Special Program Presentation
by
John F. Matthews

Lime
Brick
Cement
Bluestone
Millstones

Century House Historical Society Annual Meeting
Sunday 2 pm
December 2, 2007
Rosendale Community Center
Century House Historical Society
Rosendale, New York  12472-0150
Phone: 845-658-9900
E-mail: mail@centuryhouse.org
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  Vice President — Michael Montella
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Message from the President

We have received a disbursement of funds for Repairs at the Snyder Estate. If the weather stays favorable we may be able to repair at least a portion of the Museum roof before it gets too cold to do roof work. There is other repair work that can be done during the winter months. All work should be completed during the spring of next year.

Don’t forget to mark your calendar for the Society’s Annual Meeting on December 2. The presentation by John Matthews promises to be great! In the meantime I send Thanksgiving greetings to all.

Regards, Dietrich Werner

Welcome New Members
90-I  Peter Tassone - Carmel, NY  Welcome back
328-F  Lori Childers - Pacama, NY  Welcome back
503-I  Julie Roselius - Kinnelon, NJ
504-I  Wayne Russell - Wantage, NJ-
505-I  David Prentice - Bulleen, Victoria, Australia
506-F  John & Karen Rayburn - Hurley, NY
507-I  Rik Nagel - New York, NY

Additions to the Society Library

SAVE THE DATE
Century House Historical Society
Annual Meeting
With special program!
John F. Matthews
Historic Images of Rondout
Sunday  December 2
2 PM
Rosendale Community Center
Route 32
Rosendale, NY
A recent addition to the Society’s collection is a book which started its long career as a book in the Cottekill School library. The Cottekill School closed in the late 1950s when the Rondout Valley School District was formed. This was not a one room school house, Edward Williams, an alumni of the Cottekill School has informed us. This school house was built on land donated by the Snyder family for school purposes in the early 1800s. The version shown on the post card (it burned some time after it was closed) was located on Saw Dust Ave., just east of the Tan House Brook. Below is the yearbook for 1900. The yearbooks in those days were called Souvenirs. The list of pupils includes all of the scholars attending the school. The Rosendale District schools were only grade schools. Students who wanted to go to High School had to go to Kingston or New Paltz. Students if they did not board in Kingston or New Paltz could take the train (Wallkill Valley RR after 1872 or the O&W after 1902) using special student tickets.

**Cottekill-Binnewater School District No. 5 Souvenir (yearbook for 1900)**

**Hand stamp in the school library book**

**Title page of Lobo, Rag and Vixen, Cottekill-Binnewater School Library book**
A TRIP BACK IN TIME
By Kenechi Ugwoke

On a beautiful fall day, a group of Bard College students, led by their instructor, Dr Catherine O’Reilly from the Earth and Life through Time class in Bard, set off for the Rosendale Area. Our task was to observe and identify rock features at geologic sites in the area, and to determine from the observed features the geologic history of the areas we visited. We planned to make four stops for the day, and armed with our hand lenses, dilute hydrochloric acid, hammers and notebooks, we classified and identified rock types at each stop. We were on a roll.

Our third stop for the day, as we were soon to find out, was what used to be A.J. Snyder & Sons. This stop was different from our previous stops because in addition to being a geologic site it was also a historic site. We had known little to nothing of the site before coming, so it was with an open mind that we observed the site. We were told as little as possible about the site initially, the better for us to independently identify and appreciate the rock features. The first thing that caught our attention as we got on the premises were the kilns. Of course having been on a rock hunt, we thought the kilns were carved inside a natural rock and we geared up to identify the rock, but on closer inspection (as we put away our lunches) we realized that the lofty walls of the kilns were man-made from bricks, and were not natural rocks. It was obvious from the unused look of things that the kiln had been out of use for a long time, and what was left was a relic of the once flourishing cement industry in the region. We walked round to the top of the kilns where we observed at least three huge ventilation holes.

Our next stop at this site as we were later told was the Widow Jane mine. We noticed some corals ¾ hard whitish deposits consisting of the skeletons of corals ¾ lining the outer walls of the mine. These would be the only fossils we observe at the site. Having observed the kilns, we felt deciphering the mined rocks would be a piece of cake. We were pretty certain limestone was used in cement making, so the mined rocks had to be limestone. You can imagine our bewilderment when samples of the mined rocks refused to respond positively to the always simple and successful hydrochloric acid test for limestone. Limestone consists mainly of calcium carbonate. When calcium carbonate reacts with acid, such as hydrochloric acid, it releases carbon dioxide which bubbles in the water also produced, a process called fizzing. So far all limestone rocks we had tested fizzed easily on contact with hydrochloric acid, and we could not understand why this one did not.

Turned out we were barking up the wrong tree. The mined rocks were not limestone after all, they were dolostone, Rosendale dolostone to be exact. Dolostone is a crystalline chemically formed sedimentary rock consisting mainly of dolomite. It also has some fossil and clay content. Dolomite is a light-colored mineral consisting of calcium magnesium carbonate, which forms suitable binding materials for cement making. The difference between limestone and dolostone is that unlike limestone, dolostone has a high magnesium content and also some significant clay content. The balanced composition of dolostone makes it suitable for making cement that requires no additives. Consequently, cement made from dolostone such as Rosendale cement is referred to as natural cement. This trip was the first a number of us had heard of natural cement, so we were properly educated.

We wandered inside the mine, and some of us gasped in surprise at the wide expanse of the mine. From outside the mine, it is hard to imagine just how cavernous and extensive it is. Drillings rods and holes left in the rocks were proud reminders of the mining days. Mining techniques were not well developed in the earlier days of this mine, so much so that sometimes only about two feet of rock would be mined in a day. Telltale signs of the hard labor of the miners were all around us. A large section of what used to be the mine floor was covered by a huge pool of water. Columns of rock at different points in the mine held the overlying strata in place. The overlying strata just happened to be Glasco limestone, so we were not that off base in our earlier attempt at identifying rock features. In fact, it seems that the mass of rock containing the Widow Jane mine has undergone extensive erosion that has eroded two other strata that were once piled atop Glasco limestone; Whiteport dolostone and Thatcher limestone respectively. We observed these extra layers in another less weathered rock structure in the area. Such erosion may have taken place long before the mining of dolostone in the region.
Sedimentary rocks like dolostone and limestone are deposited in shallow waters, so it follows that at the time of formation of these rocks, the region the Widow Jane mine now occupies was a shallow ocean. Corals live in tropical aquatic environment, so the corals we observed suggest the region was tropical. Rosendale dolostone has been around a really long time. Geologists put its age at 443 to 418 million years. No wonder the place was completely different at the time. Some uplifting processes possibly spanning millions of years are responsible for the outcrops, which we now observe. Who knows what the place would be like in 1/2 a million years. With global warming and all it would probably be a shallow ocean again. Perhaps a beach where the future us spend long hours sunbathing, that is of course if our species is still around.

Limestone and dolostone deposits are not unique to the Rosendale area. In fact, there are huge deposits scattered all round the US, with limestone being the more common. Other regions that boast these deposits include among others; North Dakota, Wisconsin, Georgia, Maryland and Illinois. Based on the prevalence of these deposits geologists are reliably able to tell us that the US was once a shallow ocean. No surprise there, every continent was once a shallow ocean as continents are born from oceans.

The time of discovery of dolostone in the Rosendale area has been put at about 1825. Just about that time the American natural cement industry took off. The Rosendale natural cement industry was a leader in the production of American natural cement, sometimes producing nearly half the total national annual amount of American natural cement produced. Some of the landmarks of this nation such as the Brooklyn bridge, the pedestal of the Statue of Liberty, the national system of coastal fortifications took Rosendale cement as their building stone.

American natural cement enjoyed a successful reign until the early 1900’s when portland cement began gaining popularity. Portland cement is made mostly from limestone and silicate matter such as shale. Portland cement has a number of advantages over natural cement. Unlike natural cement portland cement is very durable, it is stronger and sets much quicker than natural cement. With the rising industrialization of the US in the 1900’s the demand for portland cement increased. There was a desire to build faster and taller, and portland cement made this happen. Also, with limestone deposits all over the place, raw materials for portland cement were easy to obtain, making it all the more alluring. The rise of portland cement led to the demise of natural cement. The Century Cement Co. in Rosendale was the last natural cement manufacturing facility to close. It closed in 1970.

Currently, natural cement is making a come back. The need for restoration and reparation of buildings built in the 1800’s with natural cement have led to a renewed need for natural cement. Most of these buildings fall apart when repaired with other cements such as portland cement. People wondered why for a while and have come to realize it is because they are using materials that are not quite compatible with the original building materials. Ken Uracius, a mason with Stone and Lime Imports has been a leader in the reintroduction of Rosendale cement for restoration purposes.

When we stepped out of the mine, we felt like we had just stepped from a time machine. We had got a snapshot of the lives of the people that had worked in the mine in its heyday, people that had worked so hard to contribute to the heritage of this nation. We emerged with a sense of appreciation for the work that went into building the American heritage and a hopefulness for the continued preservation of this heritage. We also came out with a sense of wonder (and perhaps a little disappointment) for how much the geology of the now Rosendale area has changed. What had once been a tropical shallow ocean is now a cold dry land. To think that back then we would have been sunbathing here in New York all year round instead of having to go to the Caribbean!

On page three of the NATURAL NEWS is a section which lists new additions to the Society’s ever growing library. These books, donated or sometimes purchased, are all in some manner related to Rosendale. Sometimes the relationship is not obvious. The featured book, Elements of Geology by William W. Mather is an example. Nowhere in Mather’s little volume does he mention Rosendale, so one might justifiably ask “what is the connection?” The connection lies with the author. Mather was the author of Part I of the Geology of New York, published in 1843 by New York and titled Natural History of New York. It is in this book that Mather reports on his visits to the Rosendale area. That volume has wonderful colored drawings of Rosendale and Ulster county geological features. The book originally belonged to Ezra W. Gale, who was a teacher at the Town of Ipswich, Ma. “High School” in 1847.
RESTORATION OF THE AMERICAN MUSEUM OF NATURAL HISTORY

By Michael Edison

Just three years after the commercial reintroduction of Rosendale Natural Cement, architects, engineers and conservators are choosing to use authentic natural cement for an impressive and growing range of restoration projects. These include historic seacoast fortifications, lighthouses, monuments, buildings and a variety of engineered structures. In 2007, natural cement was chosen for use in the repointing of the historic 77th Street façade of the American Museum of Natural History in New York City.

Designed by architect Josiah Cleveland Cady, the Romanesque castle-like facade was constructed from 1888 to 1899 using red granite from northern New York State and natural cement mortar. When the firm of Wiss Janney Elstner was engaged to plan and design the building’s restoration in 2005, they immediately considered using Rosendale cement. Laboratory analysis of multiple samples of the building’s mortar confirmed the presence of natural cement, and despite some problem areas, the overall condition of the original mortar was deemed to be remarkably good. In view of the material’s good long-term performance, and given the commitment to a historically accurate restoration, natural cement seemed like, well, the “natural” choice.

Its use was not a foregone conclusion, however, and in late 2005 project consultants undertook a series of laboratory studies aimed at evaluating the suitability of natural cement as a contemporary restoration material. How would natural cement compare in performance with modern portland cement – lime mortars? Would it develop adequate bond strength to the building’s dense granite? Would shrinkage and cracking be a problem? Would masons find the material sufficiently workable? In addition, questions emerged as to whether there was precedent for successful use of natural cement mortar in historic granite repointing.

Unfortunately, problems developed in the testing program early on. Laboratory procedures for testing of portland cement-lime mortars include a 30-minute period of “pre-hydration”, during which the mortar is allowed to sit and absorb water before it is used. Natural cement sets more quickly than portland, however, so when the lab attempted to use the same procedure with natural cement mortar, the mortar was already setting before it could be used. This led to concerns that natural cement would set too quickly to be easily installed. When extra water was inappropriately added to the setting mortar, problems were noted with low bond strength and high...
shrinkage. The project specifications went forward calling for portland-lime mortar, but the consultants left the door open to further data and information.

A number of developments ultimately contributed to turning this project back to use of natural cement. First, the reinstatement of ASTM C10, Standard Specification for Natural Cement, established a minimum setting time of 30 minutes for natural cement, and natural cement processing was adjusted to provide this minimum amount of working time.

Second, Edison Coatings initiated a one-year study, engaging the independent, Ossining-based Testwell Laboratories to perform and document the test work. As the producers of Rosendale Natural Cement, we knew that the material was being used on a number of other projects without the problems which had been cited as concerns in the consultants’ lab study. A methodical, focused testing program should be able to substantiate that good performance, it was reasoned.

In early 2007, as construction was poised to begin, the Testwell lab study was completed. The results showed that natural cement mortar developed bond strength to granite that was twice as high as the bond strength reported in the results from the consultants’ lab for portland-lime mortar. Shrinkage was as low as the best results for portland-lime mortar. But perhaps most interesting, was the finding that natural cement strength after 28 days (the standard cement-testing interval) is just a fraction of its 90-day and one-year strengths. This began to explain why century-old Rosendale cement mortar is observed to be so tenacious and so tough. It continues to build its properties over time.

The strength issues resolved, we turned to the question of precedent for use of natural cement in historic granite repointing. In 2003 and 2004, granite repointing had been performed at Cheshire Mill #1 (1834) in Historic Harrisville, New Hampshire. A paper detailing this project had been submitted to ASTM International and has since been published, detailing the good handling and performance of natural cement mortar under extreme freeze-thaw exposures. A small waterfall passes through a culvert in the building, and in winter, a portion of the building develops a skin of ice.

This left the question of workability. In March of 2007, WJE instructed the restoration contractor to install side-by-side mock-up panels of custom-matched natural cement and portland cement-lime repointing mortars. Natural cement specialist Ken Uracius provided the crew with basic guidance on the use of natural cement mortar. While both mortars produced good, crack-free, matching repairs, the contractor’s masons found one difference clear: Rosendale cement mortar had significantly better workability.
The final hurdle was economics. Although material cost is a small portion of repointing costs, as the process is labor-intensive, the Rosendale mortar cost would be about twice the cost of prepackaged portland cement-lime mortar. Ultimately, then, it was the dedication of the consultants and the Museum to historically accurate restoration work that won the day. That dedication was already evident in other elements of the Museum’s restoration. The use of replacement granite from the original quarry had required reopening of a difficult site. Original wood windows were restored, rather than replaced with look-alike synthetic windows.

WJE strongly recommended, and the Museum accepted, the use of Rosendale Natural Cement at additional cost. Some 30,000 pounds of custom color-matched, prepackaged natural cement mortar have been delivered to the museum to date, and installation has proceeded smoothly.

Natural cement is a building technology that is unique and significant to a particular period in history, and its preservation is a worthy goal. The American Museum of Natural History’s 77th Street façade is not just an historic museum, or an historic granite building, it is also an historic natural cement building. Through dedication to historic integrity and the efforts of all involved, it will remain all of those things for many years to come.

Consolidated Rosendale Cement Co. Watch Fob Found

A real neat little metal fob was recently added to the Society’s collection of cement company promotional items. The 2 cm diameter fob’s back is inscribed J CRAIG 35 CONGRESS BOSTON. It is not known at this time if 35 Congress refers to a street address in Boston (there is a Congress Street in Boston) or if possibly refers to a meeting (congress) of workers (miners or coopers). The 50 Church Street address was the location of the CRC Co.’s New York City sales office having moved from it offices at 26 Cortlandt Street around 1910.

The fob could be worn as shown in the photo. The arrow points to where the little medal would be attached to a chain, which would be attached to a button hole in the vest and watch in the vest pocket. See page 9 for more on the photo of a member of St. Peter’s T.A.B. Society.
Society Acquisitions Fund Started  ———

The Society has done a fabulous job bringing back home many of those exciting historic materials you see in the Natural News and in the CHHS Museum exhibits. You can show your support for this endeavor by donating (donations are tax deductible) toward this cause. Funds donated in the past have been used to “retrieve” items that reflect our history from sources as far away as Europe to local yard sales. Write a check to the Society with a note that the donation is to be used for the Acquisition Fund. The Stereo view shown below is one such item that would be an item that the Society would want to purchase. It depicts one of Rosendale’s three story brick buildings on Main Street. There were only two three story brick buildings on Main Street, the building shown in this view, later known as Reed’s, which burned in the 1960s and now is the empty lot west of the barber shop operated by Bill Brooks and the other being the Astoria Hotel. We have received a $100 donation to start the Acquisition Fund.

Another recent addition to the Society’s collection of photographs is the one shown on the left. The photo shows a young Rosendale Irish-American in his Sunday best, proudly displaying his St. Peter’s TAB ribbon. The initials T.A.B., stood for Total Abstinence and Benevolent. It was an Irish Catholic society advocating total abstinence from alcohol.
Whipple, 1890s Era Rosendale Photographer

The stereo view card shown below was identified by a simple rubber handstamp, “Whipple, Photographer”. Until the recent addition of the above photographs to the Society’s collection it was unknown if Whipple the photographer was from Rosendale or just a visitor to the area. There is mention of a F.L. Whipple living and running a dry goods store on Main Street in the Wallkill Valley Railroad Directory published in 1895. With the acquisition of the two portrait photos it is clear that Whipple was a Rosendale Photographer with a photo studio in the Stollo Building. Not known at this time is if F.L. Whipple, the dry goods storekeeper, was also the photographer. The other known Rosendale photographer from this era is J. E. Hunter. One of Hunter’s photos can be dated as it depicts the December 1899 collapse of the Black Smoke Mine.
LeFever’s Falls [lock number 6] was 5 miles from Eddyville. Rosendale [lock 7 just east of the WVRR bridge] was 6 miles, Lawrenceville [locks 8 & 9 near Turco Brothers] was 7 miles, Coles Basin [locks 10 & 11] was 8 miles and the High Falls locks [locks 12-13] were 9 miles from Eddyville. The rates for cement and cement stone were as follows: 

<table>
<thead>
<tr>
<th>Articles</th>
<th>Rate (cents)</th>
<th>Total Rate (cents)</th>
<th>Legal Rate (cents)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydraulic Cement &amp; Flagging Stones, going from tide water</td>
<td>1c—50c—60c—4c</td>
<td>60—1 00—4</td>
<td>60—1 00—4</td>
</tr>
<tr>
<td>Hydraulic Cement, in Stone or manufactured, going toward tide water, for the first five miles</td>
<td>4 cents per ton</td>
<td>50—1 00—4</td>
<td>50—1 00—4</td>
</tr>
<tr>
<td>Hydraulic Cement Stone, going from tide water, on the capacity of the boat, for the first five miles</td>
<td>4 cents per ton</td>
<td>60—1 00—4</td>
<td>60—1 00—4</td>
</tr>
<tr>
<td>Glass Ware, down the canal</td>
<td>75</td>
<td>1 00</td>
<td>75</td>
</tr>
<tr>
<td>Broken Glass, Bituminous Coal and Charcoal</td>
<td>60</td>
<td>1 00</td>
<td>60</td>
</tr>
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Cement being shipped from tidewater (Rondout) was charged less than cement being shipped to Rondout. That of course benefited the canal company as most of all the cement and cement rock was shipped to Rondout. The canal company made a tidy sum on cement shipments. A barrel of cement weighed about 315 lbs, so one ton equaled about 6 1/3 barrels cement. It would cost A.J. Snyder & Sons [located just west of lock number 9 in Lawrenceville] 22 cents per ton (or about 3.5 cents per barrel) to ship from his factory to Eddyville. That 22 cents per ton cost was just the canal company’s tolls. Snyder also had the cost of the purchase, maintenance and operation of the canal boat (he owned several) and also the cost of towing the canal boat from Eddyville (end of canal) to his warehouse on the dock at Rondout.
CENTURY HOUSE HISTORICAL SOCIETY

*EVENTS*

Rosendale Cement Presentation ~ November 10  2-6 pm
at The City Reliquary Museum  370 Metropolitan Ave., Brooklyn, NY

Rosendale Pickle Fest ~ Sunday November 18  10—5 pm
Visit the Society Booth At the Rosendale Community Center

Annual Meeting ~ Sunday December 2  2 pm
with Special Program — John F. Matthews

Historic Images of Rondout
At the Rosendale Community Center Route 32 Rosendale, N.Y.