

Neglected Classics — Iron Boat Debate — Gass Bust Unveiled



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May 2004 Volume 30, No. 2

FIRE PATHS OF LEWIS & CLARK



PLUS: LEWIS'S BRANDING IRON • WOLVES & PRAIRIE
WOLVES • BEARCLAW NECKLACE • L&C CROSSWORD

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Michael Haynes's *The Pursuit of the Sioux* shows a scene near Fort Mandan on February 16, 1805. Meriwether Lewis (in blue overcoat and fur hat) led a party against some Lakota Sioux after they stole two of the explorers' horses. The Sioux spent the night at an abandoned Mandan village and set fire to two of its lodges before departing ahead of the party's arrival. For more on the ways that fire figured in the expedition, see Robert Hunt's "Fire Paths on the Lewis & Clark Trail," pages 14-19. More Haynes art can be seen on his Web site, www.michaelhaynesart.com.



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Wolves, p. 20



Iron boat, p. 33



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E. G. Chuinard, M.D., *Founder*

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Editor

J. I. Merritt
51 N. Main Street
Pennington, NJ 08534
609-818-0168
wpo@lewisandclark.org

Volunteer Proofreaders

H. Carl Camp
Jerry Garrett

Printed by James & Associates,
Trooper, Pennsylvania

EDITORIAL BOARD

Gary E. Moulton, *Leader*
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Letters

Gass bash; bad eye; Maria's dates; Lewis's air gun

I read with interest the articles about Patrick Gass in the February 2004 WPO. Along with the owners of the "new" portrait of Gass, the descendants Edith Wade and Kathleen Wade, and other Gass relatives, I took part in the August 2002 motor-coach trip to Wellsburg, West Virginia. Organized by Foundation members Carol MacGregor, Ludd Trozpek, and Tom Williams, the trip included a visit with two of Gass's great-grandchildren, Eugene Gass Painter and his sister Mary Louise Wiegman, during a two-day Gass celebration in Wellsburg.

The highlight of the celebration was the dedication of a Gass monument featuring a bust of him as a young man and a historical marker, both located in a park near the old wharf on the Ohio River. A cost-share grant from the National Park Service helped pay for this memorial, which is given in the name of the Lewis and Clark Trail Heritage Foundation.

As natives of West Virginia, my husband, Page, and I are familiar with the history of Wellsburg and its economic ups and downs. Wellsburg first flowered as a river port, and after boat activity subsided it continued to flourish because of its location near what was once West Virginia's largest employer, Wierton Steel. With the local steel industry in decline, the presentation of this memorial could not have come at a better time. Now and into the future, the community's connection with the Lewis and Clark Expedition gives it something to brag about.

Thanks to Carol MacGregor, Ludd Trozpek, and Tom Williams, the LCTHF also has a permanent place in Wellsburg. Carol was the trip's Gass scholar and arranged the wonderful celebration, bringing together many Gass descendants who had never met. Ludd was the historian for the trip's Ohio River phase, when we followed in the path of Meriwether Lewis as he brought the keelboat from Pittsburgh to Louisville. The materials Ludd collected could fill many more editions of WPO. Tom arranged the itinerary and got us to the most pertinent sites along



Gass bust



From left: Eugene Gass Painter, Kathleen R. Smith Wade, Mary Louise Wiegman, Carol MacGregor, Ludd Trozpek, and Tom Williams at dedication of Patrick Gass monument.

the route. Bob Anderson, a descendant of expedition member George Shannon, added an extra spark of humor and authenticity as chief commentator as we drove along the Ohio.

As its major bicentennial project, the Foundation is pushing for the passage of legislation to extend the L&C National Historic Trail to include the route followed by Lewis and Clark in the preparation and follow-up phases of the expedition. This portion is often called the Eastern Legacy. Now Wellsburg's place on this eastern portion of the trail is better documented and recognized with a monument. Let's proceed on and connect the many other Lewis and Clark sites in the East and bring to fruition the dream of a congressionally mandated Lewis and Clark Trail that runs from "Sea to Shining Sea." I encourage readers to contact their congressional representatives in support of bills S-2018 and HR-2327.

JANE HENLEY
Keswick, Va.

Gass's blind eye

Thanks for the article in the February WPO on the newly discovered portrait of Patrick Gass. In the sidebar on pages 14-15, endnote 9 raises the question whether Gass's left eye was disfigured as a result of an accident during the War of 1812. As the article points out, the portrait is a tintype. Tintypes were made by a direct-



Gass's "right" (actually left) eye appears filmy.

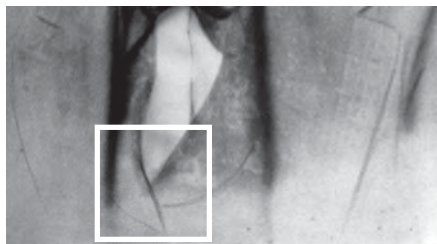
to-plate process, which resulted in a reverse or mirror image. Therefore, what appears to be his left eye is actually his right, and vice versa. Now take a close look at his "right" (i.e., left) eye and you will see that, in contrast to the opposite eye, the pupil is filmy, or occluded. When I showed the photograph to an optometrist he thought the eye showed definite signs of an ulcerated cornea.

CURT JOHNSON
Astoria, Ore.

EDITOR'S NOTE: Further evidence that the portrait is a mirror image can be found by examining the one button visible on Gass's waistcoat. Buttons should be on the right side of a garment and button holes on the left, but in the portrait they are reversed. The sidebar refers to this as the "Wade" portrait and suggests that the similar "Painter" portrait, an artist's rendering, may be based on it. This view is strengthened by the fact that in the Painter portrait the waistcoat's lapels are also reversed (right over left instead of left over right).



Button (top photo) and lapel overlap (bottom).



Maria Gass's vital statistics

Inconsistencies in the articles in the February WPO about Patrick Gass left me confused about the years of birth and death of his wife, Maria Hamilton Gass, and her age at death.

The dates inscribed on her tombstone (photo, page 23) are 1812-1849, while the text on page 19 indicates she died in 1847.

There are also problems with the birth year of 1812. On pages 16-17 of her article "Patrick Gass's Account Book,"

Carol Lynn MacGregor says Maria was probably 16 when she married Gass in March 1831 and 30 when she died in February 1847. If she was 16 in 1831, then in 1847 she would have been 32, not 30; I assume this is a simple arithmetical error by the author, who, as she explains in note 3, page 20, used 1830 census records to deduce a marriage age of 16. If Maria was indeed 16, then she must have been born in 1814 or early 1815. But as note 3 also explains, family tradition says Maria was 20 at the time of marriage, which would make her year of birth 1811 or 1812.

H. CARL CAMP
Omaha, Neb.

EDITOR'S NOTE: The tombstone is wrong—Maria died in 1847, not 1849. On page 424 of *The Journals of Patrick Gass*, MacGregor traces this mistake to an erroneous "correction" made in the Gass family bible. Maria's year of birth remains unresolved. Assuming the census records are right, 1814 or 1815 may be correct. Or the family may be right, but even here there is disagreement—one genealogy gives her year of birth as 1811, while another records her date of birth as July 2, 1812.

More on Lewis's air gun

A letter from Robert Beeman in the February 2004 WPO sets forth several reasons why Meriwether Lewis could not have carried a repeating Girandoni-style air gun on the expedition.

Beeman believes that Lewis carried a single-shot air gun made in Philadelphia by Isaiah Lukens. He attempts to give some reasons why the repeating air-gun theory I proposed in the November 2003 WPO could not be true. Beeman attacks the veracity of journalist Thomas Rodney by quoting the editors of Rodney's journals. Yes, the editors did state that Rodney used "creative exaggeration and rich embellishment" in some of his writings, but these remarks are specifically about Rodney's exaggerated recollections of the "important" role he played in the Revolutionary War and in the Continental Congress and do not concern the journal of Rodney's trip to assume President Jefferson's appointment as territorial judge and land commissioner of the Mississippi Territory. The editors, in fact, praise him as a "closely observant and

The Lewis and Clark Trail Heritage Foundation, Inc.

P.O.B. 3434, Great Falls, MT 59403
406-454-1234 / 1-888-701-3434
Fax: 406-771-9237
www.lewisandclark.org

The mission of the LCTHF is to stimulate public appreciation of the Lewis and Clark Expedition's contributions to America's heritage and to support education, research, development, and preservation of the Lewis and Clark experience.

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Kansas City L&C Bicentennial

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Letters (cont.)

unquenchably curious” traveler. Rodney’s descriptions of his meetings with Lewis are corroborated by Lewis’s journal accounts of the same meetings, even to the minor detail of sharing a watermelon.

Rodney described the operation of Lewis’s repeating air gun. Two Girandoni experts in England confirm that this is just what would be written by an observer of that style of repeating air gun. How could Rodney come up with an accurate description of a such an unusual air gun if he hadn’t seen it? Moreover, why would he make up only that when everything else he wrote of his encounter with Lewis is corroborated by Lewis?

After the annual LCTHF meeting in Philadelphia last year, I spent two days in some of that city’s research facilities. I found documentation that Lukens started his career as an apprentice clockmaker with his father in Horsham, Pennsylvania. He did not come to Philadelphia to open his shop until 1811. From studying his advertisements in contemporary publications, I speculate that he probably didn’t even start making air guns much before 1810–1812.

Beeman himself has written that the Lukens air gun receivers have “the shape and style of ... Girandoni-style Austrian air rifles.” He remarks that the butt air reservoirs of the two guns are similar, which leads one to think that Lukens must have seen a Girandoni-style air gun. Personally, I think he had access to Lewis’s gun when it was sent back after the expedition, and the air gun listed in the catalog of Lukens’s estate could very well have been the Girandoni. But that listing doesn’t mean Lukens made the gun. In Philadelphia I obtained a copy of the complete listing of the 694 items in the estate sale. Lukens made only a few of the items listed, which include 39 complete or partially assembled air guns and air canes. Only the one “used by Messrs Lewis & Clark” is described as “a great curiosity.” I think it is a curiosity because it is the only repeating air gun in the collection.

Dr. William Brunot, who has studied the accidental shooting on Brunot’s Island, also concludes that Lewis’s air gun was of the Girandoni repeating style. His analysis leads him to believe that the gun was probably acquired in Pittsburgh, not Philadelphia.

MICHAEL F. CARRICK
Turner, Ore.

The LCTHF: What we are and what we do

As the Foundation's president I often meet people who asked about our organization—what it is and what it does. I want to use this column to answer those questions, however briefly. While I might be “preaching to the choir,” some of our newer members might liked to know more about us.

We were organized in 1969 to preserve and promote the story of Lewis and Clark and the trail they traveled. Our office and staff are in Great Falls, Montana, where we also have our research facility, the William P. Sherman Library and Archives. The Foundation's director of library services is also a certified teacher. She works with teachers and educators, as well as researchers and scholars, by helping them with research, lesson plans, and other needs.

The L&C Expedition would never have succeeded without the Native Americans who befriended it along the way. It is important that their story be told and that we recognize the changes to their lands and cultures during the last two centuries. That is the purpose of our Sovereign Nations Committee.

The Foundation has more than forty local and regional chapters from coast to coast, many in places that are not on the trail. The chapters are truly an extension of the Foundation. They put on programs, interpret Lewis and Clark, make presentations in schools, and educate the public in various other important ways.

We encourage scholarship and research. Our Monetary Grants Committee has supported a variety of projects related to scholarly endeavors, public education, and the publication of significant works on Lewis and Clark. These include Dr. Gary Moulton's editing of the 13-volume *Journals of the Lewis & Clark Expedition*, published by the University of Nebraska Press; James Holmberg's

editing of William Clark's letters, which resulted in *Dear Brother*, published by the Filson Historical Society and Yale University Press; and Martin Plamondon's three-volume *Lewis and Clark's Trail Maps: A Cartographic Reconstruction*, published by Washington State University Press.

We work in partnership with the National Park Service, the Bureau of Land Management, and the National Forest Service in behalf of the Lewis and Clark National Historic Trail. Much of the trail is on public lands, and trail stewardship is one of our primary concerns. It is important that the trail be protected, yet also accessible to the public.

Another partner is Amtrak. As part of its Trails to Rails program, Foundation members interpret the Corps of Discovery's story on trains traveling parts of the Lewis and Clark Trail.

Much of the trail goes through prime elk habitat, and we have partnered with the Rocky Mountain Elk Foundation to produce a seven-minute video on trail stewardship. It can be seen at interpretive centers and on Amtrak trains, and it is also available to state tourism bureaus and for bicentennial celebrations.

Looking to the future

The Foundation established the National Council for the Lewis and Clark Bicentennial as a separate 501(c)3 non-profit organization to plan and direct the bicentennial, which launched in 2003 and will finish in 2006. The council will “sunset” with the bicentennial's passing, but the Foundation will continue to fulfill its historic mission as “keeper of the story and steward of the trail.” All of us are looking forward to the next hundred years of Lewis and Clark!

—Ron Laycock
President, LCTHF



LCTHF
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raising

On-the-job (and in-the-field) training

My first few months as the LCTHF's Director of Field Operations have served as an in-depth orientation on all things Lewis and Clark. That has been no small task, given the bicentennial and the increased interest it has spawned in the Corps of Discovery. I came aboard in December, and by February I was ready to hit the trail, see the sites, and meet our members. That is largely what I have been doing, and will continue to do throughout the summer.

I am focusing my time and energy in three areas this year: trail stewardship, chapter relations, and partnerships. In each of those areas I am concentrating on the future of the Foundation and the "Third Century" of Lewis and Clark.

The direction in which I plan to lead our stewardship programs is develop-

ing as I talk face-to-face with Foundation members and see the sites that are so important to each chapter. I am looking for ways the Foundation, through the grassroots work of its chapters, can make meaningful, organized contributions to the stewardship of the Lewis and Clark National Historic Trail. I am



developing strategies that involve youth, families, chapter partnerships, and the land-management agencies that oversee the trail. I plan to have proposals and some programs in place by this year's annual meeting, which will be held August 4-7 in Bismarck, North Dakota.

I attended a national trails conference hosted by the Bureau of Land Management in March. The opportunity expanded my communications with our trail counterparts in the BLM, National Park Service, Forest Service,

and other trail organizations. Each of those entities is eager and willing to work with us to continue our mission into the Third Century. I will foster those relationships and strategize ways to partner with others who share the Foundation's values and goals.

The most significant relationships to the Foundation remain those it shares with its chapters. The Foundation is committed to strengthening those relationships, and as part of that, we are expanding the products and services we offer chapters. I am looking for chapters to determine what we should provide them. Every member of our staff is working to offer the products and services members want, but we need your help ascertaining what they are.

The Foundation has seen explosive growth over the past several years, as evidenced by the growing number of chapters on and off the trail. Commu-

L&C Task Force

**St. Joseph
4/C
Pickup from 2/04**

nicating and tracking the activities of 41 distinct groups is a challenge in and of itself, but that challenge magnifies when they extend across the country. To do my job effectively and efficiently, I need to develop new ways to communicate with chapters and track their activities.

The Foundation recently has had to implement some changes in our reporting requirements at the request of our accountant and our insurance company. Some of these changes have been confusing and frustrating for chapters. I understand that, and am here to help. With so many chapters, we need to have consistency. We need to have a set of guidelines to direct our operations. It is a monumental and impossible task to function successfully as a foundation when chapters operate differently. It is feasible when we implement structure and organization.

I am visiting 35 of the Foundation's 41 chapters in my first year on the job. As part of those visits, I am fortunate

to participate in educational programs, hikes, field trips, debates, and one-on-one discussions about various aspects of the Lewis and Clark story and the trail. By the end of May, I will have visited two dozen chapters. I plan to spend June and July developing several trail stewardship programs and a chapter handbook. I want those programs and materials to reflect the goals and needs of our members.

The Foundation can best serve its chapters if they communicate their thoughts, requests, and opinions directly to us. I am available to meet with chapters and still have several openings available on my calendar through September.

I look forward to working with you to develop stewardship programs to ensure that what you contribute to the trail today will be a legacy for your grandchildren and future generations to enjoy.

—Wendy Raney

Director, Field Operations

Lewis & Clark in other publications

The Fall 2003–Winter 2004 *Gateway Heritage*, the quarterly journal of the Missouri Historical Society, is a special double issue devoted to “Lewis & Clark: New Perspectives.” Its 11 articles deal with a wide range of subjects, including expedition maps, river travel on the lower Missouri, the role of women in tribal cultures, Mandan and Hidatsa perspectives on Lewis and Clark, Clark's life after the expedition, and Native American attitudes toward the L&C Bicentennial. An article by J. Frederick Fausz and Michael A. Gavin makes a compelling case for keeping an open mind about the “unsolved mystery” (suicide or murder?) of Lewis's death.

The articles are not sourced, but the MHS says it will eventually place footnoted versions of them on its Web site (www.mohistory.org). Copies are available for \$10 from its museum shop (314-454-3119; shop@mohistory.org). ■

Laurie Larsen

**Ambrose Tours
4/C
Pickup from 2/04**

Yellowstone Safari Pickup from 2/04

Rick Colgan

Bicentennial Council

Lewis's branding iron has much to tell us

It's a small metal box, open on one side and not much bigger than my hand. On a panel on top of the box is reverse type easily read: "US Capt M Lewis." This implement is known as a branding iron. As Meriwether Lewis explored the Louisiana Territory, he marked trees with this device, claiming the land beneath those trees as property of the United States.

How the Native Americans must have derided such a ridiculous concept. To them Lewis must have seemed a crazed individual, dashing around to monogram tree trunks and claiming ownership of the lands. Indian land was a different kind of entity, a place inextricably connected to the people, full of myth and history, stories and memory. One could as easily stake a claim on a wave of the ocean breaking sternly against the coast or on a breath of the wind that roared across the Rockies.

A Virginian, like Captain Lewis and President Thomas Jefferson himself, defined his fortune and status by how much land he owned. The Chinookan tribes on the northwest coast had much different but definite ways of indicating wealth and class structure, but these native concepts were beyond the comprehension of the explorers from the East. A Chinook's wealth was indicated by how much he could give away, not by what goods he could accumulate.

The notion of possessing the land is bound up in western culture. For several years I lived and worked in New Mexico, a land that was once on the far northern frontier of New Spain. For hundreds of years, Spanish-speaking people lived in the mountains north of Santa Fe in complete isolation, developing what seemed to outsiders strange cultural traditions. Those mountains have a brooding quality, and for me the trip north on the high road from Albuquerque was always a journey back in time to a mysterious place. I loved the subdued umber and olive desert tones and the sensuous adobe, a landscape unlike any I had ever experienced.



OREGON HISTORICAL SOCIETY

It seemed a landscape animated by the beliefs and history of the people who lived in it, imbued with a spiritual presence and blended with the smells of brisk mountain air and burning piñon.

Yet here too in this extraordinary land, people who came as strangers and explorers to the Southwest were driven to claim ownership. The early Spanish settlers ceremoniously but literally took possession of the land, scooping up handfuls of dirt, scattering it over their claim, and branding the earth with their presence.

I own a house and land in the city of St. Louis; I have the appropriate papers and have filed the right forms with the various government branches. I have made my mark on it, with the flowers I plant every spring, the patio I resurface from time to time, even the taxes I pay on the property. But I do not truly own this land. I am a trustee, a caretaker of this piece of property as I am of all the planet. I have a usufruct right to it and thus a concomitant obligation to leave it—that is, both my piece of property and the earth itself—in at least as good shape as when I occupied it. This is the only true claim we can assert.

Almost ninety years after Lewis and Clark's journey, Lewis's branding iron was unearthed on the shore of the Columbia River near The Dalles in Oregon. Around that time experts had begun to declare the frontier closed, that there was no more land to explore and settle, no more room for expansion. The Louisiana Territory was used up, the continent filled from ocean to

**Gib Floyd
pickup from
2/04**

**Yellowstone L&C
Commission**

Tim McNeill

Museum of Idaho

Bicentennial Council (cont.)

ocean, the nation's "manifest destiny" complete. Yet this was the land Jefferson presumed would serve the nation for generations of settlers. This was the land that had nurtured and sustained hundreds of thousands of Indians for generation upon generation. What choices did our ancestors make that changed this land so immensely? Were the results for better or for worse? What should we now do differently to preserve a heritage for those who come after us, and what from the past should we take with us into the future?

Look again at Lewis's branding iron. It helps tell the story of the great adventure of the Corps of Discovery, and the questions it impels us to contemplate can broaden our perspective and aid us on our own great adventure, as we discover the past and seek direction for the future.

* * *

Three upcoming Signature Events highlight our summer:

Heart of America: A Journey Fourth is a Fourth of July weekend event in Kansas City, Missouri, and the nearby Kansas towns of Leavenworth and Atchison. Atchison was the approximate site of the Corps of Discovery's Independence Day celebration, which consisted of firing two blasts from the keelboat's cannon. The 2004 celebration will be considerably more lively, with an air show, fireworks, and more.

The First Tribal Council Signature Event will take place July 31–August 3 at venues in and around Omaha, Nebraska. Activities at Fort Atkinson State Historical Park, the site of the first council meeting, will include living-history demonstrations, Native American cultural exhibits, and interactive workshops for all ages. Various trail communities have planned related activities.

Oceti Sakowin Experience: Remembering and Educating is a monthlong series, August 27–September 26, that will enlighten visitors about the experiences of the South Dakota tribal nations. Tours, a cultural festival, and an art auction are some of the features.

—Robert R. Archibald
President, Bicentennial Council

Todd Connor

FIRE PATHS ON THE LEWIS & CLARK TRAIL

Fire — a ubiquitous element in the Corps of Discovery's saga — was used by the Indians for environmental management and figured in a wide range of the explorers' activities, from cooking to diplomacy

By ROBERT R. HUNT

Behold, how great a matter a little fire kindleth.
— New Testament, King James Version, James, 3:5

Those of us who attended the Lewis and Clark Trail Heritage Foundation's annual meeting in August 2000, held in Dillon, Montana, will never forget the wildfires that swept through that part of the Rockies during that hot, dry summer. Nor will we forget how the vast smoky haze obscured our views of the historic landscape along the Continental Divide.

Yet as terrible as it is, fire historically has played a vital role in the ecology of the plains and the mountain valleys through which the Corps of Discovery passed two centuries ago. Comments in the explorers' journals have been invaluable to modern-day scientists attempting to understand fire as a management tool of Native Americans. In his book

Our Natural History: The Lessons of Lewis and Clark, biologist Daniel Botkin points to numerous journal references to the Indians' use of fire for the control of nature.¹ William Clark's entry for March 6, 1805, for example, tells how the Hidatsas fired the prairies to produce "an early crop of Grass ... for the Buffalow to feed on."² Two other biologists, Paul S. Martin and Christine R. Szuter,³

refer to Lewis's entry of September 16, 1804, for making this connection between fire and the productivity of Indian hunting grounds.⁴

George E. Gruell, another researcher, has tallied 145 accounts of such "regulating" fires set primarily by Indians in the interior West between 1776 and 1900, ten of which were recorded by Lewis



A forest fire rages on the Continental Divide near Dillon, Montana, during the L&C Trail Heritage Foundation's annual meeting in August 2000.

PHOTO BY TAYLOR HAYNES



Charles M. Russell's painting of Blackfeet burning a Crow buffalo range illustrates one of the many Indian uses of fire — in this case to drive off game from an enemy's hunting grounds.

and Clark.⁵ It is possible that the captains witnessed, but did not record, many more. On August 23, 1805, while at Camp Fortunate near the Continental Divide, Lewis states that he ordered the sinking of the canoes to guard against “fire which is frequently kindled in these plains by the natives.”

Prairie fires could also be sparked by accident or lightning, of course. Whatever their origin, they were a frightening and unforgettable sight. One fire that left a deep impression on Clark was started by a young man (for what purpose isn't stated) about the time the corps arrived at the Mandan villages in the fall of 1804. Clark tells us it spread “with Such velocity that it burnt to death a man and a woman.” Another couple and their child were severely burned, and others “narrowly escaped the flame.” One woman saved her son by covering him with a green buffalo skin, the equivalent of a wet blanket; the flames scorched the grass all around the youngster but left him unscathed. The explorers watched in awe as the “Tremendous” conflagration roared past their campsite a few hours after dark.⁶

That same fall, the captains were not the only European-Americans to be impressed by fires on the northern plains. As the Corps of Discovery was approaching the Mandan and Hidatsa villages, the fur trader François Larocque was traveling in present-day southern Alberta. The prairies, he observed, were “burnt in many places,” generating “such volumes of smoke as prevented us from seeing one hundred yards before us.”⁷

LEARNING FROM THE INDIANS

The journals provide a remarkably complete catalog of the various ways Indians used fires and their methods for starting them.⁸ As mentioned, what might be called “eco-system burning” enhanced grazing land, and it was also employed to drive game and to prepare the soil for planting crops (firing grassland produced fertilizing ash). The journals tell how tribes used fire and smoke to signal danger and harass their enemies. Fire was essential, of course, for cooking, heating, and light. It was used to bake ceramics and to make dugout canoes—in September 1805, the Nez Perces showed Clark how much easier it was to

burn out a tree trunk than to chip it out. Indians used fire for smoking (plains tribes mixed tobacco with dried bearberry leaves and the dried inner bark of dogwood), for sweating (as in sweat lodges, or saunas), and for pest control (the smoke repelled the Triple Furies: mosquitoes, horse flies, and gnats.⁹ Council fires were central elements in tribal political and spiritual life—for war dances, buffalo dances, and pipe circles—and on occasion whole trees were torched at night in a brilliant display to bring fair weather for a journey.¹⁰ Fires could be ignited by striking flint to steel, rubbing sticks together (when a Shoshone showed Sergeant Patrick Gass this method, he pronounced it “somewhat curious”),¹¹ or by focusing sunlight through a hand lens.

Implements of fire were on Meriwether Lewis’s mind when he outfitted the expedition in Philadelphia during the summer of 1803. His “List of Requirements” included “30 Steels for striking or making fire” and 100 flints, as well as “2 Vials of Phosforus.”¹² Among the “Indian Presents” on his shopping list were “100 Burning Glasses, 4 Vials of Phosforus, 288 Steels for striking fire.”

The explorers depended on fire as much as the Indians did. The captains’ standing orders included a specific protocol for setting up camp. Each of the three messes had a “superintendent of provisions” who broke out camp equipment, and collecting firewood was one of the tasks listed under the heading “Tents, Fires & Duty.”¹³

Wood was plentiful along the Missouri between St. Louis and Fort Mandan, but once the explorers entered present-day Montana it became increasingly hard to find, especially in the badlands later known as the Missouri Breaks. On May 26, 1805, Clark noted “scarcely any timber to be seen except the few scattering pine and spruce which crown the high hills.”¹⁴ The next day, when the explorers found a pair of aged cottonwoods growing by the river, these lonely trees became the determining factor in their decision to camp there. Unfortunately, wrote Lewis, their dead limbs furnished only “a scanty supply” of wood, “and more was not to be obtained in the neighbourhood.” On May 30, Lewis recorded the absence of any “timber on the hills, an[d] only a few scattering cottonwood, ash, box Alder and willows ... along the river.”

Here and elsewhere along the route, campfire smoke offered the explorers respite from the swarms of mosquitoes that were an ever-present annoyance. On the first leg of the journey, while stranded alone one night on shore, Clark “geathered wood to make fires to Keep off the musquitor & Knats.”¹⁵ On another occasion, Lewis, seeking “to amuse myself in combating the musquetoës,” collected driftwood and set it ablaze.¹⁶ Smoke from a fire made of buffalo dung also helped ward off bugs, as Sergeant John Ordway found at the Great Falls.¹⁷

On June 14, 1805, the day after Lewis reached the Great Falls, he chose a place to remain all night if necessary, a spot littered with “a few sticks of drift wood ... which would answer for ... fire.”¹⁸ Two days later at the Lower Portage, Clark likewise had to locate camp “where there was a sufficient quantity of wood for fuel, an article which can be obtained but in few places in this neighbourhood.”¹⁹

SUBSTITUTE FUELS

As the journey progressed, wood became even scarcer, and on the upper reaches of the Missouri and Columbia tributaries the explorers noted other sources of fuel among the natives which they adapted for their own uses. These included dried fish, willow brush, green pine, animal dung, straw, and sage brush.²⁰ For lack of fuel, the party sometimes went hungry. On October 21, while descending the Columbia, Clark reported that “we Could not Cook brakfast before we embarked as usial for

the want of wood or Something to burn.”²¹ A few days earlier, the explorers had been reduced to stealing wood from an Indian cache containing parts of an old house. Clark confessed that contrary to principle “we are Compelled to violate [our] rule and take part of the Split timber we find here bur[i]ed for fire wood, as no other is to be found in any direction.”²²

The situation deteriorated further once they reached the mouth of the Columbia and camped on its wind-and-rain-lashed northern shore. The men had “much difficuelty in precureing wood to burn as it was raining hard,” wrote Clark,²³ and the little fuel they were able to gather was so soaked it produced a pall of smoke that was “emencely disagreeable and painfull to the eyes.”²⁴



Clark's nutcracker, one of three bird species whose discovery is credited to Lewis and Clark, is a member of the crow family. Living at treeline in the Rocky Mountains, it helps reseed burned areas of subalpine forests by extracting seeds from the cones of whitebark pines and caching them in openings cleared by fire. Painting by Alexander Wilson (1811).



Alfred Jacob Miller, who visited the West in the 1830s, witnessed this fire on the outskirts of an Indian village and residents' efforts to contain it.

Conditions improved a bit once the explorers moved across the bay and built Fort Clatsop, but the winter still proved wet and dreary, and they were eager to be heading home as early as possible in 1806. The date of departure was dictated as much by their need for firewood as by the amount of snow remaining in the mountains and the availability of game and forage. It would be “madness,” observed Lewis on January 16, “for us to attempt to proceede untill April, as the indians inform us that the snows lye knee deep in the plains of the Columbia during the winter, and in these plains we could scarcely get as much fuel of any kind as would cook our provision[s].”²⁵ He reiterated the point in his entry for March 5: “earlier than April we conceive it a folly to attempt the open plains where we know there is no fuel except a few small dry shrubs.”

The forests around Fort Clatsop provided a sufficient supply of fuel for fires, which they used for other purposes besides heating, lighting, and cooking. Fire boiled water at the “Salt works” and perhaps also for washing clothes (there’s no mention of personal bathing), and the heat from fires dried leather and wet goods. Some of the men also built a smoke house that was essential for preserving the poor elk meat brought

in by George Drouillard and other hunters.²⁶

Lewis and Clark have been called the “writingest explorers of their time,”²⁷ and the estimated million and a half words in their surviving journals and those of the corps’ other journal keepers were mostly written at night, by the light of campfires or (when in winter quarters) by candle light.²⁸ There was little for the captains to do at Fort Clatsop other than write, and they did so at great length. On January 13, 1806, Lewis recorded, “this evening we exhausted the last of our candles, but fortunately had taken the precaution to bring with us moulds and wick[s] by means of which and some Elk’s tallow in our possession[.] we do not yet consider ourselves destitute of this necessary article.”²⁹ The captains, it seems, were always prepared.

HEADING HOME

The explorers departed for home on March 23, 1806—a week earlier than planned. Ascending the Columbia, they sacrificed two of their seven dugout canoes for fuel, and three days later Lewis ordered “all the spare poles, paddles and the ballance of our canoe[s] put on the fire as the morning was cold.”³⁰ Throughout this stretch of river the banks were devoid of trees or driftwood, and fuel had to be purchased from Indians, “who bring it from a great distance.”

The men limited themselves to one fire a day.³¹

Lewis generally did not have high regard for the Columbia Indians, but he had no compunctions about accepting their help when needed. On April 27, near the Walla Walla River, Yelleppit, the headman of the Walulas, appeared out of the mist to greet the explorers, who were camped by the river eating jerked elk meat boiled over a fire made, wrote Lewis, of “the dry stalks of weeds and the stems of a shrub.” The chief, who had befriended the captains the previous fall, took them to his village and “haranged” his fellow tribesmen “to furnish us with fuel and provision.” To set an example he presented his guests with a platter of roasted fish and an armful of wood.³² The captains would recall the Walulas as “the most hospitable, honest, and sincere people” they met.³³

Yelleppit had given truly of his substance. As with all aboriginal peoples, fire was what historian Stephen J. Pyne calls their essential element “for heat and light . . . a weapon and a source of power, for the humble rituals of the campfire and the heroic modification of entire landscapes.”³⁴

Foundation member Robert R. Hunt lives in Seattle. He wrote about the “Odyssey” of Lewis and Clark in the February 2003 WPO.

NOTES

1. Daniel B. Botkin, *Our Natural History: The Lessons of Lewis and Clark* (New York: Grosset/Putnam, 1995), p. xvii.

2. Gary E. Moulton, ed., *The Journals of the Lewis & Clark Expedition*, 13 volumes (Lincoln: University of Nebraska Press, 1983–2001), Vol. 3, p. 309. All quotations or references to journal entries in the ensuing text are from Moulton, by date, un-

“these extensive planes had been lately birnt”: L&C journal excerpts on fire

I concluded to Camp, Peeled Some bark to lay on, and geathered wood to make fires to Keep off the musquitor & Knats.

—William Clark, June 23, 1804.

we Set the Prarie on fire, to let the Soues [Sioux] Know we wished to see them.

—William Clark, August 27, 1804.

these extensive planes had been lately birnt and the grass had sprung up and was about three inches high. vast herds of Buffaloe deer Elk and Antilopes were seen feeding in every direction as far as the eye of the observer could reach.

—Meriwether Lewis, September 16, 1804.

Capt C. . . . now passed over with the party to that side and fixed a camp about a mile blow the entrance of a Creek where there was a sufficient quantity of wood for fuel, an article which can be obtained but in few places in this neighbourhood.

—Lewis, June 16, 1805.

Capt. C. feell in with a gang of Elk of which he killed 2. and not being able to obtain as much wood as would make a fire substituted the dung of the buffaloe and cooked a part of their meat on which they breakfasted and again pursued their rout.

—Lewis, July 19, 1805.

While I lay here to day, one of the natives shewed me their method of producing fire, which is somewhat curious. They have two sticks ready for the operation, one about 9 and the



Indian demonstrating a fire drill similar to one the Shoshones showed Gass.

other 18 inches long: the short stick they lay down flat and rub the end of the other upon it in a perpendicular direction for a few minutes; and the friction raises a kind of dust, which in short time takes fire.

—Patrick Gass, August 29, 1805, among the Shoshones.

we have made it a point at all times not to take any thing belonging to the Indians even their wood. but at this time we are Compelled to violate that rule and take a part of the Split timber we find here [buried] for fire wood, as no other is to be found in any direction.

—Clark, October 14, 1805.

we Could not Cook brakast before we embarked as usial for the want of wood or Something to burn.

—Clark, October 21, 1805.

we are agreeably disappointed in our fuel which is altogether green pine.

—Lewis, January 30, 1806, at Fort Clatsop.

last evening the indians entertained us with seting the fir trees on fire. they have a great number of dry lims near their bodies which when set on fire creates a very suddon and immence blaze from bottom to top of those tall trees. they are a beatifull object in this situation at night. this exhibition reminded me of a display of fireworks. the natives told us that their object in seting those trees on fire was to bring fair weather for our journey.

—Lewis, June 25, 1806, among the Nez Perces.

the Musquetoos and Small flies verry troubleome[,] we made fires of buffaloe dry dung to make Smoaks.

—John Ordway, July 21, 1806.

less otherwise indicated.

3. Paul S. Martin and Christine R. Szuter, "War Zones and Game Sinks in Lewis and Clark's West," *Conservation Biology*, Vol. 13, February 1999, pp. 36–45. See especially p. 43. See also *The New York Times*, March 30, 1999, p. D1, for commentary on the Martin/Szuter discussion.

4. Moulton, Vol. 3, p. 77. Clark's entry for August 29, 1806 (Vol. 8, p. 328), cited particularly by Martin and Szuter, relates the buffalo hunting grounds to the rich grasslands of the central prairies as "war zones."

5. George E. Gruell, "Fire on the Early Western Landscape: An Annotated Record of Wildland Fires, 1776–1900," *Northwest Science*, Vol. 59, No. 2, 1995, pp. 97–107.

6. Moulton, Vol. 3, p. 210. Entry for October 29, 1804. Oddly, none of the other journal keepers mentions this fire.

7. François Larocque, *The Journal of François Larocque*, (Fairfield, Wash.: Ye Galleon Press, 1981), p. 10 et seq. (Originally published in Ottawa in 1910 by the Government Printing Bureau; Publication of the Canadian Archives, No. 3.)

8. Stephen J. Pyne, *Fire in America: A Cultural History of Wildland and Rural Fire* (Princeton: Princeton University Press, 1982), p. 542, note 9. See also by Pyne, "Indian Fires," *Natural History*, February 1983, pp. 6–11; Gerald W. Williams, "References on the American Indian Use of Fire in Ecosystems": (www.wildlandfire.com/docs/biblio_indianfire.htm); and Walter Hough, "Fire as an Agent in Human Culture," *Smithsonian Institution Bulletin 139* (Washington: Government Printing Office, 1926).

9. For smoking, see Moulton, Vol. 7, p. 17, note 5. For sweating, *ibid.*, Vol. 5, p. 262, October 11, 1805; also Vol. 7, pp. 283–284, May 24, 1806. For pest control, Vol. 2, p. 317 (June 23, 1804, Clark) and Vol. 9, p. 339 (July 21, 1806, Ordway).

10. *Ibid.*, Vol. 8, pp. 50–51. The reference is to the Nez Percés. Entries for June 25, 1806.

11. *Ibid.*, Vol. 10, p. 134. Entry for August 29, 1805.

12. Donald Jackson, ed., *Letters of the Lewis and Clark Expedition with Related Documents, 1783–1854*, 2 volumes (Urbana: University of Illinois Press, 2nd ed., 1978), Vol. 1, p. 71. A lengthy series of "Baling Invoices" prepared at Fort Mandan includes a total of 1,200 flints and 192 fire steels, so the items purchased in Philadelphia were only part of the total carried by the Corps of Discovery. (Moulton, Vol. 3, pp. 494–505.)

13. Moulton, Vol. 2, p. 332, re "Order of encampment." See also references to "Detachment Orders" in entries for May 26, June 29, and July 8, 1804.

14. *Ibid.*, Vol. 4, p. 201. The entry is Lewis's; he is stating what Clark told him.



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Prairie fires endangered individual animals but were essential to the plains ecosystem and its wildlife.

15. *Ibid.*, Vol. 2, p. 317. Entry for June 23, 1804.

16. *Ibid.*, Vol. 5, p. 15. Entry for July 30, 1805.

17. *Ibid.*, Vol. 9, p. 339. Entry for July 21, 1806.

18. *Ibid.*, Vol. 4, p. 292.

19. *Ibid.*, p. 299. Lewis's entry for June 16, 1805. Clark had "fixed a camp about a mile below the entrance of a Creek." This was Lewis and Clark's Portage Creek, the starting point for their portage of the Great Falls. (Moulton, Vol. 4, p. 302, note 2.)

20. For fuel sources, see the following references in Moulton: dried fish, Vol. 5, p. 287; willow brush, Vol. 5, p. 59; green pine, Vol. 6, p. 249; dung, Vol. 4, p. 403; straw, Vol. 7, p. 146; sage brush ("hysop"), Vol. 9, p. 301.

21. *Ibid.*, Vol. 5, p. 314.

22. *Ibid.*, p. 272. Entry for October 14, 1805.

23. *Ibid.*, Vol. 6, p. 89. Entry for November 26, 1805.

24. *Ibid.*, p. 93. Entry for November 29, 1805.

25. *Ibid.*, p. 211.

26. For fire uses at Fort Clatsop and environs, see the following references in Moulton: smoking meat, Vol. 6, p. 135; drying wet goods, Vol. 6, pp. 137, 138, and 169; boiling salt water, Vol. 6, p. 140; fires in the "meat house," Vol. 6, pp. 156–158.

27. Jackson, Vol. 1, p. vii.

28. For estimates of the number of words in the journals, see Robert B. Betts, "The 'Writingest' Explorers of Their Time," *WPO*, August 1981, pp. 4–9.

29. Moulton, Vol. 6, pp. 200–201.

30. *Ibid.*, Vol. 7, pp. 151–152. Entry for April 21, 1806.

31. *Ibid.*, p. 155. Clark's entry for April 21, 1806: "the evening Cold and we Could afford only one fire."

32. *Ibid.*, pp. 173–174.

33. *Ibid.*, p. 197. Lewis's entry for May 1, 1806.

34. Pyne, p. xii.



OF WOLVES AND PRAIRIE WOLVES

They didn't get credit for it, but Lewis and Clark were the first to describe these wily canine predators

By KENNETH C. WALCHECK

On the morning of May 5, 1805, the Corps of Discovery was ascending the Missouri River in what is now eastern Montana. Meriwether Lewis, as he usually did, was walking on shore while the rest of the party made its way upriver in pirogues and dugout canoes. It was a “fine morning,” Lewis would later write in his journal, and the country was “beatifull in the extreme,” filled with “a great quantity of game ... feeding in every direction” on the shortgrass prairie. Lewis the born naturalist was in his element. In a passage that continues for well over a thousand words, he discusses the physiology, behavior, and other characteristics of the wildlife around him—geese, buffalo, elk, pronghorn antelopes, grizzly bears, coyotes, and wolves. The wolf of the plains, he tells us, is a bit smaller than the type found in eastern woodlands, with shorter legs and a coat that varies from blackish-brown to creamy white. Wolf packs were ubiquitous as they followed their prey and culled the weak: “we scarcely see a gang of buffaloe without observing a parcel of those faithfull shepherds on their skirts in readiness to take care of the mamed & wounded.”¹

At the time of the Lewis and Clark Expedition, the gray or timber wolf (*Canis lupus*) was common in the northern regions of what would eventually become the continental United States, ranging from Maine to California and south through the plains and along the spines of the Appalachian, Rocky, and Sierra Nevada mountains. Lewis had probably encountered gray wolves in the East, although before the expedition he almost certainly would have been unfamiliar with their plains-dwelling smaller cousin, the coyote (*Canis latrans*), which he and Clark referred to as the prairie or “burrowing” wolf, because it lived in dens.

The explorers entered wolf country in the early summer of 1804, some six weeks after their flotilla departed Camp River Dubois. Two were spotted from the boats on

June 25, near the mouth of the Kansas River, in what is now the outskirts of Kansas City. A hunter was quickly dispatched and shot one of them, the first of 36 wolves killed during the 28-month expedition.² (See table, p. 25.) Another was shot the next day, and a wolf cub was captured alive by Joseph and Reubin Field, who wanted to keep it as a pet.



Above: the gray wolf, *Canis lupus*.
Top: the coyote, *Canis latrans*.



Charles M. Russell's painting *When the land belonged to God* shows the close relationship between buffalo herds and wolf packs.

They tied it up, but after three days it escaped by chewing through its rope.³

Wolves remained a presence in the explorers' lives as they continued upriver to the Mandan and Hidatsa villages, in present-day North Dakota. They encountered them frequently while in winter camp at Fort Mandan and during their ascent of the Missouri the following spring. On the outbound journey the last wolf sighting occurred at the Great Falls on July 7, 1805. Lewis and Clark would not see another wolf until a year later, on July 8, 1806, near the Great Falls, on the homeward trip.⁴

In all, the journals reveal a total of 59 days in which wolves were seen. Mainly these encounters occurred in Montana and North Dakota, where the greatest concentrations of the prey on which wolves feed—bison, elk, deer, and pronghorns—were found. The number of predators an ecosystem can support depends on the quantity of game, and the reported absence of wolves in the mountains can be attributed to the relative scarcity of large herbivores.⁵ Prey and predators were also scarce along the Columbia River. Writing at Fort Clatsop, Lewis states that both “large and small wolves” (i.e., gray wolves and coyotes) could be found in the open country and bordering woodlands of the Pacific coast but “are not abundant . . . because there is but little game on which for them to subsist.”⁶

HUNTING STRATEGIES

Lewis's observations about wolves and coyotes were the first detailed accounts of these animals in their western habitat. His descriptions, and those of the expedition's other journalists, make fascinating reading for anyone interested in the natural world, and as a kind of historical baseline they remain important to wildlife biologists. In part, no doubt, because he was a hunter himself, Lewis was fascinated by the wolf pack's hunting strategies. Here is his account of wolves hunting pronghorns, written in late April of 1805, three weeks after leaving Fort Mandan:

game is still very abundant we can scarcely cast our eyes in any direction without perceiving deer Elk Buffaloe or Antelopes. The quantity of wolves appear to increase in the same proportion; they generally hunt in parties of six eight or ten; they kill a great number of the Antelopes at this season; the Antelopes are yet meagre and the females are big with young; the wolves take them most generally in attempting to swim the river; in this manner my dog caught one drowned it and brought it on shore; they are but clumsy swimmers, tho' on land when in good order, they are extremely fleet and durable. we have frequently seen the wolves in pursuit of the Antelope in the plains; they appear to decoy a single one from a flock, and then pursue it, alternately relieving each other untill they take it.⁷

Patrick Gass reported on a similar technique for hunting pronghorns, or “goats,” as they were often (if erroneously) called:

The wolves in packs occasionally hunt these goats, which are too swift to be run down and taken by a single wolf. The wolves having fixed upon their intended prey and taken their stations, a part of the pack commence the chase, and running it in a circle, are at certain intervals relieved by others. In this manner they are able to run a goat down.⁸

On another occasion Lewis relates how “Capt Clark informed me that he saw a large drove of buffaloe pursued by wolves today, that they at length caught a calf which was unable to keep up with the herd. the cows only defend their young so long as they are able to keep up with the herd, and seldom return any distance in surch of them.”⁹

EVOLUTION HONES A PREDATOR

Lewis, Gass, and Clark knew nothing about natural selection—Darwin’s *The Origin of Species* wouldn’t be published until 1859—but their accounts hint at the co-evolution of predator and prey that occurred over millennia on the grasslands of North America. For grazing animals such as bison, natural selection would have favored herding, which conveys the obvious advantage that comes from strength in numbers, while pronghorns have evolved their remarkable speed—they can sprint at 60 mph—to outrun predators. But wolves have evolved their own physical and mental traits to meet these challenges. They are tireless distance runners, able to chase a herd for miles on end, and for shorter distances they can dash at speeds approaching 30 miles per hour.¹⁰ Keen-eyed,



John James Audubon painted the light and dark versions of the timber wolf,

with sharp senses of hearing and smell, they are also acutely intelligent and possessed of a social instinct that enables them to hunt in a coordinated way—pressing a herd until the weakness of one of its members shows, then isolating and killing that individual. Wolves make successful kills in roughly one out of three or four attempts. When times are lean they can go several weeks without food, and when they do eat they can gorge on up to twenty pounds of meat, which they bolt down in large chunks without chewing.

Wolves have 42 teeth (ten more than humans), including dagger-like canines and specialized carnassials for shearing through bone, ligament, and muscle. This fearsome equipment comes in handy not only for taking down prey but also for feeding on carrion. Wolves aren’t picky—they will scavenge whenever the need and op-

“Wolves ... very numerous”: Excerpts from the L&C journals



Saw a verry large wolf on the Sand bar this morning walking near a gange of Turkeys.

—William Clark, June 30, 1804.

I killed an emence large yellow Wolf.

—Clark, July 20, 1804.

one man who went out hunting to day kild a woolf & kept it for the tradors who Give as much for a woolf Skin as a Beever Skin.

—John Ordway, December 29, 1804, at Fort Mandan.

two of the hunters came in [and] brought with them 4 woolf Skins which they had

caught in Steel traps ... a large woolf took off one of their traps. they tracked it Some distance but could not find it.

—Ordway, January 18, 1805.

Three of the hunters going to a distance down the river, killed nothing for two days, but a woolf, which they were obliged to eat; and said they relished it pretty well, but found it rather tough.

—Patrick Gass, January 3, 1805, at Fort Mandan.

we built a pen, to secure our meat from the wolves, which are very numerous.

—Gass, February 5, 1805, describing a winter hunt.



which he observed in the 1840s near Fort Union, in present-day North Dakota.

portunity arise, as the explorers discovered:

Sent the others to bring in the ballance of the buffaloe meat, or at least that part which the wolves had left us, for those fellows are ever at hand and ready to partake with us the moment we kill a buffaloe; and there is no means of puting the meat out of their reach in those plains; the two men shortly after returned . . . and informed me that the wolves had devoured the greater part of the meat.¹¹

On a hunting trip he led out of Fort Mandan under brutal winter conditions, Clark built a log pen to protect the meat from wolves and scavenging ravens and magpies.¹² On an occasion the previous fall on the Missouri, a hunter shot a buffalo, then returned to the boats to find someone to help him butcher the meat and carry it back. To keep scavengers away he placed his hat on the carcass.

While he was gone, wolves ate the meat and carried off the hat.¹³

Wolves prowled the banks of the Missouri looking for an easy meal in the form of drowned buffalo. Lewis counted 27 feasting on a carcass lodged at the tip of an island above the Great Falls.¹⁴ As the explorers approached the Missouri Breaks on the outbound journey, they came upon “a great many wolves” lingering at a pile of putrefying bison. The wolves had obviously been feasting for several days, for they were sated to the point of lethargy—Lewis found them “fat and extreemly gentle,” so much so that Clark was able to walk up to one and spear it with his espontoon.¹⁵

The pack that Lewis had noted feeding on a buffalo above the Great Falls engaged at night in a chorus of howling. Wolves use this signature behavior to communicate within the pack and to establish territory. It is a haunting, primeval, unworldly sound. Anyone who has listened to a pack’s eerie serenade on a wilderness night can understand the fear it provoked in our ancestors and why, in western folklore, the wolf is so often portrayed as evil. One might assume that as products of western culture, Lewis and Clark and their men would have shared this attitude. Yet the journal accounts of wolves are utterly free of this cultural prejudice.¹⁶ The entries are straightforwardly factual and nonjudgmental, even when they describe wolves filching the explorers’ meat or—as happened once—attacking them.

This incident occurred on the homeward journey. Sergeant Nathaniel Pryor was leading a party down the Yellowstone River when a wolf wandered into their campsite one night and bit him through the hand as he lay sleep-

the wolves also which are here extreemly numerous heped themselves to a considerable proportion of the hunt— if an anamal is killed and lyes only one night exposed to the wolves it is almost invariably devoured by them.
—Meriwether Lewis, February 12, 1805.

I had all the meat Collected which was killed yesterday . . . and put into a close[d] pen made of logs to secure it from the wolves and birds.
—Clark, February 13, 1805.

I then proceeded to the place of our encampment with two of the men, . . . while the other two remained, with

orders to dress the [buffalo] cow . . . and hang the meat out of the reach of the wolves, a precaution indespensible to it’s safekeeping, even for a night.
—Lewis, April 25, 1805.

This morning I arose very early and as hungary as a wolf.
—Lewis, August 15, 1805.

we killed a few Pheasants, and I killd a prairie wolf, which together with the ballance of our horse beef and some crawfish which we obtained in the creek enabled us to make one more hearty meal, not knowing where the next was to be found.

—Lewis, September 21, 1805, in the Bitterroot Mountains.

last night the wolves or dogs [coyotes] came into our Camp and eat the most of our dried meat which was on a scaffold.
—Clark, July 23, 1806.

the barking of the little prairie wolves resembled those of our Common Small Dogs.
—Clark, September 11, 1806.

Source: Gary E. Moulton, ed., *The Journals of the Lewis & Clark Expedition*, 13 volumes (Lincoln: University of Nebraska Press, 1983-2001).

ing. The animal then attacked one of the other men (Richard Windsor) but was shot by George Shannon before it could do more damage.¹⁷ This is highly aberrant behavior for healthy wolves, which seldom if ever attack humans. It is behavior more typical of a rabid wolf, but if this one had rabies, its bite miraculously failed to infect Pryor.

THE COYOTE

The journals have less to say about the prairie wolf, or coyote, a smaller canine species (25–30 pounds versus 75–120 pounds). The omnivorous coyote feeds on a wider range of food than the gray wolf, from insects and rodents to deer, and they will also eat berries. It doesn't howl, but yips or barks—a sound that seems to have surprised the explorers. The prairie wolf “barks like a dog,” Lewis observed, and “they frequently salute us with this note as we pass through the plains.”¹⁸ When hunting small game, coyotes tend to work singly or in pairs, although Lewis watched groups of them pursuing deer and pronghorns. They are, he noted,

inhabitants almost invariably of the open plains; they usually associate in bands of ten or twelve sometimes more and burrow near some pass or place much frequented by game; not being able alone to take a deer or goat [pronghorn] they are rarely ever found alone but hunt in bands; they frequently watch and seize their prey near their burrows; in these burrows they raise their young and to them they also resort when pursued; when a person approaches them they frequently bark, their note being precisely that of the small dog. they are of an intermediate size between that of the fox and dog, very active fleet and delicately formed; the ears large erect and pointed the head long and pointed more like that of the fox; tale long; the hair and fur also resembles the fox tho' is much coarser and inferior. they are of a pale redish brown colour. the eye of a deep sea green colour small and piercing.¹⁹

A coyote inadvertently helped the expedition in a tight spot when it wandered into shooting range during the difficult passage over the Bitterroot Mountains. Gass records that “we killed a duck and two or three pheasants; and supped upon them and the last of our horse meat. We also killed a wolf and eat it.” Lewis states this was a “prarie wolff,” so it was coyote meat that helped ease their hunger on the Lolo Trail.²⁰

The expedition encountered its first coyotes on the Missouri in the summer of 1805. Because of their diminutive size and long, bushy tails, they were initially mistaken as foxes.²¹ On September 18, near the mouth of the White River in today's South Dakota, Clark and George



Audubon's portrait of coyotes, or prairie wolves, on the upper Missouri.

Drouillard shot two coyotes. The skin and skeleton of Drouillard's kill were prepared with the intention of shipping them east the following spring.²² The skin was somehow lost, but the skeleton was among the articles included in the animal and plant specimens that returned to St. Louis aboard the keelboat in April 1805.²³ Absent from the collection were any specimens of the gray wolf, perhaps because it was already known in the East (although not yet formally described in scientific literature).

It's clear from his detailed notes on the taxonomy and behavior of the wolf and coyote that Lewis expected to include them in his natural history of the expedition. Due to his premature death, in 1809, that history was never written. Had it been, Lewis would have been credited as the “discoverer” of the coyote and the gray wolf.²⁴ Instead, that honor went to Thomas Say, a Philadelphia naturalist. Published in 1823, Say's descriptions were based on specimens he collected as a member of Major Stephen Long's expedition of 1819–20 to the Rocky Mountains. Say called the coyote *Canis latrans*, the name it has retained. His scientific name for the gray wolf, *Canis nubilus*, was later changed to *Canis lupus*.²⁵

Lewis and Clark's coyote skeleton and most of the other animal specimens shipped from Fort Mandan wound up at Peale's Museum, in Philadelphia. They resided there until 1850, when the collection was dispersed. The record is silent on the coyote skeleton's fate, although it may have been lost in a fire.²⁶

The settling of the West in the century following the Lewis and Clark Expedition saw wholesale changes to the environment. The disappearance of the great herds of buffalo, elk, and other large prey, coupled with eradication

Wolf kills, Corps of Discovery, 1804-06

Date	Number	Reference*	Location
June 25, 1804	1	11:30	Jackson County, Mo.
June 26, 1804	1**	10:17	" "
July 7, 1804	1	10:19	Buchanan County, Mo.
July 20, 1804	1	2:355	Cass County, Neb.
September 6, 1804	1	9:55	Charles Mix County, S.D.
September 8, 1804	1	10:37	Boyd County, Neb.
September 17, 1804	1	3:82	Lyman County, S.D.
September 18, 1804	1	10:41	" "
September 21, 1804	1	3:96	Lyman County, S.D.
October 20, 1804	1	10:57	Morton County, N.D.
December 29, 1804	1	9:106	Fort Mandan, N.D.
January 3, 1805	2 or 3	10:69	" "
January 4, 1805	1	9:108	" "
January 5, 1805	1	9:108	" "
January 7, 1805	2	3:269	" "
January 14, 1805	1	9:109	" "
January 18, 1805	4	10:70	" "
February 16, 1805	1	9:116	" "
May 8, 1805	1	4:126	Valley County, Mont.
May 14, 1805	1	4:151	" "
May 20, 1805	1	11:162-63	Garfield or Petroleum County, Mont.
May 29, 1805	1	4:219	Fergus County, Mont.
July 5, 1805	2	4:363	Cascade County, Mont.
July 7, 1805	3	4:365	" "
July 8, 1806	1	8:97	Lewis & Clark or Cascade County, Mont.
July 14, 1806	2	8:108	Cascade County, Mont.
August 8, 1806	1	8:285	Big Horn County, Mont.



Total kills: 36 or 37, depending on interpretation of journal entries for January 3, 1805.

*Moulton, volume and page. **Ordway (Moulton, 9:18) and Whitehouse (11:32) say this wolf was killed June 28.

campaigns by stockmen, led to the near-total extirpation of wolves in the United States. (The adaptable coyote managed to hang on and eventually to spread well beyond its historic range.) In recent years, wolves have moved down from Canada, and wildlife managers have introduced them into Yellowstone National Park and elsewhere in the Rockies, so the West is again home to these canny predators, Lewis's "faithfull shepherds" of the plains.

Foundation member Kenneth Walcheck, a retired wildlife biologist, lives in Bozeman, Montana. He wrote about portable soup in the August 2003 WPO.

NOTES

1. Gary E. Moulton, ed., *The Journals of the Lewis & Clark Expedition*, 13 volumes (Lincoln: University of Nebraska Press, 1983–2001), Vol. 4, pp. 111–113.
2. Ibid., Vol. 11, p. 30. Joseph Whitehouse, entry for June 25, 1804: "we saw two Wolves, on the shore; one of our Men went a shore ... and shot one of them."
3. Ibid., Vol. 10, p. 17 (Patrick Gass, entry for June 26, 1804); Vol. 11, p. 32 (Joseph Whitehouse); and Vol. 9, p. 18 (John Ordway). Ordway and Whitehouse differ from Gass in recording the date of the first wolf kill as June 28.
4. Ibid., Vol. 8, p. 97. Lewis, descending the Medicine (now Sun) River with his party, observed "a great number of deer[,] goats [antelopes] and wolves as we passed through the plains." A little

later in this entry he reports killing “a very large and the whitest woolf I have seen.”

5. Exactly why Lewis and Clark found so much game on the high plains and so little of it in the mountains can be attributed to several factors. First and foremost, game was relatively scarce in the mountains because the habitat wasn’t nearly as rich as that found on the plains. The abundance of game on the plains of the upper Missouri was also due to the absence of permanent Indian settlements—tribes lived on the edge of the region and hunted there only a few months of the year, in effect treating it as a vast game preserve. One should also keep in mind that Lewis and Clark traversed the Rockies in the late summer and early fall, when most game animals (and their predators) would have been at higher elevations. Hunting pressure by the Shoshones, Nez Percés, and other resident tribes would also have contributed to the scarcity of game; this was certainly the case on the west slope of the Continental Divide and throughout the Columbia River corridor. The Columbia’s salmon runs supported a large permanent population (Lewis and Clark estimated it at 80,000) but the Indians’ diet included game as well as fish. See Paul S. Martin and Christine R. Szuter, “War Zones and Game Sinks in Lewis and Clark’s West,” *Conservation Biology*, February 1999 (Vol. 13, No. 1), pp. 36–45; and Ken Walcheck, “Wapiti,” *We Proceeded On*, August 2000, pp. 26–32.

6. Moulton, Vol. 6, p. 331. Entry for February 20, 1806. Substantially the same wording appears in Nicholas Biddle’s compilation of Lewis and Clark’s Fort Clatsop writings on flora and fauna. Elliott Coues, a distinguished naturalist who edited the 1893 edition of Biddle, offers extensive commentary in a footnote. See Elliott Coues, ed., *The History of the Lewis and Clark Expedition by Meriwether Lewis and William Clark*, 3 volumes (New York: Dover Publications, Inc., 1965; reprint of 1893 edition), Vol. 3, p. 846.

7. Moulton, Vol. 4, p. 85. The location is eastern Montana, just beyond the present Montana–North Dakota border.

8. Ibid., Vol. 10, p. 258. Entry for July 27, 1806.

9. Moulton, Vol. 4, pp. 60–61. Entry for April 22, 1805. The location is north of present-day Williston, North Dakota.

10. John C. McLoughlin, *The Canine Clan: A New Look at Man’s Best Friend* (New York: Viking Press, 1983), p. 62. McLoughlin expresses a wolf’s speed in metrics—45 kilometers per hour for two kilometers—which I have converted to miles.

11. Moulton, Vol. 4, p. 289. Lewis’s entry for June 14, 1805.

12. Ibid., Vol. 3, pp. 291–292.

13. Ibid., Vol. 10, p. 37. Patrick Gass, September 8, 1804. Gass says the wolves “carried off the hat,” but one suspects that they ate it along with the meat.

14. Ibid., Vol. 8, p. 108. Entry for July 14, 1806.

15. Ibid., Vol. 4, p. 219. Entry for May 29, 1805. Scholars debate whether these bison had been washed there by the river or killed by Indians who had driven them off a bankside cliff. See Francis Mitchell, “Slaughter River Pishkun,” *We Proceeded On*, February 2004, pp. 26–34. For other journal entries on wolves’ scavenging of hunter kills, see Moulton, Vol. 3, p. 255 (December 7, 1804) and Vol. 8, pp. 208 and 211 (July 20 and 23, 1806).

16. Apparently, the explorers first heard wolves howling on July 21, 1804, although they did not even bother to record it at the time. Clark’s journal entry states, “a Great number of wolves about us this evening.” Later, when working with Nicholas Biddle on the latter’s paraphrase of the journals, he must have mentioned that wolves were also howling that day; Biddle ren-



George Catlin painted Indians hunting buffalo in wolfskin camouflage.

dered the entry, “A number of wolves were seen and heard around us in the evening.” Coues, Vol. 1, p. 52.

17. Moulton, Vol. 8, p. 285. Clark’s entry for August 8, 1806, reporting on an incident that occurred the previous July 26.

18. Ibid., Vol. 8, p. 126. Entry for July 24, 1806. Clark makes a similar observation in his entries for August 12, 1804 (Moulton, Vol. 2, p. 471) and September 11, 1806 (Vol. 8, p. 356).

19. Ibid., Vol. 4, p. 112. Entry for May 5, 1805. Lewis leads off this passage by referring to the coyote as the “burrowing dog of the praries.” This should not be confused with a similar reference in his invoice of articles sent to Thomas Jefferson from Fort Mandan in April 1805. That inventory includes, in addition to a box of “Skeletons of the small or burrowing wolf” (i.e., prairie wolf, or coyote), the “Skin of a Male and female Braro, or burrowing Dog of the Praries.” By “Braro” he means the American badger. Donald Jackson, ed., *Letters of the Lewis and Clark Expedition with Related Documents, 1783–1854*, 2 volumes (Urbana: University of Illinois Press, 1968), Vol. 1, pp. 235 and 240. Clark’s copy of the inventory appears in Moulton, Vol. 3, pp. 329–331.

20. Moulton, Vol. 10, p. 146 (Gass) and Vol. 5, p. 226 (Lewis); both entries are for September 21, 1805. In his entry for January 5, 1805, Gass says that some of the men ate wolf flesh while on a winter hunt out of Fort Mandan. This is the only other mention in the journals of eating wolf or coyote meat, although one can reasonably assume that meat from at least some of the other kills wound up as meals.

21. Ibid., Vol. 2, p. 86. Clark’s entry for September 18, 1804.

22. Ibid., Vol. 9, p. 61. Ordway’s entry for September 18, 1804.

23. Jackson, Vol. 1, p. 235; Moulton, Vol. 3, p. 330.

24. Paul Russell Cutright, *Lewis and Clark: Pioneering Naturalists* (Urbana: University of Illinois Press, 1969), pp. 387–388. Robert Carriker, *The Natural History of the Lewis and Clark Expedition* (East Lansing: University of Michigan Press, 1961), pp. 84 and 88.

25. Cutright, p. 387. Carriker, p. 84, states that Say classified the gray wolf *Canis lupus nobilis*. (Note the slight change in spelling—nobilis vs. nubilis. Nubilis is correct.)

26. Cutright, pp. 354, 380. The skeleton may have been acquired by P.T. Barnum, who purchased half of the items in the Peale collection. Barnum’s animal collection was destroyed in a fire in New York City in 1865.

NEGLECTED CLASSICS

*Two overlooked scholarly works reflect on Jefferson,
Lewis and Clark, and America's inner and outer landscapes*

By ALBERT FURTWANGLER

Recently I have been working with two books that were published over a dozen years ago and are now out of print. They both contain very significant chapters about Lewis and Clark, but they have hardly been noticed by students of the expedition. Unfortunately, both have been catalogued as surveys of early American literature and are now shelved far from the Western history section of research libraries. Yet each of these books presents Meriwether Lewis as an entirely new kind of American writer and thinker. Each is designed to stress a contrast between Lewis and the deepest preconceptions of Jefferson and his contemporaries. And each casts new light on features of the expedition journals. I believe these books should be read carefully by anyone who would seriously weigh the place of Lewis or Jefferson in American history.

To support this contention, this essay will briefly describe these books, highlight their pivotal chapters, and closely examine a pattern they have in common. Each of them is organized to reach a climax in the next-to-last chapter, the one about the expedition. That chapter is valuable in itself, but it also gives a final turn to the author's central argument. Indeed, these books are so much alike in this design that a reader may well wonder about it; because of this plot structure, both books put



Thomas Jefferson, Meriwether Lewis's mentor. Like others of his Enlightenment generation, he "could encompass new territory only by imagining it as an extension of the Old World."

Lewis in the spotlight as a special case. Both writers, that is, risk exaggerating what he thought or achieved. Nevertheless, both books were written after years of wide reading and reflection, and their design is revealing in itself. It shows a certain limited perspective that scholarly historians may bring to Lewis and Clark if they think first about Jefferson.

Before plunging into either book, it is worth a moment's pause to consider why they have remained so obscure or invisible until now. I am mortified to confess that I read neither of them until a few months ago, even though I was long a college professor of literature and sometimes worked in

the period both these books survey. At the time they came out, I was reading journals and newsletters in which they were mentioned. Yet neither caught my eye. Was I delinquent? Alas, yes. But I can plead some extenuating circumstances. One book (by its title) is chiefly about landscape theories of the Revolutionary period; the other (by its subtitle) is about "prose, print, and politics." Also, both books discuss a good number of writers—from Christopher Columbus to Edgar Allen Poe and from Jonathan Edwards to Herman Melville, and reviewers gave a hint at most to the chapters on Lewis and Clark. In other words, these books seem to have been written by experts

for other advanced experts—mainly graduate students and professors—in early American literature.

Moreover, once published and catalogued in this way, these books—and perhaps many others—have remained beyond the range of Lewis and Clark collectors. Once ignored, they remained ignored; described as literary criticism, they stayed out of sight as vital works about American expansion. The later one finally reached my desk by a very indirect route: its author was named in a critique of recent work I have been doing on Oregon missionary writers. The earlier book emerged only after a good friend kept pressing librarians—and me—to help him find it.

For over ten years, my friend and fellow Lewis and Clark enthusiast Robert R. Hunt and I have been trading clippings and research notes about articles we have been reading and writing. He has written several articles for *We Proceeded On*, including one in this issue (pages 14–19); I have written a few. We meet in Seattle every few months, have a long lunch, and talk about Lewis and Clark. About five years ago, he was annoyed that he could not pin down an article he remembered, about Lewis and Joseph Conrad's *Heart of Darkness*. The two of us resolved to look again in our local libraries. In fact there is an article by William Nichols on just that subject, but it did not turn out to match Hunt's expectations.¹

Undaunted, we proceeded on. We could find no further listing in the likely bibliographies we consulted. Advanced computer searches under Conrad, the title of the novel, Lewis, Clark, and other possible categories produced new leads but led to blind alleys. Librarians shook their heads. Hunt once found a line about *Heart of Darkness* in a book on the West and wilderness; we read it but remained unsatisfied.² I even wrote to the authors of a couple of half-remembered papers from conferences in Canada, to no avail. Hunt insisted that the author he remembered had a double last name, probably British, such as Summerby-Parker, but neither of us could get anywhere by asking for an article written by a hyphen.

At last Hunt found the missing piece on his own, in some old files containing a chapter photocopied from a book. This copy had been made for him years ago by a fellow banking executive who had retired and then completed an advanced degree in literature. The author: Robert Lawson-Peebles. The title: "The Lewis and Clark Expedition"—chapter six of *Landscape and Written Expression in Revolutionary America*, published by Cambridge University Press in 1988.³

We both read those sheets and saw that we needed to talk about the entire book. For Hunt that proved frus-



A view of the Bear Paw Mountains, in present-day Montana. Such vistas prompt

trating. There was no such title at the Seattle Public Library and the copy at the University of Washington could not be located. It finally turned up, but Hunt found that someone had torn out pages 179–240 and 277–280, the crucial sixth chapter and an appendix on the composition and publication of the expedition journals.⁴ Meanwhile, I secured a different copy on interlibrary loan and eventually ordered another from a used-book dealer in England.

If I were a publishing magnate with money to burn, I would reissue this book just as it is, but with a bright new cover and a different title. *Jefferson's Terrains* would be about right, or *Designing the New-found Land*—for literature and aesthetic theories serve here as means to a larger end, the quest for a new American understanding of the American setting. The opening chapters mention a few literary figures, but they give more substantial discussion to military strategies, geography texts, travelers' records, Noah Webster's dictionaries, Benjamin Rush's theories about environment and disease, debates about the Loui-



KARL BODMER, "VIEW OF THE BEAR PAW MOUNTAINS FROM FORT MCKENZIE." JOSLYN ART MUSEUM, OMAHA, NEB.

ed a "crisis of mind" for Lewis, who lacked "adequate terms" to describe them.

siana Purchase, and early laws and policies for territory to the west of the original states. This study surveys the intellectual world of Jefferson and his contemporaries by focusing on a shared mind-set about American land.

The central argument put forward by Lawson-Peebles, a professor of English at the University of Exeter, in England, is that people of the Revolutionary generation could not help seeing this land in European terms. They were deeply habituated to thinking of it with rectilinear boundaries, or cultivated into fields and villages, or arranged in picturesque scenes. As a result, they could encompass new territory only by imagining it as an extension of the Old World. Even the most radical thinkers and compilers of new information fell back on Old World patterns in their books and correspondence.

A crisis of mind occurred, therefore, when Jefferson sent Lewis west and he crossed over the edge of the Jeffersonian map. This event is the dramatic high point of the book. Jefferson stands out as a highly cultivated ex-

ample of Old World thinking, in his design of Monticello, his European travel notes, his *Notes on Virginia*, his public papers, and his correspondence. Lewis's mind is quite different. He begins as Jefferson's protégé but then finds himself at the Rocky Mountains surrounded by a land for which he has no adequate terms. He suffers an intellectual breakdown as a result. He becomes burdened with a sense of failure. He gives up writing in his journal. He eventually dies in the grip of a terrifying recollection of the West as a threatening power.

Here is the crucial passage:

Lewis was not, then, as Jefferson had thought, qualified to "seize" the new country and "give us accounts of new things only." Indeed, it was precisely Jefferson's training that disqualified him. The gap between the lessons taught in the East and their application in the West was too great. None of the other four journalists stopped writing. They were men of a much lower level of education and, ironically, that made them more suitable than Lewis for Jefferson's purpose. The best educated was Clark, but instead of spending the two years before the Expedition in Jefferson's library, he spent them traveling up and down the United States frontier, writing his own rough-hewn prose and drawing maps. Lewis, formed by Jefferson especially to render the terrain into a text, was not a man of maps or of rough-hewn prose. But it was Clark who was closer to the terrain. Unable to retreat from it into a world of words, Clark paradoxically provided more material for the dictionary. Lewis could evade neologism by escaping into a broader vocabulary, into euphemism and circumlocution. Lewis had made himself the fool of words and those words covered him until, on a heath so blasted that they could withstand the strain no longer, they fell away leaving him naked and paralysed.⁵

Readers of the expedition journals will want to reject this passage, and will probably feel irritated by its oversimplifications. Whatever breakdowns Lewis may have suffered on the trail, he remained more than competent as a commander; he resumed his journal entries and brought back hundreds of detailed observations about land forms, animals, plants, and peoples; and after his return he initiated and defended firm plans for publishing his discoveries. He did not simply fall apart in the Rockies.

Yet it would be a great mistake to reject this book because of passages such as this. By setting up such an extreme contrast, Lawson-Peebles sustains a brilliant and challenging argument about Jefferson and Lewis. He worked through years of diligent research to develop his background chapters on Jefferson and his contemporaries, and it shows. He has an acute sense of how their meta-

phors and sentence structures reveal habits of thought, and he greatly enlarges our understanding of the men who explored before Lewis, contributed to his training, and shaped his expectations. I regret with a very deep pang that I have not known this book until now; its contents would have forced me to take a better-informed approach to everything I have published since it came out.

Even on the subject of Lewis's character, this study makes an important new contribution. It goes on to show how his actual experiences were soon echoed or symbolized in works of fiction. Lawson-Peebles concentrates on Lewis's time near the Great Falls of the Missouri and his mysterious encounters with monsters, which left him disoriented. Even in the moment of his death, the author suggests, Lewis may have recalled a terrifying bear that proved "so hard to die."⁶ The public's first exposure to Lewis's adventures at the Great Falls came from Nicholas Biddle's *History of the Expedition under the Commands of Captains Lewis and Clark*, published in 1814. Biddle's history (a paraphrase of the captains' journals) seems to have influenced many authors, who began to pen new versions of American experience in strange and dangerous settings. In five of his tales, for example, Edgar Allen Poe presented a hero-adventurer who went into a wilderness accompanied by a black servant and a large dog, encountered the threat of a bear-like monster, and emerged from a setting he struggled to describe. This is a haunting new American scene, "the ultimate American landscape" as Lawson-Peebles puts it, and it is repeated in many famous works:

It encapsulates images as different as Hesiod's whirlpools, Buffon's feminine landscape, and Jefferson's paths. It is a world turned upside down, the very reverse of the hopes of the Revolutionary ideologues; yet a scene so impressive that it will be repeated in doomed settings as diverse as Ambrose Bierce's West, William Faulkner's South, and even Conrad's *Heart of Darkness*. The landscape is so dangerous that it must be guarded by a figure which seems to be human and yet resembles a huge, upright bear. It is so alien that ...[it] passes beyond language altogether. It recalls the savage landscapes

of Morse, Webster, Rush and Brackenridge; but is now so unstable that its outlines can be discerned only momentarily before it vanishes. It caused the hesitations in the texts of Crèvecoeur, Dwight and Jefferson. It fractured Meriwether Lewis's journal ...[and] appeared, briefly and decisively, when he died. It will reappear in the evanescent paradisaical visions of *Moby Dick*, *The Blithedale Romance* and *The Great Gatsby*.⁷

In other words, Lewis's journals hold the seed of a powerful new image. It is not merely a stark contrast to Old World categories, but the beginning of a new American pattern. As a result, whatever Lewis may have been in reality, this image of a hero confronting a mysterious wilderness now shapes the way he is understood. It may also point to an inescapable shift in the ways Americans have thought about the land and felt its dangers—before Lewis and Clark, and after.

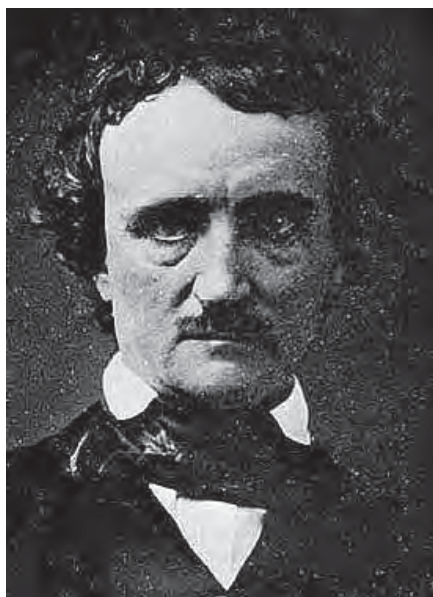
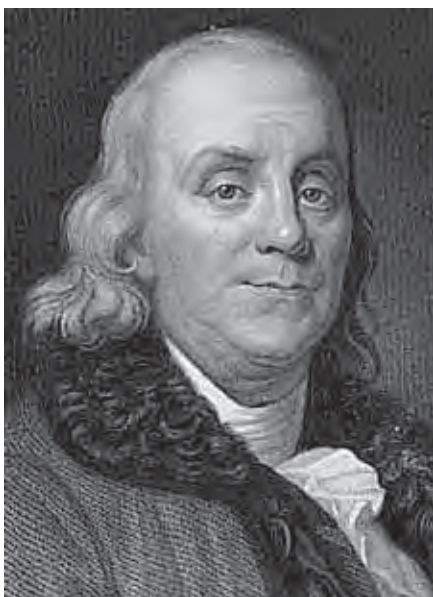
Portrayal of character is the central issue of a later study, Larzer Ziff's *Writing in the New Nation: Prose, Print, and Politics in the Early United States* (New Haven: Yale University Press, 1991). This study takes up many of the same writers as Lawson-Peebles's book, but in a different design. Ziff, a professor of English at Johns Hopkins University, argues that the rise of print culture led to the creation of fictitious public

characters. In place of an "immanent" character, such as the soul of a religious diarist frankly weighing his innermost motives, the typical writer of Jefferson's time took care to polish a "represented" character; he developed a public self for readers to accept and validate. "The transition from a culture of immanence to a culture of representation," Ziff writes, "is a central feature of ... writings framed by Crèvecoeur's *Letters from an American Farmer* and the journals of Meriwether Lewis and William Clark. Personal narratives, travel accounts, natural histories, and novels are read [in this study] with an eye to ... the construction of self in writing, and the conquest of the wild through letters."⁸

The outstanding self-projected public figure of this period is Benjamin Franklin. Ziff puts him at the center of



Details in short stories by Edgar Allen Poe echo the adventure of the Corps of Discovery. They include a hero who enters a forbidding wilderness (Lewis) accompanied by a large dog (Seaman, similar to the Newfoundland pictured above) and a black man (York). In their travels the explorers encounter a bear-like monster, perhaps inspired by the grizzlies Lewis confronted as he approached the Falls of the Missouri.



Left: the “self-projected” Benjamin Franklin. Center and right: Poe and Herman Melville, whose work the L&C journals probably influenced.

this book and makes some sharp observations about Franklin’s brilliant use of print culture to gain a place in science and politics. From Franklin, however, he moves on to Jefferson, then Lewis and Clark, then writers about wilderness heroes. But Ziff does not focus on the mysterious power of wilderness; on the contrary, he stresses “the conquest of the wild” through disciplined writing.

His chapter on the expedition points out the destructive side of Jefferson’s great design, its subtle appropriation and obliteration of Indian ways. Crude invaders simply wrote Indians off as mere savages and stole their lands. Ziff argues that Jefferson and others seemed more sympathetic, but they effected “an intellectual dispossession and subjugation of Indian life” by representing it in print.⁹ The Lewis and Clark records amount to a lethally literate invasion of the West. Worse yet, in the hands of Nicholas Biddle the crude records of the captains were transformed into a polished, superior, civilized narrative. The raw journals show the exploring party depending on Indians for their most basic needs, and communicating through the physical directness of sign language, shared hunts and feasts, and sexual encounters. The daily entries also catch Lewis and Clark, as it were, groping with their pens to steady themselves in a strange environment. They give us glimpses of immanent selves, which Biddle scratched over to create confident commanders making steady progress to the Pacific.

The suppression of the wild, Ziff argues, continued in the fictions of Charles Brockden Brown, James Fenimore Cooper, and others. These writers created frontier heroes that appealed to a reading public by their seeming mas-

tery of the American wilderness. Ziff does not directly trace their inspiration back to Lewis and Clark, but he shows that the figure of the masterful, half-wild man of the woods also became a potent political image, in the careers, for example, of Ethan Allen and Davy Crockett.

Unfortunately, Ziff does not directly answer or even mention Lawson-Peeble’s longer work, though he obviously extends, criticizes, and reinforces many of its ideas. Both authors place Jefferson and then Lewis and Clark in a crucial position between one way of understanding wilderness and another.

As we have seen, this plot structure can create an exaggerated contrast, making Jefferson the extreme example of the urbane, civilized reader in his library, and Lewis or Clark the extreme example of the American frontiersman, the man stepping off the edge of the known world into a chaos that threatens to unravel civilization.

After weighing both books, I would reconsider this contrast by proposing yet another—between ways of thinking about America that now hold sway in America, east and west. The two books discussed here have remained unknown in part because of their authors’ eastern situation and perspective—looking west through the windows of a library. They have lived, worked, addressed fellow scholars, and taken their bearings from east of the Appalachian Mountains. Their learning is refined by high literacy, including close familiarity with scores of books that Franklin and Jefferson knew. They also know Lewis and Clark through print, and their imaginations hold the world beyond the Mississippi as a vast place “out there,” a place

to be studied through maps and documents. For such scholars, the expedition has to be seen as parting from the Atlantic world and entering a space heretofore unknown and unknowable.

Two centuries after Lewis and Clark, thousands of western readers approach the explorers in a very different way. For people living west of the Mississippi or the Bitterroots, the high plains and Rocky Mountains do not have to be described or explained. These readers have a deep feeling for western regions as commonplace landscapes, a birthright, a matter of lifelong orientation—certainly not a chaos or an acquired taste. In reading the journals, they may not notice echoes of eighteenth-century learning, but they readily pick up details of early, meaningful actions in their homeland.

Can these two orientations be reconciled? Of course they can—and must. For east or west, the mind of Jefferson is an essential beginning point in American history. At both the moment of Revolution and the beginnings of western expansion, Jefferson is the conspicuous, comprehensive mastermind of our ideals and our geography. His designs still shape the terrain from coast to coast. We need to understand his ideas, and question how adequate they have been and still are. To do that, we need to know how the important books in his library reinforced them. Lawson-Peebles and Ziff serve that purpose expertly, by unfolding his era's conceptions of land and of human identity in print. But they also stress that Lewis and Clark became men of a very different outlook by exploring terrain that (in every sense) would remain beyond Jefferson's grasp.

Foundation member Albert Furtwangler is a professor emeritus of English at Mt. Allison University, in Sackville, Canada, and the author, among other works, of Acts of Discovery: Visions of America in the Lewis and Clark Journals (University of Illinois Press, 1993). He lives in Salem, Oregon.

NOTES

1. William Nichols, "Lewis and Clark Probe the Heart of Darkness," *American Scholar* 49 (1949), pp. 94–101.
2. Frederick Turner, *Beyond Geography: The Western Spirit against the Wilderness* (New York: Viking, 1980), p. 239.
3. Technically, this book was published in New York as well as in Cambridge, England, in a series that includes well known titles by distinguished American scholars, Cambridge Studies in American Literature and Culture. All the same, a foreign-sounding author with a foreign press has an uphill task to reach American readers. Valuable work in a language besides English can be sometimes found only by chance. A good example is a Stuttgart researcher's fascinating discoveries about Sacagawea's son, which recently came to light in America by a very round-

about route. See Albert Furtwangler, "Sacagawea's Son: New Evidence from Germany," *Oregon Historical Quarterly* 102 (2001), pp. 518–523.

4. To maintain the heritage of Lewis and Clark, readers would do well to advise public and college librarians about the out-of-print and scarce books on their shelves. They are prey to ruthless collectors. On another occasion I called Hunt's attention to a special Lewis and Clark issue of a research journal, and he found that those pages, too, had been torn out of the volume.

5. Robert Lawson-Peebles, *Landscape and Written Expression in Revolutionary America* (Cambridge: Cambridge University Press, 1988), p. 217.

6. Ibid., p. 221. In his journal entry for May 11, 1805, Lewis, writing about the ferocity of a "monstrous" wounded grizzly bear, observed, "these bear being so hard to die reather intimidates us all." On the morning of October 11, 1809, when he lay dying of gunshot wounds at Grinder's Stand, in Tennessee, Lewis was reported to have told Mrs. Grinder, "I am no coward, but I am so strong, so hard to die." Gary E. Moulton, ed., *The Journals of the Lewis & Clark Expedition*, 13 volumes (Lincoln: University of Nebraska Press, 1983–2001), Vol. 4, p. 141; and Donald Jackson, ed., *Letters of the Lewis and Clark Expedition with Related Documents, 1783–1854*, 2 volumes (Urbana: University of Illinois Press, 1968), Vol. 2, p. 467.

7. Lawson-Peebles, pp. 276–277. For more on journal influences found in Poe, see Arlen J. Large, "Literary Borrowings from Lewis and Clark," *WPO*, May 1992, pp. 12–19.

8. Larzer Ziff, *Writing in the New Nation: Prose, Print, and Politics in the Early United States* (New Haven: Yale University Press, 1991), p. 17.

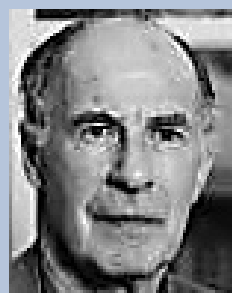
9. Ibid., p. 153.

"Two classics" — where to find them

The two works discussed—Robert Lawson-Peebles, *Landscape and Written Expression in Revolutionary America: the World Turned Upside Down*, Cambridge University Press, 1988; and Larzer Ziff, *Writing in the New Nation: Prose, Print, and Politics in the Early United States*, Yale University Press, 1991—although out of print, are available from used-book dealers. A useful Web site for used books is ABE Books (<http://abebooks.com>). The editor found available copies of both books—Ziff starting from \$7 and Lawson-Peebles from \$42.50. Used books can also be found on amazon.com.



Lawson-Peebles



Ziff

IRON BOAT'S FATE: THE DEBATE CONTINUES

Carl Camp replies to Ken Karsmizki

By H. CARL CAMP

There's nothing like a vigorous debate to clarify one's thinking on a subject about which there is some difference of opinion. Kenneth Karsmizki's response ("Lewis's Iron Boat," WPO, November 2003) to my earlier musings about the probable fate of the Experiment's iron frame offers a different take on the admittedly sparse evidence. He makes some interesting points in support of his contention that the iron frame's final resting place is probably somewhere in the vicinity of the Corps of Discovery's Upper Portage Camp. His rejoinder to my essay ("Journey's End for the Iron Boat," WPO, August 2003) sent me back to re-read relevant passages of the journals. Upon due reflection, I believe most of the arguments he advances in favor of that site are off-base or just plain wishful thinking. In short, I'm still not persuaded that his quest of many years' duration is focused on the most likely site, and here's why.

Karsmizki tells us "the purpose of a cache is to hide some-



Meriwether Lewis, right, and Superintendent Joseph Perkins inspect the iron boat's frame at the Harpers Ferry armory.

KEITH ROGGO / NATIONAL PARK SERVICE

thing." True, but that's only half the story. Those who conceal things in caches ordinarily intend to come back sometime in the future and reclaim them. That is precisely what members of the expedition were doing, at widely separated places, on their homeward journey. Having found that the cart wheels were "in good order" and that the iron frame "had not suffered materially," why in the world would Lewis rebury the still usable iron? According to Karsmizki, a shortage of manpower and the lack of sufficient cargo space drove the alleged decision. Both rationales warrant further scrutiny.

CARGO AND MANPOWER

Karsmizki contests my view that the corps would have had more cargo room since the supply of Indian trade goods and gifts had been exhausted at this point in the journey. In his view, the explorers actually had less cargo carrying capacity because by this time they had only five



July 1805, Upper Portage Camp: Members of the expedition begin fitting the hide skin onto the Experiment's iron frame.

dugout canoes, three fewer than when they left the Great Falls area in July 1805. (They decided to abandon a sixth at the Falls because it was too heavy and too much “injured” to make the return trip.) It should be noted, however, that the “canoe/portage contingent” gained additional cargo space when they recovered the white pirogue from its place of concealment near the Lower Portage Camp. At the start of the expedition Clark had rated the cargo capacity of the red pirogue, which was larger, at 8 tons. So, the cargo capacity of the white pirogue was probably somewhere around 6 1/2 or 7 tons, which would probably equal or exceed the capacity of the three additional canoes available on the upstream journey the previous year. (A ton was a naval unit of weight equal to about 1.05 long tons.)

But that's not all. The downstream flotilla, consisting of five dugouts and the white pirogue, had to accommodate only one-half of the 32 adult members of the expedition at this point. Twelve members, including Clark, were more than a hundred miles away on the Yellowstone River reconnaissance. Four other members, including Lewis, were engaged in the Marias River venture until they rejoined the canoe/portage contingent later at the mouth of

the Marias. The members of the Yellowstone group had some of their belongings and accoutrements with them—as did Lewis's group. Considering these facts, along with the depleted inventory of Indian trade goods and gifts, the alleged limitations on available cargo space do not appear as severe as Karsmizki would have us believe. Moreover, the homeward-bound flotilla continued to take on additional cargo—materials from the caches opened at the mouth of the Marias and, later, skeletons and hides of animal specimens collected during the descent of the Missouri.

The argument that “reduced manpower” may also have contributed to the abandonment or reburial of the iron boat frame at the Upper Portage Camp fares no better when subjected to equally close examination. For example, Karsmizki asserts that “less than half of the expedition's complement were present to transport the bulk of the equipment and supplies over the 20-mile portage route around the Great Falls.” In fact, exactly one-half of the adults were available to make the return portage. As already noted, 12 members of the corps were involved in the Yellowstone trek and four were engaged in the Marias foray; hence, 16 members of the expedition were at loca-

tions away from the Great Falls portage site. That left 16 men to manage the long portage (Lewis had left six men at the Great Falls when he headed off to explore the Marias; they were later joined by the ten-man “canoe party” which came down with the canoes recovered at the Camp Fortunate site near the headwaters of the Missouri).

It is true that the upriver portage in 1805 could theoretically call on 32 adults to lend a hand. The journals reveal, however, that not all were actually engaged in the packing, toting, hauling, pulling, and carting. Three men (George Drouillard, Reubin Field, and George Shannon) were assigned hunting duties to provide a steady food supply from the abundant wildlife in the area and to procure animal hides to cover the frame of the iron boat. Three others (Patrick Gass, Joseph Field, and John Shields) accompanied Lewis to the Upper Portage Camp and stayed there to prepare meals and begin assembling the iron boat frame. After participating in the first leg of the portage, Whitehouse was incapacitated by illness; consequently, he joined the Lewis detail at the upper campsite. Ordway, Goodrich, York, and Charbonneau stayed at the Lower Portage Camp with Sacagawea, who was making a slow recovery from a near fatal illness. First and last, 13 of the 32 adults were not actively engaged in the 1805 portaging duties. That leaves 19 who were. Compare that with the 16 men who were engaged in the return portage in 1806.

The net difference of only three men is not all that great, especially when one considers that the 1806 portage crew made good use of four horses which had not been available the previous year. Put in harnesses fabricated by members of the corps, the horses proved effective labor-saving partners in the portaging process. The 1805 portage had required 11 days from portal-to-portal (June 22–July 2); the 1806 maneuver took only six days (July 21–26).

On balance, the record does not provide convincing support for Karsmizki’s hypothesis that, once uncovered, the iron boat frame had to be abandoned at the Upper Portage Camp because of a shortage of manpower. In my view, the “manpower shortage” rationale is no more persuasive than that alleging “limited cargo space.”

ANTICIPATION

At one point in his essay, Karsmizki sets up a “straw man” argument and then proceeds to demolish it. He says, “If, as Camp and others argue, the destitute explorers intended to use the Experiment’s iron for trade, one would expect them to look forward to unearthing the frame with the

greatest anticipation. Yet, when they reached the cache and dug up the iron frame, Lewis’s journal entry says nothing about its potential trade value but merely notes in the most matter-of-fact way, that it “had not suffered materially.” He then adds that “neither Gass nor Ordway mentions the frame at all.”

“If,” of course, is the operative word here. I do not profess to know what “others” may have said about the potential for the iron frame to be used as Indian trade goods. However, I never anywhere in my essay stated that the Corps of Discovery wanted or intended to use the reclaimed metal in that way; nor did I say or imply anything to that effect in connection with the recovery of nails and other hardware from the red pirogue when it was brought out of hiding at the mouth of the Marias and was found to be unusable. The sole purpose of my comments on this subject was to establish what I think is an undeniable fact that the captains, and their men, placed a very high value on metal goods—even used and weathered items. Experience clearly had taught them such utilitarian objects could prove useful at some future time: making repairs, fashioning tools, and—yes—even as trade goods. After all, as Karsmizki observes, the Indians apparently placed some value on used metal goods, too. Why else would they go to the trouble of raising a submerged canoe from a pond at Camp Fortunate and removing nails and tin strips which the corps had installed when making repairs?

In fact, Karsmizki goes on to reinforce my basic argument more emphatically than I ever did in my essay. For instance, he notes that Clark, while on the Yellowstone reconnaissance, ordered the removal of nails and other metal goods from a dugout canoe they were preparing to abandon. From this evidence, and the Indians’ removal of metal the corps had used in repairing other canoes, he concludes that the explorers recycled metal goods for their usefulness in making repairs, not in anticipation of future trading opportunities. Fine. I can concur with that. But I never said anything about their collecting such items to trade with the Indians. For whatever the reason, members of the corps clearly valued and recycled used metal goods—at every opportunity, including the crucial one in question at the Upper Portage Camp.

To my way of thinking, what Karsmizki’s evidence shows is that the captains, at widely separated locations and—significantly—out of contact with one another, engaged in the same salvaging practices. Think of what that says! As practical men, it was just something they did as a matter of course, something, I maintain, they would natu-

rally be inclined to do at the Upper Portage Camp when once more in possession of 176 pounds of iron in usable condition. Abandon it? Rebury it? Improbable. To do so would not be in character for either of these leaders or their men.

At this point in his essay Karsmizki resorts to an implausible argument as he attempts to bolster his thesis that the iron boat frame was reburied. He notes that if the explorers anticipated using the iron frame in trade with the Indians, they displayed a surprising lack of enthusiasm when it was unearthed. (I've already dispensed with the Indian trade angle as far as my own essay is concerned.) He finds Lewis's description of the event to be quite "matter-of-fact." Pursuing this theme, he contrasts Lewis's "ho-hum" journal entry with Clark's in which the latter describes his men's behavior when they scrambled to open the caches at Camp Fortunate: "Compare their apparent indifference to the eagerness of Clark's party when it returned to Camp Fortunate. Most of the men were 'Chewers of Tobacco,' Clark reports, and they became 'So impatient to be chewing it that they Scercely gave themselves time to take their Saddles off their horses before they were off to the deposit.'" A colorful description, indeed.

Firstly, it should be noted that we here are dealing with accounts of these widely separated events written by two different journal keepers. Given their differing personalities, they could be expected to reflect those differences of outlook and perception quite distinctly in their written comments. In any case, Lewis apparently was the more impatient of the two and was anxious at that time to be off on his Marias excursion. As a consequence, he was apt to be more peremptory and terse.

Secondly, to treat these two events as equivalents is to compare the proverbial apples and oranges. Would anyone truly expect a group of trail-hardened explorers to go into transports of jubilation over the recovery of a pile of rusty iron—especially when it probably reminded them of hours of intense labor on a failed experiment and their resulting feelings of chagrin and mortification? On the other hand, one might reasonably expect some jubilation from a group of confirmed "Chewers of Tobacco" as they

contemplated the pleasures awaiting them upon recovering an imminently usable supply of the weed. A pile of rusty iron simply cannot compete with that, no matter its potential for utilitarian applications. Probably only a blacksmith could get similarly excited over such a sight.

To rely on this apparent disparity in reaction—"matter-of-fact" in the one case and "jubilation" in the other—as a criterion for surmising whether a cached item will be reclaimed or reburied seems farfetched. Consider the restraint of another journal keeper (Gass) as he, too, reports the recovery of a supply of tobacco from a cache at the Lower Portage Camp: "I went down with three men to the lower end of the portage to examine the periogue and deposit there, and found all safe. We took some tobacco out of the deposit, covered all up again, until the party should arrive with the canoes, and returned to camp."

Sounds pretty matter-of-fact, doesn't it? All of which goes to show that even a high-interest item, such as tobacco, can result in matter-of-fact treatment in the hands of different journal keepers. In this instance, the distinction Karsmizki professes to see turns out to be only a distinction in writing or reportorial styles, not a reliable predictor of decision-making.

"SILENT" EVIDENCE

Karsmizki ventures further down this path when he says, "In my humble opinion, their silence speaks volumes." Presumably, one

of the messages he gets is that the less-than-enthusiastic reaction of the men at the Great Falls (actually, the journal keepers) signaled that they assigned no particular importance to these rusty objects—or at best only a utilitarian value—which would have made them dispensable. And this, then, figured in the alleged decision to leave the iron boat frame behind. The connection is a strained one at best. Karsmizki encounters silence and professes to hear a message; I encounter silence and hear—well, silence.

If "relative" silence (which is really what we are talking about here) served as an important influence on decision-making at this critical juncture in the journey, what then are we to make of "real"—that is, complete—silence regarding potential additions to the corps' cargo? If Karsmizki's line of reasoning were carried to its logical conclusion, it would seem to follow that failure to men-



Detail from Clark's map shows Upper Portage Camp, indicated by "q" symbol on left bank of Missouri.

tion a significant article altogether would signal its ultimate abandonment.

However, that tack simply does not work as a predictor of the fate of the corps' swivel gun. In June, 1805 the "swivel," as it was called, was detached from the white pirogue and hidden "in a clift," according to Clark, not far from the concealed craft at the Lower Portage Camp. Not one of the journal-keepers made even oblique reference to its recovery at the end of the return portage in July, 1806. If we apply the "criterion of silence," which "speaks volumes" to Karsmizki concerning events at the Upper Portage Camp, the swivel gun must surely have been left behind. And yet, from Ordway's journal we learn that on the morning of July 28, 1806, the swivel gun had been recovered after all. It was used to fire a salute welcoming Lewis and his reconnaissance party as they descended the river bluffs a few miles above the Missouri's junction with the Marias. Still later, of course, the "abandoned" swivel gun figured prominently in Lewis and Clark's Indian diplomacy at the Knife River villages when they gave it and a quantity of ammunition to the Hidatsa chief, Le Borgne.

As it turns out, "silent messages" are notoriously vulnerable and tend to be mostly in the eye of the beholder. This series of events reveals the "criterion of silence" to be an unreliable predictor of decision-making. Careful inferences drawn from well-documented and consistent patterns of behavior extending over a prolonged period of time strike me as more persuasive, as well as more defensible.

THE FLIGHT FROM THE PIEGANS

Finally, contesting my view, Karsmizki doubts that Lewis and other members of the corps risked their lives when they delayed their departure from the mouth of the Marias long enough to harvest nails and other metal from the red pirogue. He cites the several short rest stops, and the interval of sleep in the wee hours of the morning on July 28, as evidence they felt no particular urgency to speed up their pace or to conceal their activities during the cross-country flight to the designated rendezvous point. Admittedly, if one looks only at these events in isolation, and not the complete account as told by Lewis, it would appear they took a pretty casual approach to their trek. Possessed of 20/20 hindsight, we of course now know they were not pursued by a band of Indians bent on revenge. But *they* did not, and could not, know that at the time.

As far as the succession of rest stops is concerned, it should be noted that Lewis and his men had traveled 63

miles, by Lewis's estimate, since dawn when they paused for their first break at 3 o'clock in the afternoon. This first and longest leg of their trek was across the open prairie during the hottest part of a summer day. Lewis was an experienced horseman and must have known it would be foolhardy of them to push their mounts beyond the limits of their endurance (however, they did have spare horses with them at the time). As the horses grazed, the men took some nourishment—apparently their first since the previous evening. After making another 17 miles, they stopped at nightfall for a couple of hours for additional rest and nourishment, having killed a buffalo and cooked a portion of the meat. Afterwards, they traveled an additional 20 miles by moonlight while flashes of lightning played across the horizon. They stopped again about 2 A.M. and turned in to sleep until dawn. Apparently physical exhaustion had overcome their feelings of apprehension and wariness. At daybreak they were once more in their saddles and traveled about 20 miles when at 9 A.M., or thereabout, they made contact with the canoe/portage contingent coming down the Missouri. Lewis and his colleagues had traveled 120 miles or more over the past 24 hours.

I am not an experienced horseman and cannot judge whether such a journey over that period of time would represent a routine accomplishment or would rather reflect a hurry-up pace more akin to a forced march. Information is available, however, which permits us to make an instructive comparison between Lewis's cross-country flight and a contemporaneous journey on horseback by two other members of the expedition to the same destination.

Once the portage around the Great Falls had been completed, Sergeant Gass and Private Willard on the morning of July 27 began their own trip overland with four horses from the Lower Portage Camp to the mouth of the Marias. After stopping overnight en route, they arrived there about 1 P.M. on July 28. (Lewis and his men had arrived earlier that morning.) According to Clark's mileage charts, the distance between the two points was about 78 miles via the river. The overland route probably was somewhat shorter. In any case, Lewis and his men had traveled almost *twice* that distance in slightly more than 24 hours; Gass and Willard had traveled about half as far as the Lewis contingent in a day and a half. *Something* must have been driving Lewis and his men for them to maintain that pace. Lewis's own words confirm the motivation: it was out of concern for life and limb—not just his own, but also his men's.

From Lewis's first-person account we learn that he and his men arose at dawn on July 28 from their few hours of sleep. They were saddle-sore and could hardly stand. According to Lewis, he urged them back into their saddles with these words: [I told them] "our own lives as well as those of our fellow travellers depended on our exertions at this moment." Once underway, the men suggested a route to the Missouri that in Lewis's estimation would take too much time, in which case they might arrive at the rendezvous point too late to forewarn their colleagues of a potential source of danger. He dissuaded them from pursuing that route with the following revealing entreaty: "I told them that we owed much to the safety of our friends and that *we must wrisk our lives on this occasion . . .* it was my determination that if we were attacked in the plains on the way to the point that the bridles of the horses should be tied together and *we would stand and defend them, or sell our lives as dear as we could.*" [Italics added.] Of course, no such attack occurred and a joyous reunion unfolded on the banks of the Missouri a few hours later. Still, the time for vigilance had not yet passed.

Once reunited, the subsequent behavior of Lewis and his men reinforces, I believe, my interpretation of the *complete* record. In a rapid-fire rush of activity, they loaded their gear into the canoes, unsaddled their horses and turned them loose, threw the saddles in the river, and proceeded on to the mouth of the Marias. There they busied themselves opening the caches, recovering usable items, and salvaging nails and other metal from the red pirogue. *But not before, we are told by Lewis, they took the precaution of reconnoitering the area.* (While going about their tasks, they were also anxiously awaiting the safe arrival of Gass and Willard.)

The corps' standing orders from the beginning of the expedition required the aforementioned security measure when a campsite was to be established at the end of a day's travel. This step was now taken near mid-day. Given the rigors of the Lewis contingent's cross-country ride, it would have been understandable had they decided to make camp early and rest before resuming the journey. Moreover, there were some items from the caches, such as fur robes and animal pelts, that were wet and moldy. We are told some of the men, including Lewis, wanted these damaged articles very much. At least some probably could have been saved if given time to air out and dry. But that was not in the cards. An encampment was not established. As soon as Gass and Willard arrived, their horses were turned loose and the corps hastily left the rendezvous point. That afternoon, according to

Lewis, they put 15 miles between themselves and the mouth of the Marias. Gass said 25 miles.

Why the hurry? An overriding concern for life and limb, I believe. Lewis knew that in his parley with the eight Piegan Indians the night of July 26 he had clearly identified the mouth of the Marias as the designated rendezvous point with the remainder of his men. If bent on pursuit, the Piegans could be expected to immediately home in on that location. Out of an abundance of caution, Lewis obviously felt it advisable to put as much distance, as soon as possible, between the corps and that spot. Hence, the hasty departure. When they finally made camp at nightfall on July 28, according to Ordway they "*kept a Strict guard.*"

From our vantage point almost two hundred years later, the level of risk may appear to have been negligible or even nonexistent, but to Lewis and his companions it was real enough to warrant evasive, as well as "strict" defensive, measures until they were well away from the area. In my earlier essay on the probable fate of the iron boat frame I may have over-dramatized my point, but it is no exaggeration to say that Lewis's thinking and actions were clearly dictated by his own perception of there being a credible threat to the corps' physical safety and well-being. As we have seen, Lewis acknowledged as much several times in his written account of this episode. While it is conceivable that he may have been engaging in a bit of hyperbole, or even craftily using a rhetorical flourish calculated to motivate his men to get a move on, I'll take Lewis's own words at face value. Responsible and prudent leader that he was, he acted accordingly.

These, then, constitute the principal points on which Karsmizki and I do not see eye-to-eye concerning the probable fate of Lewis's iron boat frame. I entertain no illusions that the reasoning offered here will change his view on the matter. He has made it abundantly clear that he will remain true to his quest—come what may. I salute his professionalism and dedication, and as a fellow Lewis and Clark enthusiast, I wish him success. Perhaps, once he and his associates have proven the iron boat frame cannot be found at the site of the Upper Portage Camp, they will turn their attention to the potentially more productive location I have suggested in the vicinity of the Knife River villages. Whether remnants of the iron boat frame are eventually found in Montana or North Dakota, or somewhere else, I would like nothing better than to be able to congratulate Ken Karsmizki someday on the successful completion of his quest. ■

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Spruce hats and raven belts: L&C relics from Harvard's Peabody Museum

Arts of Diplomacy: Lewis & Clark's Indian Collection

Castle McLaughlin

University of Washington Press
/ Peabody Museum
359 pages / \$40 paper, \$60 cloth

It used to be that if you wanted to see the Corps of Discovery artifacts in Harvard University's Peabody Museum of Archaeology and Ethnography, you had to be escorted into the vaults by a curator. That's no longer the case, thanks in part to a thoroughly researched and stunningly illustrated new book, *Arts of Diplomacy: Lewis & Clark's Indian Collection*, by Castle McLaughlin, a social anthropologist and associate curator at the Peabody.

Called by naturalist Paul Cutright "the prize haul of the Lewis and Clark Expedition," the collection includes, among other objects, a painted Mandan bison robe, onion-dome hats from the Pacific coast, pictographic bison robes, raven skin belts, a biographical war shirt, a painted side-fold dress, a Chinook fiber skirt, an otter-skin tobacco pouch, an elk-antler bow, and various pipes, arrow points, bear-claw ornaments, and baskets. The Peabody also has artifacts that Lieutenant George C. Hutter, an officer married to William Clark's niece, collected in 1825-26 as a member of the Atkinson-O'Fallon Expedition.

Tracing provenance

The items in the Peabody collection are the only surviving Native American artifacts associated with Lewis and Clark. Most of them were originally displayed in the Philadelphia museum of Charles Willson Peale. From there they made their way to the Boston Museum and in 1899 were acquired by the Peabody. McLaughlin does admirably spade-work tracing their provenance, and she is cautious in her conclusions. In most cases a link to the captains is rea-

sonably certain but cannot be established with absolute confidence. Seven objects are definitively linked to the expedition.

Arts of Diplomacy is worth its \$60 hardcover price for no other reason than Hillel S. Burger's stunningly detailed photographs, but this is more than a pretty coffee-table book. As James Ronda writes in the introduction, McLaughlin has "restored the Expedition to its own meaning in time" as "a narrative of mutual encounters told by compelling objects," while the book itself testifies to "the power of artifacts to open up new historical perspectives."

McLaughlin calls the Peabody's items "uniquely valuable," not only for

peoples who accepted a group of strangers into their communities and counseled with them about their common future."

The selection and exchange of such gifts followed tribal protocols that the captains initially failed to grasp. McLaughlin shows how their understanding of those protocols evolved over the course of their 28-month journey. She asks us to explore the fundamental meaning of these gifts, which were imbued with the spirit of their makers and with the spirit of the natural world they appealed to for survival. They were emblems of a sovereign people, given with an emphasis on reciprocity and mutual respect. The act of giving went beyond diplomatic gesture. A gift held spiritual meaning and value

and confirmed the giver's place in society. McLaughlin devotes an entire chapter to the "Language of Pipes," showing how pipes and pipe ceremonies figured in the diplomatic dance between the explorers and the tribes they encountered.

Spiritual role of objects

When the author explains that whale-hunting tribes on the Pacific coast used elk antlers to make whaling harpoons because "they believed the antlers were imbued with the physical strength and fighting ability of the male elk and thus could help them overcome the great strength and power of the whales," we see the true importance of these artifacts, not just as useful objects but as tangible evidence of the connection between Native Americans and their environment.

As the Peabody's director, Rubie Watson, observes in the preface, *Arts of Diplomacy* is a detective story probing one of the great collections of Native American artifacts. For fans of popular TV shows, think *CSI Meets Antiques Road Show*. The task demanded exacting scholarship, for symbols and forms used by one tribe may be similar to those of other tribes yet



Two of many treasures from the Peabody Collection.
Above: basketry sailor's cap. Below: pipe bowl.



their association with the expedition, but because so many of them were gifts bestowed upon the captains rather than objects randomly collected by them. These "symbolically potent diplomatic objects" were presented by "Indian

denote entirely different meanings. Of all of the endeavors launched by the L&C Bicentennial, the effort to catalog, interpret, and display this collection ranks near the top. (It is on exhibit at the Peabody through December 2005 and can also be viewed on the museum's Web site, at www.peabody.harvard.edu/Lewis_and_Clark.)

Native craftsmanship

The fine detail of Burger's photographs enables us to admire the exceptional craftsmanship that went into these objects. Having never seen a "basketry sailor's cap," an item intended for trading with European mariners, I was impressed by the native weavers' use of spruce roots, grass, and bark to create hats in styles remarkably similar to European models.

A reader's appreciation is further enhanced by sidebars offering perspectives from art historians, conservators, and Native American artisans and leaders. I also appreciated McLaughlin's subtle reminder that these artifacts were mainly produced by women, and that they too had an important part in the transfer of these objects.

Among my few quibbles about this work is its preference for the quirky North Dakota spelling of the name of the Corps of Discovery's celebrated female interpreter. Nearly throughout, it is rendered "Sakakawea." (Strangely, the one reference to "Sacagawea," the almost universally accepted spelling, occurs in a sidebar about the Mandan-Hidatsa-Arikara Three Affiliated Tribes, who live in North Dakota.) I also question the book's assertion that the Peabody's specimen of Lewis's woodpecker is the "only surviving natural history object from the expedition." What about the bighorn sheep horn owned by the Filson Historical Society, in Louisville?

Such peccadilloes, however, pale next to *The Art of Diplomacy's* achievement. The Lewis and Clark Bicentennial has generated a tsunami of new books about the expedition, but this one rides the crest.

—Stephenie Ambrose Tubbs

The Corps of Discovery traveled on its stomach



Sacagawea nurses a cooking fire: an illustration by Michael Haynes from *Feasting and Fasting*.

Feasting and Fasting with Lewis & Clark: A Food and Social History of the Early 1800s

Leandra Zim Holland

Old Yellowstone Press
279 pages / \$35 cloth

Readers of WPO are familiar with the late Leandra Holland, who in the course of a too-brief career as a food historian wrote several articles for this magazine (most recently, "Empty Kettles in the Bitterroots," in the August 2003 issue). Her comprehensive knowledge of the cuisine and culinary methods of the Jeffersonian era are displayed throughout *Feasting and Fasting with Lewis & Clark*.

This definitive and lavishly illustrated large-format book is written for both the general reader and serious student of the Corps of Discovery. Holland begins with an overview of the food culture of the early 19th-century United States, from the elegant table set by Thomas Jefferson to the campfire fare of the corps' three messes. She tells us how Americans cooked and pre-

served their food and how the expedition preserved and packed it. There are discussions about nutrition, hunting, and food as an agent of Indian diplomacy. The core of the book is a narrative of the expedition with a focus on food (and sometimes the lack of it) along the trail and at the three winter encampments (Camp River Dubois and Forts Mandan and Clatsop). A concluding section is organized around the types of food consumed (red meat, fish and fowl, plants, and beverages). Sprinkled throughout the text are sidebar recipes for everything from suet dumplings and hartack to *daube à la Montigny-en-Vexin*, a French provincial jelly of braised meats and vegetables on which Lewis might have dined when the expedition was encamped near St. Louis.

It's sad that the author, who died prematurely in an auto accident last fall, did not live to view her book in print (although she did see page proofs). This *pièce de résistance* should remain the last word on its subject for many years to come.

—J.I.M.

Reviews department continues next page.

Up and down the waterways with the Corps of Discovery

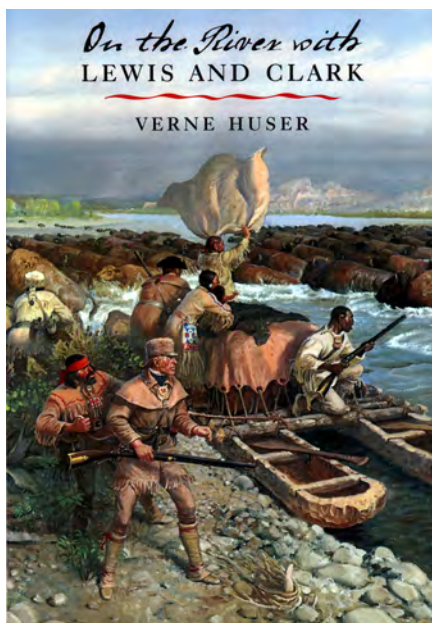
On the River with Lewis and Clark

Verne Huser

Texas A&M University Press
205 pages / \$17.95 paper, \$40 cloth

Author Verne Huser, a professional river guide for 45 years and a student of Lewis and Clark who has covered most of the same waters as the captains, reminds us in *On the River with Lewis and Clark* that their expedition was “essentially a river trip.” He provides an interesting appendix with a table breaking down the total distances traveled by water and land, and water wins hands down: 9,046 miles vs. 1,578 miles. In the kind of obsessive detail dear to the hearts of hardcore Lewis-and-clarkers, he provides a further breakdown by segments of the trail and totals for upriver and downriver travels (3,548 miles vs. 5,498 miles).

Huser takes an analytical approach to his subject, beginning with a chapter discussing the basic dynamics of wind and water and their effect on river travel. He explains, for example, why afternoon winds tend to blow against



the current, no matter what direction a river flows. Lewis encountered this phenomenon when descending the Ohio in September of 1803, complaining that “the wind on this river ... blows or sets up against its courent four days out of five” so that progress could be made only “by the dint of hard rowing” or poling. He is lucid on the me-

chanics of river travel—whether by paddling, rowing, towing, poling, or sailing—and the boats of the expedition: a keelboat, two pirogues, dugout canoes, bullboats, and rafts.

Chapters on the rivers themselves and the upstream and downstream passages tell how the explorers navigated them and dealt with the many adversities, from contrary winds to rampaging rapids. In sidebars and in the text itself, Huser juxtaposes the captains’ experiences with his own. On a meandering section of the Beaverhead River just downstream from present-day Dillon, Montana, for instance, “they made slow progress, primarily by towing. Sometimes the men could see across two or three loops of the river and realize they would have to pull the crafts two or three miles up the strong, shallow stream to make fifty feet across the meander.” Canoeing the same stretch, Huser paddled 26 river miles to cover 12 road miles. “I, too, became frustrated and considered portaging, but I didn’t, even though my canoe was much lighter than the cottonwood dugouts.”

—J.I.M.

An unblinking look at today’s L&C Trail

Lewis & Clark Revisited: A Photographer’s Trail

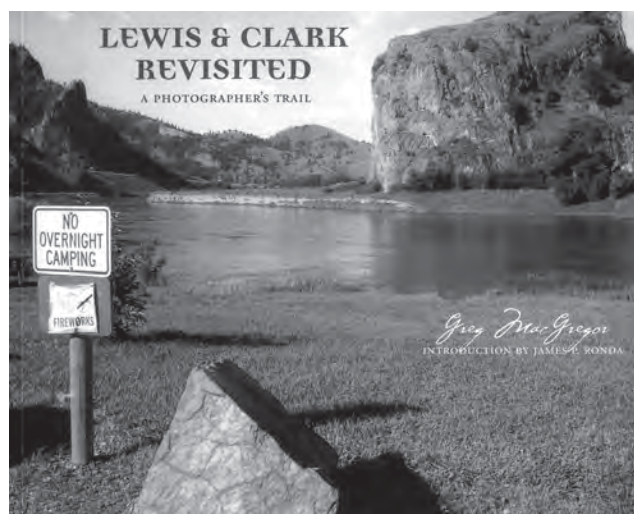
Greg MacGregor

University of Washington Press
224 pages / \$29.95 paper, \$50 cloth

If members of the Corps of Discovery could return to the trail they followed across the continent, how much of it would they recognize?

As the elegant, often ironic (but never iconic) black-and-white images in Greg MacGregor’s *Lewis & Clark Revisited* make plain, not much. Two centuries is a long time, enough for some of the actual topographic features of the landscape—especially the ever-shifting meanders of the Missouri

River—to change. But most of the transformation results from the agricultural and industrial civilization that followed in the captains’ wake. A landscape that once filled the eye with romantic vistas of endless bison herds and thundering waterfalls now offers bridges, dams, power plants, old stockyards, overpasses, and campgrounds. The only bison in these photos (97 in all) are a pair of plastic ones in South Dakota, next to a highway sign advertising Al’s Oasis Restaurant.



Other photographers retracing the Lewis and Clark Trail usually look for angles that eliminate or at least minimize modern-day intrusions, but MacGregor embraces them. Wind surf-

ers cavort on the Columbia where the explorers braved rapids. At Killed Colt Creek, a man in swim trunks guzzles a beer and a family cavorts in the shallows. Mailboxes dominate the foreground of a shot of Hat Rock.

Such images can easily provoke smugness on the viewer's part. MacGregor isn't passing judgment, however, but merely bearing witness to the world as he finds it, and one person's scenes of visionary disenchantment remain another's "geography of hope," to borrow a phrase often found in writings about the expedition. As historian James Rhonda observes in his introduction, MacGregor's photos are those of a "vernacular landscape," shaped by descendants of Jefferson's yeoman farmers.

It took MacGregor eight years to complete this project. It's clear from his photos that he thoroughly enjoyed himself and that when he photographs people he has a knack for putting them at ease. The Hunkpapa Sioux children he found on a North Dakota reservation pose happily and unselfconsciously for his lens, as does a couple whose truck broke down in eastern Washington.

The typography of Bonnie Campbell's book design compliments these engaging images of the Lewis and Clark Trail two hundred years later.

—J.I.M.

Biography examines roles of Sacagawea and Charbonneau

Any writer who tells the story of the Charbonneau family has to be willing not only to separate history from legend but also to navigate a thicket of controversies that begin with the names themselves. Sacagawea or Sakakawea? Porivo, Bird Woman, or Otter Woman? Hidatsa or Shoshone? Jean Baptiste Charbonneau or John B. Charbonneau? Pomp or Bat-tez or Bazil?

In *Interpreters with Lewis and Clark*, a brisk account of the lives of

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Sacagawea and Toussaint Charbonneau, W. Dale Nelson, a former White House correspondent for the Associated Press, brings journalistic objectivity to the controversies surrounding the family and gives a clear-eyed rendering of their remarkable lives. The Charbonneau we first meet at the end of his life, “tottering under the infirmities of eighty winters,” is neither an unappreciated hero nor the bumbling coward of many expedition biographies. Rather, Nelson sees a man who “At worst ... seems to have been no worse than many men of his time and place”—faint praise, to be sure.

We see Sacagawea in her few but well-known appearances during the journey—gathering roots, embracing Cameahwait, and falling so ill that she was mentioned in one or the other of the captains’ journals for 18 consecutive days. Nelson gives Charbonneau the benefit of more doubts than most readers. When Clark wrote in one bleak moment that “if [Sacagawea] dies it will be the fault of her husband as I am now convinced,” Nelson wonders if Clark “just made a mistake” and had actually meant to write that her death would “*not* be the fault of her husband.” Left unmentioned altogether is the incident when Clark upbraided Charbonneau for striking Sacagawea during dinner.

The second half of this short book relates the experiences of Charbonneau, Sacagawea, and their son, Jean Baptiste (Pomp), after the expedition. If nothing else, Pomp’s later adventures in Europe and the Southwest effectively refute F. Scott Fitzgerald’s famous remark that there are no second acts in American lives.

Some readers may wish that Nelson had dealt directly with the topic suggested by his title: Sacagawea and Toussaint’s critical roles as the expedition’s primary interpreters. There is ample reason to believe that many of the difficulties faced by Lewis and Clark, as well as later travelers, resulted from faulty translations—sometimes inadvertent, other times intentional. We know that Lewis and Clark misunderstood much of what they

Interpreters with Lewis and Clark: The Story of Sacagawea and Toussaint Charbonneau

W. Dale Nelson

University of North Texas Press
184 pages/\$24.95 cloth



Interpreters cover art by Edgar S. Paxson.

heard at the Mandan villages. The expedition’s other interpreter, George Drouillard, was not much more successful: Lewis was with Drouillard both times when language failed completely—in his encounter with the Shoshone warrior at Horse Prairie Creek and the tragic dispute with the Blackfeet at Two Medicine Creek.

After the expedition, Charbonneau continued his career as an interpreter for thirty more years. He was always considered something of a rascal, but as noted, Nelson argues that he was no worse than most. Many interpreters and traders on the frontier were known to use their privileged positions for personal enrichment, going so far as to award themselves land grants in Indian treaties. When Pierre Chouteau set aside for himself a tract of territory ceded by the Indians, Meriwether Lewis complained that “if the Indians are permitted to bestow lands on such individuals as they may think proper, the meanest interpreter ... will soon acquire a princely fortune at the expense of the United States.”

A scholarly study that places Lewis and Clark’s interpreters into the larger context of intercultural translation in the borderlands remains sorely needed.

—Landon Y. Jones, Jr.

Landon Jones is the author of *William Clark and the Shaping of the West*, published this month by Hill & Wang.

In Brief: Plants of the expedition; nutrition; “Dummies”; N. Dakota; interpreters; trail guide

Common to This Country: Botanical Discoveries of Lewis & Clark, by Susan Munger, illustrated by Charlotte Staub Thomas. Artisan Books. \$22.95, cloth; 128 pages. Order through bookstores or www.artisanbooks.com.

This slim, elegant book surveys 25 of the more than 200 plant specimens collected by Lewis and Clark. A few of the species profiled—ponderosa pine, bur oak, Osage orange—are trees, but most are what we would think of as wildflowers, although many of these in fact are now cultivated as ornamentals; Charlotte Thomas, whose graceful watercolors complement Susan Munger’s spare text, painted many of the illustrations from specimens she found growing in gardens and parks. Only one species (the blue camas, whose tubers the explorers blamed for their gastrointestinal complaints in Idaho) figures prominently in the expedition.



Osage orange

Other entries include bearberry, glacier lily, ragged robin, silky lupine, old man’s whiskers, bitterroot, prickly pear, and Lewis’s syringa.

Plants of the Lewis & Clark Expedition, by H. Wayne Phillips. Mountain Press. \$20, paper; 277 pages. Order through bookstores or www.mountain-press.com.

This comprehensive study, although mainly a reference book, is compact enough to serve as a field guide. It is probably as close as we will get to a definitive guide to expedition plants. Phillips is a professional forester who

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Explorations

*Into the World of
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Volume 2



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Reviews (cont.)

teaches field classes for the Yellowstone and Glacier Institutes, and it's obvious that he knows his stuff. A total of 240 plants are profiled. They are arranged by ecotype, as Lewis and Clark would have encountered them, beginning with the Eastern deciduous forest and progressing through tallgrass prairie, the High Plains, Rocky Mountains, Columbia Plateau, and Pacific forest. Its 315 color photographs (almost all by the author) include the plants themselves and their habitats. Each entry lists common and scientific names, salient visual characteristics, flowering season, habitat, and range, and includes commentary and journal excerpts.



Columbia tickseed

The Lewis and Clark Expedition: Food, Nutrition, and Health, by Elaine Nelson McIntosh. Center for Western Studies, Augustana College. \$12.95, paper; 101 pages. Order through bookstores or www.augie.edu/CWS (605-274-4007).

McIntosh is a registered dietitian with a doctorate in biochemistry, and her study assesses the Corps of Discovery's diet by the standards of the U.S. Department of Agriculture's recommended Six Food Group Plan, with its emphasis on a balanced diet of grains, fruits, vegetables, meat, and dairy products. She demonstrates that throughout the expedition the explorers' diet was chronically lacking in several essential elements, including fiber, folic acid, and vitamins C and E. She suggests that the consumption of great quantities of meat during the ascent of the Missouri River in the spring of 1805—a daily average of nine pounds per man—was “clearly unhealthful,” and that Sacagawea's sporadic foraging for wild vegetables and fruits, while providing a welcome variety to the corps' larder, had little effect on overall nutrition.

The explorers' diet was always in-

adequate, she writes, and beginning “in late summer 1805, the decreasing health and hardiness of the men became increasingly evident.” This condition could only have worsened had the expedition lasted into 1807, McIntosh concludes, and might have seriously compromised the mission.

A Vast and Open Plain: The Writings of the Lewis and Clark Expedition in North Dakota, 1804-1806, edited by Clay S. Jenkinson. State Historical Society of North Dakota. \$49.95 cloth, \$34.95 paper; 594 pages. Order through bookstores or <http://DiscoverND.com/hist>.

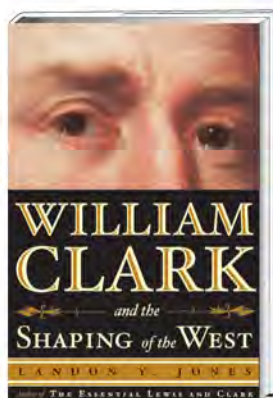
This is an extensive update of Russell Reid's *Lewis and Clark in North Dakota* (1948). Unlike the earlier work, which was based on the 1905 Reuben Gold Thwaites edition of the L&C journals, this one relies on the edition by Gary E. Moulton, and it includes excerpts from the enlisted men's journals as well as the captains'. Entries are chronological, and Jenkinson expands on the text with a wealth of explanatory footnotes. There are many illustrations and day-to-day weather notes in the margins (on July 10, 1805, the thermometer plunged to minus-40 degrees). Appendices include an appraisal of Sacagawea (here spelled Sakakawea, in deference to the Mandan-Hidatsa preference); biographical sketches of Lewis, Clark, the interpreters Toussaint Charbonneau and René Jusseume, and the Mandan chief Sheheke; and a list of L&C campsites in North Dakota.

The foreword, by James Ronda, and Jenkinson's 32-page introduction place the expedition in historical context, with particular emphasis on its North Dakota phase, which covered more than seven months (a total of 215 days—197 outbound and 18 homeward bound). It was in North Dakota, observes Jenkinson, that the captains enlisted the services of Sacagawea and enjoyed “on the whole, their most satisfying relations with American Indians,” a contention the Nez Percés and the Shoshones might challenge. During the winter at Fort Mandan, Lewis and

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Clark “performed the most significant ethnographical work of their Expedition,” but Jenkinson reminds us that this was a “period of mutual discovery,” when the Mandans and Hidatsas were also scrutinizing the Corps of Discovery. Neither party completely understood the other, and the captains, who generally viewed their Indian hosts in a favorable light, were nonetheless handicapped by a cultural attitude that ranged from bemused detachment to derision.

Lewis & Clark for Dummies, by Sam-
mye J. Meadows and Jana Sawyer
Prewitt. \$19.99 paper; 381 pages. Or-
der through bookstores or www.dummies.com.

This is another title in the well-known “dummies” series, whose subjects run the gamut from basketball to woodworking to breast-feeding but also include some historical topics. Meadows, the coordinator for the L&C Bicentennial’s Circle of Tribal Advisors

(COTA), is a former executive director of the LCTHF, and Prewitt is a former director of external affairs for the U.S. Department of the Interior. Their book follows the series’s graphic and structural conventions and employs its trademark breezy style. The authors pack in a great deal about the expedition and what to see on the trail today, and they are sensitive to telling the Indians’ side of the story and crediting their role in the expedition’s success.

A Manual for Interpreting Lewis and Clark, by Gene Hickman. \$24.95 plus shipping. Order directly from the author at 8824 Douglas Circle, Helena, MT 59602; 406-458-3884; ghickman9@bresnan.net.

This 207-page loose-leaf manual for Corps of Discovery reenactors was put together by members of the Lewis & Clark Honor Guard, of Great Falls, Montana, and three similar organizations, and with financial support from the National Park Service. Its topics

include clothing, weapons and accoutrements, tools and equipment, tents, military drill, and safety procedures. An appendix lists sources for materials and where to find additional information.

Lewis and Clark Trail Guide, by Bruce W. Smalley. \$24.95 (hardcopy), \$19.95 (CD-ROM). Order from Digital Scanning, Inc., 344 Gannett Rd., Scituate, MA 02066; 781-545-2100; www.digitalscanning.com.

This “guide” mainly consists of the 25 maps of the explorers’ route which were part of a 1965 proposal to the U.S. Department of the Interior to establish a national L&C trail. The proposal’s adoption led to the placement along the trail of the ubiquitous “pointing finger” highway signposts and the founding, in 1969, of the LCTHF. For each map Smalley has excerpted campsite entries from the Lewis and Clark journals. The CD-ROM shows the maps in color and links them and the excerpts to the table of contents. ■

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erence services into the Synchronous Digital Reference mode.

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The Great Falls location is of great value, however, to persons traveling the L&C Trail. Last year we had over a thousand visitors who discovered our wonderful library because it is located in such a highly respected and visited interpretive center. We truly can offer the best of both worlds, an outstanding facility on the Lewis and Clark National Historic Trail and a library that provides services to patrons across the country and worldwide.

—Jill Jackson

Librarian and Archivist, LCTHF

In memoriam: Peter Geery, who portrayed Sergeant Ordway

Peter Geery, a past group commander of the Discovery Expedition of St. Charles, Missouri, died January 23 while vacationing in Mexico. The Discovery Expedition operates reconstructions of the expedition's keelboat and two pirogues. Geery, who portrayed Sergeant John Ordway in its reenactments, was 62. His name has been added to a plaque aboard the keelboat. He is survived by his wife, Marilyn, four sons, and four grandchildren. ■

L&C Roundup

"Lost" bearclaw necklace found after 105 years



PEABODY MUSEUM

A grizzly-claw necklace acquired by Lewis and Clark has been found in the collections of Harvard University's Peabody Museum of Archaeology and Ethnography. The necklace had been donated to the museum in 1941. Mis-catalogued as a "whalebone" necklace and placed in a collection of South Sea artifacts, it was discovered last December by curators who realized it belonged with the museum's Lewis and Clark artifacts. It is one of seven objects owned by the Peabody that can be definitively linked to the Corps of Discovery. (The others are two raven-skin belts, two basketry whaler's hats, and a quilled otter bag. For more on the collection, see page 40.)

The 38-claw necklace was almost certainly presented to the captains during their stay with the Mandan and Hidatsa Indians in the winter of 1804-05. Following the expedition, it was donated to the Peale Museum, in Philadelphia, along with other expedition objects that were later deposited in the Boston Museum. The family that owned the museum donated the collection to the Peabody in 1899 but kept the necklace. It was presented to the museum 42 years later, but by then its association with the expedition had been forgotten. The necklace and other L&C items are on display at the Peabody through December 2005.

Wisdom of the Elders on the air

National Public Radio (NPR) and American Indian Radio on Satellite (AIROS) have begun airing a series of

eight hourlong programs featuring tribal elders, historians, story tellers, and song carriers interpreting their cultures. Many of the participants are from tribes along the Lewis and Clark Trail, and some of the programs deal with the expedition. This is the first of three such series being developed by Wisdom of the Elders, a nonprofit organization based in Portland, Oregon, whose mission is recording and preserving Native American cultures. According to executive producer Rose High Bear, the second and third series will be devoted exclusively to Lewis and Clark. More information can be found at www.wisdomoftheelders.org.

Fort Clatsop expansion

The U.S. Department of the Interior has proposed legislation to expand the Fort Clatsop National memorial, near Astoria, Oregon, to include three sites in Washington state on the opposite shore of the Columbia River estuary. The proposed additions are a federally owned piece of Fort Canby State Park, where a memorial to Thomas Jefferson will be created; Station Camp, off U.S. 101; and the site at Chinook Point where in November 1805 the captains polled expedition members on preferences for locating a winter camp. The expanded park would be called Lewis and Clark National Historical Park.



Big day at Spirit Mound

A range of activities will be held at Spirit Mound, South Dakota, on Wednesday, August 25, to commemorate the Corps of Discovery's visit there. They will include talks on the site's animal and plant life, geology, and history. Spirit Mound recently became a state park encompassing 320 acres.

ART KOBER

DILLON C of C

L&C Roundup (cont.)

For more information, click on “special events” at www.nps.gov/mnrr or contact Jody Moats at 605-232-0873 (jody.moats@state.sd.us).



Fort Mandan sculptures

Heroic-size metal sculptures of Lewis and Clark and the Mandan headman Sheheke will be unveiled June 26 at the L&C interpretive center at Washburn, North Dakota, two miles east of the reconstructed Fort Mandan. The statues, by Washburn artist Tom Nearly, will be the centerpiece of Harmony Park, a new space with walking trails and picnic areas adjoining the center. The park will be one of the stops on the bus tours

planned for this year's meeting of the LCTHF, to be held August 4-7 in nearby Bismarck. More information on the center can be found at www.fortmandan.com.

New Montana map

The Montana Bureau of Mines and Geology has published a new full-color wall map of the route and campsites of Lewis and Clark in Montana. Text by Robert Bergantino accompanying the map discusses geological features, and nine photos with journal quotes show Montana landmarks as the explorers would have seen them. The 40-by-26-inch map costs \$15 and can be purchased by contacting Susan Barth at 406-496-4167 (sbarth@mtech.edu).

Tracing Mackenzie's routes

A new fold-out map of the routes of Alexander Mackenzie, the Canadian fur trader who crossed the continent a decade before Lewis and Clark, has been published by the Alexander Mackenzie

Voyageur Route Association. Entitled “Canada Sea to Sea to Sea,” the map shows the explorer's 1789 route to the Arctic Ocean as well as his 1793 route to the Pacific. For more information, see www.amvr.org/page21.htm, call 250-762-3002, or write POB 425, Stn. A, Kelowna, B.C. V1Y 7P1.

Iowa's Garden of Discovery

An exhibit now in planning for the L&C interpretive center in Sioux City, Iowa, will showcase a series of formal gardens. Called the Garden of Discovery, the space will incorporate plants collected by Lewis and Clark; an Indian garden of squash, corn, and beans; and a garden with plants of the type cultivated by Thomas Jefferson at Monticello. Plants in the L&C garden will include curlycup gumweed, ten-petal blazingstar, Rocky Mountain bee plant, and buffaloberry. Two acres of reconstructed prairie will serve as backdrop to the gardens. For more information, see www.siouxcitylcic.com. ■

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JOHN HAMILTON

Test your knowledge of L&C with this Corps of Discovery crossword puzzle

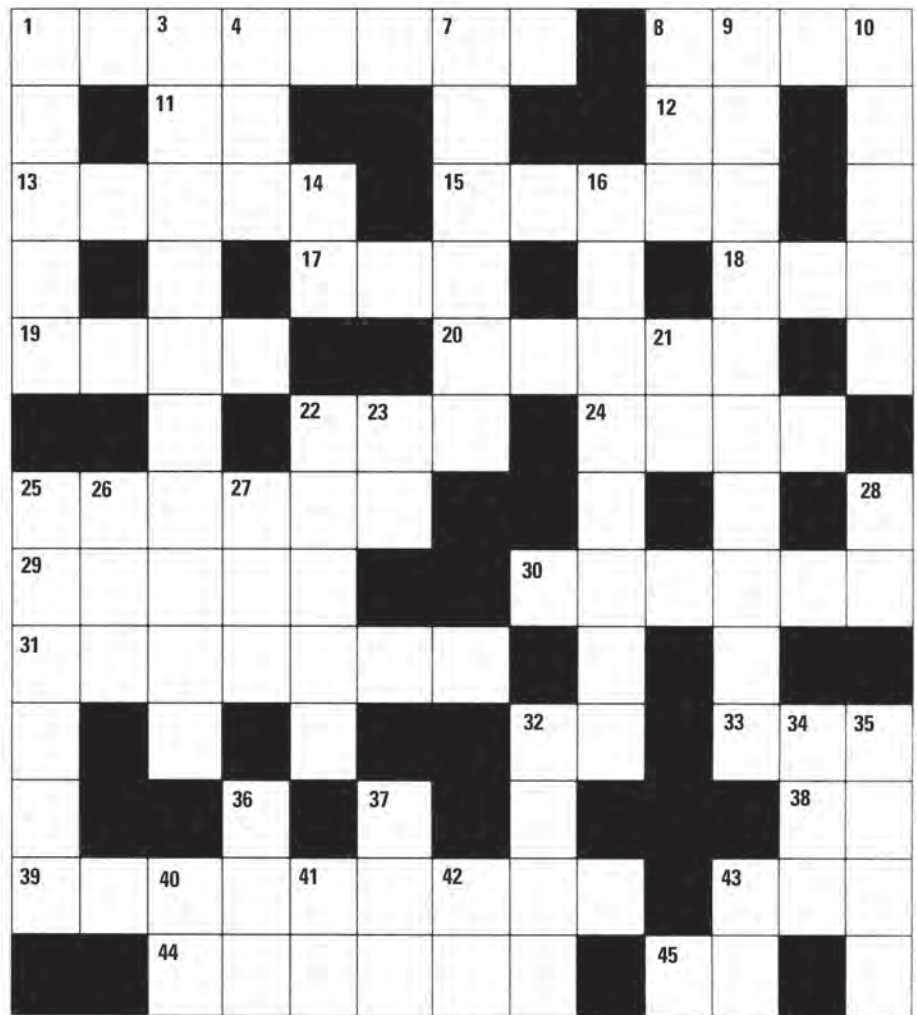
By Gary Lentz

Across

1. Rank held by Richard Warfington.
8. Food of last resort on the Lolo Trail.
11. Pronoun for male.
12. Initials on Lewis's branding iron.
13. Quality of Indian trade beads.
15. Sacagawea dug these.
17. The Shoshone "national" greeting.
18. Roman numeral for three.
19. Boughs of these trees were used to make Indian lodges (April 14, 1805).
20. The 17 states in 1803 formed this.
22. Joseph Potts's word for "one" in his native language.
24. Shortened nickname for the bear that plagued the explorers on the upper Missouri.
25. Brass item used for cooking. (Lewis purchased eight for trading with Indians.)
29. Cruzatte's word for this was *bruit*.
30. At Forts Mandan and Clatsop, a guard had to do this to the gate in order to open it.
31. Stinging and biting critters.
32. Abbreviation for base line used by Clark when calculating course.
33. The Indian potato (*Apias americana*) was also known as a ground ____.
38. In the direction of; toward.
39. One of the common spellings for the corps' female translator (but not the way the Hidatsa spell her name).
43. An herbal brew the captains used for medicinal purposes.
44. A tool for gathering cut wheat.
45. Abbreviation for Clark's actual rank during the expedition.

Down

1. Underground storage place.
3. A common ailment caused by wet conditions. John Shields often suffered from it.
4. Also known as a goober.
7. Isaiah Lukens lent this weapon to Lewis (he may have made it, too).
8. Axes do this to wood.
9. Alternative spelling for a tribe living on the plains north of the Mandan and Hidatsa villages.
10. A low-grade rum. Clark distributed



- it to some of the men on the night of November 30, 1804.
14. Abbreviation used to indicate relative alkalinity or acidity.
16. The version of the journals located at the American Philosophical Society, in Philadelphia.
21. Abbreviation for the state where the explorers spent their last winter.
22. To choose by vote.
23. Latin abbreviation meaning "that is."
25. Implement or weapon used for food preparation or personal defense.
26. A very long period of time.
27. Simple substitution code 20-19-05.
28. Abbreviation for Ebenezer Tuttle's home state.
32. John Collins brewed this beverage.
34. One of several tribes referred to as "Alitans."

35. An amphibian described in Idaho.
36. First three letters of the six-letter alternative spelling for the upper part of the large intestine (used in making *boudin blanc*).
37. To show where they'd been, Clark drew many of these in his journal.
40. Abbreviation for a small stream.
41. John Potts's way of saying "yes" in his native language.
42. A plural pronoun and first word of a phrase often repeated in the journals.
43. First and last letters of the name of a river that joins the Walla Walla. In his journal entry for April 30, 1806, Clark called it "a bold Creek."

Our thanks to Gary Lentz for creating this crossword puzzle. Answers will appear in the August issue.—Ed.