# Geological excursions in the Harlech Dome: classical areas of British geology

By P. M. Allen Audrey A. Jackson

Bibliographical reference: Allen, P. M., and Jackson, Audrey A. 1985. *Geological excursions in the Harlech dome.* Classical areas of British geology, British Geological Survey. (London: Her Majesty's Stationery Office.)

British Geological Survey Natural Environment Research Council

London Her Majesty's Stationery Office 1985 © Crown copyright 1985. First published 1985. ISBN 0 11 884285 4

#### Authors:

- P. M. Allen, BSc, PhD British Geological Survey Windsor Court, Windsor Terrace Newcastle upon Tyne NE42HE
- A. A. Jackson, BA, PhD British Geological Survey Keyworth Nottingham NG12 5GG

(Front cover)

(Rear cover)

(Map 1) Relief map of Harlech Dome area (inside front cover).

(Map 2) Geological map of Harlech Dome area (inside rear cover).

### **Notes**

- National Grid references, given in the form [SH 7140 2863] throughout, all lie within the 100-km square SH.
- Numbers preceded by E refer to thin sections in the collections of the British Geological Survey.

### **Contents**

## 1 Introduction

Stratigraphy

Geological history

Geological structure

Mineralisation

Quaternary

# 2 Geological excursions

- 1 Ffridd-bryn-coch
- 2 Barmouth
- 3 Clogau goldmine
- 4 Capel Hermon
- 5 Bryn-llin-fawr

7 Upper Afon Melau valley 8 Llandanwg

6 Allt L**■**yd

- 3 Geological notes on popular walks
- 9 Barmouth to Hafotty mines
- 10 Panorama Walk
- 11 Roman Steps (Bwlch Tyddiad)
- 12 Drovers' Road, Llanbedr to Bontddu
- 13 New Precipice Walk
- 14 Precipice Walk
- 15 Ty'n-ygroes to Gwynfynydd
- 16 Pont Dolgefeiliau to Gwynfynydd
- 17 Torrent Walk
- 4 The Harlech dome road circuit

### References

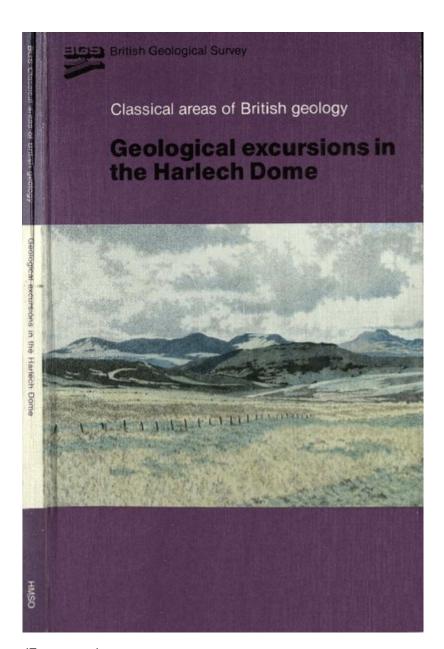
### **Glossary**

### **Preface**

Every year hundreds of students of geology visit the Harlech dome. The only guide to this classical area of Cambrian geology has hitherto been a geological map at one inch to one mile published by C. A. Marley and T. S. Wilson in 1946. To meet the needs of these visitors, this book which supplements the recently published 1:50 000 Harlech geological sheet, provides detailed geological notes and large-scale maps of carefully selected excursions in the Harlech dome. In addition, geological notes are provided (and a glossary of terms) for some of the more popular walks in the area, with he hope that they can be used by anyone with an interest in geology.

G. M. Brown Director. British Geological Survey Keyworth, Nottingham NG12 5GG. 4 January 1985

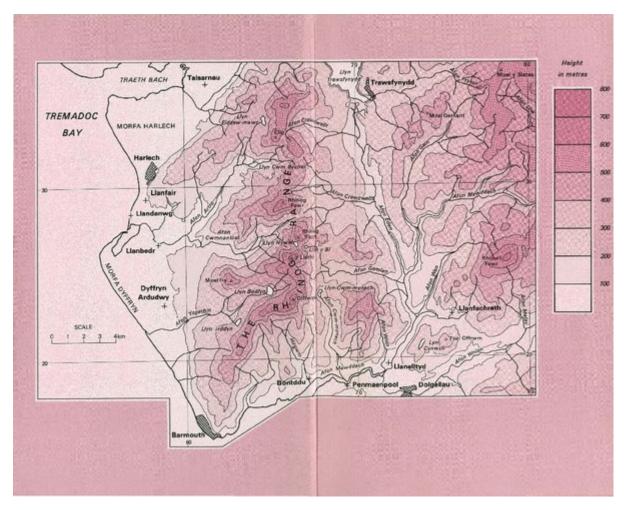
### **References**



(Front cover)

The walks described in this guide pass through some of the most beautiful scenery in the Snowdonia National Park. The walker will recognise the influence of geology on the scenery; from the coastal plain of sand dunes and alluvium concealing Tertiary rocks to the craggy peaks of the Rhinogs sculpted from some of the oldest fossiliferous rocks in Britain. At Rhobell Fawr, basaltic lavas may be seen which are the earliest signs of the 'ring of fire', a widespread volcanic episode which affects much of North Wales. Ice-scoured cwms, precariously perched erratics and wide tracts of till are evidence of the Pleistocene glaciation. The well known Dolgellau Gold Belt crosses the area and many other minerals have been extracted; the walker will pass many trials and ruins of the old mines. 8 SH SJ COLWYN BAY CHESTER . CAERNARVON . WREXHAM BALA BARMOUTH Area of Snowdonia National Park 80 ISBN 0 11 884285 4 £4.50 net

(Rear cover)



(Map 1) Relief map of Harlech Dome area (inside front cover).

