



Chester County Ledger

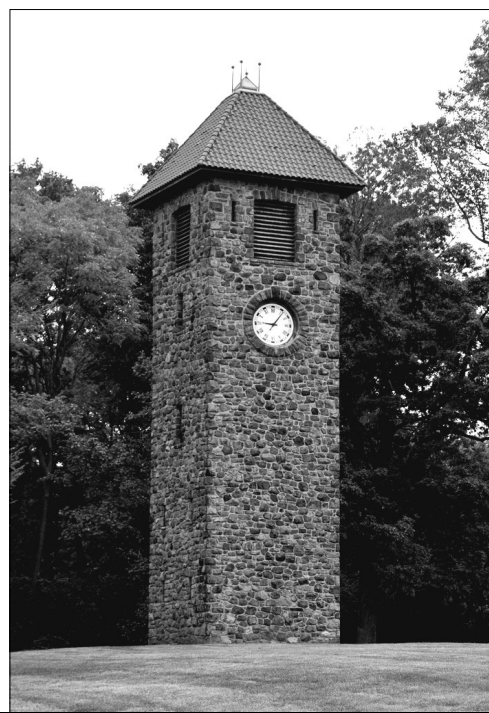
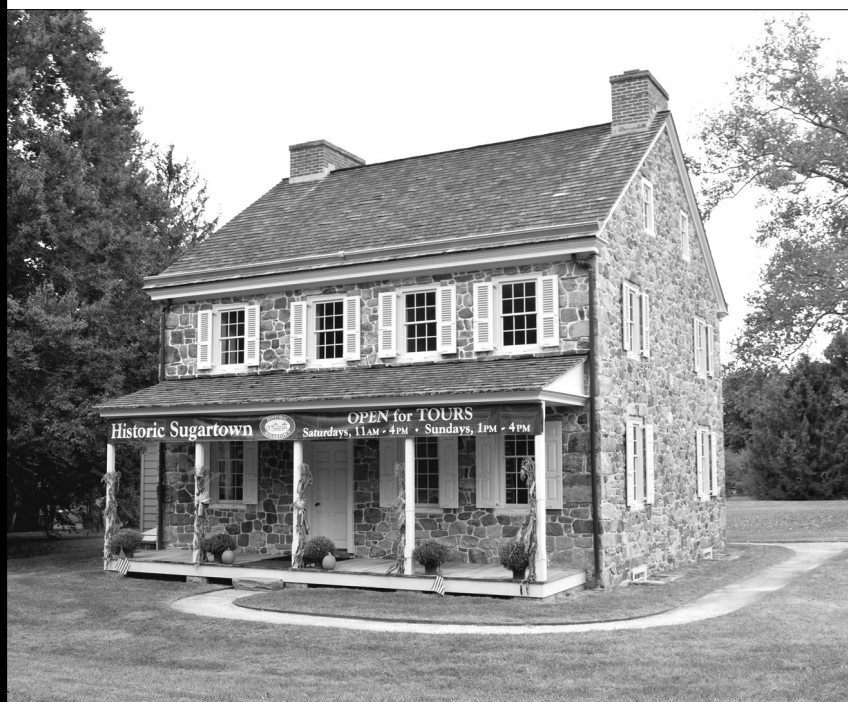
The Newsletter of the Chester County Historic Preservation Network

Volume 21 Number 1

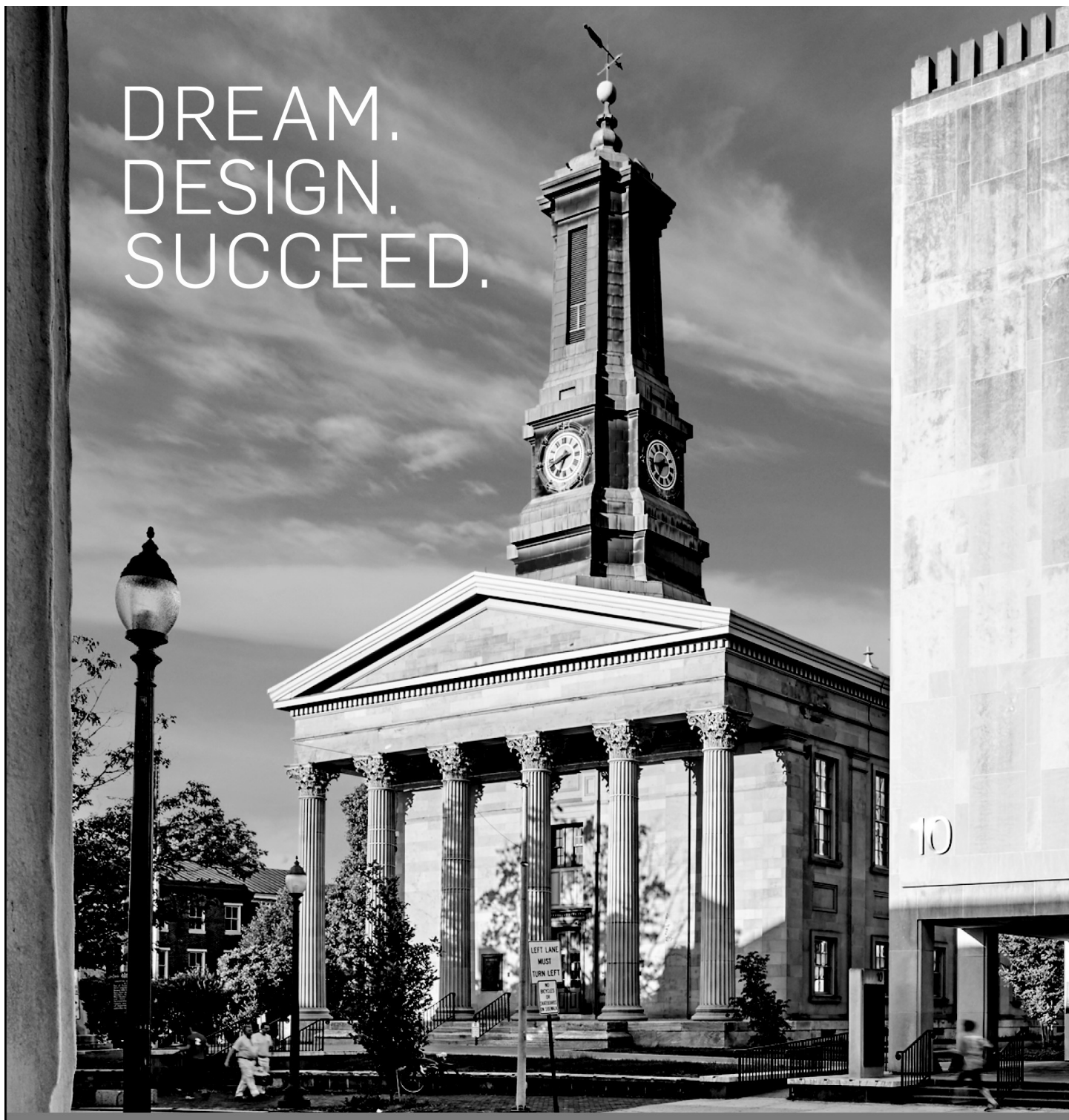
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Architecture in Chester County Issue



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THE PRESIDENT'S LETTER



James B. Garrison

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I must begin my first President's Column with a deep debt of gratitude to my predecessor, John Miller, for all of his hard work with the Network. During his tenure it became stronger as an organization with a firm foundation for future growth. Having spent most of my life in Pennsylvania, and the past thirty years in Chester County, I have had the opportunity to see both the positive and negative impacts of growth and change. I have always believed that an appreciation for the past helps with understanding the present and planning for the future.

This is an important time for the County and the Network, as the third iteration of the County Comprehensive Plan, Landscapes 3, is under development. A survey with nearly 6000 respondents identified open spaces, environmental quality, and a special sense of place as qualities worth protecting. These priorities indicate that residents are positively affected by their surroundings. The qualities of place are difficult to articulate and are felt in different ways by different individuals. Open space and environmental protection are more easily understood than the more elusive "sense of place". As a Network, our collective mission should be public outreach that joins the appreciation for traditional landscapes and historic resources, those qualities that contribute to a unique sense of place, with planning for managed growth in the present and future.

The Chester County Historic Preservation Network is an important facilitator in bringing together the different municipalities in a forum that recognizes the diversity of the natural and built local environments while working towards the common goal of preserving our unique sense of place at a higher level. Cities, boroughs, rural and suburban townships all have common issues in different contexts. The Network is a place to share best planning and preservation practices, to communicate back to the individual jurisdictions, the county, state, and even the federal government. The strong grass roots tradition of preservation in Chester County is maturing into more refined historic resource protection ordinances, overlay districts, the very successful resource mapping project, and now the opportunity to fully embrace GIS mapping to better understand the larger patterns that give us our identity.

Working with the County on Landscapes 3, we will ensure that preservation of open spaces and the historic buildings that give those spaces character are recognized as inseparable. In a similar way, downtown historic districts can be catalysts for growth, economic opportunity, and all types of housing while preserving their unique characters. Our programs will help local HARBs and historical commissions by sharing best preservation practices among ourselves and through invited experts. The *Ledger* and Network website are other outlets for this message. The Volunteer Recognition Dinner and Town Tour series will continue to provide the chance to get together to learn and also have fun.

I look forward to my upcoming years with the Network, the great people who volunteer throughout the County, and the new people we meet through our activities. It is clear that what we do is important.

James B. Garrison, President

CCHPN MISSION STATEMENT

The mission of CCHPN is to connect local governments, organizations, and individuals in their efforts to protect, preserve, and promote the historic resources and cultural landscapes of Chester County through communication and education.

Chester County Ledger Directory

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A WORD FROM THE EDITOR

This issue of the *Ledger* has a theme of “Architecture in Chester County.” We thought for the first themed *Ledger* it was most appropriate to start with the theme of “architecture,” because, after all, if there was no architecture, there would be no historic preservation and no need for discussions about what constitutes best preservation practices! As we move forward with the *Ledger*, we will be introducing other themed issues.

Architecture is a very broad subject, so we will be revisiting it, often! In this issue, we have a variety of articles covering as much of the spectrum of architecture as possible. We have articles about an architectural style, a construction material, a type of structure, an architectural element, and an architectural restoration. We are also introducing a new feature that we hope will be recurring. We are offering for the first time an Architectural Style Sheet. Starting with this issue and in each issue thereafter, one architectural style that can be found in Chester County will be highlighted with an illustrated example of that style and a description of what its main characteristics are. Our intent is that these sheets may be collected and put together into a “Style Guide to the Architecture of Chester County.” We hope you will find these articles and our new feature interesting and informative.

I would also like to mention that Philip (Phil) Yocum, the first official Chairperson of the CCHPN Board of Directors’ Communications Committee, stepped down from the Board and his duties as Chair at the end of 2017 after a three-year stint. I would like to thank Phil for his stalwart support of me as Editor and of the *Ledger* as a whole. His faith in my abilities as Editor and his advocacy for the *Ledger* to be an effective communication and educational tool laid the foundations for the ongoing transformation of the *Ledger* from a small, Network-oriented newsletter to a multiple page, general preservation-oriented newsletter. I asked Phil to comment on his time on the Network Board and his response can be read in the following “From the Board” column.

As always, I would be delighted to hear from you about possible articles and submissions. And we are ALWAYS looking for advertisers! To contact me, e-mail me at: jeditorhspv@verizon.net.

Jane E. Dorchester, Editor



Historic Chester County Courthouse Wall, c.1850

FROM THE CCHPN BOARD

When Karen Marshall approached me about joining the Board of Directors of the Chester County Historic Preservation Network (CCHPN), I was highly honored. As a lifelong Chester County resident and architect working in preservation, I have an abiding interest in local and regional history. Since 2007, I've served as a member of the West Chester HARB and as a guide for many Town Tours of West Chester. Over the years, I have attended CCHPN educational programs and workshops and have come to know some of the Network leaders. It seemed that joining the Network Board was a logical next step, and a way to give back to the preservation community.

My time on the Board corresponded with a period of refocus and renewal for the Network. The Board was reevaluating how best to serve their municipal and individual members. To become more effective preservation advocates, the Network recognized the need to improve communications with their membership. The CCHPN website and their newsletter, *Chester County Ledger*, are the Network's two key vehicles for communication. The website had become stagnant and the *Ledger* was losing its edge. They needed to be made more relevant. With that objective in mind, I was asked to serve as chairperson of the Network's Communications Committee.

Our first task was to rebuild the Network's website. Supported by talented and enthusiastic committee members, we worked with a web-design consultant designing, reviewing, and editing the website's look and content. It was specifically configured to provide timely communication with Chester County's diverse preservation community. It also serves as a repository for information and resources that may be helpful to CCHPN members. The redesigned CCHPN website was launched in the Spring of 2017. Carolyn Roland oversees its operations and Candice Myruski serves as Webmaster to keep the membership abreast of the Network's latest events and activities.

Our next undertaking was to engage a new editor to guide CCHPN's newsletter, *Chester County Ledger*. Jane Dorchester, a local architectural historian, graciously agreed to serve as the *Ledger's* editor. Jane assembled a talented *Ledger* committee, formulated goals, and brought a clear sense of order to the undertaking. The revived *Ledger* celebrated its 20th Anniversary in 2017 with an expanded special issue. We are excited that the reinvigorated *Ledger* is again a strong voice for the Network.

As I am stepping off the Network Board, I want to express my sincere thanks and appreciation to my fellow directors. They provided continuous guidance and support to the Communications Committee as we worked to achieve our shared goals. My experience on the Network's Board has been an extremely enlightening and rewarding experience. I gained a new perspective on the effort and cooperation required of the entire Board of Directors to support the Network's mission. It has been a great privilege to assist the Network's continuing efforts to preserve Chester County's unique historic character.

Philip Yocum

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CHESTER COUNTY LEDGER

Mission Statement

As the official newsletter of the Chester County Historic Preservation Network (CCHPN), the purpose of the *Chester County Ledger* is to raise awareness of Chester County's history and historic character, to encourage the public to preserve the physical evidence of that history, and to educate the public and members of municipal historical organizations in best preservation practices.

FOR THE RECORD

The Winance-Hagar House 1785/08 Warwick Township, Chester County A Study in Interpretation and Preservation with Sympathetic Addition

By: Wesley Sessa



The Winance-Hagar House, Front Elevation

This late 18th Century house is situated on privately held land between the Warwick and Redding Furnaces. Most of the restoration work on the main house occurred during the eighteen-month period between January 2007 and June 2009, with hardware and finishing details continuing as the house was decorated.

Jacob Weinands was the “founder” (head administrator) at the Redding Furnace. He lived south of the Furnace on 210 acres, which he subdivided and on which he built a log house. He sold the log house to Jacob Hagar about 1787.

The original log house, like so many in Southeast Pennsylvania, was a two-story hall and parlor structure. In 1785, the owners built a two-story addition to the log house, extending the west gable with a twenty-two foot by nineteen foot, two-

story, stone wing. Because this structure has three, not four, stone walls, we assumed it reflected the depth of the original log building. The 1799 property tax records the property as “a good new stone house . . . and a log kitchen.” The log kitchen was removed by 1805 when the residence was described as being 50 feet by 19 feet.

Except for a modern frame addition to the north, and the wide, mid-19th Century porch, the house presents itself as it did in 1805-1810. The earlier porch extended 30 feet, covering the two front doors but not the windows

During the mid to late 19th Century, stucco was applied to the pointed fieldstone exterior, lath and plaster was applied to three ceilings, the porch was extended, and earlier architectural woodwork was sheathed. From 1908 to 2006, three generations of the Orrs family did not expand the house.

The current interpretation began in 2007 with the gentle uncovering of many earlier features as the building fabric was closely examined to establish an architectural chronology. Paint analysis, archaeology, and research by architectural and genealogical historians informed each decision. The restoration carpenters and masons conferred upon each discovery to coordinate the new finds with the historic interpretation.

Notable architectural features on the front elevation include cast iron door thresholds, likely to have been cast at the direction of Weinands at Redding Furnace. It must have been an anticipated element because it would have required ordering the plate well in advance so the mason could imbed it in the wall at the front door level.

The windows and door jambs were fashioned from single oak members with moldings ploughed out. Curiously, the three first-floor windows on the west wing show evidence of raised paneled shutters secured with diagonal wrought iron bars, which were in turn secured with an interior pin, suggesting a commercial use, possibly a store.

The original pointing was revealed to be intact beneath the 19th Century stucco. In several areas, especially under the north and south eaves and porch, mid-19th Century lime-rich stucco encapsulated the original raised pointing and when removed left the first application viably intact. After analysis, the masons were able to duplicate the recipe and tooling for the replacement pointing on the two gables.

The original six-panel door to the west wing was found in the wagon shed. It was returned to its original location on the existing hinge pintels with little restoration. A shadow line on the back of the door jamb allowed the blacksmith to provide an antique iron box lock of the correct size and period.

FOR THE RECORD: The Winance-Hagar House, Continued

The Dutch door to the east wing is reproduced from evidence on the original jamb. Similar evidence on the east door jamb helped the carpenter tease out the details for a reproduction Dutch door.

Among the most important features of the building include many original window jambs, fashioned out of white oak, morticed, tenoned, and pegged together and set into the masonry during construction. While missing their original six-over-six light sashes, the owner was fortunate to find enough period sashes in a local barn which fit with minor adjustments. Antique eight-by-ten-inch glass panes replaced those which were missing or broken.



Winance-Hagar House, paneled door

As is often the case in houses of this period, both first and second period roof fabric remained. Late 19th Century standing-seam tin was lain upon the original wooden shingles, installed on oak lath at nine-inch exposures to the weather. When both of these surfaces were removed the lath was found in excellent condition and remained to support cedar shingles. Roof systems also included cornices and chimneys. Although in poor condition, enough remained to help the mason identify dimensions and brick specifications. Recycled antique brick was installed to complete the two chimneys.

When choosing paint colors for a historic home, one can pick the color via paint analysis, or a color proven to have been in use on similar structures of the period. In this case, analysis showed all exterior wood work to be a rich tan color, except for the sashes which were generally white.

A bulkhead door with stone stairs leads to the west basement; a beaded board-and-batten door in a solid plank jamb leads out of the gable of the east summer kitchen.

The interior of this six-room, single pile residence retains most of its original elements. Mid-19th Century plaster covered three open-joint systems and a beaded board wall. The plaster was applied to ceilings after cut nails became more affordable and available.

Some of the chair rail had been removed to facilitate the application of wall paper; it was easy to see the shadow lines of the molded rail through subsequent layers of paint and the profiles were copied from remaining window stools.

The generously proportioned boxed winding stair now ascends to the attic after the restoration of the first floor treads. Flooring in the entire earlier west wing is wide oak, tongue-and-grooved and beaded.

The 1805 east wing retains its original pine first and poplar second floor boards with the attic above plastered over floor lath as fire protection; a feature seen in several houses in the area.

Color choice for interior woodwork was guided by paint analysis which teased out a yellow based faux bois in the west wing, and the latest ca. 1800 blue in the east wing. It was determined that the cap of chair rail and window stools were a darker slate blue. Open floor joists were mahoganized over the early kitchen. The analyst suggested that the colors implied a connection to Philadelphia.

Fireplaces are found in the basement summer kitchen, first floor kitchen, and parlor -- all built into the stone gables. The local iron industry made six-plate wood stoves a reasonable choice for the three second-floor rooms.

Facilities for current comfort are provided in an understated two-story addition to the rear. Two bathrooms, closets, a pantry, an office, and a laundry fit nicely in eight hundred square feet with heat and air conditioning mechanicals in the basement and attic of the addition. This plan frees the historic structure of the necessary modern appointments which may be too invasive for the six original rooms. Thus, the Winance Hagar House retains its integrity.

FROM THE ARCHIVES

Batten Doors by Seth Hinshaw

Batten doors were the most common door type in early colonial houses in North America and continued to be the primary door type for log houses. Batten doors were mostly made with vertical wood boards on the exterior that were attached on the inside by various means. An alternate name for this type of door is “board and batten” doors, a label that was particularly popular in the 1960s and 1970s.

One reason that so few of the earliest batten doors survive was mentioned in the writings of Swedish scientist Peter Kalm, who traveled throughout North America in the 1740s. He reported that the tulip poplar tree “is here made use of for ... door posts, and all sorts of joiners work.” Kalm reported that many joiners believed the tulip poplar tree to have been the best suited for their work because it never warped, but he noted “it contracts so much in hot weather, as to occasion great cracks in the boards, and in wet weather it swells so as to be near bursting, and the people hardly know of a wood in these parts which varies so much in contracting and expanding itself . . .”

Exterior Doors

The earliest houses in Southeastern Pennsylvania were constructed by the Swedes. A rare surviving house from the Swedish settlement is the Morton Homestead near the Philadelphia Airport which has an exterior batten door with a wooden latch. It seems likely that Swedish log houses had batten doors held by wooden hinges and opened by wooden latches.

Early batten doors usually had two or three vertical boards attached using two or three horizontal battens on the interior. The boards on the earliest batten doors did not have the usual tongue and groove along the sides or beads.

The more primitive doors had wooden latches and hinges. If the owner could afford iron hardware, long strap hinges held the doors on pintles pounded into the door jamb. The hinges were often attached onto the battens, but this was not universal. An early mechanism for opening the door was an iron ring that served as a knocker and could be rotated to raise the interior bolt. The nails used to attach the vertical boards to the battens were “clinched,” meaning they were nailed through the board and the batten, then the point of the nail was hammered into the batten again.

Dutch settlers in New York and New Jersey brought a distinctive door to North America that remains known as the Dutch door to this day. The Dutch door consists of two vertical leaves that are hinged separately. The upper leaf is secondary and can swing while the lower leaf is closed, but the lower leaf contains a lip that requires the upper leaf to move with it. Opening the upper leaf allowed fresh air to circulate in the



18th Century Exterior Batten Door, Northern Chester County

house but maintained an enclosure that kept children inside and unwanted animals out. Dutch doors were found in Southeastern Pennsylvania in areas of German settlement.

A common type of entrance door in use in North America from circa 1680 until circa 1800 was a two-thickness batten door. This door is called the two-ply door in the Delaware Valley. The door has vertical boards (usually) on the exterior, though the other side varies in design. Two-ply doors are usually attached with clinched nails, which were often applied in decorative patterns. In early colonial times, prior to the introduction of tongue-and-grooved boards, the use of two-ply doors retarded cold air passing between the boards in the winter. The earliest two-ply doors featured wood boards on the front and back. The exterior almost always featured two or three vertical boards. The interior of these doors were usually horizontal boards but sometimes were installed diagonally. Double (two-leaf) doors built with diagonal boards on the interior have the interior boards pointing up to the middle and down to the outer jambs.

The final type of batten door imported from Europe was the framed batten door. These doors have an outer frame that strengthens the vertical boards. Framed batten doors were beginning to appear in the mid-17th Century.

FROM THE ARCHIVES: Batten Doors, Continued

The framed batten door was a transitional door on the way to paneled doors. Transitional two-ply doors were built between the years 1740 to 1800. These doors were constructed with the vertical boards on the interior and the appearance of a paneled door on the exterior. An early house with this type of two-ply door is Pottsgrove Manor, which has a transitional two-ply back door. Other houses with this type of door are found throughout the latter half of the 18th Century. A rare example in the early 19th Century is the door at the Arrandale farmhouse (1810).

Interior Doors

The earliest interior doors were batten. After the introduction of the paneled door in the early 18th Century, batten doors in new construction were relegated to secondary interior spaces, where they continued to be installed in new houses from roughly 1750 until 1860. New interior batten doors were installed with Norfolk latches from 1795 to the early 1840s and Blake latches thereafter.

In the latter two decades of the 19th Century, many older houses in the Delaware Valley were renovated, at which time earlier interior fabric was stripped and replaced with the more decorative millwork of the time. This process of "Victorianization" resulted in hundreds of batten doors being removed from houses to be replaced with paneled doors. Batten doors continued in use in outbuildings, particularly privies.

Batten doors experienced a small resurgence in the early 19th Century. Batten doors were used by such Colonial Revival architects as R. Brognard Okie and G. Edmund Brumbaugh. At Whitpain Farm, Okie used batten doors on the first floor to access the stairs but paneled doors in the remainder of the first floor. While this had not been the practice in colonial times, it had the advantage of demonstrating the variety of colonial-inspired features in use throughout the house.

A form of batten door appeared in the 1920s that was associated with the Tudor Revival and Spanish Revival architectural styles. These doors were marketed at the time as "V-notch exterior doors" because the boards had a small chamfer along the junction of the boards. They often featured arched heads and inset windows at the top.

SERPENTINE STONE AS A CONSTRUCTION MATERIAL

By Jane E. Dorchester

Serpentine (pronounced sur-pen-teen) rock is not a common rock; it is found in very few places on the planet. In Pennsylvania, it is found in Philadelphia, Montgomery, Delaware, Chester, and Lancaster Counties. There are two arcs of serpentine in Southeastern Pennsylvania. The first starts near Chestnut Hill, Philadelphia County, runs southwest through Lower Merion Township, Montgomery County, and then arcs from the southwest corner of Radnor Township to the southern sector of Aston Township, both in Delaware County. The second arc starts in northeastern Radnor Township, runs into Easttown Township, Chester County, then arcs west and then south through Chester County to West Nottingham Township before continuing into Lancaster County. These arcs of serpentine are not continuously visible; for the most part, they run underground, outcropping at various locales. These outcrops can be found in the following Chester County municipalities (from east to west): Easttown, Willistown, East Goshen, West Goshen, Westtown, Thornbury, Birmingham, East Bradford, West Bradford, Pocopson, Newlin, East Nottingham, Elk, and West Nottingham Townships. There is an isolated discontinuous outcrop located in Edgmont Township, Delaware County, and Willis-



Nottingham Presbyterian Church, 1878

FROM THE ARCHIVES: Serpentine Stone, Continued

town and Westtown Townships, Chester County, where these three townships meet. The largest contiguous outcrop of serpentine rock in the eastern United States is found in southwestern Chester County and is known as the State Line Serpentine Barrens.

For all its abundance in Chester County, serpentine was quarried for building stone at very few locations. For example, only a handful of buildings in Chester County, including the Nottingham Presbyterian Church (1878) in West Nottingham Township, were known to have been constructed of serpentine from Dunlap and Martin's Quarry located within the State Line Serpentine Barrens. And while a few other buildings were constructed of the stone from other quarries, the majority of the serpentine buildings in Chester County are believed to have been made with stone quarried at the Brinton's (the Serpentine Ridge) Quarry in Westtown Township.

A wide variety of types of buildings were constructed of serpentine stone circa 1727-1843. These types of buildings included barns, spring houses, wagon houses, and farmhouses. The serpentine for these buildings tended to come from small, usually private quarries known as "farm quarries." The first building that included serpentine in its construction that is still extant, as far as can be told, is the Collins Mansion (ca. 1727) in West Goshen Township. Its front elevation was constructed of serpentine that came from either Taylor's Quarry or Marshall's Quarry, both located in West Goshen Township. One of the few non-residential serpentine buildings from this period still extant is the carriage or wagon house (ca. 1820) on South New Street in Westtown Township. Its serpentine came from Brinton's Quarry in the same township. An unusual serpentine house is the Spackman Corner Chimney House (ca. 1830) in Thornbury Township, Chester County. Its serpentine also came from Brinton's Quarry. This house is unusual because its only chimney is located in the northwest corner of the house, hence its name.

By the 1840s, serpentine had become so popular in Chester County that wealthy residents began to marry the colorful stone with current architectural design elements to emulate fashionable mid-Victorian architecture, producing both conservative and high-style interpretations of that architecture. The earliest extant house to be constructed of serpentine in a fashionable architectural design was the conservatively interpreted Greek Revival Francis and Thomazine Strode House (ca. 1843) in Westtown Township. The serpentine for this house more than likely came from Brinton's Quarry.

The first extant architect-designed building constructed of serpentine was Horticultural Hall (1848) in West Chester. It was designed by Thomas U. Walter in the Romanesque Revival architectural style. What is unusual about Horticultural Hall is that it is constructed of blue serpentine. Blue serpentine is rather rare and, as far as is known, only one quarry had large enough veins of it to be able to produce building stone in enough quantities to make its use feasible. That quarry was the Taylor Quarry just north of West Chester in West Goshen Township. Other structures and buildings constructed of blue serpentine include the Taylor-Whitcraft House (ca. 1736) in West Goshen Township (built for or by the owner of the quarry), the east addition (ca. 1840) to the High Street Friends Meetinghouse in West Chester, and the retaining wall (ca. 1850s) around the Historic Chester County Courthouse property.

In the late 1860s, everything changed for serpentine quarrying and use. Joseph H. Brinton took control of the Serpentine Ridge Quarry in Westtown Township, and began to quarry serpentine on a full-time commercial basis, rather than on a sporadic "as needed" basis. At the same time, popular architectural styles had developed which called for the use of polychromatic and polytextural palettes. The desire to play different colors and textures off one another created a perfect scenario for the use of serpentine in monumental architecture with its vivid shades of green which contrasted nicely with the blues and grays of slate, the off-



Crebilly Farm Outbuilding, Westtown Township, ca. 1820

FROM THE ARCHIVES: Serpentine Stone, Continued

whites and buffs of limestone, and the reds and browns of brick and sandstone. From 1868 until about 1895, serpentine was a favored building stone for a variety of architects, including Frank Furness, James H. Windrim, Addison Hutton, and T. Roney Williamson. The latter two architects designed a variety of buildings constructed of serpentine in and around West Chester, including the four houses located on Virginia Avenue in West Chester known as “The Four Sisters” (Addison Hutton, ca. 1875) and Recitation Hall at West Chester University (T. Roney Williamson, 1891-1893). The serpentine for all of these buildings came from the Brinton’s Quarry.

In 1893, the architectural world completely changed. The Chicago World’s Fair, known as the “the World’s Columbian Exposition,” opened and introduced to the United States the White City Movement aesthetic which called for monochromatic palettes and styles based on classical precedents. The use of serpentine as a construction material rapidly declined thereafter.

(This article was excerpted from the author’s “The Transformation of Serpentine Rock to Serpentine Stone: From the Ground to the Grand” which appeared in the 2015 *Chester County Historical Society Antiques Show Catalogue*).

Covered Bridges in Chester County by James B. Garrison

A wooden bridge was typically the quickest and most economical way to cross a small stream or river, but with the penalty of a structure vulnerable to weather. Enclosing the structure with roofing and siding that protected the wood structure while also increasing overall stiffness and capacity was the response to this problem.



Hall's, Sheeder Covered Bridge, 1850

Building materials for bridges were limited to wood, stone, and brick. Brick and stone have little strength in tension; whereas, with proper joint design and connectors, wood can act in tension. Timber framing provided the ability to use geometric arrangements of lighter members to balance compressive and tensile stresses. Wood trusses were the tried and true method to span distances. With a growing need for more reliable water crossings than ferrys or fords, the basic bridge truss forms became more elaborate, especially after mathematical formulas were developed in the late 18th Century to calculate stresses and capacities. Between 1804 and 1806, Theodore Burr patented a truss system that combined the multiple kingpost approach with an arch form in segmented straight timbers to create an easily constructed system that could readily span distances greater

than 100 feet. The development of this long span structural solution demanded a means to protect the relatively light members, so the age of the covered bridge began and flourished into the late 19th Century before new patent systems in iron and steel supplanted timber.

Historians generally credit Philadelphia as having the first covered bridge in North America. The three-span, 550-foot long “Permanent Bridge”, completed in 1805, carried Market Street across the Schuylkill River. This bridge succumbed to fire in 1850, a fate of many other wooden bridges. The Hall’s, Sheeder Bridge carrying Hollow Road across French Creek between East and West Vincent Townships is the oldest covered bridge in Chester County dating to 1850.

Chester County authorities were responsible for the construction of 85 covered bridges in the 19th Century, of which 21 were shared with adjoining counties. Fifteen of the bridges survive, five still owned by the

FROM THE ARCHIVES: Covered Bridges, Continued

county. There are several in joint ownership including the Mercer's Mill and Pine Grove Bridges, which cross the water boundaries between Chester and Lancaster Counties, and Bartram's Bridge in Willistown Township, which crosses Crum Creek between Chester and Delaware Counties.

In addition to differences in structural systems, the covered bridges of Chester County also exhibit distinctive architectural features. They all have gabled roofs with the center ridge parallel to the direction of travel, but the roofing materials vary, as do the treatments of the gable end portals and eaves. The most typical portal detail is a simple rake board following the slope of the roof to a generous eave overhang. The shape of the chamfered entrance portal is mirrored in an extended "ear" to the eave. The Kennedy Bridge over French Creek, the Gibson's Bridge over the East Branch of the Brandywine, and the Hall's, Sheeder Bridge all have stepped gables for a more ornamental appearance. The Rapp's Bridge over French Creek in East Pikeland has an ornamental cornice and prominent date plaque above the portal.



Hall's, Sheeder Covered Bridge, Interior

Getting light and ventilating air into the structure was also an important design consideration. The overhanging eaves permitted the builders to leave a continuous gap between the siding and roof at the top for light and air. Often, this was supplemented by a slot opening or openings lower in the siding for additional light. The siding, either painted or not, followed the conventions of barn siding with vertical board and batten or horizontal clapboard.

Almost every covered bridge was built as a single-width cartway with a relatively low overhead clearance, with a one-way traffic load capacity that strained under the weight of a single fully loaded Conestoga wagon and team. These dimensional and capacity limitations along with the temporal nature of the wood structure have been the primary cause for the replacement of the bridges in the last 100 years. Fewer than 10% of the bridges remain, and only a small fraction of those still carry traffic loads with their original structure. The Hall's, Sheeder Bridge has a new pier in the middle of the creek to prop it up at mid span. The Knox Bridge in Valley Forge Park has a steel substructure while the Rapp's Bridge was recently reconstructed with a concrete traffic span inside the restored timber trusses and enclosing timbers and roof. In both cases the new heavy-duty structure has prevented personal injury as oversize trucks still attempt to enter the confined spaces of the bridges.

Accidental and arson fires have also taken a heavy toll on the wood bridges, along with natural disasters such as floods and ice flows. Hurricane Agnes in 1972 was particularly destructive to bridges in the region. Since covered bridges are such an important part of our county landscape, the survivors have generally been well tended. The Knox, Rapp's Dam, and Kennedy Bridges have all been rebuilt.

Removing traffic has been an option. Bartram's Bridge is next to a newer bridge on Goshen Road. The Larkin Bridge was moved and reconstructed as part of the Byers Station development in 2006 in Uwchlan, while the Mary Ann Pyle Bridge was restored by the Brandywine Conservancy in the Laurels Preserve.

Many of the bridges are now on the National Register of Historic Places and are also locally listed historic resources. Ideally, the remaining bridges can continue to be part of the transportation infrastructure where light traffic permits and will be cared for as rare survivors of a slower paced time and as part of the defining natural and built landscape that makes Chester County a special place.

FROM THE ARCHIVES

Brutalism in West Chester by Tony Conaway

West Chester University (WCU) is one of the oldest institutes of higher learning in our county with many of its buildings designed in the classic Collegiate Gothic style. West Chester's campus is most notable for its use of serpentine, a greenish stone quarried locally, which was used in the construction of several of the campus buildings. But the University has grown considerably since it became West Chester Normal School in 1871. Now educating some 16,000 graduate and undergraduate students, its expansion sometimes requires that old buildings be replaced by newer ones.



West Façade, New Main, 1971-1973

in 1871, this voluminous serpentine building had become obsolete by the 1960s.

The decision was made to tear down the building (today referred to as “Old Main”), and replace it with a modern structure. The rubble of the old building was valuable, as local serpentine was no longer available at the original source, Brinton’s Quarry. The usable stones were carted off and repurposed. Some of it was reportedly used to build an extension to one of the famous serpentine “Four Sisters” mansions on West Virginia Avenue in the North End of West Chester. (Coincidentally, both Old Main and the Four Sisters were designed by the same notable architect, Addison Hutton.)

Cash-strapped colleges often look for a cheap building material that could be erected as quickly as possible. Consequently, in 1971, New Main Hall was constructed of reinforced concrete. It opened in 1973. As far as we know, it is the only building designed in the Brutalist style in Chester County. Today, it would be hard to name an architectural style as divisive as Brutalism. In vogue for only a short span of years (mid-1950s to mid-1970s), it evokes disdain among many for both its execution and its philosophy.

The term “Brutalism” comes from the French for *béton brut*, meaning “raw concrete.” In its simplicity and honesty, it was seen as a reaction to traditional architecture that was based on historical precedents. Perhaps because it is intertwined with outmoded social theory, the very concept of Brutalist architecture angers some. Brutalism was seen as an expression of socialist utopian ideology, widely promoted in the communist countries of Eastern Europe. Aesthetically, Brutalism is difficult to execute properly. All successful buildings are designed by talented architects, but the majority of Brutalist buildings seem to be uninspired. The lack of ornamentation means that Brutalist buildings must be appreciated as a whole, not in pieces. The balance and geometric lines of Brutalist buildings are best appreciated from afar. However, the crowded WCU campus affords few clear views of New Main. The only clear view of New Main at a distance is from across “the Quad,” which is the large grassy area in the center of the Main Campus. If you look at New Main from across busy High Street, you have to crane your neck to look up at it. Other sightlines are often obscured by buildings or the leafy trees that WCU is well-known for.

One characteristic common to Brutalist buildings is the “inverted pyramid” design. That is, the base of the building is narrower than the top. Standing at ground level near the entrance, the bulk of such Brutalist structures looms overhead. For example, the well-known Boston City Hall, with its inverted pyramid de-

For its first one hundred years, most of the classes were held in the four-story Main Hall. In fact, during the school’s early years, this Second Empire edifice was the *only* school building. At various times, Main Hall housed not only classrooms, but the cafeteria, a dormitory, the library, and an auditorium. Built

FROM THE ARCHIVES: Brutalism Continued

sign, tends to inspire unease in observers -- possibly because it hangs over people, making them feel small. Thankfully, this effect is muted in the five-story New Main, which is basically a simple tower with the boxy addition of the auditorium on its South side.

The typical Brutalist characteristics -- including the inverted pyramid design, the use of oversized concrete elements, and the display of service elements, such as air ducts -- are muted or non-existent on New Main. Only the top floor is broader than its base, which is easily overlooked from ground level. The use of over-sized concrete elements are minimal and include the main stairwells (which also house the main entrances) on the East and West sides. Perhaps the most playful features of the building are the extruding windows, three of which flank each side of the stairwells. They are placed only on the second, third and fourth floors, with the fourth floor extrusions larger than the two below. In addition, a brick-faced façade relieves the flat concrete walls.

Unfortunately, reinforced concrete does not age well. The metal rebar inside the concrete often rusts, dribbling rusty stains on the concrete. In some cases, moss grows on the concrete walls. Thankfully, the exterior of New Main has been kept in good repair. However, New Main had other problems at the outset. Students recall that the building had notoriously bad climate control. If one side of New Main was too hot, the other side (usually the side in the shade) was too cold. Frustratingly, the windows of New Main do not open, so temperatures cannot be modulated and fresh air let in.

In short, almost no one loves New Main. However, someday, New Main will become obsolete. The design of Brutalist buildings makes it difficult to adapt or remodel them. West Chester University then will have to decide whether or not to tear it down and construct a *New New Main*. When that happens, will preservationists rally to save our only Brutalist structure?

Only time will tell.



East Façade, New Main, 1971-1973



- ◆ archaeological research
- ◆ historical services and preservation planning
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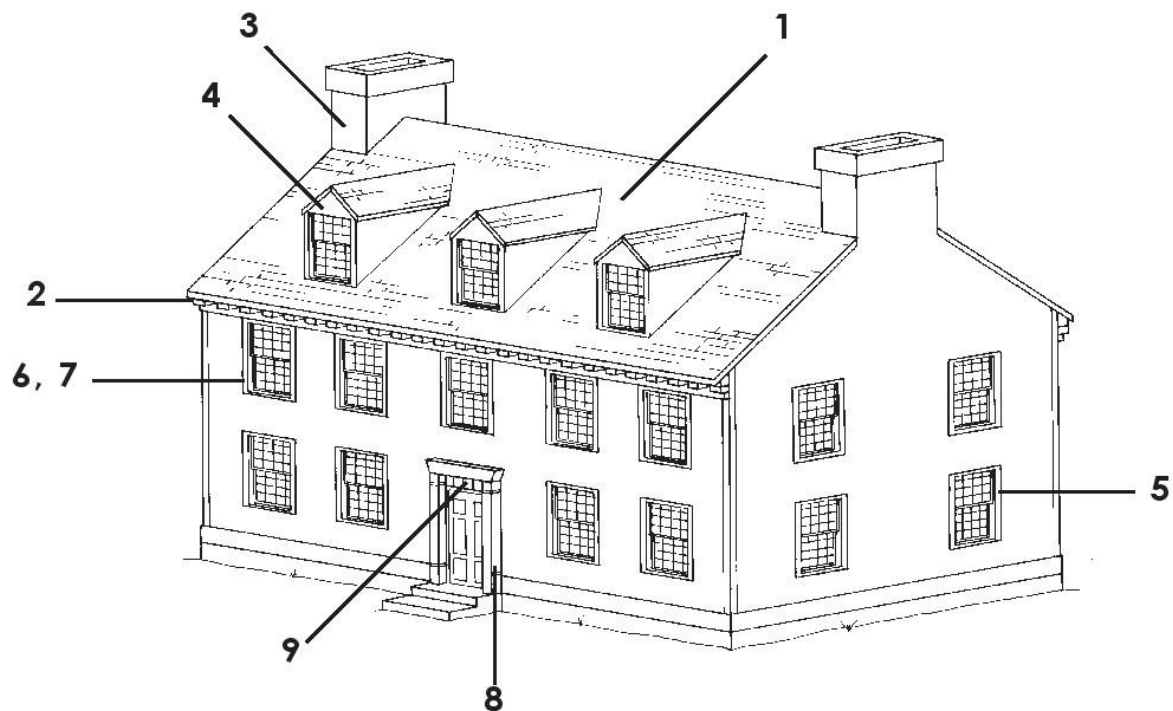
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**LOOK FOR THE NEXT
CHESTER COUNTY LEDGER!**

The next *Ledger* will be published in August 2018!

ITEMS OF INTEREST

Architectural Style Guide: Georgian



GEORGIAN (c. 1720 - c. 1780)

1. Side-gable or hipped roof
2. Cornice decorated with dentils and/or other decorative molding
3. Paired gable-end brick chimneys
4. Pedimented or gable dormers
5. Sash windows with 6-over-9, 9-over-9, or 9-over-12 panes, never paired
6. Windows horizontally aligned in rows placed symmetrically around entrance
7. Window arrangement or window-door arrangement in odd numbers (3, 5, or 7)
8. Emphasized main entrance decorated with classical motifs including columns, pilasters, pedimented or molded crown above door
9. Small rectangular panes of glass above door (transom lights)

Other Features:

Classical ornamentation including stone quoins and stone beltcourse

(Excerpted from the Chester County Planning Commission's 1998 *Preserving Our Places: Historic Preservation Planning Manual for Chester County Communities* - <http://pa-chestercounty.civicplus.com/DocumentCenter/View/3756>.)



CHESTER COUNTY HISTORIC
PRESERVATION NETWORK
2018 SPRING WORKSHOP:
REFINING OUR LOCAL COMMITMENT TO HISTORIC
PRESERVATION

Saturday, March 10
(Inclement Weather date March 17)
8 am - 12:30 pm
Brandywine Conservancy
& Museum of Art
1 Hoffman's Mill Rd,
Chadds Ford, PA 19317

SCHEDULE

8:00 - 8:30am:	Registration
8:30 - 8:40am:	Welcome
8:40 - 9:40am:	Certified Local Government Guidelines and Preservation Best Practices Update: Cory Kegerise, PHMC
9:40 - 10:10am:	Interactive Session and break: Steve Brown, CCHPN, AIA
10:10 - 11:00am:	Understanding Your Resources: Jane Dorchester, Architectural Historian
11:00 - 11:55am:	Design Guidelines & Their Use: Jim Garrison, CCHPN, AIA
11:55 - Noon:	Adjournment

AGENDA

Certified Local Government:

Cory Kegerise will explain how pursuing **CLG Status** will increase your effectiveness as a Historic Commission (or HARB) for new funding and training avenues.

Historic Resources:

Jane Dorchester will walk you through the **documentation procedures** to fully explain and understand your resources.

Design Guidelines:

Jim Garrison will review the importance of developing **design guidelines** to assist each commission to better review projects and communicate with the public.

***** For the current Certified Local Governments in Chester County, there will be a special meeting from noon to 12:30 with Cory Kegerise *****

RSVP DEADLINE MARCH 2
(NO REFUNDS AFTER MARCH 2)

CCHPN
2018 SPRING WORKSHOP
SATURDAY, OCTOBER 10, 2018

Municipality/Organization _____

Primary Contact _____

Day Telephone _____ **Email** _____

Names of Attendees Members for \$20 per person:

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_____	Day Phone _____	Email _____	\$20
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Non-Members of CCHPN for \$25 per person:

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Membership Dues:

Municipality/Organization (\$85) _____

Individual (\$20) _____

Total Amount Enclosed \$ _____

RSVP BY MARCH 2
(NO REFUNDS AFTER MARCH 2)

Make checks payable to:
CCHPN 2017 Fall Workshop
P. O. Box 174
West Chester, PA 19381

BULLETIN BOARD

WHAT IN THE WORLD IS IT?! QUIZ #2

If you are the first person to send the Editor the correct answers to the Quiz, you will have your name and answers posted in the next issue of the *Ledger*! Send your answers to: jeditorhspv@verizon.net. Many thanks to the Chester County Historical Society for the use of the photograph on the left and the Antique Ice Tool Museum for the photograph on the right which came from their website: antiqueicetoolmuseum.org.

WHAT WAS IT?



This building used to be located in the center of the Quad at WCU. What was it?

WHAT IS IT?



This artifact is in the collections of the Antique Ice Tool Museum (located at 825 Sconnelltown Rd., W. C.). What is it?

AND THE WINNER IS: ANSWERS TO WHAT IN THE WORLD IS IT?! QUIZ #1

Thank you very much to all those who responded to our first **What in the World is It?! Quiz**! And the Winner is: Jane Daggett, Secretary of Upper Oxford Township, who correctly identified the picture on the right as being that of a pair of "Easy Boots" worn by horses to ease sore feet. According to Ellen Endslow, Curator at CCHS, they were also known as "Lawn Boots" or "Poultice Boots". Also thank you to Jody Phillips of Elverson who informed us that they are still used today but are made of synthetic poly-rubber. The building in the picture on the left is the former Barnard Street School in West Chester.



SAVE THE DATE!!!!

VOLUNTEER RECOGNITION CELEBRATION: June 20, 2018

Location: Nottingham County Park

Look for More Information in Your Mailbox in the Spring!

ATTENTION!!!

If you would like to continue to receive the *CHESTER COUNTY LEDGER* after you have moved, then please send your **CHANGE OF ADDRESS** to the Editor!! Simply send your old (so we can identify you) **AND** new addresses to:
CCHPN / P. O. Box 174 /
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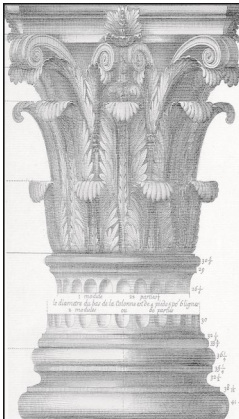


Volunteers Needed!

We are looking for people who are interested in history, delight in talking to other people, have a bit of the "pack rat" in them, or want to touch a moment in time. If you are interested in volunteering your time and/or talents, call or email us (info@sandersonmuseum.org) today!



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Photo by Bill Wunsch

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