



South Wales RIGS Group Site Record

RIGS Description

SECTION A

General	South Wales
Site Name: Cradoc Moraine	File Number: AH_09
RIGS Number: 729	Surveyed by: AJ Humpage / Lester
Grid Reference: SO 00870 30580	Date of Visit: 10 September 2011
RIGS Category: Scientific, Historical	Date Registered:
Earth Science Category: Geomorphological, Sedimentological	Unknown
Site Nature: Pasture farmland	Documentation prepared by: AJH
Unitary Authority: Powys CC	Documentation last revised: 6 November 2011
OS 1:50,000 Sheet: 160	Photographic Record: See images attached to this report
OS 1:25,000 Explorer Sheet: OL 12	
BGS 1:50,000 Sheet: 213 (Brecon)	

RIGS Statement of Interest: This site forms part of a network of important scientific sites within the South Wales RIGS area associated with Late Devensian ice front stillstand and readvance in glaciated valleys and post-glacial fluvial development.

This RIGS illustrates a well-developed morainic complex filling the valley floor between bedrock high ground to the north and south. A series of elements can be distinguished including marginal terrace forms and at least two distinct cross-valley ridge forms as well as mounds and hollows. The lane from Cradoc to Aberyscir follows a westward flowing outwash channel indicating possible drainage from melting stagnant ice within the moraine complex itself.

The upstream face of the western most ridge form may have been subjected to post-glacial erosion by the Afon Yscir, which flows southwards into the River Usk. At least two low terraces of Holocene age are visible on the east bank of the Yscir.

This RIGS also contains features of historical significance. In the south-west corner of the RIGS, excavations in the 1920's revealed the remains of a probable civilian settlement beyond the north gate of the Roman auxiliary fortress of Y Gaer (Cicucium), including a stone building suggested to be a Roman *mansio* or official Inn (Johnston 2022), whilst a large standing stone within the northern boundary of the site has been suggested marks the locality where the last Welsh prince of Brycheiniog was slain in Battle by the Normans in 1093.

Geological setting/context:

This site marks the location of a significant location in the Late glacial and early post-glacial history of the middle Usk. Prior to the late Devensian glaciation, the River Usk is believed to have continued to flow due East from Aberyscir, through Cradoc and to the north of Pencrug Hill.

The glacial evolution of the Middle and Upper Usk is not well understood, although extensive glacial deposits have been mapped (BGS 2005) and a series of cross-valley morainic features, indicating minor re-advances or stillstands of the ice front have been identified (Elis-Gruffydd 1972, 1977; Barclay *et al* 2005; Lewis and Thomas 2005). However, without absolute dating, the exact correlation and chronology of deglaciation is still poorly understood.

Traditionally, the Usk valley glacier was assumed to reach its maximum extent c 20-22ka and to have disappeared, along with the Welsh ice cap by c.16ka (Thomas 1997). However, more recently, doubt has been cast on this model based on dating evidence from the uplands around Abergavenny, which suggests deglaciation may have been initiated earlier than traditionally thought. Coleman and Parker (2007) suggest ice free conditions may be prevailing in the uplands above Abergavenny as early as 19420+/-64 Cal BP.

The Cradoc moraine resulted in the blocking of the original channel of the pre-Late Devensian river Usk and as a consequence, when the glacier retreated from the area, a new route for the river during the Late Glacial Interglacial Transition developed to the south of Fenni-fach Hill. Almost certainly aided by the meltwater, the early Holocene River Usk found a new route to the south and east, excavating a narrow, deeply incised bedrock gorge.

References:

Barclay, W.J., Davies, J.R., Humpage, A.J. Waters, R.A., Wilby, P.R., Williams, M. and Wilson, D. (2005). Geology of the Brecon district – a brief explanation of the geological map. *Sheet Explanation of the British Geological Survey*. 1:50,000 Sheet 213 Brecon (England and Wales).

British Geological Survey (2005). *Brecon. England and Wales Sheet 213. Bedrock and Superficial Deposits*. 1:50,000. British Geological Survey, Keyworth.

Carr, S.J., Coleman, C.G., Humpage, A.J. and Shakesby, R.A. (2007). *Quaternary of the Brecon Beacons: Field Guide*. Quaternary Research Association, London.

Elis-Gruffydd, I.D. (1972). *The Glacial Morphology of the Upper Usk Basin (South Wales) and its right-bank Tributaries*. Unpublished Ph.D. Thesis. University of London.

Elis-Gruffydd, I.D. (1977). Late Devensian glaciation in the Upper Usk Basin. *Cambria*. 4 46-55.

Johnston, D.E. (2002). *Discovering Roman Britain*. Shire Publications Ltd., Princes Risborough. 162pp.

Lewis, C.A. and Thomas, G.S.P. (2005) The Upper Wye and Usk Regions. In: C.A. Lewis and A.E. Richards (Eds). *The Glaciations of Wales and Adjacent Regions*. Logaston Press, Logaston, Herefordshire.

Thomas, G.S.P. (1997). Geomorphology of the Middle Usk valley. In: S.G Lewis and D. Maddy (Eds). *The Quaternary of the South Midlands and Welsh Marches: Field Guide*. Quaternary Research Association, London.

SECTION B

PRACTICAL CONSIDERATIONS:

Please score Accessibility and Safety Red Amber or Green

Accessibility:



Comment: Easily accessible where crossed by public rights of way allowing features to be viewed. Otherwise, permission will be required.

Safety:



Conservation status:

The western boundary is defined by the River Usk (Tributaries) SSSI. South of the old railway line, the area is within the Brecon Beacons National Park. The standing stone is a scheduled ancient monument, otherwise there are no other known conservation designations on this RIGS.

OWNERSHIP/PLANNING CONTROL:

Owner/tenant: Unknown / various

Planning Authority: Powys County Council / Brecon Beacons National Park Authority

Planning status/constraints/opportunities: There are no known planning constraints or opportunities

CONDITION, USE & MANAGEMENT:

Present use: Farmland

Site condition: Good

Potential threats: None known

Site Management:

SITE DEVELOPMENT:

Potential use (general): detailed scientific research and geomorphological mapping, would benefit this site

Potential use (educational): Good accessible site to view morainic deposits

Other comments:

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Photographic Record



View looking towards Fenni-fach Hill showing the Cradoc Moraine to right of white painted house. Distinct topographical features are evident.



The first (upstream) ridge of the Cradoc moraine looking NE.



View looking east along road which follows a westward draining meltwater channel



Probable eroded face of first ridge looking NE.



Westward draining meltwater channel which is followed by the road view looking west



View northwards within the Cradoc moraine complex between first (to left) and second (to right) ridges. Bedrock slope rising in distance. The standing stone is just visible in the centre of the photograph.



The menhir (standing stone) on the marginal terrace of the Cradoc moraine, with bedrock slope rising behind. This standing stone is a probable Bronze Age monument but has been variously described as a memorial to the fall of Bleddyn ap Maenyrch, the last of the Brychan princes who was killed by Bernard de Newmarch here in 1093 during the Norman invasion of the Welsh kingdom of Brycheiniog. It stands almost four metres in height. Battle village, which is traditionally held to be named after the battle occurring here, is in fact named after Battle Abbey in Sussex, which drew income from the parish here



View looking east (Penycrug Hill in distance) showing second ridge system.