BRITISH MICROMOUNT SOCIETY

NEWSLETTER NO. 52 FEBRUARY 1999

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Mineral Collecting in the Caldbeck Fells - Update
Mike Rothwell

By now many of you will know that the LDNPA have reissued their policy on this subject. For those of you who have not seen it a copy is reprinted elsewhere in this newsletter. The new policy, which is already in force, completely bans all mineral collecting in the area. The LDNPA is however setting up a working group to discuss the situation regarding collecting in the future. The BMS has been asked to participate in this group. Following discussions within the committee we have decided that Mike Leppington and I will represent the BMS. We may not both go to every meeting but we have decided to have two representatives in case one of us cannot make a meeting. The LDNPA have agreed to this.

We feel that it is important that the BMS develops a single, consistent view. If anyone has any views on the subject please communicate these to Mike or to me as soon as possible and we will ensure that they are taken into account when developing the BMS view to put to the working group.

Meanwhile may I ask members to observe the ban and not to do anything to damage relations with the LDNPA any further. If we are all prepared to act responsibly I feel that there is a high possibility that some form of collecting will be allowed again in the future.

Mineral Collecting - Caldbeck Commons
A Policy Statement from the Lake District National Park Authority

The Lake District National Park Authority is the landowner of Caldbeck Commons.

Caldbeck Commons are recognised to be one of the foremost areas in the country for mines and mineral veins. They have a complex geological history and are a valuable resource to all who wish to study or admire the geology and industrial archaeology of the area.

Professional and amateur geologists, archaeologists along with numerous students have been visiting the area for some considerable time. A great deal of valuable research and findings have been recorded and collected from the area thus adding to our history, knowledge and scientific understanding.

Whilst we acknowledge this and not wishing to stifle genuine research or visiting the area to examine, record and admire the wealth of history, geology and archaeology, we feel that we must make a clearer policy statement for the future of this area.

It has been brought to our attention by several individuals and societies, and we ourselves are of the opinion that collecting and digging activity in the Caldbeck area has reached levels which are causing permanent damage to the appearance of the area and the resource itself.

Our policy on collecting has been summarised previously in Minerals of the English Lake District, Caldbeck Fells, by Cooper and Stanley (1990).

- Vehicular access is prohibited
- Underground collecting or exploration is prohibited
- Surface collecting is allowed with restraint; the removal of large quantities of materials is

prohibited, such excavations as are made should be back-filled when collecting is over.
- Collecting is restricted to the old dumps.
- Commercial exploitation is prohibited.

Cooper and Stanley stated in 1990 that over collecting and the unethical and occasionally illegal exploitation of certain vein exposures by dealers has led to some resentment in the mineralogical community.

Our bye-laws for the Caldbeck Commons state 'no person shall, without lawful authority, remove or displace soil, plants, gravel, sand, clay, stone, minerals or any other substance from the land.' All minerals collected from the site remain the property of the Lake District National Park Authority. The situation since Cooper and Stanley 1990 has not improved and collectors are **NOT:**

- Using restraint keeping to the old dumps.
- Back-filling and leaving the ground as found.

and **ARE**:

- Using bicycles and in some cases motorised vehicles to gain access.
- Removing large quantities.
- Commercially exploiting the area.

The activity is taking place on sites which are being assessed by English Heritage under the Monuments Protection Programme for possible designation as Scheduled Ancient Monuments.

Evidence of the scale of the activity has been brought to our attention by farmers and graziers on the Commons, responsible mineral collectors, societies and organisers of mineral shows where mineral specimens from Caldbeck Commons are reportedly being sold/exchanged for considerable sums of money.

The activity is leading to, or in some cases has led to:-

- The mine dumps being worked out.
- Landscape damage.
- Damage to important industrial archaeological sites.

The scale of all this collecting activity and the damage resulting from it has led us to restate our policy as follows: -

Vehicular access (including bicycles) is prohibited.
Underground collecting, or exploration is prohibited.
Surface collecting, digging or raking over is prohibited.

Exceptions will be made only to aid future accredited research programmes. Authorisations will be issued on application to the Lake District National Park Authority and must be carried at all times on site.

We propose that a group be set up comprising:-

Lake District National Park Authority, British Geological Survey, a member of the RIGS Group (Regionally Important Geological and Geomorphological Sites), English Nature, The Russell Society, The British Micromount Society and The Cumberland Geological Society,.

This will consider the issues of: -

- Collecting and the past and future distribution/collections of the minerals
- Research - past, current and future
- An authorisation system including a Code of Practice.

Peter Davies, Area Manager (E)
Date: 23 December 1998

This policy statement is endorsed by English Nature in respect of the Skiddaw Group Site of Special Scientific Interest.

THE BMS NATIONAL REFERENCE COLLECTION - 14 YEARS ON!

Roy Starkey

In BMS Newsletter no.12, November 1984 I proposed the idea of forming a national Reference Collection of British Micromounts. Back then I had no idea that the project would develop in the way it has, nor that we would pass the 2000 specimen mark before the turn of the Century! In that original proposal I put forward a list of 166 species which might form the core of the Collection. Looking back I do not recall just what my criteria for selection could have been, and on reflection, there were one or two highly dubious minerals included in the list! We have managed to obtain 87% of the original list, which suggests it wasn't an unrealistic goal, and now have 363 species represented in the Collection, more than double my initial "target". I have recently sent the 7 items marked in BOLD text to Max myself. However, the remaining 14 items from the original list have eluded us - can anyone out there plug the gaps?

61	**Datolite**	**Parc Bean Cove, Mullion, Cornwall**
104	**Malayite**	**Red a Ven brook Mine**
108	**Mendipite**	**Merehead Quarry**
129	**Rhodochrosite**	**Merehead Quarry, Somerset.**
130	**Rhodonite**	**Week Mine, Milton Abbot, Devon**
134	**Schorl**	**Wheal Bunny, Bugle, Cornwall**
141	**Stannite**	**Cligga Mine, Cornwall**

The missing specimens and possible localities:-

7	Andradite	Scotland?
10	Antlerite	Unlikely to get this one
26	Boleite	Gunver Head, Cornwall?
79	Grossular	Belstone Consols, Okehampton, Devon
82	Halite	Winsford, Cheshire
89	Jarosite	Turf Pits Mine, Grassington, North Yorks.
107	Matlockite	Matlock, Derbyshire
119	Paracelsian	Benallt Mine, Gwynedd

122	Phenakite	Possibly Scotland?
145	Stokesite	Unlikely to get this one!
151	Theophrastite	Hagdale Quarry, Unst, Shetland
162	Woodwardite	Unlikely to get this one!
165	Zaratite	Hagdale Quarry, Unst, Shetland
166	Zeunerite	Purists Rule O.K!
	(see Meta-zeunerite)	

I would like to pay tribute to the tremendous commitment shown by our Curator, Max Wirth, in building the Collection into the fine reference resource that it is today. His painstaking attention to detail, fine craftsmanship in mounting and labelling the specimens, and not inconsiderable skills at programming his own database in machine code (so that it ran faster on his Atari computer) have been of huge benefit to members and the Society as a whole. Well done and thank you Max!

INTERESTING ADDITIONS TO THE BMS COLLECTION Nos.2051-2100
Max Wirth

Chris Jewson can be relied upon for unusual things, his vauquelinite (2051), a tin hydroxychloride comes in tiny brown pustules and an arrow will help to find it! The same applies to abhurite (2052) which looks like a white mica.

We are used to the blue plumbogummite from the Caldbeck Fells, but Avril Woodburn has found the brown variety (2055) from Wheal Hope. She also contributed pale pink zincian erythrite (2057) from Wheal Fortune and interesting apatite on siderite from Russell United. Roy Starkey has been to Arran and collected a variety of things, amongst which some very clean stilbite (2062). Roy also contributed the rare mendipite (2090) from Merehead quarry and fine datolite (2091) from Cornwall

Max Wirth has been to the Shap granite quarry again and contributed pyrite with black sphalerite (2069), galena (2070) which is unusual for this location and an interesting variety of anatase (2071) as aggregates of blocky black crystals. Later he found titanite (2082) looking like tiny mushroom caps and perhaps synchysite (2083) and xenotime (2084) which is mostly metamict. They are still being investigated. They are extremely small but can anyone help?

Mike Rothwell and others visited Eagle Crag near Glenridding in Cumbria. Mike gave Max Wirth a few bits collected underground for the collection. Amongst these Max picked out green bunches of mimetite on hemimorphite (2072). Max is still waiting for contributions of wulfenite, azurite, cerussite, aurichalcite etc. from other members of the party!

Some years ago Brian Young gave us numerous specimens which are of course authentic! Of these grunerite (2085) and malayaite (2086) from Red-a-Ven are worth mentioning. Roy Starkey's malayaite was not quite as good. Finally, Tim Neall has given us more material from Needle's Eye, he is 8 feet down in the trench! All are mildly radioactive and they include wulfenite (2093), boltwoodite (2095), excellent platy novacekite (2096), red arseniosiderite (2097) and mixite (2099) as needles and a mamillary crust.

2051	VAUQUELINITE	Greystones quarry	Launceston Cornwall	Jewson C.
2052	ABHURITE	Bann's Shoal	St. Ives Cornwall	Jewson C.
2053	ANATASE	South Tolcarne mine	Camborne Cornwall	Jewson C.
2054	PYROMORPHITE	Coldstones quarry	Greenhow Yorkshire	Critchley H.
2055	PLUMBOGUMMITE	Wheal Hope	Perranzabuloe Cornwall	Woodburn A.
2056	PHARMACOSIDERITE	Trevarthen Downs	St. Hilary Cornwall	Woodburn A.
2057	ERYTHRITE	West Wheal Fortune	St. Hilary Cornwall	Woodburn A.
2058	APATITE	Russell United	Tavistock Devon	Woodburn A.
2059	RUTILE	Treffgarne Rocks	Haverfordwest	Starkey R.
2060	MILLERITE	Coldberry Gutter	Co. Durham	Starkey R.
2061	EPIDOTE	Glen Sannox mine	Isle of Arran	Starkey R.
2062	STILBITE	Thundergay beach	Isle of Arran	Starkey R.
2063	QUARTZ	Thundergay beach	Isle of Arran	Starkey R.
2064	FELDSPAR	Coire nan Ceum	Isle of Arran	Starkey R.
2065	BARITE	Shap granite quarry	Cumbria	Wirth M.
2066	APATITE	Shap granite '98	Cumbria	Wirth M.
2067	CALCITE	Shap granite '96	Cumbria	Wirth M.
2068	ORTHOCLASE	Shap granite '96	Cumbria	Wirth M.
2069	PYRITE	Shap granite '96	Cumbria	Wirth M.
2070	GALENA	Shap granite '96	Cumbria	Wirth M.
2071	ANATASE	Shap granite '98	Cumbria	Wirth M.
2072	MIMETITE	Eagle Crag	Grisedale Cumbria	Rothwell M.
2073	HYDROZINCITE	Eagle Crag	Grisedale Cumbria	Wirth M.
2074	PYROXENE	Hartfield Moss	Renfrew Scotland	Geldart I.
2075	ALBITE	Hartfield Moss	Renfrew Scotland	Geldart I.
2076	HEMATITE	Hartfield Moss	Renfrew Scotland	Geldart I.
2077	ALBITE	Hartfield Moss	Renfrew Scotland	Geldart I.
2078	PREHNITE	Hartfield Moss	Renfrew Scotland	Geldart I.
2079	ANALCITE	Hartfield Moss	Renfrew Scotland	Geldart I.
2080	TITANITE	Hartfield Moss	Renfrew Scotland	Geldart I.
2081	ALBITE	Reilly quarry	Bishopton Scotland	Rathbone A.
2082	TITANITE	Shap granite quarry	Cumbria	Wirth M.
2083	SYNCHYSITE ?	Shap granite quarry	Cumbria	Wirth M.
2084	XENOTIME ?	Shap granite quarry	Cumbria	Wirth M.
2085	GRUNERITE	Kerrysdale farm	Gairloch Scotland	Young B.
2086	MALAYAITE	Red a Ven Brooke	Okehampton Devon	Young B.
2087	SCHORL	Wheal Bunny Bugle	St. Austell Cornwall	Starkey R.
2088	RHODONITE	Week mine	Milton Abbot Devon	Starkey R.
2089	RHODOCHROSITE	Merehead quarry	Cranmore Somerset	Starkey R.
2090	MENDIPITE	Merehead quarry	Cranmore Somerset	Starkey R.
2091	DATOLITE	Parc Bean cove	Mullion Cornwall	Starkey R.
2092	STANNITE	Cligga mine	Perranporth Cornwall	Starkey R.
2093	WULFENITE	Needle's Eye	Solway Scotland	Neall T.
2094	ZEUNERITE	Needle's Eye	Solway Scotland	Neall T.
2095	BOLTWOODITE	Needle's Eye	Solway Scotland	Neall T.
2096	NOVACEKITE	Needle's Eye	Solway Scotland	Neall T.
2097	ARSENIOSIDERITE	Needle's Eye	Solway Scotland	Neall T.
2098	BISMUTITE	Needle's Eye	Solway Scotland	Neall T.
2099	MIXITE	Needle's Eye	Solway Scotland	Neall T.
2100	URANINITE	Needle's Eye	Solway Scotland	Neall T.

NEW STONES FOR OLD

Alan Dyer

Aficionados of zeolites will know that their original recognition as "boiling stones" has moved on a bit! The question *"What is a zeolite?"* has been a subject of discussion for some time and a Subcommittee of the International Mineralogical Association Commission on New Minerals and Mineral Names, chaired by Professor Doug Coombs of the University of Otago, has been considering this. It has reported its recommendations, and they are recorded in the August issue of Mineralogical Magazine, 1998, Vol.62(4), 533-571 and elsewhere.

They seem to be sitting firmly on the fence in some cases but the following are their main definitions:

1 Where several zeolite minerals are known to have the same aluminosilicate "framework"- that is they have identical arrangements in space for their silicon, aluminium and oxygen atoms - they are to be regarded as a series rather than individual zeolite species. This only applies to cases where they have compositions which contain more than one alkali metal(sodium, potassium, caesium) and/or alkaline earth metal (magnesium, calcium, strontium, barium). Zeolite series are restricted to those based on the frameworks of ***brewsterite, chabazite, clinoptilolite, dachiardite, erionite, faujasite, ferrierite, gmelinite, heulandite, levyne, paulingite, phillipsite,*** and ***stilbite.***

[Note - for the three-dimensionally challenged - the frameworks are rather like 3-D chicken-wire or very regular bath sponges with water, and the metals as ions, in the holes.]

To take an example - the ***chabazite*** series now contains 3 zeolite species - ***chabazite-Ca, chabazite-Na, chabazite-K,*** so ***chabazite-Ca*** means that the species contains calcium as its most abundant metal but it will contain others (e.g. sodium and potassium) as well. The consequence of this is that sodium-rich chabazite can no longer be described as ***"herschelite".***

When a group of zeolites have the same framework but **only one metal** they can still be regarded as separate species. This means that ***mesolite, natrolite*** and ***scolecite*** are still with us - as are ***barrerite*** and ***harmotome -*** to cite two further examples of the application of this criteria.

Ah! Ah! you say rushing to the definitive list of zeolite frameworks - that is clear (I think!). Yes - but you will find that ***clinoptilolite*** and ***heulandite*** have the same framework and similar metal contents!! This is because the Committee wish to be "flexible in their approach and recognise common usage".

2 Some zeolite species are preserved as individual minerals because they differ crystallographically (silicon and aluminium ordering) even if they have the same frameworks and the same metal contents. Examples of this are ***gismondine*** and ***garronite.***

3 Different species cannot be allowed if they are based only on differing relative amounts of silicon and aluminium in the same frameworks. ***Clinoptilolite*** and ***heulandite*** are the only zeolite species exempt from this ruling.

4 Different water contents are not accepted as a case for different species so ***leonhardite,*** the water deficient form of ***laumontite,*** is no longer a separate species.

A consequence of the new scheme is that ***pollucite*** and ***leucite*** can now be considered as zeolites. This is because they have the same framework as ***analcime,*** and because they fit the criteria of containing only one metal - caesium for ***pollucite*** and potassium for ***leucite.*** Similarly ***wairakite*** is retained as a distinct zeolite species (***analcime*** framework containing only calcium). This family also contains a mineral with the ***analcime*** framework and only ammonium (i.e. no metal!) so this substance - ***ammonioleucite -*** also becomes a zeolite.

The Committee have formalised the recognition as zeolite species those minerals which have zeolite frameworks but with metals other than silicon and aluminium (e.g. zinc, beryllium, boron, phosphorus) as part of the "chicken-wire". (But not in the holes in between). The minerals included under this criteria are; ***chiavennite*, gaultite, hsianghualite, kalborsite, lovdarite, pahasapaite, raaoggianite*,*** and ***weinebenite*.***

They also recognise minerals in which the zeolite "chicken-wire" is incomplete in that a few bits that join up the wire are hydroxide groups(OH), rather than just oxygen atoms. ***Maricopaite,*** and ***partheite*** are so included, and note that those names starred in the list above also have incomplete frameworks.

So what else?

Cowlesite still has not had its structure solved, although nobody seems to doubt that it is a zeolite. (Lynn McCusker and Christian Baerlocher, Zurich TH, are still trying - to the best of my knowledge - using samples provided by BMA members of course.) ***Tschortnerite*** - another mineral from the Bellberg volcano in the Eifel, also is not yet included because of lack of structural information.

The Committee list the following as zeolites of doubtful status:

- ***Paranatrolite*** and ***tetranatrolite*** - because they could be just a water-rich ***natrolite (paranatrolite)*** or water-poor ***natrolite (tetranatrolite),*** and also because they are both structurally very similar to ***gonnardite.***

- ***Tvedalite*** (a hydrated beryllosilicate from Norway) - because it's structure has not yet been solved in enough detail.

Herschelite (chabazite-Na), leonhardite (water-poor laumontite), svetlozarite (dachiardite-Sr), wellsite (barian phillipsite-Ca and calcian harmotome!) are discredited names, ***doranite*** and ***viseite*** are now known to be mixtures of minerals, and strong evidence has been provided that ***kehoite*** is a ***crandallite.***

Finally you might like to reflect on the following; ***stellerite*** and ***barrerite*** are still retained as separate species with the ***stilbite*** framework, despite the presence of ***stilbite-Ca*** and ***stilbite-Na*** in the list of zeolite series!! This means that you can have both ***stellerite*** (contains only calcium) and ***stilbite-Ca*** (contains calcium as its major metal plus sodium and/or potassium) as distinct zeolite species in your zeolite collection - provided that you have full analytical details

So if you are now totally confused you are not alone - remember the classic definition of a camel - and refer queries to the Committee!

SERENDIPITOUS IDENTIFICATION
Max Wirth

For many years I have kept a specimen I collected in the Shap granite quarry and simply labeled 'Unknown needles'. Discussing this with a friend, we thought these straw coloured needles might be bismutite after bismuthinite. I set out to test for Bi following David Green's latest method and teased out the smallest needle. This I dissolved in half a tiny drop of dilute HCl but by the time I had found the caesium sulphate, the drop had evaporated leaving a deep blue residue. Molybdenum blue! Only one mineral would behave like this - ferrimolybdite and a new mineral for Shap to boot. If everything were as simple as this, it would be no fun.

NEW BMS MEMBERSHIP LISTING
Mick Wolfe

Following our usual practice, enclosed with this newsletter is a current name, address and telephone number listing for all BMS members. Despite the best efforts of Pearl, Sidney and myself, errors have been known to creep in. Please advise Pearl of any corrections required and they will appear in the next newsletter and be incorporated in the next issue of the membership listing in January 2000 - this presupposes my computer does not get infected with the millennium bug.

At the AGM last September it was suggested that members' e-mail addresses be incorporated into the membership listing. Despite a request in the last newsletter for these less than 10 replies were received. Rather than incorporating these few into the body of the listing they are listed separately on the back page. Members wishing to add their own to this should inform the editor for publication in the next newsletter. If there are sufficient by the end of 1999 then they will be included in the full membership listing. BT are changing a large number of telephone numbers in 1999 (yes, yet again) and this will entail a major amendment to the listing anyway.

Regarding the 1999 edition of the Directory of Micromounters, this has been put on hold. A disappointing 14 out of a membership of well over 200 submitted a revised entry for themselves and, due to the this and the cost of printing and distribution, it has been thought uneconomic to publish a new edition at this time. It is intended that the future of this particular BMS publication be discussed at the next AGM in September.

JEANBANDYITE
Neil Hubbard

Neil has written to say:
"I am writing to inform you that the article by John Betterton 'Jeanbandyite' which appeared in the recent BMS Newsletter No. 51, contains a serious error in the section dealing with jeanbandyite. **Hingston Down quarry** is the first site in the British isles for this rare Sn species where it was found on the **1st July 1990** by myself - just after lunch as I remember. The Penberthy Croft find was made some four years later. I have seen the same error elsewhere."

(John Betterton has informed me that his record has been fully documented in the latest issue of the Mineralogical Record. No doubt he will be in touch with Neil. Editor)

Miarolitic Minerals from Kilchrist, Isle of Skye

Steve Rust

Skye is well known for a fine variety of zeolites and related species found mostly in tertiary plateau lavas north of the Cuillins. (See for example 1996 Green & Todd. UK Journal of Mines & Minerals).

My own interest has been in the main Cuillin Complex and its various rock types. Following several trips to the Red Cuillins, it is apparent that many of the granites have localised profusions of miarolitic cavities, adding another dimension to collecting on Skye. This short article only deals with minerals so far found in the Beinn an Dubhaich granite, south of Kilchrist churchyard (NG617206). The granite forms an east-west arc in Cambo-ordovician carbonate sediments which have been metamorphosed to marble. The conclusion from the literature and field trips confirms that miarolitic cavities become larger towards the roof of the granites. This is evident on Marsco, and Beinn na Cailich. Miarolitic cavities are irregular in shape and up to 6cms. They are mostly lined with euhedral crystals of quartz, feldspar and chlorite in the Beinn na Dubhaich granite and other minerals are rare.

Allanite Forms single divergent groups of dark brown bladed crystals to 3mm. Confirmed by XRD Nat. Hist. Museum. (Priv Com Andrew Clark 1998).

Anatase As very rare typical black to translucent grey bipyramids to 0.04 mm or as honey-yellow tabular crystals to 0.3mm.

Calcite Rare, as tabular colourless crystals to 5mm with shallow pyramid faces.

Chlorite Common, as stacked crystalline masses to 6mm and as epimorphs after an unknown species, possibly **titanite**.

Fluorite As colourless to mottled purple crystals rarely pale green. The crystals are mostly octahedral occasionally cubic, rarely combinations of the cube, octahedron and dodecahedron.

Ilmenite? Has only been tentatively found on one specimen as a black rounded sub-metallic crystal 0.4mm in size.

Magnetite As single octahedral crystals to 0.4mm

Quartz Forms colourless crystals to 1cm, rarely as pale smoky crystals.

Feldspar As white to creamy, pink to red crystals to 8mm.

Titanite Forms tabular translucent orange brown crystals to 2mm or translucent greyish equant crystals to 1mm.

Zircon As opaque reddish-brown to yellow brown crystals to less than 1mm, rarely as translucent pale orange and flesh red crystals.

Bargain of the Month (Year?)
Mike Dannatt

It has been publicised elsewhere but this is the definitive information about the microscope offer from the OU! This was issued to biology students in home experiment kits as a dissecting microscope. It is a Japanese made microscope with fixed magnification of 20x and a large enough gap between the stand and the objectives to accommodate reasonable sized specimens. It is on offer for only £25 plus VAT (£29.38) delivered to your door. To order, send a cheque payable to the Open University for the attention of Mr McNamee at the Open University Warehouse, 21 Denington Road, Denington Industrial Estate, WELLINGBOROUGH Northants, NN8 2RF. *Note that this is now the correct address - the warehouse has been relocated.* The offer is open while stocks last - they only had a few hundred left when I got mine in January!

As a light source, the Espressivo 20W halogen light from IKEA at less than £7 works well!

The smelting of silver from Hilderston
Max Wirth

Members will remember the interesting paper contributed by Kemp Meikle on the mineralogy of the Hilderston silver mine (1). Kemp has now produced two further papers describing the smelting of ores from this mine (2 and 3). It is worth mentioning these since many of our members are not aware of mining journals. These articles make fascinating reading and involved much research into the 17th century archives.

1. Meikle, T.K. (1994) J.Russ.Soc. 5,(2),pp.83-90
2. Meikle, T.K. (1996) British Mining No.57, pp.106-124: The Melting, Fyning and Stamping Mylnis at Linlithgow.
3. Smith, R. and Meikle, T.K. (1998) British Mining No.61, pp.5-19: The smelting of silver ore from Hilderston mine at Linlithgow, Scotland.

In Defence of Mineral Collectors
Ike Wilson

Editor's note: Members may not be aware of the work which Ike undertakes in Ireland, with the enthusiastic cooperation of those locals who are interested, in researching and protecting the country's mining heritage. I only fully appreciated this when I accompanied him to Ireland in October of last year and met some of his friends over there. One of these was Des Cowman who is the newsletter editor for the Mining Heritage Society of Ireland. When Des received a letter from one Adrian Pierce on the topic of mineral collecting he invited Ike to make a response. The letter made a number of remarks about the behaviour of mineral collectors in general. With the agreement of Des, who published extracts from both letters in a recent issue, Ike has asked me to publish his own letter in full. In view of its relevance to other topics elsewhere in this issue, I am pleased to do so. As a mine historian himself, Ike's intention was to balance a one-sided view of collecting. While the nature of Mr. Pierce's eight point attack wil be evident from Ike's response, his last point is worth repeating in full:

> *"So, mineral collectors found 14 new minerals. If they have only recently been found, then presumably the "new mineral" is just some mutant form with a crystal the size of a pinhead."*

Dear Sir,

I assume that Adrian Pierce's letter was designed to get a reaction. I hope that this is one of many.

Adrian's choice of phrases makes interesting reading. "Mass organised mineral collecting", "carting off rucksacks full", "clubs which have the erosive power of glaciers", "mass removal", "hunt in clubs" etc, etc, etc. Now I am sure that he is referring to humans not to some wild animal?

Firstly, he says that he helped set up a club because of increasing loss of access to mine sites. Now what do a lot of clubs who say they are protecting mines and mine sites do? They close them to the general public. If Joe Public wants to visit these sites he must first join the club that restricted him in the first instance. Secondly, there was more "damage" done when the mines were working than there ever will be again. The old miners had no hesitation about blocking streams, diverting rivers etc. In seeking minerals, they smashed the rock to bits, went through the ground like moles, and when they had finished all this they threw the rubbish on to tips. It is this rubbish that mineral collectors dig and sort out. The state of most mines is just as bad as when they were abandoned years ago, some worse than others. Newspaper left in mines? Now let me think. If some old miner had left his "snap paper" in a tin and it were found today, what would it be, history or litter?

How would most of the Mining History Clubs survive, without subscriptions from Joe Public and yes mineral collectors, because some mineral collectors are also historians.

I agree that explosives have been used in some mines. I had the unpleasant experience of nearly being blown up one day by a couple of brainless idiots. Anyone found using explosives should be reported to the police forthwith.

All collectors, no matter what they collect, be it tins, stamps etc. sometimes sell off spares to enable them to get other material. There is nothing wrong with this, amateur collectors have done this since collecting began. There are people around who sell for a living (as the old miners did) who are not all bad people either. There are those around who are greedy and selfish and once these people are known they don't get help from other collectors. As for Snailbeach where a few pieces of galena and sphalerite are said to have been seeded around the place. No collector worth the name would collect seeded specimens from anywhere, so who would? Dealers would.

Most clubs are self policing to such a degree that people have been expelled for bringing a club into disrepute. Mining history clubs do not hold the franchise on mine or mineral information. Most of the information can be obtained from museums or from most geological survey offices.

I wonder if Adrian has visited any museums on his travels because, if he had, he would have seen all the mineralogical displays on which most museums pride themselves. Most of the minerals in many of the museums have been donated by mineral collectors both amateur and professional. These are being added to all the time by collectors, who are also the people out there in the field finding the new species.

I can assure Adrian that not all new minerals are some form of mutant nor are they all of pinhead size. If he had seen any mineral magazines over recent years he would know that a lot of new material is beautiful and far from small.

I would ask Adrian DON'T TAR US ALL WITH THE SAME BRUSH, SOME OF US DO CARE AND WE ARE NOT FEW IN NUMBER!

A friend of mine Roger Harker (now deceased) once said "Minerals underground can't be appreciated by people above". I think he was right!!

Extracts from South East Branch News
Austin Lockwood

The BMS display at the Geologists' Association Annual Reunion and FLAGS Exhibition, held at University College London on Saturday, 7 November 1998 was again manned by Elsie Hansford and Peter Wallace and, as usual, the carousels attracted considerable attention. The display won third prize in the FLAGS competition and a cheque for £10.00 has been deposited in the Branch account.

The President of the Geologists' Association, Professor Richard Moody who judged the competition, was quite enthusiastic about the BMS display and, in particular, how the carousels allowed the microminerals to be viewed by the general public. He thought there could be a use for these in the schools but, he obviously does not appreciate how long these carousels take to set up, and what the true cost of these would actually be.

Following their success at the GA Reunion, Elsie and Peter mounted a further display on behalf of the BMS at the Sussex Mineral Show held at Haywards Heath on Saturday, 21 November 1998. This display, under the title 'Small is Beautiful', again attracted considerable attention and, despite having, on this occasion, a set-up of four carousels and a 'free-bee' microscope, there were people waiting to take their turn at the tables for most of the day. Elsie and Peter were kept very busy but, fortunately, Roy Tampling kindly stepped in to help when the real crowds arrived. It was hard work, but a very successful display, which we hope will result in additional members for both the Society and the Branch. Roy Starkey gave a talk at the Show on microminerals, again under the title 'Small is Beautiful', which was very well attended. We are very grateful to John Pearce, the Organiser of the Sussex Mineral Show, for allowing the BMS the 'pride of place' at this year's show and for providing funding for the superb collection of micromineral photographs which Elsie provided as a backdrop to the display.

Hopefully, the BMS will be mounting a similar display in support of the Geologists' Association 'Earth Alert' Conference and Festival of Geology being held at the Brighton Centre from the 26 to 30 May in the year 2000.

I am now investing in the necessary equipment to enable me to take my own photographs and I am wondering if there is enough interest amongst our members and those of the Russell Society, to set up a Mineral Photography Group. If you are interested in the idea we could hold occasional meetings to discuss techniques and to learn from some of the more experienced members. Please let me know if the proposal appeals to you.

The dates for the remaining meetings during 1999 have been agreed as follows: - Sunday 9 May, 8 August and 14 November. Please bring to these meetings, in addition to your microscopes and specimens for study and discussion, any minerals or mineral related items for sale, swapping or as freebies.

Other Branches….

….are invited to submit news for the June issue!

A CASE OF FALSIFIED MINERAL LOCALITIES

George Ryback

Mineral specimens that have lost their labels are a curator's bane. Once lost, the locality cannot be determined with certainty by subsequent examination. Worse than no locality is a wrong locality attached to a specimen, usually through carelessness or ignorance. Sometimes, however, a false locality is added deliberately, to enhance the specimen's value. It is a simple deception to perpetrate, and Arthur W.G. Kingsbury (1906-1968) did it on a grand scale!

In the late 1940s Arthur Kingsbury was already a respected amateur collector, a member of the Mineralogical Society with published work on the minerals of the Mendips, and a friend of Sir Arthur Russell. Abandoning his former career as a solicitor, and his wartime occupation managing a precision engineering works, he became a research assistant to the Reader in Mineralogy at Oxford, to work on the mineral collections in the University Museum. He was well qualified for this – there is no doubting either his sharp eye for and encyclopaedic knowledge of minerals, and their world-wide localities, associates and matrices, or the uncanny accuracy of his "eyeball" identifications. For more details of his life see the obituaries in *Mineralogical Magazine* 1973, **39**, 1–3 and *American Mineralogist* 1973, **58**, 372–375.

At this time he started sending specimens to Leeds University for checking by X-ray diffraction (at the rate of up to 300 a year!). Many of them were microscopic secondary minerals from the metalliferous deposits in Cornwall, Devon, and the Lake District, in which he specialised. This led, eventually, to the identification of over 60 species new to Britain, many of them rare; to many publications; and to the award of the Bolitho medal of the Royal Geological Society of Cornwall and other honours. He came to be regarded as second only to Sir Arthur Russell as an expert on British minerals.

Perhaps second best was not good enough. Perhaps he was embittered by the disdain of some of the academics he encountered. For whatever motives, in the early 1950s he began to pass off specimens from foreign localities (quite often classic material from old collections) as having been collected by him from British localities. He had their identities checked by unsuspecting X-ray experts, and the claimed discoveries were never doubted during his life-time. Serious misgivings were first voiced in the 1980s.

Kingsbury donated hundreds of specimens to The Natural History Museum, and many to Sir Arthur Russell, whose collection is now also in the NHM. His entire private collection, with maps and notes, was acquired by the NHM after his death. A systematic re-examination of this huge amount of material is now under way to pick out the dubious specimens. Initially, we chose eight examples for detailed study, to convince ourselves that their localities were indeed deliberately falsified, and the results have been published (G. Ryback, A.M. Clark and C.J. Stanley, *Geological Curator* 1998, **6**, 317–322). Hundreds more specimens have since been marked as suspicious and are being studied. Many are so obviously wrong that it is amazing the deception was not spotted at the time!

At the 1998 BMS Symposium a selection of such Kingsbury fakes (including those described in our *Geological Curator* paper) was exhibited, and valuable comments on them were received from members. There is space here to mention only a few, and they are tabulated below. We hope to publish detailed descriptions of the fakes in due course, and thus to correct some of the errors now embedded in the literature on British minerals.

Specimen	Claimed locality	Probable true locality
Adamite, pale-yellow crystals up to 4 mm long in a light-brown limonitic gossan.	Sandbed mine, Caldbeck Fells, Cumbria.	Kamariza, Lavrion (Laurium), Greece.
Carpholite, yellow fibrous radiating on vein-quartz.	Grainsgill, Caldbeck Fells, Cumbria.	Slavkov (Schlaggenwald), Bohemia, Czech Republic.
Descloizite, aggregates of small brown crystals with minor vanadinite & quartz.	Brandy Gill, Caldbeck Fells, Cumbria.	Mammoth mine, Tiger, Arizona, USA.
Descloizite, crusts on sandstone plus orange & buff detached fragments.	Engine vein, Alderley Edge, Cheshire.	Classic material from *two* distinct German localities; see *Geol. Curator* paper.
Dumortierite, lilac fibrous radiating in pegmatite.	Ford Farm quarry, Sticklepath, Devon.	Dehesa, San Diego Co., California, USA.
Gold, 0.5-mm crystals on manganese oxides with halloysite-10Å clay.	Porthcurnick beach (raised beach deposit), Portscatho, Cornwall.	Kanowna, Kalgoorlie, Western Australia, Australia.
Heterogenite, matrix-free 4-cm stalactitic mass.	Engine vein (*in situ*), Alderley Edge, Cheshire.	Shaba (Katanga), Zaire.
Hydromagnesite, almost matrix-free snow-white crust of 3-mm colourless bladed crystals.	Kennack Sands (central foreshore), Lizard, Cornwall.	Devil's Hole, Alameda Co., California, USA.
Malachite, thick fibrous crust on galena, with unusual star-shaped flat cerussite twins.	Driggith mine, Caldbeck Fells, Cumbria.	Zellerfeld, Harz Mountains, Germany.
Plancheite, sky-blue fibrous radiating, 12-mm spherules in matrix.	Driggith mine, Caldbeck Fells, Cumbria.	Shaba (Katanga), Zaire.
Plancheite, sky-blue fibrous radiating, matrix-free broken spherules up to 13 mm diameter.	Engine vein, Alderley Edge, Cheshire.	Shaba (Katanga), Zaire.
Plancheite, 1-mm dark-blue grains in pale-blue chalky chrysocolla, with some calcite.	Gunheath china clay pit, St Austell, Cornwall.	Mammoth mine or San Manuel mine, Tiger, Arizona, USA.
Vanadinite, pale-yellow stubby prisms (<1 mm) on a maroon compact ironstone.	Grainsgill, Caldbeck Fells, Cumbria.	Hillsboro, Sierra Co., New Mexico, USA ('endlichite').

The verdict must be that all of Kingsbury's claimed occurrences of species new to Britain, of species from new British localities, and of unusually fine specimens from known British localities, must be regarded as doubtful unless independently confirmed.

It is with great regret that we are forced to expose this fraud publicly. Arthur Kingsbury was a kind and likeable man with many talents. He was also interested in photography and ornithology, and was no mean guitar player and wine connoisseur. His obsessive enthusiasm for minerals could sometimes be overwhelming, but one would always learn a lot from his monologues. It is sad that all his work is now tainted by uncertainty, and his bona fide contributions to mineralogy are likely to be dismissed along with the fakes.

Eric Wood - Canadian Micro Mineral Association

From the November-December 1998 edition of the newsletter of the CMMA:

"It is with sadness that we have to announce the passing of Eric Wood a long time member of the CMMA and one of the founders of the organization. As everyone knows, Eric and Muriel were our bulletin editors for well over twenty-five years. Besides his interest in minerals, Eric was keenly interested in stamp collecting. Eric died on Thursday 29th October 1998. He will be missed."

Eric exchanged newsletters with successive editors of the BMS and would have been known to a number of members.

New members and changes of address:

All new members and changes of address of which the editor has been made aware are included in the new membership list. However, there is one name correction for a new member. Instead of Victor Shorcocks, please read **Victor Shorrocks**.

NEWSLETTER EDITOR
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Please note that the deadline for articles for Newsletter 53 will be 1st June 1999. Please let me have contributions as soon as possible. Articles or reports on PC disc are particularly welcome. Articles sent by E-mail can either be "attached" or be part of the body of the E-mail message. Clearly printed documents are acceptable and can be scanned and read into the PC automatically.

EDITORIAL
Mike Dannatt

Production of this issue has brought mixed blessings. It is pleasing to be squeezed to the bottom of the back page by the volume of material provided by our contributors - and my thanks go to each one of them as usual. It is less pleasing that there is so much to include about the *perceived* behaviour of collectors due to the thoughtless actions of a few. As always, your views will be welcome - and I am sure that many of you *will* have views on what has happened in the Caldbecks. If you prefer not to see them in print, do feed them back to the chairman direct or through your Branch secretary. It is a sad fact that mindless acts may still prejudice what the Mikes Rothwell and Leppington may be able to achieve on behalf of the rest of us. Indeed staff at the Lake District NPA are well aware of *threats* that have already been made against them with reckless talk of a "sting". In the face of this their reaction is surely more understandable.