

PO Box 265 Troy PA 16947 / 231 Gate #2 Lane, Alparon Park, Troy PA 570-297-3410 https://theheritagevillage.org/pa-heritage-festival contact us: heritagevillage231@gmail.com

BCHA Party Line Volume 13 Issue 8 August 2023

The museum is now open for the season, Tuesdays and Saturdays 11AM-3PM and by appointment.

Pennsylvania Heritage Festival

September 16 & 17, 2023 Free Admission

Join us for a day of family fun, Tours of the museum and Heritage Village, living history demonstrations, food, music, Route 6 Maker's Market, antique tractors and vehicles, Civil War Encampment, Hands-on children's activities, Puppet Show. Rich Gulyas, will present a program on early agriculture tools and their use each day.



Welcome to Intern Kate Montgomery, a senior at Mansfield University, majoring in history with a minor in creative writing

I was born and raised in Towanda, Pennsylvania. The Heritage Village and Farm Museum focuses largely on history in Bradford County and the surrounding area. This was a big reason for my choice to intern here. I believe

that my internship will teach me a lot about local history, and it will give me the tools necessary to move into museum work in my future career. While interning here at the museum, I plan to help with exhibits, the Pennsylvania Heritage Festival, and with social media. I hope I can bring some level of expertise with social media to the museum so we can work together to utilize the resource and help grow awareness of the museum and the important work being done here. I am looking forward to working here this semester!



Ken Ely, of 'Good Neighbor Fences' will demonstrate his dry stone wall fence construction at the

Pennsylvania Heritage Festival

on Saturday and offer a free Seminar, Sunday 11AM for folks interested in learning this skill. To register for the seminar via e-mail- heritagevillage231@gmail.com







August has been a most busy month at the museum: the collections team is finishing up cataloguing many items from an Estate; Community Service folks have been cleaning; the Heritage Garden Club has the gardens in ship shape; The Inn sponsored a tea; the windmill was erected, the wooden silo project is underway, tree removal; Social Media and web site progress; research on area silos; preparation for the Nov 4 yard sale at the fairgrounds and Heritage Festival preparations.







The Windmill donated by Red Run Rod & Gun Club, restored by museum volunteers. It required 5 new blades made by Fallbrook Fabrication, These came 'flat' and needed a curve added and the metal ring to which the blades are attached needed straightened. In both case Board member and volunteer Ralph Knapp knew how to use two artifacts to complete the jobs.

Walt Wittie has restored and donated a pump. A plastic barrel is buried beneath the windmill, the goal is for the windmill to actually pump water which will be recycled.

A special thank you to Mansfield Crane for their assistance in erecting the Windmill.

Daylan Pepper Construction the foundation work, Financial donation from William Vickery in memory of







Volunteers involved: Ralph Knapp, Ralph Wilston, Dale Palmer, Dan Wagner, Walt Wittie and Debbie Lutz.

Split rail fence around base.

Come, sit below the windmill and 'listen' to history, the rhythmic noise from the blade rotation

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The Wooden Silo project is underway, The foundation and needed metal support frame by Dylan Pepper Construction are in place. The wood has arrived at the museum, each needs special attention, cleaning & cutting off the bad ends.











When complete, visitors to the museum will walk through a small silo room, through the silo and out the other side to continue to the Heritage Village.

Inside will tell the history of silos of the area.





Sadly we had to take down another large tree, and another pine tree which was dying, a third tree had the dead wood removed.
Work was done by Summer Mountain Tree Service. Who also cleaned up all of the small limbs, twigs and leaves.

Eileen Deutschle, Marie Seymour and Johann Dickerson have spruced up the Inn's front flower bed.







In the 18th century, the Great Plains were considered unfit for cultivation. The area was termed the "Great American Desert." Droughts would follow rainy spells and the sun and wind would dry up surface moisture.

On the Plains, early settlers could barely haul enough water for personal needs, let alone grow crops or water livestock. The majority of the water flowed deep underground, often more than 300 feet below the earth's surface.

European windmills were impractical on the American Plains.
They were large, expensive, and required constant
maintenance as their cloth sails had to be furled by hand.

In 1854, Daniel Halladay developed the American-type windmill. It was smaller, less expensive and could be shipped and built easily. Its sails were held into the wind by a weight, which would rise slowing to reduce the area of the sails when the wind was too fast. Traditional cloth covered sails were soon replaced with smaller wooden blades.



These new windmills were ideal for settlers on the plains. They could pump water from great depths at a steady rate. They could shift into the prevailing winds and functioned well in fast and slow winds. And to top it off, they required little maintenance compared to European windmills.

Self-governing water pump windmills soon became a staple on the plains. Homesteaders, farmers, and ranchers were no longer dependent on natural water as they could drill wells and pump water. Windmills were often among a homesteader's most prized possessions. The water pumped by windmills was used to cook, bathe, drink, water crops and animals, wash clothes, and more. These mills were simple, well-constructed, and dependable.

Railroads were another important customer. Steam locomotives had to be watered at regular intervals. On the first transcontinental railroad, windmills were placed about every twenty miles to pump water for the trains.

Knowing windmills could be counted on for water helped speed up western migration. Ranchers could build up herds, farmers planted more, and railroads could pump water into tanks along their routes. The availability of water allowed the Great Plains to become the nation's breadbasket.

Windmill Innovations- By the 1870's and 1880's, there were hundreds of companies manufacturing windmills. Most of these companies were located on the eastern edge of the Great Plains or in the Midwest.

Wooden solid-wheel windmills were widely produced in the mid- to late-19th century. They have a rigid wooden wheel that adjusts the angle of the entire windmill head to control its speed. In slow winds, the wheel points into the wind for maximum efficiency. In high winds, the wheel moves toward the vane to minimize surface area and prevent damage.

By the 1880s, vaneless windmills were growing in popularity across the central Great Plains. These windmills had hinged sections that could pivot in and out of the wind individually. This allowed them to regulate the speed of the mills as wind speeds changed. Because they had no vanes or tails to direct them into the wind, their wheel operated downwind.

The first successful all-metal windmill was marketed in 1876, but metal windmills were not common until the 1890s. Metal windmills had curved blades allowing them to capture more wind than flat wooden blades. Steel mill designs often used open back-gears instead of a direct-stroke mechanism. These innovations allowed the metal mills to out-pump many wooden mills.

Direct-stroke mills pumped water every wheel revolution.

Back-geared mills needed around three revolutions per pumping cycle, but run better in lighter winds. The wheel on a back-geared spins quickly, while a direct-stroke mill must turn slowly to build up the force to pump water.

Self-oiling mills became popular in the 1920's.

These windmills had an enclosed gearbox with an oil-bath that would lubricate the moving parts of the mill as the moved.

This meant maintenance on these mills was minimal. They only required cleaning and new oil about once a year. As companies began creating self-oiling mills, they often discontinued the older steel models.

Over time, windmills became visual icons in the Great Plains.

On the flat plains, tall windmills were often the most obvious signs of civilization. Many people growing up on the plains have fond memories of windmills from cool drinks after working in the field to learning how to swim in livestock tanks.

Decline of Windmill Manufacturing The business of windmills faltered following World War I. Electricity and gasoline became cheaper while agricultural commodity prices decreased. People could not buy new windmills and they had cheaper alternatives.

The situation worsened for windmill manufacturers with general economic depression during the 1930s.

The 1935 Rural Electrification Act enabled more farms to have electricity. They could now use electricity to operate electricity-power pumps. Decreasing demand for windmills almost eliminated the windmill market.

By the 1960's, most windmills were sold to developing nations around the world or to three specific cattle ranching regions of the Plains. These areas were the sandhills of western Nebraska, the panhandle of Oklahoma and Texas, and southwestern Texas.

In these remote areas, stringing electric lines for stock tanks was inefficient.

When energy prices spiked in the 1970s, people became interested in windmills again. There were only three remaining windmill manufacturers at that time: Aermotor, Baker, and Dempster. Each of these companies went from producing a couple hundred windmills per year to several thousand.

In the 1980's, significant research went into wind power becoming a commercial source of electricity. Wind turbines became the new face of wind energy leaving water-pumping windmills to a niche market.

Today, water pumping windmills continue to be used on rural ranches and small-scale farms.

If you are interested in learning about one company who produced windmills, check out <u>A History of Dempster Windmills</u>.

<u>Windmills on the American Plains (U.S. National Park Service)</u>

(nps.gov)

Pennsylvania Heritage Festival

2023 Financial Sponsors

Bradford County Room Tax Grant/ Tourist Promotion
Penn-Troy Manufacturing, Mountain Lake Electric
Chemung Canal Trust, Troy Lions Club
Troy Chamber of Commerce, UGI Utilities
Grange Mutual Insurance, BCHA Board Members

The museum's web site (theheritagevillage.org)

Now has on its drop down menu a button to view Jim's 'Uncovering PA' review of the museum.

Under the Village News tab you will find upcoming events and newsletters..

Check out our Facebook page as well for Pennsylvania Heritage Festival highlights

Facebook.com/theHertiageVillage

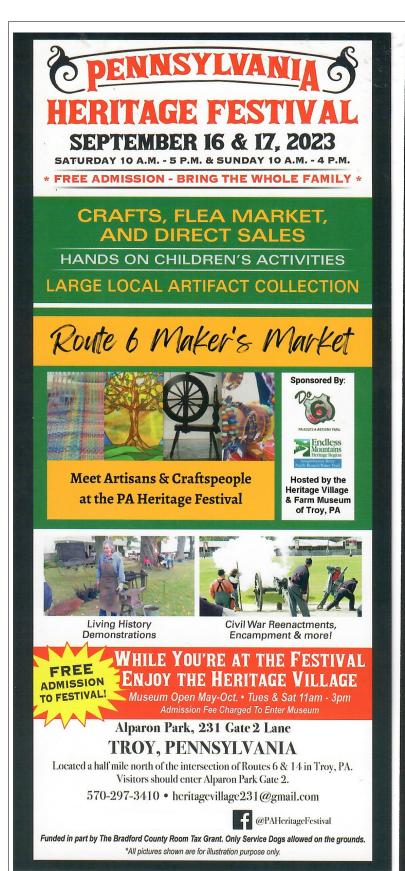


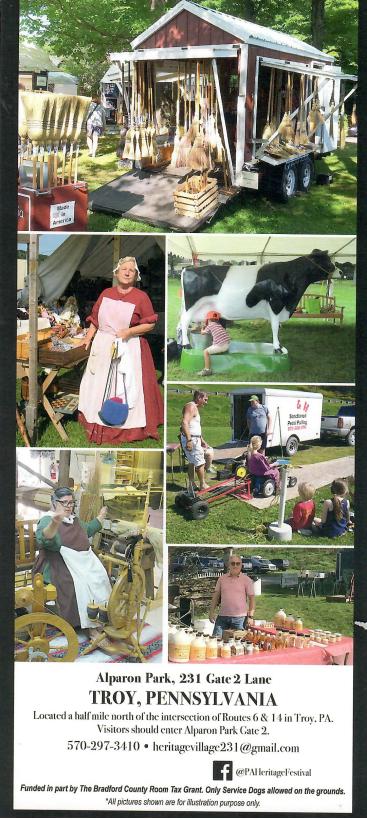
The public is invited to the next
BCHA Board meeting
Wednesday October 18, 1PM at the Museum
As in recent years the Annual meeting will be
conducted via US Postal mail.

2023 BCHA Board of Directors

President– Karen Tworsky Vice President– Helen Mickley
Treasurer– Marie Seymour Secretary– Barbara Barrett
Deb Lutz, , Walt Wittie, Dale Palmer, Sue Conner. Val
Baker, Ralph & Priscilla Knapp, Mike Kelly, Terren Smith,
Casey Smith , Roberta Wood

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Volunteers, Demonstrators, Maker's Market, Direct Sales, Flea Market Vendors, Non-Profits promoting their mission,

For more information contact Barbara Barrett bbarrett362@comcast.net 309 W Keller St. Lock Haven PA 17745

Upcoming Events



Tuesday Trivia at the Museum

October 3, 2023 – April 30, 2024 6PM

Cost \$5 a person, 50% Museum 50% Winning Team
Teams up to 6 players, no team! come anyway,
join a team in need of a player.

Food Booth at Miller's Maze

931 Sopertown Rd.
Columbia Cross Roads, Pa
Weekend of Oct 21st





Garage Sale— Alparon Park
Saturday Nov 4 8AM-1PM
Wide variety of everyday items
and a selection of estate items.

Christmas in the Village

Sunday December 3th 11AM—3PM Free Admission Holiday Bake Sale, Unique gifts, craft vendors, Santa & Mrs. Clause. holiday music, Story time with Mrs. Clause,

Free refreshments, Free Kids Crafts, Free Admission

