REVIEWS.

I. J. BROWN & T. D. FORD. 1967: The Magpie Mine, Sheldon, Derbyshire. Sheffield: Peak District Mines Historical Society. Special Publication No. 3. 3/-. (available from The Hon. Secretary, Peak District Mines Historical Society, 28 Kenbourne Road, Sheffield 7).

The work of the Peak District Mines Historical Society will be well known to most readers, as a result of its two joint meetings with the East Midlands Geological Society held in 1966 and 1967. It acts as a focus for research into the history of metal mining in Derbyshire and elsewhere; the activities of its members have put on written or photographic record a great deal of data that might otherwise have been forever lost. It was the first such Society to be formed outside south-western England: the timing of its formation coincided with the burgeoning of interest in industrial archaeology and its influence, accordingly, has been great. At least three other Societies of similar purpose - The Northern Cavern and Mines Research Society, The Shropshire Mining Club, and a similar Society in southern Scotland - have been formed on its model. The impetus that has thus been given to the investigation of a neglected branch of industrial history and geology has been considerable.

The Society publishes three series of publications: "Newsletters", giving day-to-day information on the doings of the Society: "Bulletins", in which original papers are presented: and a series of special publications. The first two of these latter were republications of long-out-of-print works, Nellie Kirkham's "Ecton Mines" and Arthur Stoke's "Lead and lead mining in Derbyshire". The latter is still available: the former will shortly be reprinted.

The publication at present under review constitutes an expanded version of a handbook to Magpie Mine, which originally appeared some two years ago and was quickly sold out. Like its predecessor, it consists of two parts: "Magpie Mine, Sheldon, near Bakewell: a chronology" by Ivor J. Brown, and "The Geology of the Magpie Mine" by Dr. Trevor D. Ford. Both sections have been expanded: the illustration is much improved and now includes two photographs and larger scale plans and maps.

Magpie Mine is of especial interest in that it constitutes the most complete assemblage of lead mine buildings of traditional type to survive in the Peak District, even despite the recent accidental burning-out of the mine cottage. Magpie has been used for a number of years as a Field Centre by the P. D. M. H. S., through the courtesy of the owners of the lead-mining rights, Derbyshire Stone Ltd; it is therefore appropriate that it should have been the first mine to be monographed.

The chronological presentation of the first section, though reducing its readability, allows for ready reference. The mine is said to be 300 years old, but the earliest firm date is of work in progress in 1795. A troublous period around 1833, culminating in the death of three miners, is dealt with briefly (it is treated with at greater length by Nellie Kirkham in "Derbyshire Miscellany" vol. 2 No. 8, 1962).Water troubles bedevilled the workings during the later nineteenth and early twentieth centuries; a sough was driven to drain the mine and a series of pumps were employed. The mine ceased working some time between 1913 and 1920: it was reopened briefly in 1923-4 and again in 1951 for a spell, until the battle with the water and the fall in lead prices brought about its final closure in 1958.

The description of the geology of the mine is rendered difficult by incomplete information on the situation underground: Dr. Ford's treatment is based on his own observations in those parts of the mine that are still accessible, in combination with surface observations and the application of information gained elsewhere in Derbyshire. Galena is the principal ore, with lesser amounts of blende, cerussite, calamine and pyrite: the gangue includes fluorspar, barytes and calcite. Of these, the first three and the last have been marketed at various periods in the mine's history: the quantities of fluorsper and barytes appear insufficient

to render their exploitation a commercial proposition.

A description of the surviving surface structures, to supplement and amplify the surface plan, would have been of assistance to the casual visitor. On the whole, however, this is a most worthwhile publication which can be recommended to anyone interested in Peak District geology and history.

WILLIAM A. S. SARJEANT

(LEICESTER LITERARY & PHILOSOPHICAL SOCIETY 1966) Footpaths in Charnwood Forest, Leicester: Leicester Lit. & Phil. Soc. (Reprint in pamphlet form from Trans. Leics. Lit. & Phil. Soc., Vol. LX, 1966 pp. 1 - 19, 10 text-figs). Available from the Society, c/o 17 Guildford Road, Leicester: Price 2/- (postage extra).

This pamphlet describes a circular ten-mile walk in Charnwood Forest, paying particular attention to the scenic and geological features which can be seen along the route. It does not attempt to describe the geology of Charnwood Forest as a whole, referring readers who require these details to the well-known book of W. W. Watts.

However, the walk does include a large selection of the rock types which can be seen in this area and the 15 localities described provide examples from the three main Pre-Cambrian series of rocks and a selection of the intrusive rocks. The only major omissions are the porphyries of High Sharpley or Whitwick and the bomb-rock at Charnwood Forest Lodge: nor could I see any locality which clearly showed the Trias - Pre-Cambrian unconformity. These could be seen by incorporating diversions from the route, but would require prior permission to visit.

The route directions are very explicit and are accompanied by diagrams. These contain useful blank spaces for annotation. There is one general geological figure.

The panoramic view from Beacon Hill is excellent and introduces to the reader the general geology of the Charnwood Forest area and the occurence of rock types other than those seen on the walk. The description of the other geological localities is sufficient for most readers. A glossary has been included to explain terms used for the non-specialist, a useful addition.

The reference to William Rippon early in the walk suggests that 'right of way' is available along the whole route. Some of the localities are public open spaces; one should be prepared to find considerable congestion on Beacon Hill and in Bradgate Park on warm summer days.

This pamphlet is a useful addition to East Midlands excursion literature and the Geology Section of the Leicester Lit. & Phil. Society are to be congratulated on its publication.

FRANK M. TAYLOR

(DAVID A.E. SPALDING) 1967: An Introduction to Local Natural History. Sheffield: City Museums. No price given.

Though An Introduction to Local Natural History has a slightly misleading title, in that it is concerned with natural history within a twenty mile radius of Sheffield and not the natural history of the country as a whole, the author deserves high praise for being able to compress a formidable mass of information into only 24 pages (excluding covers).

The first section of the booklet is concerned with geology and, while it would be wrong to expect too much in a section of only three pages, one feels that, as the work is aimed mainly at the general public, more attention could have been given to such things as fossils. The geology of parts of Derbyshire, which features large in Mr. Spalding's pages, is not without its problems and, while such may tend to complicate the picture presented, to omit almost any mention of them seems wrong. The same can be said in the case of mineralogy; the area covered by the booklet is rich in minerals, yet, strange to say, Mr. Spalding passes this aspect over with almost no comment. I think readers with no knowledge of geology would find a map showing the dominant rocks in different localities of value; indeed, if such a folding map could be added, notes could be included giving the names of common fossils and minerals, which could perhaps prompt the finders into taking a deeper interest in the subject.

The relationship of geology and botany is well brought out in the booklet's second section, which deals with the botany of the area. Some writers tend to treat their subjects in isolation; thus we find at times that certain botanists seem almost as ignorant of the geology of the area whose flora they study as some geologists appear to be of the flora that often covers the strata they study. Mr. Spalding is certainly not guilty of this; his points about the several types of moorland being dominated by different types of plants and that the limestone uplands now only retain their original flora in fragmentary sections on their sides, makes very interesting reading.

The sections on geology and botany are of equal length but the zoology section is much longer, very understandable when it is seen to comprise the whole range of fauna from the largest mammals to the smallest insects. To have given a great deal of information on each group would have meant not a 24 page booklet but a book of several hundred pages. This makes it difficult to criticise; however, criticise one must, for it seems odd to find that a group as important as the molluscs fails to get any mention other than the comment "Much work needs to be done on most of the remaining groups ....." To dismiss land and freshwater molluscs in this manner is, to say the least, rather cavalier.

The last section of the booklet, and by far and away the most important, as well as longest, is the references. Taken as a whole, this section presents a strikingly comprehensive list of books, journals and papers on all aspects of the natural history around Sheffield; further to this, the general reader far from Sheffield will find it of great value. Such references could lead to readers of the booklet, who have begun to have an interest in one or more branches of natural history, following up the subject in greater detail. Many beginners seek help or guidance and this list could provide just that. Strangely, having dismissed the molluscs, the author provides seven references under that heading; these do not include any volume introducing the phylum and, if another edition is produced, consideration could perhaps be given to including an excellent work by H. Janus, Molluscs, in "The Young Specialist Looks at .... " Series. (Burke Publishing Co., Ltd., London, 1965).

Participation by amateurs in several branches of natural science is to be encouraged and again, in the event of another edition of the booklet, consideration should be given to including the names of local

natural history societies and the addresses of their secretaries. Likewise mention could be made of the work amateurs can do, such as the all-important geological task of recording temporary exposures (particularly in towns) or taking part in census work run by such bodies as the Botanical Society of the British Isles or the Conchological Society. Whatever criticisms and suggestions have been made, nothing can conceal the importance of this short work; the author has done a very good job indeed. Nor should the Sheffield Museum authorities be left out, for, when so many local museums seem unconcerned about increasing public interest, it is good to find one showing a real concern in the interests of its visitors and those who just want their questions answered.

ROBERT W. MORRELL

"The Amateur Geologist" Vol. 1, Part 2. Winter 1966. Liverpool Geological Society and Manchester Geological Association. 2s. 6d.

The first issue of The Amateur Geologist has already been reviewed in these pages (Mercian Geologist, 2, 1, January, 1967. pp. 117-18) and little really need be said about this, the latest issue, as much the same points made before would constitute what would be said. The regionalism so clearly manifest in the first issue meets us again; however, the editorial, in appealing for contributions, suggests indirectly that the regionalism may eventually depart.

Apart from the editorial already mentioned and regular 'What's On in the Local Geological Societies' feature, some five papers appear: Notes on Some Mineral Localities Within Reach of Manchester by R.A. Howie; A Note on Cross-Strata of the Upper Bunter Sandstone of North-Eastern Cheshire by I.R. Stone; Welsh Gold Mines by M.A. Bellhouse; Coal Measure Fossils at Agecroft by David Powell; and Tour of Malham Dale by W.H. White. Production of the journal is rather better than the first issue, though some printing errors creep in, and is certainly worth the modest sum asked.

ROBERT W. MORRELL

J. CHALLINOR 1967: A Dictionary of Geology 3rd. Edition. Cardiff: University of Wales Press, xv+ 298 pps. 42/-

The main part of this book consists of an alphabetically arranged list of terms commonly used in geology. The second part is an index of the terms, arranged in classifed lists.

The dictionary contains about 2,500 terms dealing with all branches of geology. Some subjects are dealt with much more comprehensively than others. Thus flute-casts, load casts and groove-casts, also bioherms, biostromes and bioliths and many other terms from Sedimentology are included, but those from fossil morphology are largely omitted, although terms on general palaeontology are included. On the whole, however, the book contains sufficient terminology for those searching for the meaning of basic terms outside one's speciality.

Anyone requiring information on stratigraphical terms will welcome this book, for it includes many series, stage and formation names from the rocks of Great Britain. There is much to interest those requiring petrological data, including many rock types but usually excluding names associated with localities, i.e. Markfieldite or Larvikite. Common minerals such as calcite and barytes are to be found, but less common minerals and gemstones are largely left out.

Of interest to all readers is the inclusion of the origin and derivation of the terms listed. The original references are frequently given and the common usage of the term stated, even when this differs from the original author's intention!

This book will be extremely valuable for all who teach geology, particularly in schools, and for students wishing to know more about the source of terms they use frequently.

FRANK M. TAYLOR