



## The Eddystone Lighthouse

First Modern Structure Built with a type of Natural Cement See page 11

## Century House Historical Society

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Vice President — Michael Montella

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## Welcome New Members

474-I Christopher Spatz - Lawrenceville, NY

475-F David & Anouk Gillikin - Gardiner, NY

476-I John J Walsh - Ossining, NY

197-I Jeanne Oakley - Tillson, NY/Orlando, FL

477-I Rod Bicknell - New Paltz, NY

Welcome  
Back !

## HAVE YOU PAID YOUR SOCIETY MEMBERSHIP DUES FOR 2006?

**A red Check on your address label means  
your dues are past due.**

**You will find a renewal slip enclosed.**

We still have a few copies of Peter  
Genero's book, *Thank Rosendale*, available.  
The cost is \$16.65 + \$4.45 S&H (New York  
State residents must add sales tax)

## Message from the President

This summer is proving to be an interesting one. The number of visitors to the Snyder Estate is up. Possibly as the cost of gas goes up more folks are visiting local historic sites. We are also getting more requests for information about the Rosendale natural cement industry. This increased interest in natural cement history can be attributed in part to the two American Natural Cement Conferences, the first held in Rosendale last year and the second held in Washington, DC this year. Plans are being drafted for a third conference to be held in central New York in the spring of 2007. There we will be close to the original American discovery of natural cement by Canvass White and the reason for its need; the Erie Canal.

Here at the Snyder Estate we are anxiously waiting for word on a grant request for much needed restoration and repair to the museum building. When that funding becomes available we will have a call for volunteers to help with that project. We have submitted the preliminary paperwork to the New York State Emergency Management Office (SEMO) for funding to deal with the damage done to drainage culverts and canal slip in the late June flooding. If our application is successful FEMA will pay for 75 percent of the project and SEMO will pay the balance. Both of these projects will create a busy schedule at the Snyder Estate.

Off site will also be a busy fall for the Society. We have been requested to aid in the development of historical signage for the Willow Kiln Park. See page 4 in the Spring 2006 Natural News for a short story about the park. We are also working on developing a more or less permanent exhibit of an overview of Rosendale history to be mounted in the Rosendale Recreation Center Building. My hopes are that the Recreation Center Exhibit opening coincides with our annual meeting on December third.

I hope that everyone has noticed the listing of additions to the Society Library which appear elsewhere on this page. There is a long backlog of books to be listed. We are currently working on compiling a list of booklets (we have over 100 titles) published by the Portland Cement Association in our collections.

*Regards, Dietrich Werner*

## Additions to the Society Library

20. Geology of the Chesapeake and Ohio Canal National Historical Park and Potomac River Corridor, District of Columbia, Maryland, West Virginia, and Virginia. Scott Southworth, David K. Brezinski, Randall C. Orndorff, Peter G. Chirico and Kerry M. Lagueux. U.S. Geological Survey. 2000. [Donated by Kurtis Burmeister]
21. Monocacy Aqueduct on the Chesapeake & Ohio Canal. Robert J. Kapsch & Elizabeth Perry Kapsch. Medley Press & Center for Historic Engineering & Architecture Research. Poolesville, MD. 2005.
22. Rock Haven, KY and the Lime Kiln. Richard Briggs. Gary Kempf, editor. 2nd Ed. 2006.
23. The Persistence of Sail in the Age of Steam, Underwater Archaeological Evidence from the Dry Tortugas. Donna J. Souza. Plenum Press. New York. 1998.
24. Slattery. Meeting Heavy Construction Needs. Slattery Associates. Maspeth, NY. c1978.
25. Slattery Rebuilding America's Infrastructure. Slattery Associates. Maspeth, NY. c1986.
26. Slattery Group Inc. Annual Report 1986.
27. Slattery Group Inc. Annual Report 1988.
28. Narrows Bridge Contract NB-5B Brooklyn Anchorage. Bid & Specifications. Triborough Bridge & Tunnel Authority. Robert Moses, Chairman. Ammann & Whitney, Consulting Engineers. New York. 1960.
29. Shelter Designs for Protection Against Radioactive Fallout. Voorhees Walker Smith Smith & Haines, Architects. New York. 1960.
30. Development of American Industries. J.G. Glover & W.B. Cornell. Prentice-Hall. New York. 1933.



## Widow Jane Mine picked as 'Best Stage in a Cave'

The Widow Jane Mine was picked as one of the Mid Hudson Valley's best destinations by the editor of the Getting Around Supplement in Kingston's Daily Freeman. A copy of the article is reproduced below.

Page 8 — Getting Around, Supplement to the Daily Freeman, Wednesday, June 14, 2006

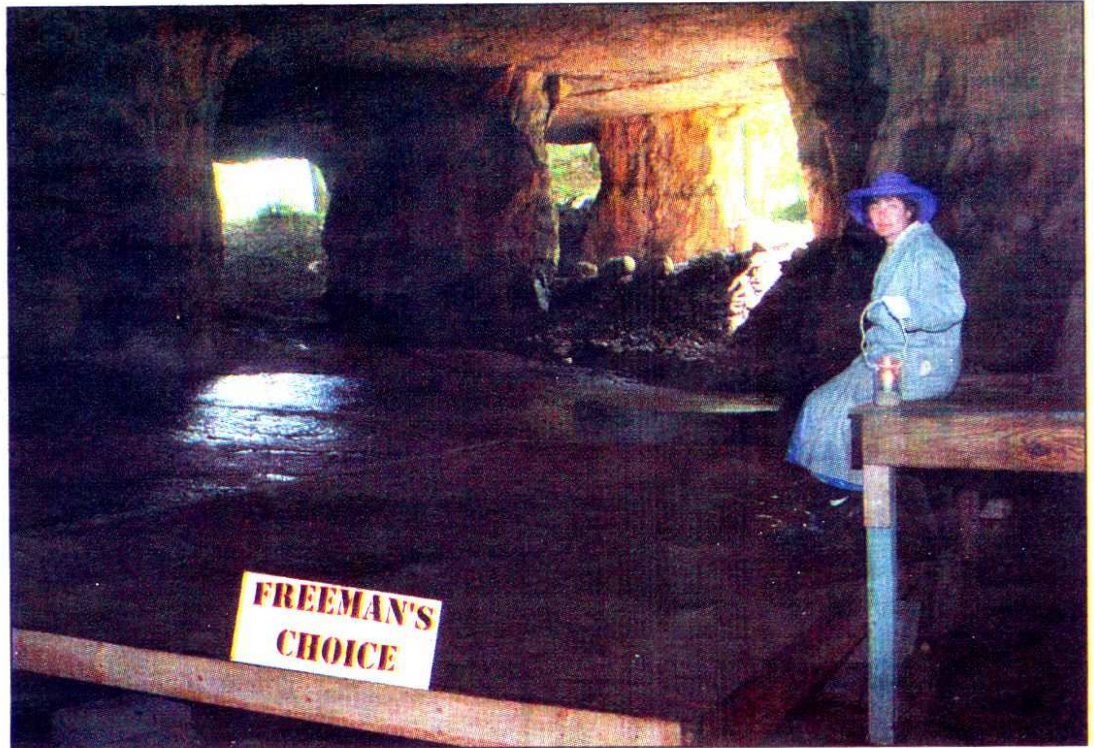
### HAPPENINGS

#### 'Best stage in a cave'

**NEED A** place to chill during summer's heat? Simply drive to the Snyder Estate on Route 213 about one mile west of the village of Rosendale, roll down the windows and feel a blast from nature's air conditioner, the Widow Jane Mine.

But there are other reasons to chill there. Unlike the stalactites and stalagmites that draw visitors to Howe Caverns in Schoharie County, Ulster County's Widow Jane has become a popular site for staged events. About two or three major music or theatrical offerings take place there yearly, according to Dietrich Werner, president of the Century House Historical Society, which owns the Snyder Estate on which the mine resides.

Among the most recent endeavors in the cavernous space, Werner said, was a music video shoot on Memorial Day for the hiphop/folk song RiseUP by a Pennsylvania singer and songwriter, Alex Schein, with rapper Deirdre from Virginia; Jamaican DJ and soundman Maurice "Junior" Fleetwood, and breakdancers from



Freeman photos by Bob Haines

Gayle Grunwald sits on the stage inside the Widow Jane Mine in Rosendale.

Breaks Kru in Brooklyn.

Flutist Steve Gorn, drummer Jerry Marotta and bass player Tony Levin, all from Ulster County, have used the space, too. They filmed the documentary "Tales from the Widow Jane Mine" there.

Werner said the Annual Subterranean Poetry Fest takes place in the mine during the fall, and this year, on Aug. 12, he said, will be about the 15th. Sooner in the season, however, the "subliminal history of New York

State" and a shape-note singing school will likely have a cool July 30.

To learn more, visit the The Century House Historical Web site at [www.century-house.org](http://www.century-house.org).

*Bonnie Langston*

## Upcoming Events at the Snyder Estate

**Subliminal History of New York~Shape Note Singing School~ July 30**

**Ice Cream Social~ August 6**

**Poetry Fest~ August 12**

**Taiko Drumming School~ September 2-4**

**For more information on events check the Society's web site:**

**[www.centuryhouse.org](http://www.centuryhouse.org)**



## Natural Cement Mortar Workshop

Whiteport, N.Y.— Several of the attendees of the 2nd American Natural Cement Conference, held in Washington, DC gathered the following week at the cement works once owned by Hugh



Pat Pelchat, Ken Uracius, Michael & Arikka Pavlov, D. Werner, John Walsh & associates at a Whiteport cement kiln



Ken Uracius mixing up a batch of Rosendale natural cement mortar

White (1830s-1840s) at Whiteport (a hamlet in the town of Rosendale.) We toured the extensive remains of the cement works; kilns, mill & mill pond, water power, cooperage, and other structures related to the cement industry. Michael & Arikka Pavlov have done a wonderful job of preserving this very important industrial site. Ken Uracius mixed cement mortar using Rosendale Natural Cement which is now once again available for restoration and preservation projects. [DEW]

## CHHS bottle collection aids Seattle Washington History Company

By Art Church

Back in 1997 Joe Nagy of Oklahoma City had plans to publish a comprehensive book on cataloging all the known Hutchinson soda bottles in a state by state directory. Ron Fowler took over this project after Joe passed away in 1993.

What is a Hutchinson Soda bottle? The bottle is named after the inventor, Charles G. Hutchinson, who patented the stopper in 1879. This became one of the most popular internal bottle stoppers ever. It helped replaced the cork stopper. The Hutchinson stopper provided a better seal and kept carbonated beverages fresher for a longer period of time...It became a standard before the "crown" cap was invented.

Art Church, President of the HUDSON VALLEY BOTTLE CLUB, & VP of the East Fishkill Historical Society. & CHHS member wanted to aid in this research. Since Art was already involved in cataloging all antique bottles from Dutchess County, he offered to help.. Art says he wanted the mid Hudson Valley bottle history to be well represented in the nationwide Hutch Directory.

On the rained out CHHS cleanup day in April, Art arrived with his recording tools and proceeded to take rubbings of the Society's collection of Hutchinson stoppered embossed bottles from its collection. Art recorded the bottles height, diameter mold type, slug plate style, color, punctuation, base markings etc. In the end, the CHHS bottle collection added a half dozen bottles to the project. The Seattle History Company has to date cataloged over 14,000 different bottle across the US and over 1000 from New York State. Art's efforts in the Hudson Valley have added over 100 "new Bottles" to the project..

Here's another great example of the CHHS reaching out well beyond our boundaries and sharing historical information to document our past...albeit a soda water drink. For additional information about Hutch bottles and their history visit a great web site ...[www.SeattleHistoryCompany.com](http://www.SeattleHistoryCompany.com)



Art Church taking rubbings of Huch bottles at the CHHS Museum

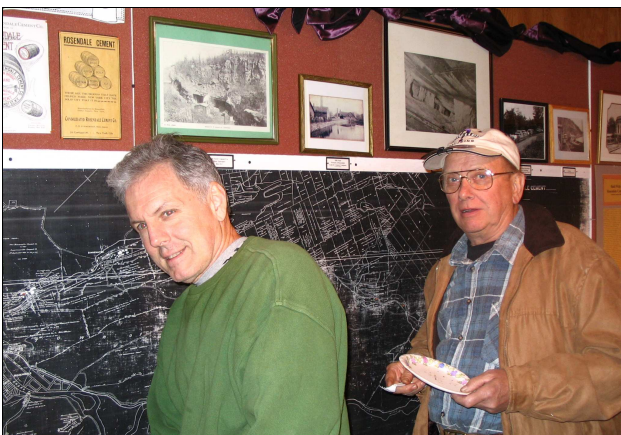




**SUNY New Paltz students lead by Adjunct Professor, David Gillikin and assisted by Anouk Gillikin, visit the Widow Jane Mine in April & learn about the geology of the Rosendale Cement Region**



**A part of the special exhibit of Photographs taken by Kenneth Roosa ~ Nancy Foutz & Scott Cranin at Exhibit Opening**



**Bill Martin & Robert Hendrickson at Opening**

## **Kenneth Roosa Photographer Exhibit Opens**

This years special exhibit is a part of a collection of photographs taken by Kenneth Roosa. Kenneth was a lifelong Main Street resident. Ken took up photography as a hobby while still a student at New Paltz High School during the 1930s. After graduation the hobby became a serious matter; Kenneth had to juggle work at his mom and dads grocery and work as photographer for the Kingston Dailey Freeman. During WWII Kenneth served in the Army Air Force. After the war he returned to Rosendale again working in the family grocery and once again as a photographer for the Freeman. The exhibit his photos taken by Kenneth over a span of about sixty years. As one would expect, you will find photos of the local disasters; floods, fires & crashes as well as photos of weddings and events in and around Rosendale.



## Society Exhibit of Tourism Industry Related Items on Display At Ulster County Office Building

**“400 Years of Ulster County Tourism.  
Henry Hudson Visited in 1609  
And they have been visiting ever since.”**



**Ulster County Tourist Booklets**

Early this spring I had a brief conversation with Hallie Arnold the newly appointed Director of Ulster County Tourism. The conversation naturally started with me telling Hallie all about Ulster County's cement history but we soon mixed cement and tourism. After the collapse of the cement industry many of former cement properties were adapted to tourism and that as a result of that transition that the Society had in its collections many items related to the tourism industry.

When you enter the main lobby of the COB the motor vehicle department is on the left and the elevators are straight ahead. To your right is a area which has a glass display case and racks with brochures of tourism destinations. We agreed that the glass case would be perfect for a display of items related to Ulster County's past efforts in tourism promotion. Items on exhibit cover over one hundred years of promotion.

## University of Illinois & University of the Pacific Geology students visit WJM

Dr. Steven Marshak (U of I-Champaign) and Dr. Kurt Burmeister (U o P-Stockton) led a field trip of geology students to the Rosendale Cement Region this May. Dr. Marshak wrote "Structural Geology of Silurian and Devonian Strata in the Mid-Hudson Valley, New York: Fold Thrust Belt Tectonics in Miniature." This paper was published in 1990 by the Geological Survey, New York State Museum. Dr. Burmeister read papers at the American Natural Cement Conference Rosendale [2005] and Washington, DC [2006]. Dr. Burmeister has completed a Geologic map of the Rosendale natural cement region; central Hudson Valley, Ulster County, New York. 1:10,000. (in prep for NY State Museum Map and Chart Series) and with Werner, D. written an overview of the history and geology of the natural cement industry at Rosendale; Ulster County, New York. (*In review - ASTM*)



**L. to R. John Walsh, Dr. Kurt Burmeister, Dr. Steven Marshak  
at the Snyder & Sons Kiln**

## Rosendale Rocks

End of May the Gunks Climber's Coalition, in cooperation with the Society presented a sneak preview of Dosage Volume IV—



**Chris Spatz**

two new rock climbing video shorts by the Lowell brother's Big Up Productions. The shorts star three of America's finest rock climbing talents: Tommy Caldwell, Chris Sharma, and Dave Graham. Plus climbing and bouldering photos from around the world, with behind the scenes look at Josh and Brett Lowell's latest adventures. Alex Schein provided the musical accompaniment.



**Practice in the Kiln**





## New Paltz High School Students Visit Snyder Estate

Two groups of students from New Paltz, NY High School lead by their teacher, Cathy Law, visited the Widow Jane Mine, kilns and museum at the Snyder Estate on June 8th.

### Step One !

Ken Uracius, Jeff Baker and Eric Gradoia, and John Walsh, recently met at the Snyder Estate. Their visit served as a preliminary discussion on plans to prepare an historic structure report. This important document is the recognized starting point for the evaluation of restoration needs. A study of this type considers existing conditions, a chronology of intervention and cost estimates.

The Society is currently investigating funding opportunities that would allow an historic structures report for the Snyder Estate to become a reality.

During the many hours of walking and talking around the site, general observations were made of the many resources relating to the history Rosendale Natural Cement Region including the Widow Jane Mine, kilns, Snyder Canal Slip, Carriage House, the museum building and extensive archival holdings.

Jeff Baker of Mesick, Cohn, Wilson & Baker, Architects of Albany NY is nationally recognized in the preservation field. His projects have included Monticello, Thomas Jefferson's home in Virginia the Frederic Remington Art Museum in Ogdensburg NY; The Elms, Newport, RI and the New York State Capitol in Albany NY. John Walsh of Testwell Laboratories of Ossining, a leader in the identification of historic mortars and Ken Uracius of Stone & Lime Imports, Inc. of Holden, MA, presenter of a paper at the American Natural Cement Conference held this spring in Washington, DC, titled "The Natural Cement Revival" added their expertise.

The Society is honored to have the interest of these individuals who descended upon the site early one summer morning each offering their knowledge and their own special kind of encouragement and enthusiasm for the future of the Snyder Estate Historic Site. [gg]



L. to R. Ken Uracius, John Walsh, Jeff Baker, & D. Werner @ Snyder Cement Kilns





Mill and Mill Pond at Whiteport Cement Works [Photo M. Pavlov Collection]

## Report From Whiteport

By Dennis Howe

I've done an archeological survey to identify, record, describe, and determine the age of the surface remains of ruins at Whiteport. The survey was conducted between April 2005 and June 2006 during several two- and three-day visits to the site. A theodolite was used to establish a baseline and measure angles from that baseline to the various features. Most distance measurements were accomplished using tape. A visual reconnaissance located many features, which were matched up to the identified structures shown on historic maps. Features were measured, recorded with sketches and notes, and photographed. No excavation was conducted. Surface features were recorded onto a recent property survey plat, and then converted to an axiomatic projection for the article. Due to constraints of time and economy, only the ruins of industrial structures were mapped during the survey, even though many remains of domestic structures were recognized.

I plan to publish the results of the survey in

IA, the Journal of the Society for Industrial Archeology. To support the survey the article will include a context discussion that outlines the development of the Rosendale cement industry and events that lead from Canvass White to Hugh White's taking the cement business to Whiteport. And, of course some detail of the Newark and Rosendale Lime and Cement Company's production processes. The collections of the Century House Historical Society have been very helpful, as have documents held by other institutions such as the Waterford Historical Society. The article will also provide a discussion on the resurgence of natural cement production for historic structure restorations.

In addition to the writing I have been communicating with selected industrial and historical archeologists about possibilities for archeological field schools at Whiteport. It is hoped that some graduate student thesis might result, especially on the subject of the life of the workers and residents of Whiteport in the 19th century.

Dennis Howe is an Industrial Archeologist who resides in Concord, NH



# The Milwaukee Cement Company

## [Part I]

By Howard Greene and William T. Berthelet

**This article first appeared in the September 1949 issue of Wisconsin Magazine of History published quarterly by the State Historical Society of Wisconsin. Reprinted with permission of the Wisconsin Historical Society, All rights reserved. [www.wisconsinhistory.org](http://www.wisconsinhistory.org)**

One day in the year 1873 Joseph R. Berthelet of Milwaukee noticed some samples of rock on display in the city engineer's office. The rock had been excavated in constructing caissons for piers at the bridge the city was building across the Milwaukee River at North Avenue. To most men there was nothing unusual about the rock specimens but Berthelet, a manufacturer of cement sewer pipe, immediately recognized their similarity to a peculiar limestone he had often seen at cement mills at Louisville, Kentucky. Quietly he went out to North Avenue and gathered up some pieces of rock.

Without divulging his suspicions to anyone, he took these samples of rock home and burned or calcined them in his kitchen stove. After burning to the degree he had seen the rock subjected to at Louisville, he ground the softened stone to a powder in a druggist's mortar. To the powder he added water to form a plastic mass. This he formed into small balls the size of marbles, and small pats or cakes, leaving some exposed to the air, and dropping others in water. Then he went to bed.

The next morning with keen anxiety and hope he inspected the result of his experiment and found that what the night before were soft balls and cakes were now all as hard as stone, even those immersed in water. He realized he had found a valuable raw material for the manufacture of natural hydraulic cement.

Most cement used at that time was what is called "natural" cement, a product of a certain type of limestone with a high clay content. When this rock was burned to a semi-soft texture, ground, and mixed with water, it would result in a product

more permanent than the original limestone. Deposits of the special variety of limestone needed to produce the "natural" cement were not numerous. In New York State were the famous Rosendale quarries on the banks of the Hudson. None were nearer to Milwaukee than the deposits at Utica, Illinois, and Louisville, Kentucky. From the mills at the latter place Berthelet purchased most of the cement needed for making cement pipe in the Milwaukee factory, and on his frequent visits to the Louisville plant he learned to know the limestone in its unworked state as well as the steps in the manufacture of cement. This knowledge was to be the making of his fortune.

The next question was where to find a deposit of the rock being excavated at the North Avenue bridge. There was no use looking for it in the city that extended miles to the south of North Avenue, nor beyond the west side of the city where there were quarries of the hard Niagara limestone. Mr. Berthelet began taking trips with his horse and buggy. At one point on the lakeshore where the

present East Capital Drive intersected Lake Shore Road there was an outcrop of the same rock, but it was under water and the development of a quarry would necessitate an extensive breakwater construction and tunneling under the high, steep lake shore bank. Under such conditions the development of a plant would be prohibitive, even though the material was found in quantity.

At last on the bank of the Milwaukee River where it bends southward above the Humboldt bridge, Mr. Berthelet found an extended outcrop of the rocks he was seeking. The banks

of the river at that point were low, and the possibility of the development of a quarry was promising. More burning of rock specimens, more tests under water, and the result was that Mr. Berthelet was convinced he had hit upon a rock which would produce a natural cement.

On leaving school in 1866 Mr. W.T. Berthelet worked for the Milwaukee Cement Company and as officer and manager continued his association with it until its liquidation in 1946. Colonel Howard Greene, who served the company as director and president, collaborated with Mr. Berthelet in preparing the sketch of the company's history. Miss Alice E. Smith of the Society's staff gave valuable assistance in writing the article.

# Milwaukee Hydraulic Cement

## "KEYSTONE" BRAND

DAILY  
CAPACITY  
**4,000**  
BARRELS



Shipping  
Facilities  
Unsurpassed  
...  
Supply  
Unlimited

**Above: Milwaukee Cement Company logo. Directory of American Cement Industries and Hand-book for Cement Users. Charles Carroll Brown, Editor. Municipal Engineering Company, Indianapolis, Ind. New York, N.Y. 1901. [CHHS Library]**

Mr. Berthelet had made the discovery and done the crude laboratory work of demonstrating a truly hydraulic lime rock, but the development of a plant required a large capital for what might be considered a somewhat speculative venture. He confided the story of his discovery to his brother Henry who was also his business partner. Four years earlier the two Berthelets had opened a factory for the manufacture of cement sewer pipe with an office at 152 West Water Street where Gimbel's Department Store now stands. He also revealed the news of his discovery to two neighbors, George H. Paul, a man of position and influence, and C. H. Orton, a druggist much given to experimental work, and to John Johnston, at that time the cashier of the Wisconsin Marine and Fire Insurance Company Bank (the "Mitchell Bank"). In this informal way the Milwaukee Cement Company was born.

Before organizing the company a sizeable test kiln was built, and the cement subjected to all the tests known. Analyses of the rock and the resultant cement were made by leading chemists of Milwaukee and other cities. The rock proved to be argillaceous limestone of the Hamiltonian Group, differing in chemical composition from the limestone found in other parts of Wisconsin. Tests made in the several laboratories confirmed the crude tests made by Mr. Berthelet in the family cookstove. This cement was of high quality and compared favorably with the Louisville, Rosendale, and Utica cements of long established reputations.

The next problem was to secure title to the land along the river where the outcrop of the rock appeared. This was to assure ample raw material as well as to protect against possible competition. The low-lying meadow on the east side of the river where the outcrop occurred had little farming value. The associates individually commenced negotiations for its purchase and in due time secured most of the land on that side between the Humboldt and Port Washington Road bridges, giving them a riparian right in the bed of the river. As an added safeguard, they also bought a one-inch strip for a distance of several hundred feet above the Port Washington bridge on the same side.

The next step was the organization of a company to carry on the work of constructing the mills and kilns for the manufacture of the cement on a commercial basis. On November 25, 1875, the State of Wisconsin granted a charter to the Milwaukee Cement Company. Its capital stock was \$350,000 divided into 3,500 shares of \$100 each. The land previously purchased by the several individuals was turned into the company for stock at a value agreed upon, and a working capital secured through the sale of 600 shares of stock to others.

The original directors and officers were as follows:

J.R. Berthelet, Sr., President	700	Shares
George H. Paul, Vice-President	450	"
John Johnston, Treasurer	700	"
D.J. Paul, Secretary		
H. Berthelet	700	"
C.H. Orton	<u>350</u>	"
	2900	"

The stockholders as of January 9, 1879 were:

A.C. Allen	George H. Paul	J.M.K. Davis
D.J. Whittemore	W.P. McLaren	H. Berthelet
F.F. Riedell	J.R. Berthelet, Sr.	Guido Pfister
F.A. Hinman	F.N. Merrill	M.P. Jewett
John Johnston	J.P. Ryan	D.J. Paul
C.H. Orton	Sarah J. Hearing	W.H. Hearing



**Milwaukee Cement Quarry**  
Geology of Wisconsin. Survey of 1873-1879: Volume 2. Chamberlin, T.C. (editor).  
Commissioners of Public Printing. 1883 [CHHS Library]

Construction started in the spring of 1876. Joseph R. Berthelet, Jr. left his government position with the Fox-Wisconsin River Improvement project to take charge, and later was made superintendent of manufacture. In the fall the first car-



**Early View of the Cement Works c1882**

load of cement was ready for shipment. The Chicago and North Western Railway built a spur track into the mills on a right-of-way granted by the cement company. The initial capacity of the plant was about 100 barrels per day, but the demand increased rapidly and additional kilns were built each succeeding year until the capacity of the mill reached 2,000 barrels per day.

**To be continued in the Fall issue of Natural News.**



## 250th Anniversary of Discovery of Hydraulic Cement by John Smeaton

It was in 1756, 250 years ago, that John Smeaton was given the task of building a lighthouse on the Eddystone Rocks to replace Rudyerd's tower which burned in 1755. Smeaton's was the fourth lighthouse to be built on the Eddystone Rocks.

The first and second lighthouse towers on the Rocks were built by Henry Winstanley. The first tower, built of wood, was completed in 1698 and remodeled the following year. Winstanley had decided that he wanted to experience riding out a storm in his lighthouse. In November 1703 he went out to the lighthouse for that purpose. Unfortunately for Winstanley it turned out that that November storm, one of the greatest storms ever recorded in England, completely destroyed the lighthouse and washed it off the rock drowning Winstanley and the lighthouse crew.



Winstanley's Tower 1698-1703

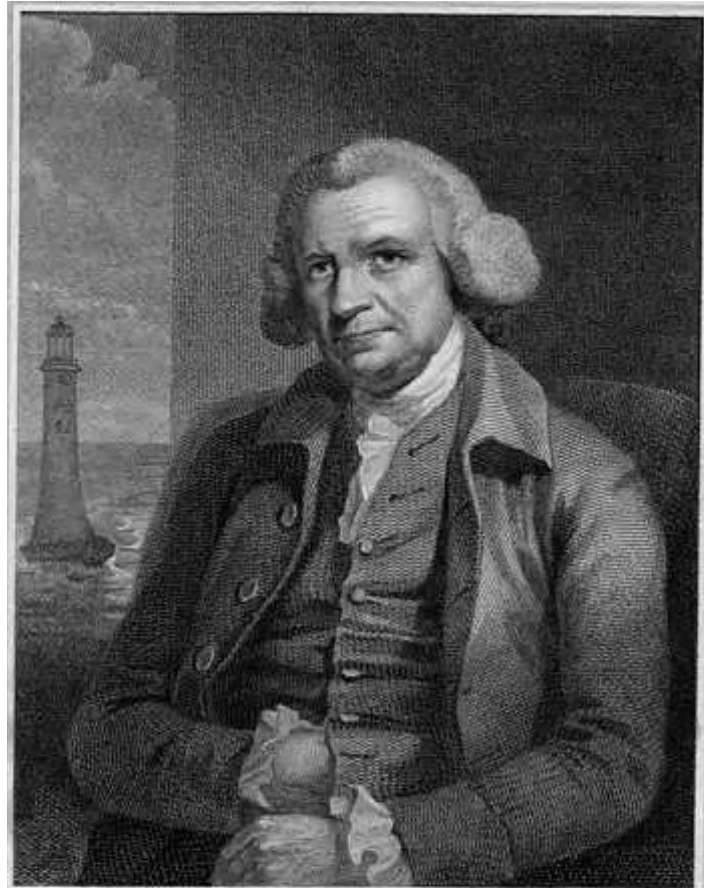
The following year in response to the widespread destruction, Daniel Defoe published his first book, *The Storm*, calling it "the tempest that destroyed woods and forests all over England". Coastal towns such as Portsmouth "looked as if the enemy had sackt them and were most miserably torn to pieces".

The third lighthouse, another constructed of wood built by John Rudyerd, was completed in 1709. This lighthouse withstood all the onslaughts of storms for 47 years but was destroyed by a fire which had started in the tower's lantern room.

John Smeaton was commissioned to build the fourth lighthouse on the Eddystone Rocks. But Smeaton decided to forego constructing his lighthouse of wood due to the hazard of fire. His design called for a tower which was to be built out of stone. That decision also required a quick setting hydraulic mortar. Smeaton found that a mix of lime, clay and crushed slag from iron-making produced a mortar which hardened under water. Smeaton had discovered the process for manufacturing a hydraulic cement. Natural cement is limestone that naturally has the appropriate amounts of clay to make the same type of cement as John Smeaton discovered. He set his dovetailed stones in this mortar and completed the new lighthouse in 1759. The lighthouse that Smeaton built remained strong; it was the rock that it was built upon that developed cracks. In 1870,



Smeaton's Lighthouse  
at Plymouth Hoe



John Smeaton 1724-1792 & his lighthouse

after 120 years service, Smeaton's lighthouse was dismantled stone by stone and reconstructed on the mainland near Plymouth where it is a tourist attraction. 250 years after Smeaton's discovery of hydraulic cement the base or stump of his lighthouse still remains intact on the Eddystone Rocks.

The memory of John Smeaton is honored by a ship [S. S. John Smeaton] constructed during WWII. The S.S. John Smeaton was built by McCloskey and Company in Tampa, Florida and launched on November 28, 1943. She was used to trade sugar by A.H. Bull and Company and later used as store ship in the South Pacific. In 1948, the ship was purchased by the Powell River Company as part of a breakwater on the Powell River in British Columbia, Canada. [DEW]



S.S. John Smeaton Concrete Ship



See Inside page 9

## **CENTURY HOUSE HISTORICAL SOCIETY**

### **\*EVENTS\***

**Six Decades ~ Ken Roosa**

**Rosendale Photographer**

**Snyder Estate Ongoing Exhibit May – November**

**Subliminal History ~ Shape Note Singing School ~ July 30**

**Ice Cream Social ~ August 6**

**Poetry Fest ~ August 12**

**Taiko Drumming School ~ September 2–3–4**

**Halloween ~ October 28**