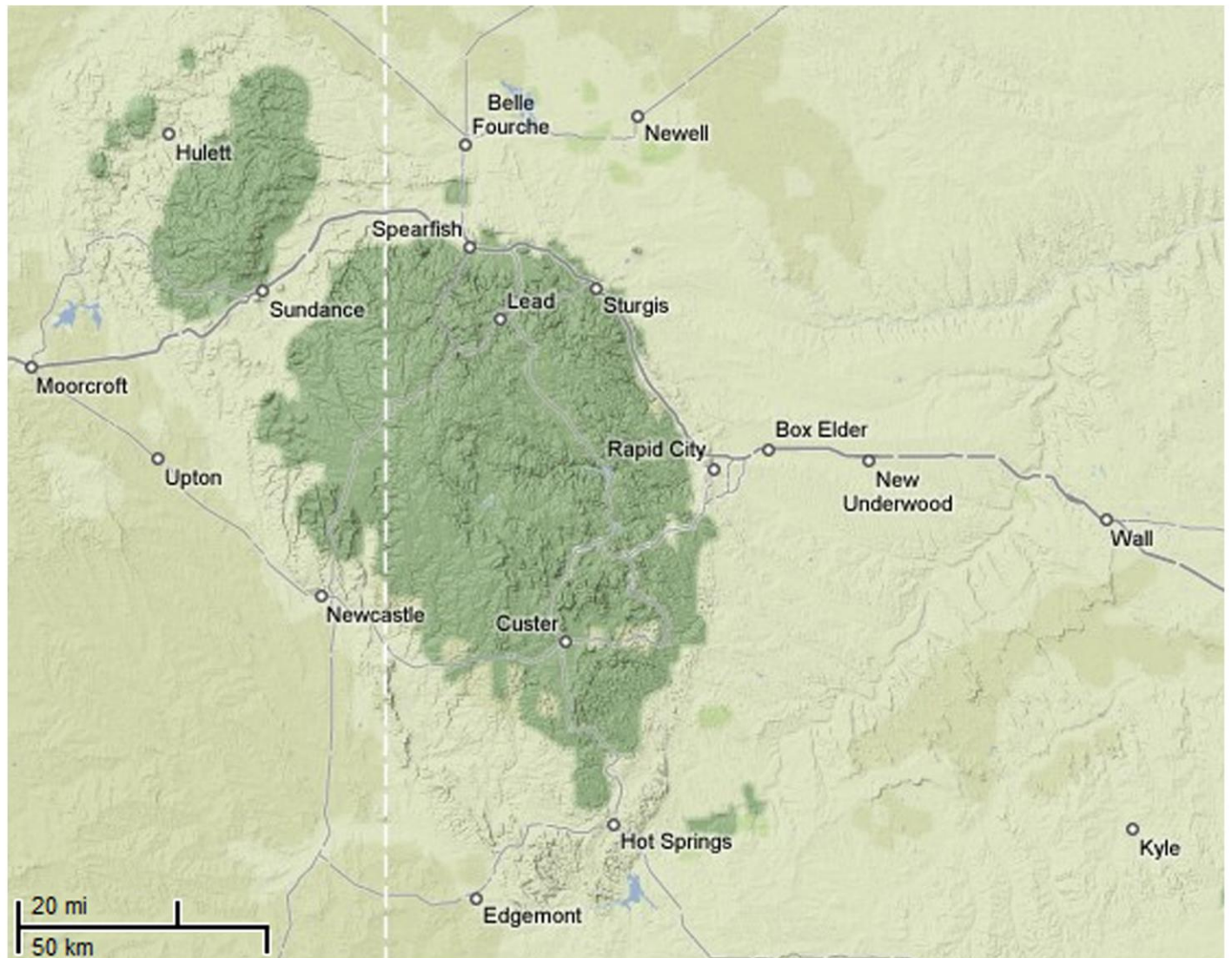
Sarah and Mike Wander the Black Hills and Big Horn Mountains



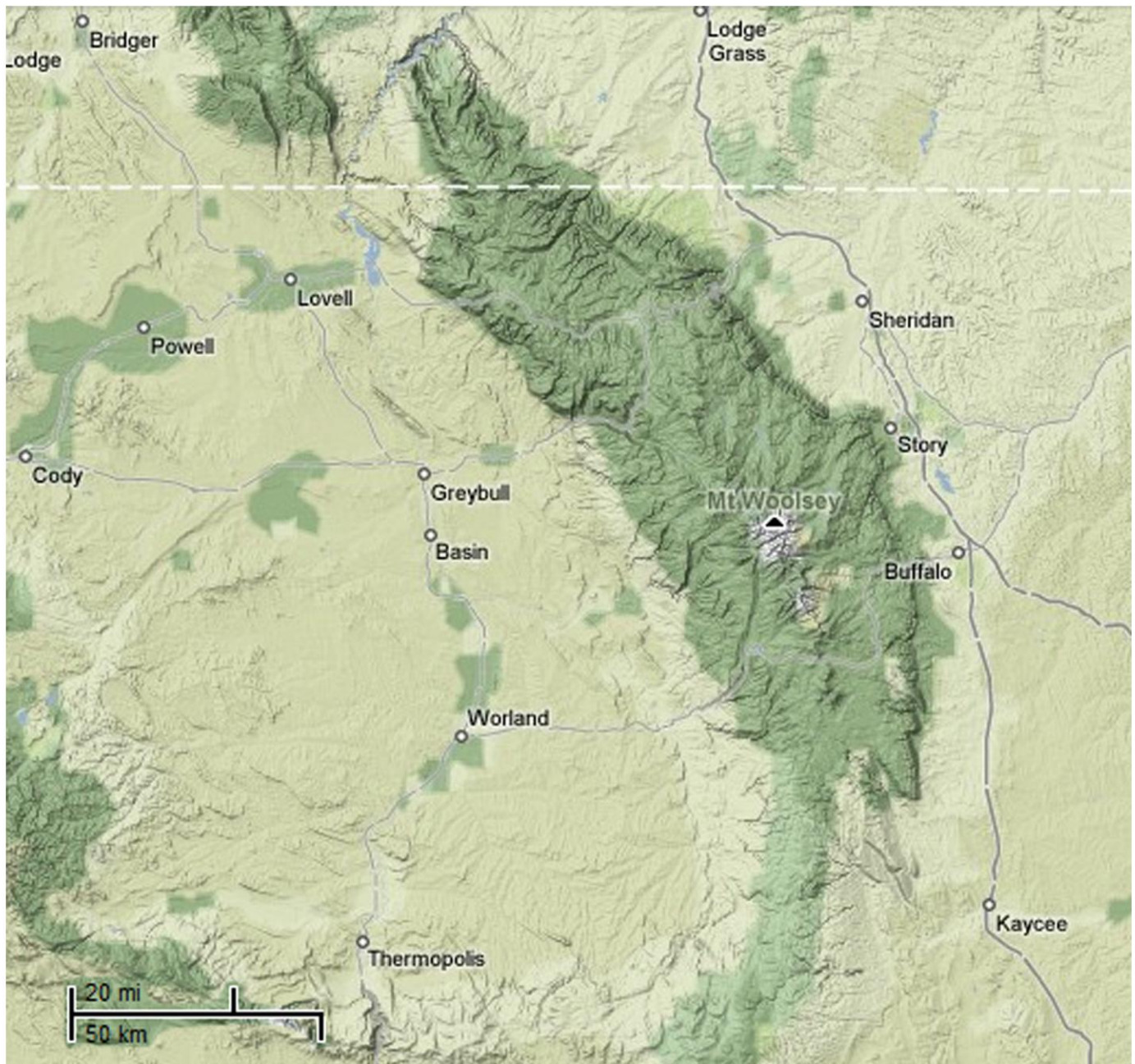
2009



A general outline of the trip. From Clinton and back we went over 3000 miles.



The Black Hills. Custer State Park is located near Custer and the Badlands are just south of Wall (the home of Wall Drug).



The Big Horn Mountains. About 8 miles north of Sheridan Highway 14 heads west. The highway splits in the middle of the mountains and you can take 14 to Greybull, or 14a Lovell. North of Lovell and just over the border into Montana are the Pryor Mountains. Two years ago Sarah and I did a dinosaur dig in Thermopolis but never made it over to the Big Horns.

21 July 2009: Mitchell, South Dakota



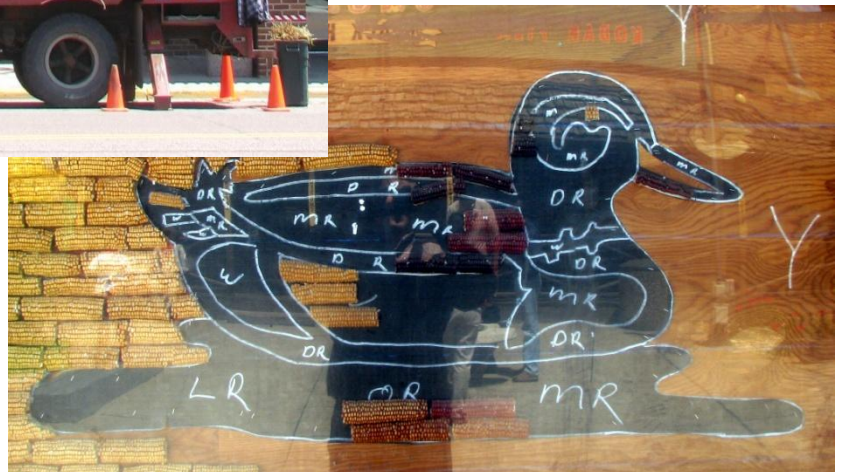
The World's Only Corn Palace! The theme this year is "America's Destinations" and take special note that the first destination featured (left side) is the World's Only Corn Palace!



Sarah meets the Big Ear!



Above: "Building" the Palace
 Right: A demonstration on how
 the Palace is decorated. After
 the ear is cut and shaped to
 fit the area, it's attached with
 a nail gun.





The World's Only Corn Palace is a large building where they have concerts and basketball games. When these activities aren't going on, the World's Only Corn Palace exists to sell souvenirs about the World's Only Corn Palace.



Under the tent on the left, workers prepare the shucks and corn that will be used to complete the murals on the front and side of the building that is the World's Only Corn Palace.

Wall, South Dakota

We got onto I-90 at Sioux Falls and began seeing signs for Wall Drug. Each was unique and highlighted one or several of the aspects of the store. Film, books, hats, boots, a T. rex, 5¢ coffee, free coffee and donut for honeymooners, free ice water, as seen in Time Magazine, fossils, silver dollar collection, on and on for 400 miles. Amazingly we never took a picture of any of the signs!

The Wall Drug store, in the town of Wall, the name of which commemorates a prominent geologic feature, rose to fame after they began to offer free ice water to travelers headed to the newly opened Mount Rushmore. The store itself now occupies all the shops along an entire block in downtown Wall. They have recently added a “back yard” nearly doubling the size of the store. Here are a few images from within. Sarah and I stopped and had supper. I drooled over many wonderful toys and fossil replicas.



Sarah outside the last shop in the Wall Drug complex. This is where you go if you actually want your prescription filled.



One of the main avenues.



The book store and a lady who needs to get her glasses checked.



The rock and fossil shop at Wall Drug.



Sarah riding a jackalope!

22 July 2009, Rapid City, South Dakota

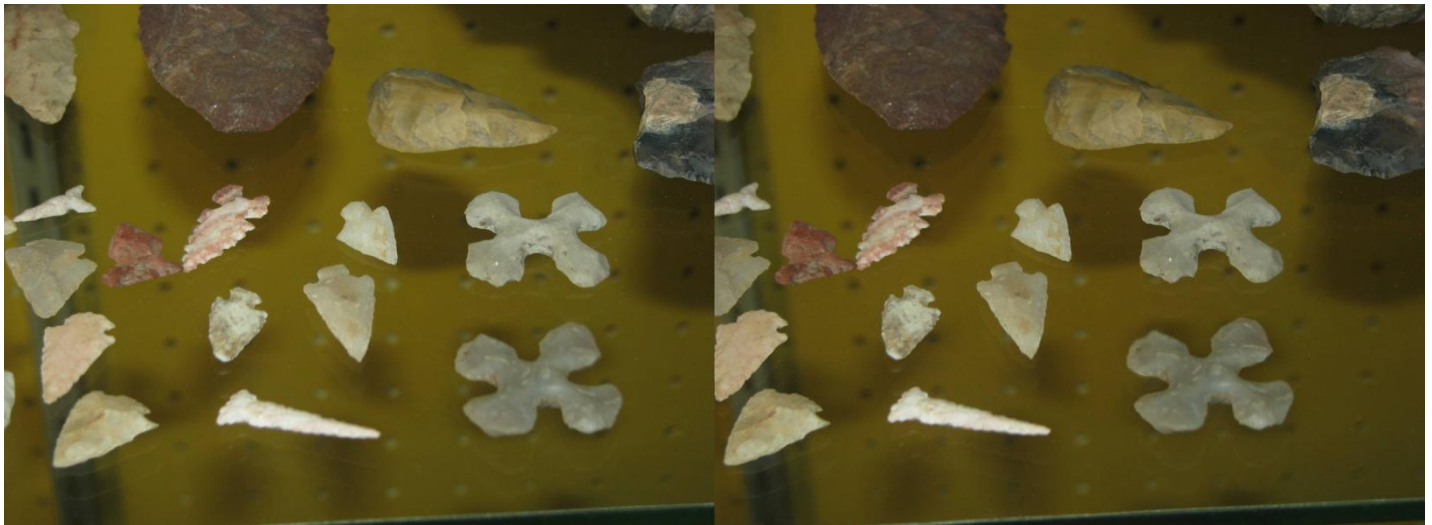


Our first stop was the Petrified Forest, which, in case you were worried, is Family Approved by the Black Hills, Badlands, and Lakes Association.

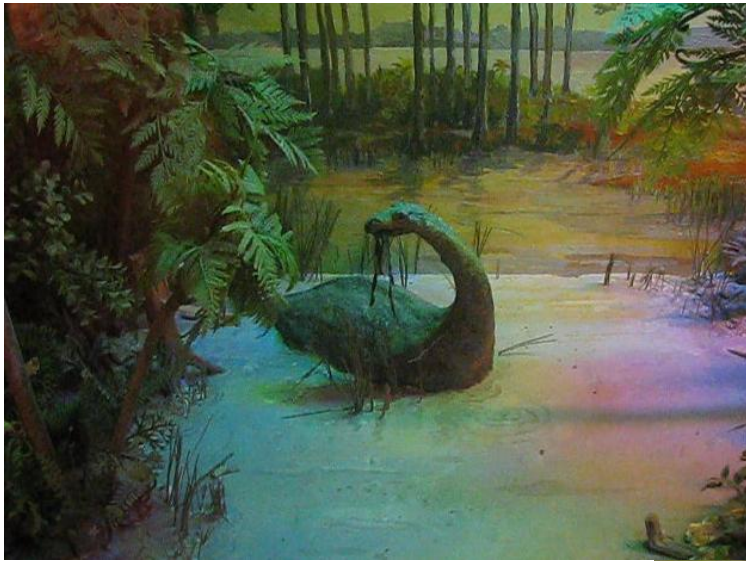




Our tour began with a video which was shown in a nice room laden with the smell of cleaner solution. The black hills represent a dome structure that was uplifted long ago. The analogy used in the video is to imagine many layers of blankets with a fist pushing them up. This uplift has weathered exposing the older rocks at the top/center of the dome and younger rocks as you travel down/outward.



Some Indian artifacts on display in the museum. I was especially interested in the star shaped items. The museum also had fossils, geological charts, rocks and minerals, and other items of interest from the area.



There was a great diorama of various dinosaurs in all of their splendor in the museum. It was made in 1973 and reflected some of the dominate wisdom of the day, such as Apatosaurus (aka Brontosaurus) immersed in water, T. rex standing like Godzilla, and everybody dragging a tail. Even still, it was a beautiful depiction. The above are screen shots taken from a video I made.

From the museum you exit onto a self guided walking trail cut through the woods. Along the way we saw numerous examples of petrified wood including entire trees that can be found in the area. It took a few photos of the surrounding area to show the pine woods.





Nearly all the logs on the trail were left as is but these at stop number 5 were originally excavated from what is now the parking lot.





Above and below: This log wasn't part of the tour, just off to the side nestled in pine needles. We had to thump it to convince ourselves it was rock!





The only excavated log in the “forest”. It crossed the path and fell down the hill to the right, so they dug out the left side to see how far it went.



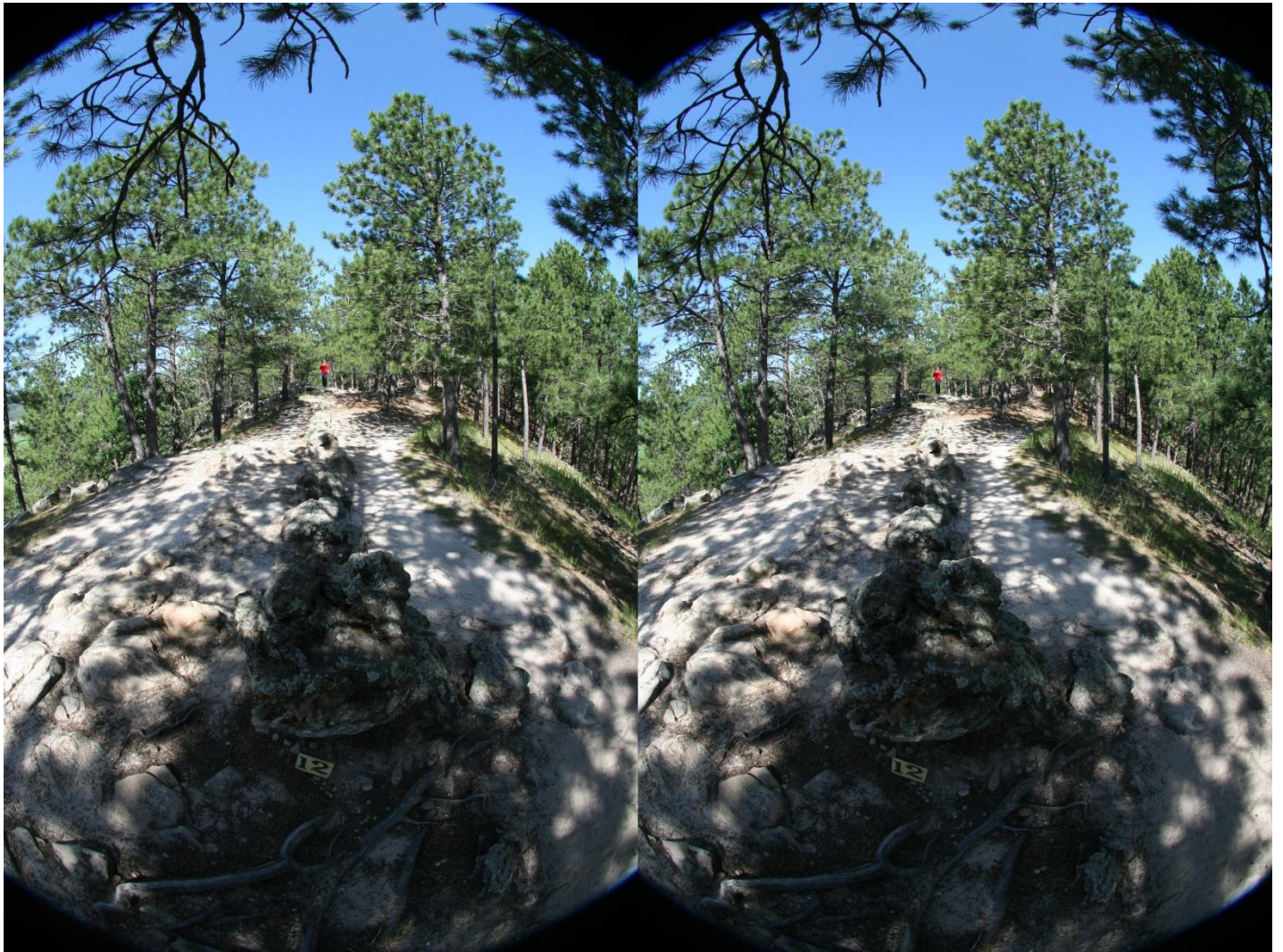


This is the crown of a big cypress tree. The major limbs were attached where the knot holes are now.



Above and three below: The longest tree in the "forest". This giant was over 80 feet long.







Scattered throughout the forest were Pinedrops. I found some info. about them later at the Custer State Park Visitor Center.

Pinedrops

Pterospora andromedea

Pinedrops grow in the humus of forest floors. This perennial plant is a saprophyte, meaning it lacks green leaves and lives on decayed organic matter. Dried stalks of pinedrops stand for several years.



At the back part of the walking trail you can go to a grassy dell at the top of the hill.



Good ground cover.



Yellow flower on top of the hill.



Sarah with our guide sheet.



Great Pine



An antlion burrow. Sometimes called Doodle Bugs, they lie at the bottom of the pit and wait for something to come along and fall in, then they eat it.



An impressive stack of “wood”.



I don't want to be the one who has to replace the board that runs across the bottom!



Sarah standing next to the largest piece of standing "wood" in the "forest".



The biggest single piece of “wood” in the “forest” weighing an estimated 8 tons!

After the Petrified Forest Sarah and I ate at a family restaurant that catered to bikers. We got the buffet. Then it was on to Reptile Gardens! Sarah wanted to see the snakes! I wanted to go because they let you pet the Giant Tortoises!





Reptile Gardens: You can see the Sky Dome in the back.

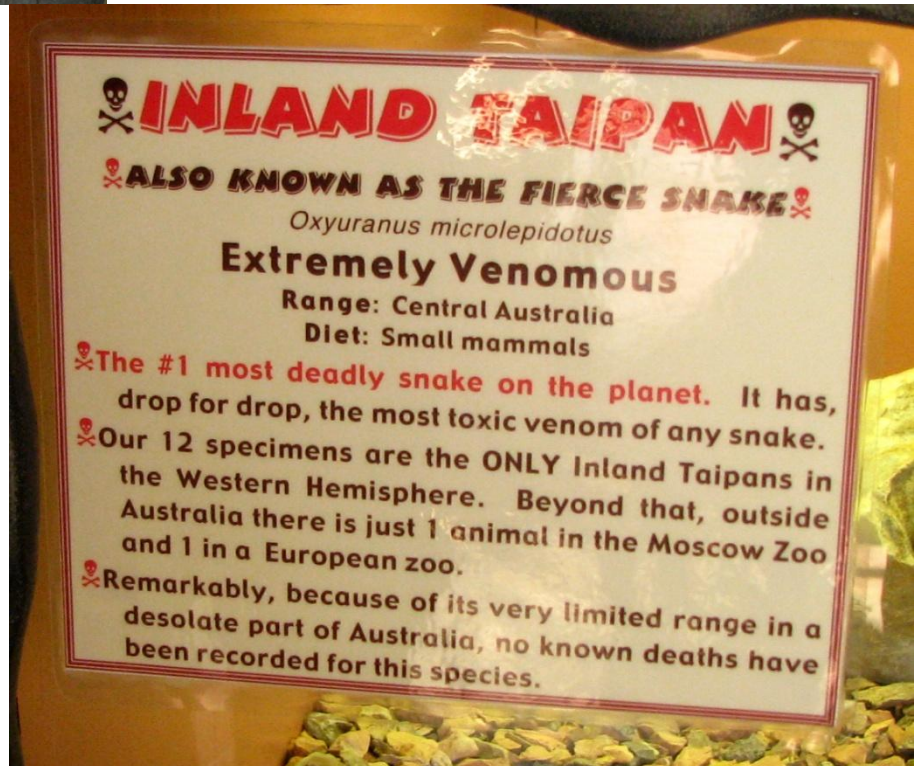


Sky Dome! I suspect this is about all that's open in the winter.



The dome had tropical and desert sections. Reptile displays went around the upper perimeter.





It's so deadly, because you never can find its head.

**Rough-Scaled
Python**
**The Rarest Snake
in the World!**

THE RAREST SNAKE IN THE WORLD:
ROUGH-SCALED PYTHON

(*Morelia carinata*)

Non-Venomous

Range: A small area in the Kimberley region of northwestern Australia

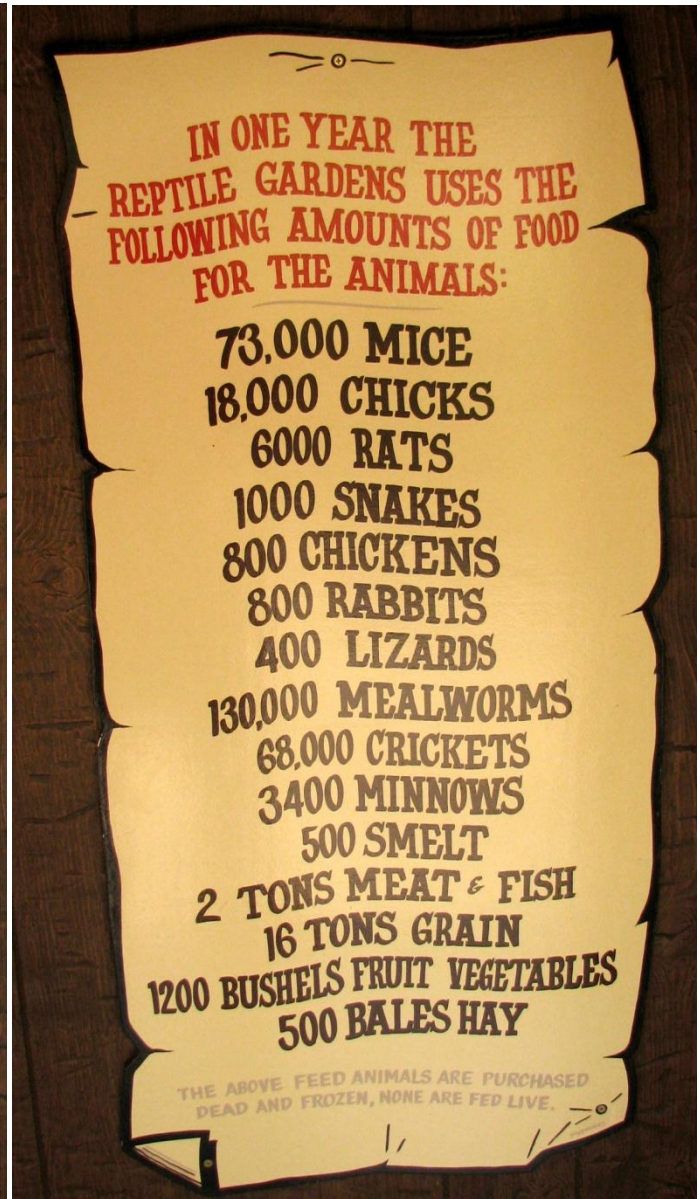
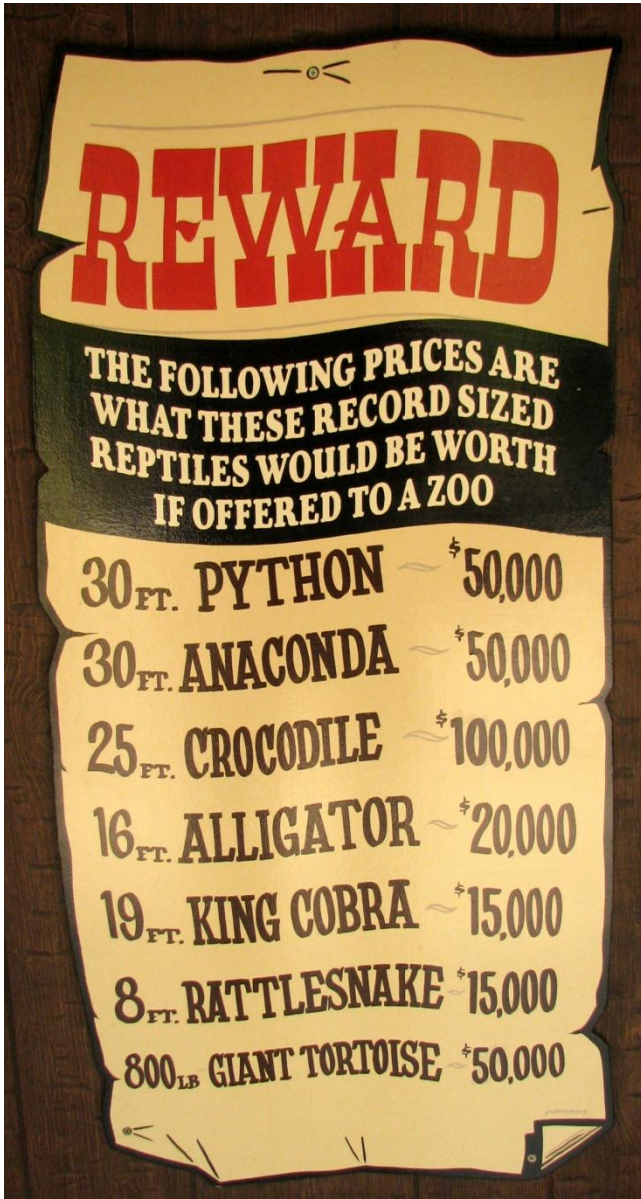
Diet: Rodents, birds

- 🐍 This species was first discovered in 1976 with a second specimen not found until 1983.
- 🐍 They spend most of their lives hidden in deep sandstone crevices, coming out after dark to soak up heat stored in the rocks.
- 🐍 Their scales are ridged thereby giving the name. These ridges serve to make the snake less shiny than other pythons aiding in camouflage.
- 🐍 You are looking at the first and only Rough-scaled Pythons ever seen outside of Australia.





To a biologist this is a lizard without legs eating a lizard with feathers.



MOVIE STARS

***This crocodile was seen in
the James Bond movie
"Live and Let Die"
starring Roger Moore.***

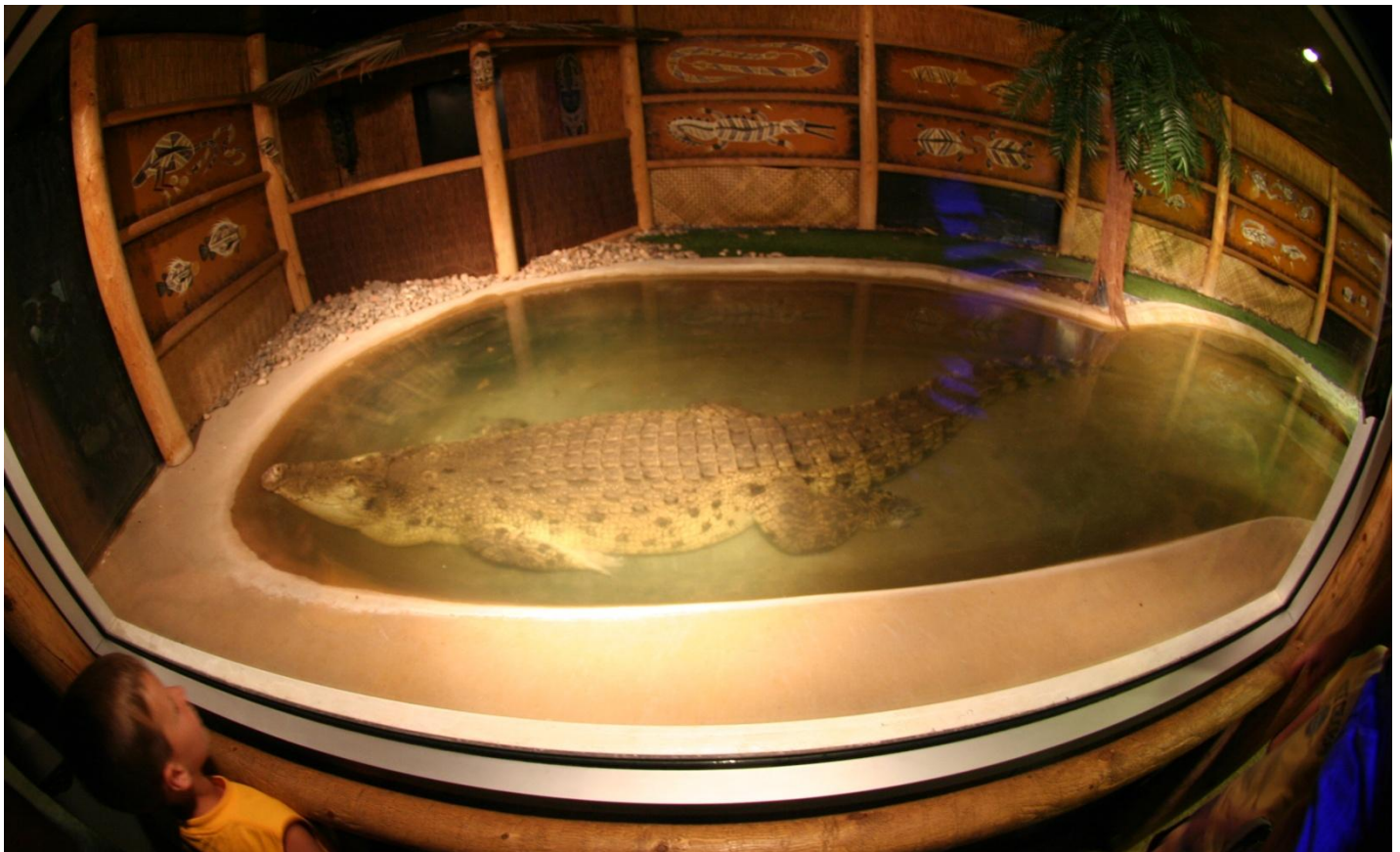
In the movie there is a scene in which James Bond has to run across the backs of several crocodiles. The man who had the crocs at that time offered to perform the stunt to make it more realistic than using fake crocodiles. He was completely confident he could make it across with no problems.

On the first take he made it across the backs of a couple of the crocodiles before he was thrown into the water and was badly bitten....After he got out of the hospital he assured the director he knew what he had done wrong the first time. On the second take he made it far enough to give the director enough footage to use in the movie.

Shortly after he got out of the hospital the second time he got rid of all his crocodiles...he was later killed by a tiger.




Maniac is a male saltwater crocodile, (*Crocodylus porosus*). According to our friend George Craig of Australia, they have the potential to get up to 22 feet long. They can possibly live to be around 100. Maniac was born in captivity in 1970. Maniac is 15 feet 5 inches long, no fudging, no exaggerating. In fact, he may be slightly larger than this but until we confirm that with a new measurement, we refuse to overstate the measurement. Upon arrival he weighed 1042 pounds. Maniac will continue to grow in both length and weight. Over the next few years he will easily gain several hundred pounds and could put on another 2 or more feet.





CHINESE ALLIGATOR

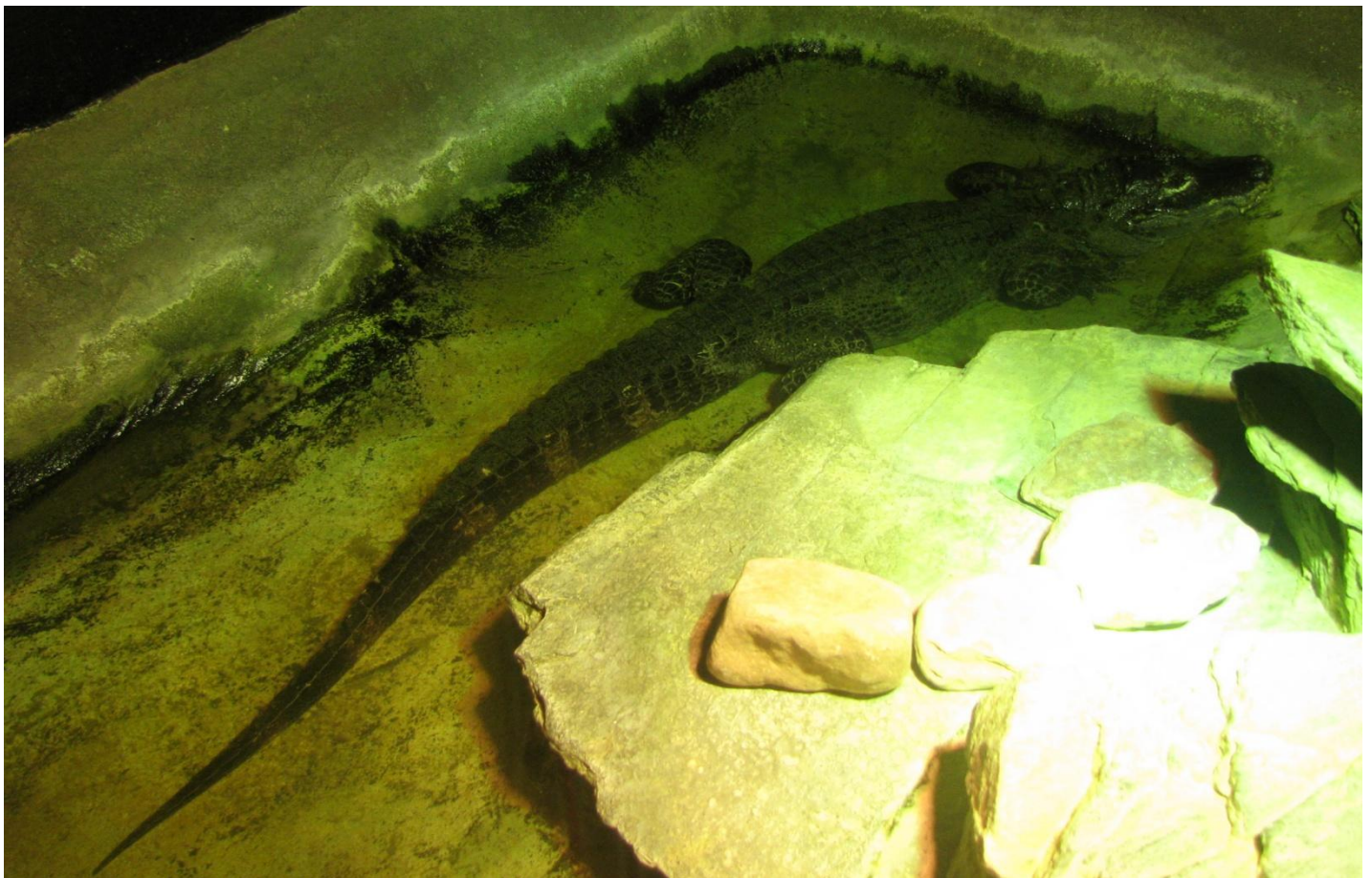
(*Alligator sinensis*)

Range: Yangtse Valley of China

 Of the 29 species and subspecies of crocodilians, only 2 are true alligators: The American Alligator and the highly endangered Chinese Alligator (less than 200 left in the wild).

 Chinese Alligators reach a maximum length of under 6 feet but what they lack in size is more than adequately compensated for by an extremely pugnacious disposition. As our curator puts it: "If the Chinese Alligator got as large as the Saltwater Crocodile there wouldn't be any people left in China."

 This young female was hatched at the Bronx Zoo. She came to us in breeding trade for an unrelated female given to us by the Moscow Zoo in the 1950's.

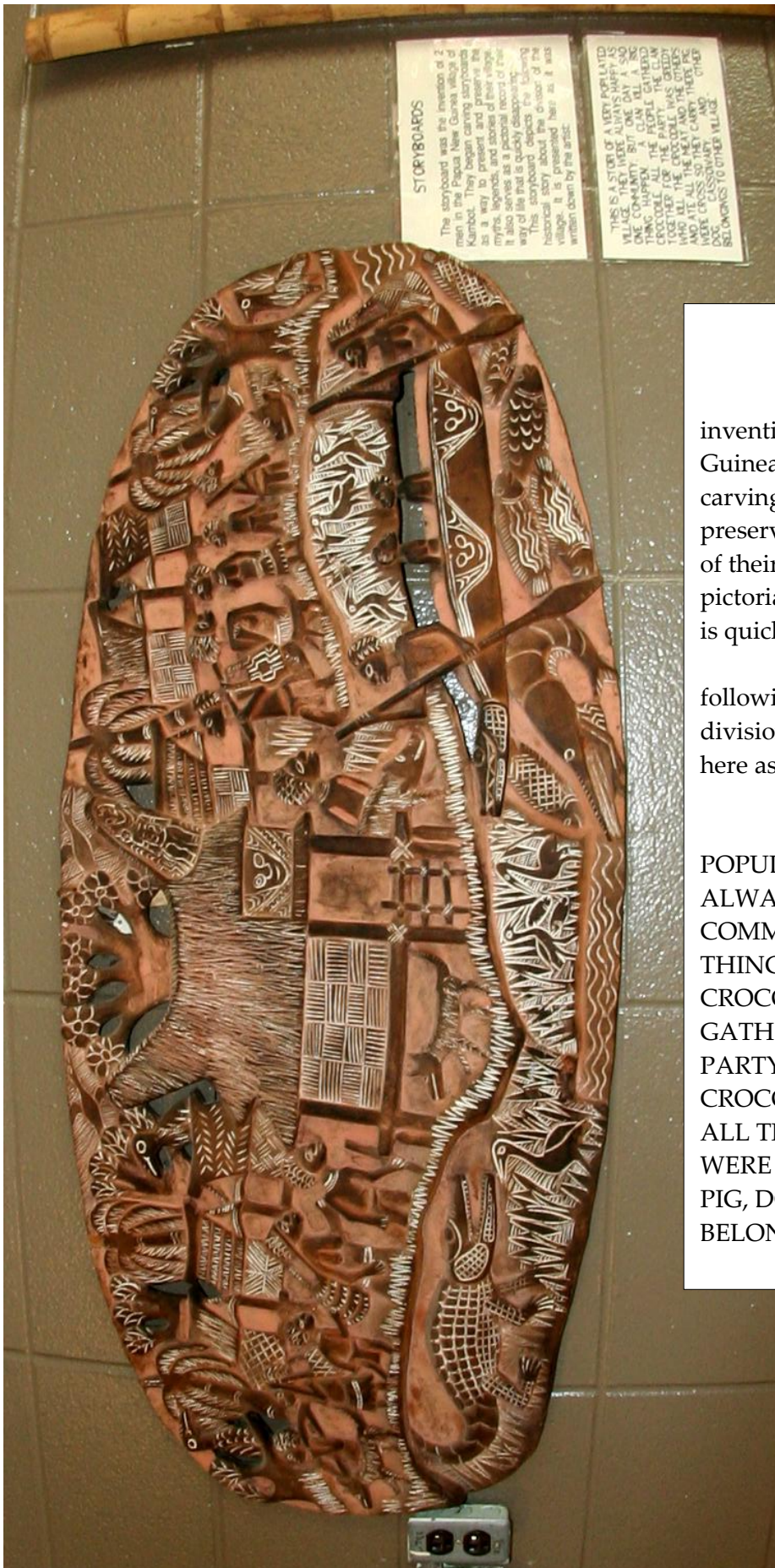




GIANT SEA TURTLE

Archelon ischyros

- 🐢 You are looking at the largest turtle that ever existed. It is 15 feet long and 16.5 feet across at the front from flipper to flipper.
- 🐢 When alive, this turtle probably weighed about 4500 pounds and was approximately 100 years old at time of death.
- 🐢 The original fossil was discovered near Hermosa South Dakota (about 40 miles from Reptile Gardens) in the 1970's. The fossil itself is permanently displayed in the Natural History Museum in Vienna, Austria.
- 🐢 This skeleton was found virtually intact which is very unusual for a sea turtle skeleton. It may have been so well preserved due to death while brumating (hibernating) on the sea floor.
- 🐢 This giant turtle lived at the same time as the tyrannosaurid (T-rex), ceratopsian, and duck-billed dinosaurs.
- 🐢 The structure of its mouth seems to indicate that it fed on large mollusks.
- 🐢 No living sea turtle seems to be the direct descendant of this amazing creature.

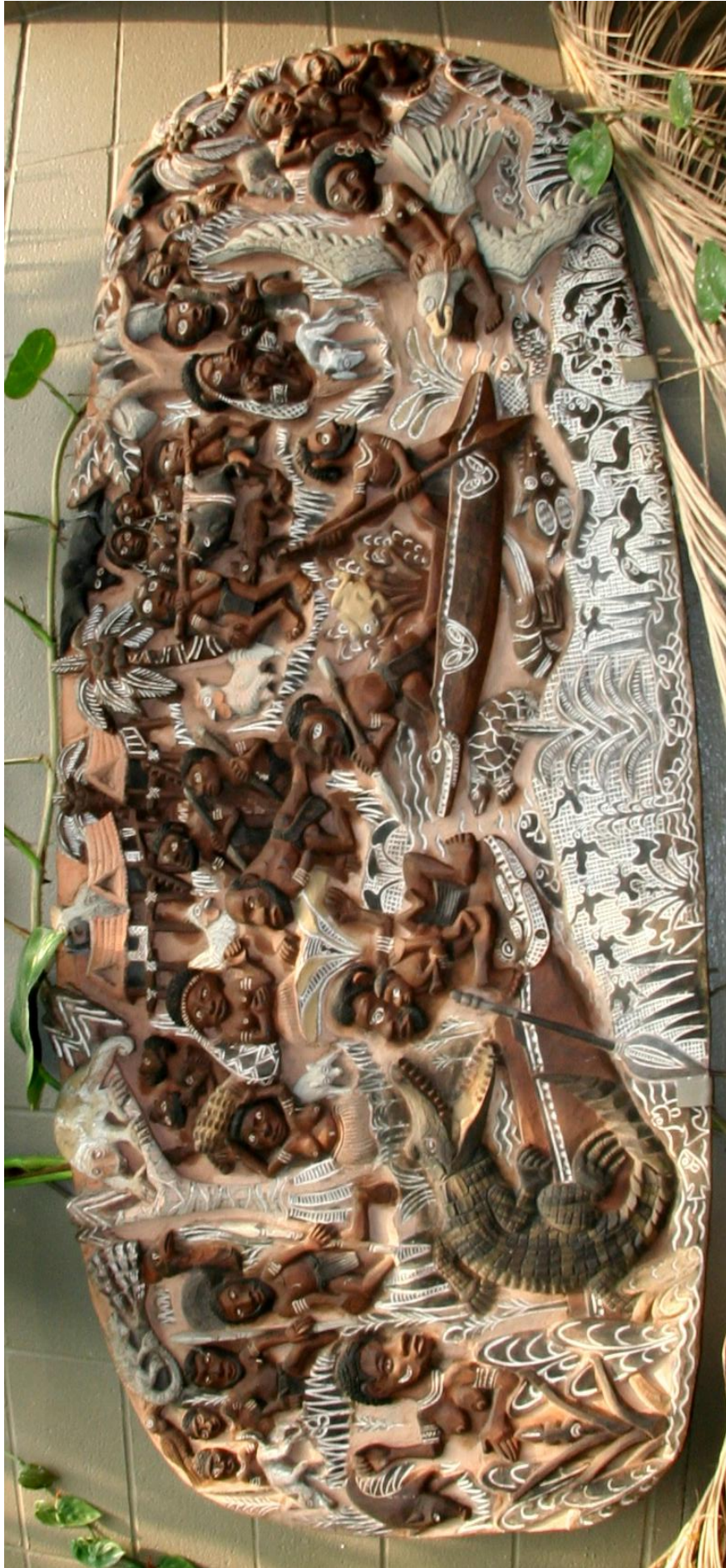


STORYBOARDS

The storyboard was the invention of 2 men in the Papua New Guinea village of Kambot. They began carving storyboards as a way to preserve the myths, legends, and stories of their village. It also serves as a pictorial record of their way of life that is quickly disappearing.

This story board depicts the following historical story about the division of the village. It is presented here as it was written down by the artist.

THIS IS A STORY OF A VERY POPULATED VILLAGE. THEY WERE ALWAYS HAPPY AS ONE COMMUNITY. BUT ONE DAY A SAD THING HAPPEN. A CLAN KILL A BIG CROCODILE. ALL THE PEOPLE GATHERED TOGETHER FOR THE PARTY. THE CLAN WHO KILL THE CROCODILE WAS GREEDY AND ATE ALL THE MEAT AND THE OTHERS WERE CROSS SO THEY CARRY THEIR PIG, DOG, CASSOWARY AND OTHER BELONGINGS TO OTHER VILLAGE.







The back foot of a Galapagos Giant Tortoise in 3D! Can it get any better?!





The guy who started Reptile Gardens way back when was known for his practical jokes. On one occasion, late at night, he blacked out all the windows of the house of one of his employees. The guy slept in and was late for work. After years of these shenanigans a couple of the guys from work got together early one morning and carefully placed this rock in the middle of their boss's driveway. Understandably he was late for work that day!



The dome in 1967.



Unexpected bumper sticker back at the hotel.

23 July 2009: Black Hills and Custer State Park

In all the hullabaloo of getting out of town we found the right road but went left instead of right. No worries, there was an interesting destination in both directions. We headed west into the Black Hills.





"Stan" the *T. rex* and others.



A giant squid carved from walrus tusk ivory.



About this Sculpture

This sculpture was commissioned to show another view of the ancient oceans. While it is probable that ammonites ate mosasaurs, there is no evidence to suggest that they ate live ones. There is, however, evidence to suggest that ammonites at least ate a dead one. A vertebrae and two partial paddle bones of a mosasaur called *Plioplatecarpus* were found in the zone of *Baculites* sp. (smooth species), from the lower Pierre Shale. The mosasaur bones were found with the steinkerns of hundreds of *Baculites*. Because of the extremely high numbers of ammonites, and the few fragments of mosasaur material, it is postulated that the mosasaur died, was fed upon, and its other body parts were carried off by the ammonites, perhaps in a feeding frenzy. Because modern squid and octopi are predators and scavengers, it is safe to assume that ammonites were also. They ate meat when the opportunity arose.

The ammonites chosen in this sculpture were used only because people recognize coiled ammonites as being ammonites much easier than they recognize straight ammonites. The vertebrae and the *Baculites* displayed here are the ones found at this site.



American Lion, *Felis atrox*



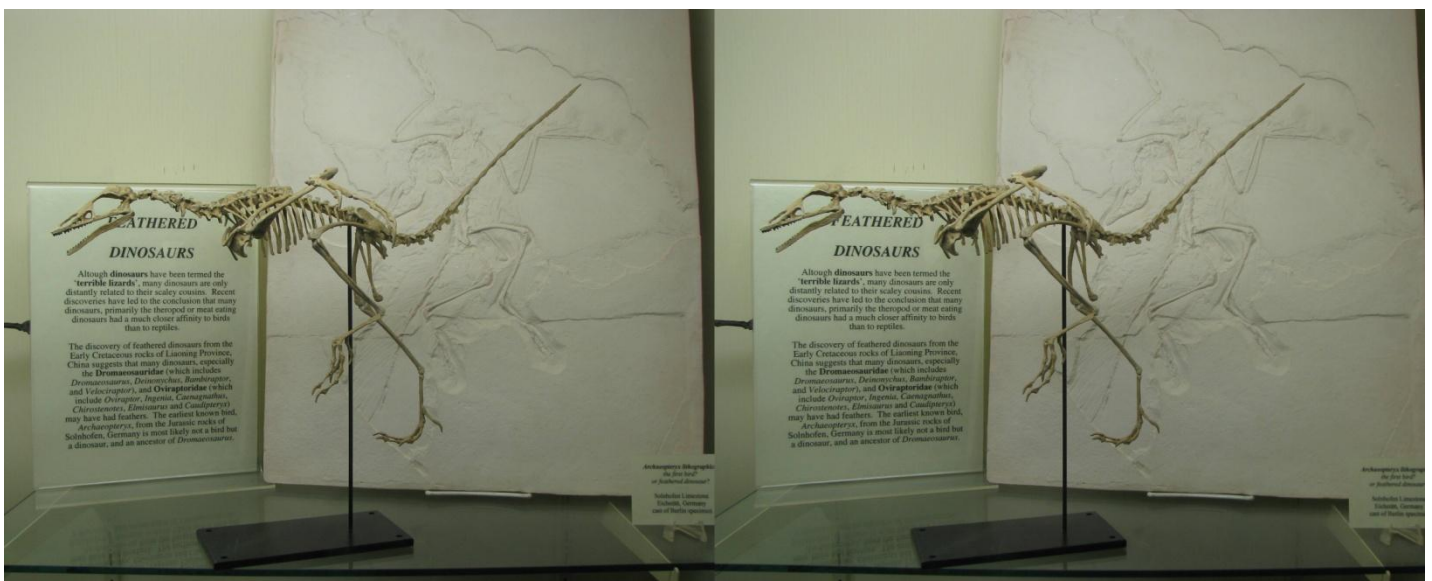
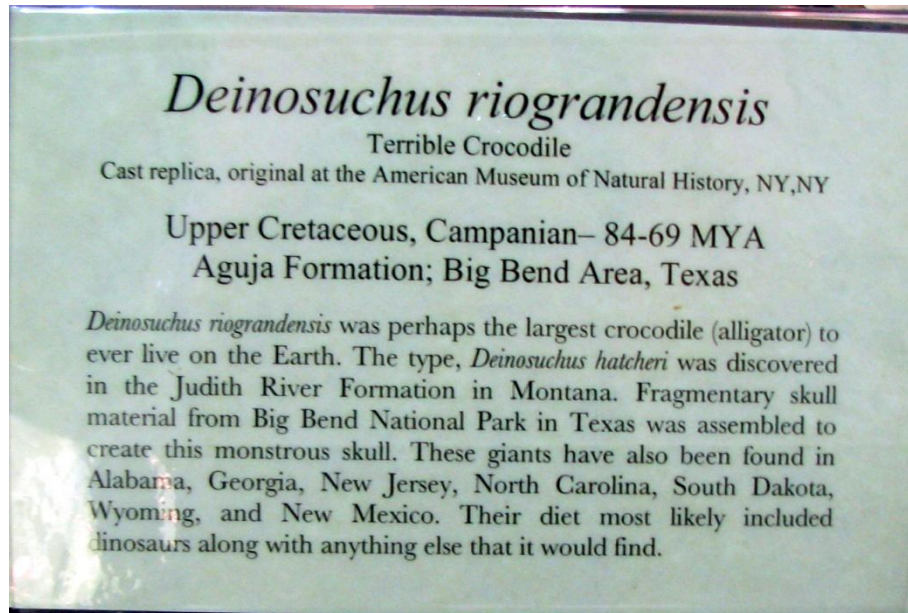
Saber-toothed cat, *Smilodon populator* (South America)



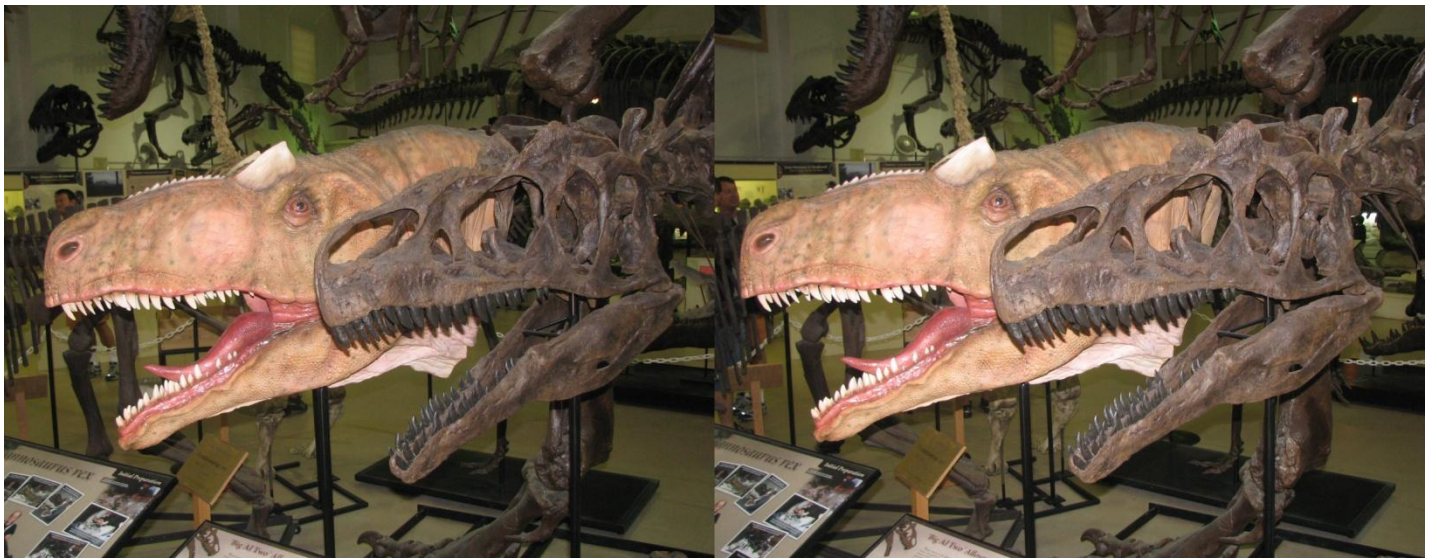
Saber-toothed cat, *Xenosmilus hodsonae* (Florida)

Titanotheres (left) and Archaeotherium (right)





Archaeopteryx! A replica of one of the original fossils is in the background (the one Mary got me is better!).



With and without skin, with and without flash.





Ammonite: above and next page. These were like the Nautilus of today. They had a pocket of gas at the center of the spiral that they could use to regulate their buoyancy. They lost their dominance after fish evolved swim bladders.



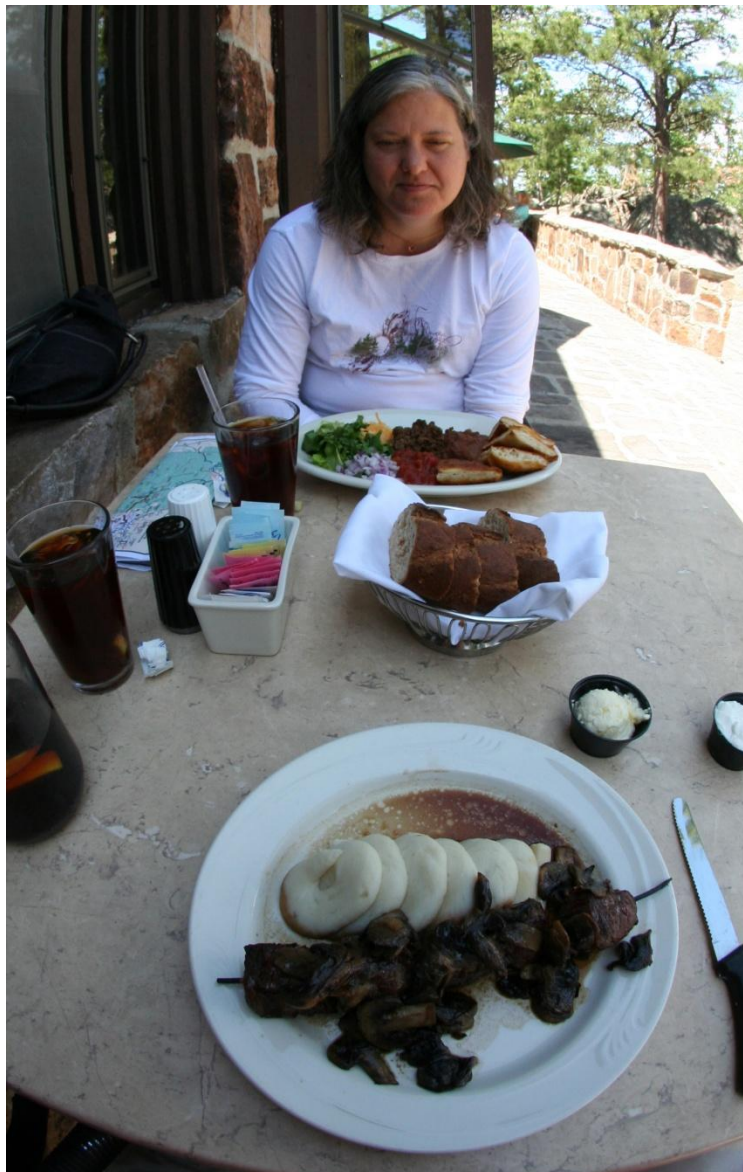


Aepyornis maximus, Elephant Bird. Native to Madagascar, these were about 10 feet tall and weighed over 800 pounds. These were driven to extinction in about the 1600's.





I was going to get this pretty little turtle fossil for Marilyn, then I noticed that there were 2 ones.




We had lunch at Custer State Park's main Lodge. The wait staff was from Bali! Sarah new a few words in their language and they hit it off.

Sarah had a make-your-own taco thing with Indian fried bread and I had buffalo kabobs with mushrooms and mashed potatoes.

We were driving a great loop, first West, then South, and we stared back East by driving the “Needles Highway” through Custer State Park. We had stopped at a Forest Service visitor center and heard about a quiet trail to Little Devil’s Tower where we could see some of the recent bark beetle activity.

What's with the mess?




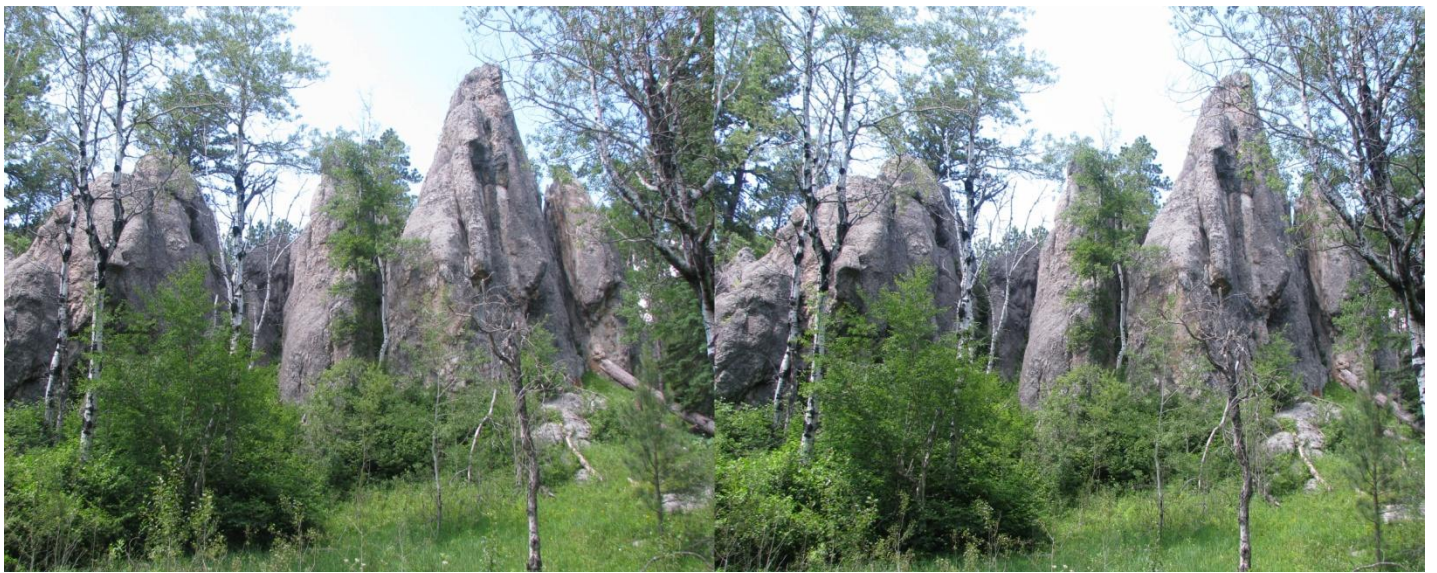
So what is the deal with the tree chunks laying all over the place?

The Black Hills and other forests within the Rocky Mountain region have suffered epidemic Mountain Pine Beetle (MPB) attacks in recent years. Mountain pine beetles are *endemic* to the Black Hills, naturally infesting a few trees throughout the forest. Fire suppression over the past 100 years has led to areas with high density forest stands. Individual tree competition for light, water, and nutrients in these high density stands combined with other environmental factors, such as drought, make prime conditions for mountain pine beetle outbreaks. MPB attack these stressed trees, using pheromones as a message to the other MPB in the area, to attack a new stand of living trees. In late summer they lay their eggs under the bark of the attacked trees and the following spring/summer the next generation of MPB emerge. Here at Custer State Park, we are trying to minimize the spread of mountain pine beetles by identifying and cutting MPB infested trees the year they are attacked. Each attacked tree is cut into small chunks to allow the sun's rays to heat more of the surface area of the log. This method has been shown to create temperatures warm enough to kill 80% of the larvae in each chunk, preventing the majority of the MPB from emerging and infecting more trees the next year.

Pro-active forest management treatments to increase individual tree health and vigor are planned for the near future. Forestry activities in the Sylvan Lake area are related to these future treatments.

Any questions can be directed to Naturalist staff at the Peter Norbeck Visitor Center or to the Forestry Department at Custer State Park.
(605) 255-4515









The flowers were full of bugs!





Sarah waiting on the slowpoke.



Rock formations along the highway.



We nearly ran over these female Big-horned Sheep.





White-tailed Deer



"The little stuffed turkey has been loved too much. Please don't pet the stuffed animals inside."



It's tough getting your bison to stand still long enough to paint all that detail.



Know Ponderosa Pine *and You Know Most of Custer State Park*



There are only 13 kinds of trees in the park, even though about 70 percent of its area is forested. Surprisingly, a single species makes up over 95 percent of the forestland—the ponderosa pine.

Around two-thirds of the park is ponderosa pine forest. It varies from dense stands of small trees to an open forest carpeted with grass. The same type of forest also covers the most area in the Black Hills.

For comparison there are over 100 tree species in the Smoky Mountains.

How Old Was This Tree?



You can determine a tree's age by counting its rings. This large ponderosa pine germinated in 1594 and grew for 330 years. It witnessed wildfires, droughts, and many other changes before it was killed by insects in 1924. The scars of time blend with the events of past years.

Tree Ring Dates and Events

- 1594 This Ponderosa Pine sprouts
- 1607 Settlement of Jamestown, Virginia Colony
- 1620 Pilgrims land in North America
- 1677 Massachusetts develops first postal system
- 1732 Georgia Colony enters as last of the original 13 colonies
- 1776 2nd Continental Congress declares independence from England
- 1787 Signing of the U. S. Constitution
- 1803 Louisiana Purchase
- 1865 President Abraham Lincoln assassinated
- 1874 Lt. Colonel George Armstrong Custer enters the Black Hills
- 1889 South Dakota becomes a state
- 1924 Tree dies, killed by insects



Making Up for Past Mistakes *Reintroducing Wildlife*



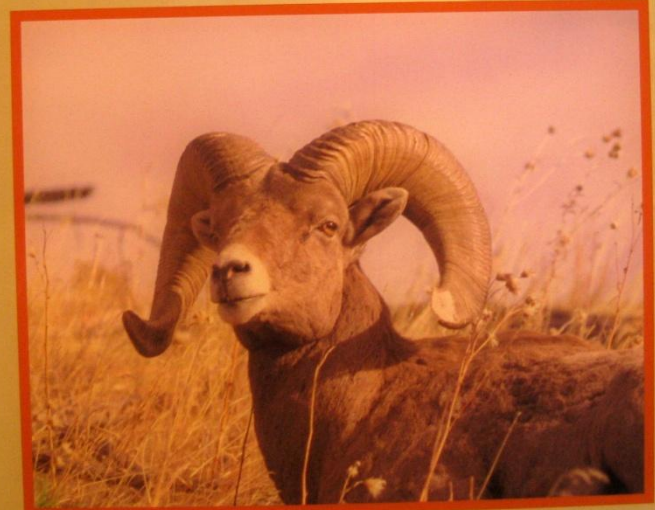
Uncontrolled hunting and habitat pressure by early gold seekers and settlers eliminated many species of animals native to the Black Hills. Grizzly bears, black bears, and timber wolves were gone by the late 1800s.

Reintroduction efforts in the early 1900s brought back some animal diversity. Today, the region has plentiful wildlife. Here are the stories of some of the animals you will see in the park.

Rocky Mountain Bighorn Sheep

Ovis canadensis

Rocky Mountain bighorn sheep arrived at the park in 1922. They replaced the extinct Audubon's bighorn sheep, which roamed the state's grasslands and Black Hills until about 1920.



Ralph Buchhold

Ralph Buchhold



Mountain Goats

Oreamnos americanus

In 1924, mountain goats from Alberta, Canada, escaped from their fenced enclosure inside the park. They are not native to the Black Hills. About 400 live at higher elevations both inside and outside the park.

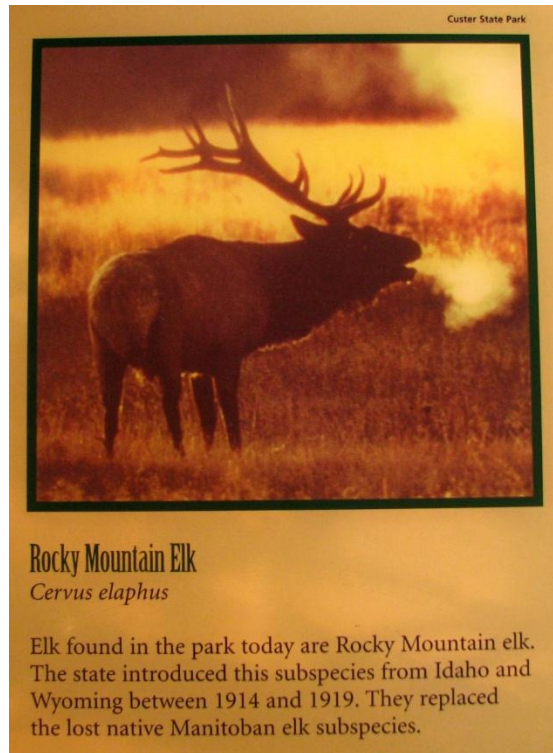
Pronghorn Antelope

Antilocapra americana

Pronghorn, or antelope as they are often called, are native to the Black Hills. By 1911, the size of the wild herd had dwindled dangerously low. The park raised twelve bottle-fed baby pronghorns to replenish the population. These animals strengthened the foundation of today's herd.



Custer State Park



Bison were also reintroduced. Custer State Park now has a bison herd of about 1500 individuals in the spring and summer, which they reduce to about 900 head through the winter.

Sarah picked up a book called *Buffalo for the Broken Heart: Restoring Life to a Black Hills Ranch* by Dan O'Brien. It's an account of the author converting his ranch, the Broken Heart, from cattle to bison. His ranch borders Badlands National Park and some of the bison he stocked it with were purchased here in Custer State Park during their annual Bison Roundup. Sarah would read chapters out loud during our long drives and when we got settled in Sheridan she would read out loud in the evenings (in lieu of television).

Amazingly it worked and the guy now sells bison meat online at www.wildideabuffalo.com and appears to be doing quite well.



Bisonscape







People are just as stupid here as they are in the Smoky Mountains.



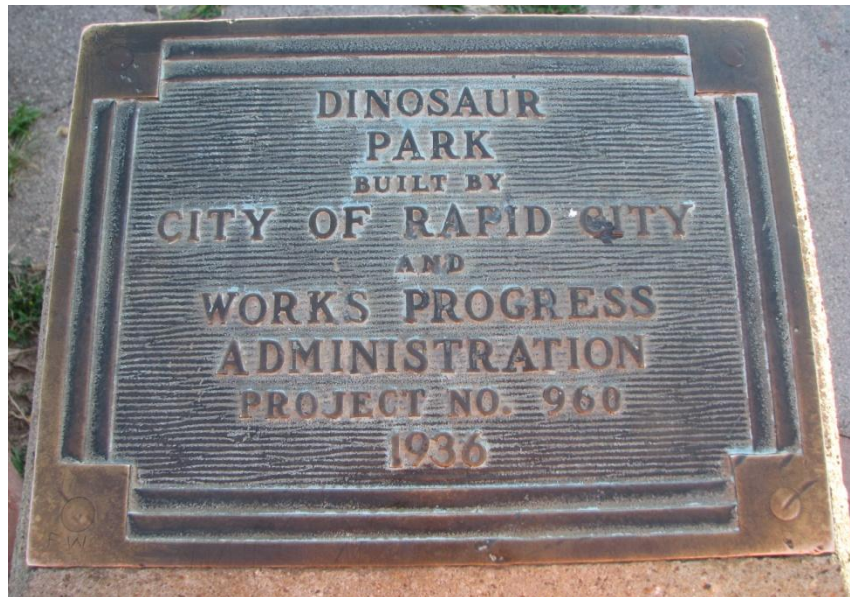






The night before, Sarah and I stopped off at a little restaurant in a strip mall. It was a little Indian restaurant called Curry Masala. It was amazing. It was so good, if you were moving to the area one of the criteria when looking for a place to live would be distance from Curry Masala. The restaurant was started by a retired engineer and his wife. They remember the days when they were college kids with no money, so they keep the prices down. There is a set menu for the week consisting of 3 or 4 meat dishes and 3 or 4 vegetable dishes. You can choose 1, 2, or 3 dishes with rice or bread. They also have homemade mango lassi, which is a sour/sweet mango yogurt drink, homemade chai tea, and a homemade hot sauce that is amazing. We got to talk to the owners for a while and find out about the area, etc.

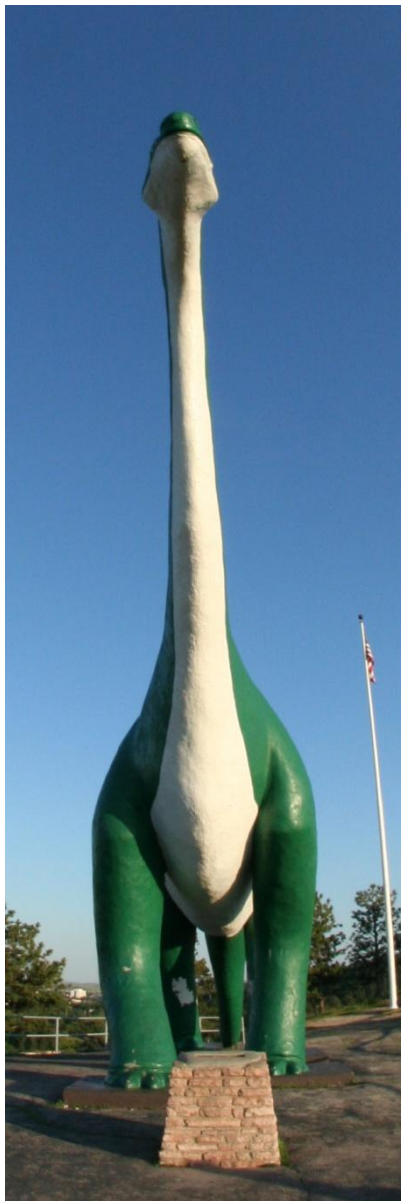
We couldn't bear not eating there again, so we hurried out of the park and back to Rapid City. I had two lassies!



After supper we decided to visit Dinosaur Park. If we had known it involved this many steps we may have waited...



T. rex and Triceratops face off.





Sarah's got him by the tail!



Riding a Stegosaurus!

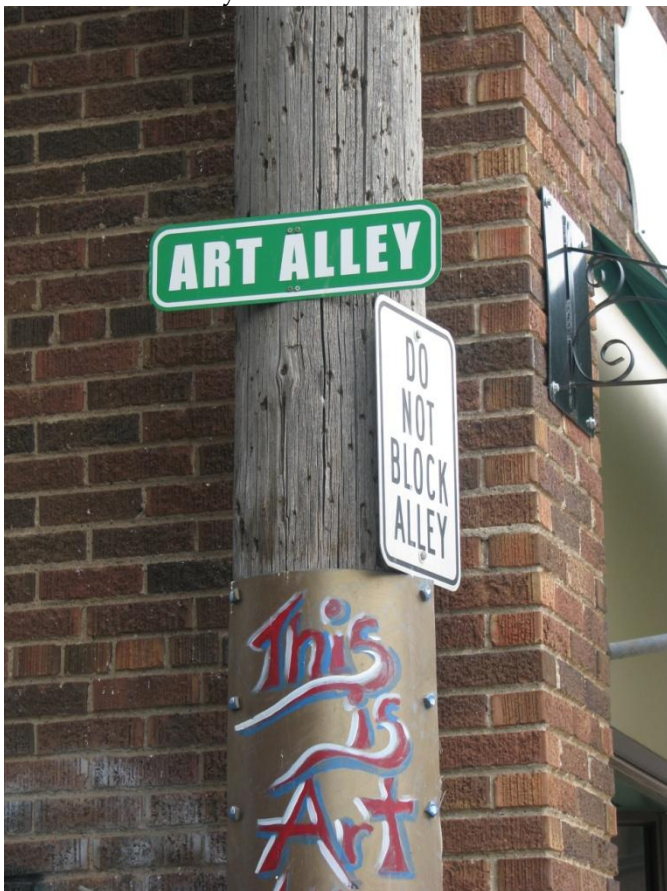


A view of Rapid City from the top of the hill.

24 July 2009: Art Alley and The Badlands

We stayed in the historic Alex Johnson hotel on our last night in Rapid City. They had a display of fine silver dinnerware in the front lobby with a special note about the soup ladle. It seems a somewhat inebriated wedding guest walked off with it one night. The gentleman returned the soup spoon with a full confession fifty years later.

The alley shared by the Alex Johnson and other businesses has taken on a calling of its own. Here are some views of Art Alley.









We went the right way today, East on 44, and our first stop was at a little town called Scenic. And boy was it ever. We stopped at a little shop and I got Mary some petrified wood and then stopped at the other shop in town and got something to drink. This was across the road.



Just before we turned North onto Sage Creek Road, which runs along the northern border of Badlands National Park, we were provided with an important fact:

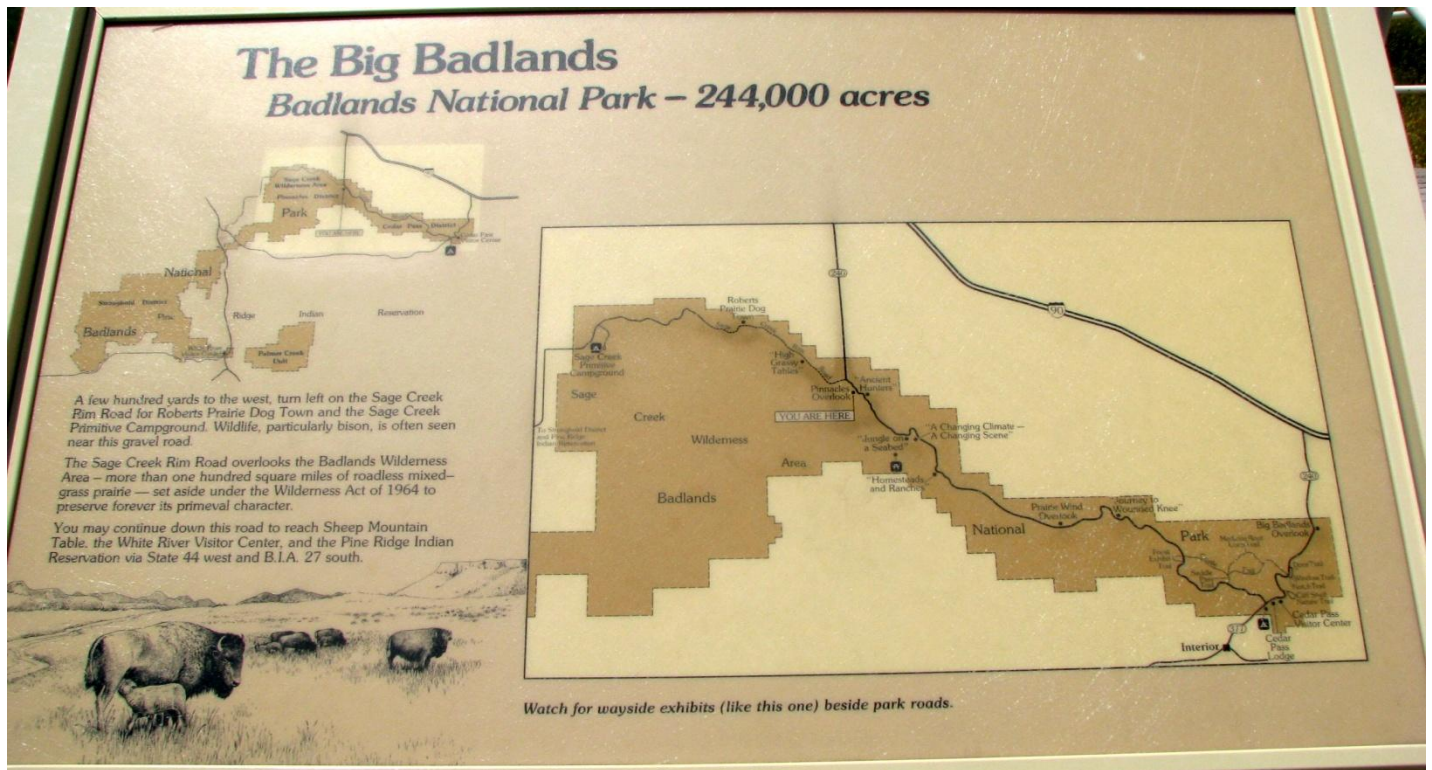




The spikes keep the birds off.



Looking across the road from the park. That is a huge, FLAT, field of wheat.



More sound advice after entering the park. Although, in case a bison's horns and the fact that they weight as much as a small vehicle aren't enough to make you wary, the artist chose to imply that they may also bite.



Grasslands before the main attraction. Round about here we ran into a couple with a flat tire. As we pulled up to help, park people showed up to help as well.



The lands aren't bad, yet...



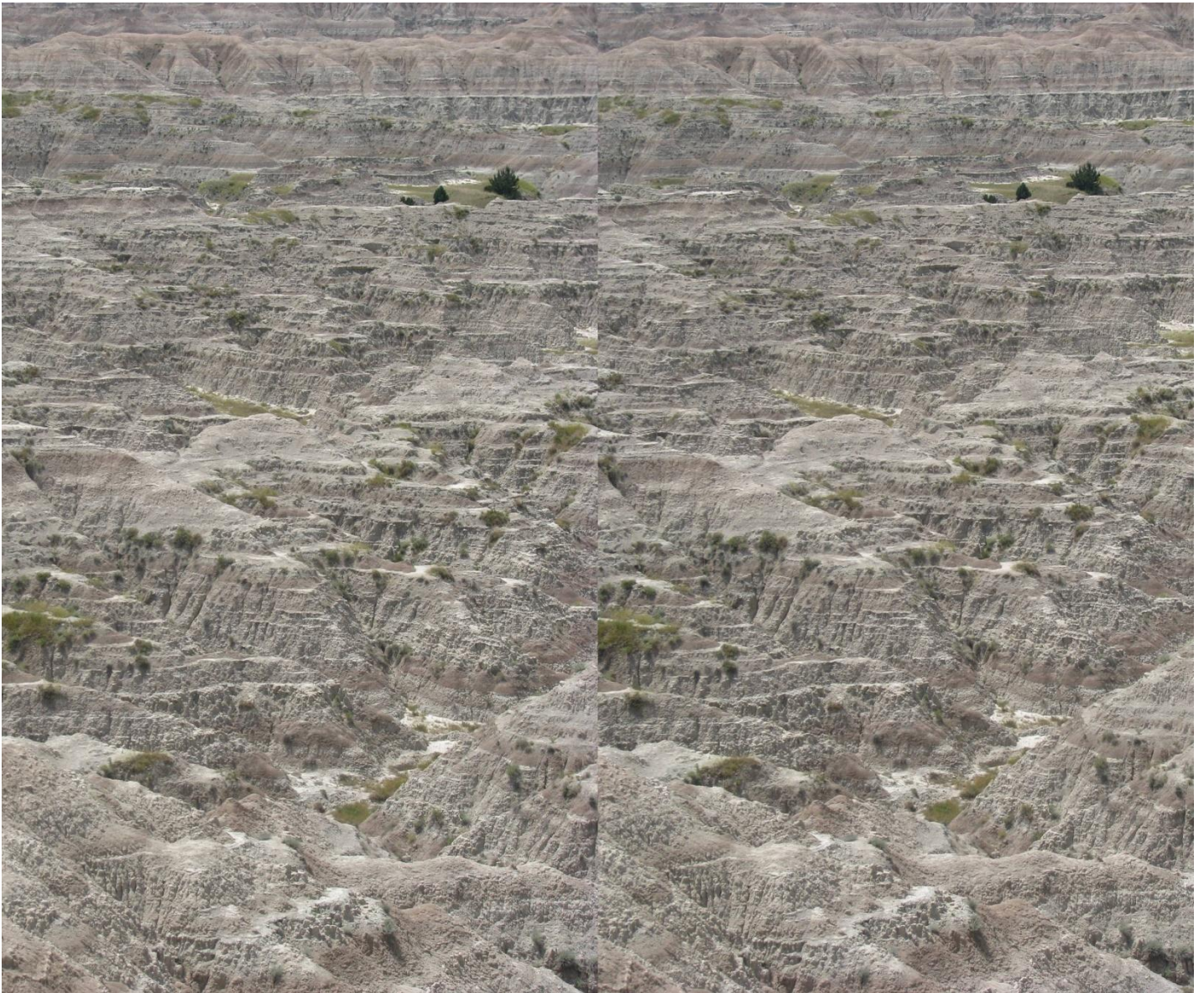
Plague! I mean, Prairie Dogs!



My first burrowing owl! I took the picture aimed at the one on the right, not noticing the two on the left until after I got back home. The picture has been cropped accordingly.



Wow. Those are some bad lands.



High Grassy Tables

Erosion left a few high islands topped with virgin sod, the slopes so steep that homesteaders could not get their stock up to graze. Instead, the homesteaders waited until the grass was ready to cut.

Then several got together, took apart a mower, and reassembled it on the top of the table. Once the grass was cut and baled, homesteaders hitched it to a cable stretched from the rim to the lower prairie — and whoosh, the bales slid down. Hence the name Hay Butte for the long table on the horizon.

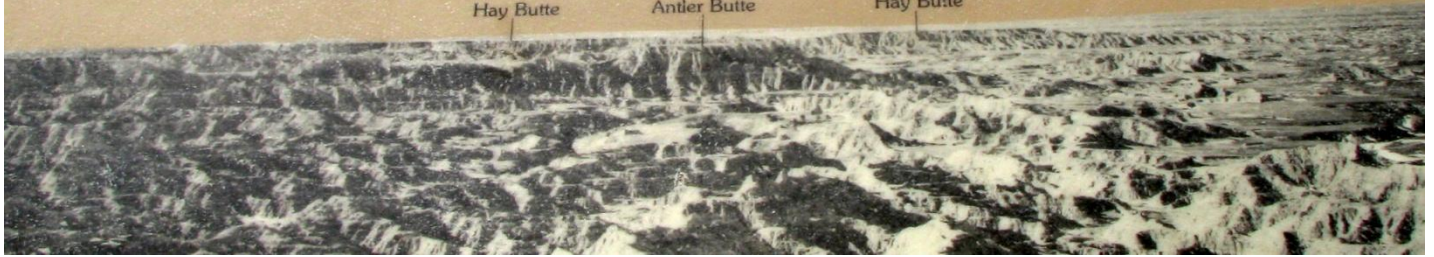
Today the high grassy tables are harvested only by bighorns and deer. The bison which roam the Sage Creek Wilderness are excluded as effectively as were the stock of the homesteaders.



Hay Butte

Antler Butte

Hay Butte



Antler Butte



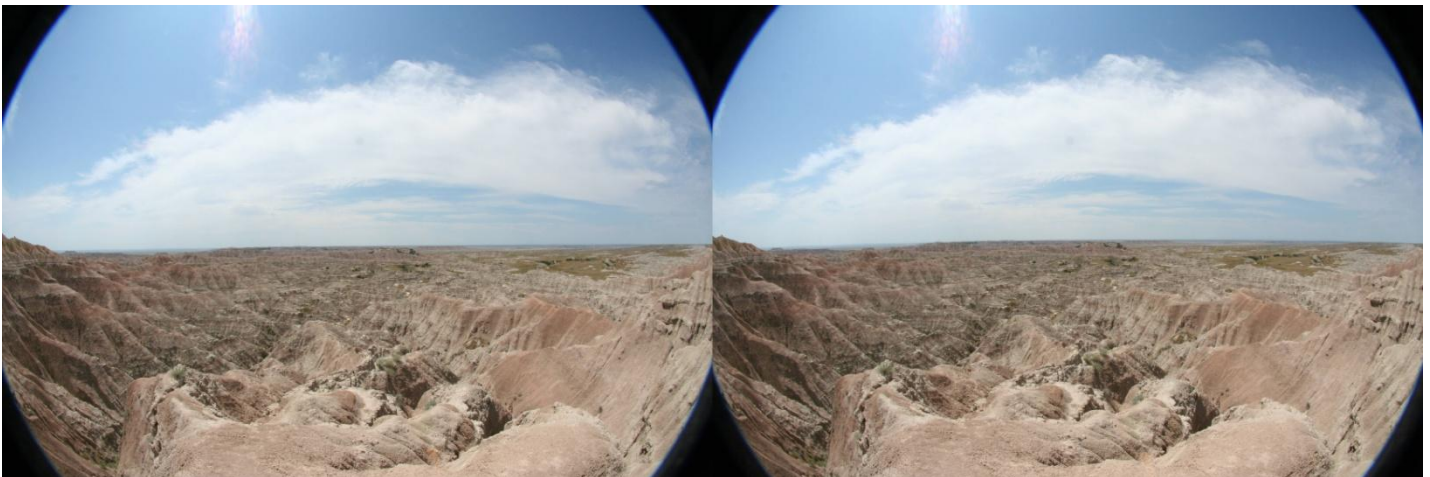
Sarah back at the top of the hill (see picture below for non-zoomed view).



You could take a little trail down a ways, but if you tipped off the side there wasn't much hope for return!



Despite all their promises we never saw a rattlesnake.

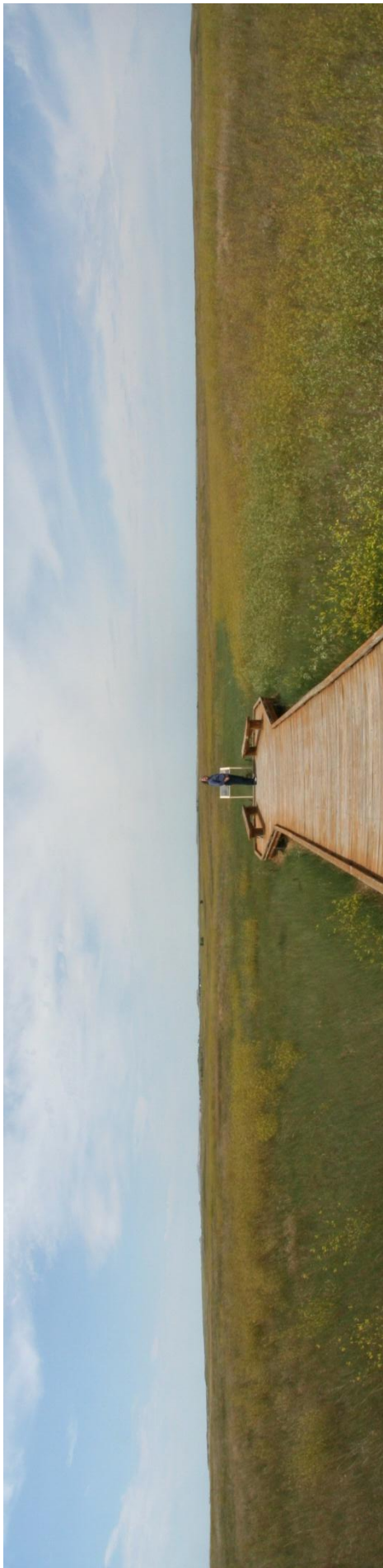




Where there was some stability to the ground vegetation could get a foothold.



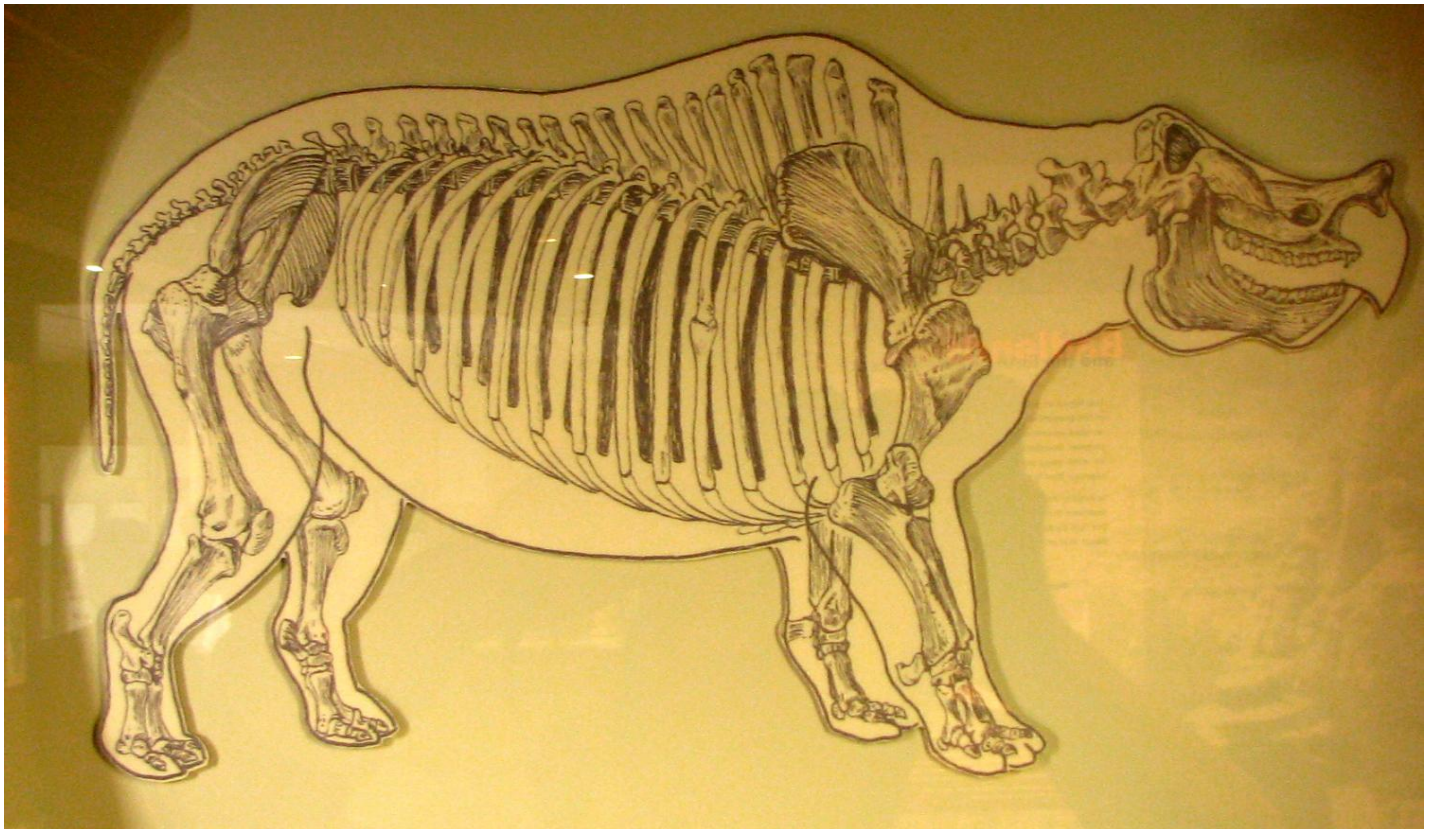
Pretty lady on the edge of the Badlands.







An excellent diorama of what this place looked like about 30 million years ago.



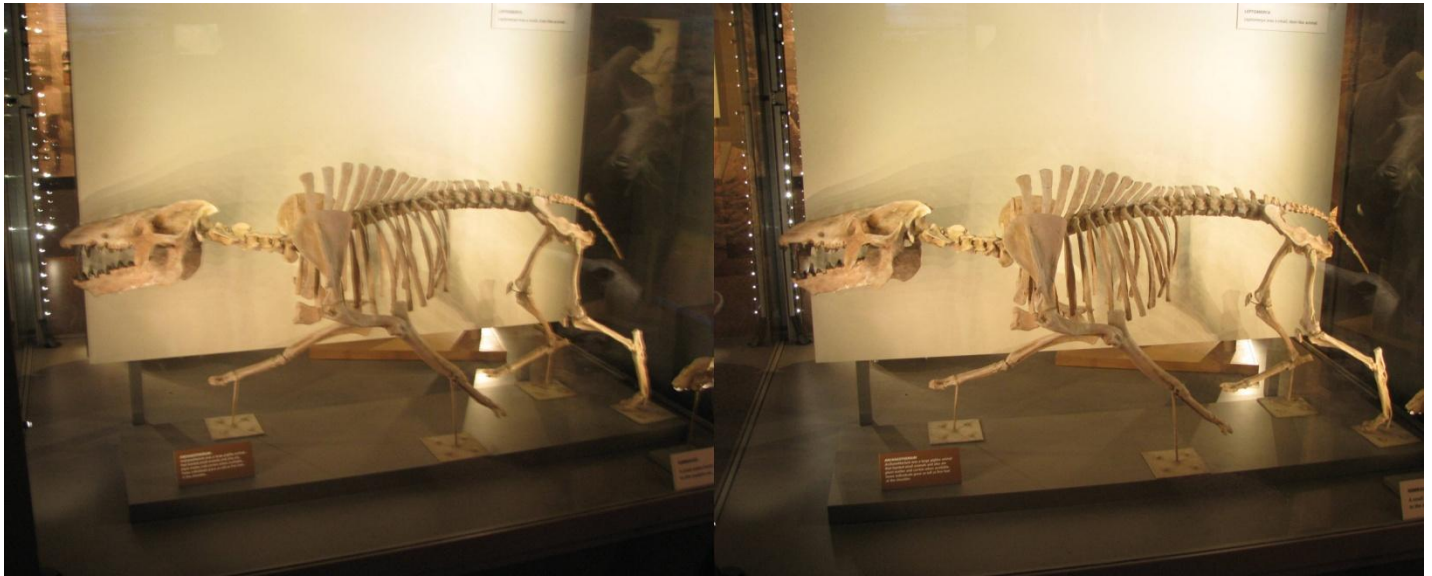
Titanotherium: huge beasts that lived throughout North America about 30 million years ago.



Titanotherium skull. Sadly they didn't have any of these available at the gift shop.



Diorama of the omnivorous Archaeotherium, a large pig-like animal that lived at the same time as the Titanotherium.



Full Archaeotherium skeleton.



Getting gas after the Badlands. This is a Unimog, made by Mercedes-Benz. Unimog stands for "UNIversal-MOTOR-Gerät", Gerät being the German word for machine or device. This one was brand new. The tread on the tires wasn't even dusty. This is what you use to crush Humvees. They start at \$100,000.

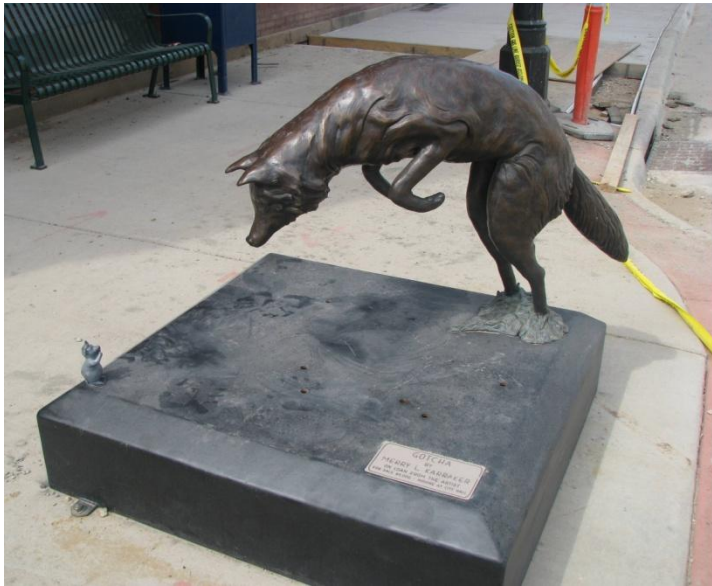
After the Badlands we had to make our way back to Rapid City (about an hour drive) and on to Sheridan, Wyoming, another 4 hours. Sadly, Curry Masala didn't open until 5 in the afternoon, and we went through Rapid City at about 4:30. We were pushed for time because we wanted to get to Sheridan before too late, so rather than sit in the parking lot and wait, we drove on.

Sarah read more of "Buffalo" and we watched the scenery go by. The short grass prairie started to have clumps of sage brush and pronghorn became more abundant as we headed north and west.

25 July 2009: Sheridan, Wyoming



We were able to stay a week in Sheridan, so it was cheaper to rent an apartment than get a hotel room. Plus we had a full kitchen. Sarah made oatmeal for breakfast (for me) almost every morning and would brew tea for the next day the night before. These are pictures taken toward the end of the trip, so the place is a little cluttered. Notice the white portable air conditioner to the left of the TV.



Sheridan caters to tourists and abounds with sculptures (for sale) throughout the historic district.



One of the few permanent sculptures.



This is a great idea to make a little space a very big one. Sarah and I walked the whole thing. It seemed a half mile long!



Kendrick park, which is within walking distance of downtown, has a pool, stream, concessions (that Sarah never let me get) and about a 20 acre wildlife area complete with bison, elk, and prairie dogs! You can see the pool at the base of the wildlife area in the top picture.



The topside of the wildlife area had a place for recycling. Each bin was for a different item.



Elk in the park.



Sarah demonstrating the fantastic trashcans they have here.

26 July 2009: Big Horn Mountains



On our way into the mountains we ran across a neat little private dinosaur museum. The door was locked, but the owner yelled out the side window of his house that he would be right over. The tour cost \$5 for the both of us. Most of the museum was dinosaur replicas and sculptures but the owner told some fascinating tails about the beasts on display. When he found out I was an entomologist he gave us a VHS copy of THEM, the 1954 classic about giant ants. I got a wonderful mineral set for Victor and a replica claw for Michael.





In the Land Before Time series the triceratops was named Sarah.



A practical demonstration of dinosaur dentistry after we find a way to bring some back.

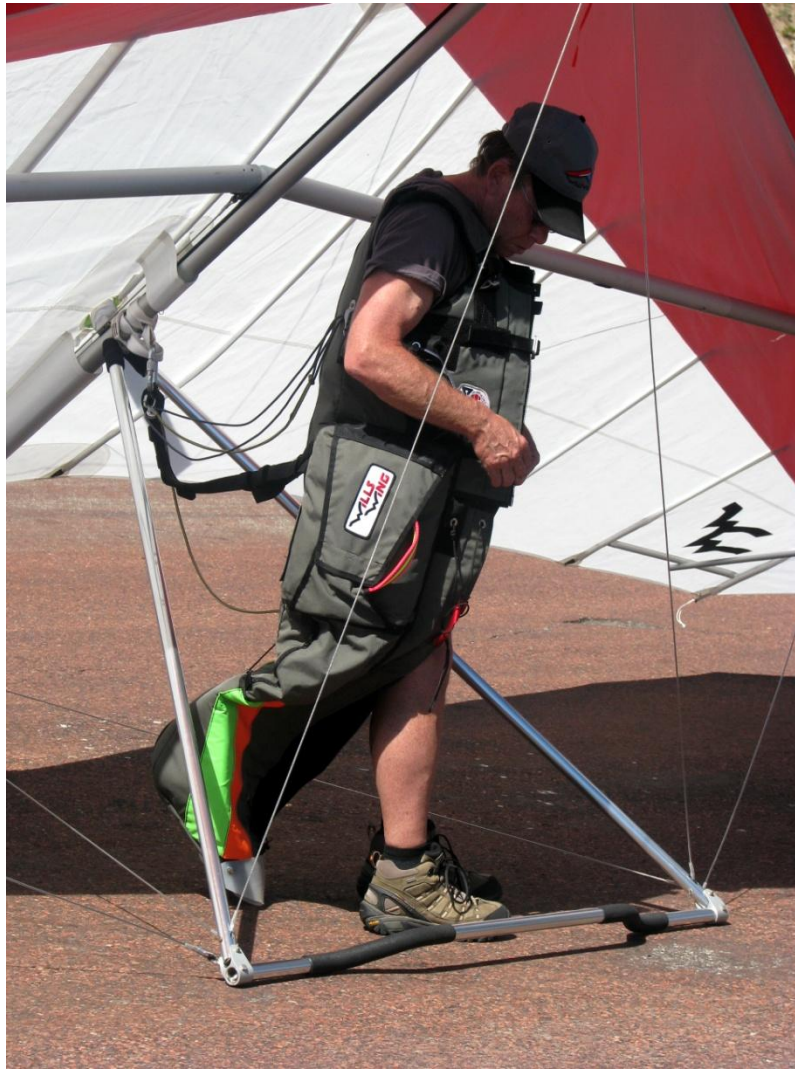


One of these people is used to having pictures taken of them, one is not.





On our way up the mountain we stopped at an overlook to watch a hand glider take off. After about 45 minutes of stops and starts we finally gave up. He kept whining about the wind needing to blow harder otherwise he'd crash and die, or something like that.



While we were waiting I noticed some bones at the bottom of a huge pile of fill used to make the road and went down to investigate. Sadly, the moose/elk/big horned sheep skull complete with massive antlers/horns I had hoped to find didn't turn up. But I did see this neat rock!



Pretty lady in the mountains.



Up top the maintains were lush and full of flowers. It rained at one part, we even got hailed on!







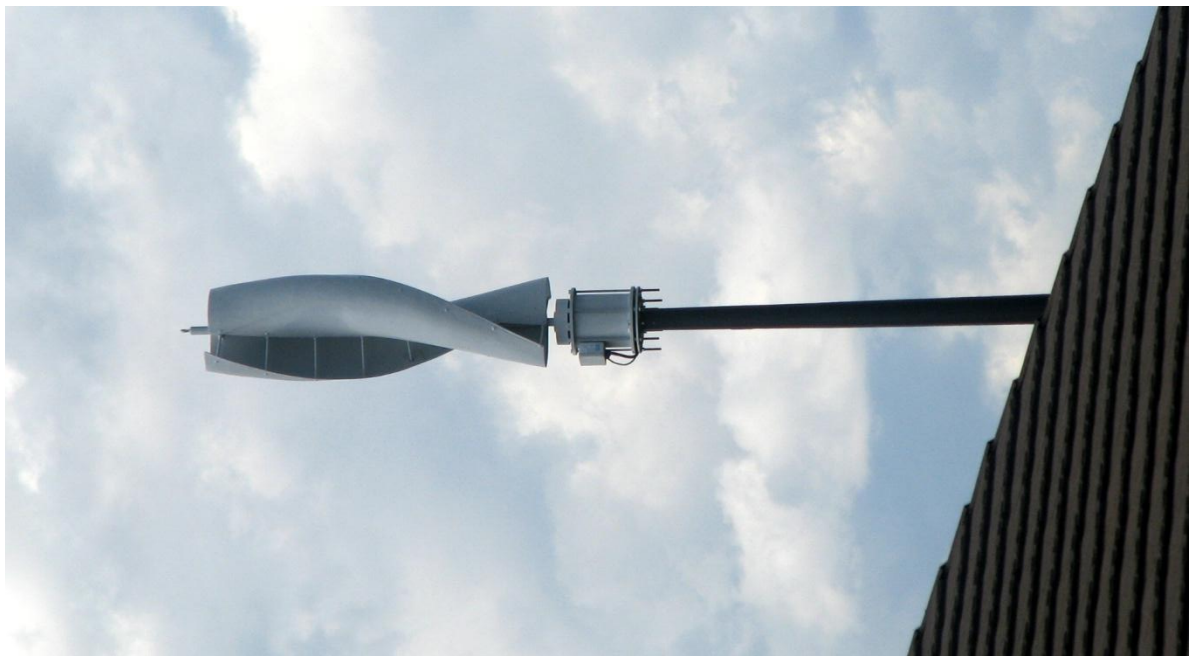




We stopped at the visitor center.



Look at that look!



A wind turbine variation. Rather than gather wind with arms that reach out, gather wind with arms that reach up and down. (Picture on its side.)



We kept throwing trash in it, but it never did compact any of it. I guess we just didn't have enough.



Take a closer look at this tree.
Although no longer living, it
continues to provide basic needs
for many life forms.

What plants and animals reside here?
What insects and animals feed here?



Lots of places had dead wood habitat displays, but they almost never say anything about insects. This one at least mentions them, although none are incorporated in their display.



27 July 2009

We visited three visitor centers all within sight of one another. The first was the Sheridan Visitor Center, the second was a Wyoming Game & Fish Visitor Center, and the third was a Forest Service Visitor Center. There is a certain overlap of pamphlets and information, but somehow each center keeps some stuff to itself, so you never know what unique jewel you might happen across. At the Sheridan Visitor Center Sarah got a local coupon booklet (cost \$1) that gave great deals on tons of stuff. Sadly, none of it applied to us except two items, one was free admission for 2 with a guided tour at the Bradford Brinton Memorial and Museum. And the other was 10% off your total purchase at Safeway. Sadly the people at Safeway neither knew about the coupon nor could figure 10% of our purchase, but that's neither here nor there.



Sadly we weren't allowed to take photos in the gallery or in the house, but here are a few shots from around the grounds.

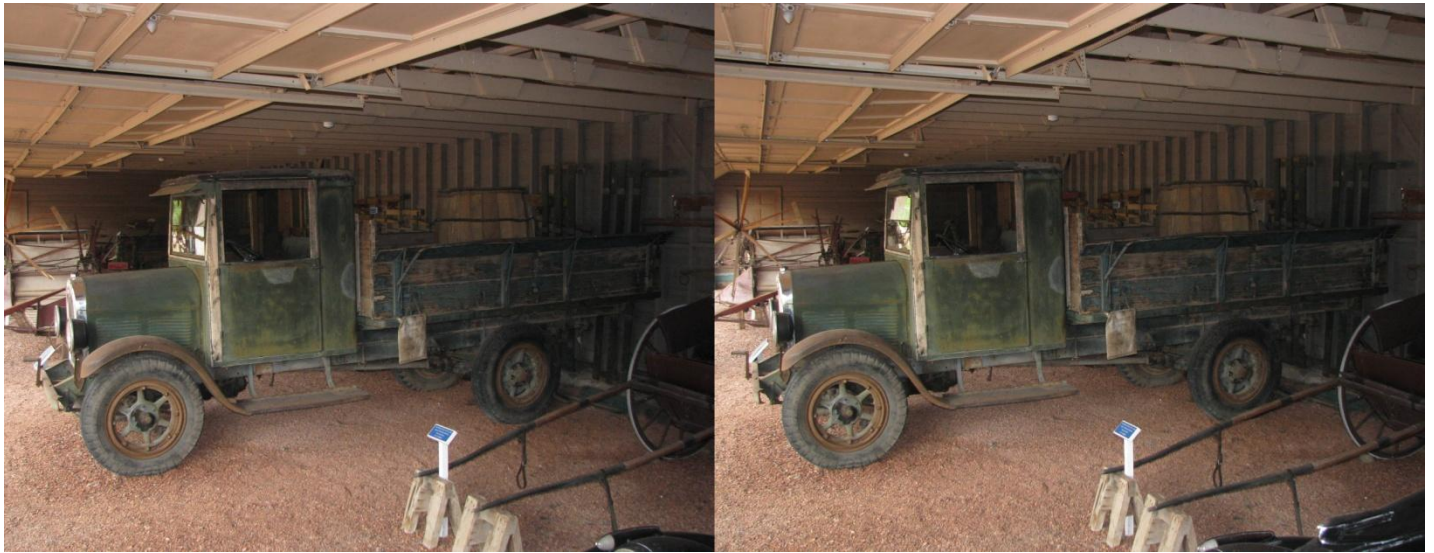


This tree was first planted 100 years ago. Dated photographs inside the house showed it as sapling.



The main house.





Garter snakes. Poor Sarah nearly stepped on them before I could warn her.



On the way back we stopped at Sheridan College's Bruce Hoffman Golden Dome. I did my best to point out every geodesic dome and tension fabric building on the trip. Sarah did her best to keep from slapping me.



A fisheye picture of the inside of a dome is a strange beast indeed.

28 July 2009: Big Horn Mountains and Wild Horses

There is a little group of beetles, different from all the rest, called Trout Stream Beetles. They are only found in mountain streams in western North America (from 4000 to 8000 feet elevation) and there are two species in China. I've never collected any and would very much like to. So today we're headed halfway across the Big Horn Mountains to Granite Creek where some Trout Stream Beetles were collected in the 1970s.







Sarah took some secret photos of me collecting. The water was icy cold! We got some nice specimens, but sadly not what I was after. We had clear skies at the beginning, but it started pouring after we went back to the car for lunch. We decided to have a picnic in the car.

After lunch we decided to drive to Greybull on the other side of the mountains. From there we would drive up to Lovell and back over the mountains looping back to Sheridan. We came out of the Big Horn on the western side and stopped for malts at Dirty Annie's Café. This side of the mountains is decidedly drier, with less grass and more sage brush.

As we passed through Lovell we stopped at a National Parks Service visitor center and had a look around. They had several posters, etc. about a recent PBS program on wild horses. The program followed the life and times of a light colored stallion named Cloud. Amazingly I had watched the show months before. (Amazingly because I'm not that into horses.) Sarah had also seen it, as had her nieces who were quite enamored with horses.

Less than a mile away we ran across the Pryor Mountain Wild Mustang Center and had to stop in. Apparently these wild horses were running around somewhere nearby. (This had not been mentioned in the previous visitor center, you have to hit each one!) There is a growing movement called Pleistocene Rewilding, the idea that we should try to bring back the big animals (or equivalents) that were here 12-14 thousand years ago, before humans showed up. Horses are a great example of this. They evolved in North America, migrated to the rest of the world across the Bearing Land Bridge, and were then driven to extinction in North America. Wild horses are basically a reintroduction of a lost species.

So far as I can tell, the Pryor Mountain Wild Horse Refuge is within the Big Horn Canyon National Recreation Area. We got a map from the fellow at the Center and started off to see the horses.

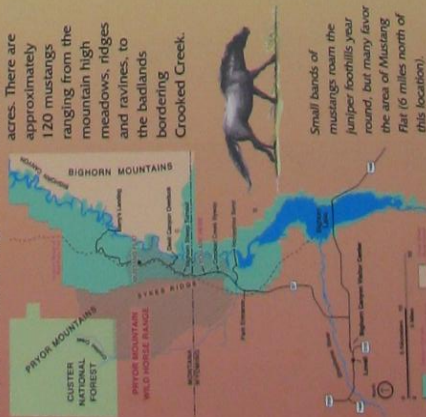


I wouldn't think a snake could survive out here, much less a horse.

RANGE TRAVELERS

THE PRYOR MOUNTAIN WILD HORSE RANGE

In 1968 the PRYOR MOUNTAIN RANGE became our nation's first public wild horse range. The area covers 38,013 acres. There are approximately 120 mustangs ranging from the mountain high meadows, ridges and ravines, to the badlands bordering Crooked Creek.



Small bands of mustangs roam the juniper foothills year round, but many favor the area of Mustang Flat (6 miles north of this location).

Spirited Mustangs

THE PRYOR MOUNTAIN MUSTANGS are a "unique genetic resource", that roam America's first public Wild Horse Range. They have existed in these mountains for more than 100 years.

Extensive blood typing has shown an ancestry linked to the "old type European Spanish horses."

Unique horses within the herd display the primitive markings characteristic of wild horses referred to as the Dun Factor.



Getting Ready...
these young stallions are sparring in preparation for claiming a mare.

1. American Breed Conservancy
2. University of Kentucky
Genetic Research

MAKING HEADS OR TAILS OF IT

ADAPTIVE CHARACTERISTICS

The long faces of these wild horses are very triangular. A broad forehead and a wide eye set tapers to a narrow nose and a small nostril and muzzle.



The Dun Factor Horses

These horses show a dorsal stripe down the back. Stripes also appear on the withers and legs. These primitive markings are not common to all wild horses; they distinguish unique members of the Pryor herd.





Pretty desolate, just about the only green is cedar.



Our first wild horses (way far away)! We went on in hopes of some closer encounters.

**CANYON CUTTING
THE POWER OF RUNNING WATER**

Devil Canyon

Abandoned River Meander

Crest of Devil Canyon Anticline

Abandoned River Meander

Natural Corrals

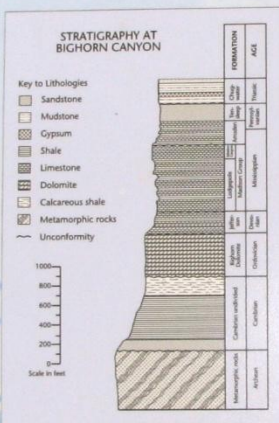
Natural Corrals

Bighorn Canyon

Devil Canyon

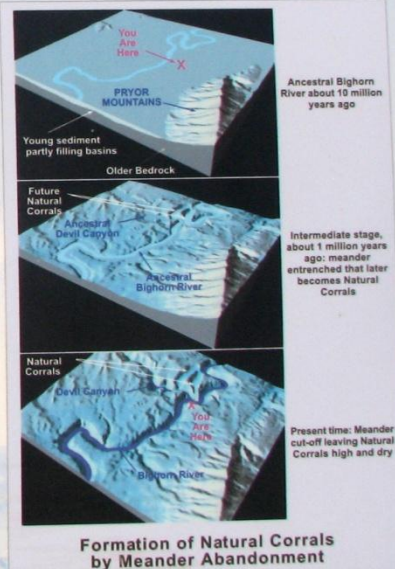
This one here

The mountains you see around you are about 70 million years old. Imagine the area the way it was about 10 million years ago—a plain, sloping gently eastward, that had been formed by erosion of large volumes of sediment from the mountains and deposition in the valleys. Early in its history, the Bighorn River established a meandering course across this plain. When the region was slowly uplifted, the river began cutting down, superimposing itself through the young sediment and continuing down into the underlying bedrock of the buried Bighorn Mountains, forming Bighorn Canyon.



The Natural Corral area across the canyon from you represents the location of an old meander bend of the Bighorn River that has been cut off and abandoned. This natural cut-off occurs when two opposing river banks cut continually toward each other until they finally meet, cutting off the meander loop and leaving the river to follow its present course. Since that time, the Bighorn River has cut downward almost 900 feet to the present canyon depth and the abandoned meander has been left high and dry.

Look at the rock layers in the canyon walls in front of you and in the photo above. You will notice a fold in the massive limestone beds, an anticline. One side of the fold dips (slopes) northward, and the other side dips southward.



Formation of Natural Corrals by Meander Abandonment

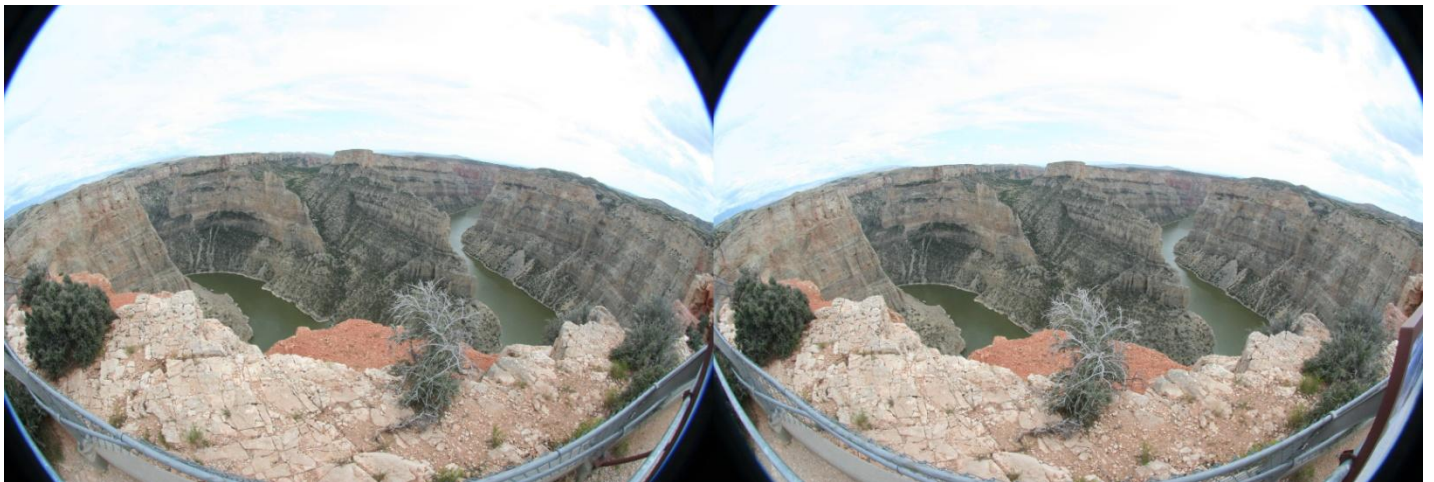


On our way deeper into horse country we took a side road and visited the Big Horn Canyon Overlook.





Where am I standing?





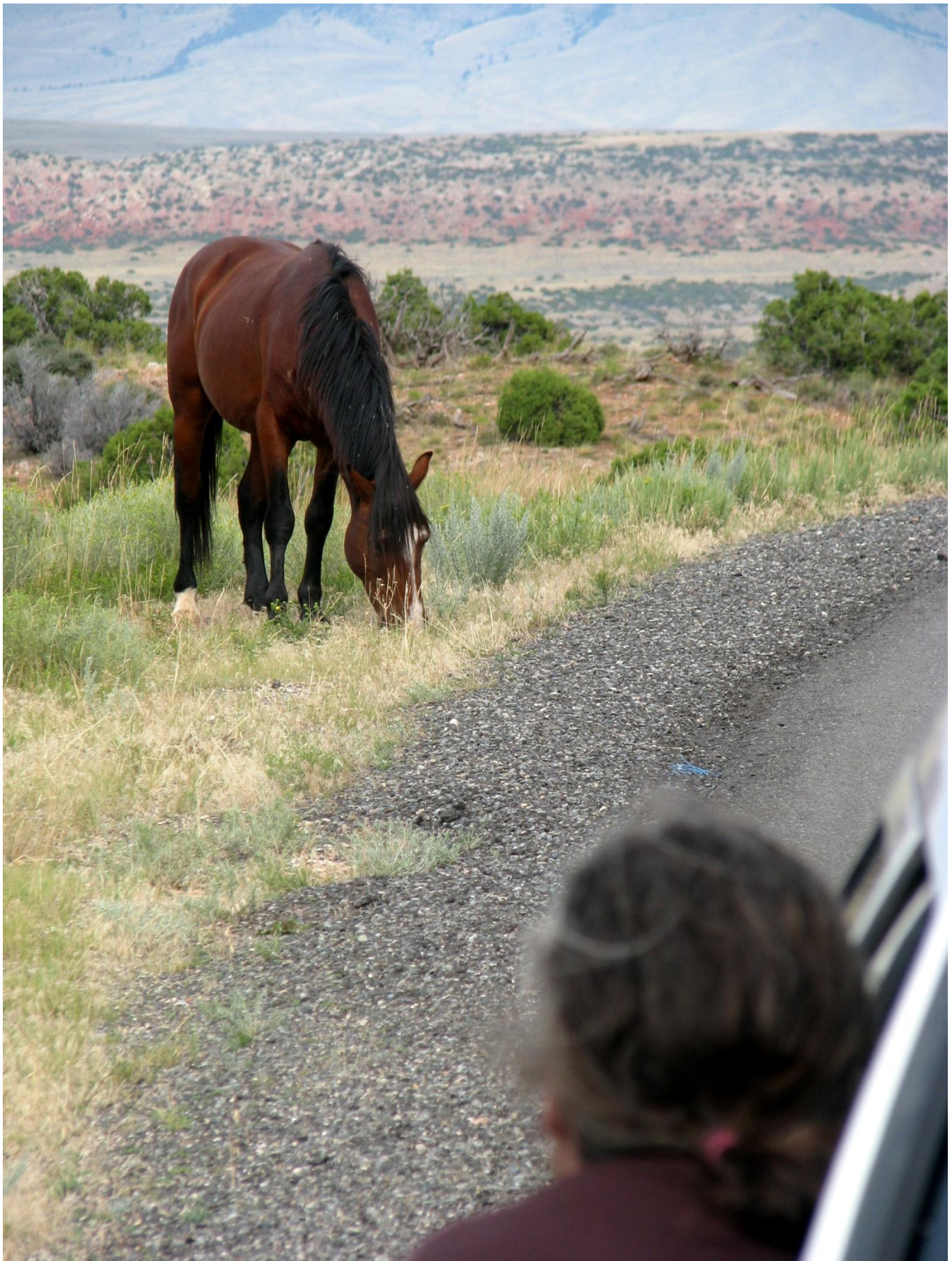


An item of profound mystery. I think it was some sort of floating bathroom.





Our first up close wild horse.





Notice the scars on his side.













This was our first horse family, with a beautiful silver and black stallion, a very pregnant female (above) and two other female horses. They were idly eating near the road. After about 10 minutes of watching Sarah wandered down the road a little ways and suddenly gasp. A dead horse! Ooh, thought I, I'll get a skull! But upon closer inspection it appeared to be more freshly dead. Ooh, thought I, I'll get some beetles! Sadly, as the following pictures show, I got neither a skull, nor beetles.



Dead horse.



Wait! It's making a recovery!



It's alive!



A black stallion from another family that came trotting down the road.



The youngest of the second family.



View from an overlook on the ride back over the mountains.

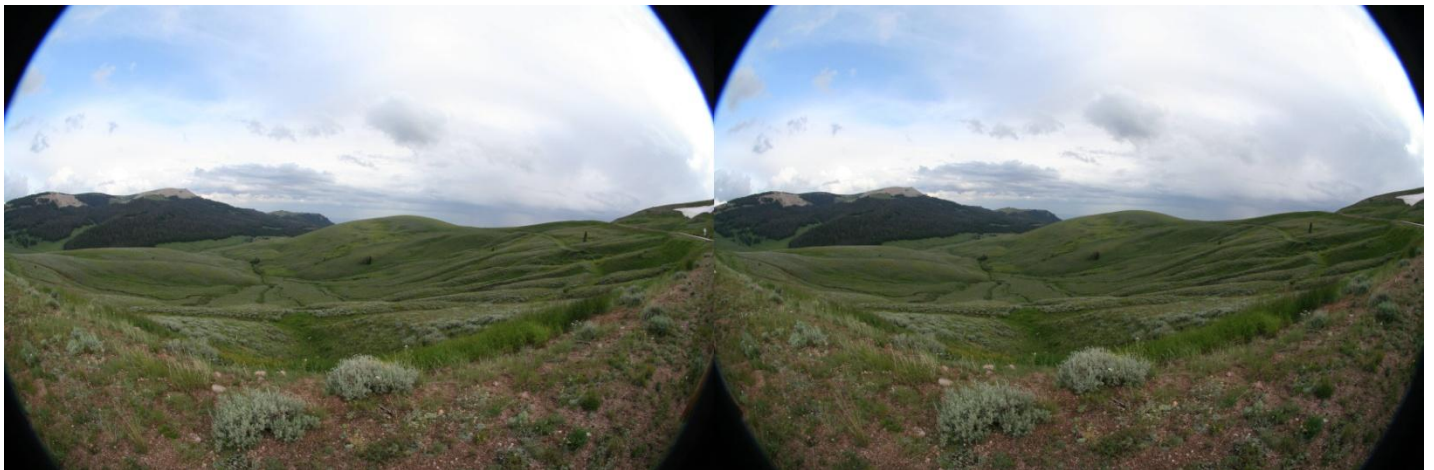


The great beyond.



A view of the ground and vegetation of the area.





One of the high mountain meadows.





29 July 2009

An easy day today. We had lunch at Wyoming's Rib & Chop House and Sarah let me get a bison steak! It was wonderful! We read a bit and in the afternoon went searching for geocaches.

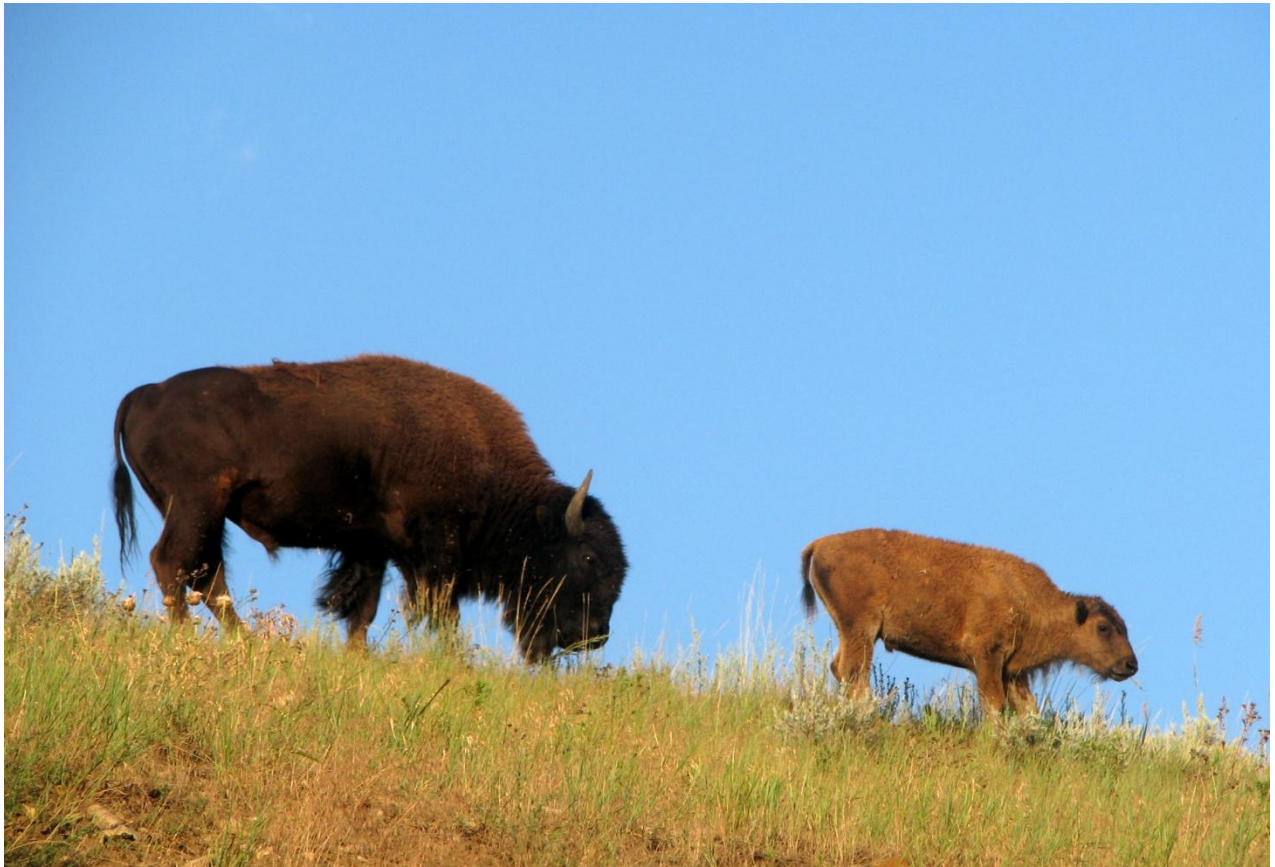




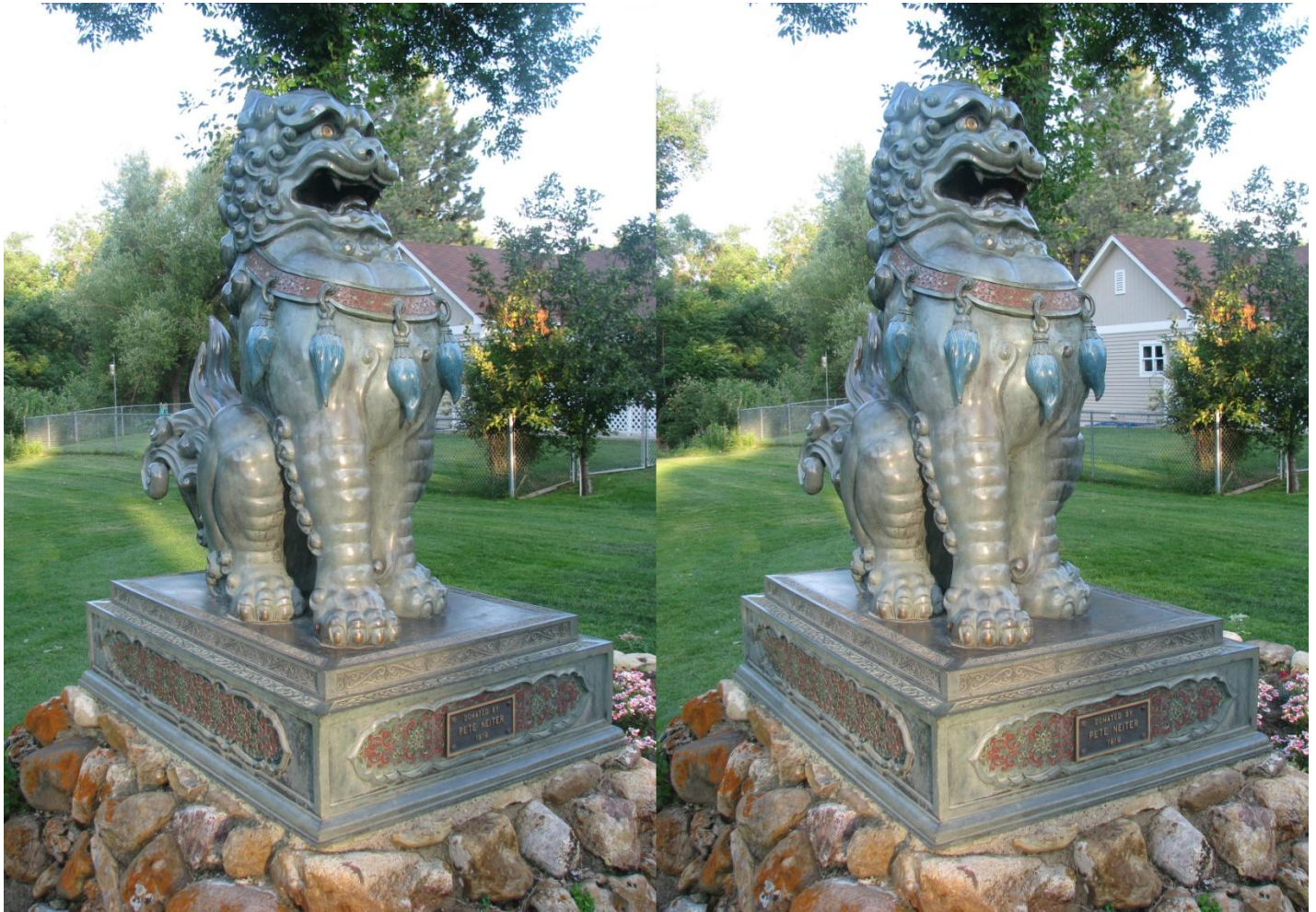
One of the museums of a local rich person. There was a geocache hidden behind the No Parking sign.



Sarah by a giant birch(?).



The buffalo and elk of Kendrick Park in more majestic poses.



There was a geocache hidden somewhere around this statue. Donated in 1919.



Secret writing under the dog.



Here it is, a tiny magnetized metal capsule stuck on a bent nail. There was a tiny piece of paper rolled up inside that Sarah and I singed.

30 July 2009



Sarah and I stopped by the county fair to see the 4-H exhibits. No entomology, but lots of welding!



Some of the quits on display.



The Sheridan Livestock Pavilion. Amazingly well lit and big enough for 3, maybe 4, cows.

We were wandering downtown and came across the King's Saddle Museum. I can't do it justice with pictures or a description, so I'll provide what they say on the website. Needless to say, it was amazing.

"King's collection of memorabilia now makes up King's Museum. These collections are impressive, as are its presentation. Among the many items exhibited are: a Pre-Civil War Conestoga saddle, a Japanese saddle tree found in a tomb located in a cave above the town of Naha on the island of Okinawa during World War II. It is believed the saddle dates back to the 17th century. The museum provides a picture of the Old West through the artwork, silverwork, saddles and Native American collections presented."



Above are actually new saddles for sale. Below is one of the many rooms full of historic saddles.





Showroom and factory.



WYOMING CENTENNIAL WAGON TRAIN
 June 15, 1990
 PHOTO TAKEN WITH AN 1890 - 360°
 PANORAMIC CAMERA
 LOAN: RAY & LINDA McCOY

31 July 2009: To Denver

We headed down to Denver to see my high school friends Brad (top) and Jason (bottom). It's a 6 hour drive and we had already finished *Buffalo for the Broken Heart*, so Sarah started reading *The Oregon Desert* by E. R. Jackman and R. A. Long, a book I got for \$1 at a bookstore in Sheridan. It was written in the 1960s by two old hands and was a collection of stories about what it was like to live in that country from the mid 1800s on. Had a lot of good cowboy humor in it, too. Brad let me borrow a stereo lens he had and try it out.



1 August 2009: Homeward Bound

It's a 12 hour drive from Denver to Clinton. Somehow I've made this drive, there and back, almost a dozen times. And every time I've had to pass a giant sign advertising the Sternberg Museum (with dinosaurs!) in Hays Kansas. Never got to stop. But today we made it!



Dinosaur on other side of sign (you can see its tail peaking out).



A mammoth in the lobby.



They had a life sized T. rex that would roar at you! Sarah was nearly eaten.



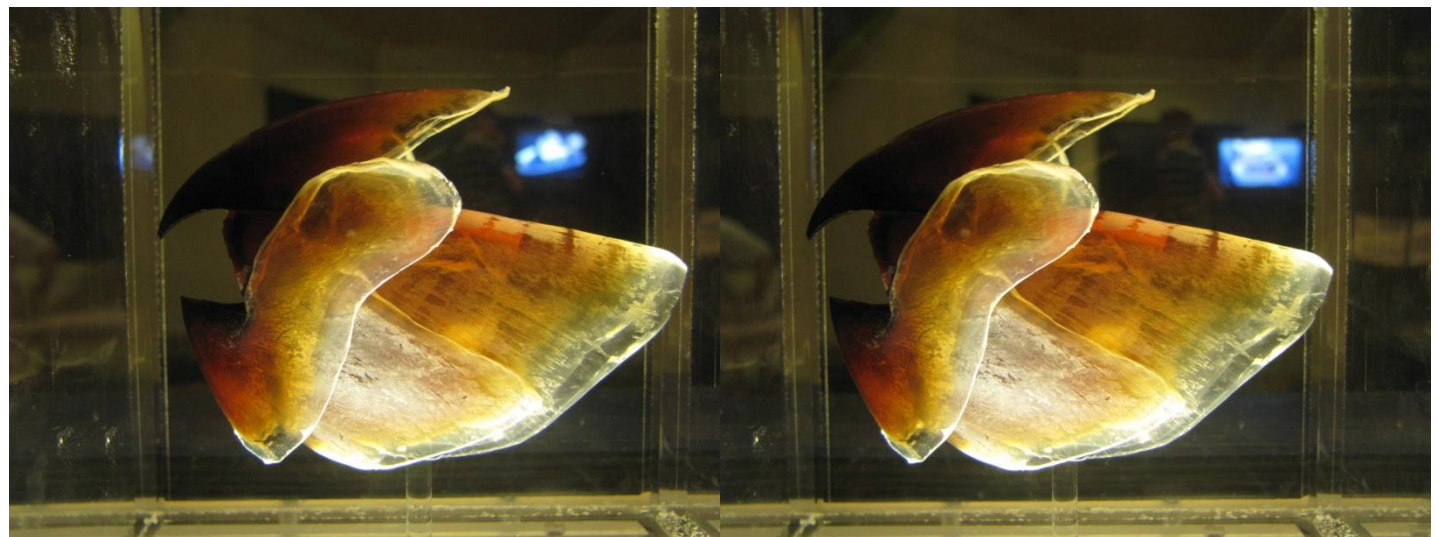


Pteranodons under the Dinodome.





Mosasaur



A real giant squid beak! This is amazing!



It's our friend Stan the T. rex. We got to see the real him in South Dakota. You can order a resin cast of Stan's skull for \$9,500. A bargain.



Naturally posed lion.

Because of our dalliance in the museum we drove hard and only made it to Topeka before it was time to stop. We made it into Clinton by noon the next day and Sarah was home to Columbia that night, ready to start work bright and early again on Monday. I wandered back to Baton Rouge. The trip had come full circle and the only thing left to do now is start planning the next one.

The End

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with Sarah Samson
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