

# “MINERALS OF THE ENGLISH MIDLANDS”

By Roy E. Starkey

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Many members of the Russell Society will be aware that Roy Starkey has been researching a volume on the minerals of the English Midlands. For your bookshelf? The short answer for anyone with an interest in British mineralogy is ‘yes’. For those who would like a detailed review, read on.

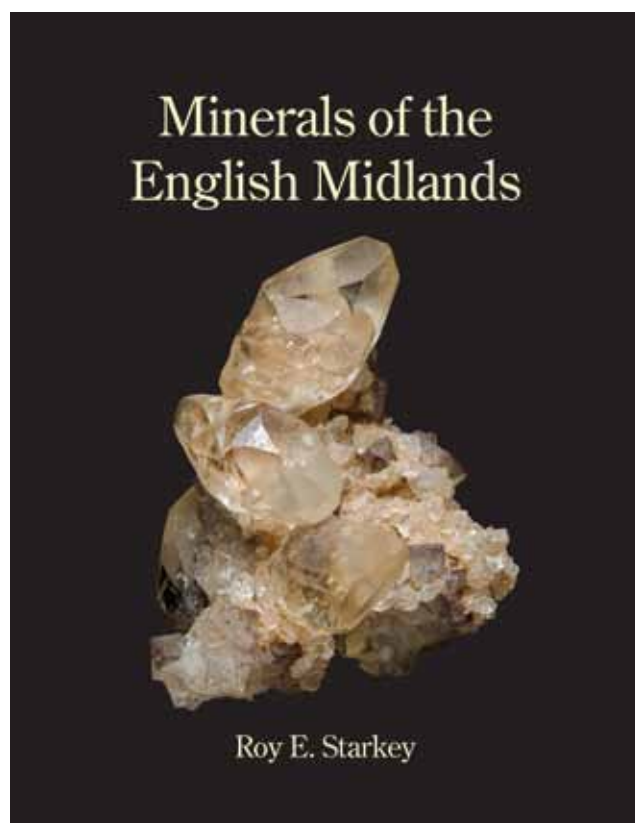
Recent topographic descriptions of the mineralogy of the British Isles fall into two categories. Some produce an alphabetic listing of the species known from the study area. Richard Bevins’ *A Mineralogy of Wales* is a familiar example. Others focus on species of collector interest. The first of the modern topographic studies of the British Isles, which described the counties of Cornwall and Devon, took this approach; *Minerals of the English Midlands* also lies squarely in this category.

After the success of *Crystal Mountains – Minerals of the Cairngorms*, Roy decided to paint a larger and more complex canvas. That canvas consists of fourteen counties in the approximate centre of England, namely: Cheshire, Derbyshire, Gloucestershire, Herefordshire, Leicestershire, Nottinghamshire, Rutland, Oxfordshire, Shropshire, Staffordshire, Warwickshire, West Midlands and Worcestershire. This region extends a little further from north to south than it does from east to west and has Birmingham at its approximate centre. In the west it runs the whole of the way along the Welsh border. The southern boundary is almost entirely north of the M4 motorway. The eastern boundary runs up Oxfordshire and Northamptonshire and then roughly along the line of the A1. The northern boundary lies along the border with Yorkshire and Lancashire, which is where many would argue northern England begins.

Four introductory chapters set the scene. The first describes the topography and provides a historical sketch of the industry and natural resources of the Midlands. In the next chapter the geology of the area is summarised, beginning in the Precambrian and ending with the impact of people in the recent past. The major mineral deposits are described in a geological context. A one-page introduction to the ‘mineral chapters’, which are arranged alphabetically by county, completes the first part of the book. In this the author notes:

“... if your pulse races a little as you turn a page, I shall have succeeded, at least in part in my endeavour”.

*Minerals of the English Midlands* is a substantial volume. Rather than describe each chapter in detail, a few interesting, quirky or surprising stories are noted herein. These give a flavour of the text and a guide to the content.



Beginning in Cheshire, where salt mining is the major story, attention is drawn to the copper mines at Alderley Edge. Currently, the area is more famous for its association with wealthy footballers than minerals, but ‘The Edge’ preserves some of the earliest evidence of copper mining in the Britain. Several pages of specimen photos are included, many drawn from the collection of the author or Russell Society President, Steve Warren. Mention is made of the nearby workings at Mottram St Andrew, where mottramite occurs as black botryoidal crusts on sandstone (a particularly fine specimen is illustrated as a full-page photo in Figure 92). The ‘mottramite story’, and its association with the isolation of the element vanadium, is told in detail.

Derbyshire is the jewel in the crown of Midlands mineralogy and the 87 pages of description could be a book in their own right. Here there are accounts of the calcite, fluorite and galena specimens for which the Peak District is famous; decorative oakstone, and bizarre brainstone baryte; classic phosgenite and matlockite; rare sweetite and ashoverite; historic ‘Buxton Diamonds’ and of course Blue John. There are a selection of photos of the wonderful lead

minerals found in Permian dolostones near the Derbyshire–Nottinghamshire border at Whitwell Quarry. Most of the figured specimens, in the Derbyshire chapter are from museum collections. And not just the well known iconic pieces from Britain’s great collections; the author has visited numerous local museums and included specimens from many lesser known localities. The selection of photos of matlockite, phosgenite and related species from Bage Mine occupies seven full pages. There are numerous images of Derbyshire calcite, including the strange ‘axe head’ twins from Bonsall Moor. As a beginning collector I had doubts about Derbyshire calcite: the county has produced fine specimens but do they really belong in the same category as the fantastic pieces from west Cumbria? Not always, but the remarkable specimen on the front cover of *Minerals of the English Midlands* from Ladywash Mine stands with the finest calcite from anywhere in the world. At the end of the chapter photos of specimens are gathered together from unknown locations in the county, they include remarkable smithsonites the like of which have not been seen in modern times. Each poses an unanswered question, which future research may unravel.

Gloucestershire is best known to mineralogists as one of the world’s premiere sources of the strontium sulphate celestine. My attention was drawn by a series of specimens of iron ore from the Forest of Dean in the Woodward Collection at the University of Cambridge. The ‘brush ore’ dusted in carbonate rhombs is particular attractive, as is a broken goethite stalactite in the Russell Collection at the Natural History Museum. Equally remarkable are the lustrous stalactitic goethite specimens from Bury Hill in the collection of Bristol Museum and Art Gallery. This is one of a number of localities that may be unfamiliar to collectors. I had certainly not come across it before. Mention must be made of the calcite-lined cave infills encountered at Hampstead Farm Quarry near Chipping Sodbury. On occasion, spectacular ‘crystal caves’ lined with crusts of euhedral calcite crystals, sprinkled or coated with golden pyrite, with contrasting banded bright pink and white barium-rich celestine have been (and still are) found at the quarry.

Herefordshire is not known for its minerals and only merits three pages. The most interesting occurrence is of millerite from near the village of Gorsley Common, which is further described by Roy Starkey and Tom Cotterell in this journal.

Leicestershire is second only to its northern neighbour Derbyshire in terms of mineralogical interest. In terms of mineral diversity it may be the premiere county in the English Midlands. It is introduced with a photo of the priory church of St Mary and St Hardulph, which overlooks Breedon Hill Quarry, a locality that is familiar to many Russell Society members. The facing page has a map which provides an outline of the county (together with adjoining Rutland). County maps, on which the principal localities are marked, accompany each of the chapters. It is hard to know where to begin in Leicestershire such is the mineralogical variation. The minerals of Croft Quarry are described in seven pages, including five completely given over to

specimen photographs. In the description of Bardon Hill Quarry there is a photo of a gold specimen found by the late Bob King and now in Franz Werner’s collection. New Cliffe Hill Quarry became famous in the 1990s for a remarkable and varied suite of copper minerals (it is the type locality for bobkingite). A two-page photographic spread celebrates this mineralogical diversity. Newhurst Quarry is known for various unusual supergene minerals; I was particularly taken by the platy off-matrix wulfenite crystals in Neil Hubbard’s collection. Russell Society members will be pleased to see an excellent selection of fine specimens recently found on field trips to Breedon Quarry and Cloud Hill Quarry. These have similarities to specimens from Earl Ferrer’s Lead Mine, of which Leicestershire collectors speak in hushed tones. It is the classic mineral site in the county and with more than five pages of text and seven of specimen photos gets deservedly full coverage. A galena (Figure 516) from the Russell Collection at the Natural History Museum is second only to the cover specimen in my fantasy Midland collection. The Leicestershire chapter is rounded off by the story of the Barwell Meteorite, which fell to earth on Christmas Eve 1965.

Northamptonshire and Nottinghamshire are not known for specimen minerals. The major story in Nottinghamshire is the mining of gypsum from Triassic rocks of the Mercia Mudstone Group. However my attention was caught by a wulfenite crystal in a cavity in dolomitic Permian limestone from the north end of Annesley Railway Tunnel, near Kirkby-in-Ashfield. The site was described by Tom Deans in the early 1960s and the specimen, as with many of the fine and interesting pieces illustrated in the book, is from the collection of Sir Arthur Russell. Iron mining was important in Northamptonshire until comparatively recently and my attention was caught by a short vignette which describes how ‘Sundew’, a giant dragline excavator, walked from Exton to Corby in the summer of 1974. This short aside is one of my favourite stories and includes a wonderful contemporary photo.

Oxfordshire, has an abundance of gypsum. A considerable number of specimens are figured and there is a fascinating account of the growth of crystals with a note on ‘gypsum farming’. The speed at which crystals have been observed to grow is interesting, a well formed hand specimen may require just a few weeks. Slightly less savoury, though equally fascinating, are the vivianite nodules from the New Sewage Works at Cassington in the collection of the Oxford University Museum of Natural History. Anthropogenic vivianite is well known at such locations.

In Shropshire a return is made to vein minerals, which are found in the West Shropshire Mining Field. The quality, size and crystallographic variety of the primary minerals, particularly calcite, from Snailbeach Mine must be seen to be believed. This now rather forgotten mine has also produced excellent galena, harmotome and witherite. Many of the best examples are once again from the Russell Collection at the Natural History Museum. Nearby Wotherton Mine stands out for its baryte specimens which were brought to the attention of mineralogists by the dealer Samuel Henson. They include specimens from the collection of

the noted crystallographer Charles Otto Trechmann, also at the Natural History Museum. Contemporary collectors will appreciate an account of the minerals of Llynclly Quarry, where Carboniferous limestones have produced a variety of species including rich crystalline malachite on altered chalcopyrite. A beautiful crystalline malachite from Eardiston Mine in northeast Shropshire is one specimen that sets the pulse racing, as does the remarkable edingtonite collected by Allan Mortimer at Squilver Quarry in July 2004.

Mention Staffordshire to a mineralogist and thoughts immediately turn to Ecton Hill. A large specimen of scalenohedral calcite, covered in chalcopyrite crystals in the collection of John Cooke stands out as one of the most sculptural of the figured specimens in the whole book. Gypsum and anhydrite are the major minerals of economic interest; the story of Fauld Mine and the massive explosion in 1944 which produced a crater 250 m across and 35 m deep is told. A few specimens are figured from the formerly important coal and ironstone mines, but in common with many other Coal Measures sites in the British Isles (see the article by Richard Bateman and co-authors in this journal), relatively little has been preserved.

The same is true of Warwickshire's manganese mines, the story of which is told in detail. The best of the few specimens that have survived are in the Royal Cornwall Museum and the Oxford University Museum of Natural History. They are very well crystallised and it is surprising that so few were saved. Judkins Quarry is probably the best known contemporary mineral locality in Warwickshire; it produced a variety of species including bornite, calcite, chalcocite, chalcopyrite, galena, mottramite, sphalerite and vanadinite. The chalcopyrite pseudomorphs after acicular chalcocite, and mottramite specimens, are well known to collectors and three pages are given over to photos.

The West Midlands came into being in 1974 and is Britain's second most populous county. Although most collectors will be hard pressed to think of a single site, a considerable number of interesting specimens are figured. The prehnite and pectolite from Pouk Hill near Walsall are surprisingly good, though very few specimens survive. One of the top spots in my fantasy Midlands mineral collection is occupied by a remarkable yellow baryte from Dudley Port, originally in the collection of Dr John Percy (1817–1889). There is also a nice gallery of clay ironstone nodules, unloved but important specimens from the collection of Dudley Museum.

The last county in our alphabetic list, Worcestershire, is also the home of British Mineralogy Publications. The story of salt extraction in the area around Droitwich, and of salt magnate John Corbett, is fascinating. It is copiously

illustrated with contemporary photos, production came to a poetic end in 1972 (page 345). Unfortunately, as in a number of such industries, very few actual specimens have survived. Agates are widespread in the Midlands, and they feature in about half of the chapters. Those from Marlbrook Quarry, a gravel pit near Bromsgrove, are particularly noteworthy. Beautifully banded in shades of pale blue and deep red, the quality of the better specimens must be seen to be believed. They fully deserve the three full pages of colour photos that have been allocated.

The final chapters of *Minerals of the English Midlands* are devoted to collectors and collections, mineral dealers and decorative stones. Thumbnail sketches of the lives and interests of important collectors with links to the Midlands are arranged in chronological order. Notes on the mineral collections at 28 important museums and institutions with Midland-related material are included. There are numerous mentions of dealers in the county chapters and eight pages are given over to the more important of these (ending with our very own Don Edwards). The final chapter gives just a flavour of the more important decorative stones from the English Midlands: alabaster, Ashford Black Marble and Blue John.

In an epilogue, the author notes:

“Collectors in the Midlands have been very fortunate to make many interesting and important discoveries over the past fifty years or so, recovering numerous specimens which Sir Arthur Russell would have been pleased to add to his collection”.

A few are illustrated opposite the editorial in this issue of the journal.

Is *Minerals of the English Midlands* for your bookshelf? The paper and binding of my copy are excellent, the fonts are clear and legible and the images well reproduced. The writing is clear and succinct and the information supported by copious references. An index enables anyone with a research interest to look up a particular mineral, locality or personality. Analyses of cost per page and cost per photo will show that *Minerals of the English Midlands* represents good value for money. It is an essential volume for anyone with an interest in British mineralogy. My pulse rose more than once while writing this review and for that reason alone it gets a wholehearted recommendation.

David Green