



# UPPER GILWERN QUARRY, POWYS



## INTRODUCTION TO UPPER GILWERN QUARRY

Thank you for enrolling on our fossil hunting event.

This site is situated on the edge of the Brecon Beacons and has long been famous for its well-preserved and huge numbers of trilobites.

The hill is privately owned and has been the subject of study by the palaeontologist, Pete Lawrance for over 30 years. The site has been interpreted as being a near-shore, shallow water environment, which was used annually as a breeding ground and nursery colony of the trilobite, *Oxyginus*, during Ordovician times between 469-467 million years ago.

The trilobites are found on the scree surface in large numbers. Most rocks can be split along the bedding plane, using a geological hammer and a bolster chisel. Complete specimens are frequently found. Always use safety glasses or goggles when hammering rocks, to protect your eyes from flying fragments and others in close proximity are advised to do the same.

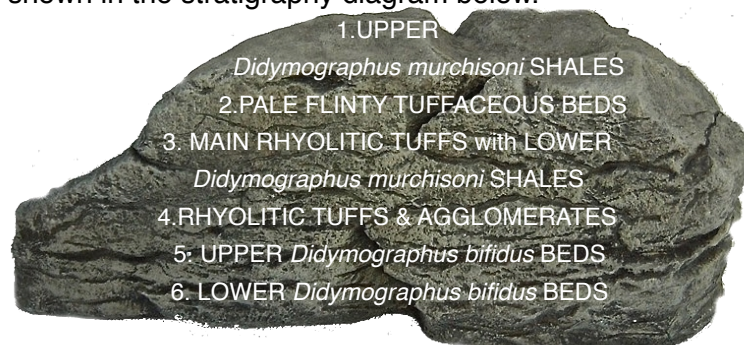
Access to the site is by way of a very isolated and rural terrain. However, it is an amazing site and collectors will not be disappointed at the number of specimens they can recover from the visit.

## THE GEOLOGY

The geology at Upper Gilwern Quarry is complex but the site is composed of Ordovician rocks from the Llanvirn Series (Dapingian Stage).

The trilobite fauna is dominated by the trilobite *Oxyginus cordensis* but *Bettonolithus chamberlanii* and *Trinucleus abruptus* can also be found, along with the rarer, *Anebolithus simplicior*. Other fossils found at the site include brachiopods, sponges and graptolites. The sheer numbers of trilobite fossils indicates a rapid death and burial, probably from hot, burning ash raining down from sub-aerial volcanoes, followed by poisoning from noxious fumes.

During Ordovician times, Britain lay south of the equator and had a cool climate. Seas covered Britain and there was dramatic volcanic activity as the ocean separating England and Wales from Scotland started to close. The sequence of the Llanvirn Series rocks found at Gilwern is shown in the stratigraphy diagram below.



## WHAT FOSSILS MIGHT YOU FIND?

At any fossil hunting event, you cannot be guaranteed to find fossils but at Upper Gilwern Quarry this is the exception! The sheer number of fossils to be found here is staggering and some of the trilobite specimens can be quite superb.

The following photos show a selection of trilobites found at previous UKAFH hunts.



We hope you enjoy your day at Upper Gilwern. Please visit our website for further events which might be of interest to you at <https://ukafh.com/> Our book, with over 50 other sites across England & Wales, can be purchased at £16.95 here: [http://www.ukge.com/en-GB/A-guide-to-fossil-collecting-in-England-and-Wales\\_p-3439.aspx](http://www.ukge.com/en-GB/A-guide-to-fossil-collecting-in-England-and-Wales_p-3439.aspx)

