

THE LEWIS AND CLARK EXPEDITION



1803 TO 1806



A PORTRAIT OF ARMY LEADERSHIP





Keelboat sketch by Mark Eastman, U.S. Army Corps of Engineers, Park Ranger, retired, Walla Walla District.

Discoveries and Exploration

Throughout history, humans have explored their horizons, which has led to many discoveries. Explorations of our world were bold and dangerous adventures with many impacts and consequences.

The "discovery" of North America resulted in the establishment of European settlements here in the new land. As Europeans continued to explore and occupy the continent they found it already inhabited.

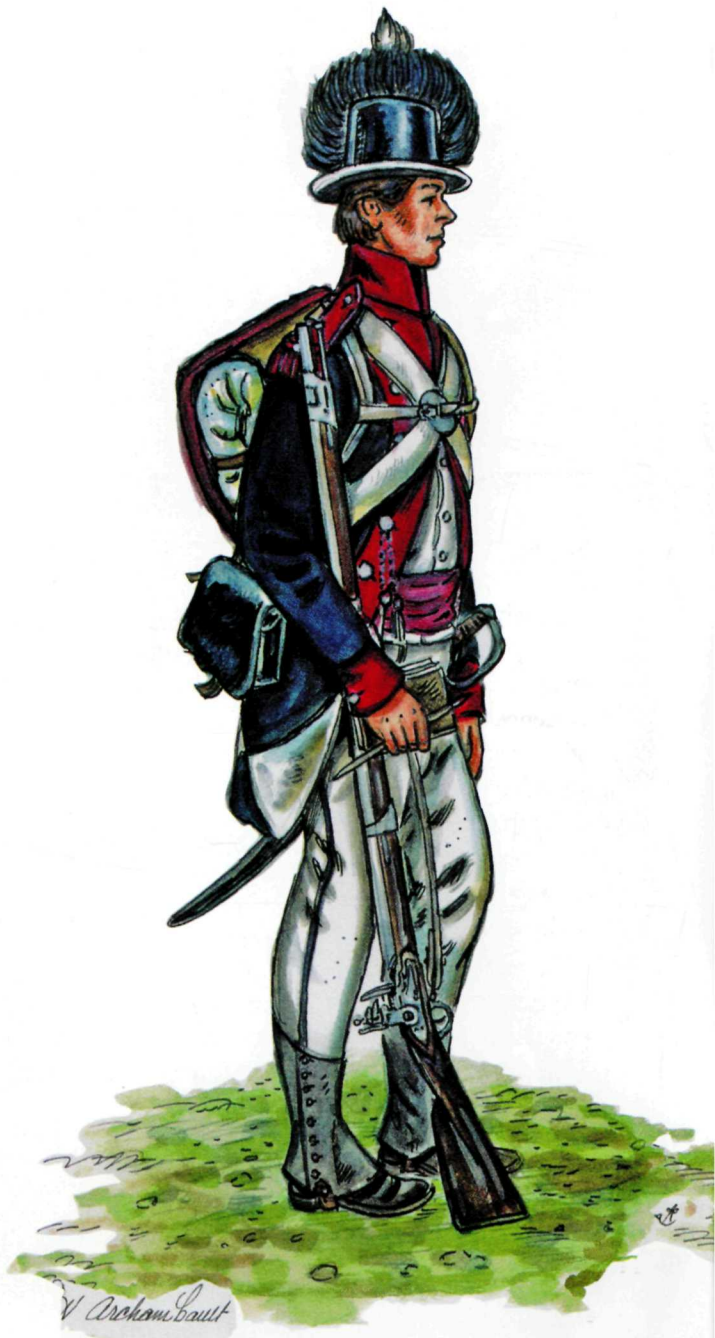
By 1800, the United States of America had developed and fought to gain independence, and the young country was steadily expanding westward.

CREDITS

Cover Image: Lewis and Clark: The Departure from the Wood River Encampment, May 14, 1804, by Gary Lucy, courtesy of the Gary Lucy Gallery, Inc.

Portraits of Lewis and Clark by Alan Archambeau, Director of Ft. Lewis Army Museum, Ft. Lewis, Washington

Graphic Design: Mark MacKay, NWIA

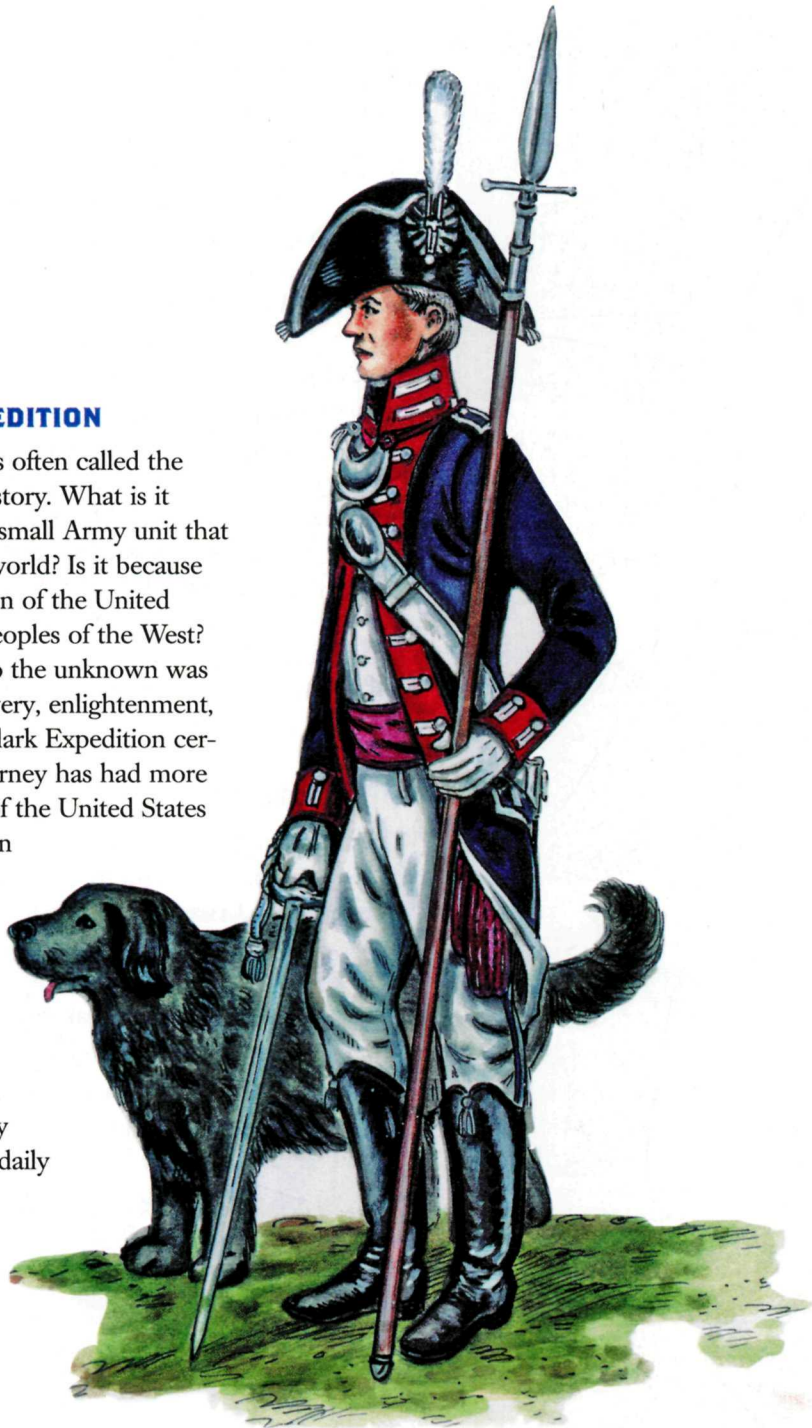


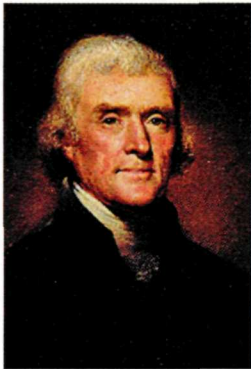
THE LEWIS AND CLARK EXPEDITION

The Lewis and Clark Expedition is often called the greatest adventure in American history. What is it about the successful efforts of this small Army unit that interests people from around the world? Is it because this was the first diplomatic mission of the United States government to the native peoples of the West? Or is it because this adventure into the unknown was filled with dangers, hardships, bravery, enlightenment, and excitement? The Lewis and Clark Expedition certainly was all of that! No other journey has had more influence on the national destiny of the United States of America. Nor has any expedition provided such thorough documentation of the inhabitants, terrain, plants, and animals in such a vast region of the country.

Whatever your reasons are for reading about the Lewis and Clark Expedition, the United States Army invites you to explore some of the daily struggles and routines of this historic Army mission so you can capture the spirit of this amazing military adventure!

Captains Clark (left) and Lewis (with Seaman on right) in full regimental dress and armament. Paintings by Alan Archambeau.





President Thomas Jefferson, painting courtesy of the White House Historical Association.

JEFFERSON'S VISION

Throughout his early political career, Thomas Jefferson sought support for an exploration of the west in search of the illusive “Northwest Passage,” a possible water route across the country. In 1803, two years into Jefferson’s presidency, Congress approved his long-desired visionary project. President Jefferson turned to the Army to lead the expedition, knowing that if it were to succeed, it would take military teamwork, logistics, and discipline. Jefferson officially named the expedition “The Corps of Volunteers of North Western Discovery” (Corps of Discovery) and selected Captain Meriwether Lewis, his private secretary, to lead it.

The Louisiana Purchase was negotiated just as Captain Lewis was preparing to depart on the expedition. The Louisiana Territory was purchased with very little knowledge about its inhabitants, terrain, flora and fauna, or even how much land it included. Jefferson knew that several countries were exploring the lands northwest of the Louisiana Territory by sea, while others were attempting to reach the region over land. Jefferson believed that if the Corps of Discovery could be the first overland expedition to reach the Northwest through the newly acquired territory, his dream of a united country from the Atlantic to the Pacific would be assured.



Lewis and Clark gave Jefferson Peace Medals as tokens of friendship to Indian chiefs and other important tribal members.

PREPARATIONS

While Captain Lewis was serving as Jefferson’s personal secretary, the President arranged for him to be tutored by some of the country’s greatest minds. Lewis received instruction in medicine, botany, zoology, and celestial observations. He studied maps and journals of traders and trappers who had previously journeyed up the Missouri River into what would become North Dakota. Between studies, Lewis began acquiring tools, equipment, and arms for the journey.

Lewis wrote to his friend and former Army colleague, William Clark, and invited him to join the expedition as co-leader. Clark, then living in Kentucky, wrote back:

This is an undertaking fraught with many difeculties, but My friend I do assure you that no man lives whith whom I would perfur to undertake Such a Trip.

The journey began as Lewis left Washington D.C. on July 5, 1803. At the Federal Armory at Harpers Ferry he obtained rifles, muskets, and other supplies. He continued on to Pittsburgh to oversee the construction of a 55-foot keelboat. Once it was completed, he and a few

soldiers from Pennsylvania floated and pulled the keelboat down the Ohio River to the Falls of the Ohio at Louisville, Kentucky. Along the way, Captain Lewis recruited expedition members. At the falls, Lewis met Captain Clark and his recruits, known as the “nine young men from Kentucky.” They proceeded on to their first winter camp near Wood River, Illinois. There, at Camp DuBois, sometimes called Camp Wood, the captains prepared the men for the trip ahead.

THE U.S. ARMY INFLUENCE

For this military mission, Lewis was permitted to add any regular Army soldier to the Corps of Discovery roster, along with militiamen (today’s National Guard), who volunteered. Lewis recruited in the east, but also asked Clark to find men “on the frontier” with the skills and fortitude to make this arduous journey. The mission was funded by the War Department, today’s Department of Defense. Supplies, provisions, and equipment were procured through the Army Quartermaster.

Members of the expedition followed the Army chain of command, and discipline was strict. The men were formed into squads, or “messes,” of eight men. Each mess split up the daily duties of harsh frontier camp life. The men drilled daily and underwent frequent inspections. Courts-martial, with harsh punishments, were held for acts of misconduct.

Soldiers were in uniform throughout the entire expedition and wore hats issued according to unit assignments. Infantrymen wore round hats. Artillerists and officers wore a hat called a *chapeau des bra*. Dress uniforms, commonly called regimentals, were stowed away in waterproof containers, and used only during special occasions. Most of the time the men dressed in their issued work garments— frocks or overshirts, vest, overalls, or pantaloons and gaiters. When the work uniforms wore out, they were dismantled and used as patterns to make leather clothing. Dressed in leather garments, they maintained a tailored military uniform appearance, not the slipshod, rough-and-tumble backwoodsmen image

WAS CAPTAIN CLARK REALLY A BAD SPELLER?

Reading the journals written by members of this expedition can be both challenging and entertaining. Captain Clark was especially creative in spelling, grammar, and punctuation. Few young boys of Clark’s time had formal schooling beyond the age of 13, if they had any at all. Until Noah Webster’s *Bluebook Speller* was published in 1783, the accepted spelling rule was “spell it as it sounds.” Clark and most other journal writers followed the old rule, spelling words based on their sound. In order to demonstrate the written language of the period, the journal entries in this publication have not been revised to meet today’s standards.



This type of inkwell and quills were used by Lewis and Clark to record their experiences on the trail.

that filmmakers have led us to believe.

Each soldier was well armed, carrying either an Army-issue rifle or musket. Some of the hired French boatmen brought along personal weapons, such as trade rifles, Kentucky long rifles, or English Fusils (shotguns). A swivel gun, or small cannon of 1.5 inch bore (one-half-pounder), was mounted on the bow of the keelboat, and a large-bore shotgun, called a blunderbuss, on a swivel guide was mounted on the stern. The pirogues (flat-bottomed boats for hauling supplies on inland waters) each had a blunderbuss mounted on its bow. Captain Lewis carried a spontoon, a lance-like device, and his remarkable air gun.

MEMBERS OF THE EXPEDITION

Most members of the expedition were U.S. Army soldiers, chosen for their specific skills such as gunsmithing, hunting, or blacksmithing. The expedition left Camp DuBois and traveled to the Knife River Indian Villages in what is now North Dakota. They built Fort Mandan and wintered near the friendly Mandan and Hidatsa Indians for six months. Some of the expedition's members were chosen to return the keelboat

THE AIR RIFLE

The air rifle was made in 1803 by Isaiah Lukens, a Philadelphia clockmaker and gunsmith. This weapon has astounding power, enough to be able to dispatch deer-sized animals with one well placed shot. It is estimated that the power from this air rifle is about 14 times greater than that of air rifles produced today.

This .31 caliber muzzleloading air rifle was quiet and didn't frighten animals when fired. There was no smoke to foul the lock and no barrel to clean. Since it used compressed air there was no need to keep gun powder dry. An air rifle could fire between 20-40 shots before recharging with the air pump.



Buttstock Air Reservoir

The buttstock is a sheet metal flask welded together to hold pressurized air. A valve traps air within after pumping is completed. The reservoir is capable of containing 600 to 900 pounds per square inch of air pressure—about 30 times that of a car tire.

The Unique Air Pump

The air rifle pump screws onto the air reservoir buttstock. To pump, the large screw is screwed into a tree and the operator leans into the buttstock and rocks back and forth to pump air into the air reservoir.

back down the Missouri River to St. Louis with a shipment of samples, specimens, and journals for President Jefferson. The 33 remaining members became the permanent party and departed from Fort Mandan heading upstream toward the Rocky Mountains, bound for the Pacific coast.

Although the names of Lewis and Clark are well known, other members of the expedition have received far less recognition for their efforts. In fact, 12 members of the permanent party are scarcely noted in the journals. Only brief notes about them occur when they were injured, ill, facing courts-martial, or when their assignment was mentioned. What follows is a sampling of some of the other members' efforts during the expedition.

The only regular Army non-commissioned officer to join the expedition was **Sergeant John Ordway**, recruited from Fort Kaskaskia in Illinois. He was routinely put in charge when the captains were away from camp. After the expedition, he accompanied the captains to Washington D.C. to meet with the President. Ordway was the expedition's only member to faithfully make daily entries in his journal.

Private Patrick Gass was also recruited at Fort Kaskaskia. His skills as a carpenter proved to be an enormous asset throughout the expedition. Following the death of **Sergeant Charles Floyd** from an apparent ruptured appendix, the men of the Corps of Discovery voted to promote Gass to the rank of sergeant. He was the first to publish a journal, in 1807, and was the last surviving member of the expedition. He died in 1870 at the age of 99.

At age 19, **Private George Shannon** was the youngest member of the expedition, and one of the party's best hunters. In September 1804, he became lost for 16 days while hunting. Shannon thought he was behind the expedition and tried to catch up, but he was, in fact, ahead of them. Without bullets for 12 days, and surviving on wild grapes and plums, Shannon stopped for a long rest on the riverbank. While he was resting, the expedition caught up with him. After the expedition, he studied law and eventually became a Missouri State Senator.



Corps of Discovery in Camp, by Kathy Dickson, U.S. Army Corps of Engineers, Park Ranger, St. Louis District.



Patrick Gass in his later years. Pencil sketch by Dick Cassidy, Environmental Engineer, Northwestern Division, US Army Corps of Engineers.

Private John Colter, also a skilled hunter, was one of the “nine young men from Kentucky,” recruited by Clark. On the return trip, after reaching the Pacific coast, he received permission to resign from the Army at Fort Mandan. He decided to return up the Missouri River with a group of trappers. Colter became a famous “mountain man” and is known as the first white man to explore what would become Yellowstone National Park.

Private Pierre Cruzatte, half-Omaha Indian and half-French, was recruited for his trading skills and ability as an interpreter. During a visit with the Teton Sioux, Cruzatte spoke with Omaha captives, who informed him that the Teton Sioux planned to attack the expedition. The attack was avoided due in part to Cruzatte’s communication skills. He played the fiddle and often entertained his fellow expedition members as well as groups of Indians.

York, Captain Clark’s life-long slave companion, was a valued member of the expedition. Clark acquired York when his father died in 1799. He was the first black person that most Indians had seen, and they considered him to be “big medicine.” Although not an enlisted member of the Army, York shared full duties and privileges with expedition members.

The member of the group who put more miles on his feet than any other was Captain Lewis’s pet Newfoundland dog, **Seaman**. Seaman had his own challenges along the trip. One episode involved a wounded beaver. Lewis wrote:

Sacajawea at the Big Water, by John Clymer, courtesy of Clymer Museum of Art.



one of the party wounded a beaver, and my dog as usual swam in to catch it; the beaver bit him through the hind leg and cut the artery; it was with great difficulty that I could stop the blood; I fear it will yet prove fatal to him.

Seaman survived and earned his keep, in part, by serving as a watchdog, alerting the men of approaching visitors and dangers.

Sacagawea, a teenage Shoshone, was the only woman to accompany the expedition. She joined the permanent party at Fort Mandan when her husband, Toussaint Charbonneau, was hired as an interpreter. Sacagawea, who had been captured from her Shoshone tribe a few years earlier by a Hidatsa war party, was fluent in the Shoshone and Hidatsa languages. Sacagawea gave birth to her first child, Jean Baptiste, called Pomp by Clark, just two months before the expedition left Fort Mandan, and carried the infant on her back for much of the journey.

Sacagawea proved invaluable to the party. The Indians they encountered were inclined to believe that the expedition was friendly since a war party never traveled with a woman, especially one with a baby.

In August 1805, after weeks of searching, Lewis finally found the Shoshone Indians, with whom he hoped to negotiate for horses to be used in crossing the distant mountains. In one of history's great coincidences, the Shoshone leader, Cameahwait, turned out to be Sacagawea's brother, whom she had not seen since her capture by the Hidatsas. Sacagawea helped persuade the chief to provide the horses.

MODES OF TRANSPORTATION

Several modes of transportation were required for the accomplishment of this military mission. The party traveled nearly 8,000 miles by boat, horseback, and on foot over rivers, plains, and mountains. Whenever possible, the expedition took to the water, using a variety of boats, including a keelboat, pirogues, dugout canoes, and bullboats (small wood-framed boats covered with buffalo hides).

The keelboat was 55-feet long, 8-feet wide, and was equipped with a sail and 22 oars. It traveled from Pittsburgh, where it was built, to Fort Mandan and back to St. Louis, a distance of 2,000 miles. The keelboat was equipped with large storage boxes with lids that could be lifted for added protection from attack. These boxes stored supplies and gifts for the Indians. After wintering at Fort Mandan, Corporal Warfington and his crew returned the keelboat to St. Louis as planned.



Expedition members were in the U. S. Army. They wore their uniforms until they wore out and then used the remnants to make exact copies out of elk or deer-skin. Photo by Rich Deline.



This is a replica of a pirogue, one style of boat used on the expedition. This replica was built by Butch Bouvier, Onawa, Iowa.



Dugout canoes (above) and pirogues (top of page) were used to navigate rivers along the expeditions route. Dugout canoes were easy to maneuver in fast waters; however, it was challenging to keep them upright.

The two pirogues were used as far as the upper reaches of the Missouri River in what would become Montana. The smaller white pirogue was 39-feet long, had six pairs of oars, held six people, and eight tons of cargo. The larger red pirogue was 42-feet long, had seven pairs of oars, held eight people, and nine tons of cargo. The men cached the red pirogue near the mouth of the Marias River and continued on for a few days with the white pirogue. Upon reaching the Great Falls they concealed the pirogue for the return trip and portaged the canoes around the falls.

On several occasions, progress meant portaging around stretches of the rivers that could not be navigated by boat. Portaging was a long and tiring process. The crew would remove all the cargo, which they then transported by horse or on their backs across land. The boats were either carried or placed on crude makeshift carts and hauled over rough terrain until they could be put back in the water.

After crossing the Rocky Mountains, the expedition had the luxury of floating downstream with the river currents, through rapids that even the natives feared.

The captains obtained horses and mules from Indians by trading supplies and equipment, or in exchange for medical treatment. Horses carried members of the expedition, equipment, and supplies. At times they were even eaten. Though invaluable, particularly when crossing the Rocky Mountains, the horses required much attention; they frequently wandered away and were the cause of some frightful accidents.

Horses and watercraft were not always available on the long trip. The men walked many miles, carrying personal gear and supplies, wearing only leather moccasins made along the way.

ENCOUNTERS WITH THE INDIANS

President Jefferson instructed the captains to document information about each tribe they encountered, explain their purpose of friendly commerce, and treat them in the most kind and conciliatory manner.

As Lewis and Clark prepared for encounters with the Indians, they learned about the types of trade goods they should carry from experienced traders. As a result, they purchased peace medals, beads, buttons, knives, cloth, garments, and so forth to give as offerings of peace.

When Lewis and Clark encountered new tribes, they participated in a council meeting. Each council included smoking a peace pipe, a military parade, a lengthy speech by Captain Lewis, and presentation of

gifts to the chiefs and leaders. In Lewis's speech, he explained that the new government would trade with and care for its new patrons as long as they remain friendly to the government and to each other. The response was usually acceptable, yet most tribes were only concerned with the continuation of trade.

Although many tribes readily accepted the expedition, their presence was not always welcome. For example, a heated encounter with the powerful Teton Sioux threatened the progress of the mission.

With weapons drawn and tensions high, bloodshed was averted through restraint on both sides, and the intervention of one of the chiefs. News of this outcome traveled quickly, and many tribes realized that these soldiers would not easily be deterred from their mission.

On their return trip, the expedition made brief stops among the Indians to renew friendships and invite chiefs to visit Washington D.C. The most disheartening encounter on the trip home was the miscommunication with the Piegan Blackfeet Indians that led to the death of two tribal members.

The expedition encountered and documented nearly 50 different tribes, and with few exceptions successfully carried out Jefferson's wishes. Overall, the Corps of Discovery proved to be outstanding ambassadors of the United States.

BLOOD, SWEAT, AND FEARS

We can only imagine the hardships and fears the members faced during the expedition. Through uncharted lands with extremes in weather, the men labored every mile of the way in areas of unknown inhabitants and dangers. They relied on their combined skills and teamwork to accomplish their mission.

Every day was a struggle. For half of the journey, the men were moving heavily-laden vessels against strong currents and shifting sandbars upstream along some of the most powerful rivers in the country. Moving the keelboat up the Missouri River involved rowing, poling (men using long poles to push the boat), and oftentimes cordelling (pulling through shallows or from shore with ropes). Moving down-



Meeting with the Mandans,
by Kathy Dickson.



Lewis's Grizzly Encounter,
by Kathy Dickson.

stream was easier but still dangerous; rapids, sandbars, and hidden obstacles in the water posed hazards. On several occasions, Indians lined the banks and looked on as the men negotiated treacherous rapids in canoes, expecting the expedition to perish in the turbulent waters.

Weather and terrain caused many hardships for the party. They endured sudden thunderstorms, extreme heat, bitter cold, raging blizzards, hail, and dust clouds. Imagine how frightening the Rocky Mountains must have appeared, with mountain peaks as far as the eye could see, rather than the narrow range, similar to the Appalachians, that they expected. They trekked range after towering range through extremely cold, snowy, and wet conditions with little food to be found. Captain Clark described the huge mountains they were to climb:

The Hills or mountains were not like those I had Seen but like the Side of a tree Streight up.

The winter of 1805-1806 at Fort Clatsop, near the Pacific coast, had to be the most miserable winter the men ever experienced. It rained every day but 12 of the 106 days they were there. Their clothes rotted off their backs and basic comforts were scarce.

During a hunt on the return trip, Cruzatte accidentally shot Captain Lewis in the buttocks. Cruzatte denied having shot Lewis, though his poor vision in one eye perhaps caused him to mistake Lewis for an elk in the brush. The bullet missed all major bones and arteries, and Captain Clark's medical skills prevented complications. Captain Lewis spent the final leg of the journey on his stomach.

The most-mentioned pest in the men's journals was the pesky mosquito. Many of the daily journal passages contained remarks such as, *The misquiter verry bad.* Sergeant Ordway wrote:

the Muquetoës and Small flyes are verry troublesome. My face and eyes are Swelled by the poison of those insects which bite verry Severe indeed.

Grizzly bears were the most dangerous animal confronted during the mission. The river, which was the expedition's highway, was also the grizzlies' kitchen, leading to at least 40 fierce challenges with the giants. In one of many meetings with grizzly bears, Lewis escaped by running into a river. He had forgotten to reload his rifle and had only his spon-toon to defend himself.

EXPEDITION CUISINE: FEAST OR FAMINE

The story of the expedition's diet may not be pleasant for those who have queasy stomachs. Game was plentiful during good times and each man ate as much as nine pounds of meat per day; that's 36 quarter-pounders on today's scale! Both Lewis and Clark wrote that without the excellent skills of Drouillard, the expedition's best hunter, they might not have survived. Lewis wrote:

[I]t requires 4 deer, an Elk, and a deer, or one buffalo, to supply us plentifully for 24 hours.

This gives us some idea of how they must have exerted themselves as they trudged along the way.

Food was scarce so often that they ate horses and even dogs. In the worst times, they resorted to eating roots, rotten elk, and candles made from animal-fat. Whiskey must have helped soothe their ails along the way until they ran out at the Great Falls on the Fourth of July 1805.

As they emerged from the Bitterroot Mountains, they met the Nez Perce Indians who offered them salmon and camas roots. The digestive systems of the expedition members were not accustomed to handling these types of foods, and they became violently ill.

Salt Makers, by John Clymer, courtesy of the Clymer Museum of Art.



THE NECESSITY OF SALT

Salt was an important supply item. It was needed to flavor and preserve meat. It may have also been used to cure hides. In the winter of 1805, to replenish their supply, five men were directed to set up a salt-making camp south of the mouth of the Columbia River (Seaside, Oregon). The salt-making party kept a fire going in an oven day and night for almost two months. They lugged nearly 1,400 gallons of seawater from the surf, and boiled it down, eventually producing 28 gallons of salt. Twelve gallons, packed in two small ironbound kegs were set aside for their return trip. Lewis felt salt was a 'great treat.' Clark, however, was indifferent to it.

MEDICAL ASPECTS OF THE EXPEDITION

It is not surprising that during the expedition, the members encountered a staggering range of ailments: boils, head colds, toothaches, malaria, frostbite, snow blindness, sexually transmitted diseases, dysentery, snakebites, exhaustion, and heatstroke, to name just a few. The captains treated the ailments of the men, and were also responsible for the well being of Sacagawea and her infant son.

Clark's rapport with the Indians combined with Lewis's training in the standard practices of medicine provided benefits to the expedition. Pictured are examples of medical instruments used in the early 1800s that were quite possibly part of Lewis's field physician's kit.



The two tools above are dental instruments. The T-shaped tooth-key was used for extraction.



This short knife was used as a scalpel.

A saw like the one pictured below may have been used for amputation.



The most advanced medical practices at the beginning of the 19th century would make most of us cringe today. The philosophy at the time was that if one were ill it was because bad things were inside the victim's body, and they needed to be removed. Therefore, making a patient vomit was thought to be a cure for a variety of ills, and it was often accompanied by bloodletting. Constipation was treated with Dr. Rush's patented pills, appropriately called 'Rush's Thunderbolts,' which contained mercury. We now know that mercury is poisonous, but at the time, it was used to treat many illnesses.

Clark's practice of medicine was beneficial to both the expedition's members and the various tribes they encountered. Lewis had better medical training, thanks to his pre-expedition instruction in Philadelphia; however, Clark established better rapport with the Indians. In exchange for medical treatments, the expedition received horses and food.

On one occasion the captains treated a 13-year-old Mandan boy for frostbitten feet. Infection led to the necessary amputation of some of his toes. Their care most likely saved the boy's life.

Medicines that were thought to be helpful at the time were often poisonous, for instance, mercury was used as a remedy for constipation.



SCIENTIFIC ASPECTS OF THE EXPEDITION

Jefferson's letter to Lewis in June 1803 describes the scientific nature of the expedition. He instructed Lewis to take note of things *not of the U.S.* His list included:

the soil & face of the country (it's growth & vegetable productions); the animals, the remains and accounts of any which may be deemed rare or extinct; mineral productions of every kind; volcanic appearances; climate; and seasonal observations of plants and animals.

The known 'discoveries' of Lewis and Clark include 178 plants and 122 animals not previously recorded for science. Some of the animal species identified include the coyote, pronghorn, mule deer, and many bird species, two of which were named after the explorers: Lewis's Woodpecker and Clark's Nutcracker.

In September 1804, the expedition came upon a prairie dog village, and tried to capture a specimen by flooding burrows. They eventually succeeded in catching one that was shipped back to Jefferson in April 1805, along with four live magpies, and a *liveing hen of the Prarie*. Indian corn, Indian artifacts, animal skins, skeletons, and mineral samples were also sent back. The prairie dog and one magpie survived the trip, and Jefferson received them in August. He sent them to the Natural Science Museum in Philadelphia's Independence Hall.

The Corps of Discovery marveled at the wonderland they encountered, from prairies and plains to mountain ranges, and they found great pleasure in naming their "discoveries." When they entered the remarkable sandstone formations (in present-day Montana) that the men compared to the ruins of an ancient city, they called them the White Cliffs of the Missouri. Of this area Lewis wrote:

As we passed on, it seemed as if those scenes of visionary enchantment would never have an end.



**Viewing Bison,
by Kathy Dickson.**

The black-tailed prairie dog or "barking squirrel" as Lewis called it was one of many specimens, both plant and animal, not known to science at the time of the Expedition. Drawing by Kathy Dickson.



CARTOGRAPHY

One of President Jefferson's goals was to map the west. It was Captain Clark's responsibility to map the landscape. His experience as a surveyor prior to the expedition was extremely helpful. Clark's maps were one of the greatest achievements of the expedition. Clark had a meticulous ability to put what he saw onto paper. He possessed a keen sense for estimating distances; what he recorded proved to be remarkably accurate, even using today's sophisticated devices.

To determine latitude, an artificial horizon and a sextant or octant were used. It was more difficult to find the longitude; the most accurate method involved the use of a portable clock or chronometer along with celestial observations. Other instruments, such as a surveying compass, allowed the men to record bearings from one point to another. In addition, a two-pole chain measured distances, and a magnetic compass helped the captains determine direction of travel.

After the expedition, Clark continued his work on a map of the continent and published it in 1814. Using information he had recorded during the expedition and data gathered by other Army missions to the southwest, Clark's map was the most accurate depiction of the western portion of the new nation for the next 30 years!

A chronometer (above) was used to determine longitude and the two-pole chain (below) measured short distances (33 feet).



THE RETURN TRIP

With great excitement, the expedition headed homeward on March 23, 1806. At Travelers' Rest (near Missoula, Montana) the Corps of Discovery separated into smaller groups to explore and map more of the Louisiana Territory. Clark went south to the Yellowstone River, and while passing a large sandstone formation, he carved his name and date. Clark named it Pompy's Tower after Sacagawea's son. Lewis led his detachment north, up the Marias River, which led to the unfortunate incident with the Blackfeet Indians. Through advance planning and some good luck, the groups reunited near the confluence of the Yellowstone and Missouri Rivers.

Going with the current, the expedition traveled between 40 and 80 miles a day on their way swiftly down the Missouri River. Upon reaching St. Louis on September 23, 1806, there was joy and celebration, and all members of the Corps of Discovery were heralded as heroes.

JOURNALS

Scholars call the Lewis and Clark Expedition members the “writingest explorers of all time.” President Jefferson had instructed Lewis to keep journals, and “Several copies of these, as well as of your other notes, should be made at leisure times.” Today, the journals provide a window to the past, and allow the expedition's challenges and achievements to remain vibrant and alive.

In a letter to Jefferson, Lewis revealed that seven enlisted men were keeping journals, but only those of Sergeants Ordway, Gass, Floyd, and Private Whitehouse survive. It appears that Lewis did not keep a journal for long periods of time throughout the expedition, yet during those times he assisted Clark. Captain Clark wrote in the journals nearly every day, missing entries only while away hunting.

The captains reported to Washington D.C. after the expedition and both were rewarded with high positions in the new territory of Louisiana. Lewis remained in the east for over a year, where he made unsuccessful attempts to get his and Clark's journals published. Unfortunately, Lewis was never able to provide any journal manuscripts to a publisher.

Clark named the landmark shown below Pompy's Tower, after Sacagawea's son. While there he carved his name into the stone. This signature is the only physical remnant of the Expedition remaining along the trail. Photo courtesy of the Bureau of Land Management, Billings, Montana.





This is one of the journals kept by members of the expedition, which preserved the events the men endured. The journals are considered national treasures. Photo by Rich Deline.

Patrick Gass published his journal in 1807 against the wishes of the two captains. His journal was greatly altered by his editor, and it lacked a vast amount of information that had been acquired on the journey.

It was not until after Lewis apparently took his own life in 1809, that Captain Clark assumed the responsibility of getting the journals published. Clark was fortunate to meet Nicholas Biddle, and convinced him to compile and edit the journals. Biddle worked exhaustively on them, and in 1811, was satisfied that his two-volume journal was ready for publication. The War of 1812, and the collapse of the publishing company originally contracted by Lewis, delayed the

publication of Biddle's work until 1814. Unfortunately, Biddle's edition, like that of Gass, contained very little scientific data obtained by the explorers.

Over the years after the Biddle publication, many embellished and counterfeit stories of the expedition were printed. Some authors fabricated their versions, and others had never read accounts of the journey!

The subject of the Lewis and Clark journals is complex, and many historians have written about them. Questions that may never be answered still inspire research in hopes of discovering more. As written accounts concerning the expedition turned up over the intervening 200 years, numerous writers labored to edit and publish them. Elliott Coues (1893), Rueben Gold Thwaites (1901), Milo Milton Quaife (1916), Bernard De Voto (1953), and Ernest Staples Osgood (1964) published accounts about this epic journey. Gary E. Moulton completed a comprehensive 13-volume edition in 2001. It includes not only the journals of Lewis and Clark, but also those of Gass, Floyd, Ordway, and Whitehouse; photos and descriptions of the scientific data; an atlas; and much more.

BRIDGING THE YEARS

Why is the story of the Corps of Discovery still exciting and extensively studied? The Lewis and Clark Expedition was an awesome adventure. It continues to capture our interest and sparks the spirit of exploration that still exists today. This amazing journey into unknown lands was bold, challenging, and inspiring. It can be compared to our own



Lewis's Escape,
by Kathy Dickson.

space exploration—searching for information in uncharted places. The success of the expedition can be contributed to many factors including the leadership abilities of Lewis and Clark. It was a military mission; the Army provided an organizational structure that lent the traits of discipline, order, service, and sacrifice, all necessary for the successful completion of this courageous journey.

Opportunities abound to gain a new appreciation of the U.S. Army and to forge renewed relationships with the tribes that were encountered by the Corps of Discovery. Without the assistance of the tribes, the mission may have failed. The story is still unfolding; future research and investigation may lead to a better understanding of the cultures that Lewis and Clark encountered.

The Lewis and Clark Bicentennial Commemoration serves as encouragement for us to reexamine relationships, gain new appreciation, foster pride, and bridge the two hundred years between now and the time when a small Army unit set off on a mission to explore a vast, uncharted territory.

A gold coin portraying Sacagawea and baby Pomp was produced by the U. S. Mint to honor the contributions of Native Americans to the expedition.





**US Army Corps
of Engineers**

