
FRIENDS OF THE PLEISTOCENE 2006: UNDER NORTH DAKOTA SKIES

By Lorraine Manz



Most people who are not Quaternary geologists have no idea who or what the Friends of the Pleistocene are. This is hardly surprising because it is a bit of a non-organization, with no elected officers, no by-laws, no membership fee, and no mailing address to which enquiries or any other correspondence may be directed. We meet just once a year for a field conference, which is usually held in an obscure part of one of the Midwestern states, to look at, discuss, and learn about, Quaternary geology, renew old friendships, and make new ones.

The Midwest group of the Friends of the Pleistocene was founded in 1950; twenty-six years after world-renowned Quaternary geologist Richard Foster Flint and some of his colleagues convened the very first meeting in Connecticut in 1934. Since its inception the Midwest group has held fifty-two annual field conferences – three-and-a-half of these in North Dakota (the 1996 meeting covered parts of Minnesota as well) – the most recent of which was in June this year.

The 52nd Midwest Friends of the Pleistocene field conference kicked off on Friday, June 2nd with registration and an evening reception at the Heritage Center in Bismarck. Ninety-five registrants, representing eleven states and two Canadian provinces, each received a copy of the 157-page field conference guidebook and NDGS geologists John Hoganson and Ed Murphy's book, "*The Geology of the Lewis and Clark Trail in North Dakota*." They were also given an opportunity to view the museum galleries, which were left open for the occasion.

Friends of the Pleistocene field conferences usually have some sort of theme. In recognition of the 200th anniversary of the Corps of Discovery's return to North Dakota in 1806 from the Pacific coast, it seemed appropriate that this year's theme should in some way draw attention to the Lewis and Clark Expedition. The first full day of the conference duly commenced with a visit to the Double Ditch State Historical Site and was followed by stops at Beulah Bay, the Lynch Knife River Flint Quarries and Crow Flies High Overlook near Newtown. Speakers at each of these sites provided insights into their geology and, where applicable, archaeology and cultural significance. These were supplemented by various written articles included in the guidebook while the Lewis and Clark element was provided by "*The Geology ...*" and numerous comments and observations by Ed Murphy, John Hoganson and others throughout the day.

Saturday night was spent at the Four Bears Casino and Lodge in Newtown. The evening banquet featured a traditional

Mandan-Hidatsa bison meal and the after-dinner entertainment was provided, by popular demand, by Howard Hobbs and several other, rather reluctant but no less talented volunteers.

A Friends of the Pleistocene field conference traditionally ends at lunchtime on day two, leaving participants time to catch flights, drive home, or go wherever their plans take them. The previous year however, it had taken almost no effort to convince the Friends that an extra half-day in 2006 would allow them to view and examine some of North Dakota's more unusual glacial features. Half-day two thus became full-day two and included visits to ice-walled-lake plains in Mountrail County, Black Butte near Sawyer, the Hogback Ridge, and the Anamoose ice-thrust. A brief stop was also made at the David Thompson State Historic Site and memorial near Verendrye, an isolated yet beautifully maintained monument, which has to be one of North Dakota's least-known historic markers. Lunch was served in the welcome shade of the picnic shelter at the Scandinavian Heritage Park in Minot.

The buses arrived back in Bismarck at about 9:00 p.m., a little later than expected, but no-one seriously complained. In fact, the comments about the weekend then and since have been overwhelmingly positive. Even the capricious North Dakota weather cooperated with clear, sunny skies and only one, brief sprinkling of rain. The Friends will meet again in Wisconsin in May 2007.

Note: A limited number of guidebooks are available for \$15.00 or as a CD for \$5.00 (see page 30 for details).

Guidebook contents:

- A Brief History of Settlement Change at Double Ditch Village. Stanley A. Ahler, Phil R. Geib, W. Raymond Wood, and Fern E. Swenson.
- Integrated Remote Sensing at Double Ditch State Historic Site, North Dakota. Kenneth L. Kvamme.
- Soil Characteristics at the Double Ditch State Historic Site. Crystal J. Frey, Randy Miles, and W. Raymond Wood.
- Stratigraphy of Three Archaeological Sites at the Turtle Creek and Missouri River Confluence. Michael McFaul, Michael Metcalf, Ed Stine, and Damita Hiemstra.
- Postglacial History of the Stanton Area. Jon Reiten.
- Geologic and Geochronologic Interpretations and their Impact on the Preservation of Cultural Features. Jon Reiten.
- Small-Format Aerial Photography for Archaeologic Applications: Knife River Indian Villages NHS. James S. Aber.

A Funny Story about how I Discovered Knife River Flint Quarries. Lee Clayton.

Knife River Flint and the Lynch Quarry. Ed Murphy.
Late Pleistocene (Rancholabrean) Mammals of North Dakota. John W. Hoganson.

Origin of the Missouri River in North Dakota. John P. Bluemle.
Glacial Landforms of the Missouri Coteau in North Dakota. Lorraine A. Manz.

Pleistocene Ostracodes from Ice-Walled-Lake Deposits in North-central North Dakota. B. Brandon Curry.

Relationship between Exceptionally Long Drumlins and Ice-thrust Topography. John P. Bluemle and Lee Clayton.

Exceptionally Long, Narrow Drumlins – The “Hogback” Ridge. John P. Bluemle.

Development of Linear Glacial Ridges near Karlsruhe, North Dakota. Trent D. Hubbard.



At Beulah Bay, Jon Reiten (Montana Bureau of Mines and Geology), illustrates a point as he talks about local postglacial geology.



NDGS geologist Fred Anderson talks about glacial meltwater channels and catastrophic flooding near Minot.



North Dakota state geologist Ed Murphy, Alan Kehew (Western Michigan University) and Nels Forsman (UND) deep in conversation at the Friday evening reception.



Anthropologist Ray Wood (University of Missouri), an expert on the early explorers such as David Thompson, John Thomas Evans, James MacKay, and the La Verendryes, addresses the group at Crow Flies High Overlook.

Don Schwert (NDSU) and the Highgate mastodon in the main exhibition gallery of the North Dakota Heritage Center.



Paul Picha, archaeologist with the State Historical Society of North Dakota, addresses the Friends at Double Ditch State Historic Site.



Lee Clayton (Wisconsin Geological and Natural History Survey), center, poses with Knife River flint quarry owners, Allan and Gail Lynch. Lee and his brother Mik discovered these quarries during the summer of 1968, thereby adding about 250 acres to the few acres of Knife River flint quarries known at that time.



Survey paleontologist John Hoganson talks to the group about North Dakota's Pleistocene fauna.



From left to right: John Bluemle, Fred Anderson and Brett Woodward at Anamoose. The ice-thrust structure under discussion is shown in the aerial photograph.



Ed Murphy (left) discusses stratigraphy at Beulah Bay while NDGS Paleontology Lab Specialist Brett Woodward keeps the poster under control.



Alan Kehew (Western Michigan University) formerly with the NDGS, discusses the evidence for catastrophic flooding in the Velva area.



NDGS geologist Lorraine Manz (left center) discusses ice-walled-lake plains at Stop 2.



The David Thompson memorial near Verendrye. The inscription reads: "1770 DAVID THOMPSON 1857, GEOGRAPHER AND ASTRONOMER – passed near here in 1797 and 1798 on a scientific and trading expedition. He made the first map of the country which is now North Dakota and achieved many noteworthy discoveries in the northwest." The Corps of Discovery carried a copy of Thompson's map on its 1804-1806 expedition.

Kent Syverson (University of Wisconsin, Eau Claire) and Howard Hobbs (Minnesota Geological Survey) with autoharp.



A group photo of the 2006 Midwest Friends of the Pleistocene at an ice-walled lake plain in southwestern Mountrail County.