Guidelines on Archival Research and Publication

Introduction

Sooner or later, many people feel that they would like to research the history of a mine and prepare a report for publication. To the beginner, however, this can be a daunting task - where do they start? This guide is intended to give some indication of where to start on the fascinating process of discovery. Points to remember are:

a. Everyone comes to blank ends

b. Everyone makes mistakes

c. It often does no harm to file away your notes for a year or more and start on something else. Such a pause, and the subsequent new start, often gives a clearer view of the work already done and new information may have surfaced.

One of the first things you must develop is patience. There will be times when you seem to be getting nowhere at all and times when you only find a small item after a great deal of work. Persevere, however, since you can often discover a wealth of detail in some obscure source and it makes it all worthwhile. Research is like a jigsaw puzzle - you must gather together a great many small items of information and eventually you can fit them together to form a picture. Unless you are prepared to spend time on your research it is not worth starting, since what you produce will be incomplete.

Filing

From the start you must keep a file of information on your subject, however unimportant it may seem at the time. It often happens that another piece of information comes to light which, combined with the previous piece, provides an important insight on the subject. It is very frustrating to know that you have read something else previously but cannot remember where! You must head each piece of information with details of where it came from, i.e. book title, author, year of publication, page number, etc. This is useful if you need to refer back to it at any time and for use as your reference - more of this later.

Source material

There are two types of source material, viz:

- "Primary" – original mine leases, daybooks, etc. which are held in record offices, museums or private collections.
- "Secondary" – books or articles written by mining historians.

You should always begin by checking if anyone else has already carried out research into your area of interest. This may save a great deal of duplication and their work can act as a springboard for your own research. This is not as easy as it sounds since their work may appear in some obscure journal or may not even be published! Try reading:-

- Burt, R. & "Bibliography of the History of British Metal Mining"
- Waite, P. University of Exeter/NAMHO, 1988, ISBN 0 85989 319 7
- "Current Titles in Speleology" (annual publication) British Cave Research Association, ISBN 0 900265 319 7

These may direct you to published sources about your area of interest and these in turn, like a chain reaction, may suggest even more sources. Keep a list of potential sources to which you can add to from the bibliographies of books that you read. You may find that many of these have no relevance but sometimes you strike it lucky. Always check quoted sources yourself, since a passage copied from the original work may be condensed or omit information. There are several journals which are worth checking for information:-

- Business History.
- Economic History Review.
- Historical Metallurgy.
- Industrial Archaeology.
- Industrial Archaeology Review.

- Mining Journal.
- Newcomen Society.
- Northern Mine Research Society (British Mining)
- Peak District Mines Historical Society.
- Trevithick Society (Cornwall).
- Yorkshire Geological Society.

A further avenue to try is to publish an appeal for information in the newsletter of your local mining history society. The NAMHO Newsletter also publishes such appeals and this allows you to reach individuals throughout the country. This method can unearth a great deal of information, especially where it is unpublished. To discover which societies and museums cover your area, you should consult the NAMHO website (https://www.namho.org/members.php).

Your local mining history society can provide a good idea of where to start looking for source material on your area of interest. As well as telling you if material has already been published in their journal, they can also put you in touch with individuals who may have knowledge or unpublished notes of interest to you. Many also have their own archival collections but access to these is not always allowed for non-members.

As with all subjects, there are some books which are regarded as required reading because they give a good outline of their chosen areas, e.g.

- Burt, R. "The British Lead Mining Industry" Dyllansow Truran, Redruth, 1984.
- Burt et al "Mineral Statistics (1845 - 1913)" by county University of Exeter.
- Dines, H. "The Geology of the Metalliferous Mining Region of South West England" (2 vols.) H.M.S.O., London, 1956.
- Dunham, K. "Geology of the Northern Pennine Orefield" Vol. 1 H.M.S.O., London, 1949.
- Ford, T. & Rieuwerts, J. "Lead Mining in the Peak District" Peak Park Joint Planning Board, Bakewell, 1970.
- Lewis, W. "Lead Mining in Wales" University of Wales Press, Cardiff, 1967.
- Raistrick, A. & Jennings, B. "A History of Lead Mining in the Pennines" Longmans, London, 1965.

It is important that these be read, because they will give a wealth of general detail against which one's own findings may be measured. For instance, if the accepted date for the introduction of a specific process (say reverberatory smelting) is the last third of the 17th century and such a furnace is found on a site dating from 1701, then it is clearly a very early example.

Once you have exhausted these sources, your work begins in earnest and there are now several places you can visit. Although you may not be able to visit all the places listed below, you should try to include as many as possible. In this way, you can be sure to have covered as much ground as possible to obtain information.

The reference library

Having arrived at the local reference library, do you know how to use it to the full? What are those numbers on the shelves? Can they be of use or did the librarian just have a lot of dymo-tape? Who are those people behind the counter - can they assist? Hazel Martell MA, BA, ALA explains the system and some of its failings in the following section.

Where do I start?

The most obvious way is to ask the person behind the counter. Since, however, most people can only visit a library when it is busy, the assistant is likely to be rushed off their feet - dealing with two queues, looking for lost tickets, answering the telephone. Although your project is very important to you, it will come a long way down their list of priorities at the moment you arrive!

With that in mind, the following is a very elementary introduction to the Dewey Decimal System of library classification - the numbers which librarians put on book spines and catalogue cards to enable them, and you, to find books quickly. It is a sort of map reference.

To those of you who have worked it out for yourselves, we apologise for wasting your time. To the rest of you, we hope that it doesn't make you more confused than ever...

Introduction to Dewey

Melville Dewey was an American who lived in the last century. This is why some of his priorities seem somewhat strange and why his allocation of classification numbers to certain subjects seem over-generous or sadly too few. In the society he lived in, it would seem logical to allocate 100 numbers each to PHILOSOPHY and RELIGION and only 10 numbers to the whole of ENGINEERING. His idea was to separate books into 10 main groups according to subject as follows:

- 000-099 General Works
- 100-199 Philosophy
- 200-299 Religion
- 300-399 Social Science
- 400-499 Languages
- 500-599 Pure Sciences
- 600-699 Applied Sciences
- 700-799 Arts
- 800-899 Literature
- 900-999 Geography/Bibliography/History

Each group was then split into 10 again (and again and again and again!) to give narrower and narrower subject groups, until eventually specific numbers were allocated to specific subjects and not just chosen at random by a librarian. For example, the class number for COAL MINING is 622.33 which is made up as follows:

- 600 Applied Sciences
- 620 Engineering
- 622 Mineral Industries
- 622.3 Mining - Class numbers for types of mining are:
    - 622.33 Coal Mining
    - 622.343 Copper Mining
    - 622.344 Lead Mining
    - 622.3452 Zinc Mining
    - 622.3453 Tin Mining
    - 622.362 Quarrying
- 622.80902 Mines Inspectorate

Mining History has its own classification and its reference will usually be further refined according to the county as in the following examples:

- 622.09 MINING HISTORY
- 622.094235 Mining History of Devon
- 622.094237 Cornwall
- 622.094245 Shropshire
- 622.094251 Derbyshire
- 622.094274 Yorkshire

If you can find nothing at these numbers, don't despair, for Dewey also allocated ones for the economic history of mining and these are as follows:

- 338.27 ECONOMIC HISTORY OF MINING
- 338.272 Economic History of Coal Mining
- 338.2741 Gold Mining

- 338.2743 Copper Mining
- 338.2744 Lead Mining
- 338.27452 Zinc Mining
- 338.27453 Tin Mining
- 338.2751 Limestone Quarrying

Information on difference aspects of mining may also be found in books at other classification numbers. These include:

- 309.142 Industrial Revolution - Social
- 330.942 Economic History of Britain
- 331.7622 Economic History of the Working Classes
- 331.7622344 Lead Miners in the Northern Pennines
- 331.88 Union History
- 338.0942 Industrial Revolution - Economic
- 385 Railway History and Economics
- 385.5 Narrow Gauge Railways
- 553 Economic Geology
- 554 Geology of Specific Areas
- (e.g. 554.245 Geology of Shropshire)
- 609 History of Inventions
- 609.42 Industrial Archaeology of Britain
- (e.g. 609.4237 Industrial Archaeology of Cornwall)
- 658.922 Mining Business Management

The Library Catalogue

Many libraries have a catalogue which is available to the public. This can be on cards, micro-fiches or a computer and has a separate entry for each book. It does not often help in tracing an article, however, unless you know the exact name and volume of the publication in which it appeared. Specialist bibliographies, such as that published by NAMHO, are invaluable in this respect.

The card index is usually divided into two sections:

a. An alphabetical series of authors which sometimes includes titles. These often ignore words such as "The" and "A" and sometimes words such as "History" and "Geography" are re-positioned so that "A History of the Yorkshire Dales" may be found under "Yorkshire Dales, a History of". Sometimes it might appear as "A History of the Yorkshire Dales" (filed under 'H' because this is the operative word).

b. A classified section. This sometimes follows the Dewey System (i.e. the order in which books may be found on the shelves), in which case there should be an alphabetical subject index. Alternatively the classified section may be in alphabetical order of subjects, e.g. GEOLOGY, METALLURGY, YORKSHIRE, with the cards arranged alphabetically by author under each subject. As with the Dewey System, however, you must try several possibilities, e.g. PALAEONTOLOGY - see FOSSILS.

Micro-fiches are arranged very similarly to the card index but are more likely to use the Dewey System, rather than an alphabetical subject listing, for the classified section. For convenience, micro-fiches are updated by supplements which should also be referred to.

Computer indexes, where available, offer the advantage of being able to search rapidly through several fields (e.g. author, title or subject) and allowing "key word" searches. Some computer indexes contain details for all libraries in the county and they may show that your book is held by another branch. In this case, you can often arrange for it to be sent to your branch on loan for you to refer to.

Not all books are kept on the shelves, some may be in the stack which is not open to the public. In this case, the catalogue entry will be marked accordingly. Finally, where the library doesn't stock the specific book that you want, the inter-library loan facility allows it to be borrowed from other libraries in the UK. There is usually a charge for this service

and the librarian will need full details for it to be traced, i.e. Author, Title, Publisher, Date of Publication and ISBN if known. The fact that it has a red/green/purple cover doesn't matter to anybody!

Things to Look For

- Census Returns - are usually kept on microfilm and are only available 100 years after the census. They indicate the name, address and occupation of residents and can be used to identify mine owners and miners.
- Trade Directories - were annual publications listing the names and locations of businesses. They can be used to identify those with mining connections and the life span can be calculated from when entries start and finish.
- Geological Memoirs - were produced by the Geological Survey of Great Britain and also by some individuals. The earlier volumes gave useful information on working and abandoned mines.
- Local Histories - often written by local historians and seldom contain much of mining interest, although you may be able to glean something of general interest. The Victoria County Histories vary in usefulness but some may hold useful information.
- Newspapers - old editions of local papers sometimes give a useful insight into the social history of the mines. It is hard work going through all editions but try looking during a period when you know the mine was working.
- "General View of the Agriculture of the County of ..." - this was a series of books published during the early 19th century. Some contain valuable information on mines.
- Local Society Journals - there were many local history and naturalist societies in Victorian times and their interests were varied. Articles on mining sometimes appear.
- Donated Collections - this is a long shot but it has paid dividends in the past. Check to see if donated material refers to mines, e.g. cuttings, photos, notes, etc.
- Bibliographies - these are sometimes prepared to cover specific topics and, if you are lucky, you may find one relevant to your research, e.g. "Derbyshire Lead and Lead Mining" published by Derbyshire County Library.
- Ordnance Survey Maps - The various editions of Ordnance Survey maps are often of particular value in tracing the development of a site. The modern sheets are indispensable for their inclusion of the National Grid, from which the site's coordinates may be obtained. Contour lines are shown on all but small scale maps, with those on the pre-1970s editions given at intervals of 25 feet whilst more recent ones have been metricized. The first 1/10560 (or 6" to one mile) maps were surveyed and published during the 1840s and 1850s, with revised editions around 1880, 1910 and 1930. The 1/2500 (or 25" to one mile) maps were first produced early in the present century and carry a wealth of detail but only cover areas which have been enclosed. Many metalliferous mines, in remote areas of moorland, are, therefore, not always covered. Later editions of OS sheets are also available and, in urban areas, it may be possible to find very large scale maps.

When maps of different ages are compared, a problem which sometimes arises is that they do not align properly. The main reason for this is that County Sheets were surveyed from a north-south meridian in each county, from which corrections for distortions caused by the Earth's curvature were also calculated. This is the reason why the neighbouring county is left blank at their common boundary. National Grid maps, on the contrary, were surveyed from a common base line, which diverges from geographical north, from which adjustments were made.

When comparing maps of different ages, you may find that they do not align properly. The reason for this is that the County Sheets were surveyed from a north-south line in each county, from which the distortion caused by the Earth's curvature was calculated. This is why the neighbouring county is left blank at the common boundary. Modern maps, however, are surveyed from a common base line, i.e. the National Grid.

The local studies library

Most county library headquarters have a local studies section containing items of county interest. Many old books are more likely to be found here than in local branches.

Things to Look For

- Ordnance Survey Maps - a collection is usually kept for the whole county with all types of edition and scale.
- Tithe Records - usually kept on microfilm, dating from around 1840. They show field boundaries, ownership and land usage. Field names may also give a clue to previous mining use, e.g. "Mine Pit Shaw". They are in two parts, viz. the map itself and "Apportionments" which give accompanying detail.
- Gentlemen's Tours - it was common practice in the 19th century for 'gentlemen' to tour areas of the country and write about their experiences. Some contain excellent descriptions of working mines.

- Geological Guides/Donated Collections - a wider selection may be available.
- Mine Abandonment Plans - it was a legal obligation from 1872 for a mine to prepare a plan of the workings as they stood at abandonment. The plans for metalliferous and miscellaneous mines used to be kept by the Health & Safety Executive but have now been distributed to the relevant Local Record Offices.

The county record office

This is where you are likely to find examples of primary sources which are unique and need specialist storage. Some offices insist that you book a seat in advance and many now have an identification card scheme. Telephone first and take some personal identification. There are extensive catalogues and you will have to complete a request form for items (normally limited to 3 at a time). Most offices have their own "Notes for Enquirers" but you should always obey the following rules:

- NEVER use ink or biro, use only HB pencil.
- Ask permission before tracing maps or plans. Cover documents with transparent sheets (Melinex or Perspex) before tracing.
- NEVER lean on documents or write on notepaper resting on documents.
- Ask staff to assist if a document is in danger of being damaged whilst being opened or handled.
- Keep documents in the order and condition in which they are found. Ask staff for assistance if experiencing difficulty in re-tying.

Things to Look For

- Estate Papers - these can contain leases, maps, daybooks, etc which relate to mining.
- Maps - many old maps refer to mining sites.

Remember also that some mineral owners lived outside the area and their estate papers may have been donated to a record office in another county. Try advertising in the NAMHO Newsletter to see if other mining historians have come across material relating to your area.

Other archival collections

a) British Library

This is currently situated in the British Museum, Great Russell St, London but is due to move to new premises. You need a reader's ticket which can be obtained by producing personal identification. Items of particular interest are Geological Memoirs and Reports of HM Inspectors of Mines. Items can be seen at your local reference library via the inter-library lending service. Things to look for:

- British Parliamentary Papers - Mining Accidents (Kinnaird Commission), Mining Districts, Mining Royalties and Children's Employment.
- Mineral Statistics 1845/1913
- Mines Inspectorate Reports - The annual reports of the District Inspectors contain accidents and production data. There are also annual lists of mines, giving details of the mine name, its situation, manager's name, workforce, accidents, developments and mineral worked.
- Mining Journal.

b) Public Record Office

There are two sites at Chancery Lane, London and Ruskin Ave, Kew, Richmond, Surrey. You need a reader's ticket which can be obtained by producing personal identification. There is a vast amount of primary source material and you should get the following leaflets which will direct you to various indexes:

- No.82 Coal Mining Records
- No.83 Sources for the History of Mines and Quarries.

c) National Monuments Record

The record office is at Fortress House, Savile Row, London and it also holds the Ordnance Survey Archaeological Records. There is also a separate library of aerial photographs which can be useful for picking out surface features. Aerial photographs provide a valuable aid to industrial archaeologists. They often have a nominal scale of 1/10000 but, owing to factors such as ground slopes and lens distortion, this cannot be relied on. As an aid to infilling detail, local

scales may be calculated by means of measurements taken in the field, or from maps, between distinguishable features, such as wall corners. Often, it is possible to detect features which are, at best, difficult to distinguish on the ground. Linear features stand out particularly well and may be transferred onto maps with a reasonable degree of accuracy.

d) Others

- HM Inspectorate of Mines has a record office at St Annes House, University Rd, Bootle which contains original records of inspections, etc.
- Church Commissioners have a record office at Millbank, London which retains many old deeds, maps, reports, etc relating to mining activity on church lands. You must write in advance to book a visit.
- British Geological Survey (BGS) have a record office at Keyworth, Nottingham which holds original surveyors' notebooks containing much information omitted from published memoirs.
- British Coal keep plans for all coal mines abandoned since 1872, as well as a register of old shafts and workings. They maintain a number of their own mining record offices throughout Britain. Where a mine worked more than one mineral, if this included coal it is likely that the plan will be lodged with them. If you can't find the local office, write to their head office at Hobart House, Grosvenor Place, London SW1X 7AE.
- Youngs Paraffin hold abandonment plans of oil shale mines as agents of HM Mines Inspectorate.
- Mineral Planning Authorities hold mineral applications since 1943 with details of working methods, ownership, some statistics and mineral policies.
- Mineral Valuers hold details of economic assessments and production. Under the Freedom of Information Regulations, interested parties have a right to inspect certain material.

Local information

A lot of information can be obtained by talking to locals but, as time goes on, it is becoming rarer to obtain a first hand account. Second hand accounts can be useful as long as you take care to filter out embellishments. Try talking to the local farmers first or write to the local newspapers asking for information. Quite often, people will direct you to others with information. Rumours will be rife but take note if you hear them from several different sources. There is a grain of truth in every rumour - the difficulty is in deciding what it is! Talking to locals can be a very time consuming job, especially with older people. They have a tendency to wander off the subject and you can offend them if you keep butting in. Develop patience and the art of bringing them back to the subject with carefully worded questions.

Preparing a report for publication

Having selected the journal for which you wish to write, give the editor a short outline of your proposed article and ask for advice on what format to follow. Most editors have a set of requirements, known as "house style", which helps to maintain consistency. Don't worry too much about your mastery of written English since editors will be quite happy to correct any errors.

There are many forms that an article can take but it is a good idea to restrict your first efforts to a description of what has been found. Although simple in format, it will nevertheless represent a record of the site at the time of writing and, should it deteriorate, provide a valuable reference. Remember to provide a scale on any survey or map that you include, this will allow readers to align it to what they may find. Locations should be given to an eight figure National Grid Reference with the elevation (above sea level). These can be obtained from the 1:10,000 Ordnance Survey maps. Units of measurement are not standardised but more people are now using metric rather than imperial.

The article should start with an INTRODUCTION, covering aspects such as the location, minerals worked and local geology. Next should be a two part description, the first giving the site's history and the second covering the remains on the surface and, where possible, underground. You can use local terms where known but, more importantly, ensure that the description is accurate as it will form a permanent record.

The easiest way to cover a site's history is to adopt a chronological approach, in which events are dealt with as they occurred. By this method, it is possible to lay down a "potted history" of the mine from its discovery to closure. There are more sophisticated approaches which you can try later by copying the styles of more experienced writers. It is important to maintain a disciplined approach and not be tempted to make grand assumptions. If something is being inferred, make it clear by using expressions such as "the evidence suggests that ..." or "it remains to be proved that ...". Don't be afraid to question the conclusions of others, especially if fieldwork appears to contradict an "accepted truth". Don't use the occasion for personal attacks, however, since it can be put diplomatically, e.g. "The level has been interpreted as being Roman but evidence given in a legal case (give reference) suggests that it dates from the mid-18th century".

Always try to be factual when describing underground exploration. The following example demonstrates the common mistakes that can be made in preparing a report for publication.

> "... We followed Boggart Level for 500ft in a southerly direction. At this point, crosscuts were found to go east and west, and there were workings in Bathole Vein in both directions, up which could be seen pit props holding back heaps of rock. Just before this was a large hole in the floor which was nearly full of pale blue water. Beyond the rift we scrambled through a hole, at the height of Fred's head, into a series of caverns where walls of rubble had been left by the miners ...".

To a mining man there is something wrong with the above and an examination would reveal that Boggart Level itself is the crosscut and that the east/west levels are drifts on Bathole Vein. It is important to realise that a crosscut is a tunnel driven in barren rock whilst the tunnels in the vein are known as drives or drifts. A better description would have been:

> "... Boggart Level, which was followed for 500ft in a southerly direction, is a crosscut to the Bathole Vein. At their intersection, drifts had been driven east and west of the crosscut and stoped in both directions. Nearly all of the drive is in limestone but, as the vein is approached, a bed of shale rises from the level sole and, some 15ft out-bye from it, there is a flooded sump which has been sunk through the vein's hanging wall. Besides a large quantity of unstable deads, which were stacked on stemples, examination of the stope revealed that the vein hades to the north at an estimated 15 degrees. About 6ft above the stope floor was the entrance to a series of flats in the foot wall of the vein. These had formed on top of the junction between the shale and limestone; which indicates that the vein has a throw of about 5ft, with its north side down. The flat had been worked for about 50ft along the vein and its walls were lined with stacked deads ...".

If nothing better can be produced, sketch plans and sections of the above features may be very useful.

Where a number of points need to be drawn together, or the possible direction of future work discussed, this can best be done in a CONCLUSION. This will be followed by a BIBLIOGRAPHY, in which sources are set out and related to the references in the text. There is a standard format for showing references as can be seen earlier in these guidelines. Finally, you should include a section for ACKNOWLEDGEMENTS where you acknowledge any assistance in your project, such as people who have provided information or helped with exploration. It is a good idea to acknowledge help from staff in libraries or record offices and provide them with an offprint of the published article.