Adventures and answers in the Lewis and Clark Expedition

OF RIVERS AND OCEANS
THE BLOOD MEAL
THE “ODYSSEY” OF LEWIS AND CLARK
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On the cover
The Lemhi Range of the Rocky Mountains.

On July 24, 1805, Meriwether Lewis noted that the Rocky Mountains "still continue high, and seem to rise in some places like an amphitheater one rang above another as they recede from the river until the most distant and lofty have their tops clad with snow; the adjacent mountains commonly rise so high as to conceal the more distant and lofty mountains from our view." This moment suits Bob Hunt metaphorically; he kept his eye on distant horizons and ascended new ranges of experience.
President's Message

Foundation’s future is bright thanks to our members

In my previous President’s Message I asked you to share stories of the good work you do along the trail. Please accept my congratulations for all of these activities. The Carolina Chapter, through the efforts of Jerry Lee Cross, Trent Strickland and the late Aubrey Gay, has erected and dedicated a new historical marker honoring Corporal Warfing near his birthplace in Louisburg, North Carolina.

The Portage Route Chapter has purchased and dedicated a bronze sculpture of Sacagawea; hats off to Dave Pidcock for this great project.

The Travelers’ Rest Chapter, through Scott Sproull’s leadership, promoted the Foundation at a philanthropic event that has greatly raised the Foundation’s level of visibility.

The Illini Chapter, under the guidance of Lou Ritten, carried out a masterful regional meeting. Excitement over that meeting still reverberates through the Foundation.

By the time you read this message, Dr. Bryant Boswell, a.k.a. Meriwether Lewis, and a highly qualified team of living history re-actors, will be at the Boy Scout National Jamboree teaching the story of Lewis and Clark to 50,000 scouts and adult leaders. Many of you have supported the jamboree activity with financial assistance and, equally important, development of the patch program. I salute each of these projects and the people who have given their financial resources and energy to see that the Lewis and Clark legacy remains strong.

While reviewing success stories, I would be remiss if I did not share the good news about Wendy Raney and Brent McCa11n’s new twins, Melina Michelle, 6 lbs. 12 oz., and Cruze Robert, 7 lbs. 5 oz., were born May 20, 2010. On the downside of this wonderful event, Wendy’s parental responsibilities brought about her resignation as editor of We Proceeded On. We hope to announce the new editor of WPO very shortly.

In addition to Wendy’s resignation, we have lost two board members this spring. Margaret Gorski and Clay Smith resigned due to conflicts with jobs and other responsibilities. Please join me in thanking them for their years of service. The Foundation succession plan as defined in our by-laws has worked and the seats have been or soon will be filled through the election process and the board of directors’ selection of Jim Rosenberger to fill a vacant seat.

Please extend your congratulations to all the individuals who stood for election this year, as each of them will be joining the board.

In my previous message I commented on the Foundation’s financial situation, and I can report that we have continued to make progress. At the end of April we were only $80,000 below the break-even point. Unfortunately, our investment portfolio is still “underwater” after the May downturn in the stock market, which prevents us from drawing on any profits. Even with that downturn we are able to pay our bills thanks to your generosity. Although the annual membership renewal notices have not been mailed, we hope you will take action and renew your membership for 2010-2011 in mid-September so that we can continue paying our bills on time.

As I near the end of my term as president of your Foundation, I want to return to the thoughts that I expressed at the 41st annual meeting last year. We are facing challenges of a critical nature both financially and operationally, but like the Lewis and Clark Trail Heritage Foundation, Inc. is a tax-exempt nonprofit corporation. Individual membership dues are not tax deductible. The portion of premium dues over $49 is tax deductible.
Balancing America’s energy needs with trail preservation

When Congress designated the Lewis and Clark National Historic Trail in 1978, the Columbia and Missouri rivers already had been dammed, the lower Missouri channelized, virgin prairie plowed for crops and cities established along the historic route. Despite these sweeping changes, today large segments of the trail remain relatively free of development, offering striking, open landscapes reminiscent of earlier days. Visual scenes in rural areas and urban fringes along the trail continue to provide people from all over the world a sense of what it was like to travel with the expedition.

These areas are becoming even more threatened as our nation turns to untapped energy sources in its undeveloped areas. There is interest in harnessing wind resources along the trail from the Dakotas to the edge of the Columbia River Gorge National Scenic Area, in tapping oil and gas reserves in North Dakota and Montana and in placing hydrokinetic turbines in the lower Missouri River. These energy sources are usually far from urban centers, requiring new road construction, pipelines, transmission lines and other types of infrastructure to get the energy to market, thus further impacting the trail.

Clearly, our nation needs to produce cleaner energy on our own soil, but we have concerns that trail resources will be overlooked and development will outpace our ability to track and contribute effectively on proposals. Public and agency input is needed to balance energy development and resource protection.

Last year, thousands of hydrokinetic turbines were proposed for placement in the Missouri River from St. Louis to Kansas City. The National Park Service participated in the permitting process based on concerns for potential environmental impacts to aquatic life and recreation on the trail. While these proposals on the Missouri have been withdrawn, they may resurface as new technology advances.

The most recent North American Electric Reliability Corporation study suggests that projects to produce 229,000 megawatts of new wind power should be developed by 2018 in the United States and Canada. Individual turbines can produce up to five megawatts, meaning approximately 45,800 new turbines would dot the landscape.

Not only is the number of turbines growing, but also wind turbines are continuing to grow in size. Including the blade, most turbines currently range from 390 to 490 feet tall. A blade alone is as long as a Boeing 747 wing. For comparison, the Statue of Liberty is 306 feet tall and an average water tower is 110 feet tall. In areas with relatively flat terrain, turbines may be visible for 20 to 30 miles. This wide area of potential impact coupled with rapid development creates major concerns for cumulative impacts to the trail’s visual resources.

Tracking energy proposals along the trail is difficult. Regulatory requirements vary from state to state, as well as county to county. Opportunities for public input may not be widely publicized. Often, project planners do not recognize that the trail may be impacted. The river is on their map, but the trail usually is not. Our efforts to raise awareness about the trail are ongoing, ranging from basic information such as where it is located, to the vast resources of the trail and the significance of the Lewis and Clark Expedition.

While we stay busy researching what is being planned along the trail, reviewing environmental documents and submitting comments on potential impacts, we hope to move toward a more proactive approach in examining development along the trail. Specifically, we will strive for the trail to be included in plans and on planning maps at all levels of government to ensure protection of these valuable resources.

To succeed at preserving the trail in this quickly expanding energy landscape, we need significant involvement from our partners. If you are interested in learning how you can help with this effort, please contact me at 402-661-1812 or Denise_Nelson@nps.gov.

―Denise Nelson

Environmental Protection Specialist, Lewis and Clark National Historic Trail

August 2010 We Proceeded On — 3
I enjoyed immensely the February 2010 issue of WPO for several reasons. The excellent article by Thomas Danisi on the letters of Samuel Latham Mitchell was a rewarding read. Mr. Danisi does an excellent job of research. The piece on Robert Hunt brought back memories of when I met him at my very first Washington State Chapter meeting of the Foundation in Tacoma, Washington. My first impression of Mr. Hunt was, "Can the chapter meetings get any better than this?" RIP Mr. Hunt. The coverage of the 2009 convention was in most cases, well done. Peyton "Bud" Clark's unique comment that Lewis's writing was "boring" absolutely shocked me; I have never heard anyone say that about Lewis's style before! Thanks for an excellent issue!

Don Popejoy
Spokane, Wash.

"Hypochondriac affections" revisited

I applaud Thomas Danisi's meticulous dissection of the term "hypochondriac affections" in his letter in the May 2010 WPO, but I completely disagree with many of his conclusions.

The origin of the modern meaning of "hypochondrias" is generally thought to have occurred in the mid-sixteenth century and pertained to the upper abdomen as the supposed seat of the psychological problem of melancholy. This idea was a logical extension of the ancient Greek belief that an excess of bile (from the "hypochondrium" or abdomen) was associated with melancholy.

Rather than having an origin in the past century as Mr. Danisi states, the meaning of "hypochondriac affections" is made perfectly clear in Benjamin Rush's lecture "Phenomena of Fever," originally published in 1815. In a subsection of his lecture he dealt extensively with various types of nervous system "convulsions" that are responsible for fever. Rush asked, "Are there certain grades in the convulsions of the nervous system, as appears in the hydrophobia, tetanus, epilepsy, hysteria, and hypochondrias?" It is clear from this context that Rush included a modern sense of the word hypochondrias (sic) as one form of a nervous "convulsion." Rush did not equate the term with malaria or with abdominal pain but exclusively with a nervous system disorder directly preceded in the list by "hysteria." If we follow Rush's thinking process, it is fairly clear that he connected the terms "hysteria" and "hypochondrias.

We certainly do not know that Lewis suffered "from incurable and untreatable" malaria as Mr. Danisi contends. I presented my ideas concerning this in my article, "The Death of Meriwether Lewis" (WPO, November 2009, p. 16).

Given the previous scenario, the meaning of William Clark's words in his letter to his brother Jonathan becomes all too clear. "I fear O' I fear the weight of his mind has overcome him..." It would seem that Clark and Jefferson clearly refer to their observations of Lewis's mental condition.


Dr. David J. Peck
San Diego, Calif.
for the information I have presented in my Meriwether Lewis biography as well as in public programs and seminars that I have conducted. Like Dr. Peck, I consulted physicians, including several specialists in the fields of malariology and epidemiology concerning malaria and its effects on the human body, as I was writing my book. Unlike most of the present-day physicians, who seem to have consulted only present-day sources and acknowledge the existence of two forms of malaria, my sources, both contemporary and historical, identified four types of malaria.

The leading source of this information is derived from the 2001 book published by the Johns Hopkins University Press entitled Malaria: Poverty, Race, and Public Health in the United States by Margaret Humphreys. However, I consulted with several specialists on a monthly basis, and studied scores of books and articles over an intense four-year period at the Washington University School of Medicine, Bernard Becker Library and its affiliated Rare Book Department and Archives. This documentation led me to the conclusion that Meriwether Lewis suffered from “the ague,” which was indeed an early form of the present-day disease known as malaria, which is still a menace and a killer. Conversely, I also studied publications related to hypochondriasis and the related form that we know today as hypochondria.

The pinnacle of understanding came from two publications by Stanley Jackson and Esther Fischer Hornberger. Dr. Jackson’s notable work, Melancholia and Depression, was published in 1986 and Dr. Fischer’s article, “Hypochondriasis of the Eighteenth Century—Neurosis of the Present Century,” was published in 1972. These two publications provide a cohesive explanation of the derivation of hypochondriasis and led me to the conclusion that when Thomas Jefferson described Meriwether Lewis as having “hypochondriac affections” he was actually speaking about a physical illness that frequently tormented Lewis. Furthermore, there is a collection of finely crafted American and British publications published prior to the modern description of malaria by some of the most recognized names in the history of medicine like Daniel Drake, Edwin Ackerknecht, George Sternberg, R. Carlyle Buley and John Macculloch. There also were several Italian physicians who put their reputations on the line before malaria (from the Italian meaning “bad air”) became a household word.

The crucial point here is that in order to investigate the prevalence of malaria on the North American continent in the early nineteenth century in the context of the history of medicine, one has to consult historical sources to truly understand its widespread nature and devastating results. In counterpoint to the beliefs of most present-day doctors, who often discount the observations of their brother physicians of the past, I believe that we must also consider the data they collected.

Even though their knowledge of science was not as advanced as our own, and their understanding of the workings of the human body primitive compared to what we now know, they were trained observers who recorded the symptoms and results of disease on the human body. The observations made by physicians of their patients during the early nineteenth century were made by people trained as scientific observers, not prone to fall back upon superstitions or color their comments for dramatic effect. Physicians of the period were men of science. They noted specific symptoms and results of malarial attacks, which stand apart from any speculations about how the disease was contracted, what precise biological effects it had upon the internal body and brain, and how doctors of the time thought that it should be treated. These observations include many recorded instances of patients who inflicted physical harm upon themselves while in a delirious or extremely agonized state brought on by malaria. After the malarial attack subsided, these same individuals told the doctors that they were not trying to harm themselves, but that they were trying to kill or exterminate the living disease within their bodies.

The many documented observations of this type of behavior by reputable physicians of the past led me to my conclusions about Meriwether Lewis’s death. Although it may be true that people with malaria do not act in this fashion today, I nevertheless believe that these documented actions were a real result of a certain kind of malaria in the early nineteenth century.

Because malaria is treatable today, and not a widespread, nearly universal disease, I believe that it would be very difficult for a physician of today to say with certainty that 200 years ago there were only two, or even four strains of malaria, or what, specifically, the reaction to the disease would be in each and every individual that contracted it, when nearly the entire population had some form of the disease and suffered with symptoms ranging from minor to catastrophic. Only a present-day doctor living in a hot, swampy third-world country without access to quinine or other drugs could possibly testify to the widespread effects of malaria on a long-term basis and characterize the problem with any precision in order to relate it to the circumstances that existed in the early nineteenth century Mississippi River Valley known by Meriwether Lewis.

Thomas Danisi
St. Louis, Mo.

President’s Message (cont. from p. 2)

Clark Expedition, we will persevere and proceed on in a transparent manner.

At all of these challenging moments during the last year—and there has never been a shortage of challenges—a Foundation member has found the courage and solution to solve the problem just as members of the 1803-1806 expedition did. There is a bright future for our Foundation as long as we learn from the past and serve as good stewards of the Lewis and Clark stories, trail and our limited assets. We have “crossed the Bitterroots,” but there are challenges ahead and perseverance is our only option. As Gene Kranz, NASA flight director, stated so clearly, “failure is not an option.”

I look forward to receiving your calls and e-mails at 859-278-7723 or pmjmallory@insightbb.com. Looking forward to seeing you in Lewiston, Idaho, at the annual meeting.

—Jim Mallory
President, LCTHFF August 2010

We Proceeded On — 5
Bob Hunt sought adventure and answers in Lewis and Clark Expedition

The passing of Foundation member Bob Hunt on September 4, 2009, in Seattle at the age of 89 left a gap in the literature of the Lewis and Clark Expedition that will not be easily filled. His eye for comparison, his passion for clarifying rules and regulations and his forthright writing style enriched his many articles for readers of We Proceeded On. Similarly, his diligent research aided many scholars with their own interpretations of the expedition.

Born in St. Joseph, Missouri, in July of 1920, Robert Rand Hunt came easily to his lifelong interest in the Corps of Discovery. His father served as deputy scout executive for the Boy Scouts of America in Kansas City, and part of the lore known by all boys of that era in that location was the Missouri River adventures of Meriwether Lewis and William Clark. At the age of 14, Bob advanced to the rank of Eagle scout. In 1941, the family relocated to Seattle.

Meantime, Bob earned a degree from the prestigious Wharton School of the University of Pennsylvania and that experience influenced his choice of profession, banking. An active life followed, including two tours overseas with the military during World War II and the Korean War. Among his several areas of community service was a period of leadership with the Chief Seattle Council of Boy Scouts. History matters were never absent from Bob's interests. He held memberships in the New England Historic Genealogical Society and also the Sons of the American Revolution. Following his retirement in 1987 from Seattle Trust and Savings Bank as a senior vice president, Bob began his new career path, that of historian.

Beginning the same year as his retirement, Bob wrote his first article about the expedition. Other articles followed, mostly about ideas that previously he had only verbalized. He had questions about the Corps of the expedition, including members of the WPO Editorial Advisory Board. All of the articles authored by Bob Hunt were considered for republication. Ultimately a consensus formed around three articles. The fact that one each had been prepared in the 1980s, the 1990s and the first decade of the twenty-first century is, in itself, a tribute to the enduring legacy of Bob Hunt's research and writing. The three selections exhibit different aspects of Bob's wide grasp of literature and history. In one article he looks at Lewis and Clark through the lens of Homer's Odyssey. In a second article he expands his field of observation and examines the influence of Jean-François de Lapérouse on Thomas Jefferson and the Lewis and Clark Expedition. And in the third article Hunt micromanages the subject of mosquitoes on the expedition, a task so detailed that it took him two issues to complete it.

In 2005, Bob Hunt revisited two themes that had been constants in his life, the Boy Scouts and the Lewis and Clark Expedition. His article "Tracking The Explorer: Kipling's Adventure Poem and the Pacific Northwest" appeared in Columbia, The Magazine of Northwest History, Vol. 19, No. 3 (Fall 2005), pp. 7-14. Through the text of Rudyard Kipling's poem he brought together the themes of the scouting movement under Sir Robert Baden-Powell and the formation of true American frontiersmen-explorers in the Lewis and Clark Expedition. Robert Rand Hunt centered on four lines from Kipling that are legendary in scouting lore, but also inspired him to begin his prolific career as a writer on Lewis and Clark.

Something hidden. Go and find it.
Go and look behind the Ranges—
Something lost behind the Ranges—
Lost and waiting for you. Go!

—Dr. Robert Carriker
Gonzaga University
I n May of 1987, We Proceeded On published the first of nearly two dozen well-written, thoughtful and thought-provoking articles by Foundation member Robert (Bob) R. Hunt. His article “Of Rivers and Oceans” is an eye-opening comparison of two expeditions just 19 years apart.

The first expedition was that of the respected French naval hero, Admiral Jean François de Galaup, Comte de La Pérouse (Laperouse). Laperouse’s expedition included two sailing ships, the Boussole and the Astrolabe and a complement of 225 officers, sailors and France’s finest scientists. Sadly, after three years of exploration along the West Coast of North America and throughout the southern Pacific Ocean, Laperouse’s expedition ended in mystery and tragedy near the island of Vanikoro in 1788.

The second expedition, of course, was that of the Corps of Discovery, with Captains Meriwether Lewis and William Clark, a complement of boatmen, hunters, interpreters, and a variety of pirogues and canoes.

As Bob pointed out, there are many similarities between the two expeditions. The instructions given the two captains and Laperouse are both filled with the ideas and words of their Enlightenment-inspired leaders, King Louis XVI and President Thomas Jefferson. Both men directed the expedition leaders, crews and scientists to keep journals, maps and charts, and to collect natural history specimens and cultural artifacts. Both expeditions were expected to “earn the friendship of the principal chiefs” and to develop commercial relations between native people and their respective nations. And—Clark, Lewis and Laperouse were to do all of this “without costing the life of a single man.”

In “Of Rivers and Oceans,” Bob reminded us of just how closely tied each expedition could be to a preceding expedition. This could be done in part because expedition leaders and scientists willingly and generously shared the fruits of their labors—their journals, their maps, their scientific and cultural collections—with their contemporaries. Each expedition informed and enriched the next, and Bob is correct when he says we, too, are “richer” when we study the journeys of other Enlightenment-era explorers.

Fortunately, the similarities between the two expeditions do not end with Bob’s concluding remarks. There are many organizations and publications to help us explore these two stories, these leaders and their crews and these inspiring journeys. Scholars, students and members of the Lewis and Clark Trail Heritage Foundation all use the Foundation to help them “explore” the story of the Corps of Discovery, the Lewis and Clark National Historic Trail and the people associated with the adventure.

Scholars, aficionados and maritime archeologists wanting to follow the sailing routes and explorations of Jean François de Galaup, Comte de Lapérouse, and study the mysteries surrounding his disappearance near Vanikoro, have similar resources. In Albi, France, there is l’Association Lapérouse, which encourages and coordinates activities and studies dedicated to Lapérouse. L’Association Salomon de Nouméa in the Solomon Islands has spent decades exploring the islands, seeking and finding the remains of Lapérouse’s two ships, his crews and their campsites.

We continue to discover new and important pieces of each story. In 1988, it was the discovery of two trunks with William Clark’s letters. In 2005, it was the discovery of the remains of the Boussole.

Bob found many similarities between the expeditions that occurred more than 200 years ago when he wrote his article in 1987, and today, similarities remain. It is a good story . . . read on!
Of Rivers and Oceans

Thus, with all these parallels in the two expeditions [the Lapérouse and Lewis and Clark Expeditions], similarities of planning, execution and accomplishment, there is ground for a premise that the earlier may have been a kind of a prototype for the latter—that the oceanic was a pattern for the continental. Specifically, it is suggested that Jefferson, consciously or unconsciously, may have had Lapérouse in his mind's eye, making his plans for Captain Lewis while “the world closed in on the Pacific Northwest…” “We Proceed On” from Lapérouse and Lewis and Clark and find ourselves richer for the “perusal” of their respective journals—and their respective legacies, oceanic as well as continental.

By Robert R. Hunt

Dr. James A. Gardner’s fascinating address to the Foundation at its 18th annual meeting1 reminds us that the Lewis and Clark Expedition was emphatically “not a riverbound experience.” Dr. Gardner looks beyond the river image to “other larger and often neglected international dimensions of the experience;” the story, he notes, is “peopled” not only with the familiar expedition personalities, but also with such international figures as Rezanov, Napoleon, Pitt, Talleyrand, Toussaint L’Ouverture—as well as French, Spanish, Russian and British explorers of the era.

On this larger stage (an “oceanic stage,” to expand on the image) we should bring into focus a player in the story who has received too little attention in American eyes, the celebrated French navigator, Admiral Jean François de Galaup, Comte de La Pérouse, or as he chose to call himself, “Lapérouse.”2 A spotlight on this figure provides an international prologue for Lewis and Clark, and is especially timely during the bicentenary of the Lapérouse Pacific Expedition now being observed throughout the Pacific Rim community.3

Like the Rezanov/Arguello drama,4 the Lapérouse story became a “human tragedy … little known or remembered in this country.” After distinguished feats with the French Navy during its all-important aid to the American Revolution, Lapérouse was sent out in 1785 by Louis XVI on a vast exploration of the Pacific Ocean. With an initial complement of more than 200 people (including scientists, officers and crew manning two frigates), this voyage produced invaluable discoveries, charts, sketches, records, scientific findings and observations. Major portions of this material were forwarded back to Paris from various ports of call throughout the Pacific Basin.5

But alas, the voyage ended in tragedy. On March 10, 1788, Lapérouse weighed anchor out of Botany Bay in “New Holland” (Australia) and was never heard from again, seemingly having disappeared from the face of the earth. Some forty years later, evidence of the storm wreckage of his two ships, the Boussole and the Astrolabe, was first discovered on the reefs of Vanikoro, a small island of the Santa Cruz group, east of the south end of
the Solomon Islands. Later expeditions, even unto our day, have attempted to reconstruct the tragedy, though it remains “unlikely that we will ever know much more than we do now about one of history’s great maritime mysteries.”

What has this drama to do with Lewis and Clark? As Dr. Gardner notes, a full appreciation of the Lewis and Clark Corps of Discovery “needs to engage the broader political and economic reality of the era of which it was a part.” Lapérouse was a signal part of that era, and perhaps even (as we shall see) a direct spark in the genesis of Lewis and Clark—or if not a “spark,” at least among the embers that ignited the 1804 Lewis and Clark departure from Camp Dubois. We are not referring here merely to Dr. Gardner’s mention of “long and deep roots (of the French) in the upper Missouri region.”

We refer instead to the vision germinating in the mind of Thomas Jefferson for a westward exploration, and the possible influence on this vision that the Lapérouse expedition may have had. Jefferson was articulating this vision when he wrote to Archibald Stuart from Paris under date of January 25, 1786 (quoted by Dr. Gardner), declaring that “the American Confederacy must be viewed as the nest from which all America, north and south is to be peopled” — this, fresh on the heels of the departure of Lapérouse a few months previously from Brest, bound for the Pacific, possibly looking for settlement sites!

The Lapérouse departure, in itself, did not of course give rise to Jefferson’s anxieties about the future of the northwest. As Dr. Gardner observes, Jefferson’s westering project had earlier surfaced in 1783 with a proposal to George Rogers Clark. Nevertheless, we are obliged to remember that Jefferson was replacing Franklin as the Ambassador to France just as the Lapérouse expedition was being planned and outfitted in France. Jefferson’s attention was so drawn to Lapérouse that he had John Paul Jones go off to Brest to find out more about the project (better said, “to spy upon it”). Jefferson then wrote home to John Jay on August 14, 1785, as follows:

You have doubtless seen in the papers that this Court (meaning the Court of Louis XVI) was sending two vessels into the South Sea under the conduct of Capt. Peyrouse, they give out that the object is merely for the improvement of our knowledge of the geography of that part of the globe ... their loading however, as detailed in conversation, and some other circumstances, appeared to me to indicate some other design, perhaps that of colonizing on the Western Coast of America, or perhaps only to establish one or more factories there for the fur trade ... (We are) interested to know whether they are perfectly weaned from the desire of possessing continental colonies in America ... Capt. Paul Jones being at l’Orient within a day’s journey of Brest, where Capt. Peyrouse’s vessels lay, I desired him if he could not satisfy himself at l’Orient of the nature of this equipment that he would go to Brest for that purpose: conducting himself so as to excite no suspicion ... His discretion can be relied on ...” (Emphasis added.)

Jones did as suggested and later submitted a report to Jefferson, which Jefferson in turn forwarded under date of October 6, 1785, to John Jay advising of Jones’s opinion:

... The circumstances are obvious which indicate an intention to settle factories, and not colonies at least for the present. However, nothing shows for what place they are destined. The conjectures are divided between New Holland (Australia) and the Northwest Coast of America. (Emphasis added.)

Jefferson thus, early for the new ambassador, had this continuing and lively reminder of French interest in the Pacific Basin — a reminder perhaps more vividly felt (considering his immediate presence on the scene in France at the time) than the more distant pressures of Russian, British and Spanish maneuvers in the Northwest.

Jefferson continued to report on Lapérouse’s progress as news of the voyage became available. He wrote to Jay in August 1786, as follows:

The Gazette of France of July 28 announces the arrival of Peyrouse at Brazil, that he was to touch at Otaheite, and proceed to California, and still further Northwardly. This paper, as you well know, gives out such facts as the Court are willing the world should be possessed of. The presumption is therefore that they will make an establishment of some sort on the North-West Coast of America.

Moreover, this is precisely the time when Jefferson’s involvement with John Ledyard occurs. Ledyard writes to Jefferson from London on November 25, 1786; later from St. Petersbourg on March 19, 1787; and from the town of Barnowl in Siberia on July 27, 1787:

There was a report a few days ago of which I have heard nothing since, that the french ships under the command of Capt. Lapereux had arrived at Kamchatka. There is an equipment now on foot here for that Ocean and it is first to visit the NW Coast of America; it is to consist of four ships ...

Thus again the name “Lapérouse” is brought to the recurring attention of Jefferson from the other side of the world. Jefferson is also mindful of Lapérouse in March...
1789 when writing to Joseph Willard to thank Harvard University for conferring a doctorate of laws upon him. To Willard he notes "the return of la Peyrouse (whenever that shall happen) will probably add to our knowledge in geography, botany and natural history ..." 21

We may surmise that Jefferson would have been very much aware of the widespread interest of all French people, whether loyalist or Jacobin, in the mysterious fate of Lapérouse when all trace of his ships had been lost after 1788. The French Court had had the most intimate concern with the entire voyage, even as Louis XVI faced the scaffold. The deposed King, on the eve of his execution, was reported to have inquired: "At least, do we have news of Monsieur Lapérouse?" 22

Popular interest in the fate of Lapérouse also moved the new French Assembly to appropriate a significant sum of money and send out a second expedition to discover what had happened. 23 These events would have continued to interest Jefferson, particularly in 1793 when, on behalf of the American Philosophical Society, he authored instructions to Frenchman André Michaud for that gentleman's venture to the Far West. 24 A review of the Michaud commission calls to mind the expedition instructions that Louis XVI had given to Lapérouse, and causes us to wonder whether Jefferson may have been influenced by the Lapérouse orders when he penned the orders to Michaud—orders that in turn foreshadowed the instructions to Captain Lewis. Compare this excerpt (to Michaud) with the Louis XVI concerns outlined hereinafter:

You will, in the course of your journey, take notice of the country you pass through, its general face, soil, rivers, mountains, its productions animal, vegetable, & mineral so far as they may be new to us & may also be useful or very curious; the latitude of places or materials for calculating it by such simple methods as your situation may admit you to practice, the names, numbers, & dwellings of the inhabitants, and such particularities as you can learn of their history, connection with each other, languages, manners, state of society & of the arts & commerce among them. 25

The possibility of Lapérouse's influence seems even more striking when Jefferson's orders to Meriwether Lewis are compared with the Louis XVI document. Here, for convenience of comparison, we follow the subdivision of the King's instructions as outlined by Robin Inglis in his analysis of those instructions. 26 Excerpts from Jefferson's instructions to Lewis are placed alongside the comparable instructions to Lapérouse from Louis XVI on the following pages.
Louis XVI to Lapérouse

I. PLAN OF VOYAGE

(Lapérouse was instructed to, after reaching Hawaii, head North to the coast of North America.)

"He will particularly endeavor to reconnoitre those parts which have not been examined by Captain Cook, and of which the reports of the Russian and Spanish navigators have given no idea. He will observe, with the greatest care, whether in those parts not yet known, some river may not be found, some confirmed gulf which may, by means of the interior lakes, open a communication with some part of Hudson's Bay."

"The object of your mission is to explore the Missouri river, & such principal stream of it, as, by its course and communication with the waters of the Pacific ocean, whether the Columbia, Oregon, Colorado or any other river may offer the most direct & practicable water communication across this continent for the purposes of commerce."

II. POLITICS AND COMMERCE

Louis XVI outlined a host of objects "for the interest, of his crown and the benefit of his subjects," for example:

"the Sieur de Lapérouse will study production of the different islands in that ocean, at which he shall touch, the manners and customs of the natives, their religion, government, mode of making war, arms and vessels, the distinguishing character of each tribe, what they may have in common with other savage nations and civilized people and especially what is peculiar to each."

"The commerce which may be carried on with the people inhabiting the line you will pursue, renders a knolege of those people important. You will therefore endeavor to make yourself acquainted, as far as a diligent pursuit of your journey shall admit, with the names of the nations & their numbers; the extent & limits of their possessions; their relations with other tribes of nations; ... their ordinary occupations in agriculture, fishing, hunting, war, arts, & the implements for these; their food, clothing, & domestic accommodations; the diseases prevalent among them, & the remedies they use; moral & physical circumstances which distinguish them from the tribes we know; peculiarities in their laws, customs & dispositions; and articles of commerce they may need or furnish, & to what extent. And, considering the interest which every nation has in extending, strengthening the authority of reason & justice among the people around them, it will be useful to acquire what knolege you can of the state of morality, religion, & information among them; as it may better enable those who may endeavor to civilize & instruct them, to adapt their measures to the existing notions & practices of those on whom they are to operate."

III. ASTRONOMY, GEOGRAPHY, NAVIGATION, PHYSICS AND DIFFERENT BRANCHES OF NATURAL SCIENCES

"The object of greatest importance to the safety of navigators is to fix with precision the latitudes and longitudes of the places where he may land and of those within sight of which he may pass. With this view, he will instruct the astronomer employed on board each frigate, to observe with great exactness the movement of the time-keepers ...

"As often as the state of the sky will permit him, he will order lunar observations to be taken, with the instructions for that purpose, to determine the longitude of the ship and to compare it with that which the time-keepers indicate at the same point of time.

"Beginning at the mouth of the Missouri, you will take (careful) observations of latitude & longitude, at all remarkable points on the river, & especially at the mouths of rivers, at rapids, at islands, & other places & objects distinguished by such natural marks & characters of a durable kind, as that they may with certainty be recognized hereafter. The courses of the river between these points of observation may be supplied by the compass the log-line & by time, corrected by the observations themselves. The variations of the compass too, in different places, should be noticed."
Louis XVI to Lapérouse

"Independently of the observations relative to the determination of latitudes and longitudes ... he will not fail to take note of every celestial phenomenon which may be observed.

"The Sieur Lapérouse is to order exact charts to be drawn of all the coasts and islands, he shall visit; and, if they are already known, he must verify the exactness of the description, and of the charts, which other navigators have made.

"The naturalists ... will be employed in that branch of natural history with which they are best acquainted. Sieur de Lapérouse should prescribe to them the research which they will have to undertake and distribute to them the appropriate instruments and apparatus. He should be careful not to employ more than one individual in each area so that the zeal and the intelligence of each of the learned persons on board may be utilized in the best possible way in promoting the general success of the expedition."

Jefferson to Lewis

"The interesting points of the portage between the heads of the Missouri, & of the water offering the best communication with the Pacific ocean, should also be fixed by observation, & the course of that water to the ocean, in the same manner as that of the Missouri.

"Your observations are to be taken with great pains & accuracy, to be entered distinctly & intelligibly for others as well as yourself, to comprehend all the elements necessary, with the aid of the usual tables, to fix the latitude and longitude of the places at which they were taken, and are to be rendered to the war-office, for the purpose of having the calculations made concurrently by proper persons within the U.S. Several copies of these as well as of your other notes should be made at leisure times, & put into the care of the most trust-worthy of your attendants, to guard, by multiplying them, against the accidental losses to which they will be exposed. A further guard would be that one of these copies be on the paper of the birch, as less liable to injury from damp than common paper."

IV. Conduct to be observed toward natives of the visited countries

"Upon his arrival in each country, he will endeavor to earn the friendship of the principal chiefs both by expressions of good will and by presents; he will find out what resources the place affords to supply the needs of his vessels and will undertake all honourable means to establish relationships with the natives.

"On all occasions, Sieur de Lapérouse will act with great gentleness and humanity towards the different peoples who he will visit during the course of his voyage.

"If dangerous circumstances ... should ever oblige Sieur de Lapérouse to avail himself of the superiority of his weapons ... he must not use force except with the greatest moderation. If he cannot obtain the good will of the savages by kind treatment, he should endeavor to constrain them by fear and threats and should use arms as a last resort ..."

"In all your intercourse with the natives, treat them in the most friendly & conciliatory manner which their own conduct will admit; allay all jealousies as to the object of your journey, satisfy them of it's innocence, make them acquainted with the position, extent, character, peaceable & commercial dispositions of the U.S., of our wish to be neighborly, friendly & useful to them, & of our dispositions to a commercial intercourse with them; confer with them on the points most convenient as mutual emporiums, and the articles of most desirable interchange for them & us. If a few of their influential chiefs, within practicable distance, wish to visit us, arrange such a visit with them, and furnish them with authority to call on our officers, on their entering the U.S. to have them conveyed to this place at the public expence. If any of them should wish to have some of their young people brought up with us, & taught such arts as may be useful to them, we will receive, instruct & take care of them. Such a mission, whether of influential chiefs or of young people, would give some security to your own party. Carry with you some matter of kinépox; inform those of them with whom you may be, of it's efficacy as a preservative from the smallpox; & instruct & encourage them in the use of it. This may be especially done wherever you winter."
Louis XVI to Lapérouse

V. Preserving the health of the corps

"His Majesty will consider it as one of the happiest events of the expedition if it should end without costing the life of a single man."

"He will miss no opportunity that may present itself in his different ports of call to procure, for his crews, such refreshments and wholesome food that will counteract the effects of the long use they will be obliged to make of salt provision.

"Sieur de Lapérouse is not ignorant that one of the precautions that contributes most effectively to the preservation of the health of seamen, is a constant attention to the cleanliness of both ships and men."

Jefferson to Lewis

"As it is impossible for us to foresee in what manner you will be received by those people, whether with hospitality or hostility, so is it impossible to prescribe the exact degree of perseverance with which you are to pursue your journey. We value too much the lives of citizens to offer them to probable destruction. Your numbers will be sufficient to secure you against the unauthorized opposition of individuals or of small parties; but if a superior force, authorised, or not authorised, by a nation, should be arrayed against your further passage, and inflexibly determined to arrest it, you must decline it's farther pursuit, and return. In the loss of yourselves, we should lose also the information you will have acquired. By returning safely with that, you may enable us to renew the essay with better calculated means. To your own discretion therefore must be left the degree of danger you may risk, and the point at which you should decline, only saying we wish you to err on the side of your safety, and to bring back your party safe even if it be with less information."

Similarly, Jefferson directs Lewis:

"Should you reach the Pacific ocean inform yourself of the circumstances which may decide whether the furs of those parts may not be collected as advantageously at the head of the Missouri (convenient as is supposed to the waters of the Colorado & Oregon or Columbia) as at Nootka sound, or any other point of that coast; and that trade be consequently conducted through the Missouri & U.S. more beneficially than by the circumnavigation now practised."

There were other parallels in the advance planning for each respective expedition:

Item: In both instances the prestigious learned societies were consulted by Lapérouse and Lewis, respectively. These societies took active parts in preparation for each of the voyages: in France, the Académie des Sciences, the Jardin des Plantes and the Société de Médecine; in America, the American Philosophical Society.29
Item: Leading scholars and scientists in each country personally advised and made suggestions to the captains of each expedition, in keeping with the Enlightenment, as to ways in which each respective expedition could contribute to the advancement of science and knowledge. Lapérouse had the advice of such authorities as Lavoisier and the Abbé Tessier before departure, as well as a group of scholars who accompanied him, including engineer Paul Monneron, astronomer Joseph Dagelet, geologist Lamanon and botanist Lamartinière. While Lewis could not take along such company, he nevertheless was coached in all of these disciplines by eminent scholars in Philadelphia and elsewhere, including Wistar and Rush in medicine, Barton in botany, Patterson and Ellicott in astronomy and others.

Item: Careful provisions were made to assure that the journals, charts, maps, records, sketches, specimen collections, artifacts—the priceless findings of the expeditions—were protected, guarded from disaster as much as possible and sent home. Lapérouse dispatched such treasures from his various ports of call.

It is thanks to the trans-Siberian, trans-European mission of Baron Jean Baptiste Barthélemy de Lesseps that we have a large part of the corpus of Lapérouse data—Lapérouse had set this young officer ashore from his ship at Petropovsk on the Kamchatka peninsula and charged him to deliver the precious material gathered to that point to the French Court. As fate would have it, de Lesseps was the only member of the Pacific journey who survived for return to the civilized world.

We may imagine that Jefferson was conscious of this poignant circumstance when he instructed Lewis:

On your arrival on that coast endeavor to learn if there be any port within your reach frequented by sea-vessels of any nation, & to send two of your trusty people back by sea, in such way as (they shall judge) shall appear practicable, with a copy of your notes: and should you be of opinion that the return of your party by the way they went will be eminently dangerous, then ship the whole, & return by sea, by the way either of Cape Horn, or the cape of good Hope, as you shall be able.

Complying with these instructions, Lewis and Clark did as Lapérouse had done, and took special pains to see that journals and records were safeguarded and returned—by dispatch from the Mandan villages and by meticulous double-copying of records.

Thus, with all these parallels in the two expeditions, similarities of planning, execution and accomplishment, there is ground for a premise that the earlier may have been a kind of prototype for the latter—that the oceanic was a pattern for the continental. Specifically, it is suggested that Jefferson, consciously or unconsciously, may have had Lapérouse in his mind’s eye, making his plans for Captain Lewis while “the world closed in on the Pacific Northwest.”

The world was indeed “closing in” also on Europe, as the French Revolution ran its course and Napoleon’s star was rising. Just as Lewis and Clark made their way across the American continent, Napoleon was tightening his mastery of Europe.

This circumstance provides a final tantalizing morsel as to Lapérouse and his relation to the American Northwest. A manuscript in the writing of Lapérouse, on deposit in the Rochechouart Library, Albi, France (the birthplace and home of Lapérouse), contains a list of the team of scholars who were to accompany the expedition. Among those is the name of Roux d’Arbaud, which does not capture any particular attention until we learn that this officer took the place of another previously designated for the slot—namely, a certain young officer from L’Ecole Militaire, one Napoleon Bonaparte, the original choice who had been replaced by d’Arbaud because of insufficient training in astronomy. Had Napoleon better known his stars and embarked with the crew, he would have vanished with all the rest at Vanikoro—lost in anonymity! What then? What difference in the geo-political tensions and interactions in Europe and America? Would there have been a Louisiana Purchase? How would Jefferson and the Lewis and Clark journey have been affected? Leave it at that—one of the more intriguing “what ifs” of history!

“We proceed on” from Lapérouse to Lewis and Clark, and find ourselves richer for the “perusal” of their respective journals—and their respective legacies, oceanic as well as continental.

Editor’s Note: Several of the images that accompanied the original printing of this article were not identified and therefore, could not be located. Minor changes to the text have been made to comply with current publication style guidelines. Major style differences were not corrected.

Notes
2 See signatures customarily appearing in journals and records.
of Lapérouse as exhibited at ‘Exposition Lapérouse, Maison du Viel Albi, France, June 1978. (‘Lapérouse, La Tragique Destinee D’Un Aslbeigeois,’ publication of the Centre Departemental de Documentation Pedagogique d’Albi et du Dervide Educatif des Archives des Tarn.)


4 Gardner, op. cit., note 1 supra.

5 For a full English biography of Lapérouse, see John Dunmore, Pacific Explorer: the Life of Jean-Francois de Lapérouse, 1741-1788 (Naval Institute Press, 1985); for the Pacific voyage see Lapérouse’s journal edited by M. Milet-Mureau, Voyage de Lapérouse Autour du Monde, 4 volumes (Paris, 1797); also the newly published Le Voyage de Lapérouse, 1783-1788, edited by John Dunmore and Maurice de Brossard, 2 volumes (Paris: Imprimerie Nationale, 1985). For an English abridged version of the Pacific voyage see Voyages and adventures of La Pérouse, the 14th edition by F. Julius S. Gossner (University of Hawaii Press, 1969).

6 For the story of the discovery of the wreck site by Peter Dillon, an Irish sea captain and trader in the Pacific islands, see J. W. Davidson, Peter Dillon of Vanikoro, Chevalier of the South Seas, Melbourne (Oxford: Oxford University Press, 1975); also Dillon’s own account, South Seas ... to Ascertain the Actual Fate of La Pérouse’s Expedition, 2 volumes (London: Hurst Chace).

7 Robin Inglis, The Lost Voyage of Lapérouse (Vancouver: Vancouver Maritime Museum, 1986), p. 39; Inglis is director of the museum and preparatory of the exposition referred to in note 3 supra; the referenced publication (Vancouver Museums and Planetarium Association) was produced as the companion booklet to the original presentation of the exposition at the Vancouver Maritime Museum in the summer of 1986.

8 Gardner, op. cit., note 1 supra.

9 Ibid.; referring to the upper Missouri region, Dr. Gardner states that “French traders are recorded in the area at least as early as 1738 and Jean La Perose (sic) explored the area in the 1780’s.” (Emphasis added.) The emphasized wording must be out of context or is at least subject to erroneous interpretation. Lapérouse did not explore the “Upper Missouri” region. On the North American continent he did overwhelm the British inan engagement at Fort Prince of Wales and Fort York in Hudson Bay near Mount Fairweather in Alaska in June 1786. He also improved on Cook’s charts of the Coast of British Columbia as he sailed south from Lituya Bay to Monterey, California, during the same summer, but did not touch anywhere on the North American coast between those points, being hampered by fog and currents.


"mosquitoes very troublesome"

By Jim Merritt
Former WPO editor

Published in the May/August 1993 WPO, “The Blood Meal,” Bob Hunt’s article about the Lewis and Clark Expedition’s battle with mosquitoes, covers every conceivable aspect of the subject. As Bob pointed out, mosquitoes plagued the explorers for much of their 28 months on the trail, and the phrase “mosquitoes very troublesome” in myriad permutations fills their journals—Clark alone managed to spell “mosquito” at least 19 different ways without once getting it right. They combated the swarms as best they could with smoke, “biers” (netting) and the dubiously effective “voyageurs’ grease.”

THE BLOOD MEAL

Mosquitoes and agues on the Lewis & Clark Expedition

By Robert R. Hunt

PART I

To really appreciate the rigors endured by Lewis and Clark, it is not necessary to read through their journals, nor re-enact scenes of their journey, nor visit one of their campsites. You have only to spot yourself somewhere along the trail, preferably in July or August, take off your shirt and hat, expose the bare skin of your arms and back, and wait. In a few seconds, you will be struck; you will have offered blood, blood given in the same way as that of the Corps of Discovery in 1804/6.

The messengers mediating this blood sacrifice are mosquitoes of the species *Aedes vexans.* It is the females of the species that do the honors. They require a special supplement of protein in order to mature their eggs; this they “derive from a blood meal.” The blood protein for the swarms of these insects that helped perpetuate them on the Missouri and Columbia river systems almost 200 years ago was furnished in part by the men of the Lewis and Clark Expedition. The mosquitoes, which suck your blood in the same areas today, are in direct line from those who gorged on those men—making you thus a blood cousin of the expedition. If you stand around long
enough you can really begin to identify with them. You will suffer the same massive welts that plagued the party on most of their days in transit across the continent.

Trouble on the March

These mosquitoes are not to be taken lightly or considered as a mere nuisance by any follower of the expedition. They affected the journey profoundly in many ways—the health and morale of the party, the daily schedule of travel, the choice of campsites, delays and foul-ups in rendezvous, to name but a few. As threats to the orderly progress of march, they were perhaps as formidable as hostile Indians, grizzlies and uncertainty of food sources. The corps was at least able to cope with these latter challenges, but never satisfactorily with the constant torture of “our old companions,” as Lewis called these creatures. They are foremost in his “trio of pests” that “invade and obstruct us on all occasions” ... “the Musquetoes eye knats and prickley pears, equal to any three curses that ever poor Egypt laboured under, except the Mahometant yoke.”

Hardly a week passes when the party is on the move that the captains do not mention these blood suckers in their journals. During the months of July and August there are almost daily complaints. Words are not equal to their torments: In spring and early summer, the mosquitoes are described as “bad,” then “very bad” or “troublesome;” farther on, the pests become “extremely troublesome,” “uncommonly troublesome,” “excessively troublesome,” “exceedingly numerous and troublesome.”

Clark is beside himself in the summer of 1804. On August 3, he writes they are “more numerous than I ever saw them.” Four days later, on the 7th, they are “more troublesome than I ever saw them;” on the 9th, “worse than I have seen them,” and more than a month later, on September 13th, they are “worse than I have seen them.” Clark has run out of superlatives. The reader feels the worst was still to come. And indeed it was, in 1805 in the Great Falls area. But the absolute worst must have been the summer of 1806 on the return journey. The swarms then were “very troublesome indeed much worse than they were last year:”

July 2, 1806: “... so troublesome day and night since our arrival in this valley that we are tormented very much by them and can't write except under our Bears [i.e., biers].”

July 3, 1806, near the main ridge of the Rockies: “... so excessively troublesome this evening.” The insects torture the horses “in such manner... that I really thought they would become frantic.”

It is here that the corps divides into two separate parties, Lewis leading one along the upper reaches of the Missouri, while Clark heads the other party southerly for the Yellowstone contemplating later rendezvous with Lewis at the junction with the Missouri. Neither party escapes the “plague:”

With Lewis:

July 13, 1806: “without the protection of my musquetoe bier I should have found it impossible to wright a moment.”

July 15, 1806: As part of the “certain fatality attached to the neighbourhood” [i.e., of the Great Falls] the pests “continue to infest us in such manner that we can scarcely exist; ... my dog even howls with the torture he experiences from them, they are almost insupportable, they are so numerous that we frequently get them in our throats as we breathe.”

August 8, 1806: Since leaving the west side of the Rocky Mountains the men “have not had leisure ... to dress any skins or make themselves cloaths and most of them are therefore extremely bare. ...” No wonder they “found the Musquetoes extremely troublesome ...” Lewis halts the party for repairs and to permit his men to “dress skins and make themselves the necessary clothings,” observing in the same breath that the mosquitoes will permit “but little choise of camps from hence down to St. Louis.” At least with some clothing, the men will not be completely “bare” bait for the blood meal.

With Clark:

Meanwhile along the Yellowstone, Clark’s party fares no better. His men are bare also, “having no tent & no covering but a buffalo skin.” (July 17, 1806) [Question: What happened to the tents?]

August 3, 1806: “last night the Musquetors was so troublesome that no one of the party Slept half the night. for my part I did not Sleep one hour. those tormenting insects found their way into My beare and tormented me the whole night. they are not less noumerous troublesome this morning.”

Here Clark’s men unload their canoes only to find everything wet and spoiled, including “Several Skins ... which is a loss, as they are our principal dependence for Clothes to last us to our homes &c.”

August 4, 1806: Near the mouth of the Yellowstone: The party is in as great agony as Lewis’s. Clark is driven by the mosquitoes to abandon the site chosen for the rendezvous with Lewis’s party. Lewis had said on the upper Missouri that he could “scarcely exist” while Clark here exclaims that the pests are “almost [un]indureable.” His entry this date journalizes a near breaking point:
"Musquetors excessively troublesom So much So that the men complained that they could not work at their Skins for those troublesome insects. and I find it entirely impossible to hunt in the bottoms, those insects being So numerous and tormenting as to render it impossible for a man to continue in the timbered lands and our best retreat from those insects is on the Sand bars in the river ... the evenings nights and mornings they are almost [un] indureable. ... The torments of those Missquetors and the want of a Sufficiency of Buffalow meat to dry ... induce me to determine to proceed on to a more eliagible Spot on the Missouri below at which place the Musquetors will be less troublesom ... wrote a note to Capt Lewis informing him of my intentions and tied it to a pole which I had stuck up in the point. ... proceeded on down to the 2d point ... on this point the Musquetors were So abundant that we were tormented much worst than at the point. The Child of Shabono has been So much bitten by the Musquetor that his face is much puffed up & Swelled."

No blood creature is safe from the devils—not Sacagawea’s child, not the bareskinned men, nor their horses, not Lewis’s dog, Seaman, howling in pain—not even game animals that the corps depends on for its food. Of 11 deer killed on August 6, Clark observes that “only 2 ... were fat owing as I suppose to the Musquetors which are So numerous and troublesom to them that they Cannot feed except under the torment of millions of those Musquetors.” Nevertheless some game animals did escape from the hunters, courtesy of the mosquitoes. Clark, for example, lost his chance to take a bighorn ram specimen on August 5: “the Misquerors was So numerous that I could not keep them off my gun long enough to take Sight and by their means missed.”

The relentless attack continues downriver as the party grows “extreemly anxious ... to get to their country and friends.” The men abide in their campsites no longer than absolutely necessary, almost every stop being a den of misery. They set out at dawn and keep moving as much as possible. It is not until September 11, 1806, only a few days from home that Clark can report (at Nodaway Island in present-day northwest Missouri) that “the [mosquitoes?] are no longer troublesome on the river, from what cause they are numerous above and not So on this part of the river I cannot account.” Could he have known that the “mosquito months” were coming to a close just as the voyage was ending?

Etymology of the Entomology

The above entry may have been the last use of one of the most recurring adjectives in the journals—“troublesome.” Repeated use of this word puts the journalists curiously in tune with the scientific community at the time—for we learn that the generic name, Aedes, applied to the Lewis and Clark mosquitoes (when the genus designation was first established) is a Greek word meaning “troublesome.”

The common word “mosquito” by itself carries its own share of “trouble” too, at least for Captain Clark’s spellings. According to the Oxford English Dictionary, the word appears in many accounts of travelers in the New World, dating back to the late sixteenth century, and is probably of Spanish or Portuguese origin. The earliest variant was “musketa” which, as reported by Alexander von Humboldt, meant “little fly.” The French version of the word became “moustique,” an example of metathesis, i.e., where letters or syllables get transposed in usage (as in “butterfly” for “flutterby”). Thus:

Spanish: musketa = mus e ta
French: moustique = mous ti que

All of which illustrates how troublesome on all levels these pests proved to be, even linguistically. The confusion was compounded orthographically in the journals. Clark is at wit’s end when he tries to spell the word. There are at least 19 variations, which he creates during the journey. Here is testimony to the confusion that bugged him:

<table>
<thead>
<tr>
<th>Clark’s Spelling</th>
<th>Number of Occurrences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Misqitors</td>
<td>1</td>
</tr>
<tr>
<td>Misquetors</td>
<td>3</td>
</tr>
<tr>
<td>Misqueror</td>
<td>2</td>
</tr>
<tr>
<td>Misquitoes</td>
<td>1</td>
</tr>
<tr>
<td>Misqitors</td>
<td>6</td>
</tr>
<tr>
<td>Misquitos</td>
<td>3</td>
</tr>
<tr>
<td>Misquites</td>
<td>1</td>
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<td>Mosquitoes</td>
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</tr>
<tr>
<td>Mosquitoes</td>
<td>1</td>
</tr>
<tr>
<td>Mosquitos</td>
<td>17</td>
</tr>
<tr>
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<td>1</td>
</tr>
<tr>
<td>Musquetes</td>
<td>1</td>
</tr>
<tr>
<td>Musquitos</td>
<td>2</td>
</tr>
<tr>
<td>Musquites</td>
<td>11</td>
</tr>
<tr>
<td>Musquitos</td>
<td>7</td>
</tr>
</tbody>
</table>

Lewis is nowhere near as inventive. He spells the word consistently as “musquetoe” at least 25 times, a rendering that Clark seems never to have achieved.

Literary Warnings

Lewis’s spelling, and mosquito consciousness in general, may have benefited from the “homework” reading and
Anopheles quadrimaculatus (female) lives in eastern and central United States.

Lewis's phrase about the "plagues of Egypt," quoted earlier, sounds like an echo (or perhaps a direct borrowing) from a passage of Byrd's on the insect pests: "These little vixens confine themselves chiefly to the woods, and are in most moist places ... this insect ... bites very smartly, darting its little proboscis into the skin the instant it lights upon it ... it is no wonder they were formerly employed for one of the plagues of Egypt."

**Lewis's MOSQUITO LOGISTICS**

Thus, from his days in the mosquito-infested Ohio Valley, and from his time as a member of President Jefferson's household (with its range of travel literature in the famed library), Lewis would have been well-conditioned to the traveler's need for bug protection. His concern is evident in Philadelphia in the summer of 1803 preparing for the expedition when he drew up a *List of Requirements.*

This list and the related purchase bills include references to such basic material as tents, shelters and, specifically, "muscatoe curtains." In addition, he purchased "8 ps. Cat gut for Mosquito Curt." Later, when completing supply arrangements in St. Louis, Lewis writes to Clark at Camp Dubois under date of May 6, 1804:

"I send you by Colter and Reed 200 lbs of tallow which you will be so good as to have melted with..."
50 lbs of hog’s lard, cooled in small vessels and put into some of those small Kegs which were intended for whiskey. Not a keg can be obtained in St. Louis ..."  

GREASE  

This tallow was the initial provision of “voyagers grease” for the journey—at least that is the index heading for the above reference to tallow in Donald Jackson’s Letters of the Lewis and Clark Expedition. Presumptively the tallow (i.e. “voyagers grease”) was in demand by frontier travelers for protection against insects. A month later, on June 12, after the party had left Camp Dubois, voyaging upstream, they met Pierre Dorion, Sr. (near the Grand River in present-day Missouri) escorting a shipment of furs and “voyagers grease” from the Sioux country to St. Louis. Clark records that they purchased from Dorion an additional “300 lb of Voyagers Greec @ 55 [pr?] Hd.” Editor Gary Moulton notes about this item that “Perhaps this was a base material for making pemmican.” Was the grease, now 500 pounds of it, intended mainly for food and cooking purposes, or for skin protection? Perhaps both. Under an entry farther up the Missouri, where “the mosquieter very bad,” Clark describes the men “Drying meat & greasing themselves ...” presumably because of mosquitoes. But tallow had other varied uses as well. Lewis consumed several hundred pounds of it (with charcoal) as substitute tar for his ill-fated iron boat at the Great Falls; there are also journal references to the use of it for candles, for cooking and for food. But the more common frontier expectation for tallow as “voyagers grease” seems to have been for insect protection. Editor Ernest Osgood notes that when “plastered on the exposed parts of the body [it] was some protection ..."  

DR. BENJAMIN RUSH AND AGUE  

Back to Philadelphia: When Lewis was not busy with outfitting arrangements prior to his journey, most of his time was spent with the scientists and doctors at the University of Pennsylvania. As President Jefferson had planned, Lewis consulted there with the leading scholars of the day in astronomy, natural history, medicine and other disciplines. Focusing here, for the purpose of this discussion on the particular subject of mosquitoes, it is of special interest to consider Lewis’s sessions in Philadelphia with Dr. Benjamin Rush. The main product of those sessions was Rush’s rules for “preserving his [Lewis’s] health.” These rules principally had to do with “preventatives of disease”—nothing specifically about mundane afflictions such as insect bites. Beyond Rush’s rules, however, Lewis’s purchases of medical supplies in Philadelphia must have been prompted by Rush’s advice. Dr. Eldon Chuinard has provided the authoritative analysis of Lewis’s “armamentarium” of medical treatment as related to Rush’s. Chuinard points out that of Lewis’s total expenses for medical supplies “one third ... was spent for fifteen pounds of Peruvian bark, indicating that the Captains anticipated that ‘fevers’ would be the main health concern of the Expedition.” In the hindsight of history this proportionate expense is curiously prophetic, and coincidentally related to the mosquito aspects of the expedition, for, as Dr. Chuinard observes, “Powders and concoctions of Peruvian bark were used in the treatment of all sorts of fevers, most of which were ague, or malaria.” To the modern world, since 1900, “malaria” is synonymous with “mosquito.” Lewis’s use of this bark with its quinine properties thus anticipated the later standard treatment for mosquito-induced malaria, and indeed, may even then have been used (though unknowingly) for illnesses on the expedition that were actually malarial.  

Both Rush and Lewis had had their own personal encounters with ague: Rush because of his near martyr role in fighting the epidemics in Philadelphia in the 1790s, and Lewis because he himself appears to have carried the disease from at least several years before the expedition until his death in 1809. Lewis would thus have paid special attention to a passage from Dr. Rush’s treatise on “Medicine Among the Indians of North America,” written in 1774:  

The intermittingfever[i.e., ague, malaria]is common in almost every corner of the globe; but a sovereign remedy for it has been discovered only in South America. The combination of bitter and astrigent substances, which serve as a succedaneum to the Peruvian bark, is as much a preparation of art as calomel or tarter emetic.  

Lewis in Philadelphia had purchased not only this bark, but also calomel and tarter, probably inspired directly by Rush’s discussions and “armamentarium” as referenced above. In those “corners of the globe” frequented by Meriwether Lewis from 1803 through 1806, the “intermitting fever” was omnipresent, as also were the mosquitoes. All the major personalities involved in the expedition—President Jefferson himself, both captains, probably most members of the party, and indeed, many people encountered on the western frontier—were afflicted with
The Lewis and Clark journals provide a vivid documentary chapter in the ongoing drama of "Man versus Mosquito"—a history that has been reviewed in detail by Gordon A. Harrison. His capsule summary, quoted herewith, sets the stage for a view of the curious way in which the expedition is a part of the overall story:

Malaria, described by Hippocrates in the fourth century B.C., is almost certainly one of the most ancient diseases of man. Indeed it is reasonable to suppose that it is older than we, that our primate ancestors were recognizably malarious before they were recognizably human, that the parasite which causes the fever and the mosquito which transfers it from one person to another have accompanied us throughout the Darwinian descent. But it is less than a hundred years since the causes first became known and only since the beginning of this century that people have begun systematically to attack it and its insect propagators.

Though the causes of the disease were not firmly established until Walter Reed's work, culminating in 1900, the mosquito theory for the disease was pronounced as early as 1807. At the very same time Meriwether Lewis was in Philadelphia in the summer of 1803, consulting with Dr. Benjamin Rush and Dr. Caspar Wistar, the basic studies that led to the mosquito theory were in progress, perhaps directly under Lewis's nose.

**DR. RUSH'S QUESTIONS FOR LEWIS**

Recall that President Jefferson, under date of February 28, 1803, wrote to Dr. Rush advising him of Lewis's assigned mission and of Lewis's pending visit to Philadelphia. Jefferson asked Rush "to prepare some notes of such particulars as may occur in his [Lewis's] journey & which you think should draw his attention & enquiry." Rush compiled a list of more than twenty "Questions to Merryweather Lewis before he went up the Missouri"—all concerning the physical history and medicine of the Indians, and their morals and religion. Here are the questions at the head of this list.

*What are the acute diseases of the Indians? Is the bilious fever ever attended with a black vomit?*

These two questions are joined together in Rush's format as though parcels of a single question—suggesting that "the bilious fever" (yet another name for "ague," i.e., malaria), concomitant with black vomit, would be among the "acute diseases." Why this special prominence for "black vomit" as related to ague?

An answer may be inferred from a discussion by Sigismund Peller entitled "Walter Reed, C. Finley and their Predecessors Around 1800," a discussion that makes one aware of the reasons for Rush's interest in black vomit and his hopes for help from Lewis and Clark. Peller points to the central importance of experiments with black vomit conducted in 1802/3 by S. Ffirth, a medical student then under the tutelage of Wistar and Rush at the University of Pennsylvania. At that time, it was commonly thought that yellow fever epidemics resulted from "contagium," that these fevers were transmitted directly through contacts between people. Ffirth began his studies, and a series of experiments to test whether direct, intimate contact with yellow fever patients would produce ill effects, i.e., by contagion. Many of his experiments involved (1) inhaling vapors from black vomit taken from yellow fever patients, (2) injecting such vomit into the stomachs and veins of cats and dogs, and (3) injecting the vomit into Ffirth's own body. Both he and his animals failed to get sick. The results of Ffirth's studies and experiments were compiled and reported in his doctoral thesis and presented to Caspar Vistar on June 6, 1804; they were quoted by Rush in his own dissertation of 1805 on "autumnal disease" (yet another name for "ague") with "facts intended to prove the Yellow Fever not to be contagious." The importance of Ffirth's thesis is indicated by the fact that Carlos Finlay in 1881 relied on Ffirth's experiments to arrive at his own conclusions about the transmission of the fever by mosquito bites, work which was preparatory to the historic achievements of Walter Reed and associates in 1900 in solving the mystery of the disease.

As for the Lewis and Clark Expedition, the intriguing
feature of the Firth episode is that the studies, the
experiments and the preparation of Firth’s thesis were
all occurring at the same time, in the same place and in
intimate association with the same mentors shared with
Meriwether Lewis. One may speculate whether Lewis
met Firth during this period in company with Rush and
Wistar, and whether they might have shared notes about
their own respective experiences with “bilious fever.”
Rush’s questions, for example, as addressed to Lewis
about vomit, must have been influenced by association
with Wistar in overseeing Firth’s thesis—these questions
being dated June 1803, at the very same time when Firth
was injecting himself with vomit.

This network of personalities with their respective
concern reveals how closely Dr. Rush missed being
more directly associated with a major breakthrough
in medical history (and Lewis too, since he had been
charged with gathering evidence in response to questions
posed by Rush). For Rush himself at this time was near
the threshold of the mosquito-as-vector idea. Rush had
noted the abundance of mosquitoes during the fever
epidemics and had observed that “persons who lived
and worked in smoky houses escaped the disease.”
But envisioning mosquitoes rising out of stagnant gutters and
ponds, in lieu of “miasma” of “exhalations,” to spread
infection escaped Rush. It was left to Dr. J. Crawford in
neighboring Baltimore in 1807 (i.e., during the lifetimes
of both Rush and Lewis) to be the first to have “pronounced
mosquitoes to be the source of malaria, yellow fever and
other diseases.” If Rush earlier could have made that leap
in imagination, when Firth and Lewis were consulting
with him in 1803, what a multitude of additional questions
he could have added to Lewis’s list! Lewis would be
traveling through a veritable continental “laboratory,”
furnished with plenty of low moist places and stagnant
ponds to provide millions of eager mosquitoes, together
with more than 40 red-blooded people as potential fever
patients, not to mention thousands of natives who would
also be combating mosquito maladies. The observational
skills of Captains Lewis and Clark could then have been
called on to compile specific data on the incidence of
fevers as compared with mosquito attacks, as well as to
report upon the effectiveness of medicines and protective
measures.

LEWIS’S REPORTING RESPONSIBILITIES

But enough of another missed rendezvous in history. Lewis
would have plenty to do without adding further
documenting responsibilities that could have made his

party a Corps of Medical Discovery. His mission did,
nevertheless, demand attention to disease and insects.
The assignment from President Jefferson, dated June 20,
1803, instructed Lewis to make himself acquainted with
the diseases prevalent among the Indians and the remedies
they use. Further, among many “other objects worthy
of notice,” he was to record the “times of appearance
of particular birds, reptiles or insects . . .” Thus Rush’s
concerns became incorporated into Jefferson’s orders.

Faithful to this charge, the two captains recorded
observations about a whole host of insects besides
mosquitoes, including gnats, hornets, bees, flies, fleas,
ant, beetles, butterflies, crickets, katydids, melon bugs,
spiders, ticks and wasps. They collected and encased
insect specimens. Among the “sundry articles . . . sent to
the President of the U.S.,” shipped down river from Fort
Mandan in April 1805, was “1 Tin box, containing insects
mice &c.” Eventually these items were deposited with
the American Philosophical Society in Philadelphia—
evidenced by John Vaughn’s receipt for the society
recording “a few Insects” in the Donation Book from the
receiving list of items sent from Mandan. One must ask
whether mosquitoes were among those “few insects.”

But what about the duty to report upon the “bilious
fever” and whether it was ever “attended with a black
vomit?” The journals appear to be silent. Dr. Chui
ard conjectures that “the absence of recordings in the
journals about any malarial attacks was because they
were too commonplace to mention.” He is referring
to attacks among the members of the expedition, not
among the Indians, adding that the only reference to a
personal fever affliction was Lewis’s note about his own
bout with “a violent ague” in November 1803—he was
then voyaging down the Ohio on his way to St. Louis.

Neither apparently is there mention of fevers, nor of
“black vomit,” among the Indians.

Could ague among the natives, as with Lewis’s party,
also have been “too commonplace” to record? Chui
ard suggests that the expedition might have been the original
importer bringing the fever-causing parasite to the
mosquitoes of the new territory, until then unknown by
the whites. Could the infectious blood meal drawn by
these mosquitoes from Lewis’s malarious men have then
been transmitted to the natives?

INDIAN MOSQUITO LORE

Apart from the disease factor, native populations, of

course, had been fighting mosquitoes in wilderness areas
for untold generations and had developed their own
means of dealing with their torments. What measures could Lewis and Clark have learned from them, and from the literature about them? During earlier days as young Army officers in the Ohio Valley of the 1790s, the two captains would have become acquainted with antimosquito tactics of the Indians. They would also have known of native practices recorded in the literature of frontier explorers that provides background for our knowledge of native tactics. Probably the most prominent preventative was the use of oil and grease. Lewis’s mentor, Dr. Rush, writing in 1774, asserted that:

> the practice of anointing the body with oil is common to the savages of all countries; in warm climates it is said to promote longevity, by checking excessive perspiration. The Indians generally use bear’s grease mixed with a clay, which bears the greatest resemblance to the colour of their skins. This pigment serves to lessen the sensibility of the extremities of the nerves ... 

Rush acknowledged that his assertions were based on the reports of Pierre de Charlevoix, about the Hurons of the Great Lakes in the 1720s. This Jesuit missionary observed that these Indians “painted” themselves with grease not only ornamental but also “to defend them from the cold and wet ... — saving them from the persecution of gnats.” Whether the climate was warm or cold, oil was the preferred treatment. William Dampier’s famous account of his voyages around the world in the 1690s relates that besmearing the naked body was common in Africa, especially with the “Hodmadods or Hottentots” of the Cape of Good Hope; also in the East Indies, the Philippines and in the “North Seas.” Palm oil and coconut oil were used, as well as “a Pigment made with Leaves, Roots or Herbs,” a mixture that smells “unsavoury enough to People not accustomed to them; though not so rank as those who use Oil or Grease.”

Robert Beverley’s narrative of early days on the Virginia frontier would have been an indispensable further reference. Thomas Jefferson had studied Beverley; Lewis, when in Jefferson’s household, would have reviewed this work. Beverley describes use of a “Sweating House” by the Virginia Indians when they were “troubld with Agues, Aches or Pains in their Limbs”; his description is almost an exact blueprint for the sweat lodges set up by Lewis and Clark when they were with the Nez Perce in May and June, 1806, then working a cure for an old chief who had “lost the power of his limbs.”

Beverley also reported that the Virginia Indians pulverized roots “which they call Puccon and ... a sort of wild angelica”; this was mixed with “Beans Oyl,” providing an “Oyntment” that kept “all lice, Fleas, and other troublesome Vermine from coming near them ...” While oil or grease was the most commonly mentioned protection from insect bites, other remedies and repellents were also noted by travelers and explorers. These include:

- plants of the mint family
- pennyroyal leaves
- tobacco leaves
- Virginia pepper grass
- beech tree bark
- gum of the sweet gum tree
- black walnut leaves
- sweet fern
- dittany
- tansy and other “strewing herbs”
- catnip

Considering Lewis’s interest in herbs and herbal remedies (apparent throughout the journals), an interest derived from his mother and his boyhood days in the Virginia countryside, the above list would have been already ingrained in his “armamentarium.” With his background of experience and study, one can assume that Lewis had duly considered and was quite familiar with the manner in which native populations had dealt with the mosquito problem.

**THE CORPS’ BATTLE TACTICS**

Were the native lore and frontier literature actually helpful to the expedition? In those “moments of truth” when the men had to pass through those mosquito storm clouds, what actually happened? How did the corps react? Here, we know far more about the problem than about the answer. As noted at the outset of this essay, the journals are filled with “troublesome” days, but there are relatively few mentions of what was done to soften the attack. The principal defenses are initially revealed early in the voyage, during the week of June 18, 1804, less than a month after departure from Camp Dubois:

- **GREASE:** June 18, 1804. Clark describes the men as “greasing themselves” with tallow. Whether they continued applying grease during the journey is not clear. There are numerous references (cited infra) to garnering...
The yellow fever or dengue mosquito, *Aedes aegypti* (then called *Stegomyia fasciata*, today also *Stegomyia aegypti*). To the left, the male, in the middle and on the right, the female.

grease, but the above dated entry is apparently the only one declaring that the men smeared their bodies with it. Perhaps they came to regard the grease in the same light as Dampier did in 1691, i.e., "Kitchen stuff" that sent forth, as with the "Hottantots," a "strong Smell, which though sufficiently pleasing to themselves, is very unpleasant to others." The grease could have been more disagreeable than the molestation of the pests!

• Biers: June 19, 1804. Sergeant Ordway records that the men "Got Mosquetoes bears [biers] from Capt. Lewis to sleep in." These would have included the "Muscatoe Curtains" purchased in Philadelphia, plus "8 ps. Cat Gut for Mosquito Curt." also purchased there. Lewis wrote to Clark from St. Louis May 2, 1804, "I send you ... sixteen Musquitoe nets ..." But more than twice this number would have been required, assuming one net per man. Additional nets must have been fabricated or purchased after Philadelphia, for more than a year later (July 21, 1805) Lewis writes that "the men are all fortunately supplyed with musquetoe biers [NB: made of duck or gauze—like a trunk—to get under] otherwise it would be impossible for them to exist under the fatigues which they daily encounter without their natural rest which they could not obtain for those tormenting insects if divested of their biers." These biers were undoubtedly the main line of defense.

We have seen above that both captains were unable because of the mosquitoes to write enroute except under their biers. On the way home (July 15, 1806) Lewis laments, "I am confined by them to my bier at least 3/4ths of my time." But by this stage of the journey were the two captains the only people who still had biers? Clark reports at the Yellowstone on August 4, 1806, that the men with him "have no Bears [biers] ... and nothing to Screen them but their blankets which are worn and have many holes." Yet Clark still has his own bier the following month. What happened to the biers of the men? Perhaps worn out, thrown away or traded to the Indians back west for food or other needs?

• Fire and smoke: June 23, 1804. Clark had to
spend the night out, away from the main party, which was unable to proceed on because of the wind; stranded by himself, unprepared for this predicament, he made "fires to keep off the musquito & knats." Fire had become traditional for this purpose. Alexander Henry in the 1760s navigating in the Great Lakes areas wrote that "as a respite from mosquito vexations . . . we were obliged to make fires and stand in the smoke." With Clark's party the horses stood in the smoke. On July 3, 1806, after having been conducted eastward "through those tremendous mountains," Clark records that "we were obliged to kindle large fires for our horses ... these insects torture them in such manner until they placed themselves in the smoke of the fires ..." Farther east where the country was devoid of timber, Sergeant Ordway on July 21st records, "the musquitoes and small flies very troublesome we made fires of buffalo dry dung to make smoaks &c."44

- WIND: Other than grease, netting and fire, the party had no recourse but to bear the torture—and pray for wind or breezes to blow the creatures away, and for dark of night "when it became cool and they disappeared" (sometimes!).

- CAMPSITES: Lewis had said previously that the mosquitoes would permit "but little choice of campsites ... down to St. Louis." But the captains did try to exercise as much choice as possible. They searched intently for campsites open to breezes. Journal entries reflect how some of their sites were chosen (all entries by Clark):

August 4, 1806: "Our best retreat from those insects is on the sand bars in the river and even those situations are only clear of them when the wind should happen to blow..."

August 23, 1806: Camped on a "Small sand bar under a bluff on the S.W. side ... Chose to avoid the Musquitoes ..."

August 28, 1806: Chose "a high bottomed thinly timbered and covered with low grass without musquitoes."

August 30, 1806: Campsite was "bleak, exposed to the winds," chosen "to prevent being disturbed by these sciuox ... as well as to avoid the Musquitoes—.

This bleak campsite is in appropriate contrast to the final comment in the journals about "our old companions." On September 15, 1806, Clark records that he and Captain Lewis landed about a mile below the junction of the Kansas and Missouri rivers and ascended a hill (the site of present-day Kansas City, Missouri). Here they had a "commanding situation for a fort," with a "perfect command of the river." A few hours later downstream, in the same sense of command, Clark observes "we are not tormented by the musquitoes in this lower portion of the river, as we were above the river plat and as high up as the Rochejholle ... and above its' entrance into the Missouri." With this air of relief and mastery over the river, and its accompanying plagues, the curtain comes down, figuratively and mosquito-wise, on the "corps of discovery versus Aedes vexans"—an intriguing interlude in the age-old drama of war against this insect.

The war continues without relief to this day, two hundred years after Benjamin Rush, Meriwether Lewis, et al., were fighting the same enemy, an enemy not yet then identified as the murderous villains they really were, and are. "There's no part of the U.S. that isn't threatened by them at one time or another from the deserts to the high mountains to the marsh," says Jimmy Olsen, professor of entomology at Texas A&M University. "They're an extremely adapted group."45 To meet the threat, Dade County, Florida, for example, has taken a page from Lewis and Clark and maintains an official "Mosquito Annoyance Complaint Log." On one day, June 4, 1990, there were 1,871 calls filling 53 pages of the log. Did the Corps of Discovery match that?

For all those complainants in Dade County and elsewhere, and for the ghosts of the Lewis and Clark Expedition who may still be searching for cool breezes along the Missouri, the words of "the most interesting Virginian of his time," Colonel William Byrd (1674-1744), may deserve attention:

... in what part of the woods soever anything mischievous or troublesome is found, kind Providence is sure to provide a remedy. And it is probably one great reason why God was pleased to Create there, and many other vexatious animals, that men should exercise their wits and industry to guard themselves against them.46

Editor's Note: The images that accompanied the original printing of this article were not identified and therefore, could not be located. Minor changes to the text have been made to comply with current publication style guidelines. Major style differences were not corrected. All journal references in this version have been taken from Moulton (unless otherwise indicated).

Notes
1 Gary E. Moulton, ed., The Journals of the Lewis & Clark Expedition, 13 volumes (Lincoln: University of Nebraska Press, August 2010 We proceeded on — 25
1983-2001), Vol. 2, p. 305 n. All quotations or references in the ensuing text are from Moulton, by date, unless otherwise indicated.


3 Milo Quaife, ed., The Journals of Captain Meriwether Lewis and Sergeant John Ordway (Madison, Wisconsin: Western Historical Collections, State Historical Society of Wisconsin), MCMLXV, cf. Editor’s note for Ordway’s Journal entry of July 19, 1806, p. 380 n.1; Quaife states that “the ferocity of the mosquitoes was almost as great as that of the grizzlies.”

4 Thwaites, Vol. 2, p. 305 n. According to Thwaites, early forms of the English word “bier” were “baera, bere, bare, bear,” perhaps derived from the word “baire,” used by the French Jesuit missionary Poisson in 1727 to describe his defense against the torments of the mosquitoes on the lower Mississippi, i.e., “a large canvas, the ends of which we carefully fold beneath the mattress; in these tombs stifling with heat, we are compelled to sleep.” Thwaites notes that by the time of Lewis and Clark, the canvas was replaced by gauze or net.

5 Clark was not alone in this era in finding the mosquitoes a “heavy counterpoise” to hunting. Cf. Milo Quaife, ed., Alexander Henry’s Travels and Adventures in the years 1767-1776 (Chicago: The Lakeside Press, R.R. Donnelly & Sons Company 1921), p. 238. While traveling in the Lake Winnipeg region in the summer of 1775, Henry reported that “the mosquitoes were here in such clouds as to prevent us from taking aim at the ducks, of which we might else have shot many.”


8 The author does not claim this survey to be an exhaustive, auditable count of every variation in Clark’s journals. It is merely an informal count of references noted in Moulton.

9 Travels Through the Interior Parts of North America in the years 1766, 1767 and 1768 by J. Carver, Esq., Captain of a Company of Provisional Troops During the late War with France (1781) (Minneapolis: Ross & Haines Inc., 1956, third edition), p. 106.


12 Ibid., Vol. 1, p. 95.


16 Jackson, Vol. 1, pp. 54-55.


19 Chuinard, p. 176. See also Dr. Chuinard’s articles beginning in We Proceeded On, Vol. 17, No. 3 (August 1991), et. seq., “How Did Meriwether Lewis Die? It Was Murder,” in which the case is made that Lewis’s ague, rather than alcohol, may have contributed to the tragedy of his death on the Natchez Trace in 1809.


21 Chuinard, cf. numerous references to the omnipresence of ague on the frontier. For reference to Jefferson’s “autumnal fever” see p. 401; also Jackson, Vol. 1, pp. 319 and 324.


24 Ibid., Vol. 1, pp. 50-51.

25 Bulletin of the History of Medicine, Vol. 33, No. 3 (May-June 1959), pp. 195-211. Peller’s discussion (a useful supplement to Dr. Chuinard’s references to ague in the Lewis and Clark era) provides the salient details for the assertions made herein re: development of the mosquito theory.

26 Ibid., p. 204. Peller states that “there are very few pages in the history of medicine which bespeak a heroism comparable with that of Firth.”

27 Peller notes: “It was known that smoke protects men from mosquitoes” but to Rush and all the others, mosquitoes “were a nuisance only while the miasma was a disease causing reality.” Lewis and Clark will testify about smoke being a protection, as discussed later herein.

28 Ibid., Vol. 1, pp. 61-66.


30 Ibid., Vol. 3, p. 466.
33 Chuinard, p. 157.
34 Ibid., pp. 175-177.

Native American Insect Repellents, compiled by Michael Dotson, August 1991. The author is indebted to Michael Dotson, Crest Hill, Illinois, a director of the Lewis and Clark Trail Heritage Foundation, Inc., and expresses appreciation for his references and gracious help and suggestions in the preparation of this manuscript.

42 Jackson, Vol. 1, p. 177.
43 Thwaites, Vol. 5, p. 204.
44 See Note 7 Supra.
45 Quaife, Journals, p. 380.
47 Byrd, p. 206.

"Of Rivers and Oceans" footnotes continued from p. 15
49 Jackson, op. cit., Vol. 1, p. 65. See also p. 66 (especially Jackson’s note 6. As denoted therein).
50 Inglis, op. cit., p. 13.
52 Inglis, op. cit., pages 13-14.
53 Paul Russell Cutright, "Contributions of Philadelphia to Lewis and Clark History," We Proceeded On, Publication No. 6 (July 1982).
54 Jean Baptiste Barthelémy de Lesseps, Travels in Kamchatka During the Years 1787 and 1788. Baron de Lesseps was an uncle of Ferdinand de Lesseps, the engineer of Suez Canal fame.
55 Jackson, op. cit., Vol. 1, p. 65.
56 Lewis to Jefferson, Fort Mandan, April 7, 1805, Jackson, op. cit.; Vol. 1, pp. 231-242; numerous other references in Jackson as to security measures.
57 Gardner, op. cit.
58 The author of this paper is indebted to M. Camille Mons, Treasurer, l'Association Lapérouse, Albi, France, for transmitting the Albi newspaper report of the acquisition of this manuscript in 1983 by La Bibliotheque Rochegude; see also Inglis, op. cit., p. 14.

The ‘Odyssey’ of Lewis and Clark” footnotes continued from p. 36
Clark on January 18, 1807.
17 John Barton, "Tantalus and Myth-Power and Timelessness," from Barbara Mackay, ed., Introducing the World of Tantalus; Denver Center Theatre Company, Peter Hall’s Production of Tantalus; Denver (September-December 2000).
Lewis and Clark stories touch universal personal themes

BY ALBERT FURTWANGLER
Historian

The best Bob Hunt articles trace a common pattern. They focus on some small but crucial element of the expedition, explain why it mattered, and then review every mention of it in the surviving records. In his article about 56 narrow escapes or near disasters, Bob has an explicit paragraph about this way of proceeding: "In the journals ... any cumulative impression of these hair-raising situations is too easily blunted—submerged in day-to-day travel data, weather reports, natural history minutiae—all the 'scientific' aspects of the expedition. For a fresh perspective on the 'survivability' of the explorers, one must lift out, from the massive detail of the multi-volume journals, the records where life was at stake." (We Proceeded On, August 1999, p. 6) It was not only dramatic events that determined "survivability"; matters of daily practice and preparation weighed in the life-or-death balance. Bob worked to lift them up again, one by one, reassert their importance, describe them precisely in terms of Lewis and Clark's experience and their contemporaries' interests, and then follow their appearances in an exhaustive review of the expedition records.

When read in sequence, articles with this pattern leave a "cumulative impression" of their own—much like highlighting one color and then another in a panoramic mural. We all know the grand outline; these essays add vibrancy and freshness. Bob had the knack of making his interest contagious rather than pedantic. He wrote scrupulously but engagingly, in part because he had a literary reader's sense of language. Several of his essays open with well-chosen epigraphs—from Milton, Plato, Shakespeare and the Bible. Some add flourishes of allusion and wordplay, and savor particular expressions from quoted passages.

In some of his later work, he also tried out different approaches, by looking at narrower topics and frankly submitting more personal or speculative contributions. I believe the most telling is his essay on the expedition and Homer's Odyssey. It has the author's fingerprints all over it. It is playful. It is literary. It seems to turn his earlier pattern upside-down. Here he seems to know the Lewis and Clark record so intimately that he has set himself the task of combing through Homer for a change, and digging out the details from that record of adventures. The result is not the kind of basic research that would satisfy either a classicist or an American historian. In several lines, however, the author reveals he is searching for something beyond particular parallels.

"Reading further in Homer's text," he writes, "you will find scenes and events that stand out as strikingly parallel to situations in the Lewis and Clark journals. An overall impression emerges that both narratives evoke similar basic issues: trust, loyalty, faith, friendship, bravery, kindness—universal personal themes, never out of date." And here is the final sentence: "These parallels ... help us, as one scholar puts it, 'to experience the stories,' stories so good that 'every generation has wanted to preserve them for the next.'"

These lines are straightforward avowals: What matters about Lewis and Clark is that their stories touch universal personal themes worth imparting to coming generations. Bob spent countless hours over more than twenty years tracing those ideas and furthering those ideals.
THE "ODYSSEY" OF LEWIS & CLARK

A look at the Corps of Discovery through the lens of Homer

"Sing to me of the man, Muse, the man of twists and turns."

BY ROBERT R. HUNT
When Meriwether Lewis viewed “seens of visionary enchantment” on his westward journey, he was gazing at the White Cliffs of the Missouri River Breaks, in present-day Chouteau County, Montana. “The hills and Cliffs exhibit,” he wrote (May 31, 1805) “a most romantic appearance ... a thousand grotesque figures ... elegant ranges of lofty freestone buildings ... statuary ... collums of various sculptures ... long galleries ... with pedestals and capitals.”

His description of this and other “curious scenery” found in the journals would, in later years, stir adventurers back in the “U.States” to see these faraway places for themselves. Travelers, observers and writers for nearly 200 years have turned to the journals as a kind of travel guide. One such observer, Marius Bewley, writing in the 1970s about Lewis and Clark, comments that “apart from a very few writers like Bernard DeVoto, [the] essentially creative and imaginary character [of the expedition] has been missed, its essentially ‘heroic’ quality sacrificed.”

But in more recent years the “visionary” and “mythic” elements have come to be better appreciated. Historian Bob Moore has written that “the story of Jason and the Argonauts closely resembles that of Lewis and Clark.” “The journey of the Corps of Discovery, Moore writes, “parallels famous myths and hero tales, and I believe this is the root of its popularity.”

Another scholar, Albert Furtwangler, has noted “abiding epic strains” in the record — how the men of the corps, in crossing the continent, “conquered obstacles worthy of Odysseus.”

On a more prosaic level, Bill Gilbert, writing in Audubon magazine about the magpies, grouse and prairie dogs sent from Fort Mandan back to Thomas Jefferson via the expedition’s keelboat in the spring of 1805, titled his story “The Incredible Odyssey of the President’s Beasts.”

More graphically, Ingvar Eide, for his comprehensive photographic essay illustrating the Lewis and Clark Trail, titled his great work American Odyssey.

Thus it seems almost by rote that the expedition is associated with the word “Odyssey.” But this term and its adjective “odyssean” have settled into the language simply as references for “arduous lengthy travel.” So when Marius Bewley claims that “Lewis turned out to be a veritable Odysseus in the wilderness,” is he (and the others noted above) really comparing two personalities, i.e., Lewis and Odysseus (and by implication their respective voyages) in terms of deeds, character and literary interest? Or is he simply making a commonplace reference out of a generalized vocabulary? Can the Corps of Discovery actually be said to evoke Homer’s story — what one writer has called that “extraordinary journey 3000 years ago [which] has never been eclipsed”?

To test this idea, put the narratives alongside each other, and proceed on. Open The Odyssey and start reading page one:

This is the story of a man, one who was never at a loss. He had traveled far in the world, after the sack of Troy, the virgin fortress; he saw many cities of men and learnt their mind; he endured many troubles and hardships in the struggle to save his own life and to bring back his men safe to their homes.

Change only a phrase and a word or two above and you have a picture of Meriwether Lewis and the Corps of Discovery. Reading further in Homer’s text, you will find scenes and events that stand out as strikingly parallel to situations in the Lewis and Clark journals. An overall impression emerges that both narratives evoke similar basic issues: trust, loyalty, faith, friendship, bravery, kindness — universal personal themes, never out of date. But in drawing this analogy, let it be said at the outset (with all due respect for other members of the corps, particularly William Clark), that the focus here does not rest solely on Meriwether Lewis as a counterpart to Odysseus — each one of these two personalities with his own respective “twists and turns”: In The Odyssey, “heroic” scenes involve not only Odysseus but also Telemachus (his son), and others. Likewise in the Corps of Discovery, Clark and others stand out “heroically” as much in the action as Lewis. With that in mind, read further to see how Odysseus and company offer ancient parallels to experiences of the Lewis and Clark Expedition. (Note: In the comparisons below, edited excerpts from Homer’s story are referenced by book and approximate line number in any line-numbered Homeric text. References to the Lewis and Clark journals are by date.)

**PREPARATIONS**

Remember first that Thomas Jefferson, Lewis’s mentor, had known and respected William Lewis (Meriwether’s father) before William’s death; when appointing Meriwether as his secretary, Jefferson said that Lewis would be “one of my family.” His later instructions to Lewis for the expedition thus evoke a message which Mentor, a character in Homer’s text, spoke to the son of Odysseus:

> [T]he journey which you desire shall not be long delayed, when you have with you such an old friend of your father as I am; for I will provide a
swift ship ... [Y]ou must ... get provisions ready, and put them all up in vessels, wine in jars, and barley-meal, which is the marrow of men, in strong skins. (2:280)

Following instructions, Lewis went to Philadelphia in the summer of 1803 to gather provisions, then afterward to Pittsburgh to oversee the building of his keelboat. He supervised his contractor, just as Odysseus cared for building his boat—assuring that timbers were shaped:

neatly ... and made true to the line. ... Calypso brought him a boring tool, and he bored holes and fitted the spars together, making them fast with pegs and joints. He made his craft as wide a skillful shipwright would plan out the hull. ... He fixed ribs along the sides, and decking planks above, and finished off with copings along the ribs. He set a mast in her, and fitted a yard upon it, and he made also a steering-oar to keep her straight. ... Then Calypso brought him cloth to use for a sail, and he made that too. Stays and halyards and sheets he made fast in their places, and dragged her down to the shore on rollers. (5:245)

Meanwhile, before shoving the keelboat off from Pittsburgh (August 30, 1803), Lewis proceeded (as Athena did for Telemachus) to “go at once and collect volunteers among the people.” (2:290) Clark likewise, by the time Lewis joined him near Louisville, had also collected volunteers. With a crew now assembled, including the nine young men from Kentucky, the boat was ready to move on from Clarksville on October 26, 1803.13

The sun went down, and the streets were all darkened. Then Athena ran the boat down into the sea, and put in all the gear that ships carry for sailing and rowing; she moored her at the harbour point, and the crew assembled, fine young fellows all, and she set them each to work. (2:385)

WATER TRAVEL

On storm-tossed rivers—the Ohio, the Missouri and the Columbia—Lewis and Clark were figuratively in the same boat with Odysseus on the sea:

The gods were all sorry for him, except Poseidon, god of the sea, who bore a lasting grudge against him all the time until he returned. (1:20)

All the way up the Missouri, the river would persist (like the sea in Homer):

belching up terrific showers of spray which covered the cliffs in a mist; for there was no harbour for a ship, and no roadstead, nothing but bluffs and crags and headlands along that shore. (5:400)

The “grudge” of the sea god was like Lewis’s “evil genii” haunting the white pirogue: When Cruzatte was trying to save that vessel on May 14, 1805, in a “sudden squall of wind,” he resembled Odysseus in the same predicament:

[H]ow all the winds come sweeping upon me! Now my destruction’s a safe thing! ... a great wave rolled up towering above him, and drove his vessel round. He lost hold of the steering-oar, and fell out into the water: the mast snapt in the middle as the fearful tempest of warring winds fell upon it; sail and yard were thrown from the wreck. (5:313)

Farther on, the corps’s keelboat still had to deal with a Poseidon grudge. The boat was near destruction several times on the Missouri in storms almost as terrible as the one in which Odysseus lost his steersman:

[S]uddenly came the west wind screeching and blowing with a furious tempest, the gale broke both the forestays, the mast fell aft, and all the tackle tumbled into the hold, the mast hit the steerman’s head and crushed the skull to splinters, he took a header from his deck and was drowned. Zeus at the same time thundered and struck our ship with his bolt; she shivered in all her timbers at the blow, and the place was full of sulphur. The men were cast out, they were bobbing up and down on the waves like so many crows ... A rolling wave carried her along dismantled, and snapt off the mast close to the keel. I used [stout oxide] to lash together keel and mast, and I rode upon these drifting before those terrible winds ... But why go on with my story? I have told it already, and no one cares for a twice-told tale. (12:400-455)

Twice-told indeed! Clark, too, on several occasions had to replace his mast (e.g., June 4, 1804). His crew also had to cast into the water (e.g., June 9, 1804), and while not bobbing up and down like crows, they were a perfect team, saving the boat from capsizing.

MOURNING THE DEAD

Just as Odysseus suffered a loss and observed honors for
his dead, Lewis and Clark also mourned a loss—a key man, Sergeant Floyd. The melancholy scene for Floyd’s funeral and burial at present-day Sioux City, Iowa (August 20, 1804), is strangely reminiscent of Odysseus’s mourning one of his companions:

as soon as the next day dawned, I sent my companions to Circe’s house to bring the body of Elpenor. We cut chunks of wood for a pyre, and buried him on the end of the foreland, mourning for our dear dead friend. And when the body was burnt with his arms, we raised a barrow with a large stone upon it and set up his own oar on the summit. (12:8)

ON SHORE

Proceeding on, there were times when some of the party (Lewis, Clark, Shannon and others) were on shore alone, fighting weather, mosquitoes, and cold or hot nights (e.g., Lewis July 30, 1805)—just as Odysseus did:

So he entered a coppice which he found close to the river, with a clear space around it; there he crawled under a couple of low trees which were growing close together out of one root ... So thick and close they grew that no damp wind could blow through, nor could the sun send down his blazing rays, nor could rain penetrate. Odysseus crept into this thicket, and found there was plenty of room for a bed, so he scraped up the leaves with his bare hands ... Down he lay in the middle, and heaped the leaves over his body. (5:474)

Confronting the elements ashore was not as demanding as when Clark, farther up river, found himself staring down the hostile Teton Sioux on September 25, 1804—alone on shore, hundreds of warriors with drawn bows aimed at him, Clark was threatened (as was Mentor, the protector of Odysseus’s household, by hostile taunts):

[O]ne against many is done, a many’s too many for one, in fights for a supper. (2:242)

At last, beyond the Sioux, the expedition reached the Mandan villages on October 26, 1804, there to spend the winter waiting through cold and boredom. To pass the time, the captains (and others of the party) could be imagined as (Homer pictured men idling time):

[A]musing themselves with a game of draughts in front of the door, sitting on the skins of cattle which they had killed themselves. (1:105)

Temptations nonetheless lurked in those precincts, like those facing Odysseus when passing through the Strait of Messina and the threat of Scylla and Charybdis. Warned by Circe that irresistible songs of female Sirens could lure sailors to their deaths, Odysseus plugged up the ears of his men with wax to block out the singing, then had himself tied to the mast (12:153-183). The captains perhaps should have taken similar precautions at Fort Mandan. There the lures of young females caused the kind of mischief Odysseus feared while passing between Scylla and Charybdis. Sergeant Ordway, for one, should have had more stuffing in his ears; one siren song got him in deep trouble on November 22, 1804. Again with the Shoshones on the Continental Divide, those irresistible female strains echoed, and were even more liltting later at Fort Clatsop. By then the captains gave further heed to Circe’s warning when an “Old Baud” [bawd], as the captains described her, of the Chinooks stood in the wings on March 15, 1806, with six young sirens. Lewis admonished the men to take an oath of chastity—not exactly like plugging their ears, but apparently it caused enough tone-deafness, for awhile at least.

Back at the Mandan villages, the captains were like Telemachus’s visitor:

I have come here now with ship and crew, voyaging over the dark face of the sea to places where they speak other languages than ours. (1:182)

For help with “other languages than ours” farther west, the captains hired Charbonneau, with Sacagawea, as interpreter on March 17, 1805, and were ready to proceed on. Some of the Mandans wished the men would stay longer and were sorry to see them leave. Lewis or Clark could be imagined speaking (with poetic license) to one of the chiefs (as Telemachus spoke to Menelaus, wishing to delay a parting):

My Lord, do not keep me here long. It is true I could stay here a whole year with you, idle, and
The Mandans watched the corps ship out. Lewis, in his journal entry of April 7, 1805, thought of Columbus and exulted in his fleet. The captains had to pay attention to the surveying and navigation requirements of the voyage. Some sleepless nights they were star gazers (like Odysseus):

Calypso saw him off—No sleep fell on his eyes; but he watched the Pleiades and the late-settling Wagoner, and the Bear, or the Wagon, as some call it, which wheels round and round where it is, watching Orion, and alone of them all never takes a bath in the Ocean. Calypso had warned him to keep the Bear on his left hand as he sailed over the sea. (5:273)

The captains occasionally walked alone on shore, carrying an espontoon, a spearlike weapon that also served as a walking stick. On May 29, 1805, Clark killed a wolf with his. Odysseus, too, carried a spear while walking on shore—he spied:

a stag with towering antlers right on my path ... I struck him on the spine in the middle of the back, and the spear ran right through; down he fell in the dust with a moan, and died. I set my foot on him and drew out the spear from the wound. Then I laid the body on the ground, and pulled a quantity of twigs and withies, which I plaited across and twisted into a strong rope of a fathom’s length: with this rope I tied together the legs of the great creature, and strung him over my neck, and so carried him down to the ship, leaning upon my spear. (10:160)

Clark may not have carried his wolf quite in this manner, but it is certain that the hunters of the corps did indeed bring in their meat just as Odysseus did.

**Monsters**

The “spear” would prove a life-saver for Lewis on June 14, 1805, when he unexpectedly encountered an onrushing grizzly; fortunately, he was carrying his espontoon, which he pointed at the charging bruin, thereby averting an attack. Odysseus was not quite so lucky when he:

was close upon the hounds, with a long spear in his hand ... There in a dense thicket lay a great boar: no damp wind was strong enough to blow through that thick scrub. The boar was aroused by the trampling of the men and dogs; out he came from the bushes. His neck bristling and his eyes flashing fire—Odysseus in front of the rest ran at him, pointing the spear to deal him a blow; but the boar charged sideways and struck him first, above the knee. (19:437)

Lewis referred to the grizzlies as “these gentlemen.” In Homer’s story a comparable creature is called an “Old Man.” This is Proteus, a sea god constantly hostile to Odysseus’s kin and friends; he becomes a beast as elusive and terrifying as several of Lewis’s gentlemen near the Great Falls, particularly the one that treed Private McNeal on July 15, 1806. In animal disguise the “Old Man” gets in a brawl with Menelaus, who tries to catch him by trickery:

at once we rushed on him with yells, and seized him—the Old Man did not forget his arts! First he turned into a bearded lion, then into a serpent, then a leopard, then a great boar; he turned into running water, and a tall tree in full leaf, but we held fast patiently. (4:457)

This beast was as reluctant to give up as Clark’s huge grizzly, which took eight bullets through its head and lungs and still came on charging (May 14, 1805).

Harassed at the Great Falls, not only by bears but by the toil of portaging and the failure of the iron boat (June 21-July 14, 1805), the corps lost valuable time. On June 25, the men had even tried sailing a crudely fashioned wagon over harsh terrain for the portage. Lewis’s discouragement and impatience is an echo of Menelaus, stuck in Egypt:

there the gods kept me back for twenty days; never a good wind blew over the brine, none of those which speed a ship over the broad back of the sea. All our provisions would have been used up, and the spirit of the men gone, if a divine being had not pitied me and saved me ... I must have touched her heart, when she met me wandering alone without companions; for they used to go about fishing with hook and line, since famine tore at their bellies. (4:351-371)

Private Goodrich, the lead fisherman of the corps, was expert with hook and line and could help calm the bellies of his comrades (June 11, 1805).

Moving on to the Three Forks of the Missouri, Clark
on July 26, 1805, climbed the overlooking hill to see what he could see, just as Odysseus did at the Island of the Winds:

Then I climbed the cliff and stood still to get a good view. There was no arable land or garden to be seen, but we saw smoke rising in the air. So I sent some men to find out who the natives were, two picked men with a third as their spokesman. (9:90)

Proceeding on, Clark personally had no luck in turning up the much sought-after Shoshones. On August 1, 1805, Lewis relieved Clark in the search. He then did as Menelaus had done in a different kind of search:

when dawn showed the first streaks of red, I walked along the shore ... earnestly praying to the gods; and I took three comrades, men whom I trusted most for every enterprise. (4:431)

Finally, Lewis (with three trusted comrades, Drouillard, Shields and McNeal) found the Shoshones on the Continental Divide and met their chief, Cameahwait, near Lemhi Pass on August 13, 1805.

There they spent the night, and their host gave them gifts as a host ought to do. (15:185)

Shoshone hospitality lasted long enough to permit purchase of horses for overland travel through the tortuous Bitterroot Mountains. Near the summit of the Bitterroots, in the neighborhood of Lolo Pass on September 16, 1805, the corps passed in the shadow of what looked like the awesome creature in Homer's story—the Cyclops, or Polyphemous, the one-eyed monster eager to devour Odysseus's entire crew when they were trapped in his cave (9:216-461). This huge rock sentinel, remarkably resembling Homer's monster, was photographed by Ingvard Eide, who labels it "Granitic Rock," relating it to September 15, 1805—a terrible day in the life of the Corps of Discovery, a day when horses and men half-dazed, stumble, sick from fatigue, hunger and cold on the mountain side. A rock image of the Cyclops at this place on this date is weirdly evocative of such a grim day: starvation, sickness unto death—the party stayed alive only by eating a "killed colt" and ingesting roots. They were like the exhausted Odysseus supplicant before Alcinoös:

[T]here is nothing in the world more shameless than this cursed belly! [I]t forces a man to remember it, in spite of dire distress and sorrow of heart ...; yet the belly commands me to eat and drink, and makes me forget all that I have suffered, and bids me fill it up. Do your best, I pray you, early tomorrow, that an unhappy man may return to his own country after so much suffering. Let me once set eyes on my lands and my men and my great house, and then let me die. (7:214)

Somehow they managed not to die and moved on to make contact with the Nez Perce, with whom they were able to recover their wits at Canoe Camp, reached September 26, 1805. Their new friends were like Calypso, who said to Odysseus:

[Come along, cut down trees, hew them into shape, make a good broad raft; you can lay planks across it and it shall carry you over the misty sea! I will provide you bread, water, red wine, as much as
you like, you need not starve. I'll give you plenty of clothes and send a fair wind behind you to bring you home safe and sound. (5:160)

Strengthened by this interlude, the corps moved down the Clearwater River to the Snake, then to the Columbia, and at last to the ocean. As with Menelaus on his return from Egypt, Lewis and Clark noted on November 15, 1805, near the mouth of the Great River of the West:

a capital harbor, where voyagers take in fresh water before they push off again. (4:355)

**Homeward bound**

It was a long and depressing winter before the party could "push off again." At times the leaders felt a need for solitude. Like Telemachus who prayed by the hearth, William Clark at least once, on December 10, 1805:

went by himself by the seashore. There he washed his hands in the gray brine. (2:260)

Perhaps like Telemachus offered a prayer. (Clark did indeed later attribute ultimate success to the hand of Providence.)¹⁴ Recall then how Homer has Zeus instruct his messenger, Hermes:

Go and declare our unchangeable will, that Odysseus shall return after all his troubles. But no god shall go with him, and no mortal man. He shall build a raft, and a hard voyage he shall have, until after twenty days he shall come to land on Scheria, the rich domain of our own kinsmen ... They shall honour him like a god in the kindness of their hearts, and they shall escort him in one of their ships to his native land. (5:28)

It would take Lewis and Clark longer than 20 days to return to their old friends, the Nez Perce, who would give them respite and later an escort toward their native land.

While the men moved upriver seeking these friends, they were belabored by hostile natives, hunger and the turbulent Columbia. They were heartened when an eagle was seen with a salmon in its beak (a sign of the impending annual salmon run)—just as Telemachus had been heartened at least twice by good omens:

Zeus sent Telemachus a pair of eagles, flying from lofty mountain peaks. On they flew down the wind awhile ... soaring on wide-stretched sails. (2:146)

Later, when Telemachus was departing from Menelaus:

a good omen came; a bird flew over to the right, an eagle carrying in its claws a huge white goose which he had caught up from a farmyard, and there were the men and women following with shouts ... At that sight all felt a deep glow of satisfaction. (15:160)

To the corps the eagle omen proved good when, farther upriver, the men observed native celebrations of the return of the salmon on April 19, 1806. The day before, Clark had also observed and was intrigued by native hand games. Despite these diversions, all was not "fun and games." Lewis was enraged when, on April 11, 1806, Indians briefly stole his Newfoundland dog, Seaman, an act that showed a certain disrespect. Odysseus, too, had been galleyed by sneers of challengers:

You are all making fun of me. My mind is more set on troubles than on games. Suffering and sorrow is what I have had so far; I am here in your gathering only as a suppliant ... and all I want is to get home ... Broadsa said to him: Ah well, sir, I would not want to put you down as a fellow who goes in for games, though that is the way of the world, you know; skipper of a trading crew is what you look like ... thinking of cargo, keeping an eye on the goods and grabbing what profits you can ... Odysseus said with a frown: You have made me angry by your bad manners ... Now I am tired and worn out with perils in battle and perils of the sea ... You have cut me to the quick, and I cannot sit still any longer. (8:152-186)

These ugly episodes gave way to happier occasions when the corps reached the Walla Walla Indians on April 27, 1806, and after them, the Nez Perce (May 8, 1806). While spending more than a month with these helpful people, waiting for the snowbound mountain passes to open, the men gathered strength to resume travel. With a bit of leisure, there was time for sports matches with the Nez Perce—the first international Olympic games on the North American continent¹⁵—following Homer's model when Odysseus was with the Phaiacians:

Let us go and try our luck at games and sports, that our guest may report to his friends when he gets home how we beat the world at boxing and wrestling and jumping and running! ... All made haste to the ground, and a huge crowd followed ... Young champions were found in plenty: Topship and Quicksea and Paddler, Seaman [emphasis added] and Poopman ... The first contest was a foot-race. The running was fast from start to finish ... Next came wrestling ... At jumping Seagirt was first; ... Paddler was easily first at putting the weight, and in the boxing Laodamus ... A man ought to know about games. Game is the best way...
to fame while you’re still alive—what you can do with arms and legs. (8:98-146)

In the contests with the natives, Drouillard and Reuben Field held up U.S. honors in running. (June 8, 1806).

Although the journals don’t mention him as a participant, we can assume that Private John Colter also took part in these games with the Nez Perce. After the expedition, Colter returned to the mountains as a fur trapper. When captured by the Blackfeet at the Three Forks and ordered to run for his life, Colter killed one of his pursuers and outraced the rest. In this deadly sport he proved that “game is the best way to fame.” What he did with “arms and legs” kept him “still alive” and earned him a place in the record (or at least history) books forever.

From the Nez Perce on, over the mountains, down the rivers, the rest is history—200 years and 3,000 years ago. As they swept by St. Charles and arrived at St. Louis on September 23, 1806, the explorers who had been to the Pacific and back could echo what Odysseus said to Calypso: “I tell you there is no sweeter sight any man can see than his own country.” (9:32)

MORE MIRROR IMAGES

This story cannot be put to rest without noting the following additional parallels:

The names of the two principal “heroes” are subject to pun: Meriwether Lewis encountered anything but “merry weather”; a goddess says to our ancient voyager, “Poor Odysseus! You’re odd-I-see, true to your name.” (5:339; see translator Rouse’s note substantiating the pun in Homer’s Greek.)

Odysseus and crew, like Lewis and Clark (September 17, 1806), were all taken as long lost and dead by their families and countrymen. Telemachus mourning his father:

But he is dead and gone in this miserable way, and there is no comfort for us, even if there are people in the world who say he will come back. (1:158)

Both Lewis and Odysseus carried scars from wounds incurred on their voyages—Lewis, by gun shot, on his buttock (August 11, 1806) and Odysseus, by boar’s tusk, on his knee (19:450).

Lewis’s dog, Seaman, was as versatile and accomplished as Odysseus’s 20-year-old hound, Argos:

If his looks and powers were now what they were when the master went away and left him, thiat’d see his big strength and speed! Never a beast could escape him in the deep forest when he was on the track, for he was a prime tracker. (17:290-324)

Finally, if you think that Lewis’s fight with the Blackfeet at the Two Medicine River site was breathtaking (July 27, 1806), then turn to Homer and read for comparison “The Battle in the Hall” with Penelope’s suitors (22:1-500).

These parallels in the two narratives—the Corps of Discovery reflected in the mirror of The Odyssey—help us, as one scholar has put it, “to experience the stories,” stories so good that “every generation has wanted to preserve them for the next.”17

Notes

1 The first line of The Odyssey as translated by Robert Fagles (New York: Viking, 1996).
2 Gary E. Moulton, ed., The Journals of the Lewis & Clark Expedition, 13 volumes (Lincoln: University of Nebraska Press, 1983-2001), Vol. 4, pp. 225-226. All quotations or references to journal entries in the ensuing text are from Moulton, Vols. 2-11, by date unless otherwise indicated.
9 Homer, The Odyssey: The Story of Odysseus, as translated by W.H.D. Rouse (New York and Toronto: Mentor Books, 1937). All quotations from this translation are referenced by chapter (i.e., “book”) and approximate line number when compared with other translations (necessarily approximate, as line numbers vary in different translations—lines are not numbered in Rouse’s translation).
11 Ibid., Vol. 1, pp. 61-66.
13 Ibid., p. 85.
14 Jackson, Vol. 1, p. 359. The reference is to a letter written by

“The ‘Odyssey’ of Lewis and Clark” footnotes continued on p. 27
Lewis and Clark journals offer new insights if you read between the lines

Many of us can identify with explorer William Clark’s declaration on reaching the Pacific: “Ocean in view! O! the Joy!”

As historian David Nicandri points out in his new book, *River of Promise: Lewis and Clark on the Columbia*, the declaration of joy by Clark seems a bit forced, and the miseries felt at the expedition’s finish seem rather extreme. Nicandri, longtime director of the Washington State Historical Society, offers his careful and deep readings of Lewis and Clark’s journals and the diaries and notes kept by their men, in shaping an analysis that throws fresh light on an adventure and its heroes during its historic, though Nicandri believes, under-appreciated trip from the Continental Divide down the Columbia.

*River of Promise* attempts to redress the balance of Lewis and Clark scholarship, which has tended to focus on the Missouri River portion of their expedition, and to weigh in on scholarly controversies and take some of the shine off the hagiographic halo that still surrounds Lewis and Clark.

Nicandri believes Clark’s “O! the joy!” was written months after the fact and was not exactly the spontaneous eruption that it sounds. Indeed, the Lewis and Clark journals cannot be read as mere daily diaries written contemporaneously, but in fact were often revised, back-filled, left blank, and composed according to literary and expedition conventions. Throughout their works, Nicandri tracks the influence, and even passages that approach plagiarism, from the journal of Alexander McKenzie’s transcontinental journey to the Pacific in Canada. The “O! the joy!” moment might have been genuine, but it was also necessary to any Age of Enlightenment expedition narrative.

Nicandri raises the question of what Clark was seeing when he had his “eureka” moment. There is debate about whether the Pacific can actually be seen from the place where Clark recorded his shout-out, and this, in turn, leads to an interesting discussion about where an ocean begins and a river ends. What the debate underscores is how, in the moment, exploration is often unclear, confusing and mistakes are made. Clark may have seen the actual Pacific, or he might have been fooled by breakers on the river. “O! the Estuary!” doesn’t have quite the ring to it.

*River of Promise* is a book for readers who already have some familiarity with Lewis and Clark. Nicandri’s reading is at times nitpicky, at others speculative, but he brings a refreshing perspective and good advice: to read the expedition journals in context, to not take them at face value, to look at the details for fresh insights. He notes, for example, that on their return along the Columbia, Lewis grew increasingly frustrated by encounters with Indians who harassed his men, threw stones and behaved in an unfriendly manner. However, Nicandri notes that many of these instances followed Lewis’s venturing into Indian burial grounds and poking around, recording Native American funerary customs.

In the realm of Native American relations, Nicandri also offers an interesting chapter on Sacagawea, who, he says, has been both an icon of womanhood as a wise mother-guide that led her flock of adventurers to safety, and more recently as a kind of Native American Hillary Clinton, a smart feminist diplomat who smoothed the way with the tribes. Nicandri’s reading leads him to believe that other Indian guides, including two Nez Perce Indians named Twisted Hair and Tetoharsky, were perhaps more crucial to the expedition, and that Sacagawea’s value was as a sometime-interpreter and, quite simply, a presence. Along the Columbia, there was less to fear from a band of scruffy men traveling with a woman and baby.

The Lewis and Clark expedition was an important step geographically in America’s efforts to lay claim to the Pacific Northwest, but the political reverberations have continued, because it has become a lens through which historians, feminists, revisionists, Indians and others can re-examine its influence and import. The expedition attempted to map the continent, and filled in many blanks. *River of Promise* shows that the exploration of the exploration continues, with plenty of fascinating nooks and crannies left to examine, many of them in our own backyards.

—Knute Berger
Reprinted and adapted from Crosscut.com

August 2010 We Proceeded On — 37
Lewis and Clark community loses two dear friends

On May 14, 2010, the 206th anniversary of the Corps of Discovery's departure from Camp River DuBois, George Arnold passed away at age 93. George was a longtime president of the Lewis and Clark Society of America, an Illinois-based organization formed in the 1950s to promote Lewis and Clark history.

George Arnold was a World War II veteran and a retired professor from Southern Illinois University. He held degrees in physics and environmental science. When I first met George in the early 1990s, he was retired and spending most of his time promoting Lewis and Clark in Illinois. One of my first assignments as the new Lewis and Clark National Historic Trail coordinator for the National Park Service (NPS) was to work with the Lewis and Clark Society on its vision for a rebuilt Camp River DuBois and an interpretive center. Neither the NPS nor the State of Illinois had funds, or even much interest in such a vision, but we were yet to know George Arnold.

George simply would not take "no" for an answer. Every time the State or the NPS would say something couldn't be done, George would say, "Well, we'll just do it a different way." The society finally bought land near the confluence of the Mississippi and Missouri rivers. Eventually, almost single-handedly, George persuaded Congress to require the NPS to purchase that property. Over the years George held hundreds of meetings with members of Congress, the Illinois legislature, the Illinois Historic Preservation Office, the NPS, Corps of Engineers, city and county governments and many other organizations.

Through true force of will, George Arnold persuaded the State of Illinois to appropriate $3 million and the federal government another $4 million to build an interpretive center. A reconstructed Camp River DuBois came a few years later. By 2002, the interpretive center opened to the public. The Illinois Historic Preservation Office operates the facility and the Lewis and Clark Society operates the bookstore. By the beginning of the bicentennial in 2004, George was honored by Congress, the State of Illinois and many others as the father of the Wood River Interpretive Center.

Today, thousands of visitors and even more school children visit the site to learn about the Lewis and Clark Expedition. The Interpretive Center is a monument to George Arnold. George was a man dedicated to an idea who followed that dream until he succeeded. I say with great affection that he was a crusty old curmudgeon who fought bureaucracy, politics and negativity to produce a magnificent Lewis and Clark site for the education of the public. The Lewis and Clark community has lost a great ambassador with the passing of George Arnold. He will be missed.

—Richard N. Williams
LCTHF board member

Chuck Cook passed away in April

Former LCTHF board member Chuck Cook passed away on April 23, 2010. Chuck was born on Aug. 1, 1928, in Absarokee, Montana. He attended school in Absarokee and graduated in 1946. Chuck met his wife, Birdie, while attending high school and they married on June 6, 1948. They made their home in Rapelje with their children Linda and Terry. The family moved to Dillon in 1959 and made their home there for 41 years.

Chuck worked full time at International Harvester while attending college to pursue his degree in education. He graduated from Western Montana College in 1967 with a degree in history, and later went on to earn his master's degree in business. Chuck was proud to tell the story of how he was hired on the steps of the post office to teach something he was very passionate about, Montana history. Chuck and Birdie moved to Billings in 2001 so they could be closer to their family.

In addition to being a respected teacher, Chuck wore many hats that provided him the opportunity to serve others. He was treasurer of the First Evangelical Lutheran Church for more than 30 years. He served on the board of directors at Dillon Federal Credit Union, the Beaverhead Country Club and the Camp Fortunate Chapter of the LCTHF. He was an Eldehostel instructor in the summers, as well as the maintenance man at the school.

He was chosen as the Jaycee Outstanding Man of the Year. He was very active in Kiwanis, and volunteered countless hours for United Way. He was proud to be named Volunteer of the Year in 2003 at Pompey's Pillar, where he guided tours for many years. Chuck is well known in Foundation circles for his planning of the Foundation's 32nd annual meeting in Dillon in 2000 when wildfires ravaged the region and threatened tours.
This report establishes a baseline as no formal report existed for membership to view for many years.

### Income

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Membership dues</td>
<td>$36,505</td>
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<tr>
<td>Donation / Annual Appeal</td>
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<tr>
<td>Interest &amp; Dividends</td>
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<tr>
<td>NPS Grant Administration Income</td>
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<tr>
<td>Other income</td>
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<tr>
<td><strong>Total Income</strong></td>
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### Expenses

<table>
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<tr>
<th>Description</th>
<th>Amount</th>
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</thead>
<tbody>
<tr>
<td>Staff Payroll</td>
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<tr>
<td>Office Rent (US Forest Service)</td>
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<td>Operating Supplies</td>
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<td>Contract labor</td>
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<tr>
<td>Audit Expense</td>
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<tr>
<td>Other Expenses (Pass through Grants)</td>
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<td><strong>Total Expenses</strong></td>
<td><strong>$192,577</strong></td>
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</tbody>
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### Other Facts

- **Number of members**: 1625
- **Visits to the Website (Since July 1)**: 1648
- **Phone and Email Information Requests**: apx. 100
- **Visitors to Library**: 7

### Notes

1. Income from previous FY unrecognized grants covered deficit
2. Count reset during July 2010 website update
3. Previously reported numbers believed to be inaccurate

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**Meriwether Lewis**

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Editor proceeds on to next great adventure

BY WENDY RANEY

When I saw the ad seven years ago announcing that the Foundation was seeking a director of field operations I was convinced the job had been designed for me. The position combined the trail stewardship coordinator and chapter liaison responsibilities and called for some media coordination, political advocacy and travel. It combined all of my personal and professional interests. It seemed too good to be true.

Fortunately for me, it was and professional interests. I led media coordination, political advocacy and travel. It combined all of my personal and professional interests. It seemed too good to be true.

I immediately set out to help strengthen the Foundation’s relationships with its chapters. In 2004, I visited 32 of the Foundation’s 40 chapters. I had the opportunity to see stretches of the Lewis and Clark National Historic Trail I might otherwise never have enjoyed, but even better, I became acquainted with local Lewis and Clark experts and enthusiasts who led each tour and introduced me to their chapter members and other Lewis and Clark friends.

I soon began editing The Orderly Report and was excited to put my journalism degree to use. There were other highlights as well: I worked with the Forest Service to establish a monitoring program on the Lolo Motorway and spent days in the wilderness with loyal Foundation volunteers. I worked with the Bureau of Land Management on a variety of preservation and protection projects, and helped develop the trail stewardship program that now brings educational presentations to classrooms around the country. I established the Lewis and Clark Challenge, a health and wellness program that has been adopted by the Ohio River Chapter. I also helped facilitate the national Memorandum of Understanding between the Foundation and the Boy Scouts of America. I was honored to represent the Foundation as a board member of the Partnership for the National Trails System and was lead planner for that organization’s 12th conference in Missoula, Montana, last year.

As much as I enjoyed all of those experiences, I was offered my dream job in 2006, when Jim Merritt retired as editor of We Proceeded On. I edited my first issue of WPO in February 2007 and have enjoyed working as editor while continuing to fulfill my trail stewardship responsibilities. At every stop along the trail and through every submission to this publication, I have made new friends; people I will continue to communicate with long after my children are grown.

That brings me to the reason for writing this column. As much as I’ve loved working for the Foundation, I have embarked on a new adventure that demands my full time and attention. As many of you know, I have a son, Cash, who turns three in October. In May, my husband, Brent McCann, and I welcomed two new additions to our family. Twins Milena and Cruz arrived just as Brent took a new job as foreman of a historic cattle ranch. Those two events thus coincided with a cross-country move that brought us home to Montana (after a 20-month stay in Texas where Brent earned a Master’s degree from the King Ranch Institute for Ranch Management in Kingsville.) Three children under the age of three are keeping me plenty busy for the time being. So it is with mixed emotions that I bid you farewell as editor.

My husband has joined me in countless Foundation activities over the past seven years. Cash has attended two annual meetings and several other Lewis and Clark events. He has listened to WPO submissions read aloud to resemble the bedtime classic, Goodnight Moon. He understands that e-mails take a few minutes to answer and conference calls last much longer. He has been patient and understanding, indulging my commitment to this organization and this publication in particular.

The way members of this Foundation have embraced my family has made my decision to leave my job all the more difficult, but the opportunity to watch my children grow and develop through their early years is one I cannot miss. I remain committed to the mission of this organization and already am working with staff and the board of directors on ways to stay involved with the Foundation, though it may be some time before I can truly be an active volunteer.

To the Foundation’s leadership, past and present, thank you for your support and the flexibility and independence you’ve given me over the years. To the readers of WPO, thank you for your interest in these timeless stories and for engaging one another in civil and cordial discussions and debates. To my many friends, I hope to see you along the trail. I’ll be the one introducing three members of the next generation to the thrills, adventures and lessons of Lewis and Clark.