# **Dwrhyd Pit**

[SM 791 247]

### Introduction

This instructive site is complementary to Porth-y-rhaw. It more clearly exposes beds near the base of the lower Menevian Group (St David's Series, Middle Cambrian) that represent the *fissus* Zone. The trilobite fauna is more diverse than in the corresponding zone at Porth-y-rhaw and is well preserved, allowing correlation with equivalent beds in other areas of Britain and Scandinavia.

Dwrhyd is the name of a cottage, now demolished, near to fossiliferous exposures long known to collectors; many of the museum specimens recorded from 'near Nine Wells' are probably from there. The locality was mentioned by Cox *et al.* (1930a, b), Owen *et al.* (1971) and Stead and Williams (1971), and, being easy of access, it has been much used for teaching. Fossils from the site have been described by Lake (1906–1946), but no detailed account of the fauna has been published.

## Description

A major strike fault repeats the strata seen at Porth-y-rhaw in the Nine Wells valley, thus exposing the lower Menevian Group in the roadside cutting near Dwrhyd (Figure 4.2), where approximately 10 m of strata are exposed, dipping south-east at about 30°. Thinly bedded grey and dark-grey silty mudstones and siltstones show a colour banding that is mostly sharp but occasionally slightly diffuse; as at Porth-y-rhaw, the darker mudstone bands show little evidence of disturbance, whereas the lighter bands occasionally contain dark-grey lenses and organic-rich flecks, indicating disruption probably due to bioturbation. Fine-grained flaggy sandstones up to 1 cm thick may show parallel or ripple cross-lamination. White-weathering seams approximately 20 cm thick are reported to represent ashy material (e.g. Nicholas, 1915; Rushton, 1974), and some may be highly fossiliferous.

The more massive lower beds, exposed in the rock face along the lane running north-east to Llanungar Fach, have yielded *Bailiaspis* cf. *dalmani* (Angelin), *Eodiscus* sp. and *Plutonides hicksii* (Salter). The higher beds in the bank alongside the main road are similar in character, but more fissile, and contain numerous ferruginous nodules. The fauna includes the trilobites *Eodiscus punctatus scanicus* (Linnarsson), *Hartshillia inflata* (Hicks), *Hypagnostus truncatus* (Brögger), *Peronopsis scutalis* (Hicks), *P hicksii* (Figure 4.8)d and *Tomagnostus fissus* (Linnarsson), along with the brachiopod *Linnarssonia sagittalis* (Davidson), hyolithids and sponge spicules. Dwrhyd is the type locality for the cinctan echinoderm *Davidocinctus pembrokensis* Friedrich (1993).

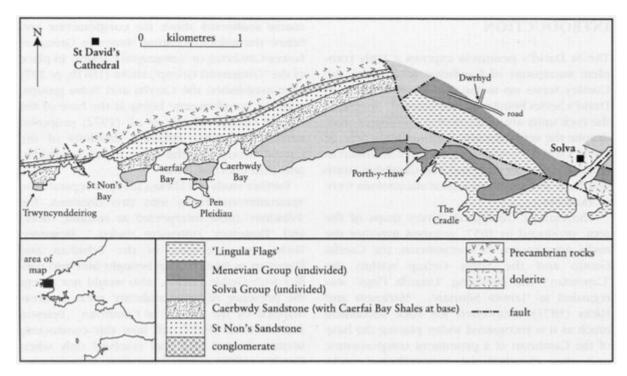
### Interpretation

The rocks exposed here closely resemble the lower Menevian Group as represented at Porth-y-rhaw (see site report), and the fauna provides a fuller representation of the zonal information found there. Environments of deposition are considered to have been similar. The *fissus* Zone trilobite fauna allows correlation with equivalent beds in North Wales and Warwickshire and indicates equivalents of the *Ptychagnostus atavus* and *Tomagnostus fissus* Zone of the Scandinavian zonal scheme.

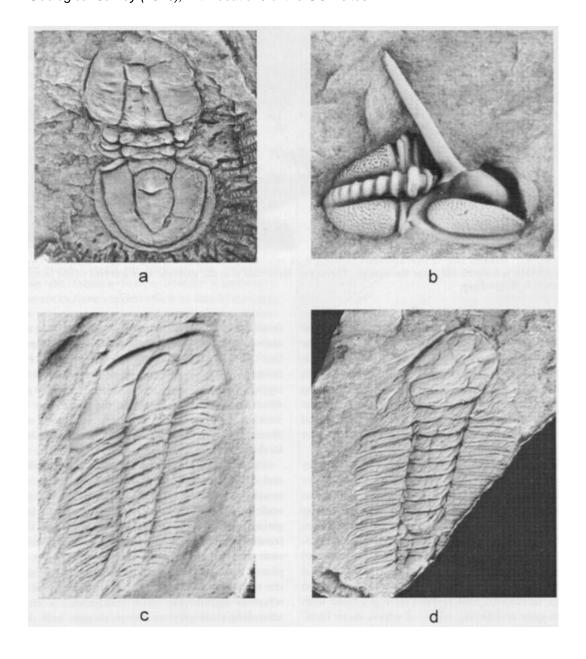
#### **Conclusions**

Dwrhyd Pit is of national importance, being easily accessible and exposing clearly fossiliferous mudstones of the lower Menevian Group. The fossils are comparable to those found in corresponding strata at Porth-y-rhaw.

#### References



(Figure 4.2) Sketch of the Cambrian geology between St David's and Solva, south-west Wales, after the British Geological Survey (1973), with locations of the GCR sites.



(Figure 4.8) Middle Cambrian Trilobites from South Wales. (a) Onymagnostus davidis (Hicks), x4, from Solva Harbour. (b) Eodiscus punctatus (Salter), x8, from Porth-y-rhaw. (c) Bailiella lyelli (Hicks), x3, from Trwyncynddeiriog. (d) Plutonides hicksii (Hicks), x2.5, from Dwrhyd. (Photos: M. Lewis.)