## **REVIEWS**

Classic Landforms of the Burren Karst. by David Drew. 2001. Geographical Association, Sheffield. SB. 52pp. Price £8.95. ISBN 1899085 91 2.

As the opening sentence states "The Burren is the best karstic region in Ireland", it is also probably the best example within easy reach of the UK. However for many years this classic landscape has lacked a comprehensive guidebook, the last being the introductory chapters to Tratman's Caves of N.W. Clare. Since then much work has been done and concepts have been developed and changed, notably by Dr. David Drew of Trinity College Dublin. So who better to write "Burren Karst" a new edition to the series classic landform guides produced by the Geographical Association. The booklet is not intended for cavers but one of the seven sections is devoted to 'The caves of the Burren' and another describes the hydrology of the Gort-Kinyara lowlands.

The booklet begins with a brief introductory section defining the area and the geological variations in the limestone sequence. The next section relates the present landforms and hydrology to the underlying geology and structure and shows how glaciation has accentuated some of these underlying trends.

The following sections describe the enclosed depressions and limestone pavements of the area. This reviewer was surprised to read that there are 1500 enclosed depressions in the area of which 500 are over a square kilometre in size. While most of these are situated in the eastern Burren and away from the shale margin i.e. consistent with their development in a mature karst environment, there is an interesting cluster on the western side of Knockauns Mountain perhaps indicating the shale margin here has not moved much. The depressions and valleys of Aillwee Hill have their own subsection, as do the large depressions of Kilcorney and Carron. However, apart from the comments that many of the depressions contain glacial deposits and that the water table is now some 240 m below the mostly phreatic cave fragments in the area there is, sadly, no evidence of the date or mode of formation of these features.

Perhaps the most classic landform in the Burren is the vast expanse of bare limestone pavement. An excellent, but perhaps not typical example, at Sheshymore gets a detailed description and a superb aerial photograph forms the frontispiece. The peculiar karren, which are found in the intertidal zone, are described in another section again with some excellent photographs and diagrams.

The section on the Burren's caves begins by listing three factors controlling their development; geology, glaciation and base level changes; and sources of run off. Four types of cave are then listed:

- 1. Simple stream caves, e.g. Polldubh.
- 2. Stream caves with high level passages, e.g. Poulnagollum.
- 3. Polycyclic caves, i.e. those whose streams have intersected an older cave passage, such as Pollballiny and Faunarooska.
- 4. Completely abandoned caves, e.g. Glencurran and Vigo caves.

Polldubh and Aillwee caves are then taken as examples of the two ends of this range and described in some detail. Dr. Drew points out that relative ages have not been thoroughly investigated but initial uranium dating results show that the simple stream caves are of 236 REVIEWS

Holocene age (less than 10,000 years) while Aillwee cave probably attained its present form 350,000 years ago.

The final section examines the mature lowland karst of the Gort-Kinvara lowlands; a vast area with a maximum altitude of only 30 m but with a complex hydrology. Comments such as "a major water-filled karst conduit up to 25 m. in diameter" and "mean flow rates of 10,000 litres per second" should be of interest to cave divers who have only started to explore this area.

Overall this booklet provides an excellent concise description of the Burren's landscape both above and below ground and for the first time draws together research from the last thirty years. In each section specified locations including grid references are given where the best examples of features can be seen. The photographs, maps and diagrams throughout are excellent (with the possible exception of the cover photograph that is printed backwards!). Other minor negative comments are the lack of any reference to man's influence on the surface features though this may be due to lack of space. I would also consider the price high at £8.95 for a 50-page A5 booklet. Even so it would be a worthy addition to the bookshelf of anyone with more than just a sporting interest in the caves of the Burren.

Colin Bunce

Exploring the Limestone Landscapes of the Burren and the Gort Lowlands: A guide for walkers cyclists & motorists. by Mike Simms. 2001. burrenkarst.com. Belfast. SB. 64pp. Price £5.99 ISBN 0-9540892-0-0

The guide, published by Mike Simms under his own imprint, starts with a substantial introductory section, which gives a comprehensive overview of the geology and geomorphology of both the surface and underground features of the Burren and the Gort Lowlands. The introduction is detailed but can be easily understood by someone who is new to the area and to the subject covered in the guide. Technical terms are highlighted in colour and explained in an index. The author has also cross-referenced locations mentioned here with where they appear in the excursions.

The seven excursions are designed to be followed either on foot or by cycle. There are brief notes which point out whether each route is suitable for walking or cycling, or by car. Parking spaces are also indicated. However, in only one case is an indication given of how long the trip might take.

The first four excursions cover the part of the area best known to cavers, the Western Burren where the active stream caves are found. Between them they cover all the classic features of an active karst landscape. In general the excursions are clearly described, both by type and by location. On a minor note, I was surprised to see he mentions the concrete tank and cattle trough which point visitors to the entrance to Poulnagree (Stop C8), but makes no reference to the old water pump that actually straddles it. However, as this cave entrance was a late replacement for that of Poll Ballynahown when the author was informed at proof stage by the reviewer that this had been backfilled and was no longer easily visible, it may be that there was only a limited space available for a change to be made. (Sorry for complicating life, Mike!)

Excursions E and F cover the High Burren. The shale was stripped from this area much earlier than from the Western Burren and so it has had a much longer history of karstification. This is reflected in the much greater degree of reorganisation from a surface drainage system into a series of large closed depressions and virtually wholly underground drainage. There are also far fewer known caves, though two, the Cave of the Wild Horses at Kilcorney and the Aillwee show cave are included as stopping points. The latter has the longest entry of