

Flint

Flint originates as nodules in Chalk, from which it may be eroded to form beds of gravel. It splits with a conchoidal (curved) fracture, is very hard, and being available locally has been used for decorative wall-facing as in the tower of Lavenham Church (illustrated).



Flushwork

Recesses are carved out of the limestone and small black flints placed in the recesses so that the limestone and flint are flush with each other. The split face of the flint is exposed; the rest is left rough to bind into the mortar. The flint work inscriptions on Stratford St Mary Church include the alphabet (illustrated).



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GeoSuffolk goes to Church in South Suffolk

South Suffolk has some of the finest parish churches in England, many built from the wealth of 15th century wool and cloth merchants. Rock ('stone') was used for load-bearing construction and for decoration. A variety is featured in this leaflet. Visitors should check church opening and service times.

Great Waldingfield Church

- 1 This is a relatively hard chalk often known as Clunch. Although it has been used for external work it weathers poorly over time. It may contain fossil shells.
- 2 Quartz
- 3 Flint stained by infiltration of water charged with iron oxide (rust).
- 4 Fine-grained sandstone, consisting of small rounded grains of quartz held together by the natural cements, silica and iron oxide.
- 5 Oolitic limestone with fragments of fossil shells. This rock is composed of small spherical lime particles (ooliths).
- 6 Flint showing conical fracture producing 'cones of percussion'.
- 7 Broken nodule showing fresh black flint inside the white cortex.
- 8 Flint gravel cemented with iron oxide.

The chalk and flint are local to East Anglia, the quartz and sandstone were probably transported to Suffolk by ancient rivers and glaciers, whilst the oolitic limestone was probably brought from Lincolnshire by or for stonemasons. Tiles and brick add a touch of colour to the wall.

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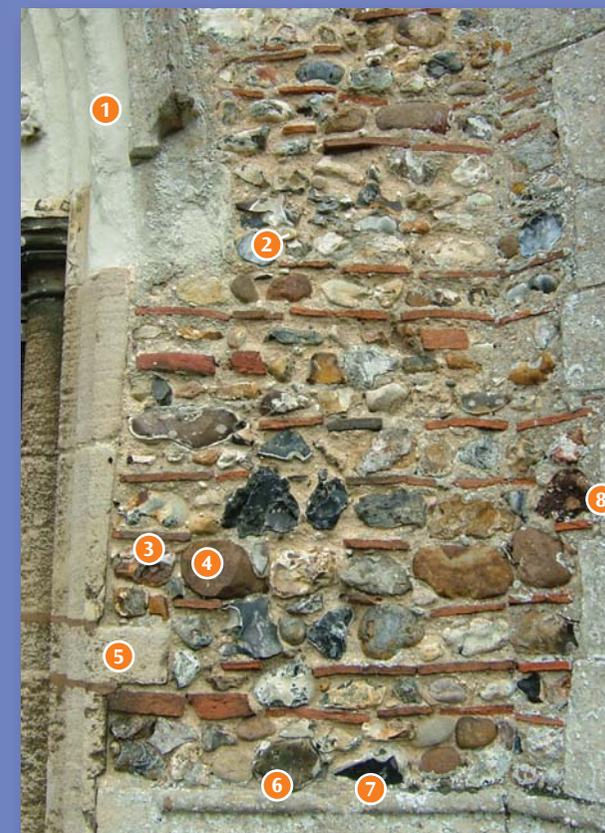
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01473 433550




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Wall by front door, St. Lawrence Church, Great Waldingfield.



Caen Stone

A pale-coloured, fine-grained Jurassic limestone from France. It is well suited for carving. Long Melford Church has fine examples in the pulpit (illustrated) and the reredos above the altar.



'Purbeck Marble'

A dark-coloured Jurassic limestone from near Swanage in Dorset, commonly containing abundant fossil small freshwater snails (look carefully!) and compact enough to take a good, but not long lasting, polish. It is not a true marble as it has not been metamorphosed by heat or pressure. Such rock may be seen in Long Melford Church, in the font and also the tomb (illustrated) in the Martyn Chapel.

Marbles

The reredos of Great Waldingfield Church is panelled (one illustrated) with various marbles collected from temple ruins in Rome. Many are coloured by iron oxides, some are brecciated (with angular fragments), others have layers deformed under pressure at great depth and yet others have veins of calcite in ancient fractures. One grey-coloured piece shows a fault, altering the relative positions between the layers. There are some igneous rocks, including granite (with crystals of pink feldspar and colourless quartz) from Mount Sinai.



'Tufa'

The arches inside Polstead Church (illustrated) are of bricks and blocks of brown-coloured travertine (tufa), commonly deposited where springs yield water saturated with dissolved lime, yielding a strong but light limestone rock.



Lincolnshire Limestone

Typically contains small spherical lime grains (oolites) and may contain fragments of fossil shells. The layers of particles often lie at various angles, showing original current conditions on the Jurassic sea floor. Lincolnshire Limestone is the source of many building stones, including Casterton Stone in the exterior walls of Lavenham Church (illustrated). Ketton Stone is very similar and widely used.



'Mudstone'

The dark brown calcareous (lime-rich) mudstone concretions come from the local 'London Clay'. They are sometimes called cement stones (they were used for making cement) and some are septarian nodules (having veins of yellow-green calcite mineral). Harkstead Church is illustrated. (See also Dunwich Leper Chapel in our Suffolk Coastal Churches leaflet).