OF THERMOMETERS AND TEMPERATURES ON THE EXPEDITION

CRUZATTE'S CONTRIBUTIONS
FIRE IMPACTS ON THE LANDSCAPE
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On the cover
This view of the west front of Monticello provides a visual image of a typical winter day during which Thomas Jefferson would have recorded the temperature. He compared his twice-daily readings with data he received from others including friends abroad and Dr. James Madison at the College of William and Mary. Jefferson's passion for thermometers and weather data is evident in his correspondence dating 25 years before the expedition began. He and his colleagues at the American Philosophical Society envisioned a national meteorological system.
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President’s Message
Bicentennial is over, but we’re just getting started
On October 1, a new year began for the Lewis and Clark Trail Heritage Foundation. It is my pleasure and privilege to serve as your president for 2008. Occasionally when I explain the tasks I have taken on, some have asked, “Why now? Isn’t the bicentennial over? Aren’t Lewis and Clark finished?” My answer is always a resounding, “NO, the Lewis and Clark story is just getting started!”
Have we all been a little “burned out” recently? Of course! Has much of our energy the past 10 years focused solely on the bicentennial and honoring the expedition’s story, its complexity and its diversity? Yes! However, now that we have a post-bicentennial year under our belts and can reflect back, it is obvious that the bicentennial was just the beginning. It was the catalyst that launched hundreds of thousands of unsuspecting children and adults into a world of exciting living history, family recreation, a better understanding of their tribal neighbors, and conservation of our beautiful and endangered land. The bicentennial years set the stage for an incredible third century!
Now, more than ever, our historic trail is important to the youth of our country. If you don’t believe this statement, I suggest you read a book Stephanie Ambrose Tubb’s recommended to me at the annual meeting, Last Child in the Woods, by Richard Louv. I am reading it now, and it tells an alarming story. We need to get children out on the trail. It is important to the wellness of our nation to get them out there. Their parents will follow. The partnership that we have formed with the Boy Scouts of America is an important step. If this partnership is successful (and we are highly committed to making it so), it will be the first of many exciting partnerships with youth organizations. Our Education Committee is gearing up and will be defining ongoing Lewis and Clark-based programs that will appeal to educators and youth in our trail states and beyond.
We ARE the Keepers of the Story. The bicentennial taught us many things. One of the most important is that we have to tell the whole story, not just the part we remember from our history books.
The National Council for the Lewis and Clark Bicentennial and the National Park Service were committed to asking tribes to tell their stories in their own words. They highlighted the dedication of not only the military corps, but also that of Sacagawea and York during the commemorative years. The foundation’s board of directors and I are committed to carrying this important lesson into the third century. The Diversity Committee soon will be making recommendations as to how the foundation can better interact with tribes as we move forward.
We ARE the Stewards of the Trail and, trust me, it is a daunting task. Our trail is already long, but it will be even longer when we can officially include the Eastern Legacy states. Working within the congressional arena is a complex and demanding process, but we are committed to making this happen. Wendy Raney and the Eastern Legacy Committee continue to make consistent, albeit slow, progress in this area.
The amount of interpretation along the trail has doubled and tripled. Preservation of these valuable resources is important, and the Trail Stewardship Committee is very active.
and committed to preserving the trail. As the National Park Service’s Lewis and Clark Challenge Cost Share program comes to an end, we will constantly be looking for new ways to fund trail stewardship. Thanks to the efforts of Dr. Robert Archibald, the National Council for the Lewis and Clark Bicentennial and the Missouri Historical Society gave us $1.6 million from the U.S. Mint coin sales to be held in trust for trail stewardship activities. Each year we are allowed to transfer approximately $80,000 from trust earnings into our general budget to fund trail-related initiatives. That is extremely important when you realize that by the end of 2008, we will have lost $250,000 per year in Park Service Challenge Cost Share grant money that funded specific programming in our foundation budget.

Financial independence is critical to our organization’s future. The Third Century Campaign to raise a $5-million endowment is now in full swing. You will be hearing much more about it in the coming months. I cannot stress it too many times—this campaign is critical to the foundation’s financial health and solvency. To continue to fund our small but incredibly talented staff, preserve and expand the Sherman Library services, develop the trail and membership programs that are in progress, and create new initiatives with youth and other diverse groups, we will need at the very least, the $250,000 that can be legally drawn out of a $5-million endowment each year. That added to the $80,000 from the trail stewardship trust each year will gain us the independence we need to carry out our programs.

Finally, and most importantly, this will be a year of re-establishing a strong partnership with you, the chapters and members of this organization. Did we lose a few members and chapters after the bicentennial? Of course, it was expected. The exciting news is that our staff had six new-chapter inquiries at the annual meeting in August. With our expanding emphasis on wellness, youth, cultural diversity and trail programs, I know the future is extremely bright.

The foundation is blessed with a solid, committed board of directors, a small but talented staff, a beautiful new national office and wonderful federal partners.

My door and those of the staff are truly “open.” We want to visit local chapters, both at regional and individual chapter meetings. The Membership Committee is working hard to develop new membership options. Give them your ideas—they will listen. I encourage you to get involved.

If you are interested in a particular foundation committee, go online and e-mail a committee chairperson. If you have ideas, shoot them our way. I can’t promise that we will be able to act on each suggestion immediately, but we are interested in them all. Be persistent, but also be patient. Remember, our staff is small and our plate is very full.

As we prepare for this exciting and busy year, I think it will be helpful for you to know my motto. It was on a birthday card a friend gave me a few years ago and I have kept it with me ever since. I lived by it during the bicentennial and survived pretty much intact! I think this year we will all be living by it again!

“The Deep End Is Where The Fun Happens!”

—Karen Seaberg
President, LCTHF

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The mission of the LCTHF is: As Keepers of the Story - Stewards of the trail, the Lewis and Clark Trail Heritage Foundation, Inc. provides national leadership in maintaining the integrity of the Trail and its story through stewardship, scholarship, education, partnership and cultural inclusiveness.

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Letters

Murder vs. suicide; Corps river management

After reading the letter from Don Popejoy in the August 2007 WPO, I am compelled to comment. I am glad Mr. Popejoy wants to focus on Meriwether Lewis’s life and accomplishments after the expedition, rather than on his death. However, I strongly disagree with his statement that it is “a terrible slander to the memory of Lewis not to present both sides of the controversy” about Lewis’s death, murder or suicide. The evidence is simply overwhelming.

Lewis died by his own hand, brought on by mental illness. He was psychotic and delusional at the time of his death. Proponents of the murder hypothesis always fail to mention Lewis’s erratic behavior prior to the events at Grinder’s Stand. It is well documented that upon his arrival at Port Pickering, post commander, Major Gilbert C. Russell, found him to be in a “state of mental derangement” and learned that the boat crew had been watching Lewis closely because he had twice tried to commit suicide. Russell detained him and in about a week Lewis apparently recovered enough to resume his journey along the Natchez Trace. Murder buffs also fail to mention the erratic letter he wrote to James Madison (Jackson letter #297) on September 16, 1809, just prior to his death. Lastly, those who knew him best at the time never doubted he took his own life.

The real debate is what caused the mental disorder? Was it a depressive disorder, cerebral malaria, neurosyphilis or opium/alcohol abuse? Was it a combination of the above? There is some evidence in Lewis’s writing that he was bi-polar. Authors have suggested these diseases and many others over the years. My hypothesis is that he likely was bi-polar and one or more of the illnesses previously mentioned aggravated or contributed to his delusional and psychotic mental state, resulting in his death by his own hand. However, we will never know for sure what caused his mental illness.

As keepers of the story, we should not perpetuate myths about our heroes and be modern-day revisionists of history. Many people simply do not want to believe Lewis was mentally ill at the time of his death and committed suicide, but this is no reason to perpetuate myths.

GLEN KIRKPATRICK
Molalla, Ore.

Corps of Engineers river management

I will leave it to others to discuss the adverse economic and environmental effects of U.S. Army Corps of Engineer projects on the Ohio, Missouri and Mississippi rivers and instead comment briefly on the catastrophic effects of the agency’s projects on the Columbia River system that I am most familiar with. The article by Jeannine Nauss and Kenneth Wilk in the August 2007 WPO and sidebar, “Modern Corps manages rivers responsibly,” demand a critical commentary.

Lewis and Clark indeed would be impressed by today’s ease of transportation on the Columbia and Snake rivers, but at what cost? The “seaport” at Lewiston, Idaho, a pork-barrel bone to local economic and political interests, surrounded the city in 1974 with $80 million worth of beautified dikes, levees and a bypass. This created a seaport that fills yearly with silt and now threatens the city with flooding. (Does that sound familiar to you folks in the Mississippi River Basin?) Local taxpayers still subsidize the local “seaports.” The federal government subsidizes the lock system through which barges often carry federally subsidized timber products and grains to the Port of Portland, which no longer can handle the largest ocean ships without further dredging along the lower Columbia River.

Except for John Day Dam, there is virtually no flood protection provided by the other three lower Columbia River dams and the four lower Snake River dams. The dams’ reservoirs cover the riparian lands that once supported small family farms, orchards, and the villages and burial sites of the thousands of Indians encountered by Lewis and Clark. On the Snake River, about a dozen corporate farms receive subsidized electricity to farm subsidized crops on former desert lands. Few people recreate on the...
reservoirs in this sparsely populated area where temperatures above 100 degrees are common. The dams have lowered water quality by slowing the water flow. The water heats to temperatures that are lethal for salmonids migrating up and downstream. To cool the water and speed the fish, other upstream reservoirs are lowered during the summer, which threatens agricultural interests in southern Idaho. Drawdowns at the 730-foot Dworshak Dam on the North Fork, situated across the Clearwater River from the Lewis and Clark Expedition's "Canoe Camp," provide the reservoir shoreline with a summer "bathtub ring" due to water fluctuations that range from 80 to 100 feet.

Dworshak Dam also blocked a huge steelhead run, necessitating development of one of the many fish hatcheries across the Northwest built to replace lost fish runs. These hatcheries raise salmon and steelhead without the genetic diversity of wild fish, and their genes then pollute the few wild fish that survive. Lamprey, sockeye and coho salmon have been virtually extirpated on the Snake River system and the surviving wild runs of salmon and steelhead that enter the Snake, Salmon and Clearwater river systems are all listed under the Endangered Species Act. Slowing migration, the dams allow the natural and introduced predators to have an unnaturally large impact on the few remaining anadromous fish. The loss of the wild fish in upstream tributaries adversely impacts as many as 30 other species of plants and animals.

For more than 30 years, about $7 billion have been spent in the Columbia River basin on improving fish runs and on dozens of studies that have searched unsuccessfully for solutions. Northwest Indians and sport and commercial fishermen fight over the dregs of fish runs that once ran in the millions. Lewis and Clark might be impressed by the giant barges on the Columbia, but maybe they would question whether the "Modern Corps manages rivers responsibly." I hope they would for the sake of the flora, fauna and Indians.

This letter was written after consulting with retired fisheries biologists from the Idaho Department of Fish and Game.

JOHN W. FISHER
Julietta, Idaho

EDITOR'S NOTE: The editor requested that a U.S. Army Corps of Engineers historian submit an article to WPO on the history of the rivers of Lewis and Clark. Additionally, the editor wrote the headlines for the sidebar and article.

Our Community Remains Vibrant
As we say goodbye to summer and anticipate winter, we all should realize that our Lewis and Clark community in the post-bicentennial period continues to be vibrant. Although attendance at the 39th annual meeting in Charlottesville was down from previous years—I'm told there were about 250 registrations—from my perspective, the event was a huge success. I've also observed that plans for the 40th annual meeting in Great Falls next year (August 10-13) are moving along at full speed!

There were several attendees at the annual meeting in Charlottesville, Virginia, from our California Chapter, and for many, it was their first annual meeting. From what I could tell, they all had a great time in spite of the triple-digit temperatures and high humidity.

One of the highlights for me was the after-hours reception held for us at Monticello by the Thomas Jefferson Foundation. I'm told we are one of the few organizations that do this for, which is another indicator of the stature of our foundation. Unlike their traditional tours, we were allowed to stroll through the rooms of Monticello at our leisure, and in each room there was a superb docent to describe its contents and answer any questions we had. Tables of hors d'oeuvres, wine and cheese filled the south lawn, and we stayed until the fireworks began to appear around 9:30 P.M. It was a wonderful evening!

KEN JUTZI
Camarillo, Calif.

Clarification
An article in the August WPO should have made it clear that Auguste Bougainville and Louis Lorimier, Jr., were the only sons of Louis Lorimier to attend West Point.

WPO welcomes letters. Send them to us c/o Editor, WPO, P.O. Box 3434, Great Falls, MT 59403 (e-mail: wpo@lewisandclark.org).

2007 Meritorious Achievement Award—Lewis and Clark Trail Heritage Foundation

Dear Fellow Members of LCTHF:
At the annual meeting in Charlottesville I was honored to receive this award for Lewis and Clark Road Trips and its website. Now I am asking for your help in achieving further development of the Lewis and Clark heritage tourism trail.

In October, 2007 the Lewis and Clark Road Trips website will begin hosting three ongoing public forums: a Trail Travel Forum, a Lewis and Clark Journals Forum, and a Photo & Video Trail Gallery.

I am leading a Journals study group at the Omaha Public Library; and we are asking groups to form around the country. Anybody can contribute to the internet forums, which will be moderated. Local groups and individuals can share comments, travel stories and images with others around the world on the website. The website and my monthly newsletter will have more information.

Sincerely,
Kira Gale

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THE EYES OF "ST. PETER"

The "one-eyed" fiddle player's vision seems to have been fine in every instance except for the one in which he shot Captain Lewis

BY A. FRASER SIEHL

In his July 23, 1804, journal entry, Private Joseph Whitehouse wrote, "G. Dreyer & St. Peter Set out to go to the Zote & Paunie village ..." Whitehouse was referring to George Drouillard, the primary woodsman, hunter and practitioner of Indian sign language for the Lewis and Clark Expedition, and Private Pierre Cruzatte, the principal waterman, who also served as a hunter, fiddle player and part-time interpreter. Both men were indispensable members of the expedition; however, while many of today's writers and historians regularly list Drouillard with Captains Meriwether Lewis and William Clark and Sacagawea in terms of their importance to the venture, Cruzatte often is referred to as the "one-eyed fiddle player."

On August 11, 1806, in present-day eastern Montana as the Lewis and Clark Expedition was returning home, Cruzatte shot Lewis in his "back side" when the two were hunting elk. Lewis and Clark reported that it was a hunting accident, which occurred when Cruzatte, due to poor eyesight, mistook Lewis for an elk. Lewis wrote that "he cannot see very well." Clark noted, "This Crusat is near Sighted and has the use of but one eye." During the 28-month journey these were the only references to Cruzatte having poor eyesight.

It seems improbable that Lewis and Clark would have hired a myopic, half-blind man to help them navigate the rivers. Cruzatte had the ability and experience to read a river, which allowed him to find the best route up the turbulent Missouri River and down whatever rivers they found west of the Rocky Mountains in the expedition's search for the Northwest Passage. (His talents as a fiddler and his hunting prowess were bonuses for the corps.)

The general course of the Missouri River from its mouth to the Mandan and Hidatsa villages in present-day North Dakota had been traveled and mapped, but the current could change the course of the river. On their return downstream in 1806, Clark noted how the channel of the Missouri had changed in the year or two since their ascent. Eddies and sandbars were in a constant state of flux.

Cruzatte had a working knowledge of the lower Missouri and its tributaries and the Indians that lived on them. He also knew how to read the ever-changing river to find the safest and quickest path around rapids and sandbars and use eddies to advance the party upstream. Often the expedition relied on his ability to see river dangers ahead and plot their next course. It was a job that required good eyesight.

Little is known about Cruzatte compared to Drouillard and other members of the expedition. He was the son of a French father and an Omaha mother. The date and location of his birth, and whether he was
a husband or father, are unknown. He had been a trader among the Indians of the lower Missouri River, at least as far upriver as present-day Nebraska for several years. He may have been a resident of St. Charles, Missouri, where he joined the expedition. What he did after the expedition apparently is undocumented. The genesis of the nickname “St. Peter” is long forgotten.

Cruza tte joined the Corps of Discovery and became a private in the U.S. Army along with François Labiche at St. Charles on May 16, 1804, two days after Clark and the main party started out from their winter quarters at Camp River Dubois. Whether they were hired that day or earlier that winter is uncertain, but they likely were hired on the recommendation of the Chouteau family of St. Louis who were prominent in the Missouri River trade. Cruza tte, Drouillard and Labiche all were of mixed French and Indian descent. They were neither U.S. Army personnel nor Kentucky frontiersmen.

Both Cruza tte and Labiche were assigned as bowsmen for the keelboat. Their duties were spelled out in the Detachment Orders of May 26, 1804: “Labuche and Crusat will man the larboard oar alternately, and the one not engaged at the oar will attend as the Bows-man, and when the attention of both these persons is necessary at the bow, their oar is to be mane by any idle hand on board.—” The bowsmen was responsible for spotting hazards such as sawyers, sandbars and other obstacles to safe passage up the river, as well as helpful eddies, which could be used to ease the strain of moving the boats upriver against the strong currents.

The captains relied on Cruza tte’s eyesight from the beginning. While still in present-day Missouri on June 21, 1804, Clark noted, “after the Bows man Peter Cruza tte viewed The water on each Side of the Island which presented a most unfavourable prospect of Swift water over roleing Sands which rored like an immense falls, we Concluded to assend on the right Side.” This was the first of many references to the expedition’s dependence on Cruza tte’s river experience. If Labiche’s or anyone else’s advice was ever heeded, it is not mentioned in the journals.

It is possible that Cruza tte sustained an injury or illness during the expedition that caused sight impairment. At Fort Clatsop on December 29, 1805, Clark wrote that Cruza tte was sick with a violent cold. This was only the second time that Cruza tte was reported to have suffered from injury or illness. The first was on October 25, 1804, as the party approached the Mandan villages when Clark wrote, “R. Fields with the rhumitim in his neck, P. Crusat with the Same Complaint in his Legs—” Neither of these illnesses would account for the impairment of eyesight.
Cruza tte is not mentioned as one who contracted venereal disease through sexual intercourse with Indian women during the expedition, but often those suffering from a medical problem were not mentioned by name in the journals. Venereal disease can cause the loss of eyesight over time and perhaps prior sexual encounters had affected his sight by the end of the expedition. The loss of an eye or injury causing sight impairment would seem noteworthy, especially for someone with Cruzatte’s responsibilities.

RIVER NAVIGATION

When the expedition reached the mouth of the Marias River in early June 1805, Cruza tte’s river experience created a dilemma for the captains. The Hidatsa Indians had not mentioned this fork of the Missouri and there was a question as to which stream to follow. They had to follow the correct fork to find the Shoshone Indians and a crossing to the Columbia River system. The captains thought the Missouri was the south fork, but Cruzatte had a different opinion, according to Lewis.

Cruza tte who had been an old Missouri navigator and who from his integrity knowledge and skill as a waterman had acquired the confidence of every individual of the party declared it as his opinion that the N. fork was the true genuine Missouri and could be no other, finding them so determined in this belief, and wishing that if we were in an error to be able to detect it and rectify it as soon as possible it was agreed between Capt. C. and myself that one of us should set out with a small party by land up the South fork and continue our rout up it until we found the falls or reached the snowy Mountains by which means we should be enabled to determine this question pretty accurately. 10

After several days of further investigation the captains’ choice proved to be right.

While delayed at the mouth of the Marias, the captains decided to leave behind the red pirogue, some kegs of salt and gunpowder, heavy kettles and utensils and provisions that would lighten their loads for the portage around the Great Falls of the Missouri River. Lewis found that Cruza tte previously had prepared caches and left management of the task of concealing the surplus items entirely to him. 11

Later that year, on October 24, 1805, the expedition encountered the short narrows of the Columbia River. The captains again relied on Cruza tte. Clark noted that both he and Cruzatte believed the corps could pass safely through the rapids, which they did. 12

At what they called “the great shute,” now referred to as the Cascades of the Columbia, Clark explored below the cascades and noted, “from this place I dispatched Peter Crusat (our principal waterman) back to follow the river and examine the practicability of the Canoes passing ...” 13 They chose to portage around these rapids.

HUNTER, INTERPRETER AND FIDDLER

The primary duty of most members of the expedition was propelling the keelboat and the white and red pirogues up the Missouri River by oar, pole or cord. In addition to those duties, and that of bowman, Cruza tte also took his turn as a hunter. On August 2, 1804, Sergeant John Ordway wrote that Cruza tte killed a fine buck. 14

On October 20, 1804, Cruza tte became the first member of the party to encounter a grizzly bear. In his natural history notes for that day, Lewis wrote, “Peter Crusat this day shot at a white bear he wounded him, but being alarmed at the formidable appearance of the bear he left his tomahalk and gun; but shortly after returned and found that the bear had taken the opposite rout.” 15

After reaching the Pacific Coast, they built their winter quarters on the south side of the Columbia River. During the winter at Fort Clatsop, attention was turned to procuring food. On March 2nd, 1806, Clark wrote that Drouillard, Cruza tte and Weiser “returned with a most acceptable Supply of fat Surgen, fresh anchoves and a bag Containing about a bushel of Wappato.” 16

Cruza tte also played a crucial role as an interpreter. President Thomas Jefferson had recognized the importance of the Sioux to the United States’s trading future in its newly acquired territory. In a January 22, 1804, letter to Lewis, Jefferson wrote, “On that nation we wish most particularly to make a friendly impression, because of their immense power ...” 17 In late August 1804, the expedition met with the Yankton Sioux near present-day Yankton, South Dakota. Pierre Dorian Sr., whom the party had met on June 12th as he was traveling down the Missouri to St. Louis with furs, had agreed to proceed back up the river with the expedition to act as a Sioux interpreter. He had lived among the Yanktons for many years and had a Yankton wife and children. During the August meeting, the Yanktons requested that Dorian remain with them, which he did to organize a delegation trip to Washington, D.C., that he hoped would include other Sioux nations. The expedition would meet other bands of Sioux before Dorian could talk with them. The job of interpreting for these remaining Sioux apparently fell to Drouillard and Cruza tte.

When the expedition met with the Teton Sioux, near
present-day Pierre, South Dakota, they had trouble communicating. Sergeant John Ordway wrote they did not have a good interpreter, "but the old Frenchman could make them understand tolerable well." Cruzatte may have been translating through Omaha prisoners the Tetons held. The Omaha prisoners did tell Cruzatte that the Tetons were planning to stop the expedition from proceeding up river with their supplies. The Tetons did not like the idea of boatloads of merchandise and weapons going upriver to other tribes. Twice during the expedition's stay, armed hostilities were averted only because the captains stood up to the Tetons' threats. It was not the friendly impression Jefferson had wanted.

On May 14, 1805, Cruzatte provided another valuable service. The captains were walking together on shore when they noticed the white pirogue was in trouble. A sudden squall had turned the pirogue on its side. They could do nothing to help because of their distance from the boat. Lewis described the scene in his journal:

Charbono still crying to his god for mercy, had not yet recollected the rudder, nor could the repeated orders of the Bowsman, Cruzat, bring him to his recollection until he threatened to shoot him instantly if he did not take hold of the rudder and do his duty, the waves by this time were running very high, but the fortitude, resolution and good conduct of Cruzat saved her; he ordered 2 of the men to throw out the water with some kettles that fortunately were convenient, while himself and two others rowed her ashore. Clark also wrote that they owed the preservation of the pirogue to the resolution and fortitude of Cruzatte. Throughout the journey, Cruzatte often was credited with lifting the spirit of the corps with his fiddling. "In the evening Cruzatte gave us some music on the violin and the men passed the evening in dancing singing &c and were extremely cheerful." 

THE RETURN JOURNEY AND THE SHOOTING INCIDENT

On March 23, 1806, the Corps of Discovery left Fort Clatsop and began its journey home. The expedition proceeded up the Columbia River to just below the mouth of the Snake River, and on the advice of the Walla Walla Indians, went cross-country to near the mouth of the Clearwater River. Returning to their Nez Perce friends, they retrieved their horses and waited impatiently on the banks of the Clearwater for the snow to melt sufficiently to cross the Bitterroot Mountains.

With Nez Perce guides, they crossed the Lolo Trail in about half the time it had taken the previous fall. The party returned to Travelers' Rest east of the Bitterroot Mountains on June 30, 1806. On July 3rd, the captains split the Corps of Discovery into two contingents in order to explore new territory east of the Rocky Mountains.
Lewis and nine men went up the Big Blackfoot River to cross over present-day Lewis and Clark Pass to the Great Falls of the Missouri. From there, Lewis and three men (Drouillard and the two Field brothers) went to explore the upper Marias River.

From Travelers’ Rest, Clark, Cruzatte and 21 other members of the expedition went up the Bitterroot River, then over Gibbons Pass and proceeded to Camp Fortunate at the fork of the Beaverhead River to retrieve the supplies and canoes left there the previous fall. They then went downstream to the Three Forks of the Missouri. From there, Clark set off for the Yellowstone River on horseback over what is now Bozeman Pass, and Cruzatte went with Ordway and eight other men downstream by canoe to the Great Falls of the Missouri to meet Sergeant Patrick Gass and five other men from Lewis’s party. They portaged around the falls and retrieved the white pirogue. With the pirogue, five canoes and horses, they continued down the Missouri to rendezvous with Lewis at the mouth of the Marias. Cruzatte was a productive hunter during this time. On July 13th he killed a deer, on the 15th a pronghorn, on the 17th two or three big horn sheep and on the 26th a buffalo.

While on the upper Marias, Lewis’s reconnaissance unit met and warily camped with an eight-member Piegan Blackfeet party on July 26th. The next morning, the Piegans attempted to take the party’s guns and horses, according to Lewis. They did not initially try to kill the Americans. While preventing the theft, Lewis’s party regained their guns and got the better of the horses, killing two Piegans in the process. Expecting a larger group of nearby Piegans to pursue them, Lewis and his men made a hurried escape by riding all day and night. They then made a rather fortuitous rendezvous with Ordway, Gass, Cruzatte and the others several miles above the mouth of the Marias River on July 28, 1806. They traveled down the Missouri to rendezvous with Clark’s party, which was descending the Yellowstone River.

The incident that called into question Cruzatte’s eyesight occurred on this leg of the journey.

... I was in the act of firing on the Elk a second time when a ball struck my left thye ... I instantly supposed that Cruzatte had shot me in mistake for an Elk as I was dressed in brown leather and he cannot see very well; under this impression I called out to him damn you, you have shot me, and looked towards the place from whence the ball had come, seeing nothing I called Cruzatte several times as loud as I could but received no answer; I was now

preswaded that it was an Indian that had shot me as the report of the gun did not appear to be more than 40 paces from me and Cruzatte appeared to be out of hearing of me; in this situation not knowing how many Indians there might be concealed in the bushes I thought best to make good my retreat to the perogue, calling out as I ran for the first hundred paces as loud as I could to Cruzatte to retreat that there were Indians hoping to alarm him in time to make his escape also; ... the party returned with Cruzatte and reported that there were no Indians nor the appearance of any; Cruzatte seemed much alarmed and declared if he had shot me it was not his intention, that he had shot an Elk in the willows after he left or separated from me. I asked him whether he did not hear me when I called to him so frequently which he absolutely denied. I do not believe that the fellow did it intentionally but after finding that he had shot me was anxious to conceal his knowledge of having done so. Clark learned of the shooting the next day, August 12th, when he and Lewis reunited their respective contingents. Here is how Clark described Lewis’s mishap, obviously after having a chance to talk to him.

Cruza tte Seeing Capt. L. passing through the bushes and taking him to be an Elk from the Colour of his Cloathes which were of leather and very nearly that of an Elk fired and unfortunately the ball passed through the thy as aforesaid. Capt Lewis thinking it Indians who had Shot him hobbled to the canoes as fast as possible and was followered by Cruza tte, the mistake was then discovered. This Cru satt is near Sighted and has the use of but one eye, he is an attentive industrious man and one whom we both have placed the greatest Confidence in dureing the whole rout.—

The captains were the only members of the expedition to reference Cruzatte’s impaired eyesight in their descriptions of the shooting incident, and their versions differ on some points. Perhaps Clark misunderstood Lewis’s account of the incident. It is possible that Cruzatte sustained an eye injury between the Three Forks of the Missouri and the mouth of the Marias River when he was not with either captain.

In the first official publication of the expedition, editor Nicholas Biddle wrote of the shooting incident, “It instantly occurred to him that Cruzatte must have shot him by mistake for an elk, as he was dressed in brown leather, and Cruzatte had not a very good eye-sight.” Biddle relied on the journals, correspondence with Clark, and conversations with Clark and Private George Shannon in compiling his narrative. Shannon was with Clark on the Yellowstone River and was not a witness to Lewis’s injury. Unfortunately, there is no mention of
the incident in Donald Jackson’s *Letters of the Lewis and Clark Expedition and Related Documents* in either the “Biddle Notes” or in any of the correspondence between Clark and Biddle that could shed light on what “not a very good eye sight” means.

The expedition arrived in St. Louis September 23, 1806, and on October 10th, Cruzatte was among a majority of the men who were discharged. He earned $5 per month for a total of roughly $144. From that point on, little is known about Cruzatte’s life. The majority of the men who were discharged. He was dismissed.

In *Biddle Notes* Clark Expedition and Related Documents 1806, and on October 10th, Cruzatte was listed as “killed.” It has been speculated that Cruzatte returned up the Mississippi River and joined the trapping expedition led by John McClellan and met his fate in today’s northwest Montana. According to Moulton, this interpreter was probably Cruzatte.

We may never know how Cruzatte’s eyesight affected the events of August 11, 1806. We do know that with the help of the eyes of “St. Peter,” the Lewis and Clark Expedition succeeded in navigating the Missouri and Columbia rivers and returned safely. If the title of “expedition guide” can be assigned to anyone, it is Pierre Cruzatte. Combined with his hunting, wilderness and interpreting skills, guiding made him an indispensable member of the expedition. Cruzatte deserves better than to be known as the “one-eyed fiddle player.”

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**Notes**

1 Gary E. Moulton, ed., *The Journals of the Lewis & Clark Expedition*, 13 Volumes (Lincoln: University of Nebraska Press, 1983-2001), Vol. 11, p. 44. All quotations or references to journal entries in the ensuing text are from Moulton, by date. Moulton’s footnote to this entry says of St. Peter, “Apparently Cruzatte, with terminology used only by Ordway.”

2 Ibid., Vol. 9, p. 347. Ordway’s entry for August 11, 1806.

3 Ibid., Vol. 8, p. 155. Lewis’s entry for August 11, 1806.

4 Ibid., p. 290. Clark’s entry for August 12, 1806.

5 Ibid. Clark mentioned changes in the river channel in journal entries on August 20, 1806, pp. 310-311; September 3, 1806, p. 347; and September 9, p. 354.

6 Ibid., Vol. 2, p. 258.

7 Ibid., p. 313. Clark’s entry for June 21, 1804.

8 Ibid., Vol. 6, p. 141. Clark’s entry for December 29, 1805.

9 Ibid., Vol. 3, p. 198. Clark’s entry for October 25, 1804

10 Ibid., Vol. 4, p. 271. Lewis’s entry for June 9, 1805.

11 Ibid., p. 269. Lewis’s entry for June 9, 1805.

12 Ibid., Vol. 5, p. 333. Clark’s entry for October 24, 1804.

13 Ibid., p. 361. Clark’s entry for October 31, 1805.

14 Ibid., Vol. 9, p. 33. Ordway’s entry for August 2, 1804.

15 Ibid., Vol. 3, p. 188. Lewis’s entry for October 20, 1804.

16 Ibid., Vol. 6, p. 370. Clark’s entry for March 2, 1806.


18 Moulton, Vol. 9, p. 67. Ordway’s entry for September 25, 1804. According to Moulton, this interpreter was probably Cruzatte.

19 Ibid., Vol. 5, p. 114, n. 1.

20 Ibid., p. 121. Clark’s entry for September 27, 1804.

21 Ibid., Vol. 4, pp. 152-153. Lewis’s entry for May 14, 1805.

22 Ibid., p. 154. Clark’s entry for May 14, 1805.

23 Ibid., p. 272. Lewis’s entry for June 9, 1805.

24 Ibid., Vol. 8, pp. 155-156. Lewis’s entry for August 11, 1806. Moulton noted that neither Ordway nor Gass seemed to believe that Cruzatte was entirely ignorant of having shot Lewis.

25 Ibid., p. 290. Clark’s entry for August 12, 1806.


FIRE IMPACTS ON THE BITTERROOT VALLEY

Today's landscape differs greatly from the one viewed by the Corps of Discovery

BY JOHN PUCKETT

When the Corps of Discovery reached the Rocky Mountains, they observed a landscape where the vegetation had been shaped by wildfire for thousands of years. Unrestrained natural fire and selective burning by the Native Americans had produced a view that was far different from the way it looks today. What the explorers encountered was open grassland dotted with scattered ponderosa pine trees and an occasional Douglas fir or other species.

On September 9, 1805, five days after meeting with the Salish near present-day Sula, Montana, Captain Meriwether Lewis wrote:

Set out at 7AM this morning and proceeded down the Flathead river [Clarke's River or present-day Bitterroot River] leaving it on our left, the country in the valley of this river is generally a prairie and from 5 to 6 miles wide the growth is almost altogether pine principally of the longleafed kind, with some spruce and a kind of fur resembling the scotch fur. near the watercourses we find a small proportion of the narrow leafed cottonwood some redwood honeysuckle and rosebushes from the scant proportion of underbrush to be seen.¹

They camped that night on Travelers' Rest Creek where Lewis noted a lack of brushy growth along the streams.² Today, there is prolific growth of cottonwood, serviceberry, rose and dogwood along the creek.

This dramatic change in the landscape of the Bitterroot Valley can be attributed to a variety of contributing factors, including wildfire management.

The area encountered by the Corps of Discovery was a mosaic of burns in all stages of growth succession. In their publication, Fire Dependent Forests in the Northern Rocky Mountains, Dr. James R. Habeck and Robert W. Mutch note, "Anyone knowing successional patterns and species relationships can readily observe that a high percentage of the vegetation, within the forest zones, is at one stage or another of succession following past fires. Climax or near climax forest stands that have escaped fire for several centuries are only rarely found in northern Idaho and western Montana. It is believed that past-uncontrolled fires did not, at any one point in time, create a completely burned over or denuded landscape."³

Forests are comprised of plant communities that, over time, go through stages of succession and eventually reach a final, or climax, form of vegetation. They begin with bare ground, which often is seen following a devastating forest fire, and follow with one vegetative stage succeeding another until the community reaches the climax stage. This process can take many years, sometimes even centuries. The community remains in the climax stage until a fire destroys the stand, thus causing the growth cycle to begin anew.

The climax species in the lower elevations of the Bitterroot Valley is the Douglas Fir. The year following a forest fire, the first species to return to this area are balsamroot, arnica, lupine, bitterroot, bunch grasses and sedges. They are followed in time by shrubs and then trees including ponderosa pine and Douglas fir. Several factors can prevent a community from reaching the climax stage: disease, insect attacks—particularly bark beetles—wind and fire. Frequent occurrences of forest fires in this valley generally prevented plant communities from reaching

¹ We Proceeded On November 2007
the climax stage prior to the establishment of policies to extinguish wildfires. The policies were created when the U.S. Forest Service was established in 1905.

Today, there is a preponderance of Douglas fir ingrowth throughout the ponderosa pine stands in the Bitterroot Valley resulting from fire exclusion, which refers to keeping fire out of an area by suppressing all natural fires and stopping all prescribed burning. Ponderosa pine needs bare ground for seeds to sprout. Thus, as fires burn the stands, they prepare a seed bed for the pine. With the absence of fire, Douglas fir, which does not need fire to prepare a seed bed, will invade the stands.

Fires historically burned often and freely in the Bitterroot Valley so the Corps of Discovery saw ponderosa pine as the area's principal species. Douglas fir was either absent or present only sparingly. Due to frequent fires, the valley had an open or savanna-like appearance with ponderosa pine, bunch grasses and forbs as the principal vegetation.

Captain William Clark's journal entry on September 7, 1805, confirms they saw a similar countryside. "The Valley from 1 to <three> 2 miles wide the Snow top mountains to our left, open hilley Countrrey on the right." The following day he added, "Set out early and proceeded on through an open vallie for 23 miles passed 4 Creeks on the right Some runs on the left, The bottoms as also the hills Stoney bad land. Some pine on the Creeks and mountains, an partial on the hills to the right hand Side."  

The Bitterroot Mountains frame the north-south valley on the west and the Sapphire range frames it on the east. Moisture-laden clouds from the Pacific Ocean are intercepted by mountains to the west, reducing the amount of rainfall in the valley (elevation 3,000 feet) and creating a relatively dry climate with an average of 13 inches of moisture per year. Higher elevations, which reach 9,000 feet, receive up to 60 inches of moisture annually. Summers in the Bitterroot Valley normally are dry, with most of the annual moisture falling as winter and spring snow. Fall rains typically end the summer drought period.

Imagine a dry summer with many natural fire starts caused by lightning striking the ground. Depending on the slope position of a fire start, the amount of fuel and moisture conditions, fires can burn for a short while and go out, or persist for days or months. Wind has a dramatic effect on fire size and intensity, and during a dry period, can cause a fire to spread, producing a significant burned area.

At the time the Corps of Discovery passed through the valley, summer fires caused by lightning burned uncontrolled until rain, winter snow or natural barriers suppressed them.

The impact of an uncontrolled fire was witnessed first hand in 1979 about 50 miles southwest of Travelers' Rest in the Selway Bitterroot Wilderness Area when lightning started a forest fire. The fire was allowed to burn naturally under a new Forest Service program aimed at returning fire to its natural role in wilderness. The fire initially remained small, but as summer progressed, it grew quickly as it reached larger and drier fuel beds. By the time winter snows extinguished the fire, it had burned more than 10,000 acres.

Fire history studies show how fire has shaped the vegetation of the valley for thousands of years.  

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Grasses have returned to this forest a year after a devastating forest fire. Shrubs and trees will follow in the coming years. Forest fires and dense smoke in the Bitterroot Valley during the summer and early fall of 2007 prevented photographers from shooting pictures of the landscape. This image of forest regrowth was taken on the North Fork of the Flathead River in western Montana.
This cross-section of a ponderosa pine tree shows fire scars dating back to 1754. The tree was cut in the Pattee Canyon area near Missoula, Montana, which was used by Native Americans prior to settlement. The illustration was prepared by Dr. James R. Habeck, a retired botany professor from the University of Montana.

Studies counted growth rings and evaluated fire scars on trees, stumps and aging trees to reveal when and how often fires occurred, and show periods of drought that indicate when large fires may have occurred. Studies indicate that in ponderosa pine stands, the natural fire interval is about 20 years. The Bitterroot Valley may have burned more often than similar landscapes. Anthropological studies and discussions with area tribal members indicate widespread use of fire by Indian tribes may have decreased by five to 10 years the interval between natural fires at many locations in the Bitterroot Valley.

Corps of Discovery members mentioned burning by tribes several times in their journals. On August 31, 1805, Clark wrote, “This day warm and Sultry, Prairies or open Valies on fire in several places — The Country is Set on fire for the purpose of Collecting the different bands, and a Band of the Flatheads to go to the Missouri where they intend passing the winter near the Buffalow.”

Native Americans burned the land for a variety of reasons. Stephen W. Barrett and Stephen F. Arno, in their paper, “Indian Fires in the Northern Rocky Mountains, Ethnography and Ecology,” mention use of fire for game drives, stimulating forage, influencing game movements and to improve grazing. After the northern tribes acquired horses in the early 1700s, need for forage for the increasing horse herds prompted burning of the valley grasslands, which likely accounted for the higher frequency of fire in the Bitterroot Valley. Clark noted on September 4, 1805, that the Salish nation at the East Fork of the Bitterroot River near present-day Sula, Montana, included 33 lodges with about 400 people and 500 horses and that was only part of the tribe.

Other tribal uses for fire included maintaining open campsites and trails, communicating and making approaching enemies more visible. By maintaining open areas through frequent use of fire, the tribes made it more difficult to approach their camp areas unobserved. They used large fires to communicate. As mentioned, Clark noted that fires were set by the Shoshones to call in the various bands and the Salish to go to the Missouri River to hunt buffalo. It would have taken a large fire for the Salish to see it from the Bitterroot Valley, but when the Corps of Discovery met the Salish tribe at the East Fork of the Bitterroot on September 4, 1805, the Indians were on their way to the Missouri to meet the Shoshones.

Most of the fires set by Native Americans were in the valley bottoms where they camped and along the trails most frequently traveled. There were no controls on the fires as there were no concerns regarding how widely they spread. However, Barrett and Arno note that Indians stress that their ancestors were careful not to ignite severe fires, which means they likely burned in the spring and fall. In all probability, most of the fires set by Native Americans were of low to moderate intensity. Frequent burning of the valley prevented fuel build-up, leaving grass and pine needles to produce low-intensity blazes.

As the Corps of Discovery proceeded up Travelers’ Rest Creek on September 11, 1805, Clark wrote that they had good road for seven miles and camped near old Indian lodges. The Travelers’ Rest Creek valley narrowed and it was apparent that fire had not occurred as frequently as in the main valley of the Bitterroot. The trail left the valley and ascended the ridges. Clark mentioned that the timber was short, long-leaf pine, spruce and fir were present, and that there was much undergrowth and fallen trees.
It appears they were traveling through an area that had burned several years prior, likely caused by lightning, and that the area was being invaded by other plant species. They had left the area most likely to have been burned by Indians.

Today in the Bitterroot Valley, fire exclusion has given way to succession of the ponderosa pine stands by Douglas fir. Litter accumulation, which includes pine needles and fallen branches, has increased alongside the growth of shrubs and invasive grasses and weeds, making it more vulnerable to high-intensity fires.

Sergeant Patrick Gass referred to the Bitterroot Valley as a beautiful plain, but today it is moving closer to a dense stand of trees.

Through a few remaining old-growth trees, forest records and oral tribal histories, the viewshed Lewis and Clark observed on their way to the Pacific Ocean can be visualized in the mind.

Fire has played a pivotal role in shaping the landscape of the Bitterroot Valley for thousands of years. The vegetation in the lower part of the valley has been modified by man's use of fire, while the more remote areas of the valley have been impacted by natural, lightning-caused, fires.

Fire in its natural role, with the aid of Native American burning, created the beautiful plain and prairie described by Gass and Lewis in their journals. During the past 200 years, the role of fire has evolved. Today, its use is very important in public and private land-management decisions. Lewis and Clark's journals, along with fire history studies and Native American oral histories, may help determine the future role of fire and its impacts on the landscape.

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Notes
1 Gary E. Moulton, ed., The Journals of the Lewis & Clark Expedition, 13 volumes (Lincoln: University of Nebraska Press, 1983-2001), Vol. 5, p. 191. All quotations or references to journal entries in the ensuing text are from Moulton. Lewis's entry for September 9, 1805.
2 Ibid.
4 Forbs are non-grass plants. A common forb in this area is the bitterroot, or Lewisia rediviva, named for Meriwether Lewis after he preserved one at Travelers' Rest on July 2, 1806. Moulton, Vol. 8, p. 80, fn. 3. This forb is common to the valley and is the state flower of Montana.
6 Ibid. Clark's entry for September 8, 1805.
7 Stephen W. Barrett, Stephen F. Arno and James P. Menakis, "Fire Episodes in the Inland Northwest (1540-1940)," (October 1997), based on fire history data from the U.S.D.A. Forest Service Intermountain Research Station GTR-370, p. 15. Barrett is a research cooperative with Systems for Environmental Management in Missoula, Montana. Arno is retired from the Northern Forest Fire Laboratory in Missoula as a forest ecologist. Menakis is a forester in the Fire Effects Work Unit at the Intermountain Fire Science Laboratory in Missoula.
11 Ibid., p. 179. Clark's October 31, 1805.
12 Robert Boyd, ed., Fire and Land in the Pacific Northwest (Corvallis, Oregon: Oregon State University Press, 1999). From a revision to the paper by Barrett and Arno, "Indian Fires as an Ecological Influence in the Northern Rockies," which was included in Boyd's book.
14 Ibid., p. 201.
OF THERMOMETERS AND TEMPERATURES ON THE LEWIS AND CLARK EXPEDITION

Where and when Lewis obtained thermometers remains a mystery

BY ROBERT R. HUNT

President Jefferson's instructions to Captain Meriwether Lewis regarding his journey to explore the Missouri River and its course with the waters of the Pacific Ocean included a series of "objects worthy of notice," among these was "climate as characterised by the thermometer ..." It was a directive of much personal interest to the president.

The Corps of Discovery's mission called for daily thermometer readings. As it turned out, readings were taken on just 475 days of the journey, or 42 percent of the time. Thermometers appear and disappear throughout the captains' journal entries, resulting in a subsequent body of literature that is filled with assumptions, probabilities, skepticism and guesswork about them.

President Jefferson held a long-term interest in climate and thermometers. It is likely that he was disappointed in the incomplete temperature records. The instructions he gave Lewis were to satisfy just one element of his ongoing interest in and passion for documenting temperatures and weather data. Jefferson had indulged this interest for more than a quarter century before Lewis embarked on his journey to the West. Historian James Rodger Fleming noted, for example, that in 1778, Jefferson and the Reverend James Madison, president of the College of William and Mary, were "making the first simultaneous meteorological measurements" in North America at Monticello and Williamsburg.

A sampling from Jefferson's correspondence demonstrates the depth of his interest in thermometers and climate data.

- June 8, 1778—Jefferson wrote Giovanni Fabbroni in Italy, suggesting an exchange of thermometric data between the two countries. He indicated this would provide "a comparative view of the two climates." Jefferson added, "I make my daily observations as early as possible in the morning & again about 4 o'clock in the afternoon."

- November 8, 1783—Jefferson wrote Isaac Zane in Frederick County, Virginia: "By Colo. Bland who is returning to Virginia in a carriage I send you a thermometer, the only one to be had in Philadelphia. It appears to be a good one." Jefferson asked Zane to make specific temperature observations in a cave, an icehouse, a good spring and a well, and transport the data to him in Philadelphia.

- February 20, 1784—Jefferson wrote James Madison, later the fourth president of the United States: "I wish you had a thermometer. Mr. Madison of the college
they had “Farenheit’s graduation on the right of the one side of the tube and Réamur’s [sic] on the other.” They were “to be hung on the outside of a glass window ... to be seen without opening the window.” Jones advised that the instruments could easily be placed “by fixing 2 perpendicular pieces of wood to the side of your window, and the Thermometer placed against them.”

- March 11, 1797—Jefferson corresponded with Thomas Mann Randolph, his son-in-law who lived nearby, to tell him he had ordered him a thermometer from Joseph Gatty, a Philadelphia glassblower who specialized in weather instruments. Jefferson paid $12 in June 1797 for two thermometers, one for Randolph and one for himself.

- January 15, 1800—Jefferson, in Philadelphia, wrote Jonathan Williams to thank him for sending a copy of Williams’s published book on thermometrical navigation the previous year. In his letter of thanks, Jefferson noted that for some time he had wished he could take a daily temperature reading in the river near his home. “Observations made in the rivers of different states would exhibit one of the good comparative views of climate ...”

Jefferson’s thermometric interests during these early years of the republic were more than a personal scientific hobby. With his colleagues at the American Philosophical Society, he “had a vision of a national meteorological system.” Viewed in this perspective, the instructions he gave Lewis are but one component of a national project. Lewis was thus a “point man” in a climatologic scheme of far-reaching proportions.

**The Philadelphia Story**

Lewis left Washington March 15, 1803, for Philadelphia to broaden his scientific skills. He stopped first in Harpers Ferry, Virginia. There he chose arms, ammunition and other accouterments for the upcoming expedition. While there, he also supervised the design and testing of prototype sections of a lightweight collapsible, iron-framed boat, which he and Jefferson dreamed up the previous year. That endeavor prolonged his stay at the
national armory by three weeks and he did not arrive in Lancaster, Pennsylvania, near Philadelphia, until about April 20, 1803. He explained the cause of his delay to Jefferson on that date.

During an intensely busy month of study and procurement in Philadelphia, he finalized his needs and accounted in detail for his expenditure of public funds. The list of needs included “Three Thermometers.” Observers have commented that three breakable thermometers would hardly suffice for the duration of such an arduous journey.12

Historians including Donald Jackson and Gary Moulton conjecture that Lewis obtained at least some thermometers in Philadelphia. Atmospheric science professor Terrence Nathan, however, acknowledges that such instruments “do not appear on any list of items purchased in Philadelphia or elsewhere.” Lewis’s handling of public funds, as reported in the records available to us through Jackson’s references and other sources, is meticulous. An absence of accounting would be highly surprising and prompts uncertainty about where and when Lewis acquired thermometers.

There were at least four establishments that offered glass thermometers when Lewis was in Philadelphia, according to Silvio Bedini, a historian specializing in early American instruments. His list includes one owned by Joseph Gatty, with whom Jefferson was familiar, and another by John Donegan,14 a name identified with the thermometer that Clark experimented with January 3, 1804, at Camp River Dubois.15 Clark’s reference to the Donegan thermometer is evidence that the instrument came from Philadelphia, but it does not establish that Lewis, personally with public funds, made any such purchase.16

If not in Philadelphia, then where else would Lewis have obtained the thermometer(s) used on the Ohio River September 1, 1803, and at Camp River Dubois January 3, 1804? Lewis departed Philadelphia for Washington in mid-June 1803 for his final instructions from Jefferson. At this juncture, Jefferson personally could have provided, not at public expense, the undocumented thermometer(s). Jefferson was astute at acquiring Philadelphia instruments. Jackson noted that Jefferson ordered two thermometers for himself specially packaged, “best on exposure to the weather,” about a year after his final conference with Lewis.17 These instruments may have been replacements for thermometers previously entrusted to Lewis. If this were the case, it is not surprising, considering political opposition to Jefferson’s project, that no mention of it appears in any record.

**Thermometer Readings**

There is a conspicuous absence of thermometric data for the period from September 7, 1803, to January 3, 1804, at Camp River Dubois. Lewis had dutifully commenced recording temperatures promptly upon leaving Pittsburgh. He reported readings on September 2, 1803—“Thermometer stood at seventy six in the cabin the temperature of the water in the river when emersed about the same”—18—and September 3rd, 4th, 6th and 7th. Thereafter, no readings appear, with the single exception of September 16th, until Clark’s record on January 3, 1804. Thus, over a four-month period, including a break in Lewis’s writing between September 18 and November 11, there is no record of any thermometer use. Considering Jefferson’s personal interest and precise instructions, this is curious to say the least.

Once settled at Camp River Dubois, the captains did take temperature readings, though somewhat sporadically during the first month when only 17 were recorded. Thereafter, daily readings occur with only a few omissions, until the corps proceeded up the Missouri River on May 14, 1804, when readings ceased, with one exception, until September 19, 1804.

Historian Doane Robinson apparently thought that no thermometer was available during those four months. He asserted that a corps member discovered a misplaced thermometer when the crew unloaded the keelboat to dry and rearrange their baggage that had been drenched following days of heavy rain in mid-September 1804.19 Donald Jackson declared that he found no support for Robinson’s statement that “the explorers discovered 14 Sept. 1804 a thermometer which had been lost since the start of the voyage, a loss which had prevented their taking temperature readings until then.”20

Clark, however, had supervised, prior to the voyage up the Missouri River, a thorough packing of all goods and equipment on the keelboat. It is not surprising that some items would be securely tucked away and not found until months later. Note particularly that daily temperature recordings resumed September 19, 1804, after Clark shifted stored items following the storm.21

Moulton also disputes the Robinson inference, noting that a thermometer was available during the record-keeping hiatus from May 14 to September 19, 1804, as a single reading was taken during that period on August 25th.22
This illustration indicates when temperatures were recorded by Lewis and Clark. The yellow arrows signify periods during which temperatures regularly were recorded. The blue arrows indicate months-long stretches when they were not.

**The Saugrain Theory**

In 1905, the discussion of the expedition's thermometers was enlivened during the centennial of the Lewis and Clark Expedition in Portland, Oregon, upon publication of Eva Emery Dye's book, *The Conquest: The True Story of Lewis and Clark*. In the chapter on "The Cession of St. Louis," Dye depicted Lewis at the home of Dr. Antoine Saugrain, a Frenchman known as the first scientist in the Mississippi Valley and whose daughter later became William Clark's sister-in-law.

In Dye's scenario, Saugrain is eager to supply Lewis and Clark with badly needed thermometers. He turns to his wife and prepares to dismantle her mirror.

"The huge glass, that had reflected Parisian scenes for a generation before coming to the wilds of America, was now lifted from its gilt frame and every particle of quicksilver carefully scraped from the back. Then the pier plate was shattered and the fragments gathered, bit by bit, into the Doctor's mysterious crucible ..."  

Readers seeking authority for this narrative were referred to the preface of the book. Dye acknowledged obligation to many people for the authenticity of scenes in the novel, including the families of Lewis, Clark and Saugrain; scholar and expedition journal editor Reuben Gold Thwaites; and other library and newspaper sources. Scholars writing after the publication of Dye's book have referred to her account as the basis of support for the theory that Saugrain furnished Lewis and Clark with homemade instruments.

**A Family Tradition**

Henry M. Brackenridge, an early traveler to the West, added to the Saugrain theory in a personal memoir. He wrote of the care given him by the doctor when he suffered from ague in Gallipolis, Ohio, in 1794: "The Doctor had a small apartment which contained his chemical apparatus, and I used to sit by him as often as I could, watching the curious operation of his blow pipe and crucible ... His barometers and thermometers with the scale neatly painted with the pen and the frames richly carved were objects of wonder ..."

In his personal memoirs, *Persimmon Hill*, William Clark Kennerly remembered the resourcefulness of his grandfather, Antoine Saugrain, "even scraping the mercury off the back of Mme Saugrain's pier glass ... in order to finish in time the thermometers and barometers he made for those two great explorers ..." Kennerly was the son of James Kennerly (the brother of William Clark's second wife, Harriet Kennerly Radford Clark) and Elise Kennerly November 2007  We Proceeded On — 19
Dr. Antoine Saugrain helped organize and lead a group of émigrés from Paris, across the Atlantic Ocean, to establish a settlement at Gallipolis, Ohio, in 1790. From there he moved to Lexington, Kentucky, and later, St. Louis. He had achieved status in the scientific and medical communities of St. Louis by the time he met Meriwether Lewis. Eva Emery Dye, in her book *The Conquest*, was the first to suggest that Saugrain made a thermometer for the Lewis and Clark Expedition. Marie Saugrain Kennerly, which provided an intimate connection between the Clark and Saugrain families. Kennerly wrote that when the captains returned to St. Louis at the end of their journey, “You can be sure they made a call on Dr. Saugrain for he was anxious to hear what good use was made of the scientific instruments he had furnished for the expedition.” He noted that Dye had conferred with him as a source for her novel.

Dr. Eldon G. Chuinard insisted that “the handing down of tradition through such reliable resources cannot be discounted ...” He offered additional support for the theory that Saugrain supplied the explorers with thermometers: “In view of the well-established fact that Dr. Saugrain had been making thermometers and barometers at Gallipolis a decade earlier, it is reasonable to expect he provided Lewis and Clark with additional thermometers ...”

Chuinard also called attention to an intensive analysis of the Saugrain tradition by Edmond Meany, a well-known history professor at the University of Washington. Meany’s work is perhaps the most objective critique of the entire mystery surrounding the thermometers. He pursued every possible lead in newspapers, conducted interviews with interested scholars, and explored family traditions, as well as Dye’s correspondence. Meany determined that “family tradition abundant and persistent through three generations must be largely depended upon in lieu of the scant written or printed contemporaneous records” and that “Dr. Saugrain did supply the Lewis and Clark Expedition with a homemade thermometer, some experimental Lucifer matches and perhaps medicine.”

It is, of course, possible that Dye fabricated the vivid scene of Saugrain scraping his wife’s mirror. For some, the story reads like a serio-comic scenario from a nineteenth-century opera. Yet, it provoked enough curiosity to enlist scholarly attention from no less a figure than Reuben Gold Thwaites, who at the time was engaged in producing his edition of the Lewis and Clark journals. Thwaites once said, in tribute to Dye, that she “has contributed most liberally from the surprisingly rich story of historical materials which, with remarkable enterprise and perseverance, she has accumulated during her preparation for the writing of *The Conquest*; her persistent helpfulness has placed the Editor [i.e. Thwaites] under unusual obligations.”

It is certain that Dye relied heavily on her sources, particularly grandsons of William Clark and their widows, documents and family traditions and descendants of Saugrain. Meany considered that “the absence of [specific] citations to her authorities is undoubtedly the main reason why her book was not taken more seriously by subsequent writers.”

In correspondence with Meany, Dye acknowledged this lack of citations, stating, “The Saugrain matter was found in the libraries and historical collections of St. Louis and in newspaper accounts of Dr. Saugrain.”

**Skeptics**

Jackson and Moulton, foremost amongst Lewis and Clark scholars, did not find the Saugrain theory credible. Jackson believed it “not likely” that Saugrain made thermometers for the explorers and Gary Moulton believed the Saugrain theory was “probably untrue.”

The author of this essay, however, prefers to consider the story as undocumented rather than necessarily “untrue.” The single temperature reading on Aug. 25, 1804, does not rule out the possibility that an additional thermometer could have been discovered in storage following the storm.

The experiments described in Lewis’s weather
For some readers, the reference to “Fahrenheit” in Lewis’s “Remarks on the Thermometer” may not support a maker of French origin such as Saugrain. Benjamin Franklin noted in 1786, “The French use Réaumur’s, the English Fahrenheit’s.” Saugrain had visited Franklin several times and they must have discussed Franklin’s own formula for calculating equivalent readings between the two temperature scales.

Further, Saugrain had been selling instruments to Americans in the Ohio valley region a decade before Lewis and Clark arrived in the area. His buyers would have preferred the Anglo-American Fahrenheit scale. In other words, a Saugrain thermometer could qualify just as well as the Donegan instrument for Lewis’s error-testing experiment.

Thus, to summarize concerning the thermometer’s provenance, the Philadelphia theory cannot be documented and rests on conjecture. The Saugrain theory, although undocumented, is based on recurrent family tradition. Meanwhile, as time passed, the saga of the Corps of Discovery assumed the proportions of a national epic. Epic stories invariably are enhanced, as has occurred with the account of Saugrain’s Parisian mirror being converted into glass-blown tubes filled with mercury. Whether truth or myth, the theory nevertheless persists—a tradition not to be casually set aside.

NOTES
2 Terrence R. Nathan detailed the Corps of Discovery’s climatologic records of the expedition in the November 2005 issue of WPO. He characterized Jefferson as “arguably the most knowledgeable meteorologist of his day” in a discussion about the information he wanted Lewis and Clark to record. Nathan wrote that the result was a significant part of “Lewis and Clark’s Meteorological Legacy.” Terrence R. Nathan, “O! How Horrible is the Day,” We Proceeded On (November 2005), pp. 10 and 17. For a careful review of the scientific value of Lewis and Clark’s data, the reader should refer to Nathan’s article. For another summary, refer to Susan Solomon and John S. Daniel, “Lewis and Clark: Pioneering Meteorological Observers in the American West,” Bulletin of the American Meteorological Society, Vol. 85, Issue 9 (September 2004), p. 1273.
3 James Rodger Fleming, Meteorology in America, 1800-1870 (Baltimore: Johns Hopkins University Press, 1990), p. 9. Reverend James Madison was a second cousin of James Madison, the fourth president of the United States. He served as a professor at the College of William and Mary, and later as college president, from 1777 until his death in 1812.
6 Ibid., p. 545.
10 Fleming, p. 10.

Foundation member Robert Hunt is a longtime contributor to WPO. His last article, “Peripatetic Captains,” appeared in the May 2007 issue. He lives in Seattle, Washington.
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23 Antoine Saugrain was born of a distinguished royalist family in Paris in 1763, where he was educated in physics, chemistry, mineralogy and medicine. In the early 1780s, he engaged in mineralogy research in Mexico in the service of Spain. In the 1790s, he moved his wife, Rosalie Genevieve Michaud, and family to Lexington, Kentucky, where he practiced as a physician, continued chemical and mineralogy research, and fabricated and sold thermometers and barometers. In December 1797, he was attracted to St. Louis and agreed, after a grant of acreage, to establish there. He arrived in 1800, the only physician in the area and became known historically as a civic leader in the community. Saugrain had achieved unique status, scientifically and medically, by the time Lewis and Clark arrived in the area. He was available as a resource for the captains, who needed all the help they could get in specialties Saugrain could provide. Antoine Francois Saugrain de Vigny, 1783-1821, L'Odysee Americaine d'une Famille Francaise par le docteur Antoine Saugrain, etude suivie de manuscripts inedits et de la correspondance de Sophie Michau Robinson, par H. Foure Selter (Baltimore: Johns Hopkins Press, 1936).


26 L'Odysee Americaine, pp. 24-29. Brackenridge is quoted at length, referencing “papers concerning Gallipolis belonging to the Cincinnati Historical Society.”

Dispatches

Foundation elects board of directors and selects slate of officers for 2007-08

The Foundation's board of directors elected its officers for 2007-2008 at the organization's 39th annual meeting in Charlottesville in August. Four individuals assumed new roles as of October 1 and will hold those positions for a year. Additionally, four people were elected to fill vacant positions on the board of directors and two were re-elected to the board. Their terms begin October 1 and vary in length from one to three years.

Karen Seaberg of Atchison, Kansas, is the foundation's new president. She has served on the foundation's board of directors since 2003 and previously was chairwoman of the organization's Governance Committee. She is a travel consultant at the Travel Center of Atchison, and co-owner of Long John Silvers of Atchison. She is on the managing Executive Committee of the RiverHouse Restaurant in Atchison.

Seaberg was chairwoman of the Atchison Lewis and Clark Bicentennial Committee and served on the Executive Committee for the "Heart of America: A Journey Fourth" Bicentennial Signature Event. She served as chairwoman of the Governor's Kansas Lewis and Clark Bicentennial Commission and represented Kansas on the National Council for the Lewis and Clark Bicentennial's Circle of State Advisors for four years.

Her long involvement in her local community includes being a charter member and president of Theatre Atchison as well as service on the Atchison Area Chamber of Commerce, the Tourism Council, the Riverbend Regional Healthcare Board, the Atchison Hospital Board and the Atchison Riverfront Development Committee. She has served as chairwoman of the Amelia Earhart Festival in Atchison for the past 11 years.

Seaberg has a bachelor's degree in English with an emphasis in ancient and medieval literature.

James Brooke of Colorado Springs, Colorado, is the foundation's president elect. He has served on the board since 2005 and is chairman of the organization's Third Century Campaign.

Brooke completed 20 years of naval service as a Navy pilot in 1991, and since that time has worked in the aerospace industry overseeing engineering programs both in the United States and abroad. He recently served as senior director of Space and Strategic Operations for ARINC Engineering Services overseeing the program performance, finances and operations for 150 people in 13 locations throughout the western United States. He received his bachelor's degree from Virginia Polytechnic Institute and holds a Ph.D. in U.S. diplomatic history and national security affairs from Tufts University. Brooke has lived in Colorado Springs for more than seven years.

Chris Howell of Topeka, Kansas, was elected vice president. He has served on the board since 2005 and is chairman of the foundation's Diversity Advisory Committee. He is deputy director and chief financial officer of the Kansas Arts Commission. He works to promote historically and culturally accurate education and arts education programs and projects about Native American tribes, specifically the tribes located in Kansas. He also promotes and supports the Native American arts industry in Kansas. He serves as the Kansas Arts Commission's liaison to the four resident tribes of Kansas: the Prairie Band Potawatomi, the Iowa Tribe of Kansas, the Sac and Fox Nation of Missouri and the Kickapoo Tribe of Kansas. He is a graduate of Emporia State University in Emporia, Kansas.

Clay Smith of Great Falls, Montana, was elected to serve a second year as treasurer of the foundation. Smith is a past president of the Portage Route Chapter, and past chairman of the foundation's Investments/Finance/Audit Committee. He retired as a Lt. Col. from the U.S. Air Force in 1984 after serving 22 years. He worked as vice president for enrollment, management and student services at Saint Martin's College in Lacey, Washington, for seven years before taking the same position at the University of Great Falls in 1998. He retired in 2002.

Larry McClure of Tualatin, Oregon, will serve as secretary of the foundation. He was elected to the board in 2006 and serves as chairman of the organization's...
Education Committee. McClure, a retired educator, joined the foundation in 1998. He is particularly interested in how schools can incorporate the Lewis and Clark story into learning activities and has promoted teacher awareness as a member of the Oregon Chapter's board of directors and on behalf of the foundation. He volunteers as director of the Tualatin Heritage Center in his hometown.

After nearly two years as foundation president, Jim Gramentine will serve a year on the Executive Committee of the board as past president. The early resignation of Patri Thomsen as president in January 2006 led Gramentine to assume the role of president nine months early. He graciously accepted the nomination to serve a second term.

The six elected members of the board of directors are Jim Mallory, Phyllis Yeager, Jay Buckley, Margaret Gorski, Dick Williams and Jane Randol Jackson. Mallory, a resident of Lexington, Kentucky, completed his first three-year term on the board of directors and will continue to serve through September 2010. He is chairman of the foundation's Eastern Legacy Committee, whose primary purpose is to work with Congress to extend the Lewis and Clark National Historic Trail east, to include the preparatory and return routes of Lewis and Clark. Mallory is a retired business executive who worked as a corporate account executive and in investment real estate. He served on the Kentucky Lewis and Clark Bicentennial Commission and is a past president of the Ohio River Chapter. He served on the Bluegrass Council Boy Scouts of America executive board and as vice president of properties for the organization. He has a bachelor's degree in economics from Missouri Valley College.

Yeager, from Floyds Knobs, Indiana, served three years on the foundation's Executive Committee as secretary and was re-elected to a three-year term on the board. She also served as secretary of the National Council for the Lewis and Clark Bicentennial and was co-chairwoman of the council's Legacy Forward Committee. Yeager served on the Locust Grove Lewis and Clark Committee for its Lewis and Clark Homecoming, the executive board of the Falls of the Ohio Lewis and Clark Bicentennial Committee and is a two-time past president of the Clark-Floyd Counties Convention and Tourism Bureau. She has a bachelor's degree in elementary education from Montana State University and taught school in Anchorage, Alaska. She has owned and operated several businesses with her husband.

Williams of Omaha, Nebraska, was elected to a three-year term on the board. He served as manager of the Lewis and Clark National Historic Trail for the National Park Service from 1991 to 2006 and is now retired. He worked to develop Park Service partnerships and managed the Challenge Cost Share program. Williams was involved in much of the national planning for the bicentennial and the Park Service's Corps of Discovery II project. He also worked for the Park Service as a park ranger and program manager in areas including Yellowstone, Joshua Tree, Big Horn Canyon, Cape Lookout and Homestead National Monument. He serves on the foundation's Eastern Legacy Committee. Williams has a bachelor's degree from the University of Northern Iowa.

Buckley is an assistant professor of history and director of the Native American Studies program at Brigham Young University. He has a Ph.D. in history from the University of Nebraska at Lincoln, and master's and bachelor's degrees in history from Brigham Young University. He worked as an editorial assistant for the Center for Great Plains Studies and completed his Ph.D. under the direction of Lewis and Clark historian Gary E. Moulton. Buckley's monograph, William Clark, Indian Diplomat, will be released this winter. He co-authored By His Own Hand? The Mysterious Death of Meriwether Lewis and has published numerous articles on various aspects of the Lewis and Clark Expedition. Buckley has served on the foundation's Archives Committee and has a solid working knowledge of the collections in the foundation's William P. Sherman Library and Archives. He was the Portage Route Chapter's Scholar-in-Residence in 2004. He will serve a two-year term.

Gorski is the tourism and interpretation program leader for the U.S.D.A. Forest Service's Northern Region. She lives in Stevensville, Montana. She has worked for nearly 30 years in various assignments in three national forests and three national parks in the West. Gorski has worked as a district ranger, on district recreation staff, as a recreation planner, as a landscape architect and a seasonal national park ranger-naturalist. Many foundation members know Gorski best for work she did.
in her previous position as the Forest Service's Lewis and Clark Bicentennial national field coordinator. For eight years she directed the agency's strategic planning for and involvement in the bicentennial. She has a master's degree in landscape architecture from the University of California at Berkeley and a bachelor's degree in forest resources outdoor recreation from the University of Washington. She will serve a two-year term.

Jane Randol Jackson of Cape Girardeau, Missouri, was elected to serve a one-year term on the board. She is the director of the Cape Girardeau County Archive Center, and serves as chairwoman and docent at the Red House Interpretive Center in Cape Girardeau. She is the founder and president of the foundation's Cape Girardeau Chapter. Jackson is chairwoman of a working committee to establish the Missouri Lewis and Clark Network, which replaces the Missouri Bicentennial Commission. She planned and conducted two Grampa Woo cruises at the close of the bicentennial. She has a master's degree in French from Middlebury College and a bachelor's degree in education from Southeast Missouri State University.

The foundation's 15-member board meets in person three times a year. In 2008, they will meet January 26th in Denver, Colorado; May 10th in Kansas City, Missouri; and August 9th in Great Falls, Montana.

Also serving on the board are Stephanie Ambrose Tubbs of Helena, Montana, who has one year remaining in her first term, and Bill Stevens of Pierre, South Dakota, and Peyton "Bud" Clark of Dearborn, Michigan, who both have two years remaining in their first terms.

Nominations for next year's elections are due by November 30, 2007.

—Wendy Raney

**L&C Roundup**

Development proposed at arch; Extension legislation

In late August, City of St. Louis officials announced a plan to revamp the city's riverfront by obtaining a portion of the Jefferson National Expansion Memorial from the National Park Service.

The Park Service owns 91 acres that include the arch, an underground museum, park grounds and the Old Courthouse. City officials are interested in the northern and southern thirds of the park, but acknowledge the center, which includes the arch, should not be included in their plan. St. Louis Mayor Francis Slay and former U.S. Senator John Danforth are among the project's most vocal proponents. Slay has likened the project to Chicago's newly developed Millennium Park along Lake Michigan, which opened in 2004 with a music pavilion, skating rink and bicycle rentals. Slay said that among the general possibilities they are considering in St. Louis are an amphitheater, cafes and restaurants, fountains, bicycle rentals, sculptures and an aquarium.

That would be a departure from the original idea of a wide-open riverfront memorial to Thomas Jefferson that dates back to 1933. Areas of interest for commercial development include the sites of the McNair House to the south of the arch (where Meriwether Lewis rented in 1808 and later William and Julia Clark lived), and to the north, William Clark's 1818 home and museum. Development potentially could spoil Jefferson National Expansion Memorial's plans to place wayside exhibits at key points for the sites of historic structures, as well as iPod and GPS-driven programs that would provide background information on the sites for walking tours.

Development would require an act of Congress, along with broad political and public support. Removing land from the National Park Service would be an unprecedented move, and therefore will attract the attention of federal officials, Park Service staff, advocacy groups and the general public across the country. The plan already has garnered the support of U.S. Senator Claire McCaskill of Missouri, Senator Kit Bond and U.S. Representatives William Lacy Clay and Russ Carnahan have stated that the plan needs more review and extensive public comment. Robert Archibald, president of the Missouri Historical Society, and Peter Raven, director of the Missouri Botanical Garden, have been tapped by the city to prepare a road map for community input and planning.

The Park Service does not take an official position on pending legislation until a congressional hearing, but Peggy O'Dell, former superintendent of the Jefferson National Expansion Memorial, said the arch grounds are part of the memorial and were designed very specifically to complement the structure of the arch.

People interested in submitting comments on the potential development should contact members of Missouri's congressional delegation.

**Trail study legislation introduced**

Bills have been introduced in the U.S. House and Senate calling for a study to determine the feasibility and suitability of extending the Lewis and Clark National Historic Trail east to include Lewis and Clark's preparatory and return routes.

U.S. Senator Jim Bunning of Kentucky introduced S. 991 and the bill currently has one co-sponsor. U.S. Representative Jo Ann Emerson of Missouri, and 13 original co-sponsors, have introduced H.R. 3616. For text of the legislation and information on the status of the bills, visit http://thomas.loc.gov. Please consider contacting your delegation to urge their support and ask them to sign on as co-sponsors of the legislation.

—Wendy Raney

November 2007 We Proceeded On — 25
The foundation recognized the significant contributions of two individuals and three groups of people at its annual meeting in Charlottesville, Virginia, in August.

Francis McQ. Lawrence, an attorney from Charlottesville, Virginia, and Kira Gale of Omaha, Nebraska, received the foundation's Meritorious Achievement Award, given to a person, organization or agency for scholarly research or other significant contributions that bring to the nation a greater appreciation and awareness of the Lewis and Clark Expedition.

Lawrence took the lead in construction of Charlottesville's replica keelboat and the Lewis and Clark Exploratory Center. Captains Meriwether Lewis and William Clark would find a kindred spirit in Lawrence, whose passion is building anything from trails to boats to relationships. Along the way, he has been a boat builder, leader, diplomat and fundraiser. Lawrence has done it all, from wielding a hammer to build the keelboat to providing legal advice and leadership for the center. He negotiated with local government agencies for a place to build the center and led the fund-raising effort for this exciting, interactive, hands-on project. He provided the community and the center with the kind of leadership Lewis and Clark would admire.

Gale has combined her passion for the Lewis and Clark National Historic Trail with her love of the stories of the Corps of Discovery, making both accessible to people living along the Platte and Missouri rivers. She is the ultimate Lewis and Clark enthusiast. In much the same way President Thomas Jefferson promoted scholarship and conversation, Gale has encouraged both in the Omaha area through ongoing lecture series, dinner meetings and study groups. She established the Mouth of the Platte Chapter and during the bicentennial, Gale led the chapter's efforts to name the city's riverfront park "Lewis and Clark Landing." She is a tireless advocate for the trail, supporting interpretive markers, interpretive trails and public access along the trail in the Omaha area. Her most recent accomplishment was publishing a comprehensive trail guide, Lewis and Clark Road Trips, and posting an interactive Website, www.lewisandclarktravel.com, which have received accolades from the trail community.

The Confluence in Schools Project is a combination of scholarship, art, education, youth and the landscape. The project comes together in the stories told by and about the Corps of Discovery. It honors the confluences of trails, rivers and cultures. The project provided funding and expertise for teachers who brought the story of the corps and the tribes it met back to their schools, where students developed art-based educational projects for their schools and communities. Students told the expedition's stories in their own unique ways, designing and building trails and interpretive markers, creating sculptures, planting native gardens and publishing books.

The project involves 13 school districts, 29 schools and 5,086 students in Washington and Oregon. Project assistance is provided by 864 community mentors, 278 partner groups, and 80 tribal leaders, artists and storytellers. The Confluence in Schools Project speaks to all of us who keep the story, steward the trail and look to our youth to do the same for the next 100 years.

The Discovery Expedition of St. Charles was fortunate to recruit four young men to participate in its reenactment of the Corps of Discovery’s journey. Derek Biddle of...
Rocheport, Missouri; Josh Loftis of Lake Ozark, Missouri; Jesse Murphy of Billings, Montana; and Alec Weltzien of Dillon, Montana, postponed their personal plans to volunteer for the Discovery Expedition of St. Charles. Each young man took time to read expedition members' journals, listen to the accounts of tribal elders and study with scholars. In their roles with the Discovery Expedition, they passed these stories on to thousands of visitors along the trail and at bicentennial events. Their clothing and equipment reflect their scholarship and their determination to be historically accurate. Their ages were the same as many of the original expedition members, and like those young men, the award recipients kept journals of their own journey. All this, combined with their willingness to proceed on, truly sets them apart as keepers of the story, stewards of the trail.

The foundation honored the Travelers' Rest Chapter Brigade with its Appreciation Award, which is given to a person or organization for gracious support (in deed, word or funds) of the foundation in its endeavor to preserve and perpetuate the last historical worth of the Lewis and Clark Expedition. The brigade travels the trail in western Montana, sharing the stories of the Corps of Discovery with state and federal park visitors, school children, adults and those who gathered to commemorate the bicentennial of the Lewis and Clark Expedition from 2003-2006.

Brigade members are: Norm Allen, Scott Cameron, Vicki Correia, Ritchie Doyle, Ted Hoglund, George Knapp, Tom Leonard, Tom Lukomski, Bob Schmidt, Chuck Sundstrom, Bruce Truett, Mike Wallace, Jacqueline Wallace, Jennifer Wallace, Harvey "Hoot" Gibson and Francis Weigand.

Each year our foundation strives to identify and recognize individuals, groups and organizations who have made significant contributions to our mission as keepers of the story and stewards of the trail. We have five award categories:

**Meritorious Achievement Award**
To a person, organization, or agency for scholarly research or other significant contributions that bring to the nation a greater appreciation and awareness of the Lewis and Clark Expedition.

**Distinguished Service Award**
To a foundation member who has made an outstanding contribution toward furthering the purpose and objectives of the foundation.

**Chapter Award**
To a chapter in good standing that has shown exemplary or distinguished service to or promotion of the foundation on a state, local or national level; and/or has demonstrated or accomplished an activity of merit that benefits its members, their community and the mission of the foundation.

**Youth Achievement Award**
To a person or group of people under age 21 who have increased knowledge of the Lewis and Clark Expedition through outstanding composition, art, drama, photography, site preservation and enhancement or other significant contribution.

**Appreciation Award**
To a person or organization for gracious support (in deed, word or funds) given to the foundation and its endeavor to preserve and perpetuate the last historical worth of the Lewis and Clark Expedition.

This is your chance to provide special recognition to someone who has made significant contributions to our national community and whose efforts have increased awareness, knowledge and appreciation of the Lewis and Clark Expedition.

Please take the time to think about those who deserve recognition, encourage others to do the same and submit a nomination. Nomination forms may be downloaded from the foundation's Website. If you have questions, contact Ken Jutzi at lcithfawards@verizon.net or (805) 444-3236. Nominations must be postmarked by May 1, 2008, to be considered.

_Awards Committee_
Journals provide insight into trade at Fort Osage and Jefferson’s factory system

Seeking a Newer World: The Fort Osage Journals and Letters of George Sibley 1808-1811

Jeffrey E. Smith, ed.

Lindenwood University Press
220 pages / $12.95

Seeking a Newer World; The Fort Osage Journals and Letters of George Sibley 1808-1811, edited with an introduction by Jeffrey Smith, offers a unique view of what it was like to be the man implementing Thomas Jefferson’s factory system on the frontlines. Under that policy, the United States acquired land cessions from Indian tribes in return for providing protection from other tribes and access to markets and material goods. Smith states in his preface, “The factory system pursued the parallel goals of controlling the Native Americans through commercial rewards and punishments along with attempting to civilize them.” The idea was to encourage the indigenous people to give up the “savage” lifestyle of hunting and gathering for a “civilized” life of farming and candle making.

As the son of Indian agent Dr. John Sibley, and having served as an assistant factor at Fort Belle Fontaine, George Sibley knew how to walk the fine, if not impossible, line of keeping the Indians and settlers safe and happy, maintaining an accurate account of goods and services, and ensuring the land cessions and annuity payments were in order. The newly constructed Fort Osage was essentially a last stop for travelers headed west, and trade flourished under Sibley’s leadership. His account is a matter-of-fact record peppered with references to the personages who passed through on their way to the upper Missouri River regions, among them: Manuel Lisa, the Chouteau family, and botanists Thomas Nuttall, John Bradbury and Nathan Boone. Superintendent of Indian Affairs William Clark figures in these journals as does Meriwether Lewis, governor of the Louisiana Territory, who wrote that he favored withholding merchandise from the Indians as a superior policy to the “chastisement of the sword.” The problem, Sibley later recognized, was that as the Indians killed more game for furs to trade at the factory, the game became “very sensibly” diminished and the once proud Osage became “more and more dependent upon the Traders, and consequently more and more debased and degraded.” (Letter from Sibley to Thomas L. McKenney, October 1, 1820.)

From the correspondence included in this book, one gets the impression that George Sibley very much wanted to please William Clark, who had handpicked the fort’s location in 1808, as much as he wanted to facilitate the opening of the West with the least amount of violence and disruption, and in accordance with the provisions of the Treaty of 1808. Sibley appears at times to be standing up for the Osage, but not so much as to challenge the notion of the factory system. He notes of the treaty provisions the necessity to “perform with the most minute exactness every promise made to the Indians by any of its authorized Agents, and of course to use the greatest caution in making promises.”

His observations are often wry and reflect the sensibilities of a man who took his job and his honor very seriously. When faced with settling accounts between a man whose hogs had gotten lost and the men who found them, Sibley wrote, “It lays at the doors of the wolves, the Indian Dogs, the Indian and the Soldiers, but they Shift it from one to the other, and all deny it except the Wolves and Dogs, who are the most honorable of them all in this matter, and I suspect the least culpable.”

As the tensions with Great Britain mounted, and the ranks of independent trappers took over, the frontier outpost known as Fort Osage was evacuated and shut down for a time. Sibley eventually returned with his new wife, but as the factory system faded and the rendezvous system took its place, he moved on to run a finishing school for girls in Saint Charles. How peaceful that occupation must have been for Sibley compared with the responsibilities of being a frontier fort “factor.” Smith’s explanatory notes and biographical details fill in the story and paint a complete picture of George Sibley’s life during his time at Fort Osage. He was, as one biographer phrased it, “a man caught up in the life of a developing country while still wedded to a frontier institution which was passing away.”

The reconstructed fort is located in Sibley, Missouri, and was designated a National Historic Landmark in 1961.

—Stephenie Ambrose Tubbs
Short biography compliments existing work on expedition hunter and interpreter

Bon Appetit! – AND – The Life & Times of George P. Drouillard
Lewis and Clark's Shawnee Hunter and Interpreter

Richard M. Gaffney

AuthorHouse
115 pages / $17.87

Author Richard M. Gaffney earned his bachelor's and master's degrees in history from the University of Maine. He has been active as a historical reenactor for over three decades portraying soldiers from the Revolutionary War period and, more recently, George Drouillard of the Lewis and Clark Expedition.

Bon Appetit! – AND – The Life & Times of George P. Drouillard offers an odd juxtaposition of two subtly related topics under one cover as a two-part book. Part I is subtitled “Shawnee Hunter Georges [sic] Drouillard’s List of Fine Dining Establishments along the Lewis and Clark Trail, as of A.D. 1806.” The author explains that there were no fine dining establishments along the trail in 1806, but he discovered several during his travels in 2006. Following this explanation, he recommends dining in eight eateries near the Lewis and Clark National Historic Trail. Five of the places are located in Jefferson City, Missouri, and three more are upriver, within a 60-mile radius of Jefferson City. He invites the reader to record their own restaurant discoveries in the 35 blank, or nearly blank, pages of the 54 pages that comprise Part I of the book.

In Part II, Gaffney provides many interesting biographical notes on Drouillard and his father, Pierre Drouillard. However, Gaffney uses the French spelling of George’s name, that is, “Georges,” throughout the rest of the book. I found this to be annoying and probably inaccurate. Like the author, I also am a George Drouillard reenactor. After a performance for 50 members of the Drouillard family in Maumee, Ohio, the family presented me with a copy of the Drouillard family archives.

In these well-researched documents they list Drouillard’s name as “Pierre George Drouillard,” born circa September 27, 1775, on the south coast of Detroit, to Asoundechris Flathead and Pierre Drouillard, official interpreter to the Hurons for the British Indian Department. Other French names in the archives remain in French spellings, but “George” clearly is spelled in the English version.

On pages 84, 86, 88 and 90, Gaffney presents photocopies of various legal documents signed by George Drouillard. In each case it appears that Drouillard signed his first name as “George.” The two primary biographies of George Drouillard, George Drouillard Hunter and Interpreter for Lewis & Clark, by Malvin Olai (M.O.) Skarston, and historical novel, Sign-Talker, by James Alexander Thom, both provide several documents and a personal letter signed by “George Drouillard.”

Of the 41 pages of Part II, 11 are filled with illustrations, photos and maps. Half of the remaining 30 pages provide interesting information on the Shawnees, Shawnee Chief Kishkalwa, Louis Lorimer (believed to be Drouillard’s uncle) of Cape Girardeau, Missouri, the Louisiana Purchase, Native American migration, George Rogers Clark and anecdotal bits of American history. That leaves about 15 pages for George Drouillard. When the reader compares that with the 342 pages of Skarston’s work, or the 466 pages of Thom’s novel, Gaffney’s book is relegated to a supplement to previous biographies.

The strength of the book is that it provides insight into some Lewis and Clark historical sites in central and eastern Missouri, plus it includes four pages of bibliography that would be a valuable resource to any researcher. Unlike Skarston and Thom, who transcribed the various legal documents regarding Drouillard, Gaffney provides photocopies of the originals with transcriptions. I recommend this book to anyone who enjoys the articles in WPO, die-hard George Drouillard fans such as myself, people interested in the history of Missouri and Cape Girardeau, and, of course, to people looking for some darn fine food in the Jefferson City area.

—Darrel W. Draper

November 2007 We Proceeded On — 29
More than 250 people attended the foundation’s 39th annual meeting, “Reporting Back to Jefferson,” in Charlottesville, Virginia. The foundation’s Home Front, Carolinas and National Capital chapters served as hosts for three days of scholarship, touring and fun.

Annual meeting co-chairwomen Anne Tufts and Malou Stark welcomed attendees on Monday morning. Several representatives of the Boy Scouts of America joined the foundation to celebrate the signing of a national memorandum of understanding between our organizations, which promotes Lewis and Clark stewardship, scholarship and leadership to the youth of America.

Speakers at the meeting included Peter Kastor, Carolyn Gilman, Jane Henley, Elizabeth Chew, Larry Morris, Tracy Potter, Rob Cox, Peter Hatch, Doug Seefeldt, Trent Strickland, Bob Anderson and Julia Teuschler.

A highlight for everyone was an evening tour and reception at Monticello. Attendees were allowed to tour the house at their leisure, and the Thomas Jefferson Foundation hosted a reception on the lawn.

Attendees also visited Ashlawn Highland, the home of President James Monroe from 1799 to 1826; Montpelier, the home of James and Dolley Madison, which is undergoing a rare archaeological restoration; the University of Virginia’s rotunda, modeled by Thomas Jefferson after the Pantheon in Rome; and the university’s Alderman Library Collection.

The meeting closed with a report from Captains Meriwether Lewis and William Clark (Bryant Boswell and Bud Clark) on their western journey to Presidents Jefferson, Madison and Monroe.
Clockwise from upper left:
• Attendees tour "The Lawn," in front of the University of Virginia's rotunda, which was designed to be the architectural and intellectual heart of Thomas Jefferson's "academical village" at the university.
• Captains Meriwether Lewis and William Clark reported on their journey to presidents James Madison, James Monroe and Thomas Jefferson at the final banquet.
• The Lewis and Clark Living History Association's encampment (behind the DoubleTree Hotel) was a highlight for many attendees.
• Charlottesville Boy Scouts were joined by foundation member Daniel Florian of Texas (center, in blue) to post the colors at the business meeting.
• The Thomas Jefferson Foundation hosted an evening reception for meeting attendees on the lawn of Monticello.
• The Foundation signed a national memorandum of understanding with the Boy Scouts of America, kicking off a national partnership to promote Lewis and Clark stewardship, scholarship and leadership to the youth of America. Those influential in development of the partnership were, from left, Steve Powell, Jim Gramentine, Judy Powell, Claire Powell, Denton Florian, Daniel Florian, Wendy Raney and Joe Glasscock, director of program development, Boy Scout Division of the Boy Scouts of America.
Reflections from a past president

The 2007 annual meeting included a special tribute to an 18-year commitment

By Ron Laycock

I attended my first annual meeting of the Lewis and Clark Trail Heritage Foundation in Bozeman, Montana, in 1989. It was my first introduction to the foundation’s membership—its “family.” One of the people I met was Jerry Garrett, who had come up with the idea of starting to plan for the bicentennial of the Lewis and Clark Expedition. Upon his invitation, I agreed to become a member of the Bicentennial Committee. Little did I know that it would be an 18-year commitment!

The Bicentennial Committee started out as a foundation committee but soon spun off into its own 501(c)3 organization we called the Bicentennial Council. The Bicentennial Council had its ups and downs and faced many challenges, yet it was successful in its efforts. When the council closed its books earlier this year, endowments were set up to fund Native American language preservation and trail stewardship. The foundation received $1.6 million for a trail stewardship trust to support stewardship programs in the spirit of the bicentennial.

In 1992, at my fourth annual meeting, Barb Kubik asked if I would be chairman of the foundation’s Chapter Liaison Committee. I saw the numbers grow from eight chapters to nearly 40. During this time, the foundation also grew and matured. In 1992, we didn’t have staff or an office, only a post office box. We now have a professional staff and an office in Great Falls, Montana.

I have served as a committee member and chairman, board member, officer and president of the foundation. These have been wonderful, rewarding years and I’ve met many fine people and have made many friends in the Lewis and Clark “family.”

The annual meeting in Charlottesville was my last meeting as an officer or committee chairman. My family made sure it was a memorable meeting.

Following the annual meeting’s opening ceremonies and before the evening’s program began, my son Mike and daughter LeAnn took the stage. Following a beautiful and, at times, humorous tribute by Mike, LeAnn made a special presentation. She is an accomplished quilter and presented me with a beautiful quilt. Each of the 90 squares had the signature of a family member or a foundation friend I have made over the years.

My daughter, my wife Ione, and Carol Bronson had contacted friends to obtain their signatures for the quilt squares without my knowledge.

Many of the signatures came back with notes, letters, photos and anecdotes, so my daughter-in-law Diane created a scrapbook to go along with the quilt. We do have a problem though. So many signatures came back that LeAnn kept adding squares to the quilt. It’s queen-size-plus and doesn’t fit our bed. It’s more than eight feet long and our walls are only eight feet. What a nice problem to have!

I had mixed emotions that night, and still have. I’m very proud and very humbled by what my family and friends arranged that night. It was truly an evening I’ll never forget.
NEW ANNUAL MEETING DATE: August 10 - 13, 2008

Come to Big Sky Country in '08

Our Fortieth Annual Meeting

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Keepers of the Story - Stewards of the Trail

Lewis & Clark Trail Heritage Foundation, Inc.
P.O. Box 3434 / Great Falls, MT 59403
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Take the Lewis & Clark Challenge!

Track your miles, eat healthy meals, win prizes!

Captains Lewis and Clark had the ultimate in "active lifestyles" when they led the Corps of Discovery across America.

Now, in an effort to encourage healthy lifestyles for its members, the Foundation invites you to improve your health and to explore some of the best places in America.

Join the year-long Lewis & Clark Challenge. You can bike, walk, jog, kayak, canoe, or ride a horse! Your activities count whether you're on the Lewis and Clark National Historic Trail, in the gym or walking city streets.

Get extra "miles" for picking up trash, introducing someone new to the Trail, or for trekking a part of the Trail that's new to you.

Not only that, you'll rack up "miles" for avoiding fatty fast food and for eating your fruits and veggies!

There'll be fun prizes—handmade walking sticks, paddles, t-shirts—in many categories for top mileages.

Keepers of the story, stewards of the trail

Competition begins September 1, 2007!

Teams of four or individuals are encouraged to participate. To find out more about the Lewis & Clark Challenge, contact Wendy Raney for full details.

This program is supported by a Challenge Cost Share grant from the National Park Service.

Lewis & Clark Trail Heritage Foundation, Inc.

P.O. Box 3434 / Great Falls, MT 59403
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What legacy will you leave for the future?

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