

## Somerset County Historical Trust

Preserving the Legacy of Somerset County

### **UPDATES**

#### **Become a Transcriber!**

The Teackle Letter Project is now officially known as **Voices from the Eastern Shore.** The project is going full-steam **BUT** we could use your help!

Sign up to become a **VOLUNTEER TRANSCRIBER** of the Teackle documents on **From the Page**, our



platform for transcribing historic documents. We have letters, ledgers, and broadsides—and we'd love for you to help us bring this project to life.

- Go to **From the Page** website: <a href="https://fromthepage.com">https://fromthepage.com</a> to sign up.
- Then go to Find a Project and scroll down to Voices of the Eastern Shore to get started.

#### Glebe House

In 2023 the Trust was instrumental in preserving one of Somerset's more notable historical properties, the **Glebe House**, known to many as the Samuel Chase House, located on the southern outskirts of Princess Anne. Historical research has failed to connect the 1784 dwelling to our Founder and Signer of the Declaration of Independence, but this fact does not

diminish the house's significance in its place among our rich trove of 18th century structures.





We are pleased to report that the Glebe's new owners, **T. J. and Fran Mumford**, are diligently restoring the old place's historical character. With guidance from historical architect, Barton Ross, they are carefully preserving all original materials as they return the home to habitability. Plumbing, septic, and electrical services are already in place in preparation for tasteful modern conveniences.

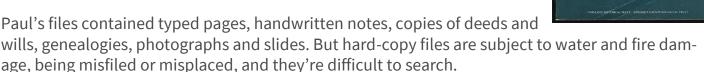
Kudos to the Mumfords!



## Somerset County Historic Property Archive (SCHPA)

The Trust has been working with the Nabb Center for the past several years on a **major project,** organizing and scanning the extensive collection of Paul Touart's historic research files.

- The Maryland Historical Trust established codes for their historic property inventory the "S" prefix was assigned to Somerset County.
   Paul's book, Somerset: An Architectural History, was organized using these "S" numbers.
- The Trust inherited all of Paul's Somerset research files upon his retirement, along with dozens of additional boxes for adjacent counties —
   "WO' for Worcester, "WI" for Wicomico, "D" for Dorchester. The Trust donated the non-Somerset materials to the Nabb Center and to appropriate historical societies for their stewardship.



The Trust made the decision to **digitally scan** all these materials, and the Nabb Center stepped in to make this possible. Utilizing their state-of-the-art digitizing equipment, their staff spent countless hours scanning the materials and making them accessible in an online repository.

 See the next page for instructions on how to access the SCHPA online.

The collection of SCHPA **paper copy originals** and numerous other materials are being housed in a newly set up office on the 2nd floor of the Teackle Mansion.



Somerset

An Architectural History

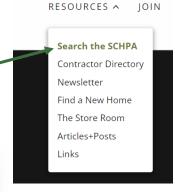
We are so grateful to the Nabb Center for all their efforts in making this project possible. You can support them at <a href="www.salisbury.edu/libraries/nabb/support">www.salisbury.edu/libraries/nabb/support</a>.

## We are pleased to announce the SCHPA archive is now AVAILABLE TO OUR MEMBERS!

#### **HOW to ACCES**S the SCHPA

- Go to our webpage <u>schtrust.org</u>.
- In Resources, choose Search the SCHPA page.
- In How to Access section, choose Link to SCHPA.







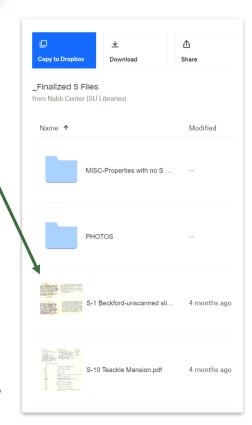
This will bring you into the **Nabb dropbox archive**.

- Properties are listed numerically by their S-numbers.
- You can search by hitting Ctrl+F.
  - A small window will pop up at top where you can enter your search terms.

ex: entered 'george' and found 7 results.



- Navigate search results using the ∨ arrow.
- You can also use an **alphabetical listing** of properties at the bottom of our webpage—which includes 'alternate' names for properties.



# Colonial Bricks by Randy George Part 3—Mortar & Repair



Handmade antique bricks are literally a world apart from modern bricks. For one, they are brittle. Compared to modern bricks, they are porous, waterabsorbent, and evaporate quickly after wetting. Moisture from the air continually 'breathes' in and out, causing the bricks gradually to decay.

#### **MORTAR**

Ancient masons discovered that lime mortar was even more porous and more 'breathable' than the bricks that it supported, and that moisture would escape more easily through it. Lime thus became the sacrificial material meant to break down first, protecting the longevity of the soft bricks for hundreds of years.

#### OYSTER SHELL LIME

In seaside locations, lime mortar was made traditionally from oyster shells which are largely composed of Calcium Carbonate-



CaCO<sub>3</sub>. When burned at 1650-2200°F, the shell material is 'calcined', converted to Calcium Oxide—CaO, a compound called quicklime. When quicklime is hydrated (slaked), the result is Calcium Hydroxide—Ca(OH)<sub>2</sub>. Carbon dioxide in the water and air slowly replaces the hydroxide moiety to again form CaCO<sub>3</sub>, the hard crystalline matrix in lime mortar.

#### **QUARRIED LIME**

Today, a modern substitute for oyster shell lime is quarried dolomitic limestone. This manufactured product when 'slaked' or hydrated becomes  $Ca(OH)_2 + Mg(OH)_2$ , a white powder. Additional water is then added to create a paste-like lime putty which, along with sand and other additives, constitutes mortar. This lime, over time, takes on carbon dioxide from the air (carbonation) and becomes crystalline Calcium Magnesium Carbonate —  $CaMg(CO_3)_2$ .

#### PORTLAND CEMENT

Portland cement was invented in England in the 1840s by the kiln heating of limestone <u>and</u> clay to form 'clinker' (hydraulic Calcium Silicate and Calcium Sulfate) which is ground into a white or gray powder, often containing aluminum and iron. When hydrated, the material becomes a water-impermeable cement. Natural

hydraulic limes are used in the manufacture of portland cements and set by hydration, even under water. Portland cements, either white or gray, are standard mortar materials for modern hard, extruded brick but should <u>not be used</u> for antique brick.

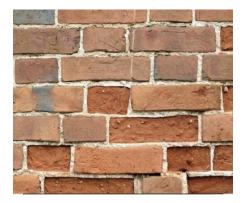


Photo: Scott Sidler, The Craftsman Blog thecraftsmanblog.com

Most modern cements are extremely nonporous and when used with antique brick, force the brick to bear the entire process of transpiration, leading to eventual decay. 'Breathing' is so important to an ancient brick that if water is trapped within it by hard mortars, paint, or silicone, then changes in temperature (especially freezing) will cause it to soften, crack, and 'spawl'. Salts in the brick or mortar migrate to the surface and cannot escape, causing structural decay. Similarly, interior painted brick walls also trap moisture. Salts in the brick or mortar migrate to the surface (efflorescence), resulting in blistering called 'rising damp.'

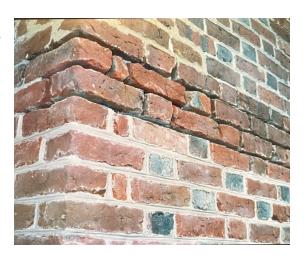
#### REMOVING OLD MORTAR

There is no quick and easy way to remove mortar from ancient brickwork. Repairing mortar joints requires a degree of delicacy to prevent injury to friable brick edges, and rough treatment will result in lost brick, widened joints, and a botched appearance. Older lime mortar should be removed to a depth of one inch with sharpened mason's chisels, joint chisels, and a lightweight



Toolkit for removing & replacing mortar

soft mallet with a broad peen. A barbed scraping tool may be used to remove mortar at depth.



Harder portland cement is best removed with a small power circular saw blade placed at the center of the joint, taking care never to touch the blade to brick. This is most tedious on the shorter vertical joints. Chisels need to be resharpened frequently, as dull edges smash the mortar, resulting in adjacent brick damage. Repointing usually includes removing damaged bricks and reconstruction with 18th century bricks, which, though rare, are still available with careful search.

#### **MIXING LIME MORTAR**

In general, the ratio of sand to mortar has for centuries been roughly 3:1. Many formulas have been designed to achieve the desired degree of strength and porosity. An ideal historical recipe is shown here, using a 5-gallon bucket and hand-held electric mixing drill.

#### **HISTORIC RECIPE:**

1 part crushed oyster shell 1 part slaked lime 1 ½ parts white sand ¼ part hydraulic lime Water

A small amount of brick dust which contains silicates (possolan) may be added to the mix to give additional strength. In summer, a little wood ash may be added as a 'gauge' to hasten the set. Attempts to match mortar color are generally fruitless and should be left to time and weather.

There are simpler, modern but acceptable alternative formulas with a predominance of slaked lime. However, certain portland cements have been shown to have adequate porosity when combined with lime. Some modern recipes:

1 1/2 —2 parts lime putty 1 part white portland (type 0) 6-8 parts white sand Water 1 part hydrated lime ¼ part white portland (Type 0) 3 parts white sand Water

#### REPLACING MORTAR

The clean opened joint is spritzed with water before applying the mortar to depth. Both pointing and tuck-pointing trowels are used entirely to fill each gap. To smooth the surface, the first strike uses the lower brick edge as a border, while the finish strike is drawn below the edge of the upper brick.

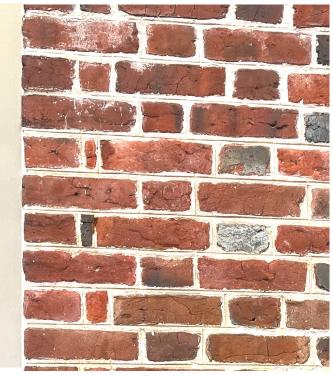
Since antique hand-molded brick is irregular in shape, the mortar joints, both horizontal and vertical, are finished off with a 'grapevine' by slightly indenting the freshly smoothed surface with a thin grape-vining jointer tool, drawn along a straight-edged board or ruler. This creates a uniform line in the finished mortar joint, adding an illusion of uniformity.



As the mortar begins to dry, any remnants clinging to brick edges are removed with a fine wire brush. Because mortar sets slowly, it creates a firmer crystalline structure and bond. The brick is again spritzed to slow the drying process. Moist burlap may be laid over the surface. The 'set' occurs by carbonation from the air over a period of months or years.



Incorrect portland repair needing replacement



After replacement

### Colonial Bricks (cont'd)

In summary, preserving old brick structures does not lend itself to shortcuts. The use of any hard modern brick or mortar material will create difficulties far more expensive and unsightly than existed before the repair. Most skilled modern masons, unless trained in handling antique brick, risk doing more harm than

good. Fortunately, there is enough work to support a small, select band of historic masons, especially along the eastern seaboard.

The take-away message is: When restoring precious colonial era brick structures, don't cut corners. Hire an expert.





Ray Cannetti, master restoration mason

#### **REFERENCES**

Preservation Briefs 2, Robert Mack, John Speweik, National Park Service, 1998
Preservation Briefs 2, Robert Mack, National Park Service, 1976
The History of Masonry Mortar in America 1720-1995, John Speweik, National Lime Association, 1995
Raymond Cannetti, personal communications, 2006-2023

## SAVE THE DATE

We know it's early ... but the Trust's 2024 ANNUAL MEETING is scheduled for Saturday September 14th.

We hope you can join us!



#### **Somerset County Historical Trust**

PO Box 863 Princess Anne, MD 21853



http://schtrust.org somersethtrust@gmail.com

## **Need salvage materials?**

Check out our full listing of reclaimed materials for sale. Proceeds help support the Trust!

## schtrust.org/the-store-room

- Antique bricks
  - Fencing
  - Hardware
- Lumber & Building Materials
  - Shutters
  - Windows & Doors

