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# Karst and caves of Great Britain

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## **Acknowledgements**

Work on the GCR cave sites started in the 1970s with the initial identification of sites in a widespread consultation exercise co-ordinated by David Judson and George Black. By 1982 the first version of the cave site descriptions had been completed by Tony Waltham, who also then identified and produced the first descriptions of the karst sites. Subsequently all the site descriptions were rewritten into the designated format for this publication series. Mike Simms rewrote the cave site descriptions, except for that of the Slaughter Stream Cave which was later added by Dave Lowe. Andy Farrant rewrote the main karst site descriptions. Helen Goldie produced the descriptions of the limestone pavement sites in the northern Pennines, with assistance from Simon Webb who also wrote the section on Helbeck Scars. Some site descriptions and all the sections of introductory text were written by Tony Waltham, who also edited and unified the material from his co-authors, and produced the figures.

The first stage of data collection and compilation of the maps of the cave sites involved the extensive co-operation of many members of the British Cave Research Association. Without their assistance and the great efforts of many, mainly sporting cavers who mapped the caves in the first instance, this volume could never have been produced. Consultations on the karst and cave sites extended to a broad spectrum of those studying limestone karst throughout Britain. These included academic scientists pursuing geomorphological research, and also active cavers with unparalleled knowledge of the underground sites. Many made valuable contributions with information, advice, comment and assistance; Pete Smart was particularly helpful with comment and guidance during preparation of the manuscript.

Within this volume, the descriptions and interpretations of individual sites lean heavily on the observations and research of many individuals. Published source material is all referenced, the authors of the volume have contributed their own personal knowledge of many of the sites, and numerous extra notes and concepts have been incorporated from unpublished thoughts and discussions. This text is a synthesis of understanding where the credits reach far wider than the names on the title page. The various topographical and geological maps, which constitute many of the figures in the volume, have been compiled from numerous sources, and have inevitably extracted bits of information from the many high-quality maps produced for this country by the British Geological Survey and the Ordnance Survey. The cave surveys which form many other figures are credited to the main caving clubs who produced them, but thanks are due to many others who contributed above or below ground and yet remain anonymous.

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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 surveys of Britain's karst regions, 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 Britain's geological conservation strategy.

The surveys of the karst geomorphology were carried out in two parts. The first was of the cave sites and the second was of the surface landforms, and they were amalgamated at a later date. In each part, the first stage was to produce a provisional list of potentially significant sites, and this was circulated to all relevant specialists in the country. All the sites were visited, or were already familiar to the authors. New features revealed by new explorations underground were discussed with the local cavers making the discoveries, and many of the new caves were visited to assess their significance. The comments made by the specialists and the field observations were used to produce a modified site list, and this was then slightly adjusted during preparation of the site descriptions. The GCR sites finally listed are therefore those of national scientific importance, and they include some of recognized international importance.

The list of GCR sites has been used to establish a new set of Sites of Special Scientific Interest (SSSIs). Where there is no other significant interest at or adjacent to the site, a proposal was made to establish an SSSI on the karst geomorphological interest alone. Many sites contain other significant features, or adjoin another site of non-karstic significance; a composite SSSI has then been constructed from a set of GCR sites. Despite the heterogeneous nature of such sites, it is important to remember that the geomorphological interest is sufficient on its own to justify the site conservation. Most of the SSSI proposals that have arisen from this survey have already been translated into site designations by the appropriate country conservation agencies (English Nature, Countryside Council for Wales, Scottish Natural Heritage).

This volume is not a field guide to karst 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 surface and underground landforms within them, and placing them in a wider geomorphological context. Each site is documented in a self-contained account, starting with the highlights (a précis of its special scientific interest) and a general introduction (with a note of investigation and research literature concerning the site). A morphological description of the various features of the site, also places them in the context of an assemblage of interrelated landforms. An interpretation of the site geomorphology and its significance then follows. The depth of the interpretation varies considerably across the sites, as some have been thoroughly researched over many years, and others are barely investigated in detail. Some of the cave sites are excellent examples of their morphology and are scientifically valuable for the erosional and sedimentary records that they contain, but their difficulties of access and the hostile working environment underground have precluded detailed study to date. The interpretative sections have involved some use of technical language, but each account ends with a brief summary of the interest framed in less technical language, in order to help the non-specialist.

This volume does not provide a fixed list of the important karst and cave sites in Britain. Geomorphological science continues to progress, and increased or hitherto unrecognized significance may be seen in new sites. The limestone caves provide a special case where new explorations reveal cave passages that were totally unknown previously. During the progress of this survey and documentation, three new sites have been added to the GCR list, and it is inevitable that

further sites worthy of conservation will be discovered in future years. There is also the problem of potential site loss, and part of one cave site has already been removed by an expanding quarry.

This volume deals with our knowledge of the sites available at the time of writing, in 1995, and must be seen in this context. The data within these pages clearly demonstrate the value of British karst sites, and their important place in Britain's scientific and natural heritage.

## [References](#)