

SOURCES OF INFORMATION FOR THE AMATEUR GEOLOGIST

by

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Summary

Possible sources of information and assistance for the amateur geologist are listed, with notes as to the best use of libraries, museums and other bodies. The amateur is encouraged to reciprocate by helping in return where possible.

Introduction

The amateur geologist, even more than most naturalists, must often find himself out on a limb. In his exploration of the countryside, particularly when visiting quarries and collecting minerals and fossils, he must often feel that his activities are of no interest to anyone but himself. Conversely, when he is in need of information about the history and significance of the sites he visits, or the identification and conservation of the specimens he acquires, he may be at a loss to know where to turn for assistance. When on occasion he makes an important find or discovery, it may well not come to the attention of the appropriate authorities, or it may take so long to do so that significant details are forgotten. His personal collection, which may often represent sites not normally accessible to the professional and include specimens of considerable scientific significance, is perhaps not fully labelled for want of the necessary advice. On the owners' loss of interest, eventual demise, or surrender to uxorial pressure, the collection may fail to reach the repository where it may be most useful, or, if it does so, it may be without the essential field note-books and manuscript catalogues which would make it useful.

At the editor's suggestion, therefore, these notes have been put together to assist the amateur geologist in dealing with some of these difficulties.

SOURCES OF INFORMATION

1. Local Libraries

An immense amount of geological information is to be found in books, maps, and scientific papers at various levels of technicality, but, even if every geologist were possessed of unlimited funds, few of the relevant works would be found to be still in print or even available second-hand. The library is therefore the key to obtaining the necessary books.

Everyone is within reach of at least a small branch lending library, and most people live in larger towns and cities with access to specialised reference facilities. Even the smallest library has

links with local and national networks: these include many specialist libraries and the National Lending Library, from which books may be obtained through the local branch. There is usually no charge other than postage: the only difficulties involved are the time lag and often a proviso that the book shall only be studied in the library - this may well cause difficulty when many fossils are to be identified.

Apart from basic geological works, normally available on the library shelves, the geologist is likely to require books for two purposes. The first is for the identification of collected material and the second is for detailed local information. If he knows which books or papers are required (and here the advice of a professional geologist is often of assistance), then it is relatively simple to obtain them, provided author, date of publication, and publisher or reference are known. If this information is not available, likely books can usually be traced through the index systems of larger libraries. Sometimes one of the library staff will be able to offer advice, though of course few general libraries employ specialists in all the fields covered by their books. Otherwise, the more help the librarian can be given, the sooner a useful book can be found; and it is therefore well worth keeping a note of suitable books and papers in different fields. A recent paper on any aspect of the subject may often refer to the last published summary of the subject as a whole.

Local information is much more difficult to find easily than books for identification. A few large firms employ geologists and keep careful records, but many do not. Almost every quarry and cutting in the country has been visited and studied at some time, and the results of the investigation may well have been published. But to find at short notice all the information relating to a particular site may be extremely difficult, unless there is a bibliography of the subject available. It is well worth enquiring about the existence of such a bibliography; there may be one already in print, in a county volume, a more specialized regional memoir, or in the journals of the local geological or natural history Society. Many have been prepared to assist private research projects or by various institutions; these are often not in print. As an example, a bibliography of the area twenty miles round Sheffield is being prepared at Sheffield City Museum, and it is now being cross-indexed for localities. A bibliography of Peak District geology is likewise under preparation at Leicester University (this is shortly to be published in the "Mercian Geologist"), and new publications are often noticed in the North Midlands Bibliography.

2. Specialist Local Libraries

Many institutions concerned with geology, such as Museums, University and Technical College Departments, may have specialist libraries in the subject. The older established these are, the more likely they are to contain the older and rarer local works and long runs of journals.

Often these libraries are part of the library inter-loan schemes, and their books may be accessible through ordinary public libraries. This is however not always so. Although access to such specialist libraries is restricted, it is usually possible to obtain at least reading privileges, providing a reasonable case can be made or a sponsor on the staff of the institution can be found.

3. National Libraries

A number of specialist national libraries are often open to consultation. The libraries of the British Museum, the Geological Museum, and the Natural History Museum are available (with permission) to those wishing to consult them. Members of National Societies (particularly the Geological Society of London and the Geologists' Association) have access to the libraries of their Societies. Some provide a rapid postal lending service, and there may also be photocopying facilities of the type that many public libraries provide.

4. Local Museums

Local Museums perform many functions; their role in geology has been summarized in

an earlier paper (Spalding, 1964). They are often able to be helpful to the amateur; many regard the building of links with amateurs as of particular importance, affording plenty of opportunities for mutual assistance. Any or all of the following services may be available in a local Museum to the amateur geologist:

- a) Specialist library, with local works and maps.
- b) Reference collections, usually with a local bias, which may be consulted for identification of material.
- c) Extensive local information, either in the Curator's memory (useful but not of long-term value!) or in the form of site indexes, bibliographies, etc.
- d) Specialist publications of the Museum, and other bodies, on sale.
- e) An identification service (often using specialist referees in other Museums and, where necessary, national museums and University specialists), which can name and give information about specimens.

In return, the amateur geologist may well be able to assist the Museum, by keeping the Curator informed of his work, by helping to prepare and keep up to date site indexes and bibliographies, and even (if the amateur is expert and the Museum very small) by overhauling collections and assisting with the identification of simple specimens.

It is worth remembering that many smaller Museums are (unaccountably) run by librarians and therefore cannot normally be of much assistance; and that, even where a geologist is on the staff, he must often be responsible for many other things besides geology. Museum professionals work, nominally, a five day week (even if they do spend the weekends catching up on fieldwork) and so are not normally available for consultation at weekends, though specimens may always be left for attention. If a visit is likely to involve numerous identifications or much time, it is worth writing to make an appointment.

It is worth remembering too that Museums are, like all institutions, responsive to pressure. Even the most unsympathetic librarian, who is subjected to a flood of geological enquiries, may contemplate the appointment of professional staff; and a similar stimulus may well help a willing curator to convince an unsympathetic committee.

5. National Museums

Two National Museums are concerned with geology. The Natural History Museum has world-wide collections of fossils and minerals, and the Geological Museum is primarily interested in the geology of this country. Both welcome enquiries, but if the more straightforward enquiries are tried locally first, it may save the valuable time of specialist staff.

In addition to specialist libraries and collections, both have some extremely useful publications of which lists are published, and the latter has, available for reference, many unpublished maps and site records. The Geological Museum is particularly interested in information about temporary exposures; this, however, is often collected by local Museums until required in the revision of maps.

6. University and Technical College Departments

Geology departments in Universities and Technical Colleges are primarily concerned with teaching and research, and, as such, have little direct contact with the general public. Many of the professional geologists employed in these institutions, however, take a keen interest in encouraging the study of their subject by amateurs, are willing lecturers, and often provide the core of officers for local Societies, which help them to make wide contact with amateurs in the area. Although the special library and

collections are not normally available, access may sometimes be obtained by serious enquirers who seek permission.

7. Societies

Quite a number of Societies may be of interest to the geologist. Many local natural history societies have geological sections, or may have special library or museum facilities which will repay joining. There are a few local Societies of special geological interest (e.g. the Hull Geological Society) and several regional ones, such as the East Midlands Geological Society. National Societies include the Geologists' Association and Palaeontological Association; more advanced amateurs may attain membership of the Geological Society of London and Mineralogical Society. Other national bodies with an interest in geology include the British Association for the Advancement of Science and the recently-formed Council for Nature, an 'umbrella' body which is not yet perhaps adequately representative of geological interests.

8. Private Collections

The amateur may well have access to existing collections in private hands, which are of direct utility as far as they are adequately labelled and preserved.

His own specimens may well come in time to achieve the status of a 'collection', and it is worth taking pains with this to make it achieve maximum usefulness. There is not room here for detailed notes on collection and care of specimens, but a few comments may well be useful.

Full data about the locality and stratum of collection should be kept, preferably in a field note book as well as attached to the specimen. Each specimen, when cleaned and prepared for the cabinet, should have a number firmly attached referring to a catalogue, and, if possible without spoiling the specimen, the data may be written directly onto it (not in a code known only to the collector). After treatment for pyrites disease where necessary, specimens may be stored in trays, card or wooden boxes, or a cabinet with separate labels.

When a geological collection is disposed of, its permanent preservation should be seriously considered. Any type, or otherwise unique, specimen, in particular, should be safe-guarded, but almost all categories of geological material may be of value for some scientific or educational purpose.

The collection may sometimes be transferred to another amateur geologist, but this is in general undesirable. If this does happen, a Museum near the main collecting area should be informed about the collection and its whereabouts. Otherwise the collection should ideally be put in the hands of the nearest Museum or University department that has adequate curatorial staff. Under no circumstances should a collection be deposited in a school, where (although there may at the time be a qualified geologist), the material will be of only limited utility and has no future guarantee of safety. Many important collections have been ruined in this way.

9. Geological Institute

In addition to its London headquarters at the Geological Museum, the Institute of Geological Sciences (formerly the Geological Survey) has regional headquarters in various provincial cities. Its maps and publications may be purchased directly from the Museum, together with photographs and slides; lists of these are available. Maps and memoirs are also available through Her Majesty's Stationery Office and its official outlets.

10. Slides and Photographs

Geological slides and photographs are now available from a number of Museums, and lists may be had from the Museum and the Slide Centre. Most Museums will arrange to take photographs of geological specimens on request, or allow facilities for photography.

11. Mineral Suppliers

Most geologists prefer to build up collections from their own field work, but some may wish to buy at least occasional specimens to fill gaps. There are a number of suppliers who may be able to assist.

12. Conservation of Sites

Geologists, whose sites are often quarries much in demand for tipping, are often not aware that mechanisms exist for preservation of the more important sites. Some may be scheduled by the Nature Conservancy as Sites of Special Scientific Interest ('S.S.S.I's'), or exceptionally as National Nature Reserves. Their work is often supplemented by Naturalists' Trusts in each County. Any threats to geological sites of importance should be notified to these authorities, and it is wise to try and schedule sites well in advance of any possible threats.

Conclusions

This list of possible sources of information and assistance includes the main ones known to the writer, but it is not intended to be exhaustive. All the institutions concerned have limited resources and staff, but are nonetheless usually anxious to help as much as possible; the amateur geologist will find it useful to develop a personal relationship with secretaries, curators and librarians. If he is in turn able, and willing, to assist the institutions in their work, a relationship of real value to all parties can often be developed.

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REFERENCE

- SPALDING, D.A.E. 1964. Geology in provincial museums. *Mercian Geologist*,
vol. 1, no. 1, pp. 11-13.

APPENDIX: USEFUL ADDRESSES

British Association for the Advance of Science :	3 Sanctuary Buildings, 20 Great Smith Street, London, S. W. 1.
Gregory Bottley & Co. (Mineral Suppliers):	30 Old Church Street, London, S. W. 3.
Council for Nature:	41 Queen's Gate, London, S. W. 7.
Geologists' Association:	Dr. F. H. Moore (Hon. Sec.), 178 Fir Tree Road, Epsom Downs, Surrey.
Geological Society of London:	Burlington House, Piccadilly, London, W. 1.
Institute and Museum of Geological Sciences:	Exhibition Road, London, S. W. 7.
Mineralogical Society:	41 Queens Gate, London, S. W. 7.
Natural History Museum:	Cromwell Road, London, S. W. 7.
Nature Conservancy (Midland Region) :	Attingham Park, Shrewsbury, Shropshire.
North Midlands Bibliography:	Editor: Mr. R. A. H. O'Neal, Derby & District College of Technology, Kedleston Road, Derby.
Palaeontological Association:	Professor C. H. Holland, Department of Geology, Trinity College, Dublin 2, Ireland.
R. F. D. Parkinson (Mineral Suppliers):	Cranmore, Shepton Mallet, Somerset.
Slide Centre:	Portman House, 17 Brodrick Road, London, S. W. 17.

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