

# Earls Hill 'workshop' - 18th May 2004

Earl's Hill and its twin summit Pontesford Hill are prominent features of the Shropshire landscape and the site of a long-standing Nature Reserve of the Shropshire Wildlife Trust. Visitors also come here learn rock climbing on the crags. Indeed, a place crying out for some geological interpretation, but the question is "what is appropriate?".

The last general mapping of the area including the Uriconian Volcanics of the hill and the Ordovician (Caradoc) Pontesford Shales on its flank was carried out by Pocock and Whitehead in 1927 and described in the Shrewsbury memoir in 1938. Subsequent work by Dean and Dinely in 1961 revised the view of the Pontesford Shales and their relationship to the Longmyndian. Not much has been done since then.

With this background in mind the visit set out to explore the opportunities for interpretation. The starting point amongst the walls and old buildings at Pontesford exhibited most of the local rocks - Upper Coal Measures, Stiperstones Quartzite, Mytton Flags and Western Longmyndian. Indeed quite a geological museum, which significantly did not include the local Uriconian as it does not produce good building blocks. The route into the reserve passed exposures of pale rhyolites on Pontesford Hill and led to the cliffs of dolerite below the main summit. Descending to the valley of the Habberley Brook a search was made for the exposure showing the unconformable junction between the Pontesford Shales and the underlying, almost vertical, Longmyndian - no easy option without the right boots! The significance of this unconformity to the local landscape was discussed: i.e. the odd rounded spurs and summits of this corner of the Long Mynd still have the remains of the Pontesford Shales lapping around their feet here and around nearby Plealey. Could they be in part the remains of the sub-Caradocian erosion surface from which the shales have only recently been stripped away? This need not be such a strange idea in view of a

similar unconformity and a neptunian dyke on Hazler Hill.

The general conclusion of the morning's observations was that the story of the area was indeed complicated and the resultant exposures limited. Further research was needed before interpretation could go beyond the simplest facts that hard rocks form hills while soft rocks form vales and the Shropshire plain.

A few survivors, much refreshed by the Nags Head, then toured the surrounding area, normally in view from the summit. The discussion continued the theme of the relationship between rock type and landform and the role of other unconformities, contributing to 'exhumed' 'second-hand' landscapes.

For example the maps show Silurian (Llandovery) banked against the slopes of Ordovician Hope Shales and Mytton Flags overlooking Minsterley. In the landscape the flattened ridge of the Stiperstones finally descends beneath Upper Coal Measures at Pontesbury but still carried clues to the former extent of these beds far higher up, in the form of hydrocarbon residues.

How Earl's Hill fits into this pattern of 'second-hand' landscapes is not clear. Is it a stubborn survivor of both Ordovician and Carboniferous erosion reappearing as those soft beds are removed? Where does the Pontesford-Linley Fault fit into the story?

Add to this the contribution of the Ice Ages diverting drainage and cutting meltwater channels (lakes? subglacial channels? etc) the layman or student might well be confused by this landscape - never mind that the leaders and tutors don't understand it either! But we are working n it.

David Pannett.