# **EDC 17: Pattie's Bughts, Craigend Muir**

Grid reference: [NS 59004 77966]

Site type: Artificial quarry works

Site ownership: Not known

Current use: Disused

Field surveyor: Sarah Arkley & Luis Albornoz-Parra

Current geological designations: None

Date visited: 10th March 2009

## Site map

(Figure 17) Pattie's Bughts Location Map

# **Summary description**

Disused sandstone quarry, formerly used for ?building stone.

The sandstone beds are part of the Craigmaddie Muir Sandstone in the lower part of the Lawmuir Formation.

A number of relatively fresh quarry faces remain, revealing the nature and structure of the sandstone beds. 6 m high quarry faces expose thick-bedded, mostly massive medium- to coarse-grained sandstone. One bed is at least 4m high. The sandstone is quartz-rich, buff coloured with limonite banding when altered.

A number of fallen blocks on the floor of the quarry contain plant material. There are some excellent examples of both *Stigmaria* and *Lepidodendron*, representing branches/roots between 5-8 cm thick and a branching *Stigmaria* specimen which is approximately 45 cm long.

Evidence of the way the sandstone was extracted, selected and transported is gleamed from the vertical cylindrical drill marks in the face, the large waste heaps near the mouth of the quarry, the trackway leading up to the quarry, and the remains of walls and buildings. There are great views to the north towards the Campsie Fells.

Little information can be found regarding when this quarry was worked, but a local resident believes material was used for the construction of Blane Valley Railway Line, immediately north of farm; the stone may well have bee used to build the railway bridges. The Victorians built railway c.1861, so it could be suggested that the quarry was active at that time. The railway is now disused and a new tarmac track has been laid down as a local footpath and cycle track. A previous owner of the quarry who still lives near the site informed us that he was approached in the past about reopening the quarry and a resource assessment was carried out.

# **EDC 17: Stratigraphy and rock types**

Age: Lower Carboniferous Formation: Lawmuir Formation

Rock type: Sedimentary Rock Cycles of the Strathclyde Group Type

#### Assessment of site value

<b>Access</b>	and	safety
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Aspect/Description

Road access and parking

Safety of access The walk up the old tramway is pretty wet and wellingtons would be recommended

Safety of exposure Quarry faces appear stable, best fossils are found in discarded blocks in the middle of the quarry

Permission to visit Permission given by the residents of Craigend Farm

**Current condition Good** 

Current conflicting activities None

Restricting conditions None, although exposed if weather is poor

Nature of exposure Quarry faces and railway bridge

Culture, heritage & economic

Historic, archaeological & literary associations None known. Rating: 3.

**Aesthetic landscape** Open moorland with great views across to the Campsie Fells to the north and the Dun Glas, a conspicuous volcanic neck. Rating: 3.

History of earth sciences None known. Rating: 0.

Economic geology Former sandstone quarry used for railway construction. Rating: 3.

**EDC 17: Geoscientific merit** 

**EDC 17: Pattie's Bughts, Craigend Muir. Geoscientific merit.** 

#### **Total Geoscientific merit score 30**

#### **Current site value**

**Community** Few people probably walk up to the old quarry but the dismantled railway line has been recently tarmaced and seems a popular route with walkers and cyclists. Rating: 5.

Education Good plant fossils, great view and a nice link with the railway line 5 makes this an interesting site. Rating: 5.

Fragility and potential use of the site.

Fragility Over-collecting

Potential use Higher/Further Education, School, On-site Interpretation, Geotrail, Multidisciplinary

## **Geodiversity value**

This site displays some excellent specimens of plant material. However, the main value of the site is the fact that it retains many features of quarrying which are normally lost; you can see evidence for the way quarrymen extracted the

stone, worked the stone, transported the stone and then you can look at the railway bridges along the Blane Valley Railway Line to see the final product and application of the stone. Rating: 5.

# **Photographs**

(Photo 87) Looking SSW up the trackway leading from Pattie's Bughts quarry (on the horizon) to Craigend Farm and the railway beyond. The quarry is thought to have supplied stone for the construction of the railway.

(Photo 88) Fallen block displaying an excellent example of the fossilised plant root 'stigmaria'. The pitted surface represents where individual rootlets were attached.

(Photo 89) A fallen block displaying an example of Lepidodendron, a fossilised tree trunk. The markings on the stone are the equivalent of the bark on a modern-day tree.

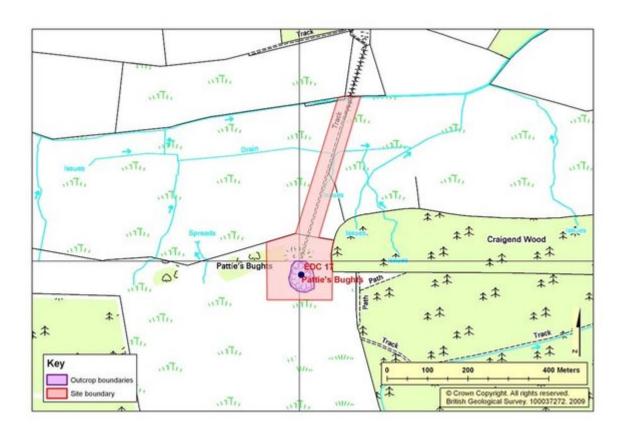
(Photo 90) View from the edge of the quarry looking NW to the Strathblane Hills. The remains of buildings in the foreground probably represent a workmen's hut or similar, built from waste quarry material.

(Photo 91) Thick-bedded sandstone units, up to 4 m high, would have provided a good sized block of sandstone for making building stone. Many of the discarded blocks on the guarry floor show plant fossils. Looking NW.

(Photo 92) Road bridge over the old Blane Valley Railway line. Stone for the bridge was likely sourced from Pattie's Bughts Quarry.

(Photo 93) Detail of the sandstone masonry used to build the road bridge over the railway. Looking.

## **Bibliography**



(Figure 17) Pattie's Bughts location map.

GeoScientific Merit	Rarity	Quality	Literature/ Collections	1st
Litho Stratigraphy	4 ~	4 ~	2 ~	
Sedimentology	3 ~	3 ~	2 ~	
Igneous/Mineral/ Metamorphic Geology	0 ~	0 ~	0 ~	
Structural Geology	0 ~	0 ~	0 ~	
Palaeontology	5 ~	5 ~	2 ~	~
Geomorphology	0 ~	0 ~	0 ~	

EDC 17: Pattie's Bughts, Craigend Muir. Geoscientific merit.



(Photo 87) Looking SSW up the trackway leading from Pattie's Bughts quarry (on the horizon) to Craigend Farm and the railway beyond. The quarry is thought to have supplied stone for the construction of the railway.



(Photo 88) Fallen block displaying an excellent example of the fossilised plant root 'stigmaria'. The pitted surface represents where individual rootlets were attached.



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(Photo 90) View from the edge of the quarry looking NW to the Strathblane Hills. The remains of buildings in the foreground probably represent a workmen's hut or similar, built from waste quarry material.



(Photo 91) Thick-bedded sandstone units, up to 4 m high, would have provided a good sized block of sandstone for making building stone. Many of the discarded blocks on the quarry floor show plant fossils. Looking NW.



(Photo 92) Road bridge over the old Blane Valley Railway line. Stone for the bridge was likely sourced from Pattie's Bughts Quarry.



(Photo 93) Detail of the sandstone masonry used to build the road bridge over the railway. Looking.