

~~Mr. Hackert~~

regional masonry technique used during
the time from about 1828 to 1854.
Origin in ^{local} in the prevailing but styles.
and special demands
of a pioneer society. Rural type
grown from the soil and ideally fitted
to climate and practical requirements.

- Talk divided into following sections: of the N.Y. Upstate farming country
1. What is a cobblestone wall
 2. Brief survey of the rubble wall from the Romans through the Middle Ages to the western N.Y. Cobblestone wall.
 3. Geological background of cobblestone architecture of our area.
 4. How regionally available materials influence cobblestone masonry.
 5. Remarks on local history and ways of determining dates of house and stone masons.
 6. Styles of Cobblestone houses.

Lecture called: Cobblestone Architecture of Western N.Y.

essentially Rochester area
Area of greatest concentration

domestic, ecclesiastical, and civic and utilitarian buildings

What is a cobblestone wall

A variety of stone masonry. Nothing
entirely new: ~~We shall see that we~~
can trace this masonry technique as
far back as into Roman times.

In stone masonry we distinguish between
two types:

cut stone (Ashlar) masonry
Rubble masonry

Ashlar walls are composed of care-
fully dressed stones, laid with
wet mortar joints. (Example:
~~Public library~~) ~~Chemistry Bldg.?~~
St. Francis school

- a. Solid stone, comprising the
whole thickness of the wall
^{dry - cemented}
- b. Or just a stone facing or
veneer, backed up by some
cheaper material.

11th century Romanesque church, France

✓ 2. Random rubble ^{house} wall

Irregular stones, mortar binder, normal thickness of wall.

✓ 3. Coursed rubble wall

Hereafter House, Farmington 1832.

Stones laid in regular courses on a level bed.

Cobblestone wall classified as coursed
rubble ^{masonry} ~~wall~~.

House builders of Western New York recognized the inherent beauty of the coursed rubble wall and developed it to a perfection that is nothing short of the marvelous. The embellishment of the wall surface with its own materials

is ingenious and paralleled only in a few instances in the history of western architecture.

Not Coursed rubble wall in Europe ^{usually is} dressed with plaster and painted. There are exceptions and those interest us most in connection with cobblestone techniques.
History of the rubble wall

I am showing you now in rapid succession examples of European masonry and wall embellishments which might be considered to be ancestors of the cobblestone wall

We begin with Rome

↓ Fragment of pre-Augustan wall

Cement core, faced with small stones, ~~is~~ forming a reticulate (opus reticulatum)

✓ Close-up of facings, pre-Augustan walls

1. Opus incertum (irregular)
2. Opus reticulatum - diagonal joints.

Beauty of this stone work not exposed,
and is
but only re-inforcement of wall ✓ hidden
behind plaster or masonry revetment.

(mention pre-Romanesque)

✓ Fragment of wall, Porta Palatina Turin
about 50 A.D.

Inner face of wall, lined with river ^{cobblestone} ~~pebbles~~,
split in two and set with the flat side
outward. Wall is strengthened with bonding
ties of brick.

(English flint houses)

We find later, about 700 years later very similar techniques. 7

↓ Diagram, pre-Romanesque masonry patterns

Recognize Roman opus reticulatum.
(France: Appareil reticulé)

Herringbone pattern - of Roman origin.
(in pavements)

Bonding stones.

Next slide shows how these were now

used for wall embellishment (exposed, not hidden behind revetments and used for wall re-enforcement)

↓ Gatehouse, monastery of Lorsch, Rhine Valley
9th century

Roman elements: comb. of arches and

engaged columns (Corinthian) ^{capital} and pilasters.

New element: wall embellishment,

facing against a rubble wall, similar ~~as the~~?

in technique to many cobblestone houses.

Native Red and yellow sandstone (bonding) ^{in color similar to next slide}

↓ Teller House, Soches

Along with it are used:

1. The English half-timber wall
2. Flemish brick wall

Later the ^{Italian} stucco wall is adopted
and still later the clap board wall in this
country

✓ Cathedral of Le Puy, Early Romanesque French

Re other decorative use of multicolored
stone in the typical patterns. ^{Native} Volcanic
stone of the Auvergne.

✓ 12th c. Romanesque facade, Herringbone patterns
in regular intervals.
bonding courses, used to level stone bed (describe)

Compare this to the ✓ Chegg House on Bridge Rd. West
The similarity is striking. ^{About 1840}

At the end of the Romanesque period,
in secular and civic bldgs.

The smooth ashlar surface was firmly
established and the rubble wall becomes

more or less a poor man's masonry

and a rural ^{masonry} technique. just what it set out
to be in Western N.Y.

along with it are used	11th c. ✓ #1 Romanesque church, ^{veneer} other walls: other techniques: Renaissance	Beaulieu - les - Loches	ashlar technique stucco wall. 1. Flemish brick wall. 2. English half timber wall. 4. American clap board wall.
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We are moving now to England. Little

illustrative material. For the curiosity

of it I show the following slide

✓ Four herringbone patterns

Left : from a Glossary of Architecture, 1866
Herring bone ^{pattern} as used in ^{England in} Roman and Norman
arch. — Right : Western N.Y. equivalents
Pre-Romanesque

✓ Roman wall, ^{Porta Palatina} A Turin 50 A.D.

talk without notes

In south east of England we find flintstone
~~coldestones~~ ^(explain what flint is: very hard kind of quartz, black!)
pebbles on beaches and rivers. X Tell of

flint stone houses in Sussex. ^{photograph did not arrive in time}

Quote:

Encyclopaedia Britannica: "Flint, when executed
with care, has a distinctly decorative appear-
ance. To give stability to the structure,
lacing courses of tiles, bricks or dressed stone

+ Charles Cox in The English Parish Church

devotes a whole chapter to Flint as

building material. He speaks of

radious flint walls and their improvement

"To improve the look of flint walling, the first step taken was to ^{aaa} gauge or select them in sizes, arranging them in rough courses. The next advance was to break the flints and use them either in courses or otherwise. The third step was to split the stone with greater care to obtain a fairly even surface as to present a dark glossy black appearance"

are built at intervals, thus forming a flint
 panelled wall. The quoins too in this type
 of wall are formed in dressed stone or
 brick work. ^{Almost like a description of the}
^{cobblestone wall.} ~~|||||~~ +

Russell Sturgis in his Dictionary of Archit.
 and Building adds to this:

Quote " Small and non-decorative buildings
 are those in which this material is most
 commonly used; ^{also} but parts of elaborate
 churches are so constructed "

When we add to this what we find in the
 same dictionary under "cobblestones",
 we may safely look to the ^{south-eastern} ~~England~~ flint-
^{of Sussex} houses and to Yorkshire for the immediate
 predecessors of the Western N.Y. cobblestone
 house.

Brunel Sturgis in his Dictionary of Architecture¹¹
writes the following about cobblestone:

~~It says there~~ : "Cobblestones are used in
some parts of Yorkshire as well as the
United States to build the walls of
cottages" (!)

It might be remembered that parts of
Yorkshire have a similar geological
structure as the Rochester area. Ireland
and Scotland too might have some examples
of cobblestone houses

This brings us up to Western N. Y. and
the last slide on Wall construction:

✓ Three ways of laying cobblestone walls

1. Solid rubble wall (on Sheldore Road
in Newton). ^{Three vertical courses of cobblestone}
^{are interlaced. Outside regular, inside}
^{plastered}
2. ^{discuss first} Cobblestone facing ~~against~~ with bonding
stones reaching into the backing wall.

(Plank road, Webster - now destroyed.)

3. Their cobblestone veneer against a
solid fieldstone wall. ^(Roman veneer technique) Least durable.
1844
(First Christian Church, Greece. Now
destroyed.)

Geology of area

As brief as possible - but very important.

Bed rock several strata of limestone,
shale and sandstone

Importance of limestone for mortar and
solid stone members of wall: quoins,
^{door and window} lintels, door jamb etc. ^{also lime for mortar}

Importance of sandstone for quoins, etc.
(Bedding sandstone)

Sheet of sand, clay and gravel deposited
by advancing and retreating glacial
ice sheet. This contains the cobblestones
which are locally used as building
material.

Map: Glacial Moraines

Layer of glacial debris:
Area of greatest concentration of deposit also has
greatest concentration of cobblestones - ^{Shore line glacial lake St. Ignace}

Other glacial deposits: Remains of
Menstone Ponds park (Use maps to discuss
color and size of
stone)

~~Map: Strumlin~~

~~Strumlin~~
Strumlin

Map of Strumlin

inverted spoon - north-south

Opened up Strumlin

sand - gravel - topsoil

(Field and Clinton south)

✓ Close-up cobbles chunkin

Definition of cobblestone:

Geological term referring to a rounded stone ^{more or less} not ^{more} larger than 10" in diameter, not ^{less} smaller than 2 1/2" in diameter. A fragment of rock breaks off from the parent rock and is transported from its original position. During transportation it undergoes abrasion.

Explain the different stones in this.

Speak of hard and soft stone ^{lake washed} and distance of travel. ^{stone}

Cementing agent (lime) Conglomerate
nature's rubble wall

✓ Glaciated cobblestone

✓ Lake washed cobblestone

✓ Farm on field - Phelps

You can clearly see in the next two slides

why I am so interested in the geological origin of cobblestone.

✓ Typical ^{wall} texture of glaciated cobblestone

✓ Typical wall texture of lake-washed cobblestone

You can see that size and shape influence the texture of cobblestone walls just as much as the manner of laying.

✓ Four ways of laying lake-washed stone

1. ^{shaped} Trowel - flat joint ^{sharp form not possible because of} coarse mortar
2. Trowel - more sharply defined horizontal lines, vertical ^{accent} ~~structure~~ ^{little} with pyramoids
3. Beveled joint, obviously done with a metal tool ^{metal tool shaped round}
4. Angular joint done with metal tool. ^{metal tool shaped like V, lay wooden planks}

wooden tool, but metal tool possible

board as a guide pointing tool

Classification by regionally available material, geological regions

Carl Schmidt in his book Cobblestone Architecture divides the building of cobblestone houses into three periods: Early, middle and late period. This would imply a conscious development of a ^{technique} style almost from the beginning. We are dealing with a period of only about 25 years and with a period of a rapidly changing society. Three different styles of architecture are used almost simultaneously during these

25 years of cobbles structures: The Post Colonial or Early Republican - The Greek Revival - and the Gothic (Romantic) Revival. ^{furthermore,} The following factors ~~too~~ have great influence on the selection of cobblestone techniques and materials:

1. Which material is available in immediate surroundings (glaciated ^{sedimentary or igneous} or lake washed stone)
2. Is the bldg. a domestic, civic or ecclesiastical structure
3. Is the builder (or community) well to do ^{and} financially. Can he afford ^{the labor} a mansion or just a modest dwelling.
4. How much help and time is available.
5. How interested was the builder in the embellishment of the structure (Quaker meeting house, First Baptist Church, Webster)

Considering all these circumstances, I find a classification of cobblestone techniques ^{by} into areas according to available bldg. materials more feasible. than the classifi-

Light

Explanation of map.
 cation by periods of time
 Map Glacial Moraines

Three areas : 1. East, 2. West & along lake 17
South
Further - regional groups

1. East of Rochester along the Ridge Road and Lake :

Lake washed cobbles mostly brownish
sandstone cobbles predominantly
red. Limestone quoins.

Intelligence achieved by use of
different colors

Further away from the lake coarser, less rounded
cobbles

✓ Neulensdyke House, a story and a
half Greek Revival farm house

✓ Close-up Neulensdyke House

✓ Beach cobbles, Orchard Beach

✓ two slides!

✓ Teller House, Alton

✓ close-up Teller House

} banding

mention also Church in Alton (about 1851)
(and Upton House (1847))

Middleton - Chapman House 1844

✓ close up of front

✓ corner showing salt and pepper on side

2. West of R. along the Ridge Road :

Ridge is
bank of
glacial
lake Drigois

Fairly ~~coarse~~ large but smooth
cobbles with pinkish
red stone capping. Deposit of glacial
lake Drigois
cleavage of Medina sandstone

Medina sandstone quoins, lintels etc.

levelling courses
Intelligence of wall by use of
differently shaped stones and by herringbone
band

all near lake!
 of plain difference
 of lake Drigouis
 of depression

- ✓ Neutendyke House, a story and a half Greek Revival farm house
- ✓ Close-up Neutendyke House
- ✓ Beach cobbles, Orchard beach
- ✓ two slides!

✓ Teller House, Alton } banding
 ✓ close-up Teller House

mention also Church in Alton (about 1851)
 (and Upton House (1847))

✓ Middleton - Chapman House 1844

✓ close up of front

✓ corner showing salt and pepper on side

2. West of R. along the Ridge Road:

Bridge is
 bank of
 glacial
 lake Drigouis

Fairly ^{large but smooth} ~~coarse~~ cobbles with pinkish
 reds ^{deposit of glacial} ~~domineering~~ ^{lake Drigouis}
^{cleavage of Medina sandstone} Medicine sandstone quoins, lintels etc.

^{levelling courses} Evident levelling of wall by use of
 differently shaped stones and by herringbone
 banding.

cleavage
 of stone
 bedding
 courses

✓ Blodgett - McCall House 1840 ^{flat arch effect}

✓ Chugg House, about the same time
 three slides

- 1) quoins 2) flat arch 3) different shape because of sedimentary rock (cleavage)

3. South of Rochester in a wedge of ^{about 75°} more than 7 ~~almost 90°~~ we have glaciated cobblestone with a domineering tonality of yellow - gray. Also around here

Wall embellishment ^{by} with masonry detail
 is entirely omitted. (should have many more
 slides of this)
 ✓ Breaker House roughly hewn quoins
 limestone
 ✓ ✓ two close-ups

quartzites
 gneisses
 limestone
 sandstone

4. Fourth Groupe.

I call this groupe inter-regional.
 Building material carried from far
 away, is not the locally available
 material. of local origin, sometimes carried
 from far away
 Finely selected for size and color.
 Laid up with highest masonry skills.
 All these houses fairly late in date
 with carefully executed stylistic
 detail.

✓ Drumlin Farm, SE bridge,
 50 miles from Oswego

✓ Close-up texture lake-washed cobbles of
 igneous origin
 ✓ ✓ two slides each Oswego

Today we think nothing of using
 building materials which are transported
 from points hundreds of miles
 away. At that time transportation
 of bldg. material was done by
 ox cart. 50 ^{ox cart} miles could only be
 afforded by the few well to do citizens.

Styles of Cobblestone House

1830 - 1850 main period; some earlier, some later dated examples.

Dating extremely difficult:

1. Builders mostly average citizens
2. ~~no~~ no professional architects ^{hand-looks +}
3. perhaps no specialized masons
pioneer society, only toward
end of the period fully developed
society with specialized professions

Hints in dating houses:

✓ Winstow, Miles square road

mason not needed for this type of work
little ready made? - Neighbors build of ^{reused, much}
early houses (fairly steep roof, narrow in depth)
small doors without transoms or side-
lights

✓ Barrow House detail

4 houses have this "mason's signature"
^{chronology is correct}
all dated - speak of interior of two
of them - architect (Atkinson
Munroe)

✓ Houses in Lyndtownville

Unusually wide front for a Greek

Revival house

could be from pattern book -
house on Ridge Rd. West -
back wall

✓ Texture Lyndtownville

side wall other house

+ Minard LeFever: Beauties of Modern Architecture

A. J. Downing: A Country House

Orson Fowler: "A house for all", or the gravel wall
and octagonal wood building."

Three Styles; used ^{almost} simultaneously in this area
 1) ~~18th c. Colonial and Post-Colonial~~
^{1830 - 1840 in cobble}
~~also called Federal or Early Republican~~

2) Greek Revival 1830th - late 1840th

3) Gothic Revival and other so called

Romantic Revivals

1840th - 1854 ^{latest}
^{dated domestic dwelling -}
^{cobble term.}

Houses:

Colonial and Early Republican

1) ✓ Hereafter, Farmington 1832

18th c. Colonial Block mass house

functional approach

long front toward street

center door and symmetrical distribution of windows

chimneys on ^{both} sides walls

narrow door, absence of transoms,

side lights reach only two-thirds

to the floor.

2) ✓ Fisher House, Scottsville date?

same plan etc.

before 1840

innovation: elliptical fan light, door

side lights fully included into ~~transoms~~

enframement

3) ✓ ^{conglomeration of styles} Moses Haystack House, York 1828 - County historian

first county judge - Comb. Colonial plan, elevation! Renaissance
 Greek door and Greek ~~porch~~ ^{porch} ^{step} ^{root}
 Depth of portico porch. - Multiple ^{chimney} ^{Gothic}

Greek Revival

- ✓ Barrow House, Geneva 1848 inter-regional

Colonial tetrastyle portico - Ionic columns

full entablature

pedimented gable

low symmetrical wings

entrance door on small side of house, not in center but side square transome and door handle.

point out proportion of woodwork to
cobblestone wall ^{color!}

- ✓ Wickware Farm, Lake Road date? ^{probably 1844}
Adaptation of Greek style to modest dwelling:

Pedimented gable only suggested by the partial return of the entablature

Temple front entirely omitted

Pilasters ^{unusual} probably covering corner quoins reinforcement

Freeze windows in entablature

mention color

- ✓ Holland Patent 1840? ?

A Cobblestone porticoed Greek Revival

Taber House, Castile, 1844. Vernacular expression of Greek Revival. Recessed center porch typical of Upstate N.Y. Freeze windows

Gothic Revival

Squarish stone

- ✓ Drumlin Farm + Sebridge 1857 ^{English architect}
Pointed gable and steep roof
Slate roof, verge board
multiple flew chimneys

inter-regional

pointed arches of windows (point out cottle work)
ogee arch

bay window with diamond shaped
glass panes

broken up skyline

picturesque appeal
buildy. material lakecrashed 'furious

✓ King House, Phelps, 1842!

Gothic cottage

same stylistic features ^{as previously shown houses} but in
a more modest house dwelling

This is a very early Gothic. Greek
feature might be seen in door.

cottle work on
windows

Cobblestone Corners, S. of Geneva, 1854

Quasi Greek front ^{in proportion} but ^{and distribution}
but Italian influences: ^{of wall piercings}

heavy brackets (hand carved)

wide overhang of roof

Vienna
in the Italian
style

Double light under segmental

bearing arch direct influence of

the 15th c. Italian palazzo. cottle work on windows

Oculus - more popular in the 60th.

Ogee arch.

Account of cobblestone houses not complete
without a polygonal house. Three of them:
Blacksmith shop, Alloway - Polygonal Block
in Buckville, Route 20, 1850 and the

Styles of Cobblestone Houses

- 1) 18th c. Colonial
Herensteen House, Farnington

Octagonal Residence, Madison 1840
about 10 years before Orson
Fowlers book on octagonal
houses! - Fad for oct. houses
began in the 50th

"A home for all"
on the gravel wall and
octagonal wood blog." Review

~~CLOSING WORDS~~

Divorability - what makes them
an ^{fall down}theistic repair not available
research required:

complete documentation
analysis of acoustics
further investigation into techniques
tracing of masons
collecting of tools used
tracing to European origin

read letter