

Spirit Mound Trust News

P.O. Box 603, Vermillion, SD 57069 • info@spiritmound.org • www.spiritmound.org • Norma C. Wilson, Editor • December 2012

Impacts of Weather Extremes at Spirit Mound

By James Heisinger

If you walk the trail this winter you'll notice many changes in both the infrastructure and plants at Spirit Mound. In 2012, Trust members became concerned about continuous erosion at the top of the mound. In response, Game Fish and Parks closed and matted the south slope trail to prevent erosion. On the east side of the mound's top, persistent deer traffic had worn an ever-eroding gully, decreasing the size of the apical plateau. Park personnel erected wooden erosion barriers and ground netting. The North Slope was also eroding from the heavy foot traffic, and its 20% grade made descent treacherous. Once again the Park Service came to our rescue with a crushed limestone walkway. The new Regional Park Supervisor, Eric Vander Stouwe, has worked closely with Trust members and made many infrastructure improvements.

Walking north on the trail you'll see that the bridge has been reinforced and the trail, compacted, repairing water damage from the flood of 2011. By contrast, this year's drought prevented the large patch of saw-toothed sunflowers (*Helianthus grosseserratus*) on the south side of the creek from profuse flowering. On the north side of the creek a new sign identifies the large patch of tall Reed grass (*Phragmites australis*) reminding visitors that during the last glacial period mammoths and giant sloths often fed on this trans-global plant. The glacier retreated about 13,000 years ago. That means that the prairie community had about 13,000 years to evolve into residents remarkably tolerant to grazing, fire, wind and drought.

In the spring of 2012 the middle third of the park was subjected to a managed burn to give native plants an edge over less fire-tolerant, shallow-rooted, invasive, non-resident plants. To our surprise an intense drought settled over much of the Midwest. The drought intensified before the native warm season grasses sprouted; consequently both the grasses and flowering prairie forbs were stunted. This was to be my year for identifying the Mound's asters; they have been reclassified from the genus *Aster* to *Symphotrichum*. My quest was foiled by the drought, causing a fruitless search for flowering plants. However, these grasses and forbs are alive un-



Spirit Mound after the burn (viewed from the west)

der the ground, awaiting spring moisture to reclaim life above ground.

Until moisture returns the Trust will delay our quest for newly identified native plants and our intended study of the chemistry and biota of the now dry creek. Adding to the climatic assault, a large water pipe broke denying water to visitors and inhibiting the efforts of Mark Wetmore and Paulette Wipf to water newly planted buffalo berry seedlings. Walking off-trail last September was as audible as walking on the gravel trail; the dry plants popped, snapped and crackled underfoot. Higher up, the Mound it was even drier.

Ascending the Mound the weary walker can rest on new benches supplied by South Dakota's Department of Game, Fish and Parks. At the peak, visitors can sit and view in all directions from a new six-sided bench designed by Trust members and built with artistic license by Geoffrey Gray-Lobe. The bench is low to the ground and hardly visible from the parking lot.

From this bench other signs of the drought can be seen. Lead plant (*Amorpha canescens*) adorns the east side of the mound in prolific abundance. It has an extremely deep root system, up to 16 feet, and is an exemplary survivor of drought and fire, a hero of natural selection. The grasses around it are stunted. In 2003 many small lead plants were planted, but we thought the seedlings had perished. Perhaps these are remnants of that effort. In the coming year, the Trust will continue to work to preserve and diversify the prairie ecosystem. A prairie with diversified species will be a visitor's treasure in both wet and dry years.

Restoration Efforts and History of Spirit Mound Cemetery

By Nancy Carlsen

Spirit Mound Cemetery, with its pioneer burial site and surrounding prairie remnant, has come under the benign purview of Spirit Mound Trust this past year. On a bluff overlooking the Vermillion River valley a mile northeast of Spirit Mound, this beautiful little cemetery became the final resting place for nearly 40 people from the Bloomingdale and Spirit Mound communities beginning in 1875, including members of three families who settled land now included within the Spirit Mound Historic Prairie.

Spirit Mound Cemetery's 50 years of active use were ended when the last person was buried there in 1937. As members of the old pioneer families died or left the area, the cemetery became virtually forgotten. In the 1980s, after cattle had tipped many of the gravestones, an Eagle Scout under the direction of Pastor Sandy Aakre erected a chain link fence around the half-acre containing the pioneer burials and the great old Scotch pine. Over time, the field fencing around the entire cemetery became dilapidated, and in recent years sections of the north and east fence were removed, allowing horses to graze down a portion of the prairie remnant. While a neighbor would occasionally mow, the cemetery was basically unmaintained, and the Clay County Historic Preservation Commission's 2006 Cemetery Inventory listed it as "abandoned."

This past spring, Mark Wetmore of the Spirit Mound Trust became interested in the cemetery as a rare remnant of native prairie, and in the relationship between the pioneer cemetery and the families who first settled the Mound.

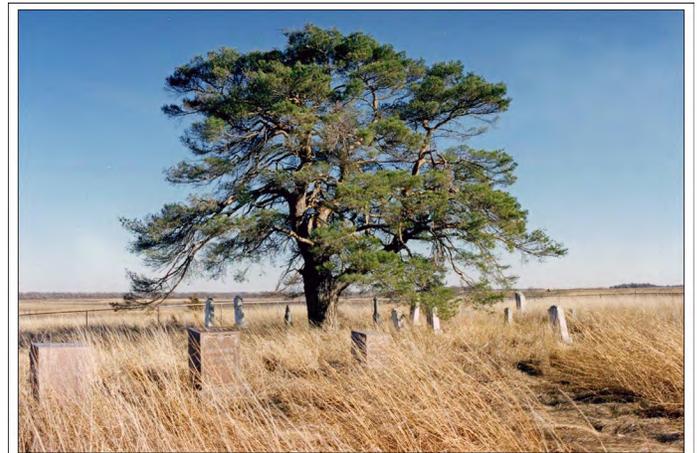
Buried at Spirit Mound Cemetery are members of the Williams and Hixson families, original 1860-era homesteaders on portions of Spirit Mound, as well as the pioneer McDonald family, one of whose descendants purchased and then moved his family onto the old Hixson place. Over a century later, a McDonald descendant sold the remaining rights on family land for the Spirit Mound Historic Prairie. These early pioneers were the last settler generation to see the prairie whole – with Spirit Mound looming on the treeless horizon – and the first to begin the long transition to farming.

My sister Cindy Kirkeby and I have a personal interest in the cemetery since our great great grandparents Alonzo and Cordelia Richardson are buried there. Mark, Cindy and I formed a committee and were appointed in August by the Clay County Commissioners as the Spirit Mound Cemetery Board of Directors, charged with the pursuit of improvements at the site.

We began by re-establishing the cemetery's boundaries with proper fencing. Last summer, the site was professionally surveyed by Travis Kropuenske, Registered Land Surveyor with Johnson Engineering Company of Yankton.

Erik Lindsay and Zach Holtgrewe then erected a new four-wire field fence on the north and east boundary lines, and tightened much of the remaining fence, trimmed the plum thicket, cut Siberian elm trees, and removed some of the old fencing. The west boundary fence by the road will be tightened, and some of the pipe on the chain link fence around the pioneer burials will be replaced. Marvin Walz mowed a wide pathway from the road to the pioneer burial enclosure, as well as the burial site itself. His efforts greatly facilitated access to the cemetery for visitors, and for surveying, fencing and tree removal.

Spirit Mound Cemetery is tiny compared with the 320-acre half-section now protected as Spirit Mound Historic Prairie. Although much of the Mound area had been farmed before prairie restoration began in 2001, the cemetery land was never plowed, and grazing was limited most of those years by field fencing. While currently infested with brome, many prairie plants still thrive within its boundaries. Perhaps in the future, this 2.5-acre parcel may be able to contribute native prairie seeds for its larger neighbor.



Spirit Mound Cemetery
Photo courtesy of Mark Wetmore

Settling here in 1869, John P. and Mary [Campbell] Williams moved their six children to a home built east of Spirit Mound, close to the trail that would become Highway 19, and obtained their patent in 1875. Three more children were born there beside the Mound. Before 1900, four of John and Mary's adult children and one grandchild were laid to rest at Spirit Mound Cemetery. The elder pioneers were buried there in the 1920s.

In 1868, a year before the Williams family arrived, Nathan and Sophia [Hunter] Hixson moved to Dakota Territory with three boys and five girls between the ages of 4 and 20. They chose a home site on the NE quadrant tucked beneath the northern slope of Spirit Mound, where they lived for a generation. Nathan received a

patent on that land in 1881 and also spent time working at the Bloomingdale Mill. Their son Jasper Hixson homesteaded the NW quadrant, receiving his patent in 1880. Both quadrants would become part of the Historic Prairie.

Mound. However, the Hixson/McDonald farmstead beneath the Mound to the north was entirely removed at the beginning of the restoration process, as were buildings and plantings within other portions of the park's 320-acre boundary.

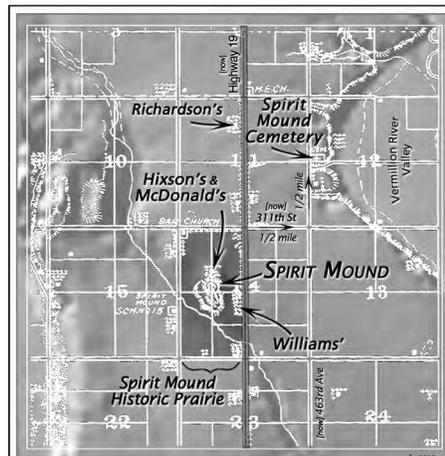


Front row, center: Nathan and Sophia Hixson
 Back row, 2nd from left: Pamela Hixson [Cleland]
 Public Member Photos and
 Scanned Documents - ancestry.com - date unknown

Nathan and Sophia's sixth child Pamela Hixson Cleland provided the crucial link between Spirit Mound and Spirit Mound Cemetery. Thirteen years old when the Hixson family moved to the Mound, Pamela later married pioneer neighbor John C. Cleland. Her father, Nathan Hixson, died in August 1885, and that December, a deed was signed by John C. and Pamela Cleland to the Spirit Mound Cemetery Association, granting nearly 2.5 acres of land for a cemetery. Located about a mile northeast and within sight of Spirit Mound, this cemetery would be used non-denominationally to serve the Bloomingdale and Spirit Mound communities for the next 50 years.

In 1868, the Marey and Andrew A. McDonald family had settled a few miles south of Spirit Mound. Their son A.C. McDonald and his wife Carrie [Olson] bought out the Hixson family holdings in the NE quadrant in 1909, and the farmstead beneath the north slope of Spirit Mound would become the family home of Andrew and Marey's grandson A. Vergil McDonald and his wife Blula [Engman]. It would be Vergil [aka Virgil] who would haul the DAR monument to the top of the Mound in 1921 with his team of horses. And it would be a great grandchild of Marey and Andrew who would complete the circle over a century later by deeding remaining rights on family land to be incorporated into the park.

When the Spirit Mound Historic Prairie was formed, nothing remained of the Williams farmstead east of the



Spirit Mound Area

Home sites as shown on modified E. Frank Peterson 1900 map

We hope Spirit Mound Cemetery can be protected and its native prairie remnant can one day flourish again. Efforts to re-establish the Spirit Mound Historic Prairie will provide guidance, and at least a year will be spent simply observing the native prairie plants which emerge amid the brome at the cemetery. Many restoration ideas are being considered, including plantings along the north fence-line, prairie burns, grazing, and re-righting the tilting and fallen headstones. Meanwhile, a small sign is being developed to identify the cemetery and to acknowledge the support of Spirit Mound Trust. Contributions to the effort are welcome under the auspices of the Trust.

Trust Cemetery Support

By Mark Wetmore

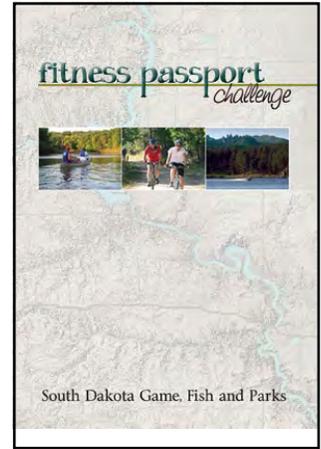
The Trust's primary purpose will always be to support the prairie habitat, study, and interpretation of Spirit Mound. Membership dues and undesignated donations are dedicated to those purposes. Because the near-by Spirit Mound Cemetery shares history, prairie setting and name, it is appropriate that we also offer it support. Those who want to help the cemetery may designate gifts for that purpose and the funds will be kept in a separate account. All donations to the Spirit Mound Trust are tax deductible.

Fitness Passport Challenge

By Eric Vander Stouwe, District Park Supervisor, Newton Hills State Park

The Game Fish and Parks Fitness Passport Challenge encourages people of all ages to get outdoors and visit South Dakota State Parks. Visitors to state parks, recreation areas, fish hatcheries and The Outdoor Campuses can receive incentives for visiting our parks. First the visitor needs to request the Fitness Passport, available at the website or at any GFP office. Each recreation area has a stamp that can be found in a lock box; so visitors can stamp their books to verify a visit even when staff is not present. Lock boxes are located near the self-registration stations at state park entrances and on welcome signs at non-fee areas. The combination to unlock the box is the year the park was established and is listed on the passport page that describes the area. Prize levels are reached when you have 10, 25, 45 and 65 stamps in your passport book. When you've reached one of the levels, take the Passport Prize form and your book to a Game, Fish and Parks office or a state park for verification. Ask a staff member to verify the levels you've reached and sign your form.

Spirit Mound Historic Prairie is part of the South Dakota Game, Fish and Parks' Fitness Passport Challenge. The Spirit Mound lock box can be found on the south side of the kiosk near the parking lot. For more information please go to <http://gfp.sd.gov/outdoor-learning/passport-challenge.aspx>



Spirit Mound Visitation Trends

By Eric Vander Stouwe, District Park Supervisor, Newton Hills State Park

Since its establishment, Spirit Mound Historic Prairie has seen a number of visitors. Spirit Mound continues to be a destination for those interested in the Lewis & Clark journey as it is one of the locations we know of today where the men actually stood more than 200 years ago. The chart below shows vehicle traffic numbers from the bicentennial celebration starting in 2004.

Take note of the larger traffic numbers in the summers of '04 and '05 during the peak of the bicentennial.

In order to calculate the number of visitors, GFP has conducted a couple of visitor surveys and used a multiplier of 2.34. For example, during the month of October 2012, we calculated that Spirit Mound experienced 2,010 visitors (859 vehicle counts x 2.34 multiplier = 2,010 people).

Our hope is that visitation will continue to be strong at Spirit Mound.

	2004	2005	2006	2007	2008	2009	2010	2011	2012
January	15	17	25	54	44	201	182	107	380
February	21	42	224	189	82	303	170	163	324
March	85	81	273	273	187	449	435	360	375
April	225	231	498	482	314	529	978	540	487
May	980	861	657	515	575	587	563	577	782
June	1242	1122	688	874	985	991	999	670	639
July	1492	1015	625	1031	889	1038	1059	988	643
August	1965	860	707	867	825	1438	677	773	971
September	948	706	725	621	861	895	834	855	656
October	501	413	530	620	623	710	461	522	859
November	221	272	281	378	400	449	447	345	486
December	174	136	117	192	170	205	181	381	
Total Vehicles	7869	5756	5350	6096	5955	7795	6986	6281	6116
Total Visitors	18413	13469	12519	14265	13935	18240	16347	14698	14311

Celebrate the New Year with First Day Hikes

By Eric Vander Stouwe, District Park Supervisor,
Newton Hills State Park

Start the New Year off right with a nature hike. Four South Dakota State Parks are hosting hikes on New Year's Day as part of America's State Parks First Day Hikes initiative.

Spirit Mound Historic Prairie will be hosting a free First Day Hike on January 1st, 2013 at 1:00 p.m. The 1.5 mile hike will be guided by John Dummer, Assistant Park Manager. During the hike, participants will learn about Lewis and Clark's experiences at Spirit Mound during

their journey up the Missouri River in August 1804. Snow shoes will be provided for those who pre-register, but participants are encouraged to bring their own in the event of snow fall. The hike will kick off at the kiosk sign near the parking lot.

America's State Parks First Day Hikes offer individuals and families opportunities to begin the New Year rejuvenating and connecting with the outdoors by taking healthy hikes on January 1 at a state park close to home. First Day Hikes are a great way to get outside, exercise, enjoy nature and welcome the New Year with friends and family. The nationwide program was launched to promote both healthy lifestyles throughout the year and year-round recreation at state parks. This is the first time all 50 state park systems have joined together to sponsor First Day Hikes.

For more information and to pre-register for snowshoes, please contact the Newton Hills State Park office at 605-987-2263 or newtonhills@state.sd.us. Pre-register by 4:30 p.m. on December 21. We hope to see you at the "Mound" on New Years Day. Come on out for a great, fun adventure!



New bench on top of Spirit Mound.

Study to Evaluate Restoration Progress

By Alice Millikin

I will be studying Spirit Mound starting in the spring of 2013. I am originally from Virginia, where I attended George Mason University for my bachelor's degree. This is my first year attending the University of South Dakota for my Master's in Biology. Dr. Meghann Jarchow, assistant professor at USD and knowledgeable botanist, is my advisor on the Spirit Mound research. Dr. Karen Olmstead, who advised Rusty Vote on her thesis on Spirit Mound in 2003 and 2004, will also have an active part in the project. My thesis will build on Vote's research to evaluate progress of the restoration. I will measure how plant diversity, biomass and soil characteristics have changed over the past ten years. The study will also evaluate effects of the burn management regime on plant diversity and biomass.

This semester I met with the Spirit Mound Trust Board Members, faculty at USD, and South Dakota Game, Fish and Parks manager, Eric VanderStouwe. They have all been very helpful and answered every question I had on the history and restoration of Spirit Mound. I expect to have a complete management record of the Mound by this winter and a completed proposal before next spring. I hope to see you at Spirit Mound soon, as it is always a pleasure to meet people who truly care about such an important historical and ecological site.



Clay County Historic Preservation Commission members are pictured taking a guided tour of the Mound led by Jim Heisinger. Members of the Spirit Mound Trust are invited to arrange a tour for their organization or group by contacting Jim or Mark Wetmore.

Spirit Mound Trust Board of Directors:

Dianne Blankenship, Brian Hazlett, Nancy Carlsen, Meghann Jarchow, Jim Peterson, Alice Milliken, James Heisinger (President), Mark Wetmore (Vice President and Treasurer), Norma Wilson (SMT News Editor), Paulette Wipf (Newsletter Format Editor) and Tim Cowman (Web person).

Spirit Mound Trust
P.O. Box 603
Vermillion, SD 57069

ADDRESS SERVICE REQUESTED

Support the Mound

Spirit Mound Trust membership is \$10 per year. Additional donations are welcome, and all are tax deductible. Your support helps to develop a better, more diverse historic prairie and fund other programs to make the Mound a more interesting place to visit.

Our address is P.O. Box 603, Vermillion, SD 57069. Please join us:

Name _____

Address _____

Telephone _____

Email address _____

Amount enclosed: _____



Also, a few of the 1" x 2" enamel Spirit Mound pins are still available for \$5 and the Ron Backer print *Lewis & Clark on Spirit Mound* for \$100, both post paid.