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# A13 D5 Hooton Pagnell Village Pound

## Site information

**Site name:** Hooton Pagnell Village Pound

**Site key:** D5

**Grid reference:** [SE 486 081] (centred on)

**Site type:** exposure, natural

**Local authority:** Doncaster Metropolitan Borough Council, South Yorkshire

**Site dimensions:** 6 m x 4 m and 7 m x 3 m

**Site owner:** Hooton Pagnell Parish Council

**Conservation status:** Regionally Important Geological Site **Date:** 14/9/97

**Field surveyor:** Scott Engering **Date:** 14/2/07

## Stratigraphy and rock types

**Time unit:** Permian **Rock unit:** Wetherby Member, Cadeby Formation, Zechstein Group

**Rock type:** Dolostone **Details:** Unbedded bryozoan reef mass with associated thick bedded shelly ooid-limestones. Sequence of thin bedded, upward coarsening dolostone sand beds and pisoids

## Site map

(Figure 65) — D5 Hooton Pagnell Village Pound

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## Site description

Two separate exposures in close proximity displaying a bryozoan patch reef with associated thick bedded shelly ooid-limestones and a 3 metre section comprising a series of thin grey laminated muddy beds, coarsening upwards into buff sub angular pisolite.

The reef [SE 48563 08127] comprises an irregular buff/orange pillow-like mass, pitted with numerous tiny hollows representing external moulds of bryozoans with some surfaces showing net like patterns which suggest a well preserved skeletal structure of these colonial organisms. The irregular mass passes both laterally and downwards into thickly bedded, breccia and shelly ooid-limestones which appear depressed and distorted by the overlying reef. The reef forms part of a retaining wall and landscaped and planted area, where large limestone slabs are used for rockery stones.

The laminated beds are located approximately 60 m to the south at a similar level [SE 48551 08048]. The upward coarsening beds are generally less than 150 mm thick and are mostly separated by a sharp erosional surface. The fine grained sediments appear to comprise small broken shell fragments and have an open cellular texture. Cross laminations

and undulating (ripple marked) bedding planes are common. The exposure is incorporated into a retaining wall. A slab of rock that is detached from the outcrop but is in a stratigraphically lower position is weathered to a deep red/purple colour, with a very fine grained muddy patina and 400 m to the south, the lowest exposed limestone is yellow/orange and contains a high proportion of reworked sediments from the Yellow Sands Formation. Overall, there is a very different character to the reefs exposed in North Cliff Quarry.

Hooton Pagnell itself is an outstanding example of a 16th century estate village, all built out of the local stone. Traditional farm buildings and cottages are numerous and together with the Norman church and old Hall, where the gatehouse is spectacular, possesses a very high Geodiversity value.

## **RIGS assessment of site value**

Ratings: 1–2 very poor; 3–4 poor; 5–6 acceptable/useful; 7–8 quite good; 9–10 very good/excellent; N/A not applicable; D/K don't know

### **Access and safety**

#### **Aspect/Description/Rating**

**Road access & parking** Parking in the village is extremely restricted but up to six vehicles could park in the layby in front of the church. Rating: 7

**Safety of access** Access to exposures is good but a lack of roadside paths and blind bends requires a cautious approach via the churchyard. Rating: 6

**Safety of exposure** Very good. Rating: 8

**Permission to visit** Exposures publicly accessible but the quiet exclusive character of the village needs to be considered for larger parties. Rating: 7

**Current condition** Very good, but some cutting back of vegetation around the reef exposure is required on a regular basis. Rating: 8

**Current conflicting activities** None envisaged, except limitations on parking when there is a church service

**Restricting conditions** No collecting or hammering

**Nature of exposure** Natural rock exposures incorporated into retaining walls and landscaped War Memorial gardens

**Multiple exposures /prospect for trail**

**Notes** Link with Watchley Crags and provides an interesting contrast to the quarry exposures seen in the gardens of English Heritage owned Brodsworth Hall

### **Culture, heritage & economic**

#### **Aspect/Description/Rating**

**Historic, archaeological & literary associations** The village provides an outstanding example of the use of local building materials for vernacular architecture.. Rating: 9

**Aesthetic landscape** The village has previously been given awards as the best kept village in South Yorkshire. Rating:10

**History of earth sciences** This site has been highlighted in several publications as an important location to view an excellent Permian reef. Rating: 9

**Economic geology** Several local quarries are located within the area but none are of economic significance. Rating: 2

## Notes

## Education and science

**Surface processes** General weathering of limestone. Rating: 6

**Geomorphology** From the escarpment, there are good views of the topography formed by the Carboniferous rocks to the west. Rating: 6

**Sedimentary** A good range of lithologies and sedimentary structures associated with reef development and related facies. Rating: 8

**Fossils** Specialist interests. Bryozoans, brachiopods, bivalves and foraminifera typical of the margins of hypersaline seas. Rating: 7

**Igneous** Not applicable. Rating: 0

**Metamorphic** Not applicable. Rating: 0

**Tectonic: structural** Not applicable. Rating: 0

**Minerals** Not applicable. Rating: 0

**Stratigraphy** Provides a good comparison and contrast with reefs present in the Wetherby member around Conisbrough. Rating: 8

**Notes** Considered to be an outstanding example of a patch reef, for study and research at advanced levels

## Geodiversity value

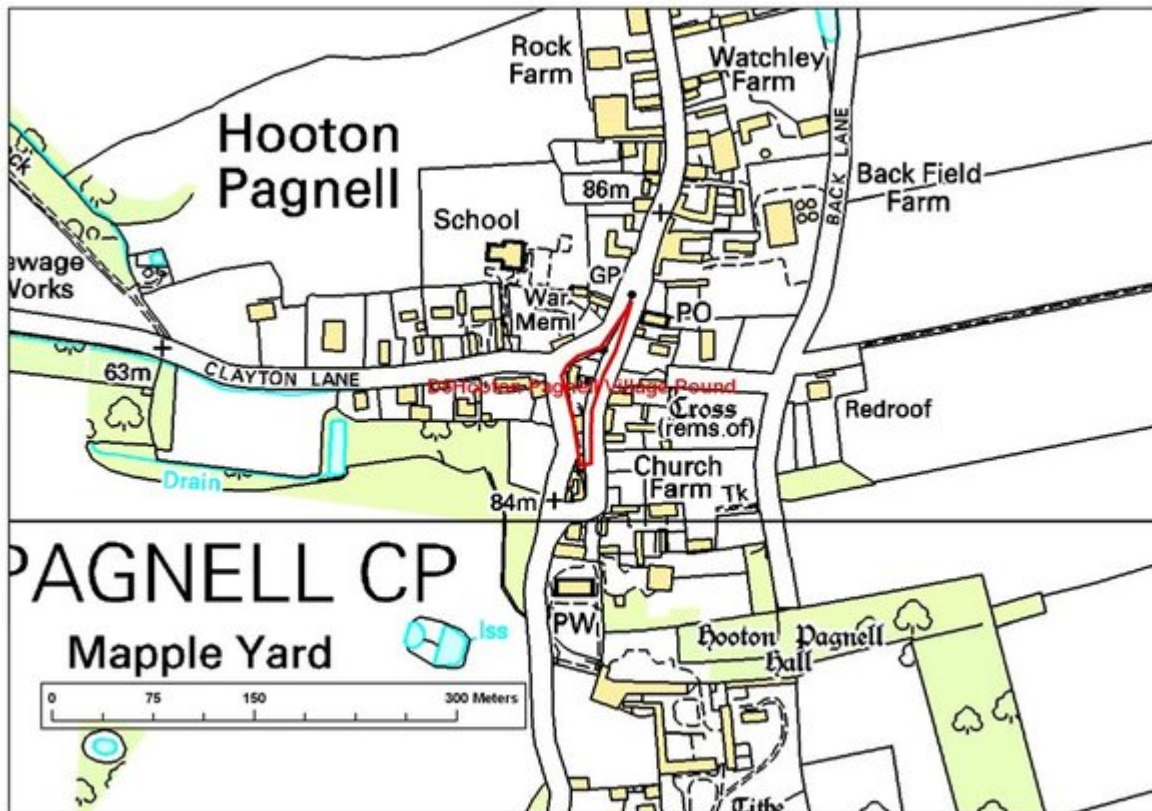
Outstanding example of the creation of an estate village using local building materials with a particularly good reef. Rating: 9

## Site photographs D5 Hooton Pagnell Village Pound

(Figure 66) Detail of well bedded and sorted pisolite beds. [SE 48551 08048].

(Figure 67) General view of well bedded and sorted pisolite beds in the Wetherby Member. [SE 48551 08048].

(Figure 68) General view of bryozoan reef in the Wetherby Member incorporated into War Memorial Garden. [SE 48563 08127].



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(Figure 66) Detail of well bedded and sorted pisolite beds. [SE 48551 08048].



*(Figure 67) General view of well bedded and sorted pisolite beds in the Wetherby Member. [SE 48551 08048].*



*(Figure 68) General view of bryozoan reef in the Wetherby Member incorporated into War Memorial Garden. [SE 48563 08127].*