IDAHO STATE HISTORICAL SOCIETY

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THE GREAT BONNEVILLE FLOOD

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Until around 10,000 to 12,000 years ago, North America had a climate much colder and wetter than today. Lake Bonneville covered much of Utah and Nevada, and other great lakes occupied much of the present desert areas of the Great Basin. A continental ice sheet (the most recent of a series of four great ice sheets that periodically advanced and melted) covered much of the Great Plains far to the north and east. Snake River ran much larger than today, and until some 34,000 years ago Bear River ran through Portneuf Canyon into Snake River. Then intermittent lava flows west of Soda Springs gradually blocked Bear River. This formed a lake that overflowed into Lake Bonneville, which got several hundred feet deeper. Sometime later than 14,500 years ago, Lake Bonneville began to overflow through Red Rock Pass into Snake River. Once that happened, the Red Rock channel into Snake River deepened very quickly. Lake Bonneville drained down some 60 or more feet to a level of about 5,085 feet. Then over a long period of time, Bonneville River kept on flowing into Snake River, cutting a deeper channel in Red Rock Pass. Finally, Lake Bonneville got down to the 4,775 foot level. From that point on, the lake evaporated faster than water flowed in, and no longer had an outlet into Snake River. This entire discharge did not come in one single stage, but at the beginning, a catastrophic flood poured out of Lake Bonneville. For a short time, Snake River ran three or four times the size of the Amazon. In the gorge below Shoshone Falls, the flood ran almost 500 feet deep, overflowing the walls of the canyon to a point below Perrine bridge. Below Brownlee, Snake River got 410 feet deep for a

time.

Evidence of the great Bonneville flood can still be seen in many places along Snake River. An old lake channel of the Snake can be found west of American Falls where a local lake (previously made by a lava dam) overflowed. In Rupert Basin (which has an area of 300 square miles) flood water stood about 50 feet deep on the average, reaching depths of 80 feet in places. West of Rupert Basin, a large island formed between two channels. One was the present course of Snake River. To the north, another big Rupert channel carried much of the torrent. Wilson Lake now occupies part of this channel. This spillway continued west to Twin Falls (the falls, not the town), and water poured over the northern rim of Snake River Gorge from the Devil's Corral above Twin Falls down to Blue Lakes alcove just west of Perrine bridge. Smooth lava boulders, polished by tumbling downstream during the flood, can be found at many places along the river. Some of the smaller boulders look like rock melons, while others reach ten feet and more in thickness. Small falls, potholes, and scab lands may be seen around Eden, and old high bars in the melon formations show clearly in Hagerman Valley, above King Hill, around Walters Ferry, and in a number of other places. Lake Bonneville was 20,000 square miles (mostly in Utah, but extending a little into Idaho and Nevada) when the flood began. After the deluge went by, Bonneville River continued to drain into the Snake until the climate got too hot and dry. Eventually, most of the rest of Lake Bonneville evaporated away. Now three remnants, including Salt Lake, are all that remain of what once was North America's largest pluvial lake.