

“Farmer’s Delight” A Preliminary Look At Features From the Cedar Creek Site: A small iron bloomery, brick clamps, post-in-ground structures, cellar holes, root cellars and fence lines

By Bill Liebeknecht

SLIDE 1

The Cedar Creek Site was excavated in connection with the Delaware Department of Transportation’s proposed improvement of the intersection of State Routes 1 and 30 in Cedar Creek Hundred, Sussex County, Delaware just south of Milford, Delaware. Historically the property was known as “Farmer’s Delight”.

SLIDE 2

Phase II and III also known as Data Recovery were carried out on and off between 2010 and 2012. Smaller Phase II test units are shown in yellow while larger Phase III excavations are shown in red.

SLIDE 3

Earlier Phase I investigation encountered what appeared to be a possible early historic cellar hole in the middle of the field through shovel testing and split-spoon auger borings. Phase II investigations confirmed the hypothesis with a single trench, uncovering a late 17th century cellar hole. At that time the property was owned by Henry Bowman who owned numerous parcels in Sussex County. Artifacts associated with the cellar hole include deer bones, whelk remains, ceramics and vessel glass. A thin dark organic layer located at the bottom of the cellar hole suggests it had a wooden plank floor.

SLIDE 4

This site will be saved for future generations to study through a protective covenant placed around the cellar hole by the State of Delaware.

SLIDE 5

Closer to Route 30 a root cellar, a smaller cellar to keep food stores cool and safe from animals, was also found during the Phase II testing. This root cellar date to the first half of the 18th century and contained butchered animal bones, ceramics

such as this sherd from a buff-bodied Staffordshire ware bowl or pot and hollow-cast brass button.

SLIDE 6

The root cellar hole was originally located through a controlled metal detector survey which recovered these bits of hardware.

SLIDE 7

Located nearby was another, more shallow early to mid 18th century root cellar is seen here positioned between two large structural post holes. Artifacts recovered from this feature include domestically produced red earthenware, dark olive green spirits bottle fragments, copper kettle fragments and brass hollow-cast buttons.

SLIDE 8

Shown here is a paling fence line and a series of overlapping shallow pits under what we believe to be a smoke house which was repositioned two possibly three times.

SLIDE 9

This refuse pit filled with oyster shells is cut by and thus predates an early to mid 18th century root cellar.

SLIDE 10

The plowzone was stripped from portions of Area A within the right of way, closest to Route 30 using a light-weight medium backhoe which was supervised by Hunter Research staff members.

SLIDE 11

The stripping was taken as close to the road as possible using the excavated back-dirt piles as a protective berm from traffic.

SLIDE 12

Here is a map of the Area A showing three post-in-ground structures, a bloomery pit, fence lines and multiple post holes.

SLIDE 13

Back by the wood line Phase II investigations encountered a probable brick kiln called a clamp. The main focus of the surface debris was located just outside of the right-of-way...so much to our surprise we uncovered the heat signature to another clamp just inside the right-of-way with a clay mixing or pugging area located adjacently on the east side. This clamp would be relatively small and would have been able to produce only enough brick for a chimney.

SLIDE 14

Here you see the burnt earth in cross section.

SLIDE 15

Shown here is the clamp located in a Phase II unit outside of the right-of-way.

SLIDE 16

Originally located during the Phase II investigations this shallow root cellar was fully exposed to see its relationship to other features in the site core.

SLIDE 17

Rectangular marks in the floor suggest the root cellar had a wood plank floor.

SLIDE 18

Here is a view of the root cellar fully excavated. As you can see the feature was quite shallow but yielded valuable data concerning the layout of the site.

SLIDE 19

During the Phase II investigations we recovered about a dozen pieces of roasted limonite which are at first glance easily mistaken for modern slag generated from an industrial process. Closer examination shows the parent material limonite is still rather visible.

SLIDE 20

Phase III stripping close to Route 30 revealed the edge of what turned out to be an impressive bog iron bloomery pit used to reduce limonite into iron which in turn was pounded into wrought iron.

SLIDE 21

The property was owned by James Fisher who was a Blacksmith from 1747 to 1749. This type of bloomery was considered to be antiquated by this time although simple smelting of iron by this process was in use in West Africa. West African slave were brought to the Chesapeake region to work in the more traditional larger stone forges. It seems plausible James Fisher may have had a slave or two who was familiar with this process providing him with iron stock for his business.

SLIDE 22

Brick rubble situated at the base of the bloomery pit may be the remnants of a chimney.

SLIDE 23

A close up of the rubble shows one of three broken or exhausted iron wedges found in the pit.

SLIDE 24

Here are some of the iron artifacts found in the pit. Note not all of the fill material has been processed at this point as many five gallon buckets were retained for closer more detailed examination. Also note that although most of the artifacts are wrought, some are cast suggesting they may have been trying (unsuccessfully) to melt down broken discarded pieces of iron.

SLIDE 25

Some of the small selected artifacts recovered from the initial processing of the pit. Most importantly are small tin curved pieces of slag shell which resemble but not scale, the small bits of metal which pop off when hammering the red hot metal. The other artifacts such as the shoe buckle and ceramics sherds, in this case Staffordshire ware and Whieldon ware, help date the site to the period of Fisher's

ownership. Also of note is apparently unused wrought nail which may have been made on site.

SLIDE 26

Just north of the bloomery was a large mid-18th century pit exhibiting shell across the entire surface.

SLIDE 27

As in the bloomery many five gallon buckets of shell materials were retained for closer more detailed examination. Preliminary examination reveals about 90 % oyster, 9% clam and 1% others such as whelk.

SLIDE 28

As the site was situated along a busy road, the site was very popular with visitors such as school groups as shown here the Archaeological Society of Delaware (who provided volunteer help on selected weekends) neighbors and commuters and travelers.

SLIDE 29

Postholes were by far the most prevalent feature at the site making sense of all of them is the hard work. Some are obvious situated along a straight line while other seem to be meaningless to us now but likely served a deliberate purpose.

SLIDE 30

Some posts were bolstered by a second post or even a third. Or they may have simply been replaced when the first post started to rot in place.

SLIDE 31

Some posts were placed in shallow ditches forming fence lines known as paling fences. In the late 17 and early 18th century fences were not typical used to farm animals in but on the contrary they were used to keep animals out from garden areas. It is like looking at Rorschach test, you know the black and white images. Are you looking at the negative spaces or the positive spaces?

SLIDE 32

A copper alloy sleeve link recovered from one of the paling fence trenches is a period replica of a Spanish real dated 1744. Sleeve links and buttons of this type have been reported from Revolutionary War sites along the east coast.

SLIDE 33

Two thin triangular sherds may represent gaming pieces. They appear to be Colonoware but this has not been confirmed at this time.

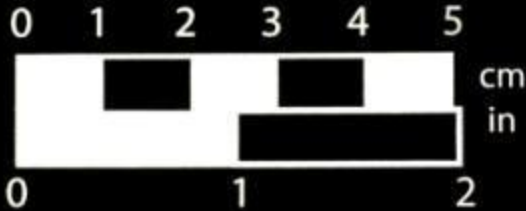
SLIDE 34

I would like to thank the entire crew who worked so diligently throughout the winter!

SLIDE 35

I understand southern Delaware has a very flat nearly featureless landscape but it all about your perspective. Sometimes slight changes in elevation were all that was needed to be habitable....and sometimes X does mark the spot!

THNAK YOU!



Bill Liebeknecht, MA, RPA
Principal Investigator
Hunter Research, Inc.

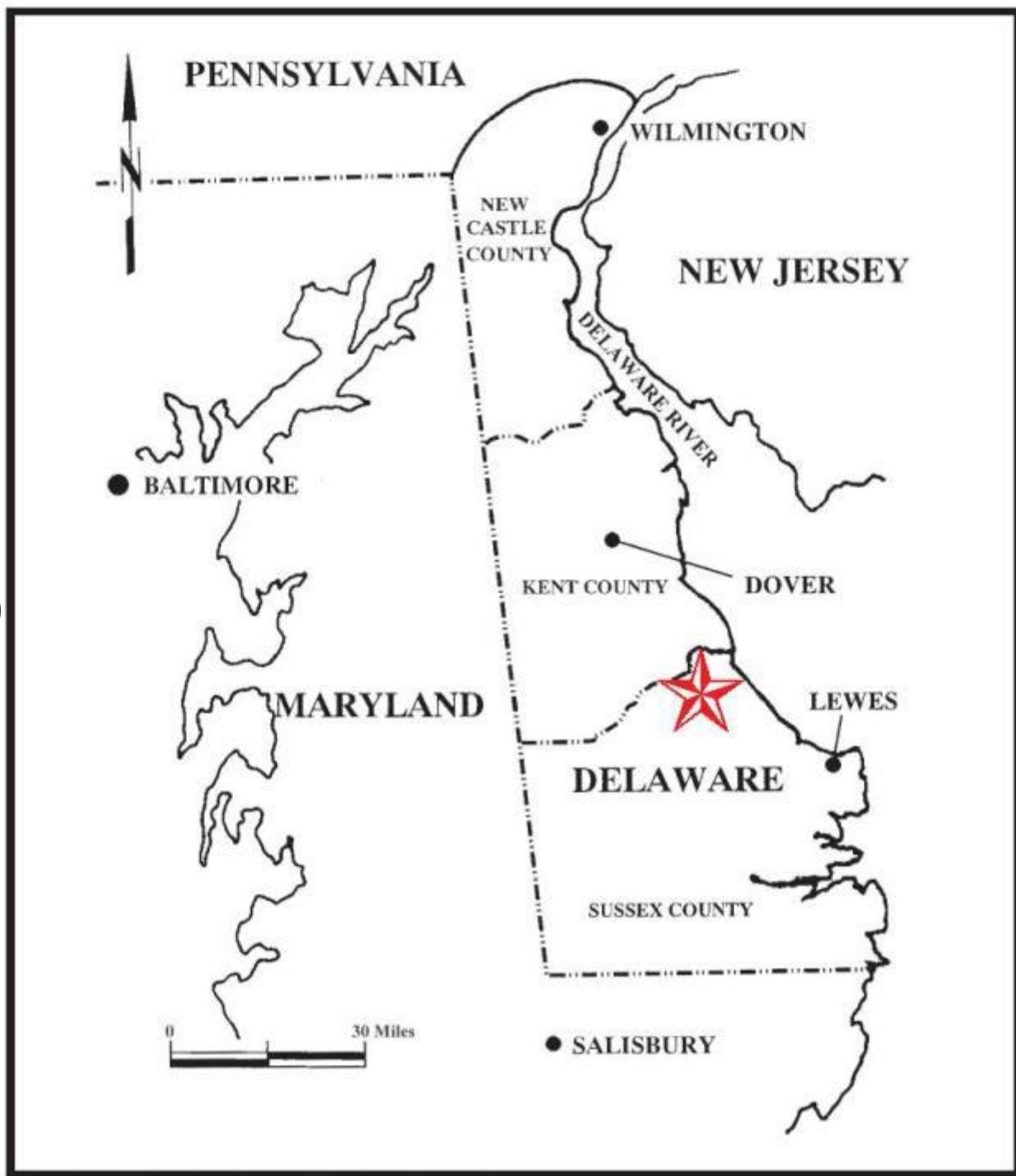
*“Farmer’s Delight”
A Preliminary Look
at Features*



*From the Cedar Creek Site:
a small iron bloomery, brick clamps,
post in ground structures, cellar holes,
root cellars and fence lines*



The Cedar Creek Site is
Located South of Milford
Between
U.S. Route 1 and State Route 30

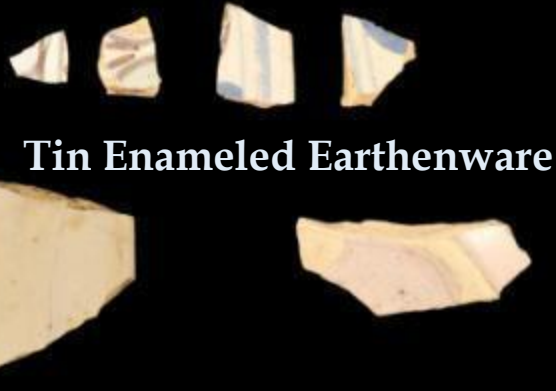
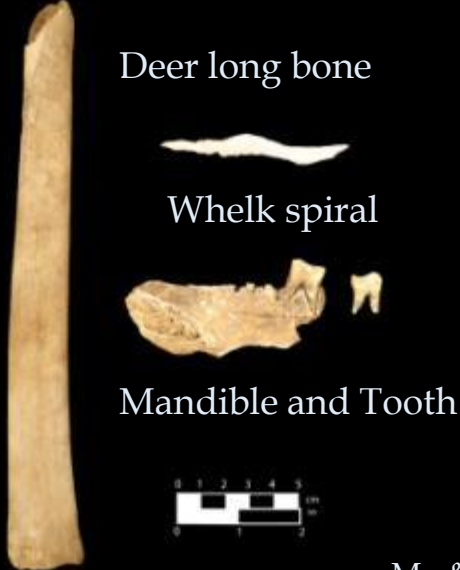


Phase III Excavations Shown in Red

Phase II Excavations Shown in Yellow



A Late 17th Century Cellar Hole Found in a Shovel Test Delimited With a Split-spoon Auger and Examined With a Test Trench During Phase II Investigations



This site will be saved for future generations to study through a protective covenant placed on the property by the State of Delaware





Large Mammal Bone

Buff-Bodied
Staffordshire
or Dot ware

Brass
Hollow-cast
Buttons



**An Early to mid-18th
Century Root Cellar and Artifacts
Recovered from the
Phase II excavations**



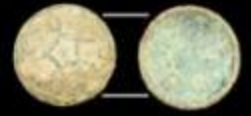
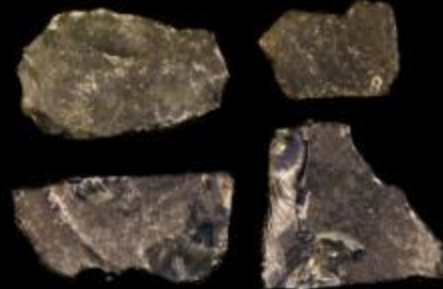


Iron Artifacts Recovered from
the Plowzone in the Vicinity of
an Early to Mid-18th Century Cellar Hole

Slip-trailed
Redware



Copper Kettle
Fragments




Brass Hollow
Cast Button

Olive Green
Spirits Bottle
Fragments



**An early to mid-18th Century
Root Cellar under
A Post -in-Ground Structure
and
Artifacts Recovered from
Phase II Excavations**





**Excavated Features
Interpreted as a
Smokehouse
and a Paling Fence**

Refuse Pit Pre-dating an Early to Mid 18th Century
Root Cellar Filled with Oyster Shells





State Route 30

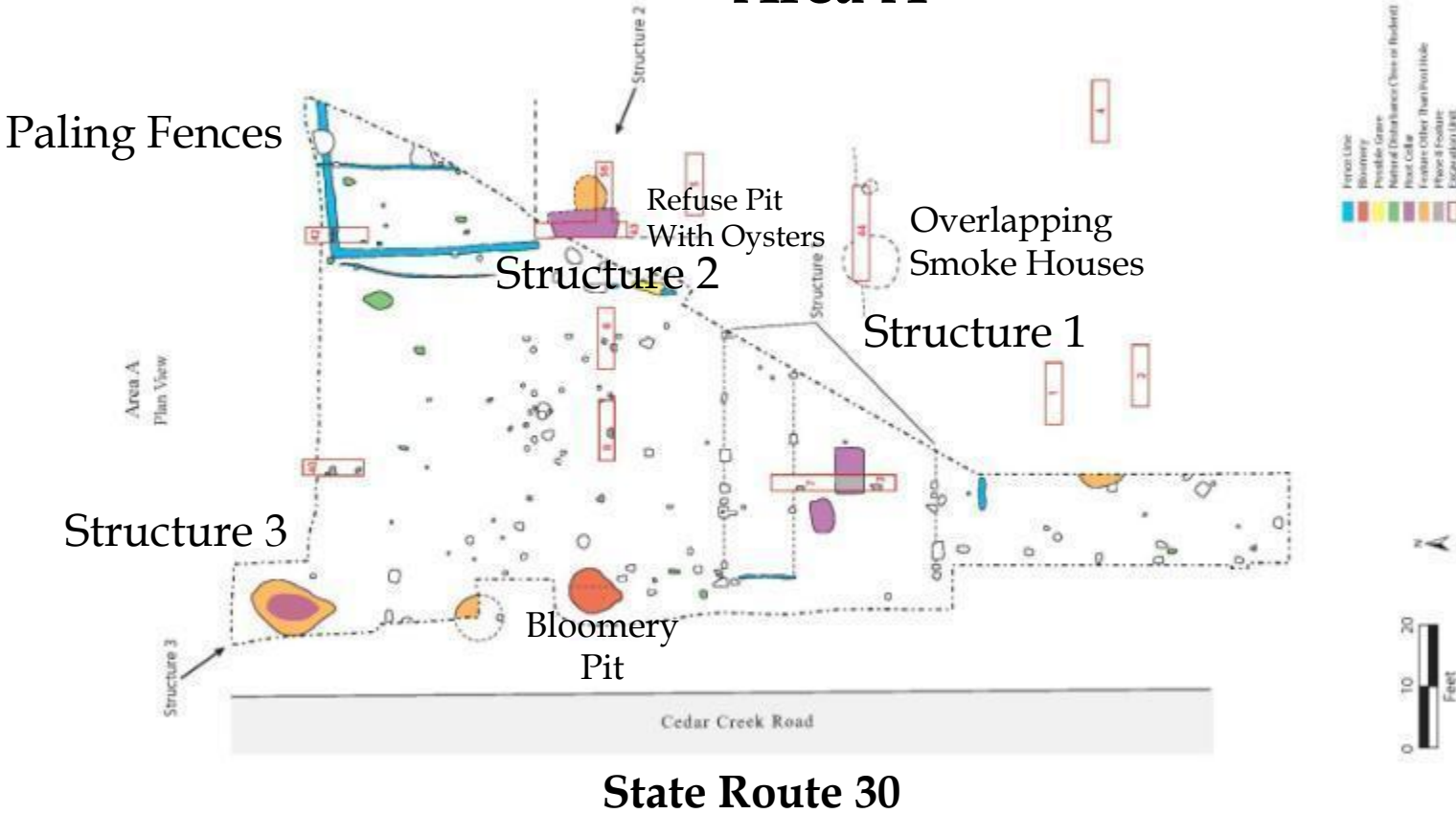
Area A Following the removal of the Plowzone with a light-weight backhoe

State Route 30

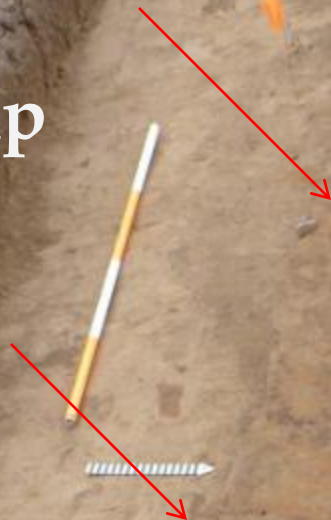
Area A Following the Removal of the Plowzone
with a Light-Weight Backhoe



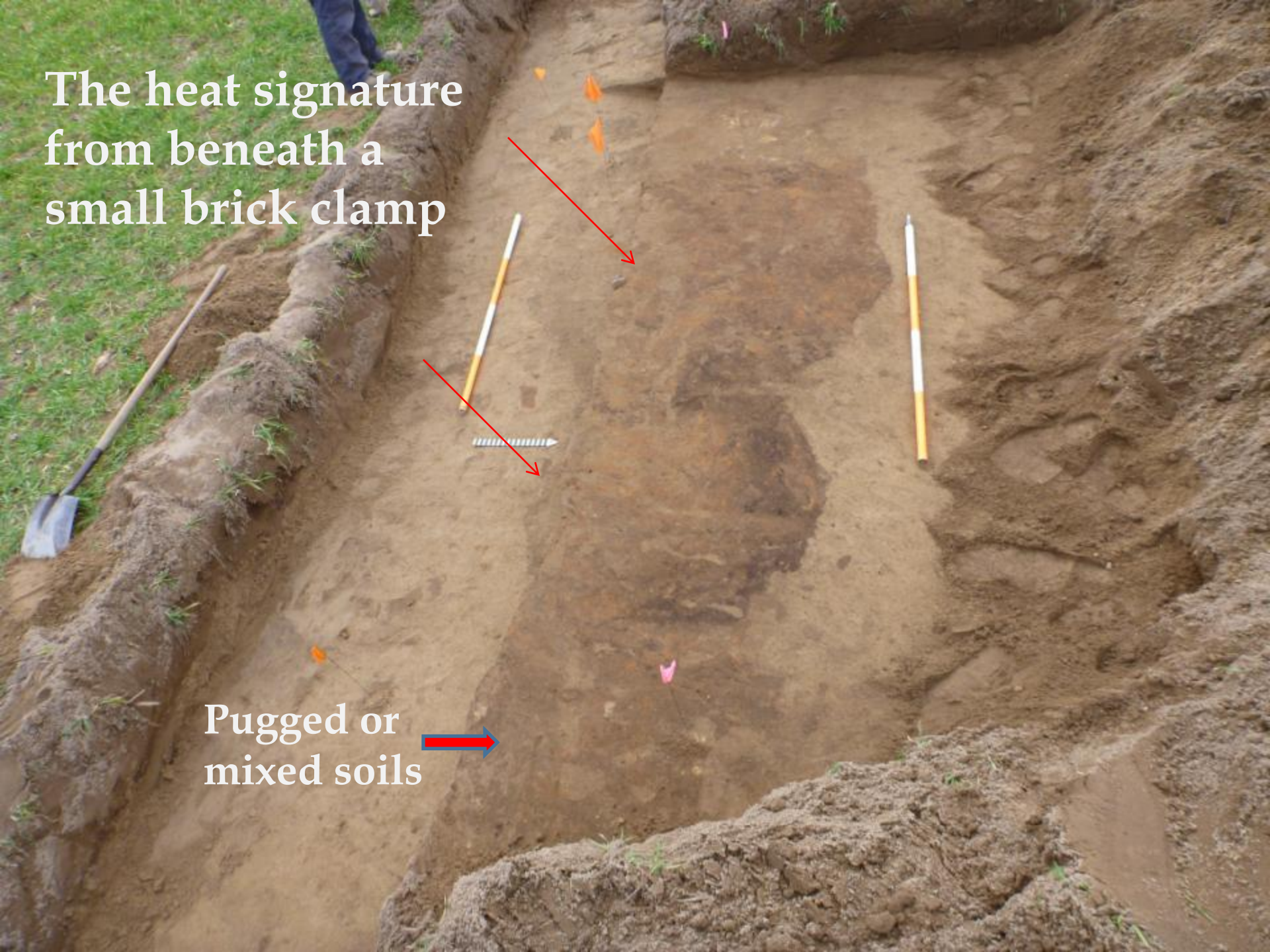
Mapped Features From The Cedar Creek Site Area A



The heat signature
from beneath a
small brick clamp



Pugged or
mixed soils



The heat signature
from beneath a
small brick clamp



Pugged soils


Remains of another small brick clamp
Located during Phase II Investigations



An Early 18th Century Root Cellar Exposed During Mechanical Stripping

Phase II Units 3 & 7



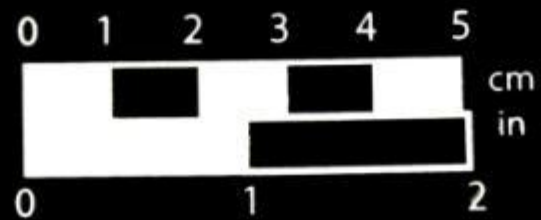
An archaeological excavation site showing a root cellar floor. The floor is made of brown earth and contains several faint, rectangular marks. A measuring tool with orange and white segments is placed horizontally across the top of the excavation. A vertical measuring tool with a black and white striped pattern is also visible on the right side. The text overlay provides context for the marks.

Rectangular marks in the root cellar floor
Thought to be evidence of wood plank flooring



An Early 18th Century Root Cellar Hole Fully Excavated

**Roasted Limonite
Recovered from
the Surface During
Phase II Investigations**





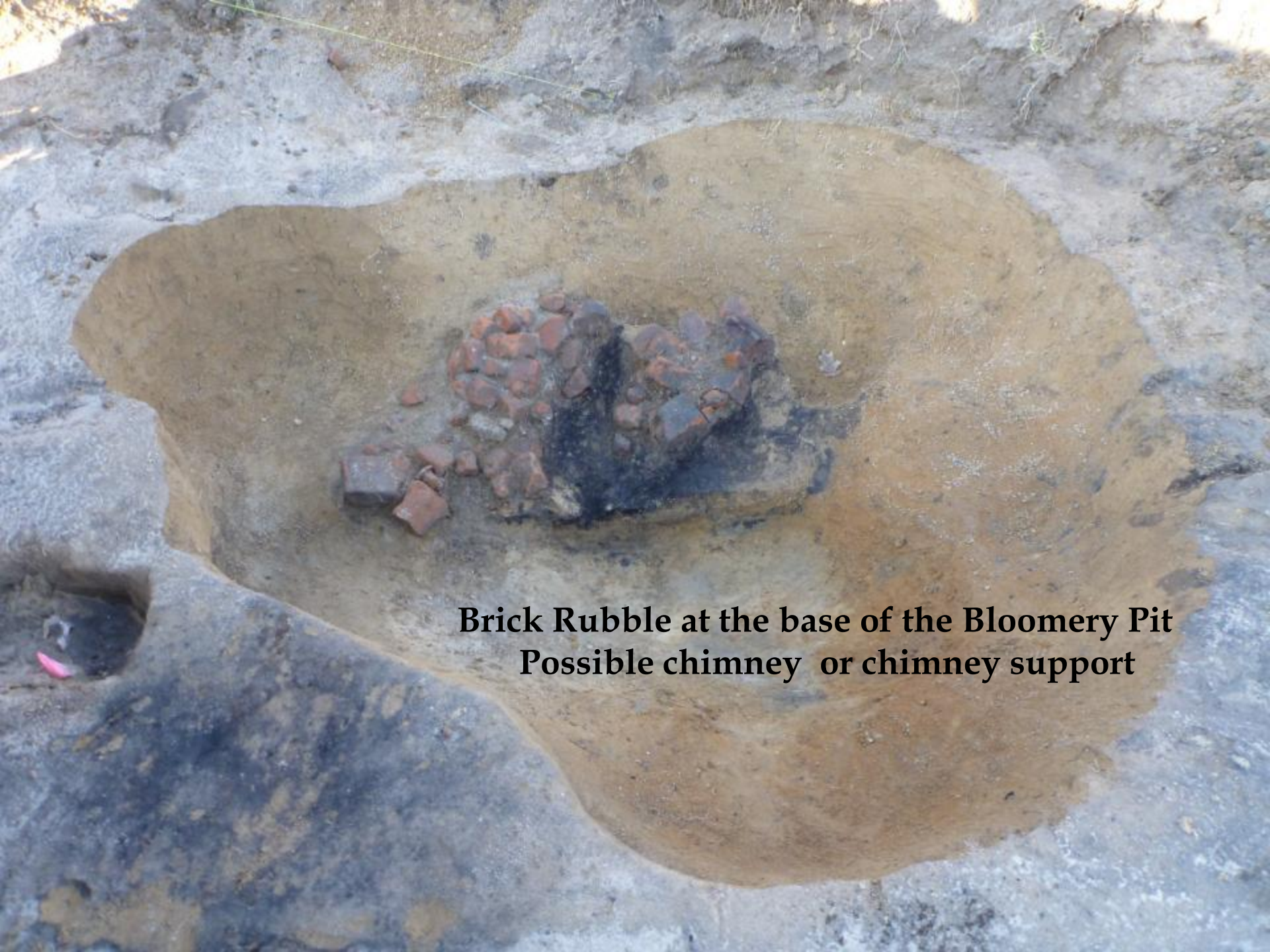
**A Mid-18th Century
Iron Bloomery Pit
Uncovered during
Phase III
Plowzone Stripping**



Bisected Iron Bloomery Pit

From 1747 to 1749

**The property was owned by James Fisher...
a Blacksmith !**



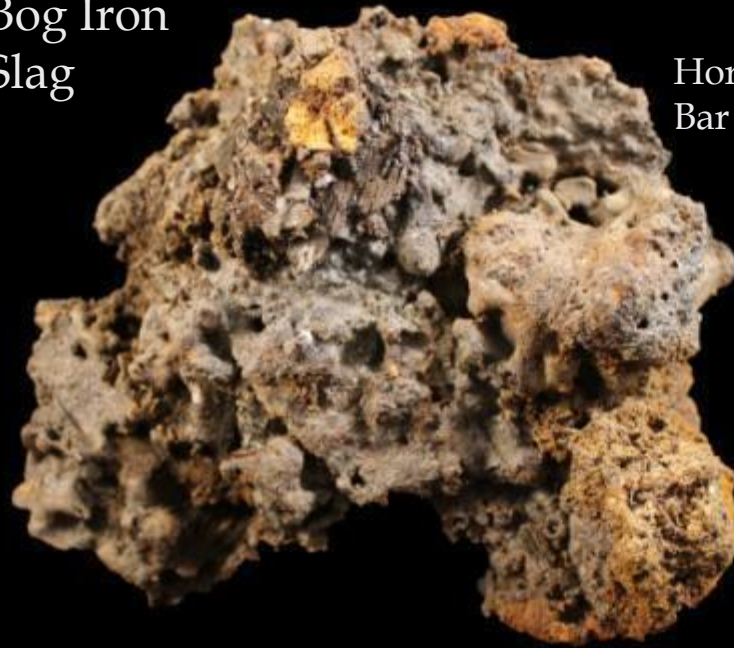
**Brick Rubble at the base of the Bloomery Pit
Possible chimney or chimney support**

Iron Wedge



Selected Artifacts From Preliminary Processing From the Bloomery Pit

Bog Iron Slag



Horse Shoe Bar Stock



Broken Horse Shoe



Bar Stock



Exhausted Wedges



Cast Iron Cauldron Handle



Bridle

**Selected small
Artifacts from
Bloomery Pit**



**Iron slag shell
Fragments
NOT Scale
Fragments**



**Brass
Shoe
Buckle**

Brass Time Piece Part



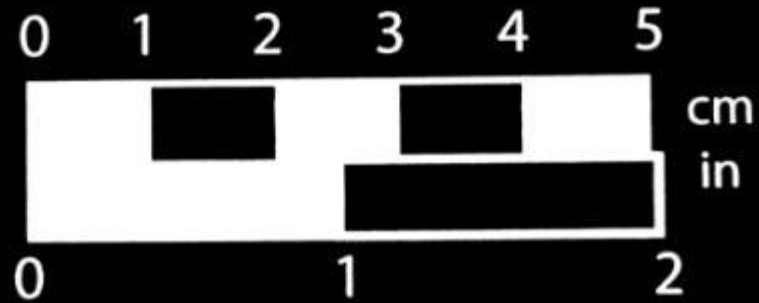
Wrought nail



**Buff-bodied
Staffordshire ware**



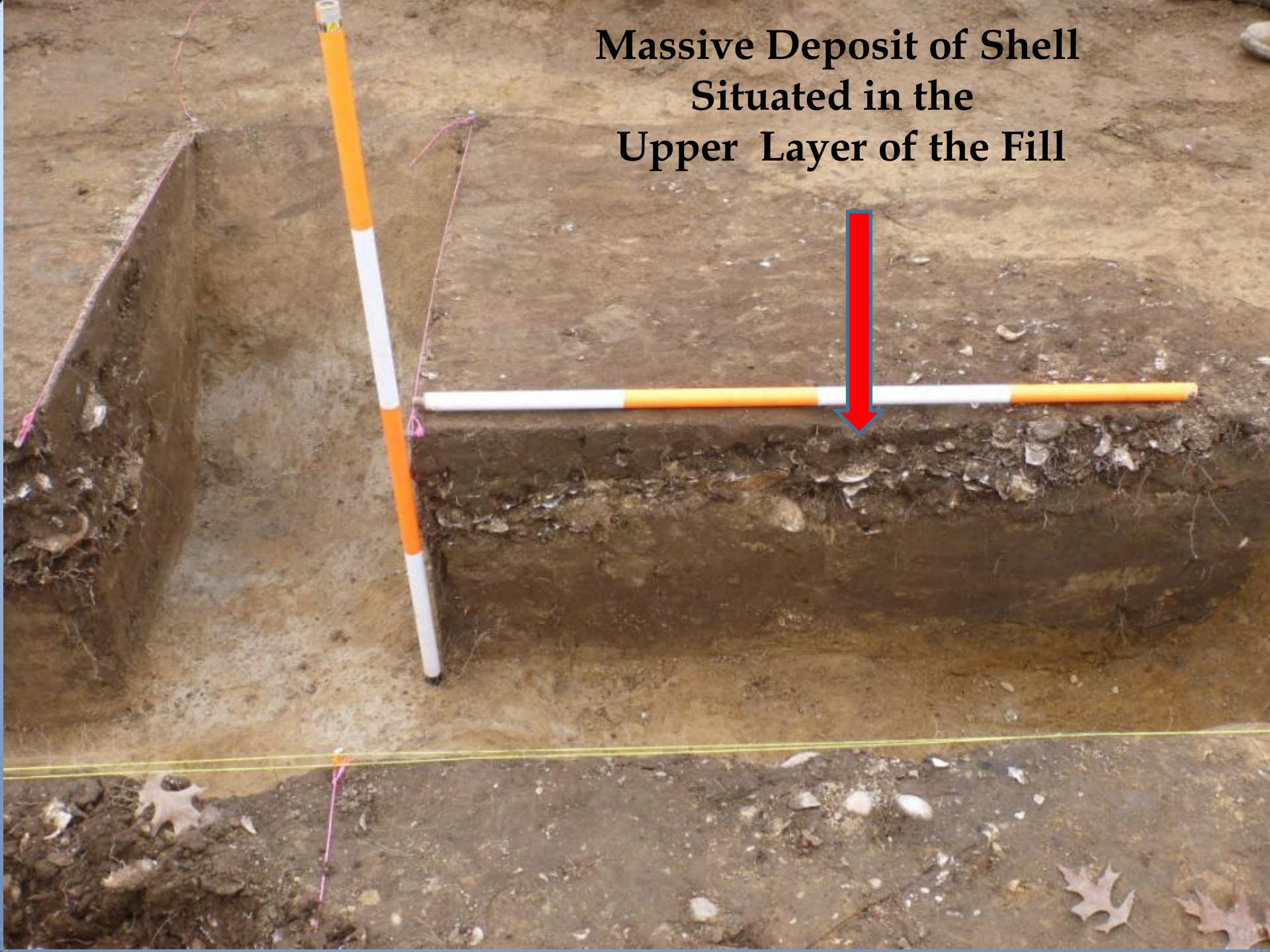
**Whieldon Ware
Teapot Rim Sherd**



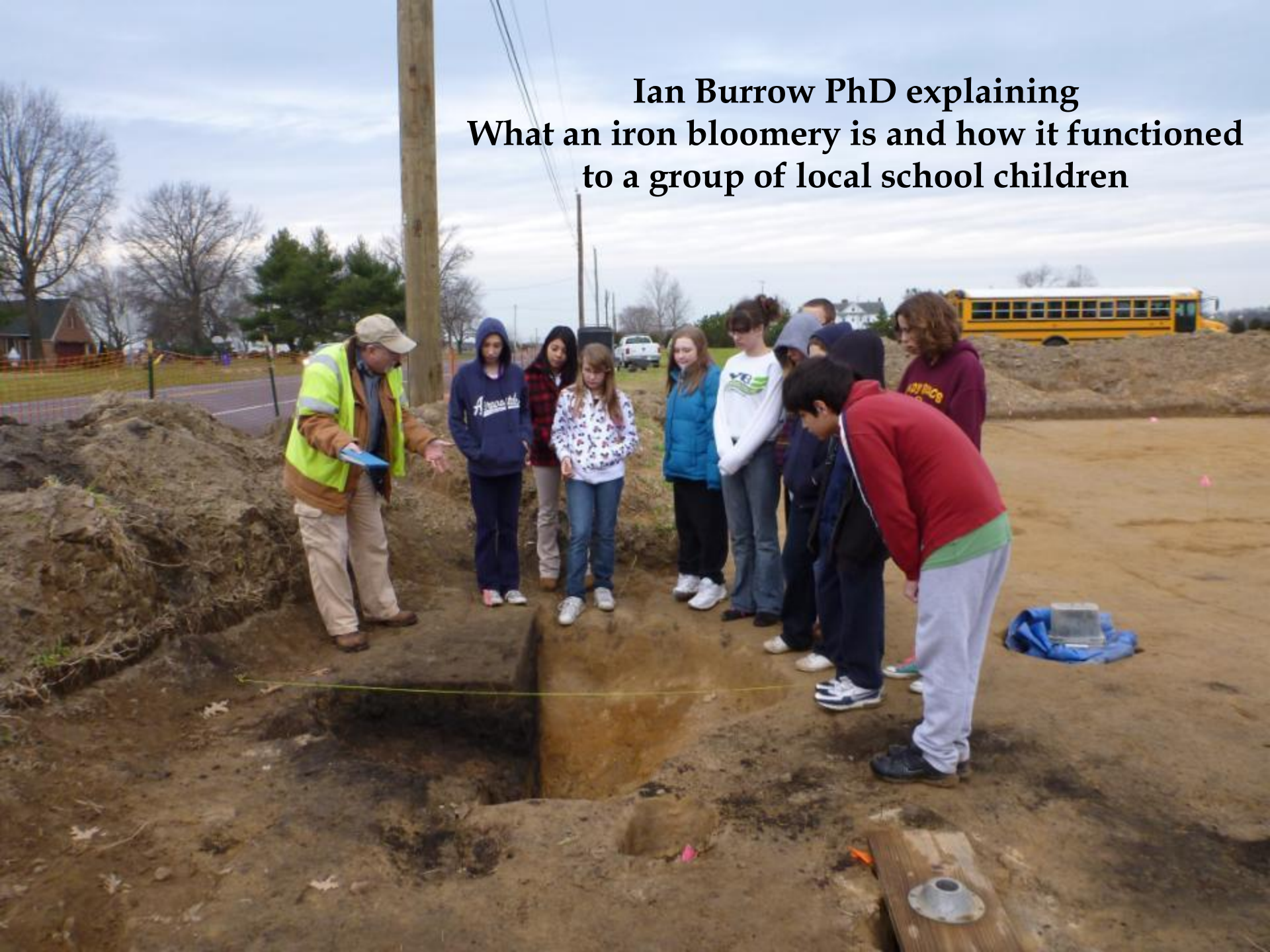
**Mid-18th Century Cellar Hole... Found with Three Days
Left to Excavate and Backfill !!!**



**Massive Deposit of Shell
Situated in the
Upper Layer of the Fill**



**Ian Burrow PhD explaining
What an iron bloomery is and how it functioned
to a group of local school children**





Postholes of all shapes and sizes





Multiple Post Holes - Replacement Posts



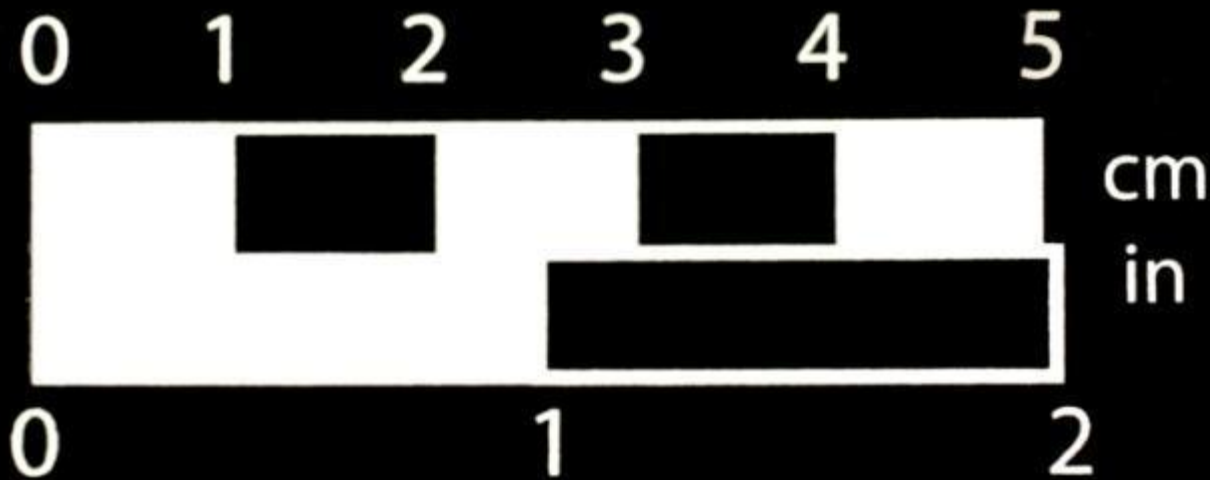
**Paling Fence
Lines**



**A Copper Alloy
Sleeve Link
1744**

**Replica of A
Spanish Real**

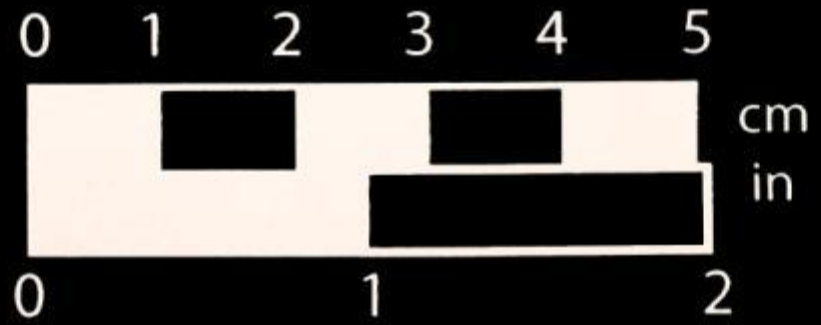
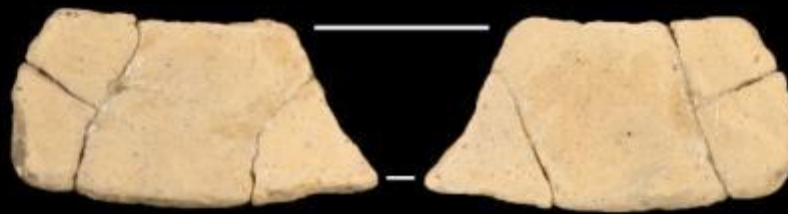
**Buttons and Sleeve Links
Of This Type
Have Been Found on
Military Sites Along
The East Coast**



**Thin Ceramic Triangles
with flat sides**

Colonoware ????

Gaming Pieces ???



THANKS !

Dawn

Joelle

Matt

John

Sue

Glen

Tim

Jim

Andy





**It's all about your perspective ...sometimes the slight changes in elevation matter
...And sometimes X does mark the spot!**