

The C/DPHS is an association of individuals dedicated to the preservation of the history of our community. To the preservation of the region's oral history, literary history, social history, graphic and pictorial history, and our history as represented by the region's artifacts and structures. To the preservation of this history for future generations. To the art of making this common heritage accessible to the public. And to the act of collaborating with other individuals and organizations sharing similar goals.

THE
**CLAYTON/DEER PARK
HISTORICAL SOCIETY**

Mortarboard

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Clay Pits of the Clayton Area By Peter Coffin

Free — Take One

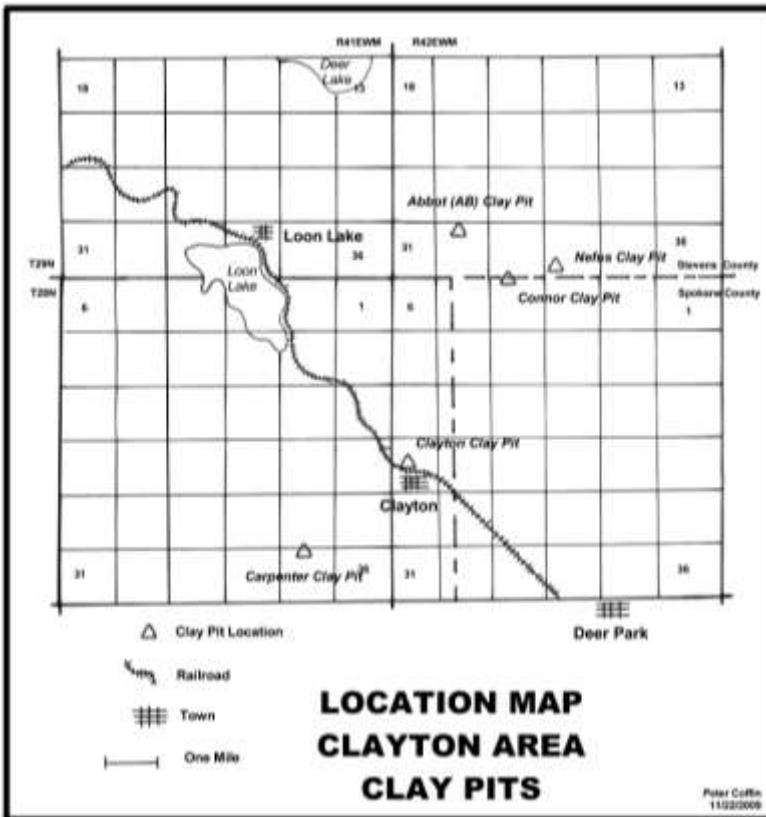


Figure 1: Location map showing the location of the clay pits that supplied the Washington Brick and Lime plant at Clayton.

The name Clayton was being used for the town in the early 1890s so the high quality clay deposits of the area had been discovered and mining them for brick products had begun by that time. The construction of the Spokane Falls and Northern Railroad through the area in the summer of 1889 brought an efficient means of transporting heavy building bricks and other products made from the clay. In 1893 Washington Brick and Lime Company built a brick manufacturing plant to process these clays. After being rebuilt twice after fires in 1897 and 1908 the brick plant remained in operation until it closed for good in 1957.

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The clay used in brick and terra cotta manufacture was excavated from the pit north of the plant and hauled by horse and wagon (later by truck) from four other pits in the nearby area. Figure 1 is a map of the Clayton area showing the town of Clayton, the Washington Brick and Lime plant pit and the four other pits. Three of the pits were about four and one half miles north-northeast of Clayton (A.B., Nefus, Conner) and one was about 3 miles southwest of Clayton.

At times the railroad brought clay in from other Washington Brick and Lime pits south of Spokane.

Origin of Clays of the Clayton District

The Clayton clays are generally classed as refractory clay (commonly called *fire clays*). They are suitable for making fire brick, clay crucibles, as well as common brick and terra cotta decorative pieces. This clay is a fine argillaceous weathering product created by the erosion of rocks high in alumina. This weathered material was transported to fresh water lakes

where it settled in very fine layers. Figure 2 is a cross-section taken from the Washington Department of Natural Resources Bulletin 24 (Glover 1941, p.231).

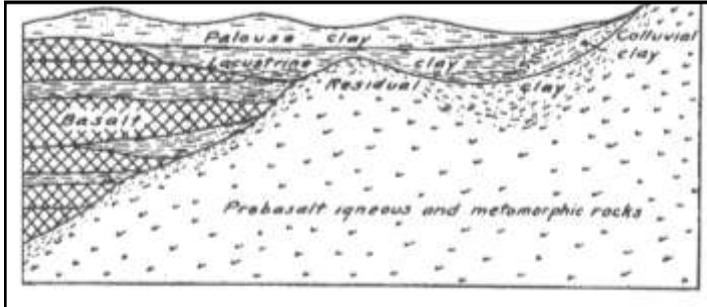


Figure 2: A roughly north-south subsurface cross-section illustrating the relationship of the Clayton-Spokane clay deposits with the basalt lavas to the south and the granitic highlands to the north. (Glover, 1941, Fig. 2, p 231)

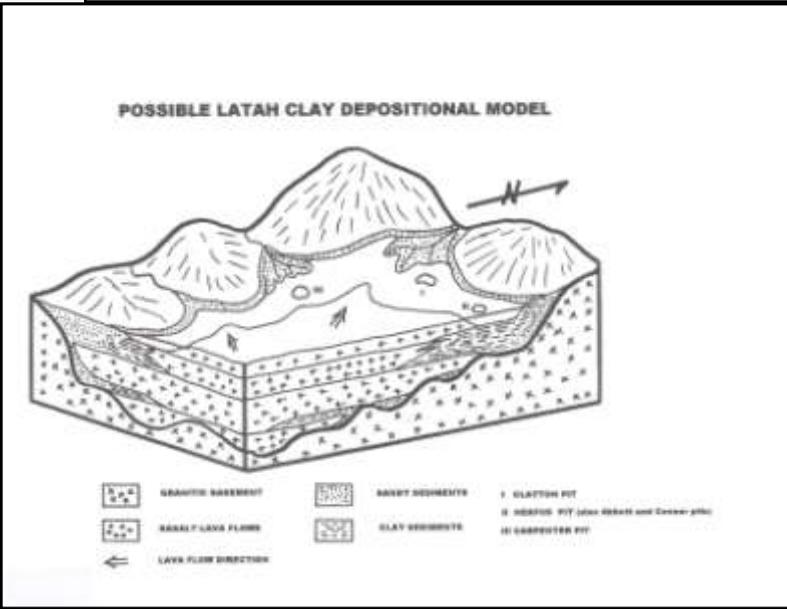


Figure 3: A block diagram showing the relationship of the basaltic lava flow dams and the Latah Clay deposition in lakes. Streams draining the granitic highlands transported the clays to the centers of the lakes and deposited the sands and gravels of the eroding highlands at the lake's edge.

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On it the left side is south and the right side is north. The “lacustrine” (lake) clay deposit is between the basaltic lava flow and the weathered granitic rock to the north. The cross section also shows the relationship between the weathered granitic surface’s “residual clay” and the lacustrine clay beds.

The basaltic lavas flowed from south to north filling pre-existing drainages to elevations ranging from 2400 to possibly 2600 feet above sea level. These flows were extruded during Miocene times between about 12 to 16 million years ago (Stoffel, et al, 1991, p. 13). These lava flows dammed the upper portions of southward flowing streams to form the fresh water lakes in which the clay was deposited. Most of the clays deposited in this manner have been assigned the name Latah Clay for their outcrop in the walls of the Latah Creek drain-



Figure 4: Vertical aerial photograph of Clayton and the Clayton Clay Pit taken on September 5, 1950. Most of the pit is just north of the curving railroad track right of way. (United States Department of Agriculture Photograph)



Figure 5: Vertical aerial photograph of Clayton and the remains of the Clayton Clay Pit taken on July 29, 2000. All that remains of the large pit area is the dark lake just north of the center of Clayton north of Railroad Avenue and the railroad right of way. (Photo Courtesy of Washington Department of Transportation)

age near Spokane. In the Clayton-Deer Park area the clay beds are sometimes covered with an overburden of glacial sand and gravel.

The Clayton Clay Pit

North of the town of Clayton, the railroad tracks and the remains of the Washington Brick and Lime plant site was a large clay pit (NW/4 sec. 19-T42N-R42EWM). This pit was a source of clay for bricks and terra cotta for many years after it opened in 1893. Glover (1941, p 285-286) described the pit as over 600 feet long by 400 feet wide and about 26 feet deep. Valentine (1960, p 25) lists the pit as a source of refractory and semi-refractory clays. In 1941 mining in this pit had slowed and it was also being used as a storage area for clay from other pits. Later, during the middle 1950s it was used as a dump for broken and defective bricks, tile and other material. The remains of the pit are on private land and now filled with water and hidden from view by trees .

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Figure 6: A recent picture of the southwestern lake in Figure 5 taken at ground level. The railroad cut is just visible in the left center of the photograph. (Bill Sebright photograph)

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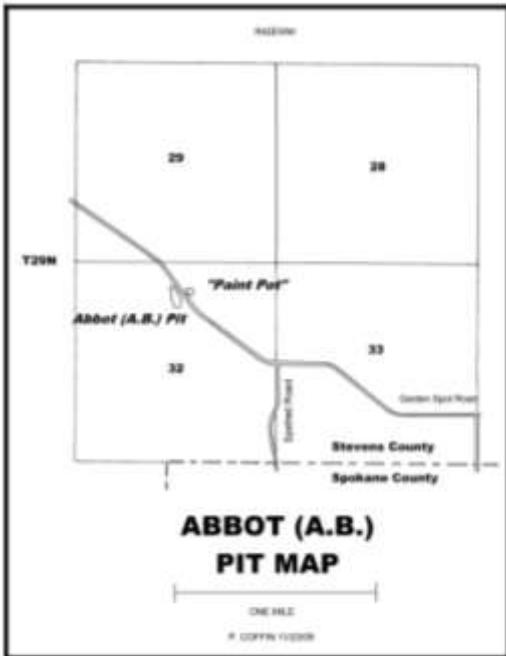


Figure 7: A. B. Clay Pit location map. The “Paint Pot” area is just northeast across Garden Spot Road from the main pit.



Figure 8: Vertical aerial photograph of the A.B. Clay Pit area taken on July 21, 1950. The pit is the white area in the center of the photograph bisected by the Garden Spot Road. The “Paint Pot” area is the triangular area on the northeast side of the road. The larger white area in the lower right side of the photograph is recently harvested farm field. (United States Department of Agriculture Photograph)

The A. B. (Formerly Abbot) Clay Pit

The A.B. Clay Pit was about four and one half miles north-northwest of Clayton on the Garden Spot Road (NE/4 NW/4 sec. 32 T30N-R42EWM). Glover (1941, p 287) described the pit as about 100 feet wide and 350 feet long with a quarry face about 30 feet tall. Valentine (1960) lists the pit as a source of refractory clay. In 2009 the remains of the pit area is covered with small pine trees. The pit area proper was southwest of the Garden Spot Road and smaller area known as the “Paint Pot” was on the northeast side of the road.

The Nefus Clay Pit

The Nefus Clay Pit was about two miles southeast of the A.B. pit and approximately three
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Figure 9: Vertical aerial photograph of the A.B. Clay Pit area taken on July 29, 2000. The remains of the pit is obscured by the small pine trees but is outlined by the semicircular area just southwest of the Garden Spot Road. The “Paint Pot” area is northeast of the road. (Washington Department of Natural Resources Photograph)



Figure 11: Photograph of a clay pile in the ‘Paint Pot’ area of the A.B. Clay Pit in 2006 (Peter Coffin photograph)



Figure 10: Southeast along the floor of what remains of the A.B. Clay Pit in 2006. (Peter Coffin Photograph)

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quarters of a mile west of the Garden Spot Grange Hall (SW/4 sec. 34 T29N-R42EWM). According to Glover (1941, p 290) the pit was under lease to the Deer Park Natural Pigment

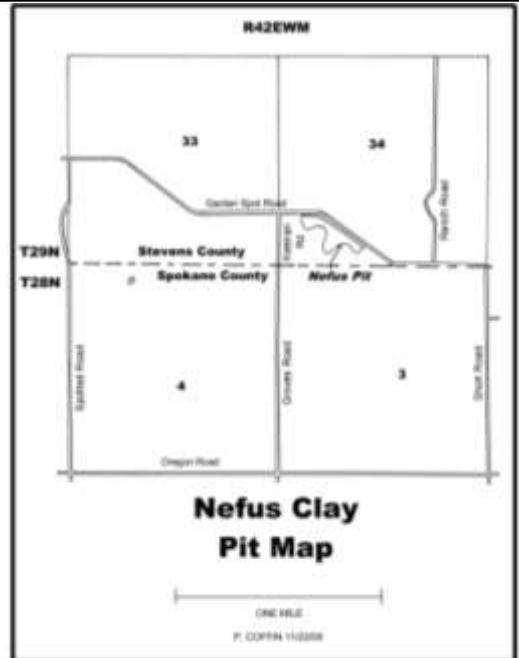


Figure 12: Nefus Clay Pit location map. The Garden Spot Grange is just to the right of the map at the junction of Short Road and Garden Spot Road.

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Figure 13: Vertical aerial photograph of the Nefus Clay Pit area taken on July 22, 1951. The pit area is in the upper right quadrant of the photograph and appears to be a relatively untouched field at this date. (*United States Department of Agriculture Photograph*)



Figure 14: Vertical aerial photograph of the Nefus Clay Pit area taken on July 29, 2000. A lake fills a pit on the northwest portion of the area. To the south and east of the lake the surface has been leveled and is relatively barren of vegetation. (*Washington Department of Natural Resources Photograph*)



Figure 15: Southwest across the Nefus pit area from the Garden Spot Road that has been graded level. This summer 2006 photograph shows some grassy vegetation covering the clay rich surface. (*Peter Coffin Photograph*)



Figure 16: Connor Clay Pit location map. The pit is about one mile west-southwest of the Nefus pit and east of Spotted Road.

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Company and very little of the clay had been mined at the time of his writing. Valentine (1960, p. 25) lists the pit as a source of refractory clay. Today the site is relatively level, barren of vegetation and just south of the Garden Spot Road. Donald Conner, an area land owner, told me (in 2008) that he had been hired to level the site in the 1960s where sampling pits had been dug and where some early tunneling had collapsed.



Figure 17: Aerial photograph of the Connor Clay Pit taken on July 22, 1951. The pit area is the trapezoidal cleared area in the center of the south of the photograph that appears to have pepper-like spots on it. (United States Department of Agriculture Photograph)

The Connor Clay Pit

The small Connor Clay Pit was about 1500 feet east of the Spotted Road just south of the Stevens-Spokane County line (CN/2 NW/4 sec. 4 T29N-R42EWM). The pit was about 125 feet



Figure 18: vertical aerial photograph of the Connor Clay Pit area taken July 29, 2000. The pit is located in the center of the south half of the picture where some white clay is exposed in the less heavily treed area. (Washington Department of Natural Resources Photograph)

long, 75 feet wide and had been excavated to a depth of seventeen feet. The pit had not been mined since 1927 according to Glover (1941, p. 265). Valentine (1960, p. 25) lists the pit as a source of refractory clay. I have not visited the pit as it is located on private property some distance from the road.

The Carpenter Clay Pit

The Carpenter Clay Pit is about two miles southwest of Clayton just south of Price Road (NE NW sec. 35-T29N-R41EWM). The pit is not described by Glover (1941) in that it was opened in the late 1940s by the land owner Ernest Carpenter. The pit is listed by Valentine

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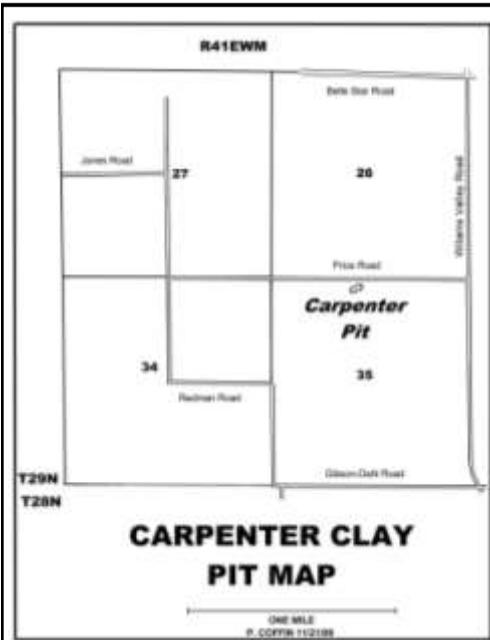


Figure 19: Carpenter Clay Pit location map.



Figure 21: Aerial photograph of the Carpenter Clay Pit taken on July 12, 2000. The pit is the black appearing lake in the upper right center of the photograph. (Washington Department of Natural Resources Photograph)



Figure 20: Aerial photograph of the Carpenter Clay Pit taken on September 12, 1950. The pit is the white blob in the right center of the photograph. (United States Department of Agriculture Photograph)

(1960, p. 25) as a possible source of refractory clay. The clay hauling contract was held by Guy Davis and during visits to my grandmother in Big Foot Valley during the late 1940s and early 1950s, I saw this pit being mined. It has filled with water and today is used as a fishing lake.

Summary

The clays mined from the pits near Clayton, Washington gave Clayton its name and provided material for its economic existence for over 60 years. Today the only remnants of this industry are the town name, the razed Washington Brick and Lime plant site and the

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Figure 22: East over the Carpenter Clay Pit toward Mount Spokane. The red staining on the slopes to the right is caused by limonite or bog iron deposits resulting from swamp concentration of iron rich waters on the top of a clay layer. Peter Coffin Photograph

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abandoned clay pits. Economic conditions of high energy costs, declining demand for brick building material and terra cotta building decorations caused the collapse of the clay industry

in Clayton. The pits were not exhausted of clay and many writers have described the possibilities of the clay deposits extending across many square miles in the area surrounding Clayton. These deposits await a resurgence of demand for the high quality refractory clays they contain.

References Cited

Glover, S. L., 1941, Clays and Shales of Washington: Washington Division of Geology Bulletin 24, 368 p.

Stoffel, K.I., Joseph, N.I., Waggoner, S., Gulick, C.W., Korosec, M.A., and Bunning, B.B., 1991, Geologic Map of Washington-Northeast Quadrant: Washington Division of Geology and Earth Resources Geologic Map GM-39, 36 p., 3 encl.

Valentine, G. M., 1960, Inventory of Washington Minerals, Part I Nonmetallic Minerals: Washington Division of Mines and Geology Bulletin 37, 140 p.

The Clayton Story as Told by John B. Slater in *The Natural Resources of Stevens County, Washington —1895*

Porcelain, Terra Cotta and Fire Clay. *An enterprise that is of the utmost importance to the entire state of Washington has recently been established at the new and growing town of Clayton, situated on the line of the Spokane Falls & Northern railway at a point on the extreme southern boundary of Stevens County. This is the plant of the Washington Brick & Lime Manufacturing company which is devoted to the manufacture of the deposits of clay into almost every conceivable design of the arts. The town of Clayton derives its name from the inexhaustible supply of kaolin and other clays found there immediately beneath the surface of the earth. The plant was built during the years*

of 1893-4 at an expense of nearly \$200,000, and is equipped with a full complement of the most improved machinery for the manufacture of fire brick, pressed brick, vitrified paving, terra cotta, stoneware and an endless variety of finishing material This is the largest manufacturing establishment producing, fire brick on the Pacific coast The clays here found are absolutely without grit and can be converted easily to the manufacture of the finest porcelain ware, an industry that is bound to build to colossal proportions The beauty of the product of fancy and finishing brick are not equaled by any other factory in the United States This as-

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sertion, though a broad one, challenges the slightest contradiction and stands inviting the most rigid criticism..The numerous designs of cornice brick were prepared at the plant and some of them are patterns that have been abandoned by all artists as not only impracticable but absolutely impossible. Here they are in successful use in the heavy pressure machines in producing a style of finishing brick that can be furnished from no other factory on the globe. As to the beauty of the material turned out of this establishment it is well to especially note the fact that the chemical formula of the clays are such that there is no blending of colors from chemical action under the most intense heat, and a brick when placed in the kiln, will emerge from its baptism of fire without having undergone the slightest change in color. The excellence and beauty of the building material from this plant is amply attested by the beauty of the finish of the. Court House in the city of Spokane, the State University of Washington, at Seattle, and many other public buildings throughout the state, which attract the attention and admiration of every one This plant is heated by steam and lighted by its own electric light plant throughout The lime kilns at Springdale are owned by the same company and are supplied with their own cooperage plant, and shipments of all material manufactured by the company are furnished on short



An artists depiction of Washington Brick &Limes' Clayton brickyard as published in *The Natural Resources of Stevens County, Washington and the Famous Mining Region of Trail Creek, B. C.* By John B. Slater, Spokane, Washington: Spokane Printing Co., 409 Sprague Avenue, 1895.

notice in any quantity desired The works at Clayton employ over 100 men under roof and the surrounding country reaps a lasting benefit in the way of distribution of employment to the people in various ways. The Washington Brick & Lime Manufacturing Company own the land upon which the town is situated and also a large tract of land from which the clays for the works are extracted, but unlike the usual custom practiced by monopolists, masters as they are of the field they occupy, to the exclusion of all others if they choose, they hold out to the world the most liberal inducements and invite capital to participate with them in their own line of manufacture and trade.

Clayton/ Deer Park Historical Society Minutes, February 13, 2010

In attendance: Bill Sebright, Mark Wagner, Sharon Clark, Grace Hubal, Rob Higgins, Warren Nord, Lorraine Nord, Bob Clouse, Mary Clouse, Sue Rehms, Ella Jenkins, Lonnie Jenkins, Kay Parkin, Marilyn Reilly, Jeff Lilly, Cliff Meyer, Betty Burdette, Nancy Berger, Penny Hutten, Art Stelting, Ann Stelting, Florene E. Moore, Marjorie Burdega, Jim Knight, and Bob Gibson.

Society president Bill Sebright called the meeting to order at 9 AM.

Treasurer Mark Wagner reported that there is \$4,280.75 in checking. Account activity—: \$87 check for printing supplies, and the check for cutting the eagle has not cleared. Contact Mark Wagner if you want to pay for yearly membership to the Clayton/ Deer Park Historical Society.

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Nancy Berger from Standen Insurance gave us quotes for Society insurance. Insurance for the eagle and any other artifacts would be a \$4,000 minimum premium. They found Mount Vernon Fire Insurance Company. They have an A plus-plus rating. They are not admitted in the state of WA. and it is highly unlikely they will ever become admitted. We are not protected if they become insolvent, but the chance of that happening is very, very slight. Full coverage, executive board and liability would be \$1794 a year, without terrorism, the coverage is \$100 less. Liability and medical only would be \$690.19. Quotes are only good for 30 days. The proposal information was passed to the entire group. After much discussion, Sharon Clark moved that we accept the \$690.19 quote. The motion was seconded by Jeff Lilly and passed unanimously.

At our Winterfest booth, we had lots of visitors and took in \$43.37. Betty Burdette got her picture taken twice. Florene advised us that January 22, 2011, is the next scheduled Winterfest. Contact Florene or Bill if you have suggestions about our booth for next year.

No one has stepped forward for the office of Vice President. Contact an Executive Board member if you are interested.

Grace Hubal, Secretary, is working on a Society letter head. Does anyone have ideas?

Sharon Clark, Print Publications Editor, passed out the most recent Mortarboard, #22. We have the new "Collected Newsletters" Volume 6, which is for sale for \$4. We have a total of 10 books for sale, 4 "Reports" and 6 Collected Newsletters. Sharon has a lot of research gathered on various subjects and will share them at the March meeting. She showed us photos of the lime kilns near Springdale, plus more stories from the Spokane Library.

Bob Clouse, Webmaster, introduced Jim Knight to our group. His Construction Company has been so very generous to us. Bob

showed us a list of the donations to the eagle fund, a total of \$3345. All pledges have been collected. Please note that it does not include the donations from Knight Construction and Clayton Drive In. They will put in all the landscaping around the Eagle. A \$1300 anonymous donation was given for the bronze plaque that will tell why the eagle is so important. Bob shared an example of the plaque that we would like to have made for the eagle pedestal. Jim has offered so much and will not accept a penny for his work. The pedestal doesn't have to be 14 feet tall. Bob shared Jim's sketch. Bob suggested putting the plaque in some kind of a case to protect it. Bill suggests we take our time before making a quick decision. Bob and Bill presented Jim Knight with a silver dollar in a mahogany case with the inscription: "With sincere gratitude to Jim Knight from the CDPHS."

Pete has done some research on the restoration and sealing of the eagle. He has written a letter to the Executive Board with his recommendations. He states that it is a much bigger job than first anticipated.

Florene Moore suggested a money making idea for the society--- Helping the Friends of the Library sell books at Deer Park Auto Freight. The society would get 75% of the profit if they volunteer their time. Perhaps more than one book sale would be a good idea. First sale will be in June, 2010.

Lorraine and Warren Nord were concerned that the state might widen Highway 395 in the future and that the eagle may be put too close to the highway.

Scaffolding ideas were mentioned.

Also we presented to Taffy and Randy Long a mahogany case containing a silver eagle dollar with the inscription, "With sincere gratitude to Randy and Taffy Long from the CDPHS" — for donating landscaping and all the finishing touches on our eagle.

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Jim Knight needs to talk to his architects regarding bracing for the eagle pedestal.

In an Executive Session, the Board met with Randy Long. It was decided to accept Jim's plan with the height of the pedestal being 8 feet, not 14 feet. Randy felt that the plaques could be mounted in the seating area around the eagle. He also has plans for a decorative fence. He will get these plans to the Board some time this week. Randy said base should be put in as early as mid-April.

We also presented the same silver eagle coin to Bill Sebright for all that he does for the Society. The inscription reads, "With sincere gratitude to Bill Sebright from the CDPHS."

Marilyn let everyone know that pies are on sale today at Yokes for the Miss Deer Park program.

Penny Hutten is writing about the history of Spokane, and told the group about upcoming history lectures.

Next meeting, March 13.

Respectfully submitted by Grace Hubal, Secretary.

Editorial Policy Regarding Correcting Errors and/or Omissions

Information published here is compiled from many sources, including personal memories. It is often difficult or impossible to verify such recollections through outside documentation. Our editorial policy toward the veracity of personal recollections tends toward the casual — since little harm is normally done by such errors. But our editorial process also invites public review and input regarding the accuracy of the information we publish, and when such review either suggests or reveals errors or items open to dispute our "Letters" department will act as a forum allowing the airing of such disagreements in an effort to ascertain the truth and correct any probable or demonstrated errors. We also believe it's important that such disagreements be recorded, even if they can't be settled to the satisfaction of all parties.

We encourage everyone to submit any arguments as to fact to the editor in writing — since the written form reduces the chance of further misunderstandings. As is standard policy, all letters will be edited for spelling, word usage, clarity, and — if necessary — contents. If advisable, the editor will confer directly with the letter writers to insure that everyone's comments and corrections are submitted in a literate, polite, and compelling manner — as best suits the editorial image of this society's publications.

Society Want Ads

WANTED: Leno Prestini artwork. If you have or have access to any paintings, sketches, or sculptures created by Clayton artist Leno Prestini please contact the Society. We would like to feature either the original artwork or photos of the

same at this year's Prestini Project showing. For security reasons, the current owners of the materials may remain anonymous if that is their wish.

WANTED: Photos of local summer events such as the Old Settlers Pic-

nic and Clayton Days. The photos can be old or new as long as the submitter includes a caption for the photos and has the authority to permit reproduction of the image in the Society's publications or on the Society's website

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Special Thanks to this month's volunteer proofreaders — Peter Coffin, Grace Hubal, Jason Hubal, Bill Sebright, Chuck Stewart, and Mark Wagner