What's News?

We have been very busy this spring on building restorations. The flat roof on the Mill has been repaired and no longer leaks. The front over-hang roofs on the Mill have also been repaired and reroofed. The 1915 Garage roof has also been repaired. The Post Office building was power washed and scraped, and is now in the process of being repainted. While the power washer was here, he also did the Railroad Car. The car will have some patching done, then it will be primed and painted with its original Delaware & Hudson Railroad colors.

As an added special event, Krinichka, an award winning Belarusian youth folksong and dance ensemble (ages 8 to 22), will be performing at Hanford Mills Museum on June 10 at 7:00 p.m. This group is on a tour of the Northeast United States and contacted the museum, looking for a location to perform. Hanford Mills Museum will be the only concert site in our region. The group is sponsored by CitiHope International of Andes, NY.

In Memoriam - Jane des Grange
by Jane Shepherd

Our recent loss of Board Member Jane des Grange brings a sense of sorrow and real loss to those of us who worked closely with her. Jane was a friend of Hanford Mills Museum and a motivating spirit for several projects. She helped establish the Charlie Howell Fund which is used to preserve and maintain an entire section of the Museum's Archive collection on mills. Jane was an avid donor of 1920's ladies and household items for the collection, and she took very seriously her position as Chairman of the Collections Committee. I will always think of her as my friend and helper and a lady with a great sense of humor. One of my favorite memories of Jane is the day of a Board meeting when a rather able and youthful Board Member arrived and announced that someone with a Corvette had parked in the handicap parking space in the parking lot. Jane gave him that great grin and said, "I believe I qualify for both." The young board member had absolutely no response, which of course Jane loved and so did the rest of the Board. Jane was a grand lady who loved life. We will miss her at Hanford Mills Museum. Jane des Grange died on March 30, 1997 at home in Oneonta, New York.
Speaking of the Forest
or How about the Family Tree

by Jane Shepherd

Have you been working on your family genealogy for a good long while? Or maybe you're a new genealogy seeker and feel overwhelmed by all the names and dates. Can't see the forest for the trees? I remember when I first became real interested in my family tree. I had a great-uncle in Colorado that was going after all the information and even wrote a book. When I opened a dialog with him about writing the next version of his book he informed me that all women were to be dropped from the family tree after one generation and you did not need to following their lines. Hmmm...! Ok! Unc, that was in your day. What about the niece that has two children out of wedlock - she still has the family name and so do the kids, or how about the daughter that keeps her maiden name even after she is married? And hey, Unc, what about the nephew that takes his wife's surname? And what about the adopted children, and those names somebody blotted out of the family Bible? My grandmother wrote the names of her grandparents in her family Bible. "Grandmother McAdam, Grandfather McAdam, Grandmother Ross, Grandfather Ross." Nice, but first names would have really helped. Yes, these are some of the dilemmas you run into when doing your family genealogy. But, good news, it is more fun than hassle and your going to have a terrific time.

I would like to share a few tips for new (and experienced) genealogists. When you find a date or place written in a book, Bible, photo, or newspaper and you enter that information into your charts, set up a system of citation or record keeping. It is always good to know where you got your data in case Cousin Vivian disagrees. Share the information you have with all the aunts, uncles, cousins, and kin that are interested. You will never get done, believe me, and everyone seems to be going down different lines. The more you share the less of your work will be lost to a trunk in the attic.

My favorite tip for genealogists - take a minute and write down those stories you hear. Remember my Colorado Uncle? He wrote every little story he heard and some of them were great. Like the great-aunt that was a lousy housekeeper and one day threw a bunch of hard biscuits into the swill bucket. Later, someone saw a wagon coming across the prairie. Knowing company was on their way, she just got those biscuits right back out of the swill bucket, dusted them off, warmed them up and, you got it, supper! What did someone do for a living? Where did they live? What did they look like? What were their characteristics? Even tell little stories about them. (See the Jane des Grange Story in this Millwork). These are some of the fun things I look for when I do work on my family genealogy. Who wants to be reduced to a set of dates and places on a chart somewhere, when you can be known as a lousy housekeeper?

One last good tip, keep good records. There are a wealth of charts and information sheets to be used and are available through numerous locations. My favorite set is found in

Cont. on page 6
The American Chestnut Story

by the New York State Chapter of the American Chestnut Foundation

Editor's Note: Hanford Mills Museum has eight American Chestnut trees that were planted on the museum site in the 1980s. We hope to protect them as they grow so they can be used to help the American Chestnut Foundation's programs.

The American chestnut was once one of the most important trees in our eastern hardwood forests. It ranged from Maine to Georgia, and west to the prairies of Indiana and Illinois. It grew mixed with other species, often making up 25 percent of the forest. In the Appalachian Mountains, the ridges were often pure chestnut. In early summer, when the trees were covered with their long, creamy flowers, the mountains looked as if their crests were covered with snow. In the virgin forests, where large chestnuts were commonplace, mature trees could be 600 years old, and average 4 to 5 feet in diameter and 80 to 100 feet tall. Many specimens 8 to 10 feet in diameter were recorded, and there were rumors of trees bigger still.

The nuts were acknowledged to be the finest-flavored of all chestnuts. Railroad cars full were shipped to the big cities for the holidays, where street vendors sold them fresh-roasted, and they were essential to the traditional stuffings for roast goose and turkey. Unlike other nut trees, the chestnuts usually produced heavy crops every year, and the nuts were a major cash crop for many families in Appalachia. Wildlife depended extensively on the nuts, too - bear, deer, wild turkey, squirrels (of course) and once, the huge flocks of Passenger Pigeons - all waxed fat for the winter in the chestnut forests.

The tree was also one of the best for timber. It grew straight and tall, often branch-free for 50 feet. Loggers tell of loading entire railroad cars with boards cut from just one tree. Straight-grained, lighter in weight than oak and more easily worked, it was as rot-resistant as redwood. It was used for virtually everything - telegraph poles, railroad ties, heavy construction, shingles, paneling, fine furniture, musical instruments, even pulp and plywood. The chestnut was also the country's major source of tannin for tanning leather.

The American chestnut proved, however, tragically susceptible to the deadly chestnut blight, imported early in the century on Oriental chestnut trees planted in New York City. The blight rampaged through the forests, spreading 20 to 50 miles per year, killing virtually every chestnut in its path. It was many times more destructive than the Dutch elm disease. By 1950, the American chestnut was essentially eliminated as a forest tree. Since the root system is unaffected by the blight, some survive, mostly as shrubs, where giants once stood. There is no significant wild reproduction.

Recent developments in genetics and plant pathology promise new hope that this magnificent tree will again become part of our natural heritage.

To make this promise a reality, a group of prominent scientists established the American Chestnut Foundation (ACF) in 1983, and a group of interested persons incorporated the New York State Chapter (ACFNY) in 1991. Both are non-profit organizations. They have only one goal - to put the American chestnut, king of the Eastern forests, back on its throne.

The ACF advocates a multiple attack on the fungus, encouraging research in biological control and actively breeding trees for disease resistance. Norman Borlaug, Nobel Prize winning plant breeder and ACF Board member, is confident the breeding effort will succeed.

In addition the ACFNY is sponsoring genetic engineering research at SUNY's Syracuse Forestry facility as an alternate research approach. So far the desired gene has been identified and plans developed for insertion into the cell of an American chestnut.

Paralleling the research effort, there is another necessary program to preserve and expand the American chestnut gene pool for future breeding.

Con't. on page 6
Arbor Days: Past and Present

by Mark Watson

Modern travelers entering Nebraska from Wyoming on Interstate 80 are greeted with a non-traditional promotional sign which reads: “The state tree of Nebraska is NOT the telephone pole.” Quite the contrary. Nebraska is fairly well covered with trees today, but it was not always so. In 1872, Sterling Morton, a native of Detroit, Michigan then residing in Nebraska, proposed “that a special day be set aside for the planting of trees, and this holiday, called Arbor Day,” was created.

Morton was Nebraska’s first newspaper editor and he used the power of the press to spread the word about the value of trees. The state, before 1872, was a mostly treeless plain.

Morton explained to his readers the importance of trees as building materials, fuel, and windbreaks to shelter homes and reduce soil erosion. Of course, most of the new settlers in Nebraska missed the shade and beauty of the trees they had known in their past homes.

In his newspaper articles, Morton recommended tree planting to groups and individuals. His enthusiasm helped produce the first “Arbor Day” on April 10, 1872. The State Board of Agriculture sponsored contests to see which individuals and counties would plant the most trees. The National Arbor Foundation claims over one million trees were planted that day.

Soon schools became the biggest supporters of Arbor Day. Some classes planted trees and took care of them for the children’s entire stay at school.

Parades and celebrations marked subsequent years’ observances and Arbor Day became a legal holiday in most states.

In New York, nobody would ever suggest that the State Tree was the telephone pole. Forest covers much of the state’s acreage. Can you guess which tree actually is our state tree? It is probably no surprise that the sugar maple is the state tree. The sugar maple’s importance to New York’s economy and folklore is obvious. True, New York is more heavily forested than Nebraska, but trees here are just as important for shade, building materials, fuel, windbreak and sometimes: syrup!

Arbor Day has been observed in East Meredith and the Hanford Mills area for more than a century. Elizabeth Hanford’s May 8, 1891 diary entry stated that “Carrie went to Arbor day at the schoolhouse.” Four years later, on May 10, 1895, the Delaware County Dairyman, a local newspaper, reported “Arbor Day was appropriately observed by the East Meredith school. Trees were planted, cheers were given and everything went off in fine style.”

Arbor Day is celebrated in New York on the last Friday of April. On Saturday, April 26 Hanford Mills Museum observed Arbor Day’s 125th anniversary and the Museum’s Opening Day. As he has done for many years, South Worcester’s Henry Kernan (internationally known forester) donated 250 white spruce seedlings for our visitors to take home and plant. The trees were given away on a first come-first served basis.

To learn more about Arbor Day, visit www.arborday.org on the internet. It was the source of much of the information in this article.
Meet Worker Art Hamilton - “A Nice Fellow”

by Caroline de Marrais

In the 1980s, Hanford Mills Museum staff taped many of East Meredith’s older residents to record their memories of the village and the Mill. Many mill workers were remembered in the audio tapes. One worker, Arthur Hamilton, was summed up by one informant as “a Nice Fellow.” In today’s language, “nice” has taken on a somewhat negative connotation. People say “nice” when they do not want to say anything bad about something. But Art would probably be proud that he was remembered in this way.

East Meredith and the surrounding area were settled in waves. The first settlers were of English ancestry, mostly from Connecticut. Art’s family came in the second wave - mostly families from Ireland. Art’s grandfather, James Hamilton, was born in Ardmillan in Ireland. While one brother emigrated to Jamaica, James came to the United States around the year 1825. Here he married Marie Hill of New Jersey. Together they had five children, who all died before they reached the age of four. Three days after their last child died in 1834, James’ wife also died. At this point, there are no records to tell us what happened.

James waited three years and then married Nancy Harper in New York City. Together they moved to a farm at the head of Mine Brook just west of East Meredith. There they had six children. Their second child and first son was James Henry Hamilton, Art’s father.

James Henry and his brother, John Harper, fought in the Civil War in the 18th New York Cavalry. They returned safely, and James Henry married a local girl, Jeannette McAuslan. They settled on a farm just east of East Meredith. James Henry also ran a small sawmill that was located on his farm.


Arthur James, or Art as everyone knew him, grew up on his father’s farm. It was there he learn skills in farming, animal husbandry and lumber sawing that he would use later as an adult. Living only about one and a half miles from Hanford Mills, Art knew the Hanford brothers. Horace was only four years older than Art. The Hanfords were to play an important part in Art’s life.

On November 28, 1899, when Art was 25, he married Helen Gibson - a local girl also with Irish ancestry. Elizabeth Hanford noted the wedding in her diary, writing that they were “married at half past Seven. Over a hundred there. They took a trip to New York [City].” Art’s twin sister, Mary, had already married Horace Hanford in December of 1897, and Art’s brother, Willis, would marry Maude Hanford (a distant cousin of Horace’s) in 1901. Art and Helen returned from their trip, and moved into part of the home of William Flower in the center of town. By 1907, Art was ready to build his wife their own home. They purchased property across the street from the Mill (where Art was working) and first put up a small barn. Art and Helen lived there that summer as the house was built. Art put a lot of work into their home, roofing it with slate shingles and decorating the porch with two types of spindles and three types of brackets. He probably did all the fancy architectural decorations himself in the mill. Hanford Mills Museum still has original extras in its collection. They were active in the local community, and Art even acted in plays.

For the first seven years of married life, Art tried the occupation of butcher. John Hanford (Horace’s brother) had just bought a farm and was giving up his business at the village meat market. After working a few months in the mill, Art took over the job. The

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during the last half of its
local tradition calls him one of
Ilanford time books also do not
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more.

By 1907, he had given up the
meat market and gone back to
work at Hanford Mills. For most
of his time working at the mill,
Art made a salary above the
average worker. The 1910
National census called him a
day laborer, while the 1915
state census called him a
sawmill worker and the 1925
census called him a carpenter.
Hanford time books also do not
tell us exactly what Art did, but
local tradition calls him one of
the mill’s sawyers. This would
account for his higher pay. An
accident report from 1936 also
called him the mill’s sawyer.

Since Art worked for the mill
during the last half of its his-
tory, he is better documented
than most workers, since we
have two official injury reports
about him. On October 18,
1921, Art, whose job was listed
as operating saws, injured his
hand. The injury form reported
that “while ripping a short
plank, same was caught by saw
and thrown against operator’s
hand, dislocating carpal bones
and straining ligaments.” Art
received one and a half weeks of
compensation pay. The next
report was dated November 5,
1936, when he was 62. That
form reported that Art “lifting on
a log on sawmill carriage and
strain from lifting to cause an
injury to left eye impairing the
vision of the left eye and also
causing soreness of eye.” This
claim was disallowed since Art
did not originally tell the doctor
he had been working in the mill
when his eye problem started.
No one can say now what
caus
ed Art’s eye problems, but
he decided to retire. He died
five years later in 1941 at the
age of 67.

Art Hamilton had many
family connections to the
cowboy or two, a truck driver, a
rocket scientist, a grocer,
chicken farmer, a college
professor, a banker, some great
cooks, a soldier in the Revolu-
tion, Civil War (North & South),
World War I, World War II,
Vietnam, and the Gulf War, a
nurse or two, some great car-
penters, and one state senator.

Family Tree - cont. from page 2
Unpuzzling Your Past: A Basic
Guide to Genealogy (available
this summer in the Museum
gift shop). This book easily
teaches you how and where to
collect family genealogy infor-
mation and how to record it.
You just make copies of all the
charts and you have a great
system. This volume also
discusses the use of computers,
gives a list of libraries and
archives for each state, and
instructs you on understanding
some of the things you will find.

So, I guess we went a ways to
get a tree story to go along with
this issue, but it’s been fun. If
you are not ready to do your
family genealogy yet, just keep
saving all that stuff in a shoe
box somewhere so when you are
ready it will be there. Be sure
to save the good stuff. My family
good stuff? Well, there was a
couple Colorado ranchers, a

Hanfords and other East
Meredith people. Though he
never had children of his own,
he is remembered fondly by
many people, still living today.
Art Hamilton was a “nice fellow”
to know, and he left his mark
on Hanford Mills and East
Meredith.

with the research-developed
blight-resistant tree. The New
York State Chapter has estab-
lished 17 “seed orchards” on
dedicated land for that purpose.
And this program is expanding
each year as members plant
more trees.

If you would like more infor-
mation about the American
Chestnut Foundation, please
write New York State Chapter,
c/o Buffalo Museum of Science,
1020 Humboldt Parkway, Buf-
falo, NY 14211. They will be
glad to send you information
about the organization and how
to become a member.
Playing the Squirrel Game in East Meredith's Family Forest

by Caroline de Marrais

I'm sure you're saying "What in the world is this story about?" Of course, you have heard of a family tree. Everyone has one. Many have it written down on paper, a chart of your ancestors branching out above your name to form the shape of a tree. If one person has a family tree, then you could say that many people living in a close-knit community would have a family forest. In today's society, as people move across the country for better jobs or other opportunities, your family tree isn't planted very close to your neighbors. One hundred years ago, though, East Meredith family trees formed a densely packed and intertwined family forest.

In Hanford Mills Museum's book East Meredith Memories, local resident Larry MacClintock explained this family forest:

There was a time when there wasn't only three families that weren't related. ... That was just about the way it was when I was little, too. You were related this way or this way ... And there was a reason for that. I mean people didn't travel. It wasn't incest or anything, but it didn't have to be. There was enough people. Like, for instance my father's aunt, was married to Marshall Roberts. My grandfather, was a second cousin to Marshall Roberts. My mother who was a Roberts married my father who was MacClintock. See what I mean? This went two, three generations around and some way you got tied across.

East Meredith was a close-knit, active community like so many rural northeastern American villages. People worked and lived together in their town. They were not isolated from the world, but family and community were more important than outsiders. At some point in your family's background, your family tree was also part of a similar family forest somewhere in North America or another continent.

"Okay," you say, "then what is this 'squirrel game' about?" If you watch television, you may have seen the commercial where a network brags about all the movies it owns. Two characters talk about a game they can play by picking two actors and relating them together through the movies the network owns. Well, the same can be done in East Meredith's family forest. If you pick almost any two people who lived in East Meredith from about 1840 to 1940, you can relate them, no matter how distantly, through ancestors and marriages. To carry the word picture of the family forest further, it is as if a squirrel can start on the branch of one family tree and never touch the ground until he gets to the branch of another family tree. The squirrel may have to travel very high up in the tree before he can find a place to cross, but eventually he will make the connections and arrive at the last branch without touching the ground.

Take Larry MacClintock (mentioned above), for example, and the mill owner, D.J. Hanford. Larry MacClintock's mother was Maud Roberts, and Maud's father was Joe Roberts whose mother was Adelia Brownell. Adelia Brownell's sister was Elizabeth Brownell who married Levi Hanford. Levi Hanford's brother was John Hanford whose son was D.J. Hanford. The connection is made and the squirrel never touched the ground. What is the name for the relationship between Larry and D.J.? We don't know. It's so distant it is difficult to determine - they appear to be some sort of cousin-in-laws. Definitely not a close relationship. Here is another, more complicated example - Elma Hetherington Mitchell, the author of the three volume history of East Meredith, can be connected to D.J. Hanford at least five different ways: 1. Elma's mother was Mary Elizabeth Hanford, daughter of Charles Hanford who was son of Levi Hanford. Levi Hanford's brother was John Hanford, whose son was D.J. Hanford (and thus, Elma and Larry are also connected since Larry can also be connected to D.J.); 2. Elma's mother Mary Elizabeth Hanford is also the daughter of Caroline Flower, whose sister Ann Elizabeth Flower married D.J. Hanford; 3. Elma's father was William Hetherington.

Cont. on page 8
wasn't incest.

Of course, since this is Hanford Mills, we tend to focus on the Hanfords, but the squirrel game does not always have to be played with a Hanford. For example, we can connect Andrew Brown, a local furniture maker, to Joe Roberts, a successful farmer (and then, of course, to Larry MacClintock — as you saw earlier). Andrew Brown's mother, Hannah Houghtaling, married Henry Dibble III as her second husband. One of Henry's daughters from his first marriage was Lucy Dibble. Lucy Dibble's daughter was Adelia Brownell, who married Merritt Roberts. Their son was Joe Roberts and the connection is made. Incidentally, another daughter from Henry Dibble III's first marriage, Sally Ann Dibble, married her stepbrother, Andrew Brown. You may not remember many of these names, but if you happen to keep old issues of the Millwork, you will find articles that mention almost every one of these people.

As you play the squirrel game, it begins to sound like life in East Meredith was the "good old days." With such a big family, everyone was happy and safe, and your neighbor was the uncle you could always count on, but don't get nostalgic. Sometimes there were problems in this big happy family, and neighbor squabbled with neighbor just like today. Larry MacClintock put it this way:

*It gets to be somewhere in the past there was conflicts and things you know, and hard feelings over something, between brothers or grandfathers and uncles or you don't know what. And they just kind of say "Well, I'm not any relation to them." You know, four or five generations [cancels everything out] ... You just go back four or five*

*Con't. on page 9*

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This series of connected family trees illustrates the relationships mentioned in this article.

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Forest - con't. from page 7
whose sister, Margaret Hetherington, married Merritt Barnes. Merritt was the only child of Elizabeth Hanford, daughter of D.J. Hanford; 4. Elma's father William Hetherington's brother James, married Jennie M. Williamson. Jennie was the sister of Elizabeth Williamson who married John Hanford, son of D.J. Hanford; and 5. Elma's husband, Thomas Mitchell's father was John Mitchell, and his father was Hugh Mitchell, and his father was David Mitchell. David's sister was Nancy Ann Mitchell and her daughter was Elizabeth Williamson. Elizabeth married John Hanford, son of D.J. Hanford. With this many connections, you can even begin to see connections among the other connections. Many of these relationships are very distant or through a number of marriages, so as Larry said, it
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Henry Dibble III = Hannah Houghtaling

Lucy Dibble

Sally Ann Dibble === Andrew Brown

John Hanford

Levi Hanford = Elizabeth Brownell

D.J. Hanford = Ann Elizabeth Flower

John Hanford = Elizabeth Williamson

Mary Elizabeth Hanford = William Hetherington

Elma Hetherington = Thomas Mitchell

= or --- = --- means "married"       --- means "siblings"       || means "son or daughter"
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John Hanford

Levi Hanford = Elizabeth Brownell

D.J. Hanford = Ann Elizabeth Flower

John Hanford = Elizabeth Williamson

Mary Elizabeth Hanford = William Hetherington

Elma Hetherington = Thomas Mitchell
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Forest - can't. from page 8

generations, and you just can't
hardly get away from it.

People in East Meredith
probably considered these
relationships both a curse and a
comfort. Everybody knew your
business (or thought they knew
it). They also knew all your bad
points and the stupid things you
had done. Sometimes there
were fights (or at least argu-
ments) that lasted generations.
There were also times, though,
when you were in trouble and
you had a place to go and lots of
people to help. East Meredith
was a typical rural 19th century
community. At times it was a
big family living in one village,
and at other times it was a
village of different families. It
depended on the circumstances.

There was always a trickle of
people moving into East
Meredith, as well. A few be-
came an active part of the
community without being part
of the East Meredith family

forest. More became a part of
the forest, as Larry explains
here:

There's my wife, her family is
mostly from Germany ... And
yet my children have got the
same ancestry I have, only
they've got that, too. But you
get this influx all the time.
Families come in, you marry
into these families, and
they're tied up to everybody.

In the end, though, East
Meredith's family forest is
thinning as trees are uprooted
and moved elsewhere. As the
world changed and speeded up,
it pulled East Meredith with it.
It became harder to make a
living farming, and job opportu-
nities opened up elsewhere.
Larry MacClintock summed it
up this way:

[The jobs] just aren't there
anymore. I'd say the Second
World War probably was the
dominating factor. That's
what I'd say, ... because life
was at an entirely different
pace at that point.

Today, if you play the squirrel

game with the present resi-
dents of East Meredith, some-
times the squirrel will have to
take to the ground. The family
forest is thinner, but not com-
pletely gone.

Hanford Mills Museum is
dedicated to preserving the
records of these family trees.
The squirrel game is a fun way
to learn about the people of East
Meredith along with their
family and community relation-
ships. What is more important,
the family histories and gene-
alogies preserved at Hanford
Mills Museum will help bring
the people of East Meredith to
to life, and will provide a tool for
visiting genealogical research-
ers. If your family lives or once
lived in East Meredith or the
surrounding area, we would be
interested in receiving a copy of
your family's genealogy to put
on file for other researchers.
Help us repopulate East
Meredith's family forest at least

on paper.

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Hanford Mills Museum's
Heritage Craftsmen
& Spring Planting
Weekend

Watch Draft Horse
Teams Plow & Plant
our Field!

Free
Wagon
Rides!

June 7 & 8, 1997
10 am to 5 pm

Traditional Crafts Demonstrated and Sold!

Hanford Mills Museum
County Routes 10 & 12, East Meredith, NY 13757
(607) 278-5744 or 1-800-295-4992
The Quern
By Robert Grassi

Recently, we’ve completed the construction of a quern. It will be used in the Mill as part of our everyday interpretation, as well as for special programs that include our school groups. It occurred to me that many of you may not know what a quern is or how it is used. I decided to write this to give you some background into the subject, and to fill everyone in on our most recent addition to the Gristmill.

A quern is a small pair of millstones, typically hand powered, used to grind grains into flour or meal. The history of the quern and its use is quite interesting. Its origins date back to about the eighth century B.C. The first examples were found in the Lake Van region of eastern Anatolia. The quern’s two millstones are horizontally set. The top stone turns and the bottom stone is stationary. As the top stone is rotated, whole grain is fed into the eye in the center of the top millstone. The grain gets worked between the two stones, and is ground, flowing out the edges as the finished flour or meal. A finished product of consistent quality was achieved through a combination of three factors: the speed (rpm or rotations per minute) of the runner or top stone, the feed rate of the grain into the eye, and the distance between the runner and the bedstone (bottom stone). Most querns range in diameter from 12 to 18 inches, but they can be found as large as 24 inches or as small as 10 inches. The larger the stones, the greater the output per hour, but the more difficult they are to operate by hand. Querns were quickly adopted to domestic use, replacing the saddle stones (rubbing grain between two stones) in many households. But because their output was limited, querns were not preferred for production milling. This is where the hourglass mill found its place in early industrialized milling.

The hourglass mill, having a conical shaped bedstone and an hourglass shaped runner, was first developed about the second century B.C. by the ancient Greeks and adopted by the Romans. In fact, many were unearthed from the ruins of more than twenty public bakeries in Pompeii preserved by the eruption of Mount Vesuvius in A.D. 79. Power for these mills utilized slave or animal labor. They proved to be rapid grinders (some were three times more productive than querns), but they were not without their shortcomings. Aside from their size and weight, it was extremely difficult to maintain accurate spacing between the two stones and the feed rate could not be regulated easily. As you might imagine, maintaining a quality finished product was nearly impossible. Despite all its faults, hourglass mills did remain in use by the Greeks and Romans well into the second century A.D.

The further development and spread of the quern came about through the military. The necessity of feeding large armies on the march and fleets at sea has always been an issue. They did not carry a supply of perishable flour, but carried whole grain (which did not spoil as fast) and ground it to meet their daily needs. The size and weight of the hourglass mill would have been burdensome, so the quern was adopted, being smaller, far lighter, and a quality grinder. Around the
second century B.C., the Roman army was equipped with querns in the ratio of one quern to every squad of five to ten men. Even into the seventeenth century, querns were in use feeding armies on the move, though many were driven by horses at this point, and were not human powered.

Around the second century A.D., the water mill had all but superseded the hourglass mill for industrialized milling. The water mills used the same principles as the quern. Since they were water powered and utilized much larger millstones in upwards of 4 to 6 feet in diameter, production was naturally increased dramatically. The growth of industrialized milling was slow and confined primarily to more urban areas. This naturally left a void in rural areas that allowed the use of the quern to exist into modern times at a domestic level. Early settlers to this country carried their querns with them. Many showed up in household inventories until the middle of the eighteenth century. Lucas DeWitt, one of the early settlers of DeWittsburgh (now Oak Hill in Greene County, New York), owned a portable gristmill (a quern) in the 1770s. He allegedly hid it in a hollow log when the settlement was abandoned because of the threat of Indian raids during the Revolutionary War. He did not return to find it again until 1782. In America, as community milling grew, domestic milling declined, but the use of the quern persisted well into this century in remote regions of our southern Appalachians.

Hanford Mills Museum's quern uses 12 inch diameter granite millstones we purchased from the Meadows Mill Company in North Carolina. They are the last millstone mill business still in operation in the United States. We constructed the frame out of our own sawn hardwoods. I designed it not only to be hand operated, but we can easily belt it up to a flat belt pulley and use an alternate power source. Mark Watson, our Director of Programs and Interpretation, has recently initiated a program for kids entitled "Fun with Small Machines." Kids use our dog/sheep treadmill to power a corn sheller and ice cream maker. Our quern could easily be powered by this means. Historically, the Hanfords and the Pizzas never owned or operated a quern, but D.J. Hanford did purchase a 30 inch portable millstone mill which was used commercially for 29 years. A quern is an excellent working example of grinding with millstones. Most of the time, the quern will remain in our Gristmill, along side our hand powered steel burr mill, the corn sheller and fanning mill, to demonstrate millstone milling for our school programs as well as our regular visitors.

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1996 Donations

Hanford Mills Museum would like to thank the following people for their generous donations to the museum's artifact and archive collections in 1996:

- Don Chambers - Corn Planter
- Oscar Cleaver - Hand Tools
- Jane des Grange - Mill Postcards
- Marvin & Kay Glass - Butchering Winch
- Frederick Grantier, Sr. - Feed Sign
- John Kacere - Acetylene Gas Generator
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- Grace Kent - Egg Beater
- Robert & Charles Kibler - Boxcar Heater
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- Eric Olsen - Railroad Photographs
- Anita Pizza - Pizza Bros.
- Ephemera
- Walter Rich - Railroad Boxcar
- Alyce Roberts - Hanford Newspaper Clipping
- William Siegrist - Wagon Parts
- Paul Stillman - Tinsmith Patterns

As you can see, Hanford Mills Museum collects items in a number of categories including industrial, agricultural, domestic, etc. While we can't put every item in our collection on exhibit, Hanford Mills Museum preserves each of its collections artifacts for future research, exhibits, interpretation and use.
Old Barn
By Marvin Zachow

Way out on a back road
Up on a hill
There stands an old barn
And I know it stands there still.

They came & they cut the timber
Squared them strong and true
Then with the sweat on their brow
They drove the pegs on through.

You came to love the old barn
You came to work the land
Through the toil of the long day
Working hand in hand.

Oh my part in this tale
Its short but it sweet
Memories are forever
And forever they will keep.

The winters oh they come
And the winters oh they go
Warm rain soothe
While the cold winds blow.

Dedicated to Fritz and
Mildred Schidzick and every old
barn out there.

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MILLWORK is published by Hanford Mills Museum four times a year and distributed free to members. It is edited by curator, Caroline de Marrais.