

1972

HIS NEWS LETTER



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AT LAST, WE HAVE BEGUN

The Haverford Township Historical Society is more than pleased to announce that on August 20, contracts were signed and work on Nivre Hall was officially started. Our Society and Haverford Township, which is the official owner of the building, have given a total of \$8000, which is matched by an \$8000 grant from the U.S. Department of the Interior under the \$500 Million Conservation and Recreation Program of July 1968. These funds are allocated through the states. In the Commonwealth of Pennsylvania, this is done by the Department of Community Affairs with historical projects recommended and approved by the Pennsylvania Historical and Museum Commission. We know that Nivre Hall is to be a real contribution to our community. It is good to realize that the rest of the historically-minded people seem to feel the same way.

We will need additional funds for completing the restoration, so

this gives us an additional goal. Hopefully, some of the scraping, painting, and other odd jobs will be done by members and friends.

LEE NELSON LEAVING US

Our Vice-President, Lee H. Nelson, is being transferred to Washington, D.C.. His work at Independence Hall is about finished, and since he is under the National Park Service, he must go where called. Since he is quiet and unassuming, as are many really important persons, we should like to "blow his horn" for him.

Born in Portland, Oregon, he received his Bachelor of Architecture from the University of Oregon in 1956 and his Masters from the University of Illinois two years later. In 1969, he became a registered architect in Pennsylvania. His title of Restorationist and Architectural Historian in the National Park Services covers a multitude of activities. Officially, he was supervisor of Historic American Buildings Survey

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Material gleaned from the files of the Historical Society and from Margaret Johnston.

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John D. Milner, A I A, Chadds Ford, Penna., is in charge of the work. Robert L. DeSilets of Ardmore is directly supervising. Wexler and Kline are the contractors.

PLANS FOR NITRE HALL

The house has had no renovation and is in the original condition, which speaks well for the builders.

The first phase of the restoration will be the introduction of modern facilities and will include installation of central heat, plumbing, and electrical service. Wires will be brought in underground and every effort will be made to maintain the integrity of the architecture. Any artifacts which may be - hopefully - turned up will be noted.

The ground floor will be converted into an apartment for the caretakers. As there is no basement, this area was a kitchen, hall, and storeroom. The second floor will be used for a library and exhibits. One room is large enough to accommodate about thirty people for possible future meetings.

On the third floor, there will be an office and additional space for exhibits. The fourth floor will provide a work area and good storage facilities.

The architectural firm of

FIRST FURNITURE FOR NITRE HALL

On July 30, 1972, the Society received a gift that will go into Nitre Hall as soon as possible. It is a painted wooden settee that originally belonged to the Lawrence family and may have even been in the former Three-Generation House, from which we have the Lawrence Cabinet Museum. The donors were Mr. and Mrs. M. Harlan Bye of 304 Barry Lane, Wallingford. The settee had been the property of Mr. and Mrs. Stanley Lawrence who owned a farm on the Lawrence Road in Broomall until the 1930's.

The settee is a dark green, with black striping on the crest rail. Outer two sections of this rail have free-hand paintings of flowers in muted red, yellow, and blue. In the center section, there is a landscape with house, trees, water, and a sailboat. There are also to be spotted some brighter blue forget-me-nots and black-eyed Susans.

OTHER NEW ACQUISITIONS

Mr. and Mrs. Oliver Martin presented our Society with a cast iron stove, to be used in the Federal School.

MAKING BLACK POWDER

Since we are concerned with the home of the powder master, let us explore further the making of gunpowder.

This commodity was probably first used in China about the 11th Century. Marco Polo found the fireworks most impressive and it is logical to assume that black powder was used as an explosive at some time in China. In the 1250's it was used as a propellant to shoot solid fragments from bamboo tubes. However, the Arabs are credited with the first gun; after they reinforced a bamboo tube with iron and shot an arrow forced by gases ignited by gunpowder.

The Western world credits a Franciscan friar, Roger Bacon, with the discovery of how to mix black powder with a formula that he may have been inspired to find after reading Arab writings on their explosive materials. In Freiburg, Germany, there is also a statue to Berthold Schwarz, who some say was the "father" of this explosive.

Black powder was used for peacetime for breaking ice in Hungary, Germany, and Sweden in the early 1600's but the cost was prohibitive (and gunpowder was definitely a luxury, until war demanded its use. In 1642, the

Massachusetts Bay Colony began tentative production of salt peter. Other colonies began making salt peter or nitre as a household industry, and this practice continued until 1774. Then, when Parliament prohibited export of powder to the colonies, privateering, raiding, and trading was the only way for the Americans to get the much needed explosive.

Finally, some salt peter was discovered in caves in Virginia, and frantic searching for sulfur followed. Pamphlets were printed telling colonists how to make powder at home;

By 1775, a few mills were started, but largely trade with France and the Netherlands give the colonists their supply.

At the close of the war, it was natural that powder mills should be part of the new nation and its industries.

In making the powder, proportions vary somewhat, but essentially it is $\frac{3}{4}$ salt peter (potassium nitrate), $\frac{1}{8}$ sulfur, $\frac{1}{8}$ charcoal. This latter was the only ingredient successfully made here as willow branches and other light woods made excellent charcoal.

Sulfur was found in quantity

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MAKING BLACK POWDER (Cont.)
 in Sicily, and salt peter was brought from India, but the following "recipe" comes from the early troubles days of making all of our own.

All ingredients were pulverized together in rotating barrels by the tumbling action of zinc balls. (Some of these balls were found by Dr. Eckfeldt and were given to us by Miss Esther Thomas. All was sifted together, mixed with water, and any lumps were removed with a sieve and a roller. The mixture was then put into mortars, and more water added, and pestles applied for about eleven hours. This was done in the stamping mill, with a thirty-eight pound pebble on a wooden mortar.

Rolling mills were also used, incorporating two large millstones or cast-iron wheels. About 300 pounds of mixture was put in, and grinding was done for one to three hours for every fifty pounds, depending on the type of powder desired.

The Hagley Museum near Wilmington shows how such a mill operated.

The rolling mill turned out a mealy, moist powdercake. This was heavily pressed until it both looked like and felt like slate.

This presscake was broken into

chips and run through "zinc" rollers until the right sized grain was obtained. Nothing was wasted as any residue was returned to the first mixture.

It was still moist, so it was either dried by the sun, or on heating racks, where it was frequently turned. High quality powders were further dried by being tumbled in a glazing barrel which rounded off the grains and gave an added lustre. Sometimes a bit of graphite was included to coat the grains and make them resistant to dampness.

The final step was to run them through a sieve one more time to get rid of any dust. It was then packed in canisters or kegs and stored in a magazine.

Keep in mind the constant precautions that had to be taken at all times. Workers had wooden pegs rather than nails in their shoes. Buildings of the rolling mills had very thick walls with a light roof and a thinner wall facing the water so that an explosion would be directed away from the homes. "Quite a business!"

Average production during a year was 200,000 pounds, but in the War of 1812, 800,000 pounds was turned out in one war year. In 1820, twenty men were employed in the mills, worth \$25,000.

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RESTORED OR PRESERVED?

As interested laymen, it may be enlightening to decide just what is being done to Nitre Hall.

From "The Restoration Manual," by Orin M. Bullock, Jr., A.I.A., these facts have been extracted.

When re-doing a historical building, three aspects must be considered. One is restoration which puts back as nearly as possible the form and furnishing a building had at a specified time. Things "not of the period" are removed.

Another consideration is preservation, which is keeping the structure in its present form and preventing further deterioration.

Then there is reconstruction, or re-creating a building from such evidence as is available.

Nitre Hall is considered to be in remarkably good condition. Perhaps we will do a bit of all three phases for our purposes.

OWNERS OF NITRE HALL

Israel Whelan built Nitre Hall about 1800, when he established his powder mills. The powdermaster was expected to live near the mill to share the danger with his workers. No powdermill was ever built in a congested area and it was near water for power and willows for charcoal.

Israel came from a good family. His father was a fighting Quaker commissary general under Washington. The elder Whelan knew of the inadequate production of gunpowder in the new United States and it is possible that he urged his son to start this new venture. We are not positive that Israel and his family lived in Nitre Hall as he had a fine town house in Philadelphia. However, Nitre Hall, outside of the Grange, was the finest home in this area, as far as we know.

William Rogers (Rodgers), Jr. went into partnership with Israel and he did take his family to Nitre Hall. After Whelan's death in 1825, Rogers continued with the mill until his demise in 1840.

Dennis Kelly then bought the property and converted it into a woolen and cotton mill. He did not live at the Hall.

In March 1958, Powder Mill Park was deeded to the Township of Haverford for \$1.00 and the consideration to "hold in trust this land for... the enjoyment of the public in perpetuity." Mr. and Mrs. Olover Martin have lived in Nitre Hall and have done much to care for it, through their deep interest in the historical past of this house. We are glad that their living section will be much improved.

RECIPE FOR SALTPETER

In the early days, before the saltpeter or nitre was imported, there were some rare recipes that could be made at home. One such follows.

Saltpeter was made from stable dirt, soil of tobacco houses, chicken coops, dung-compost of garbage, weeds, human and animal waste, and trimmings from slaughtered animals. This foul-smelling mess was mixed with ashes, limestone, plaster, and water and boiled for hours. Two pounds of saltpeter could be obtained from six bushels of stable dirt.

Once this mess was so laboriously prepared, there was more. The saltpeter was boiled in water and then put in earthenware vessels with sticks laid across "for the crystals to adhere to" as the nitre dried. A small amount of water was added to dissolve the crystals. The crock was placed over fire, and stirred constantly "till the water exhales" and a dry white powder was left.

It was judged to be sufficiently refined "if it melts without yielding any fetid odour when put between two hot iron plates; care must be taken that the Brimstone don't take fire in meltin."

This last job of refining was probably done even with imports.

FUTURE EVENTS

Although the dates are not settled as yet, we plan to have our popular mid-winter lecture series in January, February, and March. More information will be forthcoming.

After our first meeting on Thursday, November 9, please mark February 8 and April 12 on your 1973 calendars. Also, save Saturday, May 19 for our biannual Day in the Park.

The regular meetings will be held in the Temple Lutheran Church at Brookline Boulevard and Earlington Road at 8 P.M. Please note the meetings are now on the second Thursday of the month.

We welcome Mr. Edward Berman as a new member of our Board of Directors. There will be two additional appointments to the Board at a later time.

KEEN COMPETITION

From the Eleutherian Mills Historical Library in the Hagley Museum, a letter from the DuPonts to John Hancock (August 26, 1813) remarks that DuPont Powder "which is acknowledged to be Superior by everybody" is compared to Nitre Hall powder "Inferior to ours." However, in a trade agreement to sell at the same price -- (October 13, 1817) -- Nitre Hall powder "best after ours."

LEE NELSON (continued)

project at Fort McHenry National Monument and Historic Shrine at Baltimore in 1958-59. The following year he was Project Supervisor for restoration of Archer House and Dudley Digges House at Colonial National Historic Park, Yorktown, Virginia.

From 1961-63, he was Project Supervisor for structural rehabilitation of Independence Hall and Old City Hall in Philadelphia. He was also a team member responsible for architectural research and restoration of Independence Hall, 1961-1972.

Privately, as collaborating consultant, he aided the Rockford Foundation in reconstruction work at "Rock Ford," home of General Edward Hand, Lancaster (1962-66); the Historical Society of Delaware in the Old Town Hall, Wilmington, (1964-68); Philadelphia Yearly Meeting of Friends in Architectural Study of the Arch Street Meeting House, Philadelphia (1967-68).

He has been American Editor for the Bulletin of the Association of Preservation Technology since 1969. He also published articles in the Journal of the Building Research Institute; Technical Leaflets for the American Association of State and Local History, Antiques

Magazine and other journals.

Two studies have been published: A Century of Oregon Covered Bridges for the Oregon Historical Society, in 1960, and An Architectural Study of Fort McHenry for the National Park Service in 1961.

He is a member of the Society of Architectural Historians; Norwegian-American Museum of Decorah, Iowa; and a founding member of the Canadian-American Association for Preservation Technology in 1968.

He has also served on the Board of Directors of the Haverford Township Historical Society until 1968; elected second vice-president in 1968-71; first vice-president from 1971-72. He has served as a source of advice and assistance, is chief shingle-repairer for the Lawrence Cabin, and undertook, with his son, Allan, the realignment of the steps leading up to the cabin, plus pouring of bug-killer over the cabin floor. After reading his list of accomplishments, it seems almost horrifying that he performed such services as this last item, but he knew what should be done and how to do it. A successful architect has to deal with problems like this, plus financial affairs and petty problems such as we never (cont'd Page 8)

LEE NELSON (continued)

realize. Even hurricanes get into the act! One of the last jobs at Independence Hall was to get the proper stone for the clock case. After it was located in Virginia, Agnes flooded the quarry and a new site had to be found. Mrs. Nelson reports that the stone has finally been delivered.

Such a man is Lee Nelson. We will miss him but we shall watch with interest to see what comes next. And we can feel more than proud to say, We know him!

NEW ACQUISITIONS

Mrs. William Bennett gave several items of Quaker clothing, which arrived just in time to be displayed with other fashions at our Heritage Day Tour last May.

Four books, including two on the History of Delaware County, dating back to 1862, an early speller, and a book by Dr. Eckfeldt on "Cobbs Creek in the Days of the Old Powder Mill" were given by Richard Rosengarten. He also included 92 newspapers over four years of the Civil War, and a collection of Almanacks, the oldest dating 1790.

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