## **British Upper Carboniferous stratigraphy**

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#### Access to the countryside

This volume is not intended for use as a field guide. The description or mention of any site should not be taken as an indication that access to a site is open or that a right of way exists. Most sites described are in private ownership, and their inclusion herein is solely for the purpose of justifying their conservation. Their description or appearance on a map in this work should in no way be construed as an invitation to visit. Prior consent for visits should always be obtained from the landowner and/or occupier.

Information on conservation matters, including site ownership, relating to Sites of Special Scientific Interest (SSSIs) or National Nature Reserves (NNRs) in particular counties or districts may be obtained from the relevant country conservation agency headquarters listed below:

English Nature, Northminster House, Peterborough PE1 1UA.

Scottish Natural Heritage, 12 Hope Terrace, Edinburgh EH9 2AS.

Countryside Council for Wales, Plas Penrhos, Ffordd Penrhos, Bangor, Gwynedd LL57 2LQ.

#### **Preface**

This volume summarizes the results of a survey of British Upper Carboniferous sites, undertaken between 1978 and 1990 as part of the Geological Conservation Review (GCR). The GCR was the first attempt to assess the scientific significance of all Britain's geological sites and has proved a landmark in the development of a coherent geological conservation strategy in this country. To ensure that the assessments were based on a firm logical and scientific foundation, the range of scientific interest was divided into ninety-seven discrete subject 'blocks', reflecting the natural divisions of stratigraphy, palaeogeography and geological process; Westphalian stratigraphy and Namurian stratigraphy were two of these blocks.

The first stage in the survey was a review of the literature, to establish a comprehensive database of sites. From this, a provisional list of potentially significant sites was made and this was circulated to all relevant specialists in this country and abroad. At the same time, the sites were visited to assess their physical condition and whether the interest was still extant. In some cases, excavation (so-called 'site-cleaning') was carried out to see if the interest of a site could be resurrected or enhanced. The comments made by the specialists and the field observations were then used to produce a second site list, which again was circulated for comment. This process of consultation continued until a consensus was reached among the specialists about which Upper Carboniferous sites were of sufficient stratigraphical interest to justify conservation. The minimum criterion was that it was the best, most representative sequence in Britain for a particular aspect of British stratigraphy. The resulting GCR sites were thus, at the very least, of national scientific importance, although many, such as the stratotype sites detailed in Chapter 2 were also of international importance.

These GCR sites have been used as building-blocks for establishing a new set of Sites of Special Scientific Interest (SSSIs). If there was no other significant interest at or adjacent to the site, a proposal was made to establish it as an SSSI on the Upper Carboniferous stratigraphical interest alone. In many cases, however, a site showed other potentially significant features, or it adjoined another site of significance. In these cases, a composite proposed SSSI would be constructed from a set of GCR sites. Despite the heterogeneous nature of such sites, it is important to remember that the stratigraphical interest is sufficient on its own to justify the conservation of the relevant part of the site. The SSSI proposals that have arisen out of this survey have been sent to the appropriate country conservation agencies (English Nature, Countryside Council for Wales, Scottish Natural Heritage), whose governing Councils are responsible for the final decision to notify them.

This volume is not intended to be a field guide to these sites, nor does it cover the practical problems of their future conservation. Its remit is to put on record the scientific justification for conserving the sites, discussing the interest of the geology there, and placing it in a wider stratigraphical context. Each site is dealt with in a self-contained account, beginning with 'highlights' (a précis of its special scientific interest), and a general introduction (with a brief historical review of research carried out there), A detailed description and interpretation of the significance of the site then follows. This interpretative section has unavoidably had to be couched in technical language, because the conservation value is mostly based on a specialist understanding of the stratigraphical, palaeontological and sedimentological features present. The account of each sites ends, however, with a brief summary of the interest framed in less technical language, in order to help the non-specialist.

The inclusion of a site in this volume should not be taken as an indication of rights of access, nor should it be taken as an invitation to visit. The majority of the sites are in private ownership and prior permission to visit must always be obtained from the landowner and/or occupier. In many cases the sites are vulnerable to over-exploitation, and it is hoped that those that do visit them will treat them with the respect that should be given to any other part of our unique national heritage.

Finally, it must be emphasised that this volume does not provide a fixed list of the important Upper Carboniferous sites in Britain. Stratigraphy; like any other science, is an ever-developing pursuit with new discoveries being made, and new theories being developed, continually. There is also the problem of potential site loss. It is inevitable, therefore, that further sites worthy of conservation will be discovered in future years. This volume deals with our knowledge of the sites available at the time of the GCR survey (mainly during the 1980s) and must be seen in this context. Nevertheless, the account clearly demonstrates the value of British sites for Upper Carboniferous stratigraphy, and their important place in

Britain's scientific and natural heritage.

References