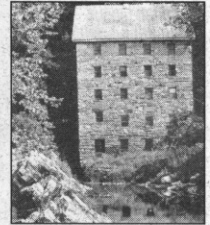


# Beverley (Chapman's) Mill News

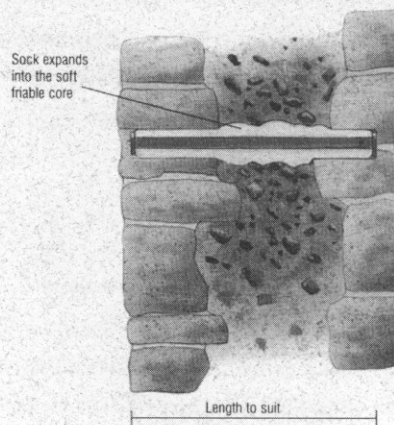


## New Technology For Mill Building

Since the fire of October 22, 1998, Turn The Mill Around Campaign has been dedicated to the stabilization and preservation of the Beverley Mill. This mission is no small feat. Not only does structural engineering design have to effectively solve the stabilization demands, it must also possess an aesthetic character that will enhance the visitor's experience to the site while not overpowering the original building.

The last issue of our newsletter described an engineering design which mimicked the original beam structure framework within the mill. This design utilized tubular steel that was to be attached to the existing iron rods within the walls at each floor level of the mill. A roof structure was part of the design to give the visitor a concept of a more complete building.

Unfortunately, the estimated building cost of this design skyrocketed to over twice the original amount. After much discussion, TTMAC decided to go back to the drawing



**Example of a Stitching Anchor, one type to be used on the Beverley Mill for internal stabilization.** Drawing courtesy of Cintec

board to search for alternative options for structural engineering design. This search has led TTMAC to a company that specializes in structural masonry anchoring systems for historic buildings. The company, Cintec Structural Solutions, uses technology based on an internal anchoring system as opposed to a completely external structural support system.

This international company has tackled difficult preservation projects such as Windsor Castle's Brunswick Tower after the fire of 1992. The tower was so badly damaged

that many experts thought the only solution was to dismantle it. But, the engineers working on the project were able to design a repair solution using Cintec technology. If it's good enough for the Queen, there must be something to it! The National Park Service as well as the Virginia Department of Transportation have successfully used this technology on projects along the C&O Canal and for repairs on the Aldie Bridge, respectively.

The principal behind this technology, which was introduced in Europe, is to provide the structural strength necessary for stabilizing a masonry structure from the inside, using stainless steel rods to support the structure. Small holes are carefully drilled into the masonry areas in need of structural support – such as around the window and door openings, for example. A stainless steel rod covered by a fabric sock is then inserted into the opening. The length of rod varies with the area in need of support. The fabric sock is then filled with a

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*From the Executive Director, Eileen E. Vroom*

## To See What I See

The morning dew covers my shoes as I walk through the grass towards the mill on an August morning. A wet, warm, clammy feeling embraces my toes as the moisture seeps into my shoes. Countless insects buzz around my head on their way to unknown destinations— where do they all come from? My eye always keen to the ground to avoid a close encounter with any reptiles interested in sunning themselves near their massive stone home. I count my blessings as I have not yet encountered one scaly friend (?) of the poisonous kind. But I know my day will come. After all, this is their home.

The sun's rays caress the south wall of the mill in the morning light. The massive stones already hold the heat from the previous day's warming. Cicada's drone their endless song at an almost deafening pitch. Humidity hangs heavy within the gap, making the air seem thick enough to cut with a knife. A large black walnut tree is laden with fruit — far enough away from the fire on that fateful day. The faint sound of running water is a constant din in the background, cascading over rock ledges in an ancient stream as it makes its way toward the Chesapeake Bay. The fractured mill walls, though cracked and

missing certain elements, still hold their place with an overwhelming strength — a power unlike anything today. This massive presence, awe-inspiring after 250 years of occupying this same spot.

I look at this structure through an artist's eye - admiring the graceful lines, the tight geometry and balance, the striations and dancing points of light as they reflect off the crystalline elements within the stone that change when I move just an inch. I try not to think about the technical and subjective reality of stabilization and steel and mortar — it's filed in the back of my mind at this moment.

One beautiful millstone leans up against the mill wall, another miraculous survivor — it's French origin beckoning me to picture its voyage from a rural, rocky home in a distance land, across the great Atlantic to this particular gap in the mountains to grind the wheat and corn of an emerging nation.

Many professionals approach the mill shaking their heads as they contemplate a viable solution for preservation and stabilization. At first, I was daunted by these modern day signs of indecision — but no more. Do they see what I see? For I

Feel the strength and power that lies within these stones. The hands and minds that quarried them, selected them, and with them built this beautiful, yet utilitarian structure are very much present— present within each and every stone.

The mill exemplifies a knowledge that goes back to the ancient world — like a magnificent agrarian cathedral strategically placed and visited by those praising the land and its bounty. My faith rests on the artisans who carefully constructed the mill — so well built it now stands its ground with only gravity as its ally.

I understand the endearing quality of this site. The repeated affections for the mill are voiced practically every day by various individuals, many of whom shed tears at the sight of the mill burning on that fateful day in October of 1998. Many stopped along Rt. 66 to watch 250 years of history go up in smoke in less than 30 minutes. Yet I know that was but another chapter in Beverley Mill's history. It will gain a new strength and emerge to retell its stories and make new ones in the process. Then I hope all who visit will have the opportunity to see what I see.

## Archaeology Update

Turn The Mill Around Campaign has recently received some exciting news. Dr. William Garner of Thunderbird Archaeology of Front Royal has donated his services to perform a Phase II archaeological study of the interior of Beverley Mill. Upon first seeing the mill site, Dr. Garner knew immediately that the archaeological possibilities were enormous. With stabilization measures beginning in the near future, the importance of a study of the interior of the mill is paramount. Though the debris from the fire has been removed from the mill interior, getting through even more layers will be necessary to reach any surviving artifacts that will help tell the story of the mill. This will also provide TTMAC the op-



Teacher, Tara Eggen, screens for artifacts with some of her 6th grade students from Stonewall Middle School.

— Photo by Harry Leach

portunity to learn more about the mill construction by locating the original level of the foundation.

In early May, TTMAC hosted a group of 6<sup>th</sup> grade students from Stonewall Middle School in Manassas to experience archaeological screening. The group of 25 students were accompanied by their teacher Tara Eggen who wanted them to have an experience of local history as well as learn about archaeology. The students also viewed a small exhibit of archaeological artifacts unearthed in previous screenings, which is on display at the mill office. For

TTMAC this was a valuable exercise in developing an education program using archaeology as the basis. The screening of debris was done at the Furr House site, where the miller's house once stood. This is far enough away from the mill as to not be hazardous. This prototype was very successful and generated much interest among the students for both the hands-on aspect and the teamwork approach. Eileen Vroom, Executive Director of TTMAC, visited the class prior to their visit and discussed archaeology, the Beverley Mill site, and brought several examples of artifacts found by volunteers at previous screenings. A permanent, ongoing education program will begin when the mill is stabilized and deemed safe.

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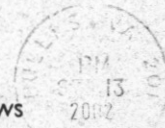
cementitious grout which surrounds the stainless steel rod and fills in the irregular cavities within the stone wall. This anchoring method keeps the rod in place while effectively supporting the wall.

This technology, combined with a minimal amount of structural steel support, and some masonry work, addresses both the engineering requirements for stabilization and an aesthetically pleasing design which allows much of the original structure to be unencumbered by structural steel. TTMAC is presently meeting with Cintec representatives to finalize a phased construction plan, while their engi-

neers design a new set of drawings for stabilization.

TTMAC is committed to finding the most effective preservation solutions to produce the best end results. Granted, this has taken more time than originally anticipated. We want our readers to know that in no way has that diminished our commitment, motivation and goals for stabilization, preservation and public access. We appreciate the patience of those who support our mission as we work towards achieving those goals. We will all benefit in the future from making the right decisions today.





## TURN THE MILL AROUND CAMPAIGN

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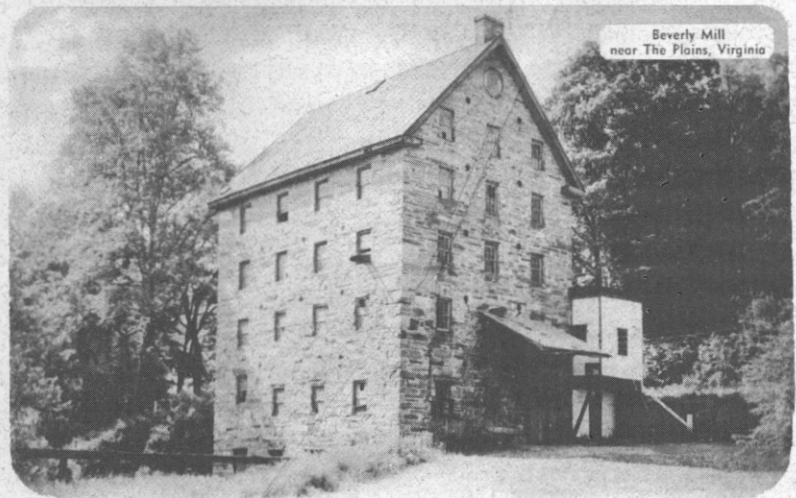
Beverley Veness  
Bull Run Regional Library  
8051 Ashton Ave.  
Manassas, Virginia 20109

Visit our web site at <http://www.fmnbp.org>

### Dates to Remember...

**August 26, 2002**—The 140th Anniversary of the Battle of Thoroughfare Gap, a prelude to the Second Battle of Manassas. Lee and Longstreet are blocked by a small contingent of Pope's army at the gap. Fighting took place in and around the mill and quarry trench. The Confederates broke through to join Jackson.

**September 13**—National Mill Day  
Founded on the birthday of Oliver Evans (1755-1819), an innovator in early manufacturing technology who revolutionized the operation of mills.



Old postcard of Beverley Mill—date unknown  
Published by C.H.Ruth, Washington, DC

## Mill Bags For Sale

Original Beverley Mill cornmeal, flour and chicken mash bags (paper) are available for sale. A variety of sizes are still in stock. Prices range from \$8-\$14. (These are the real thing, removed from the mill when it closed.) Please call the mill office for more information (703) 753-3273.