Geologic Road Guide Along the Lewis and Clark Trail in North Dakota

By John Hoganson and Ed Murphy

As part of the Lewis and Clark Bicentennial, the North Dakota Geological Survey will be publishing a guide book to the geology along the Lewis and Clark trail in North Dakota. John Hoganson and Ed Murphy, co-authors of the guide book, finished a detailed geologic road log along highways 1804 and 1806 in North Dakota from the South Dakota border to the Montana border this fall. The road log and an accompanying geologic map of the Missouri River corridor will provide Lewis and Clark trail visitors to the state and other Corps of Discovery enthusiasts information about the geologic features the expedition encountered in North Dakota, with the latest interpretation of how the features formed, and their age. Geological observations made by Lewis and Clark will be included in the report, and the locations where these observations were made will be identified in the road log and plotted on the geologic map.

Lewis and Clark at the First Mandan Village

"The Lewis and Clark party arrived at the first Mandan village on October 26, 1804. This village was located at a point between Deapolis and Fort Clark, North Dakota. The large boat, known as a keel boat, was 55 feet long, the two smaller open boats were called pirogues. After carefully examining the area for a suitable building site, Lewis and Clark selected a spot on the east side of the Missouri River about 3 miles below this village site. Here they built Fort Mandan which was the first military post built within the boundaries of North Dakota." This caption was written several years ago by Russell Reid, former Superintendent of the State Historical Society of North Dakota for this painting by Ralph W. Smith, a Dickinson, North Dakota artist. State Historical Society of North Dakota #11549.

As shown in Smith's painting, the strata of the Paleocene age Fort Union Group are exposed along the Missouri River in the Fort Mandan area. The Fort Union Group is overlain in this area by a veneer of glacial drift. The gently rolling upland terrain is typical of the glaciated area of north central North Dakota.