

Camp River Dubois Dispatch

4th Quarter Official Newsletter of the Lewis & Clark Society and the Lewis & Clark State Historic Site Volume 10 Issue 4

Manager's Corner: by Brad Winn

Have you been down in the gallery lately? There is a marked improvement in the lighting in the main exhibit gallery. In the early part of November, Ben and I spent a Tuesday doing our best to move, adjust, and relamp as many of the exhibit lights as we could to improve the overall presentation of the gallery. We went from a pathetic 7 lamps working to well over 25 lamps. While not perfect, it is much improved and should greatly improve the visibility in the gallery on these shorter afternoon and cloudy days. Per tradition our lunch that day was at Crown Candy Kitchen.

I am hoping that the gallery lights are not the only thing that will be improving hopefully in the coming year. Lewis & Clark State Historic Site was selected to receive a number of site upgrades and improvement, through a capital project from the Illinois Department of Natural Resources. Of particular note, the building is going to get a fresh coat of paint, relamp the entire exhibit gallery, improvements to the HVAC and mechanical systems, UV protection for the gallery space, and some other improvements. I should be working through the Scope of Work and pre-meetings this winter, but we have no starting deadline just yet. I want to thank the folks at IDNR and Jane Rhetta for helping to elevate these priority needs to the top of the list.

Finally, in the light of recent events, I want to address the precious nature of our family. As I have said many times, I have always felt like all of us represent an extended family. We have our crazy cousins, troublesome Uncles, and ever helpful Aunts. We have shared stories of our triumphs and our tragedies, smiled and cried together, and always been there to support each other. Our time together is so important, so valuable, and so precious, and I worry that sometimes I take that for granted, that it will

always be there. But if anything is sure, it is that time moves on and our family can and has gotten smaller. Please accept during this coming season of family togetherness my most heartfelt love and appreciation for all of you. I hope you know just how much you mean to me. Thank you for being a part of our family and Happy Holidays!

President's Corner: by Rex Maynard

Greenwich Time

“Beginning at the mouth of the Missouri, you will take careful observations of latitude and longitude, at all remarkable points on the river, and especially at the mouths of the rivers, at rapids, at islands, and other places and objects distinguished by such natural marks and characters of durable kind.” – Thomas Jefferson, 1803

By 1803, Greenwich, London, England, had become firmly established as the marker for the Prime Meridian, zero degrees longitude. The Prime Meridian is an imaginary line stretching from pole to pole. It is the starting point for the global measuring system. Several competing sites were proposed for this demarcation: islands west of Africa, the mid Atlantic where Columbus reported compasses to point due north, or even Paris. Greenwich became the focal point of navigators because of the annual publication of the Nautical Almanac by the Royal Greenwich Observatory for the previous 36 years. Starting in 1767, they printed charts where lunar distances, phases and angles from other heavenly bodies could be used anywhere in the world to calculate the apparent time in England. It was translated into many languages, but using the calculations for Apparent Greenwich Time. Greenwich became the default starting point and starting time

for all mariners. It was an accurate, but complicated procedure.

Englishman John Harrison invented a marine chronometer (sea clock) that was portable and reliable. Previous timepieces relied on pendulums to keep accurate time, but they would not perform well on a rocking ship. On his successful fourth model (H4), Harrison used a fast beating balance wheel and spiral spring that was unaffected by moving the instrument. Once an explorer had established local time by the sun, the difference between local and Greenwich Time provided the longitude (see End Note). Before setting out on their voyages, ships would anchor in the Thames River near Greenwich to wait for the daily dropping of the time ball at 1 PM. (Ever wonder from where the Times Square New Year's Ball Drop came?) They would set their ship clocks at that instance. Chronometers could be checked enroute by the lunar distance calculation when possible.

After the funding for the Expedition passed Congress, Jefferson gave his reasons for picking Meriwether Lewis to the lead it, "*Capt. Lewis is brave, prudent, habituated to the woods, and familiar with Indian manners and character...He had qualified himself for those observations of longitude and latitude necessary to fix the points of the line he will go over.*" One of the major tasks for the Lewis & Clark Expedition was to determine latitude and longitude for all the major points. Commander-in-Chief Jefferson wrote in the final form of the instructions to Meriwether Lewis, "*The object of your mission is to explore the Missouri river . . . or any other river [which] may offer the most direct and practicable water communication across this continent for the purpose of commerce.*"

According to Jefferson, Lewis had received preliminary instruction in how to use the instruments necessary for establishing latitude and longitude. He also received more intensive training from important scientist and mathematicians. Lewis studied under such men as Andrew Ellicott and Robert Patterson. Both of these men suggested necessary tools such as "two sextants . . . an artificial horizon or two; a good Arnold's watch or chronometer, a surveyor's

compass with a ball and socket and two pole chain, and a set of plotting instruments." Before leaving Philadelphia after studying with Patterson, Lewis bought those navigational instruments recommended by Ellicott and Patterson. He obtained a chronometer for \$250, by far the largest sum of money expended for any single item carried by the Expedition. The chronometer required regular attention. Lewis wrote that he needed to wind it every day at noon. He forgot to wind it several times. It became clogged with sand. Once they tried to oil it with bear grease, which set up and hardened.

Since the chronometer was so troublesome, they used astronomical methods to determine Greenwich Time and reset the chronometer. The most accurate way was to measure the lunar distances or determine the time of the eclipse of Jupiter's moons. Both methods required difficult calculations and use of astronomical tables. Two of the volumes they packed with them were contemporary works: Practical Introduction to Spherics and Nautical Astronomy and Tables Requisite to be Used With the Nautical Ephemeris for Finding Latitude and Longitude at Sea. Possibly these volumes had been recommended by Ellicott and Patterson.

(End Note) The rotating earth moves one degree in longitude in four minutes, 15 degrees in 60 minutes. St. Louis is 90 degrees W. Longitude and 360 minutes (6 hours) behind Greenwich (Prime Meridian). Another way to say that would be: If the sun was directly overhead in Greenwich at noon, four minutes later it was directly overhead one degree to the west, 60 minutes later it was directly overhead 15 degrees west. Six hours later it was directly over St. Louis. It was relatively easy to calculate longitude if the explorer knew the time in Greenwich and what time it was where he was standing.

Lines of latitude show position on earth in relation to the poles and equator. The poles and equator exist independent of men's imagination and is determined by the axis of the planets rotation. Knowledge of how to obtain latitude from the position of the sun or North Star had long been available to navigators. They measured the height of the sun above the horizon or

measured the angle of altitude of the North Star. At the confluence of the Missouri and Osage Rivers, the Lewis & Clark Expedition put forth unusual effort and time in order to get shots of the North Star. They had to cut down all the trees on the point; this took them until well past midnight.

Benjamin's Blurb: by Benjamin Pollard

“A Curious Piece of Workmanship”-

Around 1779, an inventor living in the Austrian Empire named Bartholomäus Girandoni, invented a unique weapon for the Austrian army. Girandoni's “firearm” was unique in many ways. It was stealthy, accurate, and fast. It required no gunpowder, which protected its user from being spotted, because it created no smoke and was quiet relative to other firelocks of the time. Instead, a pressurized tank of air fired the rounds. With a rifled barrel, Girandoni's invention was capable of directing its lethal .46 (or .51) caliber ball over 150 yards away. The unique gravity-fed reloading system attached to the side of the barrel also allowed a marksman to fire off 21 rounds without needing to reload (compare that to the 1-minute reloading time for a gunpowder powered rifle of the time!). This new invention is now known by the inventor's name, the Girandoni Air Rifle.

For all of its attributes, the air rifle was not a weapon without its flaws. The air tank was only able to fire at most about 30 usable rounds before it needed to be pumped back up to pressure. This required approximately 2000 pumps using an attachment similar to a bicycle pump. These tanks were made of tin with lead solder, which could be easily damaged in the field (Austrian riflemen carried 3 separate tanks and a repair kit to mitigate against the fragile craftsmanship). The unique weapon also required specialized training and practice for soldiers used to gunpowder firelocks.

Why all the details about an 18th Century European air rifle in a LCSHS newsletter? Because this is the type of air gun that Captain Meriwether Lewis brought on the Expedition. It does not appear to have been a regularly used hunting piece or considered a defensive weapon.

Instead, it was a show piece in the presentations of technology, culture, and speech making that the Corps of Discovery put on for American Indian councils they met along their journey. The quiet, smokeless, repeating rifle left quite the impression. Private Whitehouse wrote about such a presentation to the Teton Sioux on August 30, 1804:

After they had finished dancing Captain Lewis took his Air Gun and shot her off, and by the Interpreter, told them that there was medicine in her, and that she could do very great execution. They all stood amazed at this curiosity; Captain Lewis discharged the Air Gun several times, and the Indians ran hastily to see the holes that the Balls had made which was discharged from it. at finding the Balls had entered the Tree, they shouted a loud at the sight and the Execution that was done surprized them exceedingly.

This past summer, LCSHS gained a wonderful resin replica of the Girandoni Air Rifle that Captain Meriwether Lewis brought on the Expedition. It is currently on display in the cabin of the keelboat in the main gallery. Ed Hamberg, who brought the replica to our attention, has already used it in presentations at the site (Thank you Ed!). Some staff and volunteers have already made it a regular talking point with visitors in the gallery. Thank you to the Lewis & Clark Society of America for providing the means to acquire this replica. You can expect more of our programming and some new interpretive signage to incorporate this fantastic addition to the site.



* *Illinois Humanities Road Scholars*

Speaker

We had a wonderful turnout on September 8 as LCSHS hosted Illinois Humanities



Speaker Dennis Stroughmatt. Presenting to a packed theater, Stroughmatt explored the rich heritage of the French Creole culture in the Illinois Country. His presentation was equal parts personal narrative, storytelling, and French Creole fiddle music. This great event was made possible through the Illinois Humanities Road Scholar Speakers Bureau grant and the Lewis & Clark Society of America Endowment Fund. We also want to thank Lindell Blackford for providing fiddle entertainment before the event.

Volunteer News:

By Cindy Upchurch

The 2020 Calendar of Events has been compiled. It is available at the front desk or ask Cindy for a copy. The special events follow the template that has been in place for some time.

Thank you to Pam Imes for manning the Cahokia Courthouse Complex while James Dabney was out on paternity leave. Congratulations to James on the birth of his baby girl.

Our agency neighbor to the east, Cahokia Mounds is losing a staff member, William Iseminger, to retirement in December. Bill has been at the Cahokia Mounds site for an estimated 49 years.



Society News:

General Membership Meeting – Dec 15

The Annual General Membership Meeting will be held on Dec 15. Lunch is offered at 12:30 in the Multipurpose Room at Lewis & Clark State Historic Site. Lunch will cost \$10 person and if you are wishing to join us, please call the Store of Discovery at 618-251-6244 to make your reservation. The annual business meeting will follow at 1 p.m. The guest presenter for the meeting this year will be Bill Iseminger from Cahokia Mounds to discuss a new book he is working on involving the US Civil War and a family connection.

Election of Officers and Board Members

The following slate of nominees for officers and at large board members to serve a 2-year term was approved by the board during the November meeting. Elections will be held during the business portion of the General Membership Meeting on December 15.

President – Rex Maynard
Vice President – Steve Stunkel
Treasurer – Vicki Clifton
Secretary – Michael Kaufmann

At Large Board Members –
Mike Bortko
Brandon Paul
Steve Bollini
Irma Holmes
Fred Andres



Upcoming Special Events:

Christmas with St Nick – December 7

St. Nicholas – or Père Noël, as he became known to the French – will visit the Jarrot Mansion State Historic Site in Cahokia to greet families and share treats with children amid candlelight and traditional holiday decorations.

The Jarrot Mansion was built around 1810 by merchant Nicholas Jarrot, one of many French settlers who prospered in early Illinois. His home is one of the oldest brick buildings in Illinois. It is usually open only by appointment, but will be open for free tours from 10:00 a.m. to 4:00 p.m. on Saturday, December 7. St. Nicolas is scheduled to arrive at the house at 11:00 a.m. and will stay until 2:00 p.m.

Visitors on December 7 are encouraged to bring a non-perishable food item to be donated to families in need. All food will be distributed to Cahokia food pantries.

Arrival Event – December 14 – 15

The 216th Anniversary of the Lewis & Clark Expedition's arrival to Camp River Dubois. Military reenactors, historic tool displays, presentations on historic medicine, and more will be on exhibition in the LCSHS Interpretive Center on December 14 & 15 from 10 a.m. – 4 p.m. Come see what camp life was like for the detachment!

Volunteer Interpretive Training Session – February 24, 2020

The Nature Institute and LCSHS will partner for a joint training session for volunteers hoping to learn more about cultural and natural interpretation. Ben Pollard (LCSHS) and Ramona Puskar (TNI) will lead the class covering the basic concepts of interpretation and practical applications when working with visitors at our

sites. We are excited to offer this program alongside TNI because we can blend the cultural and natural elements of interpretation together. Almost every volunteer at LCSHS does some interpretation, even if they don't realize it. If you want to learn more about how to effectively communicate the big ideas of the site to visitors, then consider joining this program. The class will run from 10 a.m. – 1 p.m. A sign-up sheet will be available in the coming weeks. For more information, contact Ben Pollard at LCSHS.

May Event

Education Day (May 8) and the Departure Celebration (May 9-10) will be coming up soon in May. If you are interested this event and have an interest in volunteering or demonstrating, let one of the LCSHS staff members know.

Calendar of Events 2020

February 24

Volunteer Interpretive Training w/ TNI

May 8

Education Day

May 9 – 10

Departure Event

June 22 – 26

Junior Explorers Kids Camp

July 11

Hummingbird Festival

October 17

3rd Annual Historic Craft Fair

December 12 – 13

Arrival Event

Commemorating the Point of Departure Since 1957



Lewis and Clark Society of America
 #1 Lewis & Clark Trail
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www.lewisandclarksociety.org
 Phone: 618-251-5811

Lewis & Clark Society of America Membership Information

The Lewis and Clark Society is a non-profit organization dedicated to educating the public about the immense importance of the Lewis and Clark Expedition. The dues structure is:

Student	\$10	_____	Make checks payable to Lewis and Clark Society of America and mail to #1 Lewis & Clark Trail, Hartford, IL 62048. Members receive a 10% discount on items purchased in the Store of Discovery, located at the Lewis & Clark State
Individual	\$20	_____	
Family	\$30	_____	
Business	\$45	_____	
Non-Profit Organization	\$35	_____	
Life-Time Membership	\$300	_____	

Please complete form and return to Lewis and Clark Society of America:

NAME _____

ADDRESS _____

CITY, STATE, ZIP _____

TELEPHONE _____ **EMAIL** _____

This newsletter is a publication of the Lewis & Clark Society of America, Inc., and the Lewis & Clark State Historic Site. All Society members and Site volunteers are invited to contribute articles or photographs to the newsletter. Articles published do not necessarily represent the opinion or policy of the Lewis & Clark Society of America, its Board of Directors or its Officers. The Camp River Dubois Dispatch will be published on a quarterly basis and mail March, June September, and December. Please submit by email to LCSA@CampRiverDubois.com or by mail to:

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 Newsletter
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The Lewis & Clark Society of America

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Michael Kaufman, Secretary	2019
Vicki Clifton, Treasurer	2019

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