

**Lewis and Clark Trail Heritage Foundation**

## President's Corner

Greetings one and all. I hope you all had a wonderful holiday season! The Fort Clatsop Christmas Party was well attended (by about 120 people) and from all appearances was a successful event. Thanks to ALL of those who helped make this possible. I also want to extend thanks to member Richard Anderson, who donated a full-sized and miniature replica of the Corps' lead gunpowder canisters. The chapter will use these for fund raising purposes in the near future.

Prior to our December Board meeting, director Linda Nelson tendered her resignation due to an increasing workload with her other volunteer efforts. The Oregon Chapter is indebted to her for her many contributions and participation over the years. Thank you Linda! In her stead, and at the board's request, chapter member Anita Walker of Canby has agreed to fill the open director position for the remainder of the term. Thank you Anita for stepping up to the plate!

Please note that chapter memberships run from January to January, and with the new year upon us, it is time to RENEW YOUR MEMBERSHIPS! See page 20 for a renewal form and further details. We look forward to your continued participation as we barrel into the bicentennial years.

In this issue you'll also find information on some of our upcoming meetings: Sunday, February 24; Saturday, April 20, and the annual Foundation meeting in Louisville, KY the end of July. We hope that you find these programs interesting and exciting. As you may well notice, this newsletter is thicker than usual.

This is due to the history forum portion of the February meeting program. In January of 1806 William Clark and about 1/3 of the Corps, including Sacagawea and Pomp, hiked over Tillamook Head and back in search of whale blubber and to see "that monstrous fish." Although Captain Clark tried to be descriptive in his journal entries, he produced some very cryptic passages. Those, coupled with changes such as tree coverage and possible slides that may have occurred on Tillamook Head over the past two hundred years, have conspired to produce questions that require some careful consideration and evaluation.

Two of our best, Roger Wendlick and Glen Kirkpatrick, have been examining these issues. The February 1999 issue of *We Proceeded On*, contained an article by Glen Kirkpatrick on this subject. He adds an addendum to this article in this newsletter. Roger Wendlick has also authored an article for this newsletter on the topic of Tillamook Head.

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## President's Corner *(con't)*

On Sunday, February 24<sup>th</sup>, after Dan Slosberg's wonderful presentation of Cruzatte!, Roger and Glen will use information from a variety of sources to present this history forum, discussing their deductions and interpretations. Forum audience members will weigh the presented data on its own merit and draw their own conclusions. It should be an interesting and educational experience for all of us! See page 3 for further meeting information and a map.

The following chapter meeting is scheduled for Saturday, April 20<sup>th</sup>. This will be a joint meeting with the Washington Chapter and will occur, appropriately enough, on both sides of the Columbia. See page 19 for further details.

The meeting after that will likely be the Foundation's annual meeting in Louisville, KY starting July 28<sup>th</sup>.

Due to a lack of space in this expanded issue, Mike Carrick's normal *Lewis & Clark: Question & Answer* column has not been included, but it will return again in the next issue of your chapter newsletter.

The waiting list for chapter badges filled up just before Christmas and they have been ordered, received and mailed to their new owners. If you haven't received your order, please contact me.

If you have suggestions for meetings, newsletter topics, or project ideas, don't hesitate to contact me or any of your board members. The more feedback we receive, the better able we will be to serve the membership. I hope to see you all at the next meeting and please don't forget to renew your memberships!

Thanks,

Jay Rasmussen  
[info@lcarchive.org](mailto:info@lcarchive.org)



## Pomp's Packsack

A column for kids  
by Larry McClure

### GPS Unit Better Than a Gameboy

If Pomp had been a ten-year-old on the Expedition using today's technologies, no doubt Lewis and Clark would have put him in charge of using a GPS hand-held tool for pinpointing locations and finding caches. Now, families of all ages are getting involved in elaborate Scavenger Hunt-type games that are fun outdoor activities they can do on a Sunday afternoon together. On the internet, go to [www.geocaching.com](http://www.geocaching.com) for details on geocaching games. A recent *Oregonian* article on this topic mentioned that Lewis and Clark was a theme for one of these high-tech treks. Essentially the participants try to locate hidden spots by punching in coordinates on their GPS (global positioning system) devices and then looking for the buried treasure (usually a water-tight container with a notebook for participants to log in, and perhaps an item to trade). Geocaching games are now being played worldwide. The *Oregonian* reported 300 caches in our state to date. A GPS unit typically sells for about \$100; they "listen" for precisely-timed signals from military satellites and can help determine your location to within 6 to 20 feet. Participants should be conservation minded (minimize off-trail hiking that might create erosion problems) and be sensitive to the rights of private land-owners. Digging multiple holes and leaving trash behind are two bad ideas. Taking away happy memories and leaving only footprints are two good ideas.

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### Visit Your Chapter Website

To fill in the gaps between issues of your quarterly newsletter - visit your chapter website - where you can always find up-to-date information.

[www.lcarchive.org/or\\_lcthf.html](http://www.lcarchive.org/or_lcthf.html)

# WELCOME TO OUR NEW MEMBERS!

With these additions we now boast a membership of 194 ... and growing!

Carla F. Barrett  
James L. Doane  
Jack Hausotter  
Betsy Johnson  
Barbara G. Lasley  
Mary Alice Thompson

David B. Carter  
Thelma Haggemiller  
Jason Hohnbaum  
Judy Krueger  
Don Prechtel

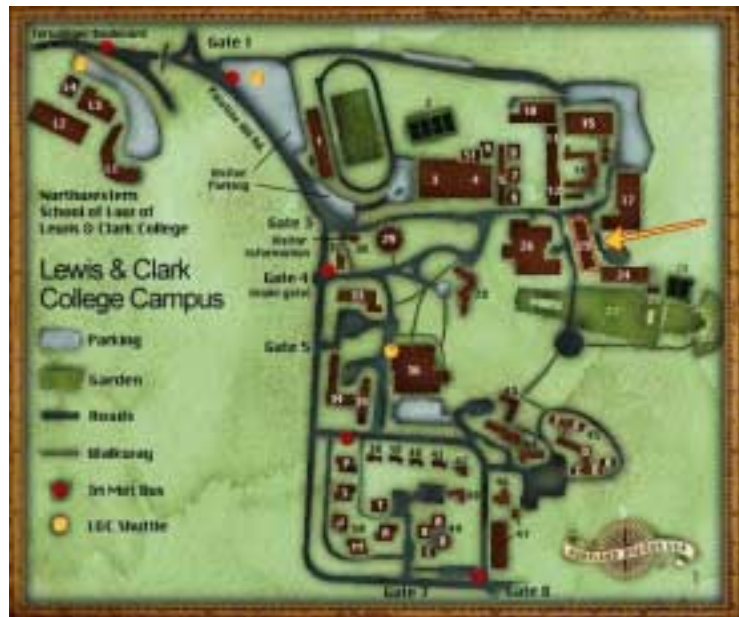
Virginia A. Danzer  
Stephan and Marlene Haldors  
Kelly B. Janes  
Judith A. Lampi  
Jane H. Richardson

## Sunday, February 24, 2002 Meeting Information

You won't want to miss our Winter Council Meeting, to be held on Sunday, February 24, 2002 in Room 105 of the Miller Hall for the Humanities building on the campus of Lewis and Clark College in Portland, OR. In addition to the always-popular business meeting, we will feature two astounding program segments. First up is *Pierre Cruzatte: A Musical Journey on the Lewis & Clark Trail*. Playing fiddle, jaw harp, bones, spoons, and other instruments of the Lewis and Clark Expedition, Daniel Slosberg, in full regalia, will treat us to an unforgettable musical voyage, with stops along the way for humorous and moving stories about the journey and the contributions of Pierre Cruzatte. Following the music, mirth and a short intermission, we'll kick off our first historical forum. Using data from an amazingly wide variety of sources, and accompanied by numerous visual aids, two of our most valuable chapter resources, Mr. Roger Wendlick and Mr. Glen



Kirkpatrick, will switch off in presenting interpretations of what William Clark was really trying to communicate in his journals and where he and a large band of Corps members may have trod in their travels to and fro over Tillamook Head in January of 1806. The meeting will begin at 1:00 pm with welcomes and a short business meeting followed by Daniel Slosberg's wonderful musical presentation, which in turn will be followed by what promises to be a fascinating and thought-provoking history forum. It is suggested that you use Gate 1 to enter the campus and park in the back lot (the light "7" shaped area in the top, right of corner of the map above). Head down the path to the Miller Building and find Room 105 on the bottom floor (best entrance is on the east side of the building). To get to Lewis and Clark College from I-5 northbound or southbound, take the Terwilliger Boulevard exit. Turn right (south) and follow the signs. See you there!



# IN SEARCH OF THE WHITE EARTH - ON THE TRAIL TO THE WHALE -

By Roger D. Wendlick

1/20/2002

William Clark, on his trek from Fort Clatsop to view a beached whale, found an unusual mineral deposit that caught his eye. In his second journal entry for January 7, 1806, he writes:

In the face of this tremendous precipic imediately below us, there is a Strater of white earth (which my guide informed me) the neighbouring indians use to paint themselves, and which appears to me to resemble the earth of which the French Porcelain is made; I am confident that this earth Contains argill, but whether it also Contains Silex or magnesia, or either of those earths in a proper perpotion I am unable to deturmine.<sup>1</sup>

The day was clear at first, but clouded up later. He arrived at the camp of the salt makers where Gass writes, " he arrived about noon."<sup>2</sup> (It might be interesting to note that Clark only traveled from the Fort to the salt works once, though on this hike he did stop there on the way to see the whale and again on the return to the Fort.)<sup>3</sup> After eating, he and his party departed along the rocky shoreline for a distance he estimated at 2½ miles, to today's West Point, located on the northwestern part of Tillamook Head. This is the head, which is properly called "Clark's Point of View,"<sup>4</sup>

I thought the hike along the shore to the point would be an easy one and invited my friend Al LePage, Director of the National Coast Trail Association, to join me. On January 6, 2001, we set out after visiting the location of the salt cairn, at Seaside, Oregon. The round rocks were a bit of a challenge as they moved about underfoot. I thought how uncomfortable it must have been for the party wearing only moccasins and not the firm soled boots we had to protect our feet. It took us the better part of an hour and a half to reach the point. We ventured around to the treacherous face to see the raging ocean pounding against a boulder-strewn, vertical, rock cliff frontage, that through the years has become known as "the death trap." Surely, the steep hillside just preceding this place, is where Clark writes:

my guide made a Sudin halt, pointed to the top of the mountain and uttered the word *Pe Shack* which means bad, and made Signs that we could not proceed any further on the rocks, but must pass over that mountain, I hesitated a moment & view this emence mountain the top of which was obscured in the clouds, and the assent appeared. to be almost perpindicular; as the Small Indian parth ... led up this mountain and appeared to assend in a Sideling direction, I thought more then probable that the assent might be torerably easy and therefore proceeded on, I soon found that the [*blank*] (ha! I can only imagine what he was thinking here) become much worst as I assended, and at one place we were obliged to Support and draw our Selves up by the bushes & roots for near 100 feet, and after about 2 hours labour and fatigue we reached the top of this high mountain, from the top of which I looked down with estonishment to behold the hight which we had assended, which appeared to be 10 or 12 hundred feet ...<sup>5</sup>

Our next excursion in April brought a new discovery. The winter storms had exposed a new layer of rock at West Point. This area, about 50 feet or so in length, had three distinct layers of about two-to-three feet thickness each in an arched formation. The lowest layer had a gray tone and looked much like a sedimentary deposit. The upper layer was black rock, probably basalt that flowed hot and molten during the Miocene Epoch of the Tertiary period of land formation of the Pacific Northwest coastal region. The middle layer was most interesting, being an off-white color having the texture of limestone or, I thought, maybe even resembling diatomaceous earth, but it just did not seem to fit here. This layer probably underwent contact metamorphism due to the extreme heat of the molten basalt deposited on top of the gray material. We obtained some samples and discussed whether this was in fact the "white earth" Clark had seen. I deduced, it probably was not since we were about 1,100 feet lower on the headland than where he described.<sup>6</sup>

I shared a piece with a registered geologist<sup>7</sup> who lives nearby. He said "it appears to be a limestone, fine grained sandstone, or maybe an ancient alluvial deposit," but needed more professional analysis to identify the true composition of the sample.

The following week, I remembered that back during my book collecting career, I had in my library (now part of the Special Collections at Lewis & Clark College, Portland, Oregon) a first edition copy of Kirwan's *Elements of Mineralogy*, (1784). This was one of those books that comprised the traveling reference library Lewis had acquired prior to his departure under the advisement of President Jefferson and other scientific minds of the time. "Richard Kirwan, (1733-1812) born in Ireland, was a chemist and natural philosopher. He was educated at the University of Poitiers, France. He was the founder of the Royal Irish Society and became the President of the Royal Irish Academy until his death."<sup>8</sup>

Lewis had been dispatched to learn (actually, to receive a brief crash course) from Benjamin Smith Barton, naturalist; Andrew Ellicott, astronomer and surveyor; Robert Patterson, mathematician; Benjamin Rush, physician and Professor of Medicine; Casper Wistar, Professor of Anatomy and other scholars in preparation for the expedition. Jefferson also wrote an introductory letter that contained a similar message to each that was confidential. "...I propose to send a party...with Capt. Lewis as head...to explore the Missouri and whatever river runs to the Pacific." Jefferson said that he could not find one person in the United States who possessed all the scientific knowledge; botany, mineralogy, astronomy, natural history and who held strong character and physical capabilities to undertake an enterprise so perilous. Capt. Lewis would be the most qualified man because "he possesses a remarkable store of accurate observation on all subjects", and that he would be in Philadelphia in a week or two for consultation.<sup>9</sup> Jefferson was probably the most educated mineralogist in the United States of date listing five books and several scholarly papers discussing the subject in his private library.<sup>10</sup> Lewis had access to this library and Jefferson's personal tutelage.

Before I proceed on, I must mention that I had initially learned about Kirwan's book from an article by Donald Jackson, "Some Books Carried by Lewis and Clark" (*Missouri Historical Society Bulletin*, Oct. 1959). I also found an interesting comment in his article: "From the Great Divide to the Pacific their journal entries contain virtually no geological descriptions. Those which do appear are worthless."<sup>11</sup>

I pulled the copy from the vault, wearing white gloves, and carefully examined its contents. I found under "Siliceous Genus" classification those terms used in the journals of both Lewis and Clark to describe the "white earth". I studied further. I was now on a mission not only to find the source of their descriptive terms, but, to educate myself about basic geology/mineralogy. In this first edition, I found on p.106, a listing, Series III, Arenaceous Quartz or Sand. "The purest is white...that the fine white sand of Freyenwald, which is used for the porcelain manufacturies...contains 1/3 of it's weight in Argill and Calcareous Earth...Mr. Wedgwood (Josiah Wedgwood, 1730-1795) one of the most celebrated manufacturers of earthenware in Europe..." Then further on in the book Kirwan lists various proportions of silex, argill, ponderous earth and magnesia and how when heated they melt or fuse and are used in the manufacture of porcelain.<sup>12</sup>

I am not a scientist. Many of the phrases and terms used in this book are well beyond my interpretation. One thing that is clear, this book does contain information Lewis and Clark used in their journals. This was one of the first works in the world listing any information about Mineralogy. In fact, in the preface, Kirwan states that Mineralogy is an Art (in England) and that "on the Continent (Europe) Mineralogy is on a very different footing. In Sweden and Germany it is considered as a branch of Science worthy of the attention of government."<sup>13</sup>

I can just imagine the Captains conferring upon Clark's return to the Fort. It was 10 PM; they sat huddled over the stump that served as a table under the dim light of a flickering candle, attempting to glean some descriptive information from this precious volume as they examined the sample Clark had procured. Of course, it had to be Lewis who determined the probable field analysis of this mineral. He was the scientist. Clark was the cartographer and the military disciplinarian and most likely had copied the descriptive passage from Lewis. His second journal entry for January 8 was written at the Fort, not on the trail. He was too tired to be concerned with writing any more than necessary; "much fatigued," he put down in his elk skin journal each night on his excursion to see the whale.

It might be fun to think of Clark in a slightly different way. Imagine for a moment, this 35-year-old, military frontiersman was a tired, exhausted, hungry leader who was really hoping to get a *view* from this high point of a mountain, but not of a vast ocean with rocks and waves and seagulls perching on a

promontory. Hell no! He wanted to see a tri-masted sailing vessel approaching the estuary with trade goods, provisions and spirits. But it was not to be.

With new information at hand, I was more determined to locate the stratum that Clark saw and better trace his correct path of travel up and over this land mass.

During the month of May, I became well acquainted with Tillamook Head and the old trail after meeting and interviewing some life-long residents of Seaside. The first was Jeanie (Olson) Anderson, 84, who told me about the "death trap" and said about the trail, "it's pretty much the same today as it was when I hiked it years ago as a girl. Yes, pretty much where it's always been. But," she went on, "you should talk with Harold Lampi." Harold, also 84, I soon found out had been a logger on Tillamook Head in the 1930's. He told me that he used to run the trail from Seaside to Cannon Beach as a boy when the path went "right up and over, following the ridge line like it does today. It then passed on the east-side of the top of Old Baldy (Bald Mountain or Water Tank Hill). Heck, I remember standing on the south side of Old Baldy and you could see all the way down the coastline." Then I asked the one question I most needed an answer to. "Harold" I said, "did you ever see any white earth?" " Yes," he replied, "but that was long ago on a hunting trip with one of my logging buddies back in the 1960's. Things have changed a lot since then." He brought out an older map of the area showing early logging operations and the railroads which were used for hauling out the great spruce trees. "It was somewhere in this vicinity," he said, as he pointed to the summit above West Point. My heart was thumping. " Not much grew there, just sword ferns and wild strawberries, it was an open area oh, about 30 to 50 feet around as I recall. Why do you want to find this white stuff and the original trail route," he queried? Then I told him of my Lewis and Clark passion and his eyes lit up. "You must know my son-in-law, David Nicandri, Director of the Washington State Historical Society." " Yes", I replied and said that I had known David for quite some time. We parted that day on more common ground.

The following weekend was Memorial Day. David and I made contact over the phone and shared a laugh that it was indeed a small world and discussed plans for a joint venture on Sunday to search for this missing spot. We had a great hike that day but, just as we reached the summit, a very cold fog drifted in to put a chill on our enthusiasm and cut short the hunt.

I was then informed of another life-long resident of Seaside that I should contact, Inez Hansen, 97, who wrote a private documentary about the "Clatsop Plains" years ago. I had to drive to an Albany, Oregon, retirement home but it was well worth the trip. We had an afternoon of stories that were a true delight, ending with the same comment on the trail's location. The trail today is much the same as it was when she walked it as a girl. "Then too," she added, " this was only used by the Indians during the winter when the seas were rough. During the remainder of the year they would round the Head (*Nah-se-n'-su*,<sup>14</sup> as the Clatsop Indians called it) in their canoes." She then told me to visit Clarence Owen, 94, currently residing in Astoria, who years ago, was the Fire Chief of the Seaside Volunteer Fire Department. I found Clarence and his wife Carol, in another retirement home and again heard many stories. He recalls that his father was one of the "Spruce Battalion" loggers employed to harvest prime spruce trees to build airplanes in the First World War. Clarence used to be called to rescue folks who had made the unfortunate mistake of venturing around West Point and into an area called "The Death Trap." They were caught by the rapidly approaching high tide and many unfortunately were lost to the jaws of the Pacific Ocean, thus the name. He and his crew would have to scamper out on the Old Indian Trail (before the WPA & CCC made improvements) and lower ropes over the cliffs to hoist out the scared and unexpected tourists. I had to laugh when he said "tourists" with a twisted facial expression and a sarcastic tone as I've heard my dad and other long time residents of Seaside voice their discontent over the years.

Before I knew it, Fall was here with school back in session and still I had no closure on this mission. I wondered, what exactly was the white mineral deposit Al and I had found last Spring? I thought for a moment, my brother, Joe Wendlick, Chemist and Certified Industrial Hygienist, had to have material analyzed from time to time in his profession. He must know of a qualified lab in the Seattle area where he lived. I sent him a specimen from the first discovery site with a request to determine its basic composition. On October 21, I received the report from Analytical Chemistry Inc.<sup>15</sup>, Seattle, with a nice

letter from my brother explaining that the method used (to defray excessive cost) was X-ray Diffraction and X-ray Fluorescence Spectrometry Analysis. OK, fine, whatever that meant. It meant a \$200 bill! The results were that the sample was primarily Quartz (Silex) and Aluminum Silicate (Argill) [related to Kyanite]. I recognized the terms used from reading the journals and researching "Kirwans Mineralogy" but I still needed clarification. I knew just where to go.

Excited, I took the results and a sample along with collection site photographs to Assistant Professor of Geology at Lewis & Clark College, Elizabeth Safran for further consultation. She questioned the relationship to Kyanite but then suggested she would like to field examine the location to make a more qualified conclusion. We set a date in early December to hike out along the rocky shore, but I kept thinking this is the wrong location; are we wasting our time?

On October 23, I set out again but alone this time with only the Great Spirit by my side to guide me. Maybe that was the secret. Hidden from sight by the sword ferns, moss and forest debris was a small patch of white ground exposed only by the hoofs of passing deer and elk on a narrow trail that led down the steep terrain. This day I beheld what I believed to be the same stratum that Clark had observed. I let out a holler, YEH! White Earth in view! Oh, the joy! Finally, what I had been so long anxious to see! The words of the Captains rang through my ears.<sup>16</sup>

The excitement of triumph overwhelming, I failed to notice a young couple quietly standing above me with totally bewildered expressions on their faces as they watched me tear away at the ground cover and understory plants in a wild manner, like a frenzied canine in hot pursuit of a groundhog. Still not realizing these people were present, I continued laughing and repeating, "Yes, yes, I found it, I found it!" I can only imagine what this nice couple was thinking before the young lady asked, "Are you alright, sir?" I looked up, totally embarrassed, turning ten shades of red I'm sure, before identifying myself and my passion for the history of the Lewis and Clark Expedition. After sharing my maps and a brief explanation of my find, they went on their way. I gathered some samples and realized that this mineral differed from that collected below in texture and color. It also left a distinct white film on my skin from light abrasive action. I returned to Portland much elated.

The next morning with much excitement I took this newly found mineral to share with Professor Safran. She thought this might in fact be an ancient deposit of mud-stone mixed with volcanic ash. Then she showed me a sample from a collection in storage that was unearthed at Mt. Vernon, Oregon, which looked and felt just like the piece I brought back from the summit. More questions.

It was not until after Thanksgiving that I sent this second sample to be analyzed. The results found it to be primarily Aluminum Silicate (Argill). This better matched the journal description, "I'm confident this earth contains Argill..."<sup>17</sup> Lewis certainly did possess a remarkable store of accurate observation. He "nailed" this one correctly; just like I got nailed with another \$200 bill!

During this same period, Doug Erickson, Archivist and Head of Special Collections at Lewis & Clark College, using his incredible ability to locate those rare or unusual books via the Internet, found a 3<sup>rd</sup> edition (1810) of Kirwan's work (a reprint of the 2<sup>nd</sup> edition, 1794) in a much expanded and updated 2 volume set. We acquired it immediately.

Upon receipt, we sat together and examined volume 1, as it contained those sections covering manufacture of porcelain. We found a sub-section listing under "Argillaceous Genus," of Clay's in general that gave information not found in the First Edition.

These proportions produce different effects. Thus the clays, in which the siliceous ingredients enters in the proportion of from 3 or 4 to, 1 are the best for porcelain, those in which the argill exceeds are best for coarse pottery.<sup>18</sup>

Then, on the next page is a separate listing for Porcelain Clay (Kaolin). It mentions different proportions and the fusibility (heated for bonding) of those ingredients and says,

...the porcelain earth of Limoges (France) above mentioned contains, when dried, 0,62 silex, 0,19 argill, 0,12 magnesia, and 0,07 baroselenite. Mr. Wedgwood, in the porcelain clay of Cornawall, found the contrary 60 percent argill and only 20 of silex;....<sup>19</sup>

Just preceding this information are several tables listing varied proportions of those minerals described and the heat necessary to make earthenware. [See sample on page 11<sup>20</sup>].

Now, after finding this expanded and clarified publication, we believe it was a Second Edition (1794) and not a First (1784) that Captain Lewis had acquired for the sum of \$5.00<sup>21</sup> and used on the expedition.

My final field survey to the site of Clark's white earth discovery was on December 14, 2001 accompanied by Assistant Professor Safran and Assistant Archivist Jeremy Skinner of Lewis & Clark College. This was one of those typical winter days at the coast that people spend indoors by the fire sipping tea (or something much heartier) and reading a book. The wind was gusting to 60 mph as we parted the trailhead overlooking the Cove, Salt Works and the south end of Seaside. It took us about an hour to reach the summit where we were pelted with rain, hail and snow. Clutching folding army shovels, we attempted to follow the stratum. The steep hillside appeared to be about an 80-year-old slide area exposing the layer. It may have been a recent slide (1805) that exposed the stratum for Clark following the many days of rain-drenched, severe weather. Even more significant, it may well have been one of these large slides Clark refers to that created an OPEN for viewing!<sup>22</sup> It may have been a "small scale disturbance...that resulted in a 'gap' type opening...."<sup>23</sup> We gathered more samples and departed, all feeling tired and chilled but warmed with the satisfaction of having trod about where Clark and his entourage did nearly two centuries ago.

I certainly do not want to make the claim "I found the spot" on this large, diversified and ever changing land-mass we call Tillamook Head. This is only one of those places Clark may have stood to LOOK OUT along the way to view the whale. In fact, he most probably took his *famous* view description from several locations while crossing "the Mountain he named."<sup>24</sup>

In closing, Clark said on January 7, 1806, "we left the top of this precipice and proceeded on a bad road (Indian trail) and encamped on a small run passing to the left. All much fatigued." That location was most likely the headwaters of today's Canyon Creek. And that's a subject for future discussion.

" I remain Your Most Trusted & Obedient Servant..."

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#### Sources Cited:

<sup>1</sup> Moulton, Gary. *The Journals of the Lewis and Clark Expedition*; Lincoln, University of Nebraska Press, 1990, Vol. 6, p.178

<sup>2</sup> Gass, Patrick. *A Journal of the Voyages and Travels...*; Pittsburgh, Printed by Zadok Cramer, for David McKeehan Publisher and Proprietor, 1807, p. 179

<sup>3</sup> Clark has caused some confusion for historians from his map printed in Moulton, vol. 6, on p.129. He named the waterway the Clatsop River for the tribe encamped at the outlet. This same stream he later labeled Ne-er-ca-win-a-ca. (see Moulton, Vol. 1, Atlas, 1983, map #84) This is now Neacoxie Creek that in 1805 had two forks and flowed into the ocean just north of today's Slusher Lake within the boundary of the Oregon National Guard Camp Rilea. Clark, with 5 men cut a trail to the beach (7 miles on a bearing of S 60 W) on December 8-9, stayed with the Indians overnight returning to Fort Clatsop on December 10. In *January*, 1806, he applied the same name, *Clatsop* River, to the Necanicum River, in Seaside.

<sup>4</sup> Davidson, George. *Pacific coast pilot. California, Oregon and Washington Territory*; Government Printing Office, 1869, p. 142.

It may be of interest to note that it was Meriwether Lewis who, upon Clark's return on January 10, 1806, took the liberty of naming the head "Clark's Mountain and Point of View". Then it was Charles Wilkes who labeled the point "Kilamuke Head" on his map of the Oregon Territory, 1841, for the local tribe. The name again transitioned to "Killamook Head" on map #2 of the 1855 railroad survey led by Lt. R.S. Williamson, U.S. Top. Eng.. Finally, in 1859 it became "Tillamook Head".

<sup>5</sup> Moulton, Vol. 6, p. 177-78

<sup>6</sup> *ibid.*

<sup>7</sup> See, Paul. With appreciation for his quick field observation of a sample and comment.

<sup>8</sup> Sowerby, E. Millicent. *Catalogue of the Library of Thomas Jefferson*; Library of Congress, 1952, Vol. 5, p.650

<sup>9</sup> Jackson, Donald. *Letters of the Lewis and Clark Expedition*; Urbana and Chicago, University of Illinois Press, 1978, Vol. 1, Pp 17-27.

<sup>10</sup> Sowerby, E. Millicent. *Catalogue of the Library of Thomas Jefferson*.



<sup>11</sup> Jackson, Donald. *Bulletin, Missouri Historical Society, Vol. 16, Number one*; Missouri, 1959, "Some books Carried by Lewis and Clark" p.8.

<sup>12</sup> Kirwan, Richard. *Elements of Mineralogy*; London, Printed for Elmsley in the Strand, 1784,p.106-7

<sup>13</sup> *ibid*, preface

<sup>14</sup> McArthur, Lewis. *Oregon /Geographic Names*; (Fifth Edition) Portland, Oregon, The Press of the Oregon Historical Society, 1982, p.733.

<sup>15</sup> I would like to thank my brother, Joseph Wendlick, CIH, and Robert M. Orheim, Director of Laboratories, and the entire staff of Analytical Chemistry, Inc., for their outstanding professional effort and rapid response to help solve the "white earth" mystery.

<sup>16</sup> A paraphrase in jest using the words expressed by the Captains when they first sighted the ocean on November 7, 1805, Lewis and Clark Journals.

<sup>17</sup> Moulton. Vol. 6, p.193; Lewis' description actually lists a specimen No. (blank). Even though a number apparently wasn't assigned, he surely gave the sample high scrutiny. "Only five specimens can now be ascribed to this expedition." Citing, Proceedings of the Academy of Natural Sciences of Philadelphia, April, 2000. "A National Treasure: Accounting for the Natural History Specimens from the Lewis and Clark Expedition...." Earle E. Spamer, Richard McCourt, Robert Middleton, Edward Gilmore and Sean B. Duran.

<sup>18</sup> Kirwan. Vol. 1, 3<sup>rd</sup> Edition (reprint of the 2<sup>nd</sup> Edition), p. 158.

<sup>19</sup> *Ibid*. p. 161.

<sup>20</sup> *ibid*. p. 61.

<sup>21</sup> Jackson. Vol. 1, p. 96.

<sup>22</sup> Moulton. Vol. 6, pp. 182-83.

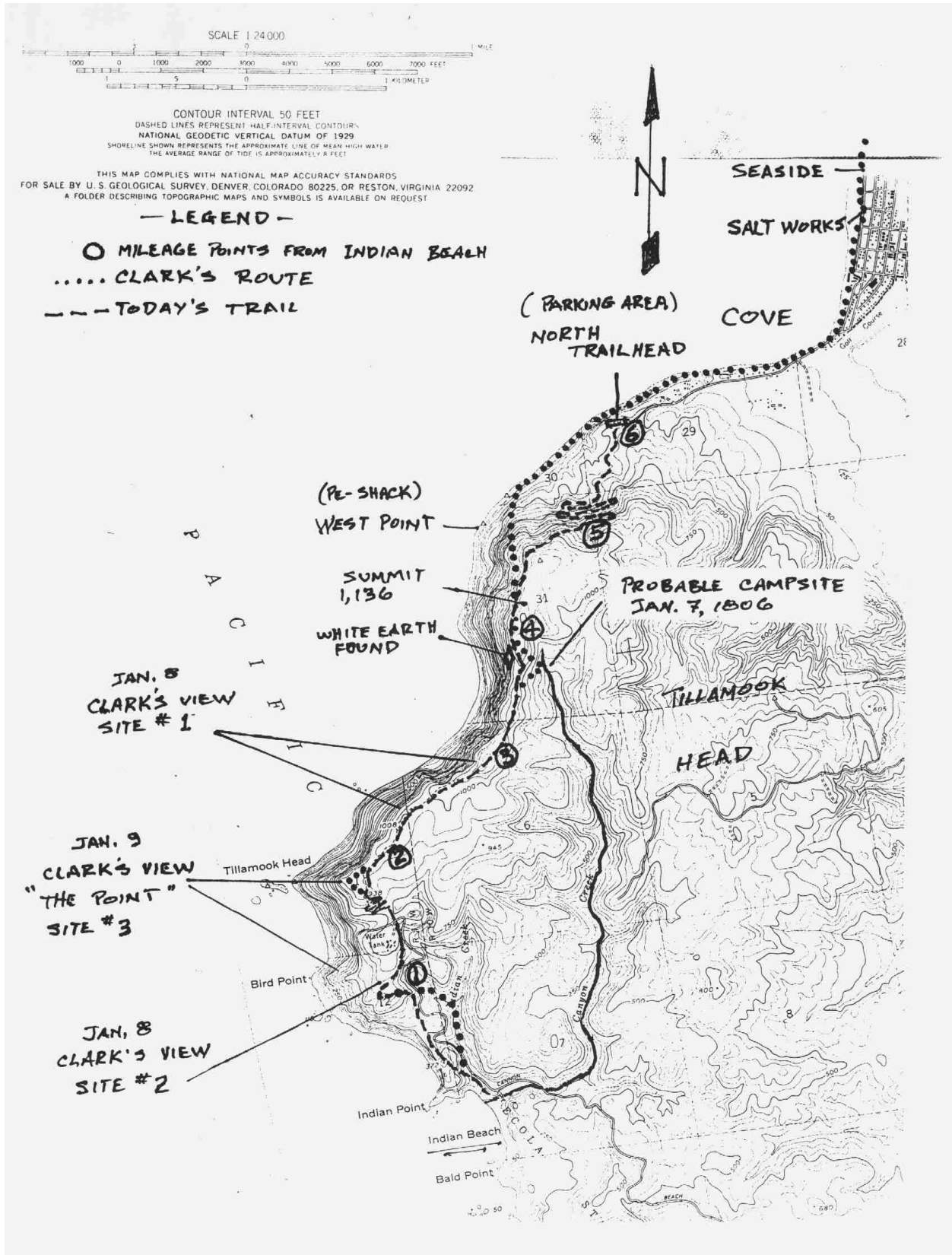
<sup>23</sup> Agee, James F.. *Forest changes since Lewis and Clark, Ecola State Park*; Seattle, University of Washington, 2000, p. 11

<sup>24</sup> Ordway, John, (Moulton Edition ,Vol. 9, p.266) ["This creek was named by Cpt. Clark McNeals folley and the Mountain which they crossed made out in the ocean he (Clark) called Capt. Clarks View."] This is an interesting twist. It also seems to follow Gass' entry for January 4, 1806, where Gass says "...and ends at a high point of a mountain, called Clarke's View on the sea shore."(footnote 2) Is it possible that after Clark saw this mountain on November 18, 1805, that this name was brought up and suggested in discussion around the evening campfires days or weeks before any members of the "Corps" were even close?

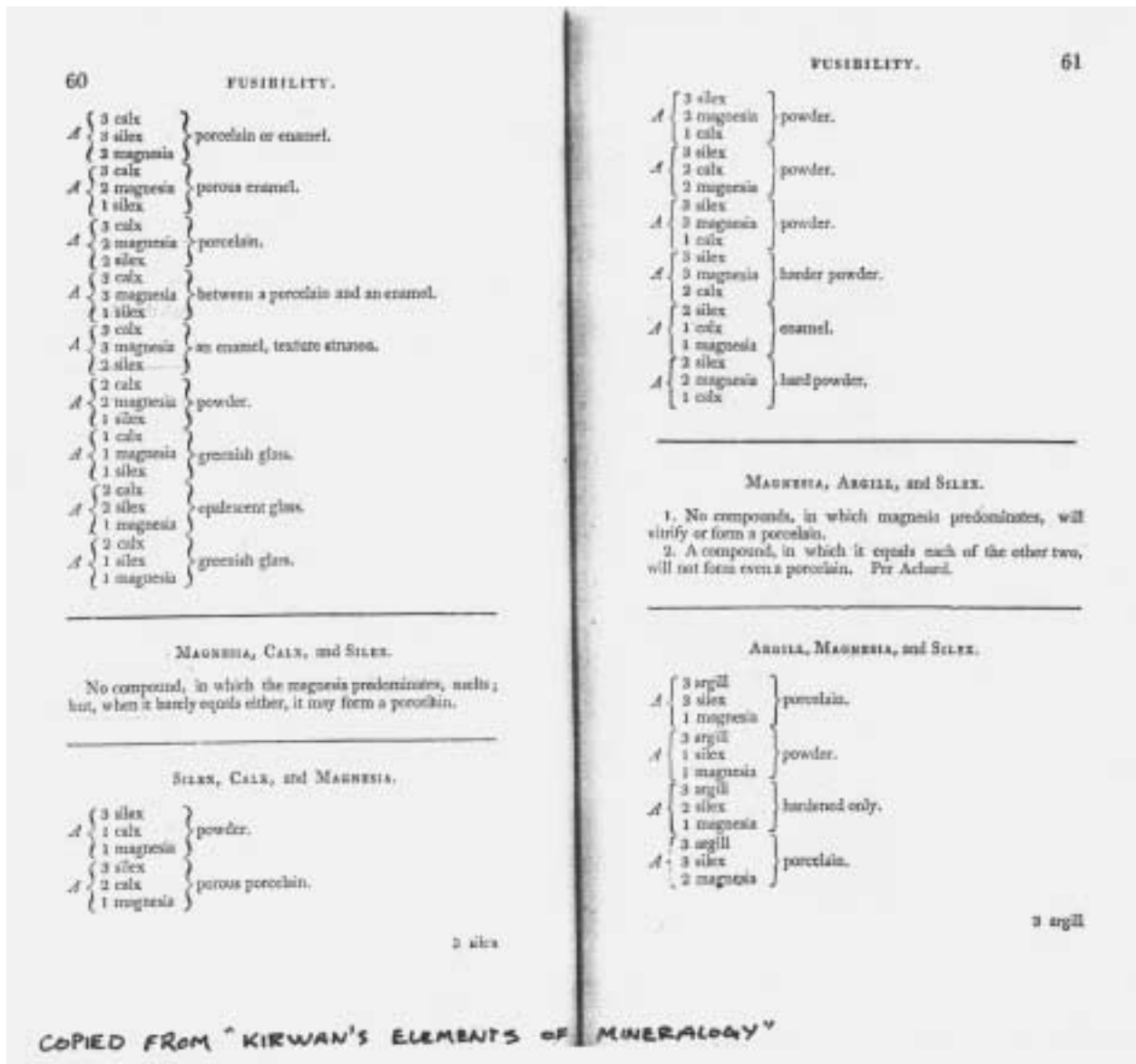
\*Thank you to Al LePage for his technical advice from years and literally hundreds of miles of "coastal trail hiking experience."

\*\*And a special thank you to all my friends and colleagues at Lewis and Clark College for their generous editorial assistance and council: Stephen Dow Beckham, Professor of History; Elizabeth Safran, Assistant Professor of Geological Science; Doug Erickson, College Archivist/Head of Special Collections; Jeremy Skinner, Assistant Archivist.





Map with Roger Wendlick's markups



Excerpt from Richard Kirwan's *Elements of Mineralogy*

# National Association for Interpretation Workshop

## Encounter & Exchange: A Confluence of Peoples

February 21 - 24, 2002 Holiday Inn Airport, Portland, OR

The humanity of history is the theme of this workshop. Participants will explore a variety of methods and examples of how to interpret the past and bring it to life. The focus will be on how to gain a stronger understanding of people and communities gone by and how to present them in context. The workshop features a Keynote Address by Dr. James P. Ronda. For questions, contact Janice Elvidge 503-861-2471 x422 or Sue Buchel 406-727-8733. For information on NAI, call 888-900-8283 or see their website at [www.interpnet.com](http://www.interpnet.com)

# Clark's Point of View

## An Interpretation

By Glen Kirkpatrick

1/1/2002

There is no doubt the Corps of Discovery refers to the entirety of Tillamook Head as Clark's Point of View in their journal entries. The primary documentation that is provided by the Moulton edition of the journals also leaves no doubt that Clark, on the morning of January 8, 1806 arose from his camp next to Indian Creek on Tillamook Head. That morning he traveled to one location on Bird Point where he was inspired to write his famous poetic journal entry of his view of the Oregon coast. The next day he returns to that location on Bird Point, where the Indian village next to Ecola Creek at the whale site is visible, and takes compass readings to Cape Disappointment, Point Adams, to the north and two headlands to the south. Bird Point is the only location on Tillamook Head where this is possible.

### Route to the Indian Creek Campsite of January 7<sup>th</sup>

After leaving the Salt Works, Clark describes traveling 2.5 miles on a slippery stone beach. They were traveling fast, however, before climbing the mountain, he hesitates for just a moment to think about what he is about to climb. He sees the immense mountain with its top obscured in clouds. Upon reaching the top, he says he can look down over the route they climbed. He mentions no northward views that day.

His route that day is shown on his sketch map from the elk-skin bound journal. (See Figure 1-Moulton, Volume 6, Page170, Route to the whale site). He shows dots depicting a rather straight course up the mountain and down the interior of Tillamook Head to a camp on the west side of Indian Creek. This is perfectly consistent with his description of reaching the top and then traveling down a bad road to a small run on the left. The map also shows he recognizes the summit of Tillamook Head on the north end by labeling the elevation at Clark's Mountain at 1500 feet (it is actually 1260'). The drainage of Canyon Creek and Indian Creek are accurately portrayed on his maps of Tillamook Head.

The bad road over Tillamook Head connected the Indian tribes north and south of Tillamook Head. It is believed to have been used a lot in the winter when passage around the cape by canoe was not possible. It makes sense this road would be a straight line - up Indian Creek and down the north flanks of Tillamook Head - just as Clark mapped it. The Indian populations were largely gone by the 1830's. Over the following 170 years this trail has disappeared and much of Tillamook Head has been logged in the last 50 years.

Another clue as to the views that Clark had on January 7<sup>th</sup>, 8<sup>th</sup>, & 9<sup>th</sup> is the way he outlines Tillamook Head on his maps. Clark made three maps of Tillamook Head (Figure 1, 2, & 4). On all three maps, he shows the headland as a rounded "U" shape jutting to the west into the Ocean. However, Tillamook Head has the high mountain on the north end (now Clark's Mt.) with the southern portion having two points (Tillamook and Bird Points) jutting farther to the west. Between Clark's Mountain and the two points is a large embayment in the coastline (See Figure 3-Topographic map of Tillamook Head). This embayment is not shown on any of Clark's maps because he never saw it. This embayment is not visible from where he climbed up Tillamook Head on the 7<sup>th</sup>. Because he traveled on a bad road on the interior of Tillamook Head as mapped on Figure 1, he could not see the NW coastline of Tillamook Head. This portion of the coast is not visible from Bird Point and points to the south. And, of course, the return trip on the 9<sup>th</sup> was by the same route. So Clark never saw the true shape of Tillamook Head. He was simply never in a place where he could see the NW coastline of Tillamook Head.

### Travel to Bird Point

On the morning of the 8<sup>th</sup>, Clark awakens to one of the few clear days that winter. In his draft notes he indicated he traveled 1½ miles to an open where he had an extensive view. In his Journal entry for that day he states, "...proceeded to the top of the mountain next to which is much the highest part and that part facing the Sea is open, from this point..." and then he makes his famous poetic journal entry. Clark clearly has traveled to a location where he has extensive views north, west, and south.

Although the distance to Bird Point from the plotted campsite on Indian Creek is only about one mile, Clark's estimate of 1½ miles is reasonable considering the rough terrain. Clark, on many occasions traveled to high points in order to make his maps. I am sure once he spotted Bird Point from the open; it would be natural to head to the point to make mapping observations. Bird Point fits the description of his travel early that morning very well.

#### Not the highest Point

Lewis, after Clark's return to Fort Clatsop, states Clark had an extensive view from the summit of Clark's Point of View. However, it is clear from Clark's own words – "*proceeded to the top of the mountain next to which is much the highest part*" – that he was not on the summit which was some distance to the north, but rather a much lower point. Clark notes on his map the highest elevation on the north end of Tillamook head at 1500 feet (See figure 1) and he notes the elevation from the high-point near his viewpoint as 800 feet (see figure 2).

Clark's draft map (Figure 2 - Moulton, Atlas, and Plate 93) shows very compelling evidence that he indeed was standing on Bird Point. This map clearly shows two points on Tillamook Head marked by two "X"s. These are Bird Point and Tillamook Point. Opposite the southern (Bird) point he writes the words "Point of Clark's View, Mountain about 800 feet high". The top of Water Tank Hill behind Bird Point is about 800 in elevation and Bird Point is 550 feet.

The draft map (Figure 2) also illustrates Clark's View from Bird Point of the geographic features for which he gives compass bearings. Note the long neck of Point Adams allowing the end of it to be seen by a north view from the southern "X" on the map labeled Point of Clark's View.

#### On leaving Clark's Point of View

Upon leaving the location of his extensive view (Bird Point), Clark writes he struck a branch and the descent was steep. It was downhill all the way to Indian Beach. Again, the Bird Point location fits Clark's description very well. If Clark were at multiple locations or farther north on Tillamook Point, this description would not work.

#### Return to Bird Point, takes compass bearings

On January 9<sup>th</sup>, Clark returns over Tillamook Head by the same route. He states in his draft field notes "*from the Point of Clarks Point of View*" (i.e., from Bird Point on Tillamook Head) and then gives four compass bearings to locations north and south.

#### Looking north

He states "*from Clarks View Point to Cape Disappointment is North 20° W. To point adams & the open Slope point is North and a Sharp Point.*"

#### Looking south

We know he could see the Indian Village at the mouth of Ecola Creek from his descriptions because he states his Indian guide pointed out the village. From this location, Clark gives two compass bearings to headlands to the south.

There is only one place today on Tillamook Head where the views allow a person to see the Ecola village site, headlands to the south, Point Adams, and Cape Disappointment. This one location is Bird Point.

In plotting the compass bearings you must use an approximation of an 1805 declination (approximately 17° E) and use magnetic readings. Clark's bearings to Cape Disappointment and Point Adams works well. One of the bearings to the south works well for Cape Lookout. One bearing (N 5° E) to a headland makes no sense whatsoever. However, this bearing would not work for any location on Tillamook Head as it points to the open sea.

#### To Point Adams and Open Slope Point is North

One of Clark's bearings from the Point of Clarks Point of View deserves special attention—" *To point adams & the open Slope point is North and a Sharp Point.*" This bearing places a sharp point of an open slope on a magnetic north bearing between Clark and Point Adams. My interpretation of the open slope

and sharp point is Tillamook Point. Bird Point is the only location where you can place *any* headland or point between the observer and Point Adams. Bird Point fits this bearing and description perfectly and uniquely places Tillamook Point on a line of sight with Point Adams.

#### Poetic Descriptions

*"from this point I beheld the grandest and most pleasing prospects which my eyes ever surveyed, in my front a boundless Ocean; to the N. and N. E. the coast as far as my sight could be extended, the Seas raging with emence wave and brakeing with great force from the rocks of Cape Disapointment as far as I could See to the N. W. The Clatsops Chinnooks and other villagers on each Side of the Columbia river and in the Praries below me, the meanderings of 3 handsom Streams heading in Small lakes at the foot of the high Country; The Columbia River for a Some distance up, with its Bays and Small rivers and on the other Side I have a view of the Coast for an emence distance to the S. E. by S. the nitches and points of high land which forms this Corse for a long ways aded to the inoumerable rocks of emence Sise out at a great distance from the Shore and against which the Seas brak with great force gives this Coast a most romantic appearance. from this point of View my guide pointed to a village at the mouth of a Small river near which place he Said the whale was, he also pointed to 4 other places where the princpal Villages of the Kil la mox were Situated, I could plainly See the houses of 2 of those Villeges & the Smoke of a 3rd which was two far of for me to disern with my naked eye."*

My interpretation of this famous journal entry is that Clark has traveled to a location where he has an impressive and extensive view to the north, west, and south. He can see the large geographic features that he gives the compass bearings to — Point Adams, Cape Disappointment, Cape Lookout. He can also see the Indian village at Ecola Creek, the whale site, and the other villages to the south as pointed out by his Indian guide. All this is consistent and unique to Bird Point.

His description also states *"The Clatsops Chinnooks and other villagers on each Side of the Columbia river and in the Praries below me, the meanderings of 3 handsom Streams heading in Small lakes at the foot of the high Country"*. Note he is not saying he can *see* the villages on the Columbia, but is just making a descriptive statement that they exist. We know the villages that were present on the north shore of the Columbia as the Corps of Discovery spent much of November exploring the area. Clark has mapped one Indian house west of Chinook Point and one empty village consisting of 36 houses near Station Camp. This is 40 miles north of Tillamook Head. That would be like spotting a house in Salem from downtown Beaverton. Even with an unobstructed view on a clear day, an Indian village would not be visible at 40 miles! It is just too far. From the north side of Tillamook Head, the modern communities of Warrenton and Chinook are not visible as it is just too far. However, large geographic features such as Cape Disappointment are visible.

Clark is simply trying hard to be poetic. He is painting a romantic picture in words of all of the area along the Oregon and Washington Coasts that he knows intimately from his travels over the previous two months. He cannot actually see Indian villages on the north shore of the Columbia some 40 miles distant! However, he does describe them and he can see Point Adams, Cape Disappointment, and points south as evidenced by the compass bearings.



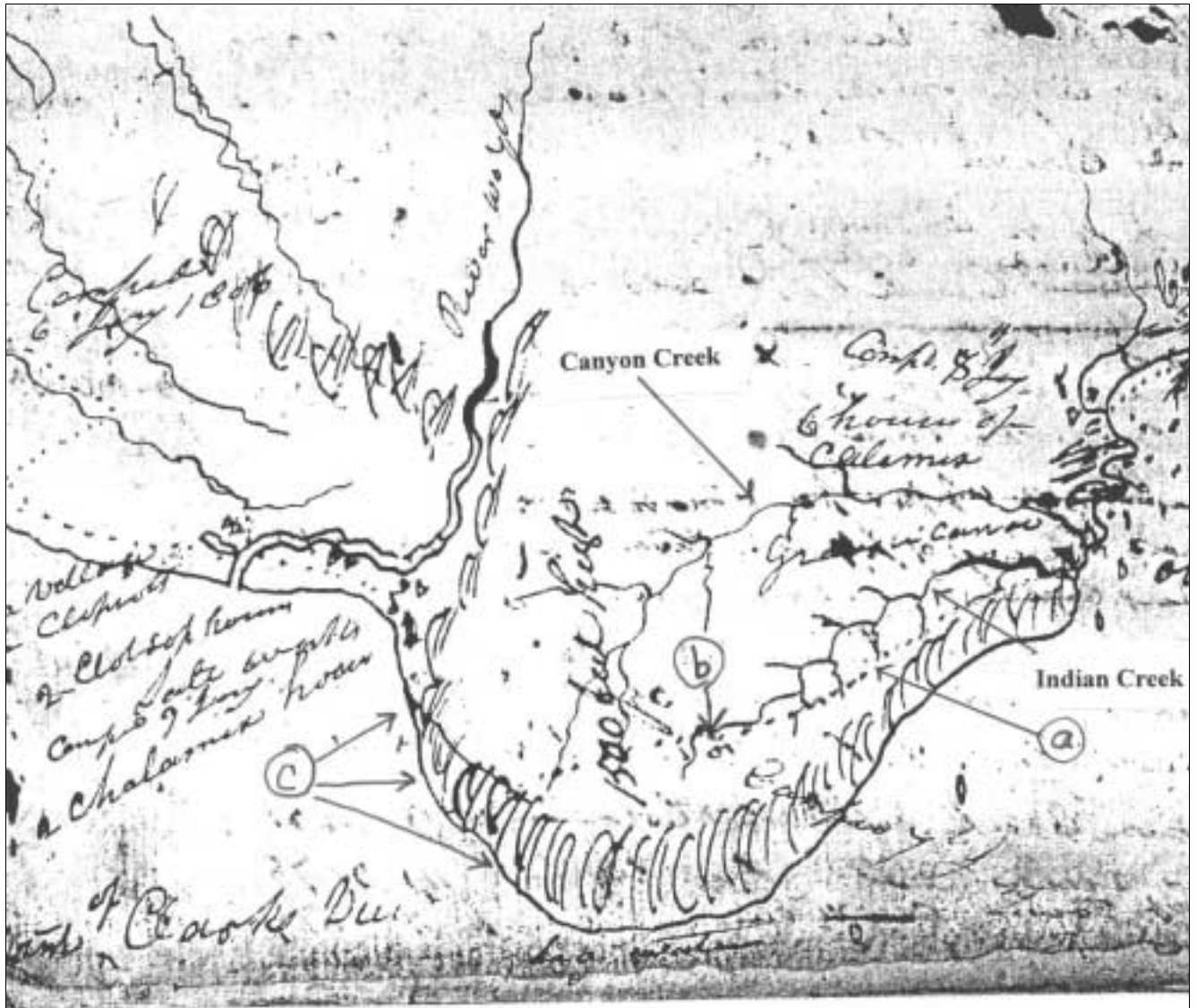
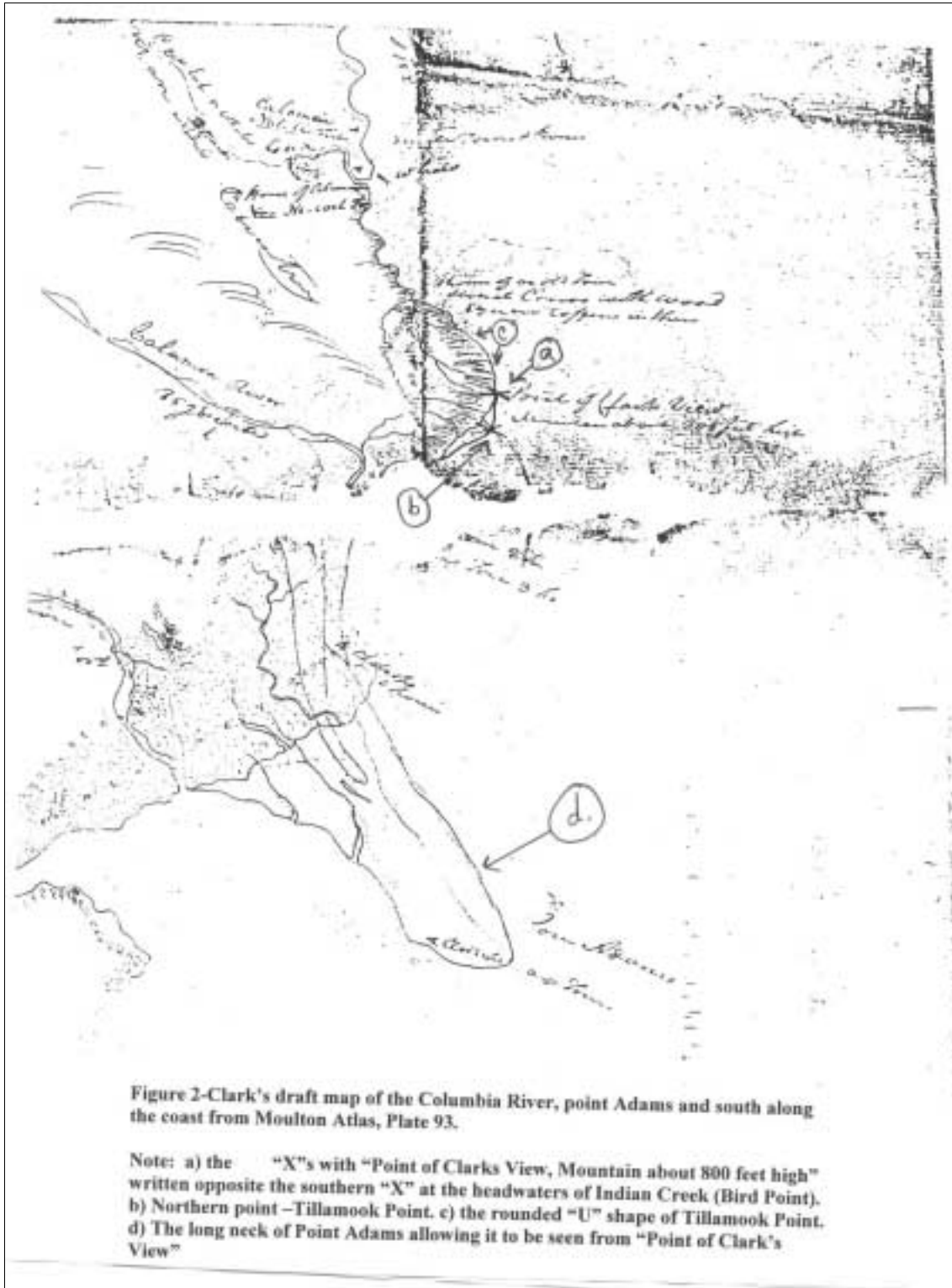


Figure 1-Clark's route to the whale site from Moulton, V. 6, P. 170

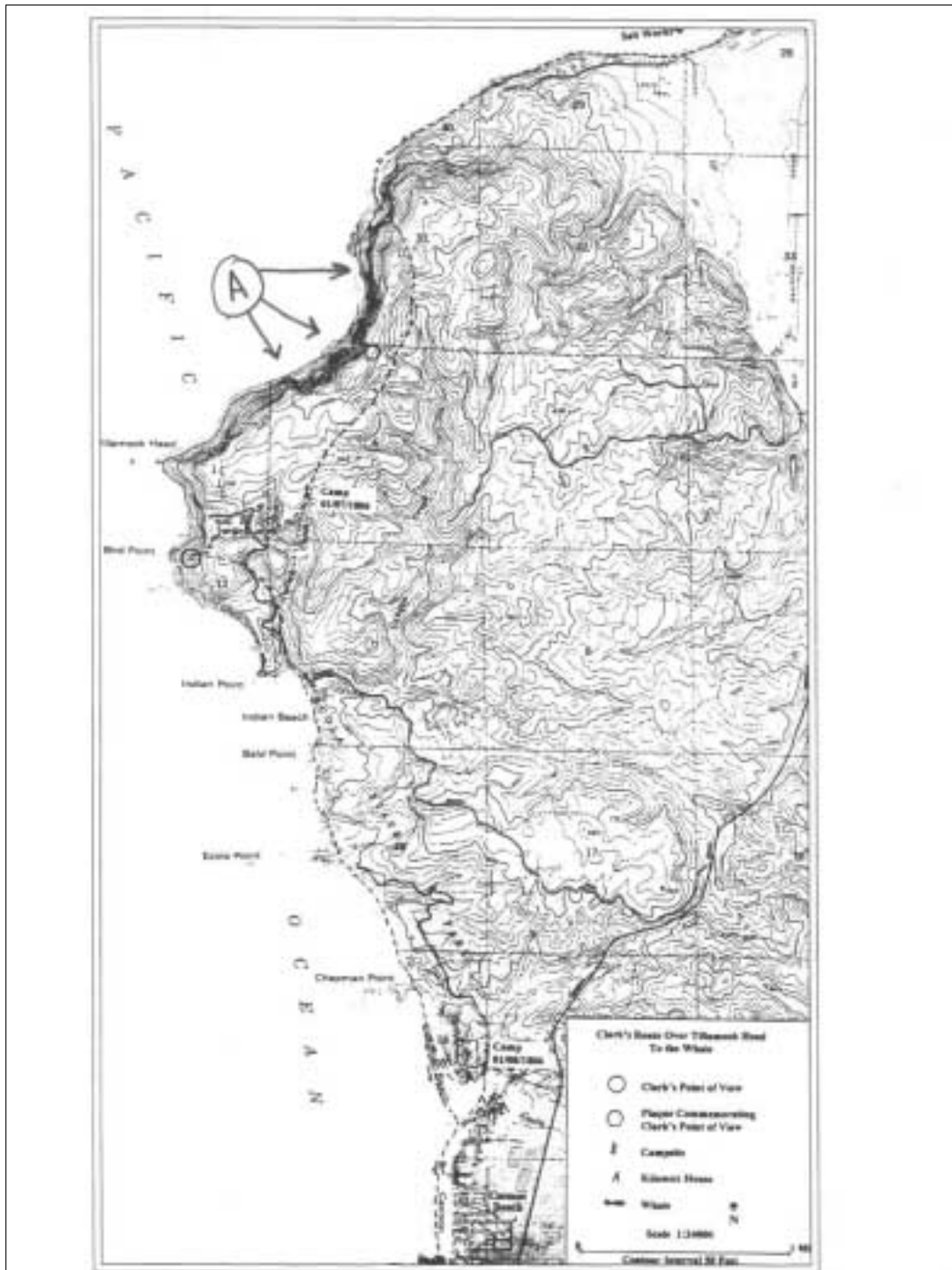
Note: a) Dots showing Clark's straight route across Tillamook Head, crossing the headwaters of Canyon Creek and travel down Indian Creek.  
b) Camp site of 1/7/1806 next to Indian Creek.  
c) Uniform "U" shape of Tillamook Head.

Figure 1: Clark map with Glen Kirkpatrick's markups



**Figure 2: Clark map with Glen Kirkpatrick's markups**

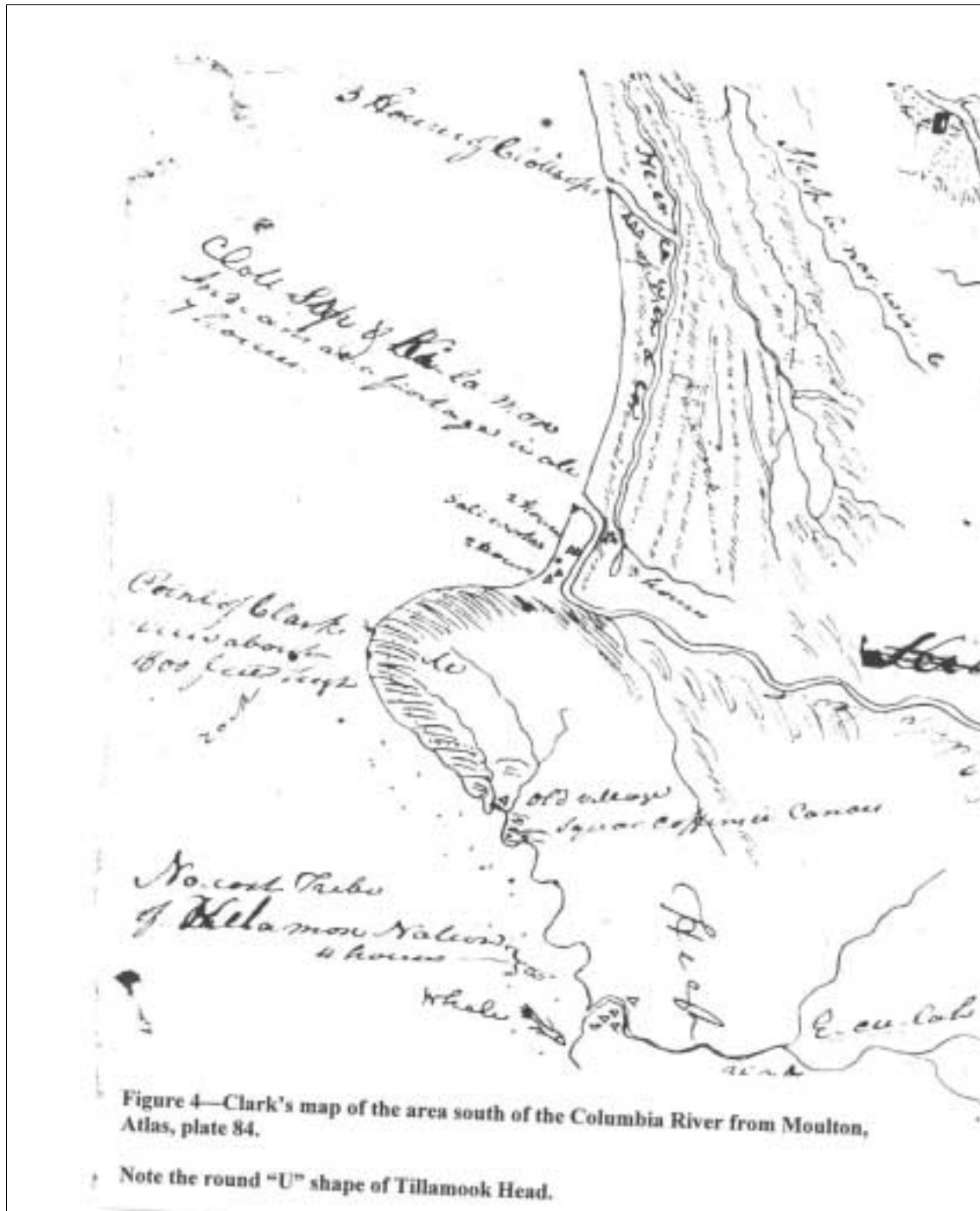




**Figure 3—Modern topographic map of Tillamook Head with Clark's route.**

**Note: A) the embayment in the NW coastline of Tillamook Head. This feature is not seen on any of Clark's maps.**

**Figure 3: Modern map with Glen Kirkpatrick's markups**



**Figure 4: Clark map with Glen Kirkpatrick's markups**



PLEASE RENEW YOUR  
MEMBERSHIP TODAY

(see page 20)

## Saturday, April 20, 2002

### Meeting Information

Prepare for an action-packed, educational and fun-filled day. To coincide with Lewis and Clark's return to the Columbia Gorge area, members from both the Oregon and Washington chapters will gather at the Columbia Gorge Discovery Center in The Dalles, OR. We'll have a joint welcome and announcement session and then break into state groups to hold short business meetings. Following this, we'll meet Lewis and Clark historical archeologist, Ken Karsmizki who will speak to us about some of his current projects. See if you can figure out if Ken enjoys his job. Ken's Discovery Channel special on the archeology of Lewis and Clark is set to air sometime in March or April, so that may provide some fodder as well. After Ken's talk, we'll adjourn for lunch. A catered lunch will be available. The price and menu are TBA, but reservations will be required. Full details will be available soon on-line and will also be forthcoming in the next issue of your chapter newsletter. Following lunch, we'll head out, perhaps with a QUICK stop at Fort Rock, and then head across the river to the Maryhill Museum of Art in Goldendale, WA. At Maryhill Museum, we'll gather in the Native American Gallery to enjoy to a talk by Mary Schlick, the Museum's adjunct curator of Native American Art, a published author and national lecturer. Group rate entrance to the Museum is \$6.00 per person and reservations are required. A tentative schedule for the day is shown below.

10:00 am	Welcome and Announcements
10:30 am	Oregon and Washington Chapter Business Meetings
11:00 am	Ken Karsmizki, "Lewis and Clark Archeology"
12:00 pm	Lunch (reservations required for catered lunch)
1:00 pm	Travel to Maryhill Museum of Art (\$6.00 entry fee, reservations required)
2:00 pm	Mary Schlick, "Lewis and Clark in Klickitat County"
3:00 pm	Adjourn, tour museum, visit Rock Fort, whatever ...

\_\_\_\_\_ Number for lunch at \$(see note below) per person

\_\_\_\_\_ Number for Museum at \$6.00 per person

\_\_\_\_\_ Total Amount Enclosed

For reservations, send payment and information to:

Jay Rasmussen  
 1190 NE Birchaire Lane  
 Hillsboro, OR 97124-2635  
 H: (503) 640-9493  
 W: (503) 530-7697  
 E: info@lcarchive.org

**Note:** I apologize for the inconvenience but, by press time the details regarding the menu and price for lunch were not finalized. We won't be having lobster, champagne and caviar, so it should be affordable. Call or email me before sending in your reservations so that I can let you know the cost. Your check (payable to ORLCTHF) must be included with your reservation.

In order to assure our seats for the speech at Maryhill Museum, I will set the "RSVP-by" date to **March 18, 2002** and I encourage everyone to make their plans and reservations as early as possible. As the date nears I will try to stay in close touch with the folks at Maryhill and will make every effort to accept later reservations, but ... the sooner the better.



## Astoria Science Teacher Uses Lewis and Clark To Show Changes Over Time in Health and Biology

Mike Baker, Astoria High School science teacher, takes advantage of his proximity to the Lewis and Clark Trail by connecting his science and health courses to references from the Expedition journals. Over the past two school years, Mike has engaged his science students in a careful analysis of how forests change over time, thanks to a nearby "land lab" the school owns. Students are studying Western hemlock and Sitka spruce in a forest ecosystem to analyze interaction and interdependence of species. This research led to a study of how forests and fish and the river interact within the broader political, historical, biological and economic environments. This year, Mike also developed a partnership with Lewiston, ID, science teacher, John Fisher, to share information on salmon recovery efforts further upstream in the Columbia watershed. Last school year, Mike drew parallels between sexually-transmitted diseases as these are described in the journals with how STD's are treated today. To contact Mike on how he blends history and science to engage students and make both subjects more interesting, e-mail him at [mbaker@pacifier.com](mailto:mbaker@pacifier.com).

### Oregon Chapter - Lewis & Clark Trail Heritage Foundation ◀ Membership Application ▶

**Name:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Phone (Home):** \_\_\_\_\_ **(Office):** \_\_\_\_\_ **email:** \_\_\_\_\_

**Membership Levels:**

- |                                       |         |  |          |
|---------------------------------------|---------|--|----------|
| <input type="checkbox"/> Student      | \$5.00  | <input type="checkbox"/> Heritage Club   | \$50.00  |
| <input type="checkbox"/> Individual   | \$10.00 | <input type="checkbox"/> Explorer Club   | \$100.00 |
| <input type="checkbox"/> Family       | \$16.00 | <input type="checkbox"/> Discovery Club  | \$250.00 |
| <input type="checkbox"/> Organization | \$25.00 | <input type="checkbox"/> Expedition Club | \$500.00 |

**PLEASE SEND TO:**  
Glen Kirkpatrick, Secretary  
15100 SE Gladstone Drive  
Portland, OR 97236-2445

Make checks payable to: **ORLCTHF** **Total Enclosed:** \_\_\_\_\_

*The Oregon Chapter is a non-profit organization. Our Tax ID number is 93-1326299*