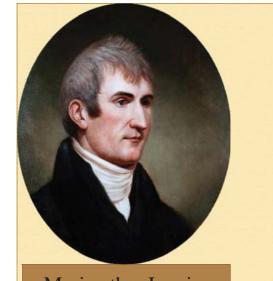
Montana Bureau of Mines and Geology
Miscellaneous Contribution 21-F

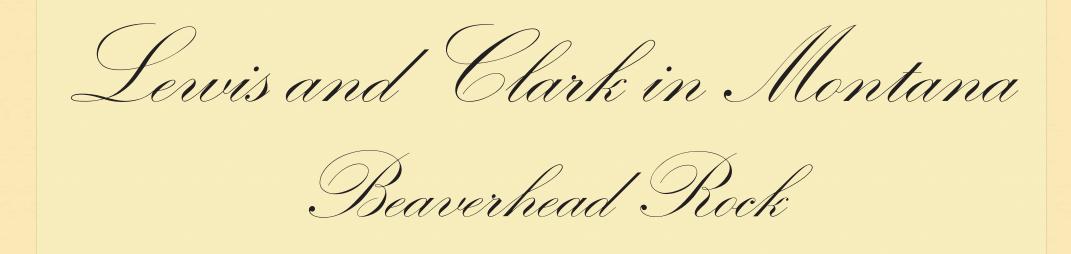
A Department of Montana Tech of the University of Montana

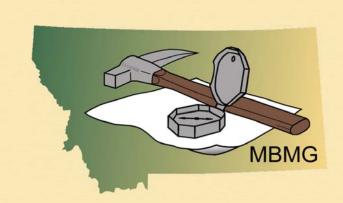


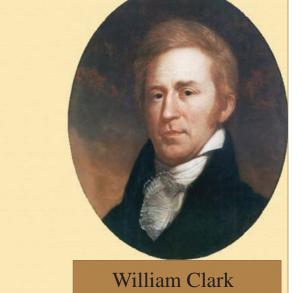
Meriwether Lewis

Courtesy of Independence National Historical Park









Courtesy of Independence National Historical Park

Bob Bergantino and Ginette Abdo

Meriwether Lewis completed his celestial observations at the Three Forks of the Missouri about 8:30 pm on July 29, 1805. The next morning, the Corps of Discovery headed up the Jefferson River. On August 1, Lewis and three men began scouting ahead on foot; they reached the three forks of the Jefferson River on August 3. Clark, with the canoes, joined them on August 6.

Lewis named the Jefferson River's southeast fork Philanthropy River (now Ruby River) and the southwest fork Wisdom River (now Big Hole River) in "commemoration of two of those cardinal virtues, which have eminently marked that deservedly selibrated character [Thomas Jefferson] through life." The captains decided to follow the Jefferson River (now Beaverhead River), believing that it would provide the best route over the mountains to the Columbia River.

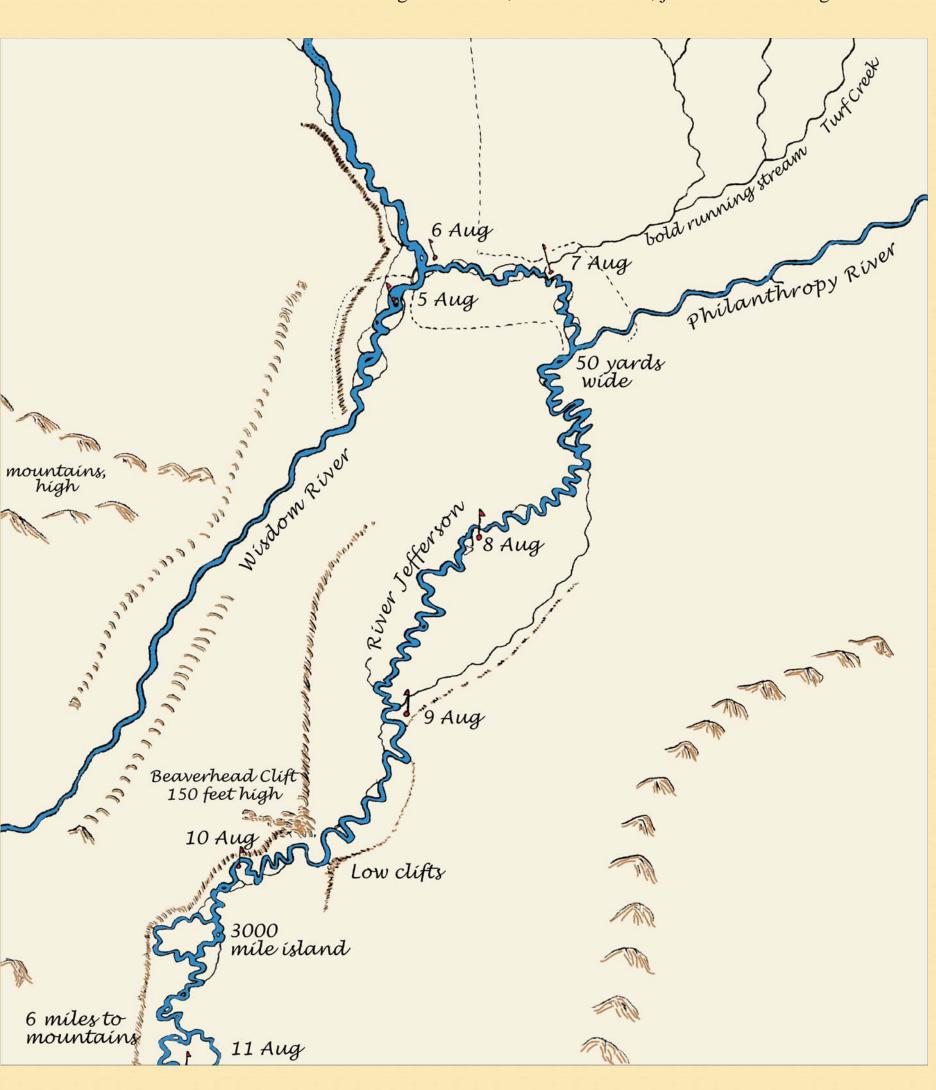
Lewis recorded that on August 8, Sacagawea . . .

... recognized the point of a high plain to our right which she informed us was not very distant from the summer retreat of her nation on a river beyond the mountains which runs to the west. this hill she says her nation calls the beaver's head from a conceived remblance of it's figure to the head of that animal...

On August 10, while Lewis again scouted ahead, Clark passed Beaverhead Rock with the canoes:

mountains, high

... we proceeded on passed a remarkable Clift point on the Stard. Side about 150 feet high, this Clift the Indians Call the Beavers head, opposit at 300 yards is a low clift of 50 feet which is a Spur from the Mountain on the Lard. about 4 miles . . .



Clark's map of the Beaverhead Rock area modified by Bob Bergantino, MBMG

With the help of a little imagination a beaver's head can be seen in the cliff on the right. The rock cliff on the left side of the river is not structurally or topographically related to the Ruby Mountains to the east; that is, it is not a spur from them as Clark thought. The summit of Beaverhead Rock actually stands about 380 feet above the river, that is, 230 feet higher than Clark's estimate.

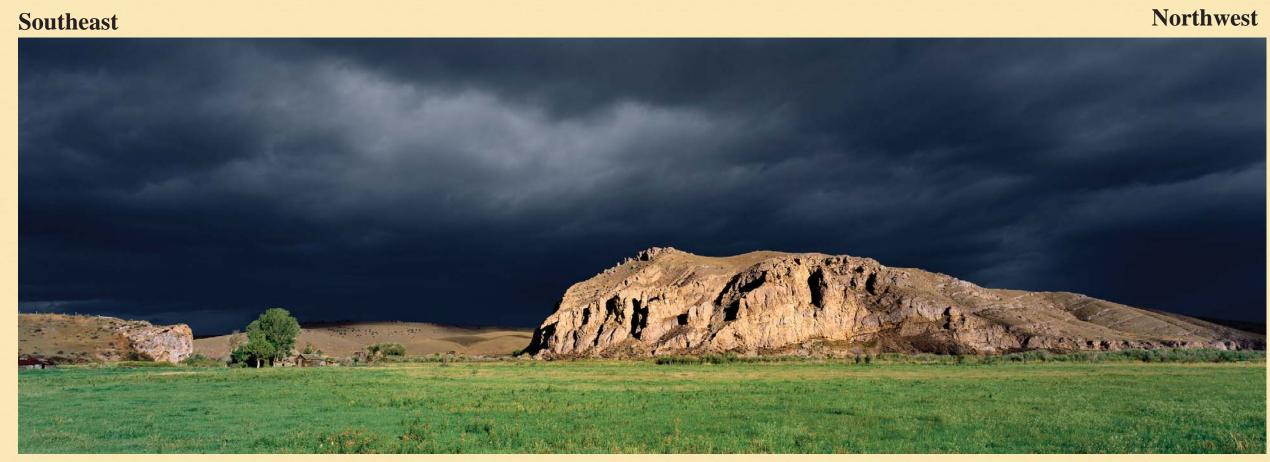


Photo courtesy of Brent Phelps

Ages before Lewis and Clark arrived, Beaverhead Rock was a well known landmark to Native Americans of this area. The "Rock" is composed of gently west-dipping Mississippian-age Mission Canyon Limestone — the same formation exposed in the Gates of the Mountains and near the Three Forks of the Missouri. Deposited over 325 million years ago in a shallow sea that covered much of interior North America, the Mission Canyon Limestone (part of the Madison Group of limestones) crops out in many mountain ranges in Montana.

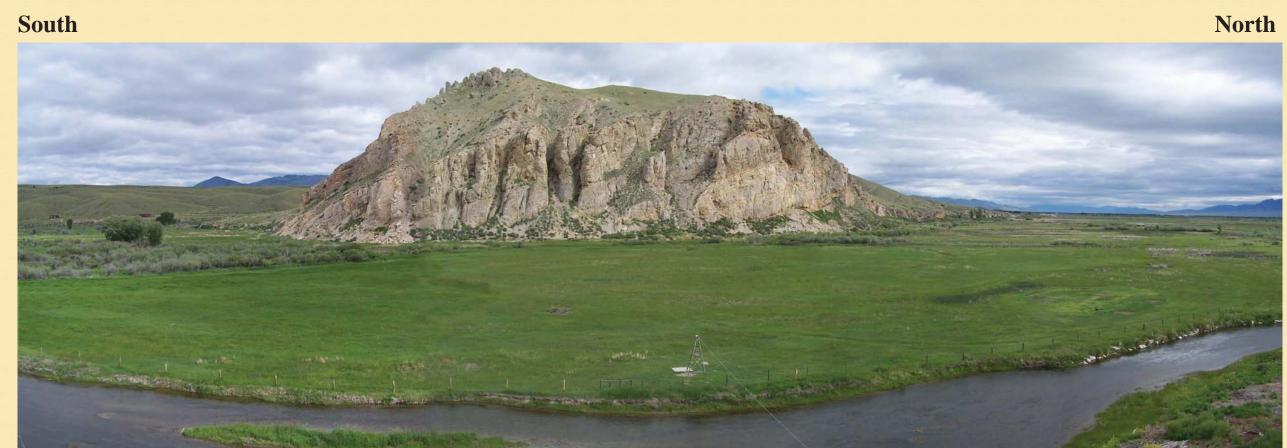
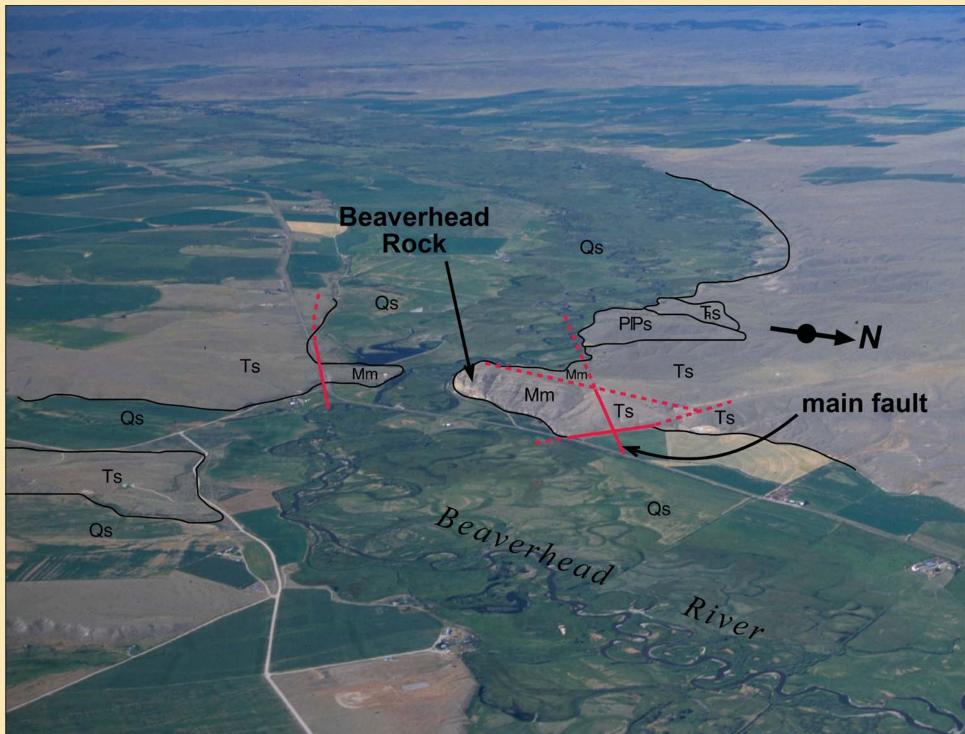


Photo by Ginette Abdo, MBMG

Faulting in this area several million years ago raised a block of the earth's crust. As the Beaverhead River eroded the softer, younger deposits that capped and surrounded the fault block, the more resistant Mission Canyon Limestone remained as a prominent cliff.



Air photo courtesy of Hugh Dresser

S Sediments of modern streams, floodplain and lower slopes

Sediment and sedimentary rock of Tertiary Period (2.5–65 million years ago)

Sedimentary rock of Triassic Period (206–248 million years ago)

PIPs Sedimentary rock of Permian and Pennsylvanian Periods (248–325 million years ago)

Mm Sedimentary rocks (Mission Canyon Limestone) of Mississippian Period (325–354 million years ago)

Contacts

Faults, dashed where covered