SUN 14.8.

This morning we drove to **Newberry National Volcanic Monument** (southeast of Bend) where VP wanted to see rock called obsidian (silicon in lava). Within the Volcanic Monument there is a large potentially active shield **Newberry Volcano**. The volcano is 40 km in diameter and has a total volume of 500 km³. It possesses a large oval-shaped caldera 6.4 km × 8.0 km in diameter, called the **Newberry Caldera**. Within the caldera there are two lakes (Paulina Lake and East Lake, that used to be just one larger lake),many pyroclastic (primarily of volcanic materials) cones, lava flows, and obsidian domes.



Newberry Caldera showing Paulina and East Lakes, and Big Obsidian Flow (elevation 2,435m).

Silicon in lava: Si atoms have not managed to form crystals-i.e. obsidian has untidily sorted atoms,



unlike silicon. The edge of obsidian is far sharper than surgical steel scalpel. **Obsidian** is a naturally occurring volcanic glass formed as an extrusive igneous rock.



Obsidian tools, 5th millennium BC. The natives who used make these tools could barter them very effectively





Back on the road again. Every so often met motor-bike riders. Most of them were riding Harley-Davidson. But this group was special their bikes were some of the oldest models I'd ever seen. Mind you, the riders themselves were equipped with the latest communication technology.

At this rest place, there was a seat with an engraved message:"In Memory of Dennis ...An Inspiration Then, Now, Always" and that's where the rides stood by...

Camp Frazier at \$ 10.00.

So far we had done 2424km.

MON 15.8.

IDAHO



Motto: Esto perpetua (Latin) - Let it be perpetual

Nickname: "Gem State"

Capital: Boise

Tree: Western white pine

State Song: "Here we have Idaho"

Today we crossed the **Snake River.** It is a major river of the greater Pacific Northwest in the United States 1,735 km long and it is the largest tributary of the Columbia River. Its springs are in Yellowstone National Park and its drainage basin encompasses parts of six U.S. states; its average discharge is over $1,500 \text{ m}^3/\text{ s}$.



The Snake River bends through Hells Canyon on the Idaho-Oregon border

This is the land of Shoshone People. One piece of wisdom I'd come across to in this land was: "NOT ALL WHO WANDER ARE LOST".



Well, looking at these vast prairies of Idaho, I thought to myself, are we lost or are we just "wandering"





Shoshone Falls is a waterfall on the Snake River in southern Idaho, located approximately 4.8 km northeast of the city of Twin Falls. Sometimes called the "Niagara of the West, " Shoshone Falls is 65 m high—14 m higher than Niagara Falls—and flows over a rim nearly 300 m wide.



Shoshone Falls on the Snake River by Thomas Moran, c. 1900



Shoshone City RV Camp at \$ 25. It was an excellent location — good showers, a small supermarket across the road, petrol station, very nice indeed. I washed my clothes, which dried out very soon in this hot and dry climate. On the next site to us you can see a car with caravan belonging to a woman, who had been living here for several years; her husband was a retired army officer while her daughter was living in her mother's flat in Boise. She drives from here to work every day (being employed by the Highway Department) and plans to retire in five years. Then she would move to her flat in Boise. Next to her caravan there is a field where she grows some vegetables (to the right).

So far I had driven 3045km.

TUE 16.8.

Quick breakfast and off we drove to our first location of today — **Craters of the Moon National Monument.** But before we leave Shoshon City, just a few words about this place: the population was 1461 at the 2010 census (in spite of this low population, it is still called city). In contrast to the Shoshone Native American tribe for which it is named, the city's name is correctly pronounced "Show-shown," with a silent 'e'. Shoshone City has one bar, but also boasts a cafe, a movie theater, and a grocery store—unusual for such a small town.

Phone number of the Police Dept. 1-208-8862036 (I wrote this down as we had no clue where to phone in case of emergency; as it was, I do not think I could use it anyway, since our phones were more often than not useless, which we were to find out later).



The end of the main street in Shoshone City



Without efficient overhead irrigation no agricultural crop could be grown on this dry land. This system (well over one hundred meters long) turns around its central point, thus fields can be circular or semi-circular.

Craters of the Moon National Monument encompasses three major lava fields and about 1,000 km²

CRATERS OF THE MOON NATIONAL MONUMENT

of sagebrush steppe grasslands to cover a total area of 2,893 km². All three lava fields lie along the Great Rift of Idaho, with some of the best examples of open rift cracks in the world, including the deepest known on Earth at 240 m.



Cinder crags from North Crater on the North Crater Flow



This scoria (dark colored volcanic rock) field shows typical conditions at Craters of the Moon (elevation1800-2000m).



As the volcanic area is black, so the workers paint the gray concrete edging of footpaths black, too, in order to melt with its surrounding, the land would not thus be disturbed.

Native American history

Paleo-Indians visited the area about 12,000 years ago but did not leave much archaeological evidence. Northern Shoshone created trails through the Craters of the Moon Lava Field during their summer migrations from the Snake River to the camas prairie, west of the lava field.

Stone windbreaks at Indian Tunnel were used to protect campsites from the dry summer wind. No evidence exists for permanent habitation by any Native American group. A hunting and gathering culture, the Northern Shoshone pursued elk, bears, American bison, cougars, and bighorn sheep — all large game who no longer range the area. The most recent volcanic eruptions ended about 2,100 years ago and were likely witnessed by the Shoshone people. Shoshone legend speaks of a serpent on a mountain, who angered by lightning, coiled around and squeezed the mountain until liquid rock flowed, fire shot from cracks, and the mountain exploded.

Lost Valley - a place where the Indians could go and hide; it was like a green oases. The white man could not find it. The ground - ash was so sharp that no shoes could withstand it. And then, where could the white man get the drinking water from?

Exploration and early study

In 1879, two Arco cattlemen named Arthur Ferris and J.W. Powell became the first known people to explore the lava fields. They were investigating its possible use for grazing and watering cattle but found the area to be unsuitable and left.

U.S. Army Captain and western explorer B.L.E. Bonneville visited the lava fields and other places in the West in the 19th century and wrote about his experiences in his diaries. Washington Irving later used Bonneville's diaries to write the *Adventures of Captain Bonneville*, saying this unnamed lava field is a place "where nothing meets the eye but a desolate and awful waste, where no grass grows nor water runs, and where nothing is to be seen but lava."

The few whites who visited the area in the 19th century created local legends that it looked like the surface of the Moon. Geologists Harold T. Stearns coined the name "Craters of the Moon" in 1923 while trying to convince the National Park Service to recommend protection of the area in a national monument.

Protection and later history

From 1969 to 1972, NASA visited the real Moon through the Apollo program and found that its surface does not closely resemble this part of Idaho. NASA astronauts discovered that real Moon craters were almost all created by meteorites while their namesakes on Earth were created by volcanic eruptions. Apollo astronauts performed part of their training at Craters of the Moon Lava Field by learning to look for and collect good rock specimens in an unfamiliar and harsh environment.



the Moon NM we found ourselves once again in Idaho prairies. In the heat of midday sun, we passed a cyclist. Just imagine, cycling on a flat land, with no shade anywhere, and where any roadside dwellings could be well over a hundred km apart. Whilst I was pondering

the cyclist's torture, here came another lonely cyclist. This time I just had to stop, while he kindly crossed the road to our side (photo). His spirits were amazing - he was an optimist and going on his own all the time, not knowing that another cyclist was in front of him. On his bike (besides other things, like a golf club) he carried a couple of sun collectors that were used for charging his radio and phone batteries. Try to have a guess what the golf club was for. His heavily loaded machine (VP could even see a frying pan somewhere on the bike) could not be laid down, so the golf club was used for keeping the bike upright, you see there were no posts or trees which could be used to prop up his machine. He had been on the road for the last three months. His name was Steve and he came from New Mexico. Well done Steve!

Entering the state of **WYOMING** (the state of horses, horses, always horses) in direction to West Yellowstone town. However, when we got to the western entrance to the Yellowstone National Park, we were told that all the camps in the NP were full. So, we had to turn back into the town and with a fair bit of luck, found a place at WAGONWHEEL CAMP GROUND RV@ USD 30 per night. The camp was right in town. We had done 3480km.