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THE LEWIS AND CLARK TRAIL HERITAGE FOUNDATION, INC.

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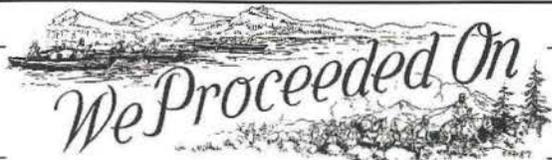
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ABOUT THE FOUNDATION

The purpose of the Lewis and Clark Trail Heritage Foundation, Inc., is to stimulate public interest in matters relating to the Lewis and Clark Expedition, the contributions to American history made by the Expedition members, and events of time and place concerning the expedition which are of historical import to our nation. The Foundation recognizes the value of tourist-oriented programs, and supports activities which enhance the enjoyment and understanding of the Lewis and Clark story. The scope of the activities of the Foundation is broad and diverse, and includes involvement in pursuits which, in the judgment of the directors, are of historical worth or contemporary social value, and commensurate with the heritage of Lewis and Clark. The activities of the National Foundation are intended to complement and supplement those of state and local Lewis and Clark interest groups. The Foundation may appropriately recognize and honor individuals or groups for art works of distinction, achievement in the broad field of Lewis and Clark historical research, writing, or deeds which promote the general purpose and scope of activities of the Foundation. Membership in the organization comprises a broad spectrum of Lewis and Clark enthusiasts including federal, state, and local government officials, historians, scholars and others of wide-ranging Lewis and Clark interests. Officers of the Foundation are elected from the membership. The annual meeting of the Foundation is traditionally held during August, the birth month of both Meriwether Lewis and William Clark. The meeting place is rotated among the states, and tours generally are arranged to visit sites in the area of the annual meeting which have historic association with the Lewis and Clark Expedition.



We Proceeded On is the official publication of the Lewis and Clark Trail Heritage Foundation, Inc. The publication's name is derived from the phrase which appears repeatedly in the collective journals of the famous expedition.

E.G. CHUINARD, M.D., FOUNDER

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MEMBERSHIP INFORMATION

Membership in the Lewis and Clark Trail Heritage Foundation, Inc. is open to the general public. Information and an application are available by sending a request to: Membership Secretary; Lewis and Clark Trail Heritage Foundation, Inc.; P.O. Box 3434; Great Falls, MT 59403.

We Proceeded On, the quarterly magazine of the Foundation, is mailed to current members during the months of February, May, August, and November.

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President's Message

by Robert E. Gatten, Jr.

At the annual meeting of the foundation this past July and August in Charlottesville, the board of directors asked me to serve a second term as president. I am happy to do so, and enter this new foundation year with renewed enthusiasm because of my reinforced understanding of the importance of the work of the foundation and the very large number of members who volunteers so many hours to help us meet the foundation's goals. Working with me this year will be three new directors-at-large: Phil Althen of Stevensville, Montana, who has labored for many years on Lewis and Clark projects along his portion of the trail; Darold Jackson of St. Charles, Missouri, who has previously served on the board and who continues to chair the Membership Promotion and Public Relations Committee (and who was appointed by the executive committee to fill a vacancy on the

board) and Jane Schmoyer-Weber of Great Falls, Montana, who has spent a great deal of effort to help make the interpretive center in Great Falls a reality. Welcome!

The foundation year got off to a rousing start in Charlottesville. Attendance at the meeting was very large: there were 268 full registrants. The local committee, led by Jane Henley and Howell Bowen, deserve all our thanks for their exquisite planning and careful attention to detail in making the meeting a great success. The Home Front Chapter is blessed to have so many very bright, skillful and energetic members whose efforts will have a lasting effect on all of us and on the understanding of the heritage of the Lewis and Clark Expedition in Charlottesville and throughout Virginia.

Included with this issue of *We Proceeded On* is the

(President's Message continued on page 31)

From the Editor's Desk

At the end of the annual meeting in Charlottesville, Virginia, Strode Hinds, who is chairing the 1996 meeting in Sioux City, Iowa, said, "This meeting had three presidents to offer. All I have to offer is a statue." The statue marks the grave of Sgt. Charles Floyd, the only expedition member who died on the journey.

However, Strode wasn't telling the whole story as you will see in this issue of *WPO*. Iowa has a whole lot more to offer.

In a sentence, the Charlottesville meeting was hot and humid and a tremendously historically fascinating meeting. It was one of those meetings where I hated to leave at the end. I wished I could have taken all of the side trips and more. I will have to go back someday.

The folks across the river from St. Louis gave me a call a while back and asked if I would tell all of you and the rest of the world that the physical start of the expedition was from the winter camp at Wood River, Illinois and not from St. Louis as we are prone to say. Meriwether Lewis was in St. Louis when the

Corps of Discovery packed up and left Wood River. He joined the expedition at St. Charles, Missouri. With the exception of Lewis, all the others went straight from the Wood River camp to St. Charles. They may have waved to people on shore and even wished they could have stopped for a night in the big city, but good soldiers that they were, they just kept on going.

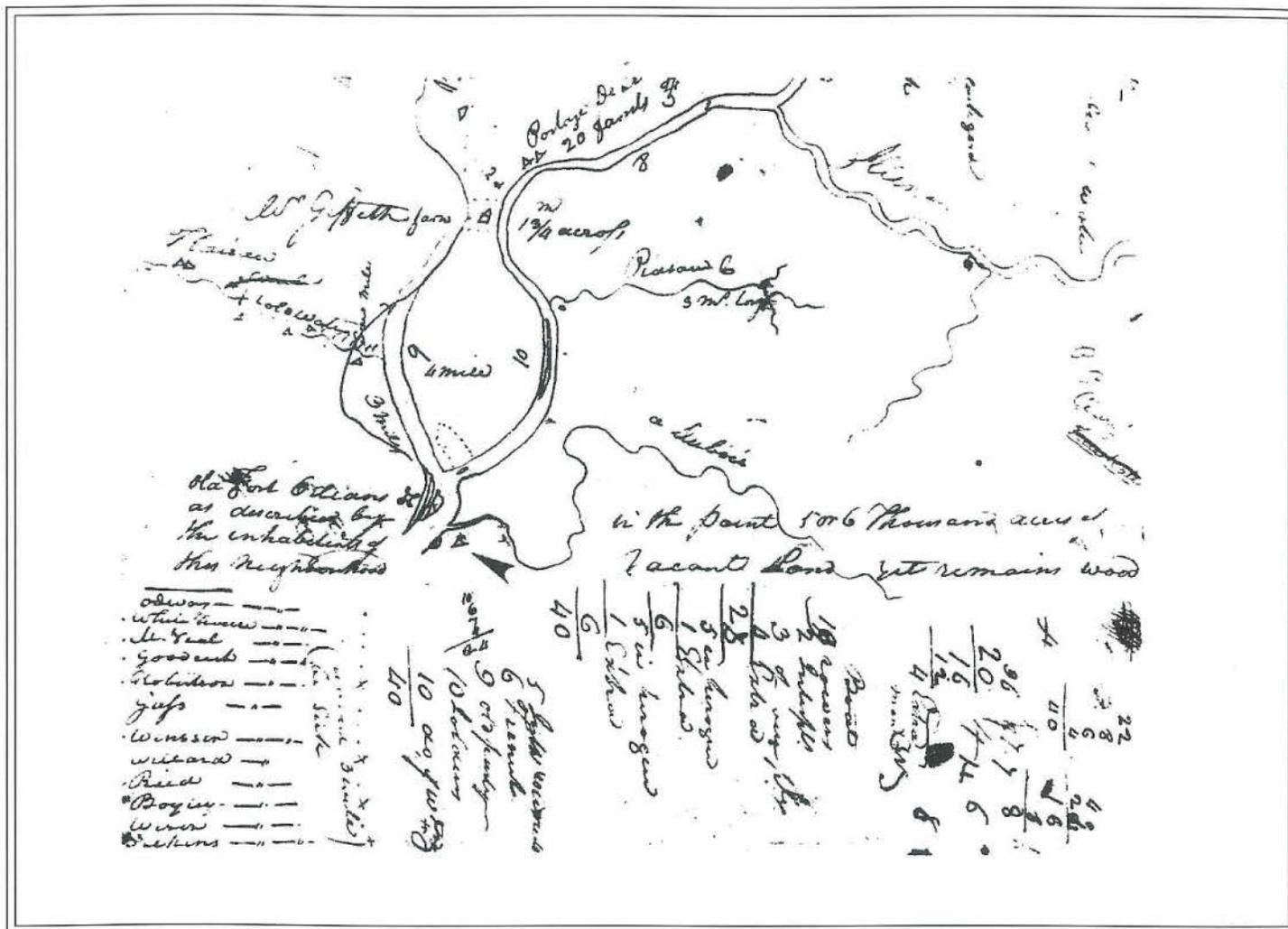
I recently ran across another small item that expands my knowledge about William Clark. I was reading the book, "Daughters of the Earth" by Carolyn Niethammer. It details "the lives and legends of American Indian women." In a section on "Women and War," Niethammer described the Pawnee Morning Star ceremony. A young captive girl was sacrificed once a year to ensure the fertility of the soil and the success of the crops.

Niethammer reports, "In 1816 the Pawnees captured a young Comanche girl and were preparing to sacrifice her in the spring rites in 1817. A young warrior of the tribe named Man Chief had several

(Editor's Note continued on page 31)

ON THE COVER—Fort Atkinson, the first U.S. military post west of the Missouri River, will be one of the sites visited during the 1996 Annual Meeting.

Photo by Strode Hinds



Expedition's Map of Wood River Camp and Vicinity
Ernest Staples Osgood, *The Field Notes of Captain William Clark*

Searching for the Invisible: Some Efforts to Find Expedition Camps

by Kenneth W. Karsmizki
Associate Curator of Historical Archaeology
Museum of the Rockies

PART II OF II PARTS

EDITOR'S NOTE: In Part I, Karsmizki looked at archaeological studies at Fort Clatsop, Oregon (1948 and 1956-57) and a 1964 study on the Montana-Idaho border.

Appleman Study—Camp Wood

In 1968, four years after Peebles' study, another article appeared under the authorship of National Park Service historian Roy E. Appleman. His research emphasis was on the "Lost Site of Camp Wood: The Lewis and Clark Winter Camp,

1803-04."²² Appleman points out that, in the journals and letters of the expedition, "the precise location of Camp Wood was not described and identified." Appleman's analysis is based on several factors, including: supposition regarding what reality Clark's sketch map represents; comments

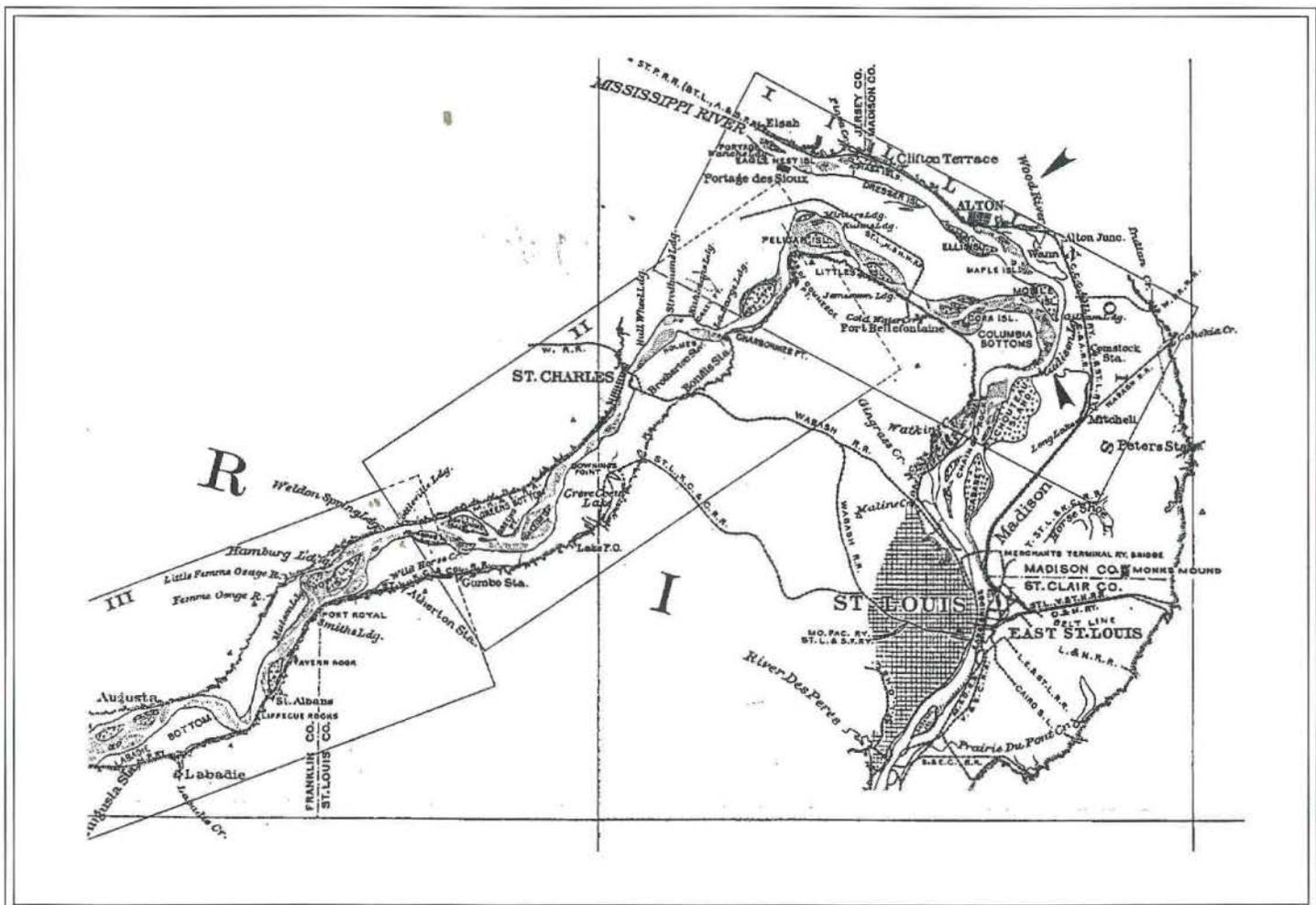
in the journals regarding the site location; "common knowledge" attributed to local informants; maps of the area produced between 1797 and 1966; and the "logic of the situation." The use of such a variety of sources and techniques is necessary and worthy of emulation because information about campsite location is often vague.

Appleman used a sketch map believed to have been drawn by Clark during the winter of 1803-1804. The map was of the confluence of the Missouri River with the Mississippi and the "entrance of the River DuBois [Wood River] in relation to the junction." Appleman notes that "An unidenti-

fied triangle appears on this sketch, on the south bank of River DuBois, a short distance from the Mississippi. It probably represents Camp Wood." A critical fact in the search for Camp Wood was that the channels of all three rivers—the Mississippi, the Missouri, and River DuBois [Wood River]—had changed. The greatest change was at the mouth of the Missouri River which Appleman believes had moved "three and one-half miles in a southeast directional line from where it emptied into the Mississippi in 1804." He also speculates that the present mouth of the River DuBois is .75 of a mile north of its 1804 location and that the channel of the Mississippi River has shifted .75 of a mile eastward.

Appleman's conclusion was that the "site of Camp Wood has shifted from the south bank of Wood River at its junction with the Mississippi River, in Madison County, Illinois, to the opposite [west] bank of the Mississippi during the course of one hundred fifty years of changing river channels in this vicinity." Aside from the fact that the latitude and longitude which located the campsite in Illinois now occur in Missouri, Appleman also asserts that, "Undoubtedly the soil that Camp Wood stood on has washed downstream."

Questionable locational information is not an exception: it is the rule for the historical record resulting from the expedition. Another



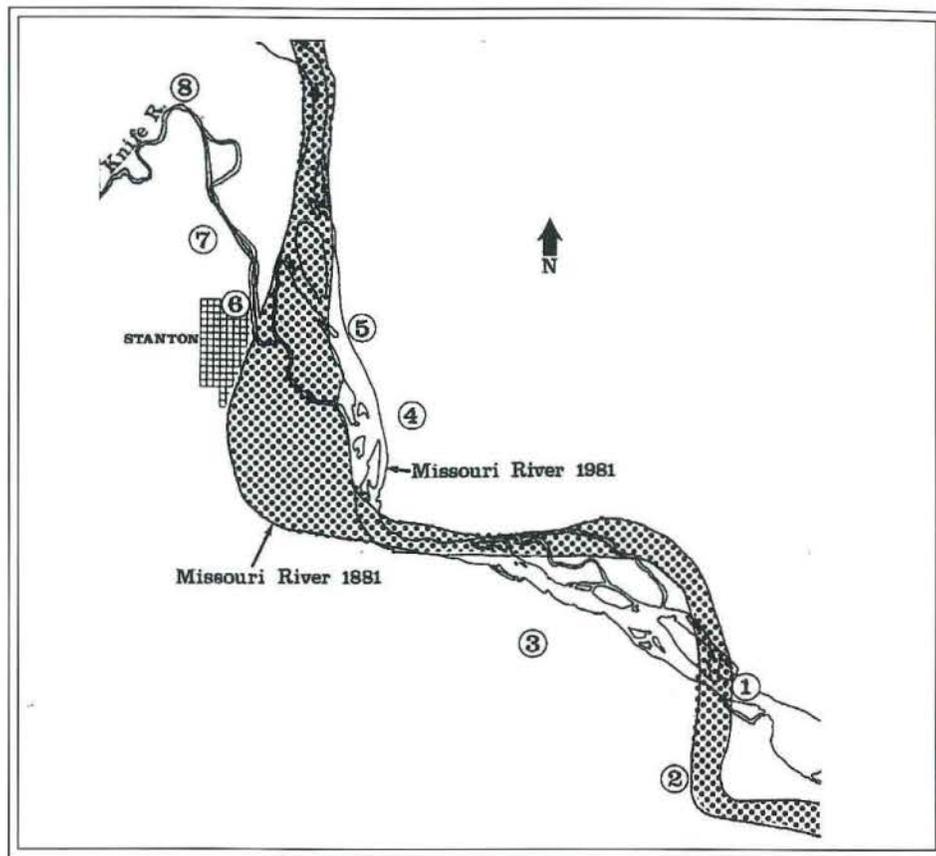
Detail of Sheet 1, Map of the Missouri River from its Mouth to Three Forks, Montana Survey, April-May 1878, Published, Missouri River Commission, 1892-1895

case study comes in the form of an article written two decades after Appleman's Camp Wood investigation. In 1988, Alan R. Woolworth published "New Light on Fort Mandan: A Wintering Post of the Lewis and Clark Expedition to the Pacific, 1804-1806."²³ Woolworth is a noted historical archaeologist who has devoted a great deal of his career to excavations at fur trade sites. Since he began his career as an archaeologist with the State Historical Society of North Dakota, it is not surprising that he was attracted by the prospects of archaeological work at Lewis and Clark's Fort Mandan.

Woolworth's Study—Fort Mandan

Woolworth's objective in his article on Fort Mandan was to understand the design and method of construction used at the wintering post of 1804-1805. The site was occupied from November 2, 1804 through the morning of April 8, 1805, slightly more than five months. Even with such a long period in winter camp, Woolworth makes an all too familiar comment: "There are relatively few specific facts known about Fort Mandan, and therefore many questions about it have no certain answers." He states that inferences resulting from a detailed analysis of the various journals did help in reconstructing probable design and construction features. It is clear by such terms and phrases as "probably," "perhaps," "may well have been," "appear to have," "if one assumes," and other qualifiers he used throughout the article that Woolworth recognizes the limitations of written records produced by the expedition.

Although Woolworth's primary purpose was not conclusively locating the site of Fort Mandan, he did address this issue. Once again, his lack of confidence is telling. He says, "We do know the approxi-



*Possible 1804-05 Fort Mandan Site, Missouri River Channel 1881 & 1981
North Dakota History 55(3) 1988*

mate site of this wilderness outpost," based on maps assumed to have been made by Clark during the course of the expedition. Woolworth notes that Captain Clark first travelled "a few miles above the mouth of the Knive River to search for a suitable building site, but soon learned that timber and game were scarce there. He then decided to search a few miles below the Mandan villages, downstream from the Knive River. The search was resumed on November 2. Clark found an excellent site on the northeast bank of the Missouri. It had a heavy growth of cottonwood trees with a few small ash and elm."

Woolworth did not dwell on the specific location of the site of Fort Mandan. He did, however, illustrate his article with a map on which he identified the site of Fort Mandan, several Mandan and Hidatsu vil-

lages, and the Fort Clark fur post of 1831. How the location of Fort Mandan was determined for this map is not explained by Woolworth. One of the primary functions of the map was to establish that the course of the Missouri had changed between the time the General Land Office completed a survey in 1881 and another survey was performed by the U.S. Geological Survey in 1981. The map suggests that the Fort Mandan site was eroded sometime during this 100-year period.

Woolworth informs us that loss of the Fort Mandan site had begun much earlier. He comments that, "Under favorable circumstances, extensive archaeological tests might locate this historic fort, but this possibility is indeed remote because it was accidentally burned after it was abandoned; by summer of 1806, when the returning

expedition visited it, the voracious Missouri River had eaten away most of the site." The fire would probably have destroyed the surface features, but it is just as likely that archaeological evidence of the fort would survive. On the other hand, if the river did erode the site away, the remains would have washed down the mighty Missouri, much as Appleman believed had happened at Camp Wood on the Mississippi River. Appleman attributes his belief that the Missouri had eroded the site to the Elliott Coues and Reuben G. Thwaites editions of the Lewis and Clark Journals but when the expedition returned to the site on August 17, 1806 the journal entry does mention the river had eaten away the site.²⁴ Woolworth closes his study by offering that, "It is tempting to speculate that additional historical evidence about Fort Mandan may someday surface. Some of the fort's remains, for example, may yet be revealed by man or a change in the course of the meandering Missouri River. If such should happen, it would indeed be a miracle." If Woolworth firmly believes that the river had obliterated the site, it seems odd that he would maintain hope of evidence being found. Possibly he is revealing a lack of confidence in the conclusion that the site was indeed buried or destroyed.

Woolworth's archaeological hopes for the Fort Mandan site were clearly frustrated by the fact that he believed that the site had been obliterated by the meandering Missouri River. This conclusion meant that two of the three winter camp sites of the expedition—Camp Wood and Fort Mandan—were believed to have been lost to the river upon the banks of which they had been built.

Although totally unrelated, at approximately the same time Woolworth was conducting re-

search on Fort Mandan, historical archaeology projects were initiated to investigate possible expeditions campsites in central and eastern Idaho and in Montana, immediately below the Great Falls of the Missouri. The research on campsites in North Dakota, Montana and Idaho were all underway in 1987, several decades after the Fort Clatsop attempts. These highly focused research projects were not coincidental. They are evidence of the strength of the revival in research focused on the Lewis and Clark Expedition.

Wegars and Sappington-Idaho Sites

The fieldwork in Idaho was conducted out of the University of Idaho's Alfred W. Bowers Laboratory of Anthropology. The archaeologist in charge of the field operations was Priscilla Wegars, a research associate at the laboratory. In a 1987 letter report summarizing the research, it was stated that the project allowed an examination of sites "known or suspected to have been utilized by Lewis and Clark" and which were located "on the Lewis and Clark/Lolo Trail from Weippe, Idaho to the Montana state line."²⁵ Five sites, used by the expedition in either 1805 or 1806, were selected for preliminary investigation using metal detectors in an effort to identify subsurface metal objects potentially associated with the expedition and to choose one such site for further examination.

Wegars points out that part of the rationale for selecting some of the sites was that, "the actual location is not specifically known." This, once again, suggests that research in the expedition journals had not provided "precise" locational information and that possible camp locations were only approximate at best. In this regard, a very important point came up in the course of the fieldwork. In dis-

cussing the Lewis and Clark sites with a local informant, Ralph Space, Wegars learned that an earlier effort had been made to locate the expedition campsites and mark them with stakes, but "that not all of the Lewis and Clark campsites got stakes, especially if their locations were 'obvious.'"²⁶ An appraisal of the reliability of locally identified site locations illustrates the point that, the criteria for accurate site locations used by individuals with an avocational interest and those with professional scholarly interests may be quite different. What may pass muster as the presumed "obvious" location of an expedition campsite for one with an avocational interest may not be persuasive to the scholar who faces the prospect of launching an exploratory archaeological excavation. Such investments of human and financial resources must be based on a more thoroughgoing examination and prediction.

As noted earlier, the basis for Caywood's and Schumacher's selection of a search area seemed to be the knowledge of local informants. Unfortunately, the published findings and project reports did not include a detailed discussion of the historical record which would include the oral histories, as well as the original journals and maps, and later analyses of this material by Lewis and Clark scholars. A more conservative approach would accept the valuable information provided by local informants as a starting point for comparing local beliefs with the documentary record prior to extensive field reconnaissance. Wegars appears to have recognized both the value and pitfalls of suspected camp locations which seemed "obvious" to local informants.

An examination of the University of Idaho project identifies a number of critical decisions which can influence the strategy used in

archaeological investigations. It was noted that, in the case of three sites, subsequent short- or long-term occupations were known to have occurred in the vicinity. Such obvious disturbance and intrusions at a site may cause an investigation to be abandoned. Conversely, a sufficiently detailed historical record may encourage an archaeologist to select one site rather than another for further scrutiny. In the case of the Sinque Hole, Wegars notes that, "Expedition member Joseph Whitehouse best described it as follows: '...Camped at a Small branch on the mountain near a round deep Sinque hole full of water' (Thwaites 1905[7]:158)." She continues, "Because his description was so precise the exact campsite can be located today." However, what Wegars seems to mean is that the "vicinity" of the camp can be located even though the exact location has yet to be determined. For example, the conclusion from the field research was that "the ground on the east side of the Sinque Hole is the flattest, but they could also have camped on portions of the northeast and southeast sides."

The Wegars study also provides an example of how logistics may influence archaeological endeavors. The attempt to reach the Pheasant Camp found that no reasonable access was possible and the site was not further investigated. Similarly, the Sinque Hole site was not recommended for further work because the distance from the road made moving equipment and personnel to the site difficult. Of the five sites investigated, one was deemed to have no excavation potential, two were not considered accessible, and one was believed to have been obliterated by modern usage. Wegars' final conclusion was that, of the five areas examined, one location, the Bears Oil and Roots site, of-

fered the best potential for further investigation.

This prospect appears not to have been pursued further because the opportunity to investigate another site was presented to Wegars and Robert Lee Sappington from the University of Idaho's Laboratory of Anthropology. The new research opportunity was the site of the Canoe Camp used by the expedition from the 26th of September to the 7th of October, 1805. Fieldwork was conducted in May of 1988 with the objectives of "locating the Lewis and Clark Expedition's campsite and boat building areas, identifying aspects of their interaction with the Nez Perce, and investigating the nature of the prehistoric occupation at the site."²⁷ The research design for this project indicates that the area of investigation "is one which even the [National] Park Service admits is only 'the approximate location of a key Lewis and Clark campsite.'"

In the research design, the questions to be addressed by archaeological testing were founded on the assumption that, "Boat building activity might be indicated by evidence, if it still survives, of wood chips from hewing out the logs, and/or charcoal from burning them out. Other woodworking activities included making axe handles, oars, and 'gig poles.'" Regarding the camp, it was stated that, "Although there would be little if any evidence remaining from that activity, the company did consume a variety of wild and domestic meat, including deer, 'sammon,' ducks, 'Prarie wolf,' pheasant, horse, and 'a fat dog.' Some of the bones from these animals may still be preserved, and firepits might remain. Since Euroamerican butchering techniques were different from Native American methods, it should be possible to identify faunal remains left by the expedition."

The possibility still remained that evidence of Euroamerican butchering could be associated with a historic occupation other than the Lewis and Clark Expedition. What can be seen from this research design was that Wegars and Sappington were well aware of the ephemeral nature of the Canoe Camp site. Unlike Camp Wood, Fort Mandan and Fort Clatsop, Canoe Camp was not used for several months and no log cabins or stockage were built there. Clearly, evidence of the camp would be more difficult to locate than those sites where more substantial developments associated with winter camps are known to have been constructed. It was also known that the general area of the Canoe Camp was used extensively by the Nez Perce, that hundreds of Nez Perce camps had been located in the area, and that at least one Nez Perce trail passed through the suspected Canoe Camp location.

The report prepared by Sappington and Wegars includes a "historical background" section which notes the location of the camp in the journals and provides an overview of post-expedition uses of the site. Their research indicates that Edmond Brammer had received a patent for property which incorporated the Canoe Camp site in 1906. Under existing public land law, it can be assumed that Brammer had taken up residency at the site at least by 1901 since a minimum of five years residency was required. Prior to Brammer receiving his homestead patent, he "sold 105 acres, including the Canoe Camp site, to Elgie (also spelled Elgee) Chase for \$2000." The report also states that, "Local folklore holds that the actual campsite location is at or near 'Chase Flat,' that is, near the former location of Elgie Chase's house, situated a few hundred yards downstream. The land that

Chase sold [to Clearwater Timber Company in 1991] included the area now 'officially' identified as the location of Canoe Camp." This suggests that the "official" site and the site recognized in local folklore were not the same locations. The "official" site was acquired by Clearwater County in 1937, transferred to the State of Idaho in 1957, and, finally, conveyed to the National Park Service in March of 1967.

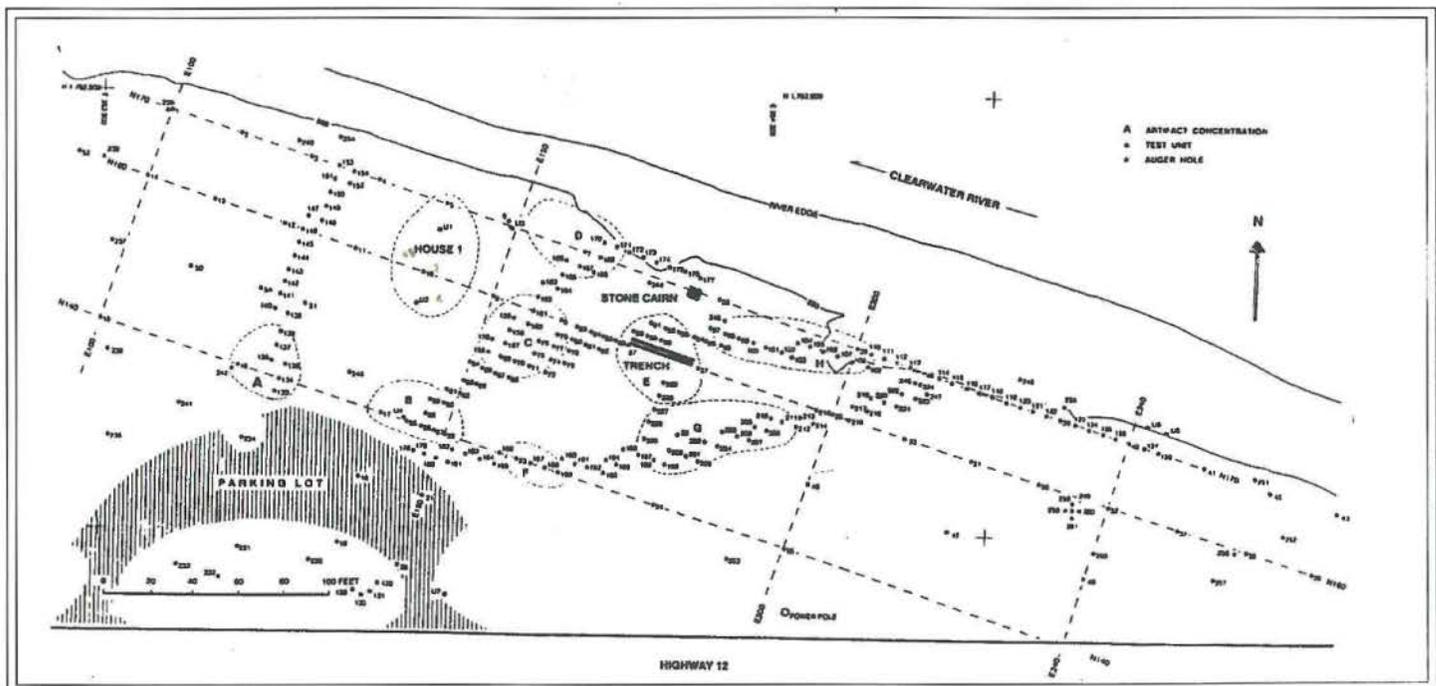
The approach taken by Wegars and Sappington involved surface reconnaissance, 54 holes augered at selected intervals, and limited test excavations. Augering and test excavations yielded both prehistoric and historic materials. A total of 244 historic items, roughly half of which were tin can fragments and coal, were found. An analysis of this material suggested that most, if not all, of the historic material associated with early to mid-20th century activities. Concentrations of materials probably denotes historic occupation. Extensive

deposits of prehistoric materials found at the site, "from virtually every auger hole and in all three test excavation units," included lithic tools and debitage, cobbles, a pestle, small amounts of faunal material, charcoal, and fire-cracked rock. The report indicates that the site is "as yet undated," but the fact that corner- and side-notched projectile points were found does provide a rough age for the deposit. These point types are "characteristic of the late prehistoric Harder Phase (ca. 2500-250 BP) in the southern Columbia Plateau (Leonhardy and Rice 1970, 1980)."²⁸ Sappington and Wegars state that, "There are no indications of contact period or historic Nez Perce occupation at the site, which supports the lack of information concerning an ethnographic occupation here."

Sappington and Wegars concluded that, "While we had hoped to locate remains of Lewis and Clark's campsite, boatbuilding, and/or trade with the Indians, no evidence of those activities was

recovered." Several explanations were offered for the fact that the archaeological explorations did not yield material from the expedition. In reference to the camp, the report said that, "it is quite possible that it was washed into the Clearwater River at some earlier time," and aerial photography had demonstrated some decrease in site area as a result of erosion. Loss of the Camp Wood and Fort Mandan sites had earlier been attributed to the action of the meandering rivers. Other impacts to the site include highway building in 1931 and plowing by farmers in the early 1900s, both of which could have contributed to the loss of some expedition camp residues.

Another possible explanation for not finding the Canoe Camp was that it was "simply due to sampling," which was conducted on a small fraction of the total site area.²⁹ Sampling design at the Canoe Camp was based on the proposed construction design and was focused on the locations of anticipated ground disturbance associ-



Map of Auger Holes and Test Units at Canoe Camp
Robert Lee Sappington Letter Report 94-8

ated with sidewalks, parking areas and other site developments. The map providing the location of auger holes and test units excavated at the Canoe Camp clearly illustrates that testing was biased in favor of the potential construction areas and did not provide the type of systematic coverage archaeologists would typically prefer. Just as Caywood and Schumacher had believed they were looking in the right place, so to did Wegars and Sappington. Their closing statements were that, "A comparison of Clark's description of their camp, mentioned as being approximately one-half mile above the bend in the river, with aerial photographs and the quadrangle map strongly supports the location of the site in the vicinity of the present park." They continued to believe that, "The potential for encountering cultural material associated with the Lewis and Clark Expedition...remains high."

Because of proposed construction of visitor-related services at the site, additional archaeological testing was accomplished after the 1988 season. Even with that work, considerably less than 1% of the entire site was sampled.³⁰ No historic material was recovered that could be associated with the expedition, but more conclusive information about the age of prehistoric features was revealed. Several house pits and concentrations of cultural material were located within the area explored and a charcoal sample recovered from the floor of one house pit yielded an age of 740 +/- 70 BP. No mention was made regarding whether the additional work at the site had changed the opinion that there is high potential for recovering Lewis and Clark material at this location.

Bergantino's Study—Montana Sites

The Idaho Canoe Camp project was only one of a number of at-

tempts in the 1980s to *search for the invisible*. Bob Bergantino, a hydrologist at the Montana Bureau of Mines and Geology, Butte, Montana, developed a long-standing and well-recognized interest in locating Montana campsites associated with the Lewis and Clark Expedition. Bergantino's work has yielded a map locating all expedition camp sites used by the expedition as they passed through Montana in 1805 and on their return in 1806. This map was published as the *Route and Camp Sites of Lewis and Clark in Montana, 1805-1806*. In this work, Bergantino consulted the journals, modern maps and aerial photography, recalculated the bearings with the necessary corrections for the difference in the magnetic declination in 1805-1806 and the present declination, and completed field studies at the various sites. Using the same techniques Bergantino has completed thorough examinations of more complicated individual segments, such as the *Great Falls Portage*, and specific sites such as the White Bear Island location immediately southwest of Great Falls.

Bergantino's methods are clearly illustrated in his unpublished study of the Whitebear Islands. He notes, "in order to convert Clark's bearings to bearings based on true north it is necessary first to convert them to azimuths, add 16.5°, then convert them back to bearings."³¹ Bergantino states that, in the field, observational errors using a hand-held compass may be the result of "weather, haste, minor magnetic variations, visibility and distinctiveness of objects observed." Using this rationale, Bergantino assumes that an error of up to $\pm 7.5^\circ$ is within acceptable limits. He then tests his assumptions in the field by retracing the bearings and distances at specific locations noted in the journals. Attention is paid to those retracings which are extremely

good fits or where major errors occur. In the case of major errors, Bergantino sometimes speculates that interpreting Clark's handwriting may, for example, have mistaken a hastily written '0' for a '6', or that excerpts of the narrative in the journal "cannot really be what he meant."

Bergantino's locations are essentially the "most likely site" of these camps based on historic data and modern analysis. He cautions readers that "there is always some room for mismeasurement or for interpretive error" and that the "maximum confidence level in analyzing data such as this is about 95%.." It should be noted that Bergantino's efforts were not made as part of an archaeological project and the locations were not tested using archaeological techniques. He offered a final disclaimer when he said, "there will always remain some degree of uncertainty about the camp's location—until such a time as definitive artifacts belonging to the expedition are found."

A project examining one of the expedition's Montana campsites may serve as a test of Bergantino's methods and results. Using a search strategy that was independently developed, the Museum of the Rockies' Lower Portage Camp Archaeological Project was designed in 1987 to locate evidence of the expedition's occupation of the site. It was fortuitous that local contacts arranged a meeting of the museum's project director and Bergantino. Bergantino re-examined his notes on the Lower Portage Camp and produced a field map showing his estimation of the area within which the camp site was likely to fall. He believes, with 90% accuracy, that the camp will fall within an area less than five acres in size. Toward the southern end of this area Bergantino identifies a circular area, nearly a third of an acre in size, within which he

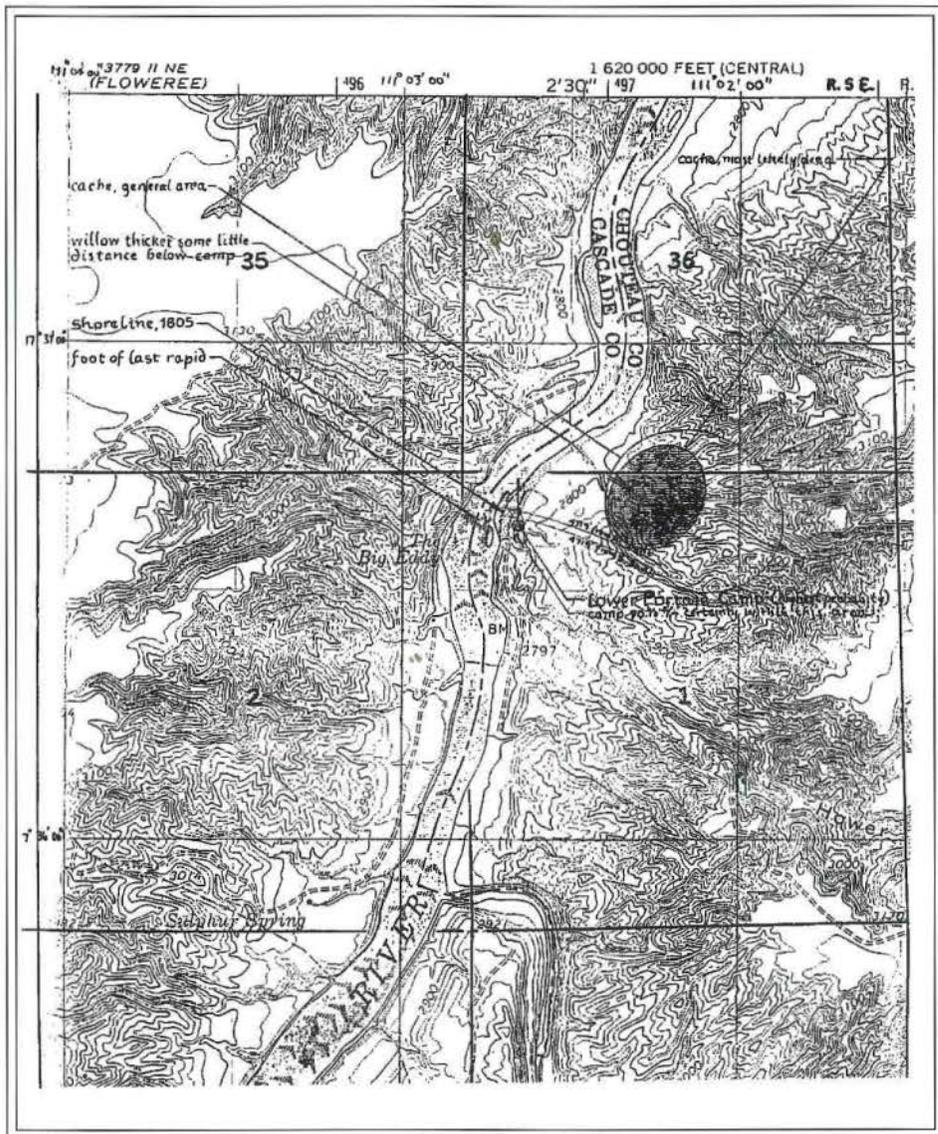
believes the camp has the "highest probability" of being found. It must be kept in mind that Bergantino considers a $\pm 7.5^\circ$ error to be within acceptable limits and the bearing is shot over a course of nearly a mile, from the pirogue to the mouth of Portage Creek. For an archaeologist, an error of 7.5° over the course of a mile might result in an excavation which misses its target by approximately 220 feet. Bergantino also provided a location for the cache constructed by the expedition crew while they were at the Lower Portage Camp. An examination of Bergantino's field map suggests

that he felt greater confidence in his estimation of the camp location compared to the cache. Clearly the journal details regarding the cache are much more vague.

Although as yet unsuccessful in conclusively locating the Lower Portage Camp and, thereby, providing a test of Bergantino's methods and results, the research effort has clearly been productive. The integrated historical and archaeological methodologies necessary for achieving the objective are being refined. Researchers have been able to build on the experiences of their peers, and the obstacles to success are becoming more clearly

identified. Several factors illuminated by these studies are important to continued efforts to find Lewis and Clark campsites: the historical record has significant data gaps and is often contradictory and characteristically inexact; the landscape through which the expedition passed has, in some cases, been altered dramatically by natural as well as cultural forces; it is probable that the evidence of Lewis and Clark campsites is intermixed with cultural features from earlier times as well as with more modern historic features; and the visibility of the Lewis and Clark campsites may be comparatively poor due to stays of short duration and the likelihood that materials carried by the expedition were highly curated. Which poses another questions for researchers: What evidence might be expected that will be conclusively document association with the expedition? It appears to be the consensus of those who have conducted archaeological explorations that it should be possible to find evidence of the Lewis and Clark Expedition. Having the time, techniques and determination necessary to increase the sample size to a favorable scale, and thereby the statistical probability of reaching this elusive goal, appears to be the greatest challenge.

As difficult as this problem may be, the tools for detecting and conclusively documenting the location of one or more of the expedition's campsites based on archaeological evidence are at hand. Although literally hundreds of these sites were formed, professional archaeologists have launched serious attempts to discover tangible proof of only three Lewis and Clark campsites. It may appear to be an incredibly difficult task but one thing is certain: as long as archaeologists and historians fail to ask the questions and look for answers, the quest for positive on-



Bergantino's Map of Possible Location of the Lower Portage Camp

the-ground evidence of the Lewis and Clark Expedition is foredoomed. Historical archaeologists, at the very least, must rise to the occasion by groundtruthing historical events so as to place them appropriately in the realm of historical fact rather than settling for the unsatisfying folklore.

—FOOTNOTES—

²²Roy E. Appleman, "The Lost Site of Camp Wood: The Lewis and Clark Winter Camp, 1803-04." *Journal of the West* 7 (April 1968), pp. 270-274. [Following references to Appleman in the text relate to "The Lost Site of Camp Wood," unless otherwise noted.]

²³Alan R. Woolworth, "New Light on Fort Mandan: A Wintering Post of the Lewis and Clark Expedition to the Pacific, 1804-1806." *North Dakota History* 55 (3) (Summer 1988), pp. 3-13. [Following references to Woolworth in the text relate to "The Lost Site of Camp Wood," unless otherwise noted.]

²⁴Moulton, *The Journals of the Lewis and Clark Expedition*, Volume 8, p. 307. In Ruben Gold Thwaites, *Early Western Travels 1748-1846* (Cleveland: The Arthur H. Clark Co., 1906) Volume 23, p. 222, attributes the belief that the Missouri River eroded the site away to Charbonneau's testimony to Prince Maximilian, but this information may be questionable.

²⁵Priscilla Wegars [letter report], October 23, 1987. A copy of this report was forwarded to the author by Ms. Wegars. [Following references to Wegars in the text relate to the October 23, 1987 letter report unless otherwise noted.]

²⁶*Ibid.*, p. 4. Ralph Space, considered a local "expert" on the Lolo Trail and Lewis and Clark, has published *The Lolo Trail: A History of Events Connected with the Lolo Trail Since Lewis and Clark* (Lewiston: Printcraft Printing, 1970).

²⁷Priscilla Wegars and Lee Sappington [project research design], n.d., pp. 1-2. A copy of this research/design was forwarded to the author by Ms. Wegars. [Following references to Wegars and Sappington in the text relate to the project research design unless otherwise noted.]

²⁸*Ibid.*, p. 21. The reference in the text is to Frank C. Leonhardy and David G. Rice, "A Proposed Culture Typology for the Lower Snake River Region, Southeastern Washington," *Northwest Anthropological Research Notes*, (1970) 4(1):1-29, and Frank C. Leonhardy and David G. Rice, "The Lower Snake River Culture Typology—1980." a paper presented to the Northwest Anthropological Conference, Bellingham, Washington, 1980.

²⁹*Ibid.*, p. 36. According to data provided in the report, .0003% of the 9300 m² site was covered by the three square meter excavation units and approximately an additional .00018% by the auger holes.

³⁰Robert Lee Sappington, Letter Report 90-11, October 26, 1990. [Following references to Sappington in the text relate to Letter Report 90-11 unless otherwise noted.] In 1994 Sappington submitted Letter Report 94-8 which summarized the Canoe Camp archaeological investigations. ³¹Robert N. Bergantino, "Notes to Accompany the Map of the Whitebear Islands and Vicinity, 1805-1806," (unpublished manuscript, 1985, provided to the author by Bob Doerk).

"This Place We Call Council Bluff"

by V.S. Hinds

Fort Atkinson was established as the first U.S. military post west of the Missouri River by the Yellowstone Expedition of 1819, but its story actually begins 15 years earlier with the Lewis and Clark Expedition. The explorers first set up camp in this area on July 30, 1804, and held council with the Oto and Missouri Indians. On August 3, 1804, William Clark's journal notes of that day state:

"The Situation of this place which we call Council Bluff which is handsom elevated a Spot well Calculated for a trading establishment, the Bank high and level on top well Calculated for a fort to Command the Countrey and river the low bottom above high water and well situated under the Command of the Hill for houses to trade with the natives a butifull Plain above and below at no other

bend on either Side does the High land touch the river for Some distance up, I am told."

"The Situation I am informed is, within 1 days march of the Ottoes, 1 1/2 of the Panias, 2 of the Mahars, & 2 1/2 of the Loups Villages, also Convenient to the roveing Bands of Sioux, Those people are now at war with each other, an establishment here would bring about peace and be the means of Keeping it."

There Fort Atkinson was built, on the bluffs, overlooking the Missouri. It replaced Cantonment Missouri, a temporary outpost set up the year before on the banks of the river about 1 1/2 miles north.

The Yellowstone party spent the winter of 1819-20 at the cantonment, and sickness and bitter cold claimed the lives of 160 members of the expedition. A disastrous spring flood prompted the move

from the bottom lands to the present site on the valley terrace above the flood plain. Although initial plans called for a string of posts across the plains, this was destined to be the only one built by the Yellowstone Expedition. Congress, in an economy move, abandoned the idea of a chain of forts. With the site selected, it was called Camp Council Bluff while the fort was under construction. Upon completion, the Secretary of War instructed that it be named after Col. Henry Atkinson, commander of the Yellowstone Expedition.

Fort Atkinson was a large outpost for its day. Not only was it garrisoned by 1,000 men, it was built on a grand scale. The exterior wall dimensions were 455 feet by 468 feet, with bastions on the southwest and northeast corners, wagon width gates in the south,

(Council Bluff continued on page 31)



Soundscape...

The Sonic Dimensions of the Lewis and Clark Expedition

by Joseph A. Mussulman

The Lewis and Clark Expedition has been measured in days, miles and dollars. Its achievements have been enumerated, its antecedents and consequences ana-

lyzed and quantified, its discoveries tallied and named, its deeds and dangers sorted and counted. These are the *facts* of the matter, and our principal link with the past, to which they lend substance, shape and significance. But they

are bereft of the human senses; they are soundless.

Sounds are elemental signs of life. They reach the feelings directly. "Sounds thicken the sensory stew of our lives," writes Diane Ackerman in *A Natural History of*

the Senses, “and we depend on them to help us interpret, communicate with, and express the world around us.”¹

By “listening” to the journals of Lewis and Clark, we can hear the stew simmering. We can perceive—if but faintly through the crescendo of two centuries of noise pollution—some of the more resonant facets of the expedition’s sonic qualities.

If landforms comprise the *landscape* of a scene, then the sonorous details of a place can be called its *soundscape*. A soundscape may consist of a group of distinct but often interlocking acoustic biospectrums, or *sound keys* peculiar to a given locale.² Each sound key has a characteristic structure and orchestration, like the movement of a symphony.

The soundscape of the Lewis and Clark Expedition had two aspects. One was the tumult of natural sound keys reaching from coast to coast, each changing its tune by the hour, the day, the lunar cycle, and the season. The other was the sound key created by the corps itself—the human hubbub that crept across the continent.

The relatively uncomplicated sound key of the expedition itself can readily be imagined. Think of the intricately woven, undulating melodies, rhythms and assorted timbres of thirty or forty men’s voices; the conversations, mutterings, commands, exclamations, and the safety-valve outbursts of oaths, songs and laughter; the obligato of a woman’s and an infant’s voice threaded through the fabric of the male chorus; the secret night-noises of all those people, that only the insomniacs and the sentries could hear. Add the percussive punctuations of the hunters’ guns, near and far; the “sounden horn” calls to missing hunters; axes and saws hewing firewood or canoes; the dog Seaman’s greetings and warnings;

the circadian clatter of kettles at mess. And so on, in diminishing but significant detail. This day-long ostinato repeated itself 863 times, like a musical theme.

The natural soundscape of the expedition’s trail is harder to reconstruct. Today, even the remotest parts of it are suffused with noises that mask, pollute and defile nature’s voices. Few places on earth are beyond earshot of the monotonous hum of electric-powered appliances. Fewer still are secure from the rumble of the internal combustion engine, that engulfs the entire spectrum from sub-audible sounds—the ones we can only feel—to the upper threshold of human perception.

Nevertheless, there are numerous clues in the expedition’s journals to stimulate our aural imaginations. On one end of the natural sound spectrum, close up, high and soft, the sound key was often—all *too* often, according to the journalists—pierced by the dreaded soprano whine of the mosquito, undulating like a tiny moan, or like a capsule preview of the banshee sirens of modern urban life. The ensemble blended the mezzo-soprano motif of the hoot-owl, the staccato yelp of the coyote, and the melodious howl of the wolf, punctuated by the rimshot “flacking” of beavers’ tails in the water.

Betimes the soundscape featured the clarion fanfare of the western meadowlark, or the “Nightingale” (possibly a hermit thrush) that sang throughout a fair June night in 1804. It included the tail-twisting chatter of the prairie dog, the hoarse voice of the frog, and the clackety-rasp of grasshoppers scraping the summer sun from their wing-covers (or was that a *rattlesnake*?). It was suffused with cicadas simmering in the cottonwood trees, and chickadees monotonously rehearsing their two-note ditty. It hit a high note with



soprano *gryllidae* rubbing body parts together in breathless shrill duets, celebrating the day’s demise like one huge polyphonic cricket, soon chilled to sleep.

At the far end of the spectrum, low and loud, were the spine-chilling roar of the grizzly and the hoarse bellowing of buffalo bulls in rut. In the vicinity of White Bear Islands on the Missouri, on July 11, 1806, the latter—among a herd Lewis estimated at 10,000 head!—could be heard for miles; the horses were “much allarmed.” A few days later, over on the Yellowstone near Pompey’s Pillar, Clark complained that the buffalo kept up “Such a grunting noise which is very loud and disagreeable Sound that we are compelled to Scare them away before we can Sleep.”³



President Jefferson had instructed Lewis to notice “the animals of the country generally, & especially those not known in the U.S.,” and the journalists’ descriptions of birds were often painstakingly detailed, complete even to their distinguishing “notes.” But natural sounds are difficult to translate into words, beyond the simplest, most generalized onomatopoea. At times the captains found the translation easy, as with the magpie—“twait twait twait” or “tah, tah, tah.” Similarly imitable were the calls of the least tern: “it has two notes one like the squaking of a small pig only on

reather a high kee [key], and the other kit'-tee'-kit'tee'- as near as letters can express the sound."⁴ In the case of the common poorwill, however, it is difficult—even allowing for regional variations in avian dialect—to account for the difference between what Lewis and the Indians heard ("at-tah-to'-nah") and Roger Tory Peterson's modern perception ("*poor-will* or *poor-jill*").⁵ Moreover, Lewis perceived the call of the pinyon jay as "char'äh, char äh'," whereas Peterson hears a "high nasal cawing, *kaa-eh, karn-eh* (descending inflection)" and other contemporary ornithologists hear "queh, *queh*."⁶

Lewis was temporarily stumped when it came to transcribing the "note" of the "small" tundra swan heard near Fort Clatsop early in March of 1806. "[It] cannot be justly immetated by the sound of letters nor do I know any sounds with which a comparison would be pertinent." Nonetheless, he yielded to a compulsion to try: "it begins with a kind of whistleing sound and terminates in a round full note which is reather louder than the whistleing, or former part; this note is as loud as that of the large [trumpeter] swan."⁷

Comparisons with familiar sounds often sufficed in lieu of translations. On April 13, 1805, Clark heard "a Gange of brant pass...a voice much like that of a goos & finer &c." Two days later, Lewis "heard the frogs crying for the first time this season; their

note was the same with that of the small frogs which are common to the lagoons and swam[p]s of the U States."⁸

Natural sounds and human activities were found to be related on levels that, regrettably, are irrelevant to modern urbanites: On May 26, 1806, the men noticed that "the dove is cooing which is the signal as the indians informs us of the approach of the salmon." Occasionally a "scientific" observation of birdsong is tinged with pleasure. Near the mouth of the Marias River the curlew, Lewis wrote, "sings very sweetly, has several shrill soft notes reather of the plaintive order which it frequently repeats and varies,...these larks as I shall call them add much to the gayety and cheerfullness of the scene."⁹ One sunny morning a few days later the birds "appeared to be very gay and sung most inchantingly;...the brown thrush, Robbin, turtle dove, linnit goaldfinch, the large and small blackbird, wren and several other birds of less note."¹⁰ Under "remarks" for the month of March, 1806, one of the captains noted that "the birds were singing very agreably this morning particularly the common robin"—no doubt a harbinger of relief from relentless rain. Four months later, returning to the White Bear Islands, Lewis basked in the beauty of a rain-freshened July morning (the 11th): "the air was pleasant and a vast assemblage of little birds which croud to the groves on the river sung most enchantingly."

Not all bird calls were cheery. On the fifth of November, 1805, Clark complained: "I [s]lépt but verry little last night for the noise Kept dureing the whole of the night by the Swans, Geese, white & Grey Brant Ducks &c. on a Small Sand Island close under the Lard Side; they were emensely noumerous, and their noise horid."

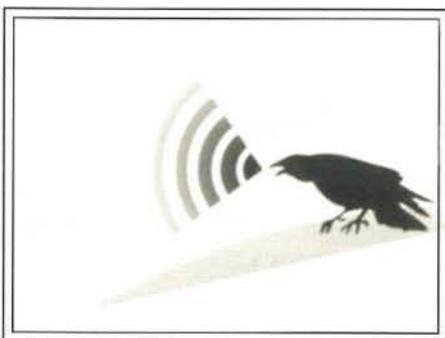
Certain of the events in the natu-

ral soundscapes along the expedition's route were unexplainable. Near the present town of Miami, Missouri, on June 6, 1804,



George Drouillard heard "a remarkable Snake inhabiting a Small lake 5 ms. below which gobbles like a Turkey & may be herd Several Miles." There is no further comment from the journalists, and we expect none. The human mind has always populated dark and dangerous places with powerful spirits and frightful monsters.

Intermittently, the natural soundscape would be overlaid with a complementary human sound key centering upon an Indian village. As the captains, obedient to President Jefferson's instructions, transcribed the babel of native tongues into vocabularies, they also observed the timbres and tempos of the diverse Indian languages. Clark observed that the Shoshone people had "a gugling kind of language Spoken much thro the Throught."¹¹ At the Great Narrows of the Columbia on October 27, 1805, Clark noticed that "Common to all the *flat head* Bands which we have passed on the river, all have the *clucking* tone anexed." The singing and drumming of Indian celebrations added a strident



chord to the setting, occasionally keeping a weary explorer awake.¹² Beyond that, the Indians' dogs—beasts of burden, sanitation engineers, beloved pets and sometimes victuals—must have dominated the sound key of many villages.¹³

At Fort Clatsop, where rain forced them to entertain guests in their cramped and stuffy quarters, Clark troped an ordinary human sound in an unusual context. Some of the natives of that neighborhood not only inhaled tobacco smoke but also swallowed it, with crepitant consequences. "They frequently give us," wrote Clark one soggy January day, "Sounding proofs of its createing a dismorality of order in the abdomen, nor are those light matters thought indelicate in either Sex, but all take the liberty of obeying the dictates of nature without reserve."¹⁴

Night and day, the expedition's ears were tuned to every nuance of the soundscape, the way a musician hears every single note of a composition—without effort, always aware of implications. During most of their journey, their aural antennae were focused on the sounds of the rivers, sorting out the cacophony of signals—separating the noise of their oars or poles, of their wading and stumbling, from the threatening sounds of rapids, eddies, shifting sands, collapsing banks, submerged logs and treacherous sawyers.¹⁵ On the 21st of June, 1804, Clark noted "the swift water over roleing Sands which rored like an immense falls." Three months later, on September 21, at half-past one in the morning, Clark was awakened by the sound of moving sand. "I got up," he wrote, "and by the light of the moon observed that the Sand was giving away both above & below and would Swallow our Perogues in a few minits, ordered all hands on board and pushed off

we had not got to the opposit Shore before pt. of our Camp fel into the river."

It was, indeed, the sound of moving water that sustained them and drew them onward: As they approached the Rockies, all ears must have been seeking the rumble that would proclaim the Great Falls of the Missouri. Back at Fort Mandan, the Indians had stated to them that "the nois it makes can be heard at a great distance." In mid-June of 1805, after the crisis of uncertainty at the mouth of the Marias River, they revelled in "the agreeable sound of a fall of water," and Lewis enjoyed the "hising" of the foam as it floated away. Clark, regarding those "Cateracts" with astonishment, remarked on their "dedly Sound." Five months later, as they approached the Pacific Ocean on November 7th, the "roreing or noise made by the waves brakeing on the rocky Shores" seemed to confirm their success. Never mind that, technically, their ears had deceived them, and they had only reached the vast estuary of the Columbia River.

En route across the Bitterroot Mountains, it was the thump and shuffle of horses' hooves that marked the days—and the nights. Nothing will rouse a horseman from deep sleep quicker than the silence left behind after the livestock have wandered off.

Otherwise, the men must have relished occasional windows in the soundscape—those cold, clear, windless nights, or those magic moments before dawn, when all of Nature holds its breath while the creatures of the night slip past those of the day. Then there was the solemn silence on that "butifull evening," following the funeral of Sergeant Floyd. Those are the moments when Lewis might again have reverently wished for the gift of James Thompson, that English

poet whose name he invoked upon his first sight of the Great Falls of the Missouri. He might even have recalled Thompson's line, "Come then, expressive silence, muse his praise."¹⁶ And when the wind stopped shrieking through the chinks of Fort Mandan or roaring in their ears on the plains, or the rain quit drumming on the shingles of Fort Clatsop, their ears' respite must have been...well...*thrilling*.

—◆◆◆—

"unaccountable artillery of the Rocky Mountains"

There was one sound that was unquestionably a part of the natural soundscape, but which couldn't be made to fit in logically, as the effect of a cause.

On July 4, 1805, Lewis wrote that since their arrival at the falls on the 13th, they had "repeatedly witnessed a nois which proceeds from a direction a little to the N. of West as loud and resembling precisely the discharge of a piece of ordinance of 6 pounds at the distance of three miles." The men called it to his attention several times before he took them seriously, and then he heard it himself, very distinctly: "it was perfectly calm clear and not a cloud to be seen, I halted and listened attentively about an hour during which time I heard two other discharges."

"I am at a loss to account for this phenomenon," he mused.¹⁷

On July 11 Lewis recorded two more discharges of this "unaccountable artillery of the Rocky Mountains." He recalled that the Minitaris, far down-river, had mentioned a mysterious noise, but he had paid no attention, supposing it to be either false or "the phantom of a supersticious imagination." The engagés had told him that "the Panis and Ricaras give the same account of the Black mountains which lye West of them," but explained it themselves as "the burst-



ing of the rich mines of silver which these mountains contain."¹⁸

Clark summarized Lewis's notes on the matter, with a few embellishments, and back-dated his entry to June 20th. "It is probable," he added, "that the large river just above those Great falls which heads in the direction of the noise has taken its name Medicine River from this unaccountable rumbling sound, which like all unaccountable thing with the indians of the Missouri is Called Medicine."¹⁹

After the expedition ended, there was some more discussion about the matter between Clark and his editor, Nicholas Biddle. On December 20, 1810, Clark wrote to Biddle: "I think I mentioned having heard a rumbling noise at the falls of the Missouri, which was not accounted for, and you accounted for them by simulating them to Avelanches of the Alp."²⁰ Biddle must have had second thoughts about his own suggestions, however, for no such notion appeared in Allen's *History of the Expedition*.²¹

Meanwhile, in 1808 George Drouillard explored Crow Indian country, south of the Yellowstone River, with fur trader Manuel Lisa. Returning to St. Louis the following

year, he supplied Clark with additional data for his map of the West, including a report of strange booms heard on Rosebud Creek: "at the head of this river the indians give an account that very frequently there is a loud noise heard like thunder which makes the earth tremble—they state that they seldom go there because their children cannot sleep at night for this noise and conceive it posed of spirits who are averse that men should be near them."²² The head of the Rosebud is more than 250 miles southeast of the Great Falls of the Missouri.

The "artillery" continued to startle travelers in the West. The information the Pawnees and Arikaras gave to Lewis was reconfirmed in 1810 by Wilson Price Hunt, in charge of John Jacob Astor's Pacific Fur Company expedition. Washington Irving, who related the account in his history of the Astor family, *Astoria*, said that Hunt reported a "natural phenomenon of a singular nature" in the vicinity of the Black Hills. Similar sounds, he remarked, had been heard in several parts of Brazil by a Jesuit priest named Vasconcelles, who was told by the Indians there that it was but "the throes and

groans of the mountain endeavoring to cast forth the precious stones hidden within its entrails." "In fact," Irving wrote, "these singular explosions have received fanciful explanations from learned men, and have not been satisfactorily accounted for even by philosophers."²³

Back on July 4, 1805, Captain Lewis had assured himself, with the confidence of a true child of the Age of Enlightenment: "I have no doubt but if I had leasure I could find from whence it issued." But Washington Irving was an offspring of the Romantic era:

*In whatever way this singular phenomenon may be accounted for, the existence of it appears to be well established. It remains one of the lingering mysteries of nature which throw something of a supernatural charm over her wild mountain solitudes, and we doubt whether the imaginative reader will not rather join with the poor Indian in attributing it to the thunder spirits or the guardian genii of unseen treasures, than to any commonplace physical cause.*²⁴

Perhaps the "artillery of the Rocky Mountains," by whatever name it might be called, will somehow attract the attention of a 21st-century scientist who will determine its cause once and for all. In the meantime, why not throw in with Washington Irving's "poor Indian"? Do we really need to know *all* the answers.

—FOOTNOTES—

¹Diane Ackerman, *A Natural History of the Senses* (New York: Vintage Books, 1991), p. 176.

²Bernard L. Krause, "Bio-Acoustics: Habitat Ambience and Ecological Balance," *Whole Earth Review*, no. 57 (Winter, 1987), p. 14.

³July 25, 1806; Gary Moulton, ed., *The Journals of the Lewis and Clark Expedition* (8 Volumes; Lincoln: University of Nebraska Press, 1986-93), 8:226.

⁴Lewis wrote of the magpie on September 17, 1804. The tern tuned up on August 5,

1804; Moulton 2:451.

⁵Lewis, October 16, 1804; Moulton 3:178, Peterson, *A Field Guide to Western Birds* (Boston: Houghton Mifflin Company, 1990), p. 214: "a loud, repeated *poor-will* or *poor-jill*."

⁶August 1, 1805; Moulton 5:25. Peterson, p. 256. See also Chandler S. Robbins, Bertel Bruun, and Herbert S. Zim, *Birds of North America* (New York: Golden Press, 1966), p. 208.

⁷March 9, 1806; Moulton 6:395. Efforts to describe bird calls have produced some eloquent musical criticism. *The Audubon Society of North American Birds* describes the "note" of the whistling swan (*Olor columbianus*) as a "loud, melodious, high-pitched call, ... like distant baying of hounds, but also more like soft, musical laughter, *wow-how-ow*, ...; also utters long whoops and clarinetlike sounds." The consensus is now that, Lewis's judgment notwithstanding, *olor columbianus* does not whistle, and the American Ornithologists' Union has abandoned Lewis's name in favor of *tundra* swan.

⁸Moulton 4:33 and 4:41.

⁹June 4, 1805; Moulton 4:254.

¹⁰Lewis, June 8, 1805; Moulton 4:265. Was he punning? Perhaps he was referring to various *corvidae* such as the magpie, or his

co-captain's namesake nutcracker, whose voices are, musically speaking, "of less note."

¹¹Clark, September 5, 1805; Moulton 5:188.

¹²Lewis, August 13, 1805: "I was several times awoke in the course of the night by the yells but was too much fortieged to be deprived of a tolerable sound night's repose."

¹³Clark, October 18, 1805. One would suppose that the noise pollution around the Wanapam and Yakima villages at the confluence of the Snake and Columbia rivers must have been somewhat reduced when the men bought forty dogs for food—cheap!

¹⁴January 10, 1806; Moulton 6:196.

¹⁵In the boater's lingo, a sawyer is a fallen tree still anchored to its root-wad, rhythmically rising and sinking in the chaotic current. It can entrap the unwary boater, brush him from his craft, and damage or sink it. Private Willard tangled with a sawyer on the Missouri River on August 4, 1806.

¹⁶*A Hymn* (1730). Thompson (1700-1748) was a pioneer of 19th-century Romanticism, and a precursor of Cowper and Wordsworth. His epic, *The Seasons* (1726-30), with its focus on the beauties of

nature, was especially popular in America.

¹⁷Moulton 4:361-62.

¹⁸Moulton 4:374-75. Jean Vallé, a trader Clark met on the Missouri River on October 1, 1804, had told him that "a great noise is heard frequently" in the Black Hills.

¹⁹Moulton 4:320.

²⁰Donald Jackson, ed, *Letters of the Lewis and Clark Expedition with Related Documents* (Second edition, 2 vols.; Urbana: University of Illinois Press, 1978), p. 565.

²¹Paul Allen, *History of the Expedition under the Command of Captains Lewis and Clark, to the Sources of the Missouri, thence across the Rocky Mountains and down the River Columbia to the Pacific Ocean* (New York: Bradford and Inskeep, 1814).

²²M.O. Skarsten, *George Drouillard, Hunter and Interpreter for Lewis and Clark, and Fur Trader, 1807-1810* (Glendale, CA: The Arthur H. Clark Company, 1964), pp. 268-69, and end-paper map.

²³Washington Irving, *Astoria, Or Anecdotes of an Enterprize Beyond the Rocky Mountains*, in Richard Dilworth Rust, ed., *The Complete Works of Washington Irving* (1836; reprint, Boston: Twayne Publishers, 1976), I:167.

²⁴*Ibid.*

"Moodus Noises"

Twenty years before Lewis and Clark documented the "artillery of the Rocky Mountains," Daniel Jones of the American Academy of Arts and Science studied similar occurrences near West-River Mountain in New Hampshire. Jones remarked that "the peasants...became possessed with the idea of gold."¹ Earlier in Colonial days, booming sounds were occasionally heard a few miles south of present-day Hartford, Connecticut, at a place local Indians named Moodus, meaning "strange noises."²

In 1872, the Northern Pacific railroad sent Thomas P. Roberts to Montana to conduct a survey of the upper Missouri River, and map a narrow-gauge rail route around the Great Falls of the Missouri, so as to extend steamboat commerce all the way to

the Three Forks. On August 7, when Roberts and his party were camped at the mouth of the Sun River, they recognized sounds similar to those Lewis and Clark had reported. "Altogether," he confided to his journal, "there was something strange in the coincidence."³

During the 1890s, scientists in Nova Scotia and England put out calls for accounts of the phenomenon, and responses came from all corners of the globe. Each locality had its own name for the sounds.⁴ In Ontario they were called Cornwall thumps; in Ireland, the water guns of Lough Neagh; in Scotland, the detonations of Comrie; in England, the sounds of Morecombe Bay. British officials at Barisal in Bangladesh, near the mouth of the Ganges River, termed them Barisal Guns. Nova Scotians re-

ferred to air quakes or sea farts, Haitians called them *gouffre*, Italians knew them as *baturlio marina*, and Hollanders and Belgians said *mist poeffers*. In central New York state they were the guns of Lake Seneca; in the Florida Gulf, just "air sounds." Natives around Lake Bosumtwi, in West Africa, said *Bosumtwi oto atuduru*—"Bosumtwi has fired gunpowder!" They've been noticed in Syria, Egypt, and Constantinople; in Switzerland, Provence, Alsace, Tuscany, Burgundy and Paris; in Lapland and the Eastern Himalayas.⁵

The most recent reports of sonic anomalies were recorded between December 2, 1977 and May 31, 1978. Nearly 600 separate "mystery booms" were heard along the east coast of North America, from Nova Scotia to Charleston. They elic-

ited enough fear and anxiety among American taxpayer to prompt Senator Harrison Williams of New Jersey to demand an investigation, and the Naval Research Laboratory was given the assignment. The NRL estimated that two-thirds of the "events" were caused by supersonic aircraft; the rest were ascribed to "unknown causes."

An analysis of the NRL report by two East Coast researchers led to the conclusion that the majority of the unattributed noises had a *natural* origin, possibly but not necessarily associated with earthquakes.⁶ Recently a suggestion was made to Professor MacDonald that he and his co-author bring their book up to date, but there was insufficient new data to make the effort worthwhile.⁷ It seems that an impenetrable pall of noise pollution, dominated by sirens and jet engines, has wiped such experiences from our ken.

Modern lexicographers have tried to fix a scientific name on this strange but ubiquitous sonic event, but it has not taken hold. The word *brontides*, from the Greek words *bremein*, roar, and *bromos*, loud noise, appeared in the 1971 edition of *Webster's Third International*, with a definition no more precise than that of Lewis, Clark or Fr. Vasconcelles: "a low muffled sound like distant thunder heard in certain seismic regions esp. along sea-

coasts and over lakes and *thought to be caused by feeble earth tremors.*"⁸ It appeared again two years later in a dictionary of scientific terms, bearing a less equivocal explanation: "Low, thunder-like noise, of short duration, most frequent in actively seismic regions; it is the rumbling of a very feeble earthquake."⁹ The most recent dictionaries of the English language are silent on the subject.

Nonetheless, here and there, now and then, one can still find people who will quietly admit—with a little smile as if prepared to be corrected, or else to be put down for having "a superstitious imagination"—that they think they've heard something like the mysterious "artillery of the Rocky Mountains."

—FOOTNOTES—

¹"An Account of West-River Mountain," *Memoirs of the American Academy of Arts and Science*, 1784, Vol. 1, pp. 312-15; cited in Sandra Claflin-Chalton and Gordon J. MacDonald, *Sound and Light Phenomena: A Study of Historical and Modern Occurrences* (McLean, Virginia; The MITRE Corporation, 1978), 75.

²K.W. Golde in *The Foretan*, October 1941, p. 7; from the *Buffalo Evening News* of March 2, 1940. Cited in William R. Corliss, comp., *Strange Phenomena: A Sourcebook of Unusual Natural Phenomena* (2 vols.; Glen Arm, MD: William R. Corliss, 1974), 1:GSD [Geology-Sounds-Detonations], item 013. Following a series of microearthquake swarms during the 1980s, scientists sank boreholes in the "Moodus quadrangle," but the results of the research contain no references to the mysterious sounds.

³Thomas P. Roberts, *Report of a Reconnaissance of the Missouri River in 1872* (Washington: Government Printing Office, 1875), 49.

⁴W.F. Ganong, "Upon Remarkable Sounds Like Gun Reports Heard Upon Our Southern Coast," *Bulletin of Natural History Society*, New Brunswick, Canada (1897), 40. Also G.H. Darwin, in *Nature*, (October 31, 1895) 52:650. George Howard Darwin was a son of Charles Darwin.

⁵See Corliss, passim; also *Encarta* (Redmond, WA: Microsoft Corporation, 1994), s.v. Barisal guns.

⁶Sandra Claflin-Chalton and Gordon MacDonald. See note 1.

⁷Personal communication, November 29, 1994.

⁸*Webster's Third International Dictionary* (Springfield, MA: G. & C. Merriam Company, 1971). Emphasis added.

⁹Robert W. Durrenberger, comp., *Dictionary of the Environmental Sciences* (Palo Alto, CA: National Press Books, 1973.)

About the author...

Joseph A. Mussulman, a professor emeritus at the University of Montana, is the author of several books on music history, biography and appreciation. He also has written and directed multimedia and audio interpretive programs about various national parks and historic sites. Dr. Mussulman is planning an interactive multimedia CD-ROM series on Lewis and Clark.

Dr. Mussulman lives on the Lolo Trail just a two-hour horseback ride west of Travelers Rest. At the end of his teaching career he served for twelve seasons as a wilderness ranger for the Lolo National Forest.

CAMP FORTUNATE CHAPTER Dillon, Montana

The Camp Fortunate Chapter was organized on November 20, 1991. The chapter now has 31 members and meets on the third Monday of each month.

The chapter has been active in helping the Forest Service clean up and maintain Sacajawea Park at

Lemhi Pass. The Laura Tolman Scott Wildflower Trail has been re-established and a visitor register has been installed.

We were successful in getting Clark's Lookout placed on the National Register of Historic Places in 1994. We are presently working on obtaining necessary easements in order to begin de-

velopment of the site.

A recent project has been the restoration of the Lewis and Clark diorama that depicts Lewis departing from the main party near the Beaver's Head 14 miles northeast of Dillon.

A future project will be locating and marking the expedition campsites in our area.

We Met Them at the Fair

Lewis and Clark Commemorated at the 1904 Louisiana Purchase Exposition

by Ann Rogers

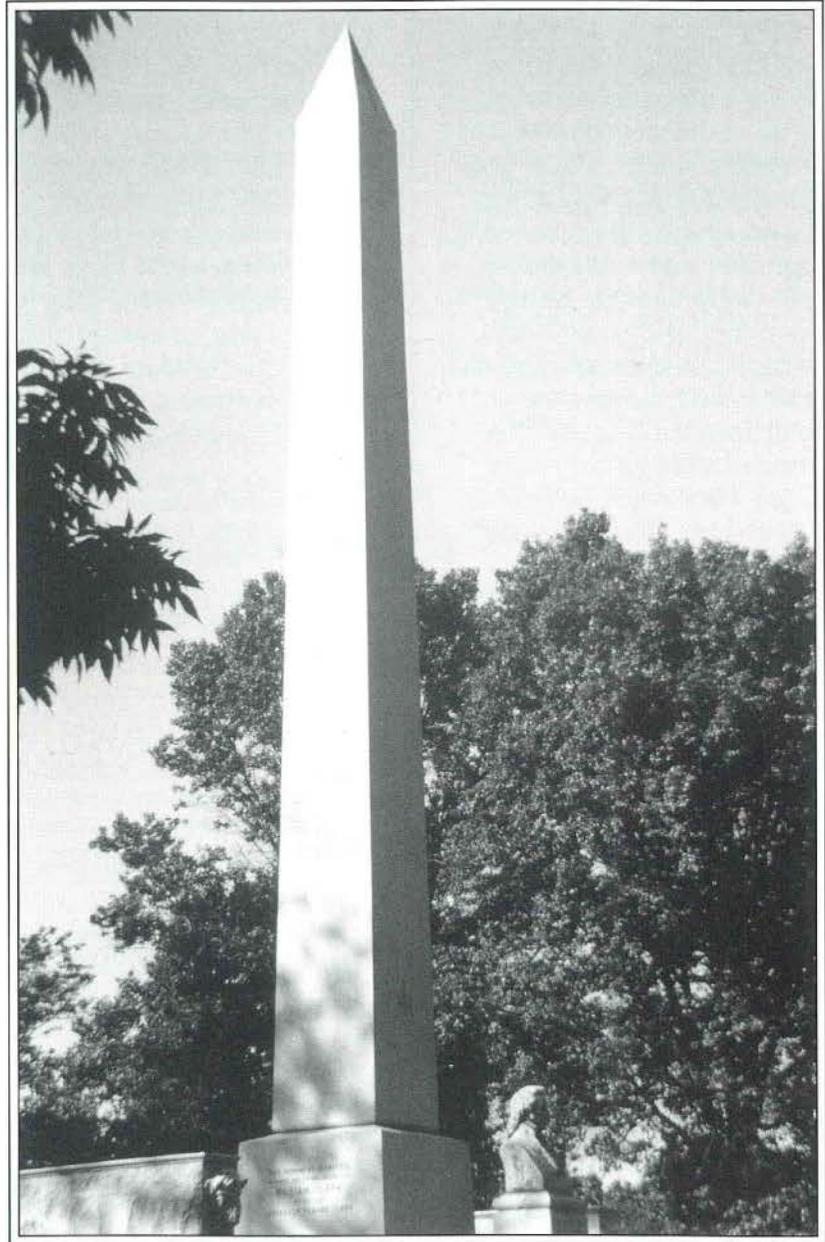
Part 2 of 2 Parts

The statues of Lewis and Clark which stood on the fairgrounds portrayed the men in frontier garb as explorers of the Louisiana Territory. Formal portraits of the two, part of an extensive collection presented by the Missouri Historical Society, reminded fairgoers that after the great journey both Lewis and Clark served the territory as administrators.

A month after becoming governor of the Louisiana Territory, Meriwether Lewis was painted by Charles Willson Peale, who had expressed a wish to have "his portrait for the museum."¹ Peale's museum would later include a portrait of William Clark and a wax figure of Lewis wearing the garment of "Ermine Skins" he had received from Chief Cameahwait.²

Now in Independence Hall, the Peale portraits are the best-known likenesses of Lewis and Clark. The *History of the Louisiana Purchase Exposition*, edited by Mark Bennitt, reproduced what the caption described as a copy of the Peale portrait of Lewis "painted for the Missouri Historical Society and exhibited by them at the Louisiana Purchase Exposition."³

The portrait of Clark seen by fairgoers was described as one "owned by his grandson, John O'Fallon Clark of Saint Louis, and exhibited by the Missouri Historical Society."⁴ An inventory of the Society's collection at the fair identifies it as a "portrait, by Harding."



The Clark monument at Bellefontaine Cemetery in St. Louis was dedicated during the Louisiana Purchase Exposition of 1904.

Chester Harding, a self-taught artist, did at least three paintings of Clark including a full-length

study now on loan to the Governor's Mansion in Jefferson City. Harding's apparent copy of a

likeness of Clark by John Jarvis is reproduced as the one displayed at the fair.⁵

Perhaps Harding's most engaging portrait of Clark was painted in words. He wrote that upon his arrival at St. Louis in 1820 he presented a letter of introduction to "Governor Clarke," who "kindly helped" locate "a suitable room for a studio and then offered himself as a sitter."⁶

The list of portraits exhibited at the fair by the Missouri Historical Society includes the names of Auguste and Pierre Chouteau, Antoine Soulard, Manuel Lisa, and other associated with Lewis and Clark's years in the Louisiana Territory.⁷

The permission given by Governor Lewis to Manuel Lisa in 1809 for trade with the Indians was one of a large number of documents relating to the history of the territory which were displayed.⁸

Among the items loaned by the Chicago Historical Society were a photographic copy of "William Clark's appointment as Agent of Indian Affairs in the Territory of Louisiana, signed by Henry Dearborn, 1807" and the original manuscript of a letter by Governor Clark, "of the Missouri Territory, to Governor Edwards [of the Illinois Territory], dated St. Louis, 21st May, 1817, relative to Indian Affairs."⁹

Two letters exhibited had been sent to Amos Stoddard in the autumn of 1809. Said to be previously unpublished, each is printed in its entirety in Bennitt's history of the exposition. One was the last letter written by Meriwether Lewis. His apology for not responding to "several friendly epistles" received from Stoddard since the expedition's return was followed by a brief explanation for his current journey to Washington and a request that Stoddard send \$200 he was holding for him. In closing, he wrote that by the first of the

year he expected to be on his return to St. Louis.¹⁰

The second, written about three weeks later, was John Brahan's letter telling of Lewis' death on the Natchez Trace. One of three letters he wrote from Nashville on October 18, it was apparently based on



The bust of William Clark faces towards the confluence of the Mississippi and Missouri rivers, from which the boats of the Corps of Discovery set out in 1804.

Major James Neelly's letter of that day to Jefferson. Not half the length of the major's communication, Brahan's report to Stoddard focused on the events at Grinder's Stand and included little from Neelly's account of the days preceding Lewis' arrival there.¹¹

Lewis had lived in St. Louis less than two years after becoming governor of the Upper Louisiana Territory. When William Clark died in 1838, he had been a resident of St. Louis for thirty-two years, serving as an Indian agent for the territory, a brigadier general for militia, governor of the Missouri Territory, and superintendent of Indian affairs. A mile-long cortege accompanied the body to a burial plot on

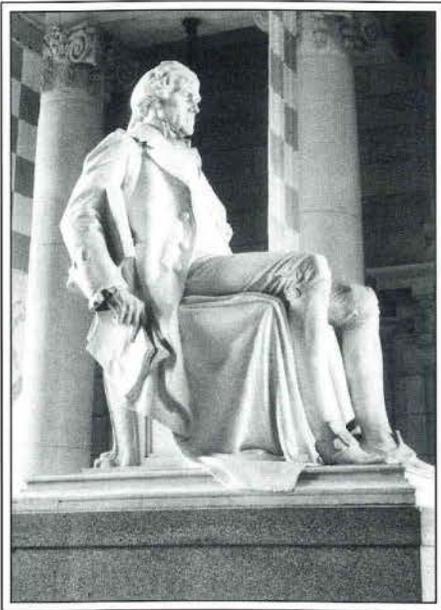
the farm of John O'Fallon, a nephew. In 1860, Clark's body and those of five family members were reinterred at Bellefontaine Cemetery, where wooded hills overlooked the Mississippi.

On October 2, 1904, a monument consisting of a granite obelisk and a bronze bust of William Clark was dedicated. The bust had been draped for the ceremony with the official flag of the Lewis and Clark Centennial, brought from Oregon by Henry E. Dosch, commissioner of that exposition.¹²

A Kansas bishop gave the blessing, and a military band played a hymn. Mayor Wells spoke of Clark's untiring energy and the great good he had done for St. Louis; and David R. Francis, president of the Louisiana Purchase Exposition, said people in this part of the country were only beginning to appreciate Clark's achievements.¹³

Just before the unveiling of the monument, a Creek chief from the Indian territory praised Clark as "a brave man and a man of mercy," who, throughout a difficult mission "made friends with the Indians." Personalizing his tribute, he added: "As an Indian, I love General Clark and honor his memory. As an American, I love General Clark and honor his memory."¹⁴

A photograph in the next day's edition of the *St. Louis Republic* showed Clark family members posed on the obelisk's terraced base. Nine children seated on the steps represented the youngest generation. Standing behind them was Mrs. Jefferson K. Clark, the widow of Clark's last son, who provided in his will for the monument. John O'Fallon Clark, who had loaned the fair his grandfather's portrait, was present. Also pictured are Clark's granddaughter, Julia Clark Voorhis, and her daughter, Eleanor Glasgow Voorhis. The Missouri Historical



Karl Bitter's statue of Thomas Jefferson holds the place of honor in the loggia of the Jefferson Memorial.



The Jefferson Memorial at the edge of Forest Park was built with profits from the fair. The fountain, which commemorates the Lewis and Clark Expedition, was added later.

Society would eventually receive from Mrs. Voorhis the Lewis and Clark journals she had inherited, including Clark's field book with his sketch of Fort Clatsop on the elkskin cover.¹⁵

David R. Francis and others who had worked to make the Louisiana Purchase Exposition a success proposed a memorial to Thomas Jefferson as an enduring legacy of the fair. The Exposition Company and the City of St. Louis agreed their share of the profits should go to this purpose, and Francis persuaded Congress to contribute the federal government's share as well.

The building, on the site of the fair's main entrance, was dedicated April 30, 1913. April 30 was the day the fair had opened in 1904 and is the date on the Louisiana Purchase Treaty of 1803. Unveiled at the ceremony were a bronze bas-relief sculpture entitled "The Signing of the Louisiana Purchase Treaty" and a marble statue of Thomas Jefferson. Both were designed by Karl Bitter, chief of sculpture for the exposition.

But the memorial was intended

"to stand for something more than architecture and art." Francis wrote that it should "house our historical literature and official records and relics in...worthy surroundings" where "they might always be accessible."¹⁶ For this reason it became home to the Missouri Historical Society, whose massive collection includes the telescope Lewis used on the journey to the Pacific, a compass carried by Clark, and the journals of the expedition.¹⁷

The Jefferson Memorial is a legacy of the Louisiana Purchase Exposition of 1904, when twenty million fairgoers could visit replicas of Monticello and Fort Clatsop, see statues of Lewis and Clark as explorers or portraits of them as governors, and read documents related to their roles in the territory. *We met them at the fair.*

—FOOTNOTES—

¹Paul R. Cutright, "Lewis and Clark: Portraits and Portraitists," *Montana, the Magazine of Western History*, Vol. XIX, No. 2 (April, 1969), 38.

²*Ibid.*, 38-39. Cutright explains the "ermine" was "actually the fur of the long-

tailed weasel...whose hair turns white in winter."

³*History of the Louisiana Purchase Exposition*, ed. Mark Bennett (St. Louis, 1905), p. 74.

⁴*Ibid.*, p. 75.

⁵*Ibid.*, Cutright, 46-48, and John Francis McDermott, "How Goes the Harding Fever?" *Missouri Historical Society Bulletin*, Vol. VIII, No. 1 (October, 1951), 52-59. The portrait of Clark which appears in Olin Wheeler's *The Trail of Lewis and Clark, 1804-1806* (New York, 1904), p. 79 is "Supposed to be from an Old Portrait by Harding, Made when Clark was Governor of the Missouri Territory. Courtesy of John O'Fallon Clark, St. Louis, a grandson of Wm. Clark." As reproduced, it is not identical to the portrait in Bennett.

⁶Cutright, 47.

⁷Inventory of Missouri Historical Society exhibits at the Louisiana Purchase Exposition, pp. 282-84.

⁸*Official Catalogue of Exhibitors: Department of Anthropology, Universal Exposition* (St. Louis, 1904), p. 42.

⁹*Ibid.*, p. 49.

¹⁰Bennett, p. 73.

¹¹*Ibid.*, pp. 73-74. The Missouri Historical Society holds Lewis' letter to Stoddard but apparently has only a copy of the Brahan letter. I was unable to find either in the society's inventory of its exhibits at the fair. Brahan's three letters are discussed by Vardis Fisher in *Suicide or Murder?* (Chicago, 1962), pp. 139-143.

¹²St. Louis Republic, October 3, 1904, p. 11.

¹³*Ibid.*

¹⁴*Ibid.*

Annuals or Perennials?

Purpose of the L&CTHF

The purpose of the Lewis & Clark Trail Heritage Foundation (L&CTHF) is: *to stimulate awareness of the Lewis & Clark Expedition*. In order to achieve that purpose, the L&CTHF works in concert with (1) federal, state and local government agencies; (2) non-government not-for-profit organizations similar to the L&CTHF; (3) other organizations and (4) individuals in the accomplishment of its two objectives. Those objectives are: (a) publication and distribution of documents pertaining to the Lewis & Clark Expedition and (b) construction, dedication and maintenance of public markers, monuments and parks adjacent to the Lewis & Clark Trail.

Present and former officers and directors of the L&CTHF share the view that the most disappointing

¹⁵*Ibid.*

¹⁶David R. Francis, *The Universal Exposition of 1904* (St. Louis, 1913), p. 679.

¹⁷A listing of the society's major Lewis and Clark holdings appears in Paul R. Cutright, *Lewis and Clark: Pioneering Naturalists* (Lincoln, 1969), pp. 452-53. Jan Snow, "Lewis and Clark in the Museum Collections," *Gateway Heritage*, Vol. 2, No. 2 (Fall, 1981), 36-41 has color photographs of the telescope, compass, and related items.

About the author...

Foundation member Ann Rogers received her Ph.D. from St. Louis University and taught for 12 years, most recently at Maryville University. The expanded version of her book *Lewis and Clark in Missouri* was reviewed in *WPO* August 1994.

aspect of their work on behalf of the L&CTHF is the inability of the L&CTHF to accomplish more than a small part of what could be done were more financial resources available to it. To that end, the Bronze Fund was commenced in 1976 and developed since then to ensure that investment income from that fund will pay, in perpetuity, a significant part of the cost to publish *We Proceeded On*.

More Financial Resources Needed

Financial resources additional to the annual investment income from the bronze and other restricted funds were, and are, needed to help pay for other L&CTHF work segments. Consequently, another organized planned-giving effort, on behalf of the L&CTHF, was begun in 1987. Originally termed "Endowments Committee," and now called the Planned Giving Committee (PGC), its initial purpose was to (1) encourage members to name the L&CTHF in their wills and (2) to increase their giving to restricted funds whose investment income is used in perpetuity to meet the expense of specific L&CTHF endeavors. The August 1988 issue of *WPO* included a document prepared by the PGC which invited members to name the L&CTHF in their will. Since that time a number of persons have indicated to members of the PGC that they have done so. Normally, the "pipeline lag" response time to a wills emphasis is about 15 years, depending upon the age level of persons participating. Patience may be required but mortality will have its way.

Lewis & Clark Fellow Fund

The primary thrust of the PGC's restricted-fund effort is to create an asset base whose investment income will be used to pay a part of the cost of an executive director for the L&CTHF. That asset base is called the Lewis & Clark Fellow Fund. In previous years, L&CTHF financial reports and other documents showed existence of a PGC Fund in addition to the Fellow Fund. However, in 1994 the PGC Fund and the Lewis & Clark Fellow Fund were combined.

Actual contributions to the Fellow Fund through August 4, 1995 amount to nearly \$46,000. Assets in the Lewis & Clark Fellow Fund as of that date total about \$60,000. The \$14,000 difference between what has been donated and what is in the fund is accounted for primarily by two factors: (1) consolidation of the former Planned Giving Committee Fund and Executive Secretary Fund with the Lewis & Clark Fellow Fund and (2) investment income additions to all three funds since their commencement.

Present emphasis of the PGC

The primary purpose of the PGC continues to be to increase long-lasting financial resources of the L&CTHF. During 1995 annual meeting days, L&CTHF members contributed \$4,000 to the Lewis & Clark Fellow Fund. Moreover, some members indicated they plan to begin making installment contributions to the Fellow Fund in the 1995-6 fiscal year. Since the annual meeting, another L&CTHF member has become a charter member of the Lewis & Clark Fellow Fund.

A secondary purpose of the PGC

is to raise short-term funds for the L&CTHF. During the 1994-5 fiscal year, the PGC helped increase voluntary-extra-contribution giving associated with membership re-enrollment. The PGC continues to encourage members to include the L&CTHF in their wills.

Current or long-lasting giving better?

Is it better to make a gift to the L&CTHF that will be used to help pay current-year operating expense or make a gift to one of the L&CTHF restricted funds whose investment income can be used in perpetuity to support a designated segment of the L&CTHF's work? The L&CTHF has four restricted funds: Betts Fund, Bronze Fund, Burroughs Fund and the Fellow Fund. Use of investment income and principal from the Betts Fund is restricted to the purchase of equipment for the publication of *WPO*. Only investment income from the Bronze Fund may be used and that only for payment of *WPO* publication costs. Investment income from the Burroughs Fund can be used only to support youth education associated with the Lewis & Clark Expedition. Only investment income from the Fellow Fund may be used and that only to help support costs of the L&CTHF's executive director.

L&CTHF needs both kinds of income

Supporters of the L&CTHF decide whether their gifts will be used for (1) current-year expense, (2) expense for many years in the future—even in perpetuity—or (3) both (1) and (2). Opportunities for current-year-expense giving to the L&CTHF include: gifts of cash, securities and real estate; matching gifts; voluntary-extra-contributions tied to membership renewals; and gifts in memory. Long-term giving possibilities include: gifts to re-

stricted funds, designation of the L&CTHF in one's will, naming of the L&CTHF as beneficiary of part, or even all, of one's life insurance.

L&CTHF restricted funds serve both current and long-term financial needs. Whatever annual L&CTHF expense is paid by investment income from restricted funds reduces the amount of income otherwise required to meet current expense. For example, on the average, investment income from the Bronze Fund has paid approximately one-third the cost of publishing *WPO*. If it were not for the investment income from that fund, the L&CTHF would have to meet all of the *WPO* publication costs from current income instead of only two-thirds of the total.

In a sense, the L&CTHF is faced with a flower-garden planting decision: should annuals or perennials be planted? An annual produces flowers for a single year. A perennial produces flowers year after year. In addition to the annual-perennial choice, another decision needs be made concerning which annuals and which perennials. The L&CTHF needs both annuals and perennials in its garden. Members of the L&CTHF decide what kind of "plants" they prefer.

Water the plants you want to grow

The L&CTHF was originated *without funding*. Since its beginning, the L&CTHF has been raising money through its restricted funds

in order that investment income from those funds may be used to pay as large a part as possible of L&CTHF annual operating expense. The L&CTHF will need to continue to "grow" its restricted funds. However, the larger those restricted funds become, the easier it will be to attract supplemental funding from sources outside the L&CTHF membership. Moreover, the greater the investment income from restricted funds becomes, the lesser the annual budget strain will be on membership dues, annual meeting gains, etc. Please help **"water the plants you want to grow."**

L. Edwin Wang, Chairman
Planned Giving Committee

OBITUARY

FRITZI G. CHUINARD

Mrs. Chuinard died August 16, 1995 at age 89.

She was born June 9, 1906 in Ida Grove, Iowa. Her maiden name was Goff.

She lived in Tacoma until graduating from Washington State University with a teaching degree.

She married Frenchy Chuinard July 5, 1930. Frenchy and Fritzi were longtime members of the Lewis and Clark Trail Heritage Foundation. Frenchy was the founder of *We Proceeded On* magazine.

She and her husband spent most of their 63 years of married life in Portland.

She served on the Portland Curriculum Council, five years on the Multnomah County Planning Commission and six terms as a representative in the Oregon Legislature.

Surviving are her son, Robert of New Orleans; daughter, Beverly Forrest of Olympia; and six grandchildren.

Most recent donors to the Lewis & Clark Fellow Fund

*Jane R. Billian
David Borlaug
Dr. Gerald R. Holcomb
Anonymous second-time giver
Robert R. Shattuck*

—Book Review—

OUR NATURAL HISTORY: THE LESSONS OF LEWIS AND CLARK by Daniel B. Botkin. (G.P. Putnam's Sons, 1995) pp. xix + 300. Hardcover \$25.95.

A Review by Jack DeForest

With the approaching bicentennial of the 1804-6 Lewis and Clark Expedition that played a significant role in opening the American West following President Jefferson's doubling our country's size with the 1803 Louisiana Purchase, this well-written book provides an insightful assessment of important elements of wilderness reported in the Lewis and Clark Journals. The textual analyses by Dr. Botkin, an environmental biologist who directs academic research programs in California and Virginia, is unique in style and substance with information useful for modern policy action. His stimulating read of the illuminating wilderness reports in the Lewis and Clark Journals (newly edited by Gary E. Moulton, University of Nebraska Press) is linked to recent geographic natural world scientific research over the Corps of Discovery's 4,000 mile outward journey from St. Louis, up the Missouri River, across the Great Plains, over the Rocky Mountains and down the Columbia River to the Pacific Ocean.

The perceptive narrative recognizes the wilderness status of natural ecosystems encountered by Lewis and Clark and the changes evident today following decades of settlement by Europeans whose productive technology and culture varied widely from that of the Native Americans they encountered. The book's eleven chapters with reference notes focus reader attention on our natural history and necessary policies required to avoid disastrous anthropogenic behavior that degrades prospects for all species.

Botkin's succinct revelation of the Lewis and Clark Expedition highlights the natural world encountered before it was changed by modern civilization. His interesting research focus reveals the historic changes by nature itself—e.g., the Missouri River and its unpredictable meandering through flood plains even during the Lewis and Clark voyage. Specific animals encountered by Lewis and Clark were studied in context with current conservation programs. The "most dangerous and frightening" grizzly bear is reported from Lewis and Clark encounters and the "nature determined"

populations that could be target goals today. The same research style is applied to the food sources that have been eliminated, buffalo, and modern exploitation of living resources from salmon loss on the West Coast because of over-fishing and habitat destruction to recent deforestation and its impact on natural ecosystems.

Citizens with environmental quality concern for future generations will appreciate this book's substance as messages surface that should be understood by politicians. Interested students will find more knowledge about our historic natural world in the excellent supplement volume by Paul R. Cutright, "Lewis and Clark: Pioneering Naturalists" (U. of Nebraska Press, 1989), that includes daily discoveries of flora and fauna during their unmatched terrestrial exploration venture.

Dr. DeForest is an environmental economist who lives in Fairfax County, Virginia.



What in the world is this mess? It is one of the pieces of a now restored Lewis and Clark diorama. See article page 26.



The restored diorama. (Beaver's Head in the upper right.)

Lewis and Clark Diorama Restored and Rededicated

A joint effort of the Beaverhead County Museum and the Camp Fortunate Chapter of the Lewis and Clark Trail Heritage Foundation has resulted in the restoration and rededication of a historic diorama depicting an event that took place near the Beaver's Head northeast of Dillon, Montana on August 9, 1805.

On August 8, 1805, Lewis wrote, "The Indian woman recognized the point of a high plain to our right. This hill she says her nation calls the Beaver's Head from a resem-

blance of its figure to that animal. She assures us that we shall either find her people on this river or on the river immediately to the west of its source."

It was here Lewis decided to take three men and travel ahead as far as it took to find the Shoshone. Lewis was worried because it was getting late in the summer and he realized they must contact the Shoshone soon and obtain horses or they would be unable to cross the mountains before winter. The diorama depicts their departure.

The diorama came into being in the early 1950s through the efforts of K. Ross Toole of the Montana Historical Society. Rudy Autio was the sculptor, Leslie Peters painted the original background and Muriel Guest made accessories like canoes and rifles. Robert Morgan coordinated and arranged the display.

The diorama was featured in the Montana Historical Society Museum in Helena for many years and was then moved to Great Falls where it was placed in storage.

Unfortunately, the move required that the diorama be sawed into several pieces.

Bob Doerk of Great Falls says the diorama was headed to a land-fill in Helena when his group, the Portage Trail chapter of the Lewis and Clark Heritage Foundation, got wind of what was happening. Under the leadership of lawyer Dick Martin, the Great Falls group rescued it and donated it to the Beaverhead County Historical Society in Dillon.

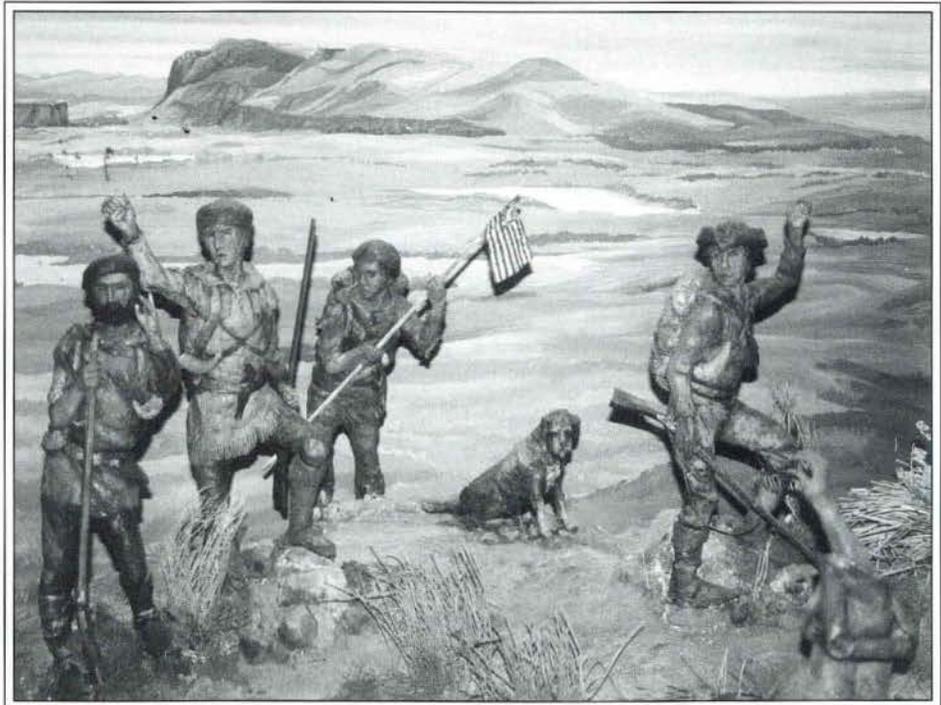
Permission was eventually received to move the diorama to Dillon and restore it. The Beaverhead County Museum received a grant from the Lewis and Clark Trail Heritage Foundation to help pay the costs of restoration. Local sculptor Connie Miller repaired and restored the sculptures. Jim Corr, former art instructor at Beaverhead County High School and Western Montana College, painted a new background that shows the Beaver's Head. Camp Fortunate chapter members and community volunteers spent countless hours constructing a display area in the former Union Pacific Railway Depot.

CLASSIFIEDS

MAPS—"Exploring the West from Monticello," a perspective in maps from Columbus to Lewis & Clark by the University of Virginia Library and Guy Benson. 69 pages with narration and a supplement by Robert Bergantino showing the use of navigational instruments in determining latitude, longitude and magnetic variation. A few copies left over from 1995 annual meeting—an excellent item for any western movement library—\$12.00 post-paid—Lewis & Clark Publications, Box 577, Bozeman, MT 59715.



Close-up of the lower right corner of the diorama.



Lewis and his party of three. Beaver's Head is at the top. The party went to the upper right.

News U-P-D-A-T-E

by Martin Erickson

Matching Money Raised for Interpretive Center Montana

Good news from Great Falls! The \$3 million needed to match federal funding for the Lewis and Clark Interpretive Center, to be built at Great Falls, has been raised 12 days before the deadline date of September 30. In fact, the fund raising effort has gone over the top with a bang. \$3,058,257 has been raised as of September 19.

A second piece of good news also came on September 19. A congressional conference committee has agreed to honor the federal commitment to provide the matching money. With congress in a budget cutting mode, there had been a great deal of concern about whether or not the funds would be approved. However, Montana Senator Conrad Burns reported, "Right now it is a done deal."

More money will still be needed to put back the things that had to be cut when congress scaled down the project from \$9.5 million to \$6 million. They range from funding interactive exhibits that were eliminated to building an amphitheater and moving a road so that a safe parking area can be built. Landscaping and outdoor exhibits will also be added back in when the money is raised.

If all goes as planned, Great Falls, with a brand new interpretive center, will be the site of the foundation's 1998 annual meeting.

A comment from an official of the Montana Department of Commerce's Travel Montana Office emphasizes the importance of the center and the wonderful timing that is involved. Gail Brockbank noted that when the bicentennial of the explorer's trip is celebrated (in a few years) the interpretive center will be a focal point.

"The Lewis and Clark Trail is nationally known and there's a lot of value in that. Already people are beginning to talk about 'that bicentennial'. That will have a big following in Montana."

—Great Falls Tribune

Along the Trail

Foundation member Bill Ivemey had more of an

adventure than he had perhaps bargained for when he used a racing canoe to follow the eastbound trail of Lewis and Clark from Three Forks, Montana to at the arch in St. Louis last summer. It was a 75-day voyage filled with both boredom and excitement.

Ivemey got a taste of what was in store for him early on when he ended up in a hospital in Great Falls, Montana the day after a 14-hour day of fighting head winds on the Missouri River so strong that they drove his canoe backwards. "Stubbornness kept me going," he said. But the stubbornness and lack of carbohydrates gave him dehydration.

Riding the lakes across eastern Montana and in North and South Dakota where the winds would whip up with almost no notice was one of the hardest parts of the trip. Most of the time he was able to get off the water before things got serious, but one storm just about did him in.

About 100 miles south of Mobridge, South Dakota, he hit disastrous weather.

"The wind started whipping up and it drove me ashore about 2 p.m." he related. "About 5 or 6 I looked off to the west and saw very dark clouds."

His radio announcer warned of a very violent storm and said to take cover. Tornadoes and hail were forecast. He turned his canoe over some 50 feet from shore and put his provisions under it.

"I noticed a green squall line and all I could see near me was an old, rotten cottonwood tree which had fallen."

He tried to dig a foxhole behind the cottonwood in pouring rain and wind. The rain changed to hail which hit his unprotected body and head for about 45 minutes. He was able to get his tent out and put it over his head during the storm which dumped seven inches of water on the site in 24 hours.

"Soon I was knee deep in mud and lying in several inches of water."

When he looked for his canoe, it, and his equipment were scattered all around the shore from winds up to 75 mph. His canoe was upside down in a storm-made lake. Eventually he retrieved it and used it and the tent as a shelter from the storm, which raged for 36 hours. Mayday calls on his CB went unheeded.

"How the hell did I live through this?" Ivemey said was his thought when the storm subsided.

An affirmed Lewis and Clark buff, Ivemey said he is getting old and he wanted to see how much strength he had. The trip provided a personal test of his condition.

"Mostly though the Lewis and Clark bug caught me," he said. "They did a fantastic thing. It's amazing what the human spirit can do and I want to try and instill that in young people."

Oh yes, there was also an Indian "attack."

When Ivemey got to Standing Rock Sioux Reservation near Fort Yates, he put up at a boat ramp for the night, leaving the canoe in the water near the dock. It was just before the Fourth of July and the Indians were celebrating by shooting off fireworks.

The celebration went on until 2 or 3 a.m. and many of the rockets went over Ivemey's head. One, however, with a fishtail, just went over Ivemey's head and landed in his canoe under his seat. He had to wait 10 or 15 seconds for it to burn out, but luck-

ily the corfoam bottom of the boat is thick and there was no damage other than minor surface burns.

—Saranac Lake, New York Adirondack Daily Enterprise

Nez Perce Tableau in Place Idaho

Life-sized statues depicting Nez Perce chief Twisted Hair's first meeting with Lewis and Clark have been placed at the Lewis-Clark State College (LCSC) campus in Lewiston, Idaho.

The meeting, which would change the course of history, took place in 1805 as the expedition straggled over the Bitterroot Mountains short of food and reduced to eating its horses.

The tableau, which also shows Twisted Hair's son "being a little boy," according to New Mexico sculptor Doug Hyde, is the focal point of LCSC's Centennial Mall.

Mylie Lawyer, the 83 year-old great-great-great granddaughter of Twisted Hair, was among those who attended the unveiling of the statues.

—Lewiston Morning Tribune

❧ From the Past ❧

July 1945—"Commemorating the 140th anniversary of the Lewis and Clark expedition in the Pacific Northwest, the annual convention of the American Pioneer Trails Association opened at Browning, with the Blackfeet tribal council and the Browning and Cut Bank chapters of the Montana council as hosts. An outstanding program has been arranged by the Great Falls chapter, featured by an elaborate historical pageant, 'Cavalcade of the Great Northwest,' at the North Montana State Fairgrounds.

"A clay model of Sacajawea, Indian Bird Woman, created by Mrs. Jessie S. Lincoln of Great Falls, local sculptress, was viewed by officials of the American Pioneer Trails Association. If the model is accepted, a 10-foot bronze statue copied from Mrs. Lincoln's work will stand somewhere along the Montana trail crossed by Lewis and Clark under Sacajawea's guidance."

"Helena—Charles M. Russell's largest canvas, depicting the meeting of the Lewis and Clark expedition with the Flathead Indians at Ross Hole, about 100 miles south of Missoula, formed a fitting backdrop for the ceremony of the presentation of the official charter of the Montana Council of the American Pioneer Trails Association."

October 1945—"In 500 simultaneous ceremonies, Lewis and Clark markers were erected on school properties along the Lewis and Clark Trail from St. Louis to the west coast. Cascade County Schools along the trail erected and dedicated six of the markers, the first at Portage and the last at Ulm. The other four are at Ryan Dam, Collins School, Paris Gibson Junior High School, and at a point on the Missouri River across from Bear Island."

EDITOR'S NOTE: I spotted the following in the "Montana Album" section of the Great Falls Tribune July 23 and October 8, 1995. They are from the 50 years ago column. Does anybody know if the American Pioneers Trail Association is still in business? The Charles M. Russell painting is now the most prominent feature in the House Chamber in the State Capitol in Helena.

Do you have any of the 50 year old Lewis and Clark markers in your area?

I would appreciate it if you would send in any items from the past that you spot in your local newspapers or magazines. If you send them in, we will use them.

IDAHO CHAPTER

by Steve Lee, President

The Idaho Chapter was formed to organize the 1990 annual meeting in Lewiston. Since that event, the chapter has been involved with other Lewis and Clark activities in Idaho. With membership concentrated in three different geographic areas—northcentral, Salmon area and the Boise area—a meeting is scheduled in each area every year. This makes for a wide variety of events since the trail in Idaho ranges from the broad foothills of the Bitterroots in Lemhi County to the forests of the Lolo Trail area and the Clearwater River. Boise is not near the trail.

Past meetings have included celebrating National Trails Day, campouts on portions of the Lolo Trail and hikes on both Clark's reconnaissance trip on the Salmon River and the Lewis and Clark Grove. At the most recent meeting in Boise hosted by Carol MacGregor in her beautiful historic home, Ron Laycock provided an interesting program entitled "The Role of Women in the Lewis and Clark Expedition" outlining the support given by individuals ranging from Mrs. Cane in Camp Wood to the Shoshoni and Nez Perce women in what is now known as Idaho.

The past two years the chapter has been fundraising in order to place a Lewis and Clark videotape in all of the state's 112 school districts. The funds were raised by raffling a beautiful quilt with a Lewis and Clark theme, handmade by Bev Davie of Orofino. Earlier this year, the tapes were distributed to the schools. The videos have been well received and the superintendent of the Garden Valley schools stated: "Audio visual

material is very helpful and will be put to good use in our elementary and secondary school history classes which relate to Idaho and the Northwest. Your contribution is appreciated." Sufficient funds were raised that also enabled the chapter to place videotapes in university and college libraries as well as some private schools.

The chapter has also been involved with monitoring the land management agencies which administer the trail. Idaho is fortunate to have sections of the trail which have not been highly developed or destroyed. In the Lemhi County area, the trail cuts through the Salmon National Forest and BLM lands before it ends up back in Montana. The other stretch of the trail crosses the Clearwater National Forest and roughly follows an old forest road cut through in the 1930s. Some of the trail is in roadless areas which have been proposed for wilderness status in the past. The chapter will continue to monitor activities in these areas due to the pressures of logging, mining and road building and ensure that the historic trail is not negatively impacted.

At our recent meeting, chapter officers were elected for the next two years. Steve Lee will continue as president, Roy Toyama was elected vice president and Ruthann Caylor will continue as secretary-treasurer. Board members include Diane Coons, Barbara Opdahl, Wilmer Rigby, Pete Sozzi and Ken Swanson. This team will continue the chapter's role of enhancing the enjoyment of the expedition's story in the land of the Lemhis and the land of the Nez Perce people in what is now known as Idaho.

Lewis and Clark Projects Win Preservation Award

A Special Projects Division Preservation Award was presented to the Lewis and Clark Projects in Great Falls, Montana, by the Cascade County Historical Society. Cindy Kittridge, director of the historical society, described the history of the projects in the county while presenting the awards in September.

She noted that at a 1983 city goal setting session, Bob Bivens suggested that the Lewis and Clark story was an important part of Great Falls history. He gathered other enthusiasts around him and formed the Portage Route Chapter of the Lewis and Clark Trail Heritage Foundation.

Four of the five different organizations that grew out of that original idea—the Portage Route Chapter, the Honor Guard, the Lewis and Clark Interpretive Association and the Lewis and Clark Fund, Inc.—are all active and continuing to work toward preserving the Lewis and Clark story.

CLASSIFIEDS

RARE COLLECTORS WHISKEY BOTTLES. Lewis and Clark Series—porcelain. Sculpted by artist Gary Schildt. Complete set includes Lewis, Clark, Sacagawea, Charbonneau and York. Perfect condition \$550. Proceeds to be donated to Lewis and Clark Interpretive Center Fund. Contact Lewis and Clark Fund, Inc., P.O. Box 398, Great Falls, MT 59403.

COUNCIL BLUFF—

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west and north walls, an underground passage under the east wall, two narrow exits (sally ports), and a powder magazine in the center of the parade ground. Along the walls were barrack rooms, about 20 feet wide, with plank floors and ceilings, shingled roofs, lime-pointed walls and brick chimneys and fireplaces.

This was an important site in the journey of Lewis and Clark, in dealings with the Indians, in the expansion of the fur trade and in the early river traffic on the mighty Missouri River.

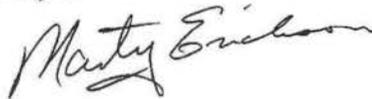
The fort was abandoned in 1827, when the Army realigned its forces to better protect the growing overland traffic that was following more southerly routes west. Gradually, all physical evidence of the fort disappeared and the area reverted to farm land. Thus it existed until 1961, when local concern for preservation of the site prompted organization of a drive to purchase and restore the area. Cooperation among the Nebraska Game and Parks Commission, The Fort Atkinson Foundation, The Greater Omaha Historical Society, the Washington County Historical Society and the Omaha World-Herald newspaper allowed the Commission to take title of the land two years later.

Donations made through the Game and Parks Foundation total close to \$1 million, with over half a million coming in the form of dimension lumber and logs for reconstruction by the Plum Creek Timber Company. This was hauled to the site by Plum Creek's parent corporation, the Burlington Northern Railroad. In addition, donations by the Burlington Northern Foundation and the Peter Kiewit Foundation supported the construction of the visitor/interpretive center at the park. At the same

EDITOR'S DESK

Cont. from p. 3

years before accompanied the chief of the tribe...to talk to William Clark in St. Louis. While the two Indian men were with Clark, the former explorer tried to talk them into abandoning the Morning Star ceremonial. The two agreed that the practice should cease, but they could not convince their compatriots. When it became apparent to Man Chief that his people were really intending to sacrifice the young Comanche girl, he intervened just at the moment they were tying her to the scaffold. Riding up in front of the assembled throng, he announced to the waiting crowd that he had come for the girl, whereupon he cut her free, threw her on his horse, and galloped off with her, later sending her south to rejoin her people."



time, hundreds of hours of volunteer labor have gone into rebuilding the armorer's shop.

Game and Parks Commission crews have progressed with their restoration schedule of construction of the council house, the south barracks wall, the north barracks wall, the east barracks wall and the powder magazine. Visitors are welcome to see what has been accomplished and to tour the interpretive center. Living history demonstrations are staged periodically at the fort. The blacksmith and the gunsmith set up at the Armorer's Shop, while volunteers interpret rifle regiment activities in various rooms along the west wall. The carpenter and the cooper also have workshops there and, at times, the Indian agent can be found at the council house. General information and interpretive schedules are available at the visitor center. The

PRESIDENT'S MESSAGE—

Cont. from Page 3

annual directory of officers, directors, committees and chapters. It reveals the very large number of people who do the real work of the foundation. Please contact Executive Director Vogt, the officers, board members, or committee chairs if we can be of service to you.

It is a pleasure to acknowledge the fine relationship that the foundation enjoys with the National Park Service. Dick Williams, the coordinator of the Lewis and Clark National Historic Trail, has been instrumental in helping us work together and in assisting us in the establishment and maintenance of the cooperative agreement that provides funding for the position of our executive director and other Lewis and Clark projects. It is great to work with such great partners!

Finally, I suggest that each of you begin to plan to attend the annual meeting next summer in Sioux City, Iowa, August 4-7, 1996. A formal invitation and schedule will accompany the next issue of *We Proceeded On*. Strode Hinds, former foundation president and long-time hard worker for the foundation, is chairing the local planning committee. The meeting will offer many opportunities for us to learn about Lewis and Clark and to see Lewis and Clark sites in the area; let's take advantage of those opportunities that Strode and his committee are making available.

Have a great foundation year, and see you in Sioux City!

grounds are open year-round and the visitor center is open 9 a.m.-5 p.m. during the summer.

Registrants to the 1996 Annual Meeting of the Foundation will visit Fort Atkinson during the meeting, August 4-7, 1996 in Sioux City, Iowa.

*Capt. William Clark / July 30th Monday
1804—Set out this morning early proceeded
on to a clear open Prarie on the L.S. on a
rise of about 70 feet higher than the bottom
which is also a Prarie (both forming Bluffs
to the river) of High Grass & Plumb bush
Grapes &c. and situated above high water, in
a small Grove of timber at the foot of the
Riseing Ground between those two preraries,
and below the Bluffs of the high Prarie we
Came too and formed a Camp...*