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# Dynevor Park

[SN 61 22]

## Introduction

Dynevor Park is one of Murchison's (1835; 1839, p. 356) original localities for the Llandeilo Flags. Together with the Cennen section (see Ffairfâch site report), it represents the Llandeilo Series as understood by Williams *et al.* (1972) and Wilcox and Lockley (1981). The area was mapped in detail by Williams (1953), who recorded the same succession of Llandeilo Flags as that seen in the Cennen, but it complements it particularly in showing better the various horizons of the Lower Llandeilo and in being generally more easily accessible. Information from the sections in Dynevor Park was used in the palaeoecological analyses of Wilcox and Lockley (1981), and Lockley (1983). Trilobites from this section were described by Williams (1948), Owens (1973) and Fortey (1980), brachiopods by Williams (1949) and by Williams and Lockley (1981) and ostracods by Jones (1986–1987). It is the type locality for brachiopod species including *Hesperorthis dynevorensis* Williams, *Pseudolingula granulata* (Phillips) and probably *Sowerbyella antiqua* Jones, and for the trilobites *Marrolithoides simplex elevatus* (Williams), *Basilicus peltastes* Salter, *Ogygiocarella debuchii* (Brongniart) and probably *B. tyrannus* (Murchison).

## Description

Although the full development of Llandeilo Flags is exposed in Dynevor Park, the divisions are not in sequence, as they are in the Cennen Section, but are disposed in a NE-plunging anticline and syncline that are considerably faulted (Figure 8.17). There are good exposures of the basal units of the Lower Llandeilo Flags in an old quarry in Castle Wood east of the old castle [SN 6150 2171]; faunas include common *Basilicus tyrannus* and *Dalmanella parva* Williams. The succeeding *Lloydolithus lloydii* Flags are exposed both in the north face of the quarry and east of the old castle (for example around [SN 6156 2176], [SN 6160 2180] and [SN 6167 2187]. They contain an abundance of *L. lloydii* and *Ogygiocarella debuchii* (Brongniart), together with smaller numbers of other trilobites and articulate and lingulate brachiopods. Well-bedded limestones and calcareous siltstones of the *Sowerbyella* Beds are well exposed along the road running north-west from the lake at the western end of the Deer Park around [SN 6088 2226]. Here the brachiopod *S. antiqua* is abundant and is accompanied by other brachiopods such as *Dalmanella parva* Williams, *Orderleyella* sp. and *Palaeoglossa attenuata* (J. de C. Sowerby) and the trilobites *Basilicus tyrannus* and *Flexicalymene cambrensis* (Salter). Ostracods, including *Brephocharieis complicata* (Salter), *Homeoceratopsis jubata* Jones, *Gunnaropsis cristata* Spjeldnaes and *Vittella fecunda* Siveter, have been recovered from silicified horizons at this locality and elsewhere in Dynevor Park (Jones, 1986–1987). The succeeding *Corineorthis* Flags, a series of poorly bedded calcareous flags with intercalations of massive limestones, can be seen in a quarry south-east of St Tyfei's church [SN 6224 2217], where the brachiopod *Corineorthis pustula* Williams is common; it is restricted to this horizon. Other fauna includes *Basilicus tyrannus* and *Flexicalymene cambrensis* and the brachiopod *Orderleyella* sp..

Middle Llandeilo horizons are well exposed at the side of the old road north-east of St Tyfei's church [SN 6208 2232] and immediately north of the Keeper's Lodge (between Dynevor Castle and the old castle), and in the quarry 60 m to the north-west [SN 6133 2219], where shaly flags and limestones crop out; the trilobites *Ogygiocarella debuchii* and *Marrolithoides simplex* (Williams) are common. Richly fossiliferous Upper Llandeilo limestones and flags with abundant trilobites (*Ogygiocarella debuchii* and *Marrolithus favus* (Salter), and brachiopods (*Tissintia immatura* Williams and *Dalmanella* sp.)) are exposed in a small quarry in woods about 250 m north-east of the Dynevor Castle [SN 6161 2272].

## Interpretation

This area is of historical importance, being a well-known source of fossils since Murchison's time — and well before, because some of Lhwyd's (1699a,b) trilobite specimens originated from here. The geology of the area has been well documented since Williams' (1953) description; it provides important evidence in the interpretation of the stratigraphy and

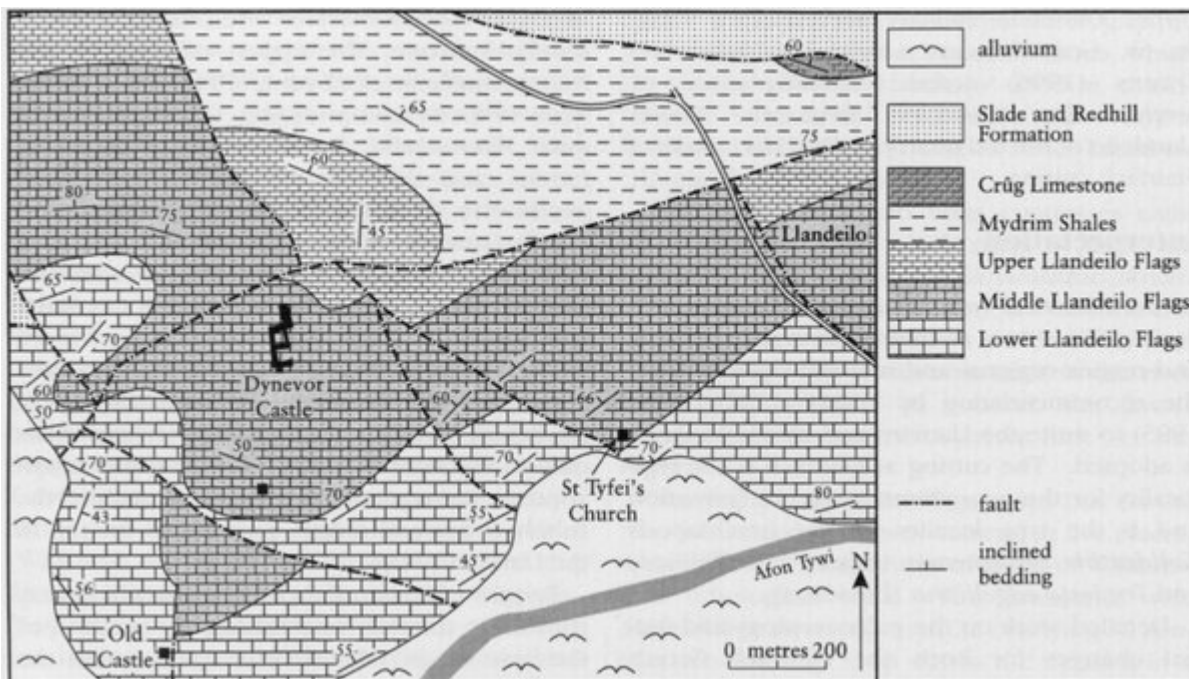
palaeoenvironments of the Llandeilo Flags and hence the type 'Llandeilo Series' of authors. The environment of deposition, as inferred by Wilcox and Lockley (1981), is discussed in the Ffairfâch and Afon Cennen site report.

Although the succession of Llandeilo Flags is more completely exposed in the Afon Cennen, Dynevor Park complements it in affording outcrops of Lower Llandeilo horizons not seen there and in having more readily accessible sections in the Middle and Upper Llandeilo. Thus, the Cennen Valley and Dynevor Park between them have exposures essential to understanding the stratigraphy of the Llandeilo Flags in the type area and have yielded the type specimens of many of the characteristic fossils.

## Conclusions

Dynevor Park is a classic section in fossiliferous Llandeilo Flags. It complements the Afon Cennen section by making-good deficiencies in the exposure there.

## References



(Figure 8.17) Geological map of Dynevor Park, after Williams (1953).