Henblas RIGS site

Henblas 1 — NRW RIGS no. 137 [SH 42572 71974]

Henblas 2 — NRW RIGS no. 246 [SH 42572 71974]

GeoMôn Global Geopark original webpage

RIGS Statement of Interest:

Henblas is a group of massive quartzite/chert blocks which may comprise some of the largest glacial erratics on Anglesey.

This group of massive quartzite/chert blocks is of regional geological importance because: a) it may comprise some of the largest glacial erratics on Anglesey; b) its geological origin is controversial; c) its archaeological status is disputed; and d) it is a significant landscape feature. The two largest blocks are rough, angular and rise above the ground surface about 3m and 4m, respectively. They are broadly conical and lie on bases with circumferences in excess of 15m. A third block, about 4m square and 1m thick, straddles the others at a low angle. Its underside appears to be ice-smoothed and striated. A fourth smaller stone once stood a few metres to the east and may have formed part of an avenue. A small blue glass ring, an urn containing ashes, and a flat stone, beneath which were two or three ‘barrowsful’ of ashes, were found nearby. Early workers regarded the assemblage as a cromlech (the remains of a chambered tomb), but Greenly (1905,1919) thought the two larger stones were probably an extension of the underlying bedrock; only the smaller slab, with striations on its underside, could have been moved into place by humans. Large isolated in situ masses of ice-moothed quartzite/chert occur within 0.5km of Henblas, standing proud of the surrounding Precambrian green-schists (RIGS No. 0000). The relationship of the Henblas stones to underlying bedrock is unproven, and some glacial transportation may have occurred. Archaeologically, it is now thought that the Henblas stones are a natural collection, not part of a chambered tomb, and that artefacts found close by may have resulted from Prehistoric interest in the stones. This is logical given the importance of stone monuments in the Bronze Age.

Geological setting/context: About 2.4 million years ago there was a general cooling of the Earth’s climate, heralding the onset of the Quaternary “Ice Age”, a period of geological time extending to the present day. In reality, the period has seen a number of cold ‘glacial’ periods interspersed with warmer ‘interglacial’ periods such as the one in which we now live. Since about 450,000 years ago there have been at least four intensely cold periods during which large parts of upland Britain were covered by ice sheets for long periods. Although Anglesey was probably overrun by ice on these occasions, only evidence from the last major glacial phase – the Late Devensian – is known. Possible evidence from the warm interglacial period before the Late Devensian may locally have escaped the destructive erosional and depositional effects of the last glaciation. During the Late Devensian, around 20,000 years ago, Anglesey was completely submerged by ice. Two ice sheets from different sources were involved. The Snowdonian mountains were the source of ice streams that moved broadly northwards towards Anglesey, while a massive Irish Sea ice sheet, fed by glaciers from Scotland, Ireland and Cumbria, moved onto the island from the north. The Irish Sea ice stream was dominant, and travelled north-east to south-west across the island, broadly in keeping with its NE–SW-trending, structurally controlled rock ridges. The Welsh and Irish Sea ice streams met in the region of the present-day Menai Strait and produced a confluent south-westward flow. Deposits from the Irish Sea ice tend to contain a wide range of rock types from its diverse source areas and from the varied geology of the seafloor traversed. A red colouration is common, being derived partly from Permian-Triassic rocks offshore. The Irish Sea sediments commonly contain unconsolidated seafloor debris, including sand and shell fragments, dredged from the seafloor by the ice. Tertiary lignite, coal fragments and flint are also a characteristic component of the Irish Sea deposits. Alternatively, deposits from the Welsh ice sheet reflect the geology of its source areas, with a high proportion of Cambrian slates and mudstones, varied Ordovician igneous materials and a blue-grey colouration. Although the broad pattern of the island’s glaciation has been understood for nearly 100 years, the exact timing of the arrival and retreat of the different ice masses is still poorly understood, as is the relative extent of both ice masses during the Late Devensian. Anglesey contains an exceptional range of Quaternary evidence, in the form of

coastal sediment exposures, glacial landforms and erratic boulders, which can be used to reconstruct the glacial history of the island, and elucidate regional variations in ice movement and sedimentary processes.

Three separate networks of RIGS have been selected to demonstrate the glacial history of the island. These are: 1) sedimentary sequences; 2) erratic boulders and; 3) glacial/glaciofluvial landforms. Selected sites may belong to more than one of these networks.

Network context of the site: Henblas is one a series of Anglesey RIGS belonging to Network 2, ‘Erratic boulders’. Erratics are glacially transported stones and boulders. They may form a component of glacial deposits such as till, or can occur as stranded boulders on the land surface. Their distance of transport varies enormously from a few metres to many hundreds of miles. Erratics composed of distinctive rock types (different to the underlying bedrock geology) can be traced back to their point of origin and can serve as important indicators of glacial flow direction. Anglesey is famous for a series of erratics first described systematically by Edward Greenly (1919) in his seminal work, The Geology of Anglesey. Some of the stranded boulders described by Greenly appear to have very distant origins, perhaps in Scotland or the Lake District. Others are of distinctive local rock types that clearly indicate ice-flow directions across the island. Some have not been moved far at all, but are still testament to the immense transporting and erosional power of the Late Pleistocene glaciers. In many cases, the erratics have been used in one form or another by man. These megaliths have considerable archaeological value and some are protected as Scheduled Ancient Monuments (SAM). Others are the subject of myth and folklore and the exact geological and archaeological context of many is still poorly understood.

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