

**FM**

**FRIENDS OF MINERALOGY**  
**REGION 3**

Friends of Mineralogy, Region 3, Newsletter

Feb. 1974

Coming events; Spring conference at May 4, 1974  
Carnegie Museum of Natural History, Pittsburgh, Pa.

**OFFICERS**

**CHAIRMAN**

Martin Anne  
509 Maple Avenue  
Wrightsville, Pa., 17368

**Treasurer**

Robert Smith, II  
R.D.#1 Schoolhouse Rd.  
Middletown, Pa., 17057

**Secretary**

Eleanor Kaufell  
4028 Benson Street  
Philadelphia, Pa., 19136

**National Director &  
Region 3 Advisor**

Dr. Arthur Montgomery  
Dept. of Geology  
Lafayette College  
Easton, Pa., 18042

**Committee Chairman**

**CONSERVATION**

Dr. Raymond Grant

**MUSEUM**

Delbert Oswald

**EDUCATION**

John R. Way, Jr.

**PUBLICITY**

J. Varady

**HISTORIAN-PHOTOGRAPHER**

Col. Thomas Myers

**PUBLICATIONS**

Bryon Brookmyer

**EDITOR**

D. Schmerling  
1780 Prescott Road  
York, Pa., 17403

## F/M, Region 3, Newsletter

### Symposium '73'

The Symposium at Lafayette College was a complete success. The idea of making this an annual affair is under consideration. The attendance exceeded expectations and the guest speakers were excellent, covering a wide variety of subjects. All of the speakers held the attention of everyone by keeping the subject matter at a level that could be understood by all. The snack bar carried a fine assortment of food and had at our disposal a bottomless coffee pot. The swap area was a very busy place with the exchange of many fine Pennsylvania minerals. The mineral identification section was under constant pressure trying to put a name on some of the unusual minerals that are difficult to identify.

### Treasurer's report; Dr. Robert Smith, II

The treasurer reports that the printer has been paid in full. Meanwhile, all F/M members are urged to help in promoting the sale of the remaining books. Region 3, is still obligated to reimburse all members who so graciously contributed to the purchase of Shares to make the printing possible. Members can promote the sale of books through the local clubs and interested mineral collectors. Books can be ordered directly from.....

Eleanor Kaufell \$5.50 per copy  
4028 Benson Street plus .50¢ mailing  
Philadelphia, Pa. 19136 charge per book

### F/M badges;

All F/M members were given the official F/M identification badge. Wear your badge to promote F/M at club functions and outings. The three color badge is unusual because it displays Calcite crystals rather than quartz normally seen on emblems or patches.

### F/M Dues;

Dues for 1974 must be paid by April 30, 1974 to remain in good standing. Annual dues remain at \$5.00 per member. Checks should be sent to  
Wayne Leicht, Treasurer F/M national  
2570 Oxford Road  
Costa Mesa, California 92626

Members who joined F/M after November 1, 1973 are considered paid for 1974. If there are any questions regarding the payment of dues, please contact Region 3 Chairman Martin Anne'.

### Spring Conference;

Region 3, will hold its annual Spring meeting at Carnegie Museum of Natural History, Pittsburgh, Pa. on May 4, 1974. The meeting will cover regional business and discuss the future planning of activities for Friends of Mineralogy in Region 3. This will be a good opportunity to see the Jefferis Pennsylvania collection. Assoc. Curator Delbert Oswald has done a remarkable job in revitalizing the Museums Geology and Mineralogy collection. Many fine new additions have been added to the collection over the last few years. More details will be announced in the very near future. We all hope that the present energy crunch can be overcome and arrangements made whereby all who are interested can attend this meeting. More details to follow;;;;;

New Members; Welcome to Friends of Mineralogy

Margaret Kendall  
714 Devonshire Drive  
State College, Pa. 16801

Derso Farkas  
1904 South 5th Street  
Allentown, Pa. 18103

Joesef Murter  
Box 88 Kirk Road  
Boothwyn, Pa. 19061

Robert Eisenhower  
R.D.# 4 Wanner Road  
Reading, Pa. 19606

Dr. Dean Smith  
242 Deike Bldg.  
University Park, Pa. 16802

Corrections to the Membership list

Dr. Davis M. Lapham  
14 Crescent Avenue  
New Cumberland, Pa. 17070

Thomas Allison  
79 Aluminum City Terrace  
New Kensington, Pa. 15068

John Jackson  
R.D.#1  
Flemington, New Jersey 08822

Marge Farkas  
1904 South 5th Street  
Allentown, Pa. 18103

Karl Jones  
682 Maryland Ave.  
York, Pa. 17404

Richard Haefner  
Dept. of Geological Sciences  
S.U.N.Y.  
New Paltz, New York

Richard Lamborn  
3920 Cochran Street  
Erie, Pa. 16508

New Member; Brian Keelan  
163 Oaks Road  
Millington, New Jersey  
07946

More on Symposium '73'

The officers and members of F/M are deeply grateful to Lafayette College for allowing us to use the College facilities. Dr. Raymond Grant, Chairman of the Symposium did a superb job in coordinating all the arrangements that made this a complete success. We also wish to thank the Students of Lafayette College who so graciously gave us their time and assistance in mineral identification. We had a full house with approximately 125 people who are interested in collecting and preserving Pennsylvania minerals. The break periods were well spaced allowing everyone an opportunity to stretch and have some coffee or other refreshment. The swap area was a good place to exchange ideas, collecting sites and mineral specimens. It was interesting to note that the swap material was almost 100% Penna. minerals. I might add that the material was better than average. Some very fine and unusual mineral specimens exchanged hands. The work shop area was always filled to capacity, the Students were busy making x-ray determinations while the scopes, in the swap area, were used to examine the traded material.

All of this action was recorded on film by Col. Thomas Myers, Historian and Photographer for our region. Col. Myers will be keeping a photo album for the region archives.

Publications;;

Bull. 2 Petrography of the Mica Peridotite Dike at Dixonville, Pa.  
by A.P. Honess and C.K. Graeber, 1926 Free

Circ. 27 Frederick A. Genth 1820-1893, Chemist-Mineralogist-  
Collector, by W.M. Myers and S. Zerfoss, 1946 Free

Circ. 49 Manganese: Its Minerals, Deposits, and Uses, by John N.  
Hoffman, 1957 Free

Circ. 51 Selected Electron Micrographs of Clays and other Fine  
Grained Minerals, Thomas F. Bates, 1958. \$2.00

Circ. 83 Zinc-Lead Occurrences Near Mapleton, Huntingdon Co., Pa.  
R.C. Smith, D.C. Herrick, A.W. Rose and J.M. McNeal, 1971  
\$1.00

T.P. 18 Dickite from Pennsylvania, Arthur P. Honess and F.J. Williams,  
1935, Free

The above can be ordered from Dr. M. Bell, Director, Earth and Mineral  
Sciences Experiment Station, 118 Mineral Sciences Bldg., University  
Park, Pennsylvania 16802

Please add 6% sales tax for all publications ordered.

The editor of the F/M newsletter is very grateful to John and Betty  
Clauser for the 100 copies of the article Iron Ores by Deas Boykin.  
The article appeared earlier in the Bucks County Earth Science  
"Magazette". The editor Betty Clauser is doing a very fine job  
with the publication, one of the finest in the State.

We urge the members to submit articles of general interest for  
publication in the F/M newsletter. Write an article telling about  
a mineral locality, a new mineral or an unusual find. Send it to  
the F/M editor so we can put it in our newsletter and let all the  
members of region 3 know what's happening.

Region 3 boundary changes;

Region 3 now covers the entire state of Pennsylvania, the Southern  
portion of New Jersey including Trenton, Princeton and points south  
plus the Northern half of Delaware.

Pennsylvania Geology;

An outstanding bi-monthly publication is available on request. The  
magazine is published by the Topographic and Geologic Survey,  
Department of Environmental Resources, Harrisburg, Pa. 17120.  
Send request to; Pennsylvania Geological Survey, Towne House,  
Harrisburg, Pa., 17120

The F/M editor would like to exchange newsletters and ideas with all  
Clubs in Region 3. Please place my name on your mailing list.

Goethite ( $\text{Fe}_2\text{O}_3\text{H}_2\text{O}$ ) and Limonite ( $2\text{Fe}_2\text{O}_3$ ) are secondary in origin, they are formed by the alteration of some other iron rich minerals, and they are deposited from waters containing iron in solution. These two minerals are widespread and abundant in the United States, but the deposits are too small to be of economic value. Goethite is named in honor of Johann von Goethite, a 19th Century German poet and natural philosopher.

Many people no longer consider Limonite to be a specific mineral species, but the name is retained as a common one for the amorphous brown hydrated iron oxides, whose chemical composition is variable. Limonite is derived from the Greek word "leimon" which translates into meadow plus "ite", meaning stone, because meadows of Greece contained a naturally occurring hydrated iron oxide.

Goethite occurs massive and in prismatic crystals which may be fibrous, reniform, or stalactic in structure. Large cubes, pseudomorphs after Pyrite are found at Pelican Point on the shores of Great Salt Lakes. Classic locations for crystals are Lastewithe, England; the Pikes Peak region of Colorado; and Lake Superior, especially at Negaunee, Mich. It is the main constituent of the iron ores of Alsace-Lorraine. Locations in Bucks. Co. are Hilcroft, Newportville, and VanArtsdalen's Quarry.

Limonite, the common, yellow-brown "Bog-Ore", is usually found in marshy places. This was found by the Pilgrims in the form of iron pellets and tiny "pancakes" of iron. This ore was mined by hand or with long handled wooden rakes from marshes and pond bottoms in the vicinities of Middleboro, Assawamsett and Carver in Massachusetts, not too many years after the Mayflower landed off Plymouth. The iron pellets or nuggets were found in various shapes and sizes. Some of these pellets occurred in clusters like grapes; others were round and the size of musket balls; and some were the shape of "turkey droppings" or flat like two of the King's shillings when stacked. Often petrified leaves, wood, nuts, etc., were found in this "Bog-Ore".

Siderite ( $\text{FeCO}_3$ ) occurs in rhombohedral crystals with curved faces. It may also be found in cleavable or granular masses and in botryoidal or globular forms. The contents of 48.2% when pure. The color is usually light yellowish brown but it sometimes occurs in white or gray.

Siderite is derived from the Greek word "sider" meaning "iron". Good specimens are difficult to find, as groups of crystals are developed into large masses and produce uneven faces. Siderite in massive formations is found in Colorado locations such as mines of the Gilman District, Eagle County. In pegmatite cavities of the Crystal Peaks Area, Teller County, it is found altered to Goethite and Hematite. In Pennsylvania the Gap Mine, Lancaster County is a noted occurrence. Bucks County has no listing of this mineral, however, Dr. Davis Lapham reported it as a "suspected mineral" at New Galena.

The manufacture of iron products in America very likely began with the Pilgrims casting iron kettles for their kitchens. 1642 was the beginning of the Saugus Iron Works in Lynn, Mass. Today, we live in the midst of billowing white smoke of the Fairless Steel Works.

## IRON ORES

Magnetite ( $\text{Fe}_3\text{O}_4$ ) contains 72% Iron. This mineral is quite abundant and widely distributed. There are many legends connected with this mineral. In 480 B.C., the poet Euripides proclaimed Magnetite to be as "powerful in attracting iron as a beautiful woman is in attracting men". He gave the name Magnetis to Lodestone which was called Heracleian stone. The names Magnetis and Heracleian refer to two places in Lydia where the mineral was first reported found by a shepherd named Magnes, when his rod became firmly attached to a rock in the soil, while he was tending his sheep on Mount Ida.

Superstition has persisted through the centuries. Alexander the Great gave his soldiers pieces of Lodestone to carry as a defense against jinns and evil spirits. During the 4th Century a curious custom developed in which powdered Lodestone was thrown upon coals on four corners of a room which caused inmates to feel the house was falling in on them. Early poets, intrigued by the property of magnetism, credited it with the power to pull nails from ships. And today at Magnet Cove, Arkansas, 1 to 3 tons of Lodestone are sold annually to the negroes to be used as a conjuring stone in Voodoo Ceremonies.

There have been reports of mysterious accidents occurring at particular curves along highways with the victims maintaining their cars were pulled from the road by some gigantic force which they were powerless to resist. Many believed these accidents were caused by supernatural forces, but later a huge deposit of Lodestone or a magnetic force field was found near the point of these accidents, powerful enough to pull a car, as a Magnet would attract iron filings.

Magnetite is attracted by common horseshoe or bar Magnets. This is the method used in crushing mills to separate it from worthless rocks. Lodestone, a variety of Magnetite acts as a natural magnet. It possesses the property of polarity, in having both a North and South pole, and it was used as the first compass by seafarers as attested to by Marco Polo and Geoffrey Chaucer.

Magnetite occurs in crystal form, most often as octahedrons, sometimes as dodecahedrons, but more often the mineral occurs as granular aggregates in massive form. This is a widespread accessory mineral, and it forms small grains in igneous rocks which weather out to concentrate into beach sands which are used in the United States as ink-blotting sand.

The largest Magnetite deposits in the world occurs in Northern Sweden. In Pennsylvania an important deposit had been worked at Cornwall Furnace (now closed); at the Frenck Creek mines it occurs in beautiful octahedrons, and dendritic form enclosed in mica has come from Pennsburg. Bucks County locations - Durham Furnace, Flushing, Newportville and Taylor's Woods all have produced Magnetite.

$\frac{1}{2}$ 
 $\frac{1}{3}$ 
 $\frac{1}{4}$ 
 $\frac{1}{5}$ 
 $\frac{1}{6}$ 
 $\frac{1}{7}$ 
 $\frac{1}{8}$ 
 $\frac{1}{9}$ 
 $\frac{1}{10}$ 
 $\frac{1}{11}$ 
 $\frac{1}{12}$ 
 $\frac{1}{13}$ 
 $\frac{1}{14}$ 
 $\frac{1}{15}$ 
 $\frac{1}{16}$ 
 $\frac{1}{17}$ 
 $\frac{1}{18}$ 
 $\frac{1}{19}$ 
 $\frac{1}{20}$ 
 $\frac{1}{21}$ 
 $\frac{1}{22}$ 
 $\frac{1}{23}$ 
 $\frac{1}{24}$ 
 $\frac{1}{25}$ 
 $\frac{1}{26}$ 
 $\frac{1}{27}$ 
 $\frac{1}{28}$ 
 $\frac{1}{29}$ 
 $\frac{1}{30}$ 
 $\frac{1}{31}$ 
 $\frac{1}{32}$ 
 $\frac{1}{33}$ 
 $\frac{1}{34}$ 
 $\frac{1}{35}$ 
 $\frac{1}{36}$ 
 $\frac{1}{37}$ 
 $\frac{1}{38}$ 
 $\frac{1}{39}$ 
 $\frac{1}{40}$ 
 $\frac{1}{41}$ 
 $\frac{1}{42}$ 
 $\frac{1}{43}$ 
 $\frac{1}{44}$ 
 $\frac{1}{45}$ 
 $\frac{1}{46}$ 
 $\frac{1}{47}$ 
 $\frac{1}{48}$ 
 $\frac{1}{49}$ 
 $\frac{1}{50}$ 
 $\frac{1}{51}$ 
 $\frac{1}{52}$ 
 $\frac{1}{53}$ 
 $\frac{1}{54}$ 
 $\frac{1}{55}$ 
 $\frac{1}{56}$ 
 $\frac{1}{57}$ 
 $\frac{1}{58}$ 
 $\frac{1}{59}$ 
 $\frac{1}{60}$ 
 $\frac{1}{61}$ 
 $\frac{1}{62}$ 
 $\frac{1}{63}$ 
 $\frac{1}{64}$ 
 $\frac{1}{65}$ 
 $\frac{1}{66}$ 
 $\frac{1}{67}$ 
 $\frac{1}{68}$ 
 $\frac{1}{69}$ 
 $\frac{1}{70}$ 
 $\frac{1}{71}$ 
 $\frac{1}{72}$ 
 $\frac{1}{73}$ 
 $\frac{1}{74}$ 
 $\frac{1}{75}$ 
 $\frac{1}{76}$ 
 $\frac{1}{77}$ 
 $\frac{1}{78}$ 
 $\frac{1}{79}$ 
 $\frac{1}{80}$ 
 $\frac{1}{81}$ 
 $\frac{1}{82}$ 
 $\frac{1}{83}$ 
 $\frac{1}{84}$ 
 $\frac{1}{85}$ 
 $\frac{1}{86}$ 
 $\frac{1}{87}$ 
 $\frac{1}{88}$ 
 $\frac{1}{89}$ 
 $\frac{1}{90}$ 
 $\frac{1}{91}$ 
 $\frac{1}{92}$ 
 $\frac{1}{93}$ 
 $\frac{1}{94}$ 
 $\frac{1}{95}$ 
 $\frac{1}{96}$ 
 $\frac{1}{97}$ 
 $\frac{1}{98}$ 
 $\frac{1}{99}$ 
 $\frac{1}{100}$

This article, concluded on the next page, originally appeared in the June & September Issues of the MAGAZETTE, which is published by the BUCKS COUNTY EARTH SCIENCE SOCIETY.

Iron is used everyday, by everyone. It has been used from the days of the Roman Chariots to the present day of the automobile, as parts of both. It has been used in battle helmets, shields and ammunition and in the peaceful plantings of our grounds with such implements as the rake and shovel; and it is used in our watches and clocks. The aforementioned are but a few of the many uses for iron.

There are several legends concerning the name "iron" and when it was first used. One legend says the name is derived from the word "isares", the name of a river in an ancient country along the Eastern shore of the Adriatic Sea, which is now part of present day Italy. Long ago, there was a caveman, a 292 pound weakling, living in Venetia, along the shore of the River Isares. Other cavemen bullied him by kicking boulders in his face. One day, while wading, he stubbed his toe on a rock which he grabbed in anger and began beating it against another rock. The rock changed shape rather than shattering, so he pounded it into the shape of a spear. The next time he was bullied, he stabbed his tormentor with his rock. The other bullies admired the weaklings' sharp pointed rock, and they too, wanted one. Others searched the Isares River and other places for similar "Rocks of Isares". By 100 A.D. "Isares Rocks" were well known, and the Iron Age was underway and we are still living in it.

Another belief is that primitive Europeans found fragments of meteorites or volcanic slag containing relatively pure iron ore and, due to its smoothness, they called it "isarn" from "Is", an Old Norse term meaning "to glide". Around the 5th Century, Anglo Saxons in Britain called the metal "Irene". During the period 750 to 1555 A.D. there were about 50 spellings in use, ranging from iyrene to hyrone. The name was standardized during the Elizabethian Age to Iron, and then went through another series of transformations attached to one tool implement after another, such as waffle-making, clothes pressing, cattle-branding, etc.

Iron is essential for life in most if not in all forms of protoplasm. Man needs only traces of it, 3 to 4 grams of iron may be found in an adult, (a penny weighs 3.1 grams). Ancient Greeks believed Mars, the god of War, endowed Iron with its strength, and they used it as a cure for weakness by drinking rusty water derived from soaking and rusting old swords in water. However, the relation of iron to blood formation was not established until 1680 when Syndeiham and Willis found simple iron salts to be useful in treating Chloris, or Anemia, of young women. In 1713 Lemery and Goeffy showed the presence of iron in the blood, and in 1832, the Anemia problem was further clarified by Frodisch who found there to be more iron in the blood of healthy people than in the blood of those with Anemia.

Iron Ore production in America started in the Colonies (1645 to 1700) with the small charcoal furnaces which were distributed from Alabama to New England. By 1800 most of the states had iron making facilities, using various local iron ores. In 1834 at Oxford, N.J. there was a hot-blast unit, the forerunner of our modern blast furnaces. More recently, our greatest iron production has been in the Lake Superior region, with the states Alabama, New York, Utah and Texas contributing most of the remainder.

Iron is in 4th place in the order of abundance of elements located in the Earth's Crust, but it makes up only 5% of the whole. Oxygen, silicon and aluminum make up the 82.45% Iron combines readily with the other elements to form compounds of over 300 mineral species. There are two kinds of native metallic iron, one being terrestrial Iron, which is extremely rare, and the other Meteoric Iron which occurs in most meteorites.

Iron occurs in the Earth's Crust as oxides, sulphides, and a carbonate. Occurring in Bucks County, among the oxides are Hematite, Magnetite, Goethite, and Limonite. The Sulphides are Pyrite and Marcasite, and the carbonate is Siderite. Only those minerals, as listed occurring in Bucks County contain high enough percentage of iron to be considered major iron ores.

Hematite ( $\text{Fe}_3\text{O}_2$ ), the most important ore of iron, contains 70% of this element, and it occurs in a variety of forms. The compact form is red to black in color. Reniform is mammillary to botryoidal and is called "Kidney Ore". The splintery form is given the name "Pencil Ore". "Red Ocre" is the soft and earthy form which is red in color. We find Hematite replacing fossils, usually occurring in dwarf forms in limestone. "Oolitic" Hematite of marine origin, is formed around fine grains of sand or small shell fragments as a nucleus. This is sometimes called "Hickorynut Ore". Martite occurs in octahedral crystals and masses as a pseudomorph after Magnetite. Specular Hematite consists of small micaceous flakes which act as mirrors. The crystals of Hematite range from thin tabular plates, often arranged in rosettes called "Iron Rose", to thick rhombohedral crystals which are sometimes pseudocubic.

Hematite derives its name from a Greek word "haimatite" meaning bloodlike, which is easily understood by those who have worked with it. This mineral was first brought to prominence in Alaska around 1800 as a few sparkling black beads appeared in a shipment of blue trading beads from Russia. The beads were opened in a dimly lit room, and the firelight reflected from the highly polished surface like "Black Diamonds", thus the association of this phrase with Hematite. Lord Baranoff had skilled Indian silversmiths make some of these into rings. He was pleased with the results so more Hematite stones were ordered from Europe to be made into rings and pendants, which were sent to the Royal Family of Czar Alexander as gifts of friendship. The beauty of Hematite was sought in Europe and throughout the civilized world. These are beautiful when cut into intaglios (reverse cameos).

Commercial deposits of Hematite are located in the Lake Superior region, the Appalachian Mountains, Eastern Canada and Venezuela. In Pennsylvania, there is a lenticular argillaceous variety which constitutes one or two beds in the Clinton formation of the Upper Silurian, these beds extend from New York to Alabama. Hematite, in Bucks County has been found in Durham, Finney's Quarry and Langhorne. (Most of these sites are now inaccessible.)

## Mineral Notes & News

-----

Klines Quarry, Wrightsville, Pa.

Anatase is still showing and has now been found in several other levels of the Quarry. Fine specimens of Adularia and Galena with the unusual Octahedral cleavage are also being found.

Faylor Quarry, Winfield, Pa.

Golden-yellow Cacoxenite has been added to the mineral list. The mineral occurs in an Iron-Phosphate seam in the upper level of the South wall near the fossil beds. Anyone collecting this area should be on the lookout for the following minerals, Strengite, Beraunite, Wavellite and Vivianite.

Kreamer, Pa.

A small pit  $\frac{1}{4}$  mile north of Kreamer off Rt#522 and east of the bridge has produced some very fine Wavellite specimens. Cacoxenite and blood-red Beraunite crystals are also showing in limited quantity.

The following was taken from the Keystone Newsletter, Mineral Society of Pennsylvania, as reported by Dr. Arthur Montgomery. Three more minerals are being added to the Kibbelhouse list. Hornblende was collected by Frank Leans. The minerals Arsenopyrite and Glaucodot were found and collected by Dr. Fred Keidel. Glaucodot is a new mineral for Pennsylvania. The two minerals listed above were found near the Cobaltite corner along the north quarry wall.

Dyer Quarry, Gibraltar, Pa.

A new working level has been opened in the quarry and some very fine Zeolites, Stilbite, Chabazite and Laumontite have been collected. Also showing in limited quantity are Apophyllite and Prehnite. Babingtonite an unusual calcium iron silicate mineral associated with Zeolites was collected several years ago. Recently several specimens tentatively identified as Babingtonite were collected in the new working level. The specimens collected were visually identified by comparison with a specimen collected from the Dyer quarry.

Mount Union, Pa.

Calcite, Fluorite, Dolomite and Celestine have been found in the road cut on Rt# 103 4 miles out of Mt. Union. The Celestine occurs in two types of crystal shape and are well terminated.

Rossville, Pa.

Several fine specimens of Stilbite and Heulandite were recently found in the road cut. Specimens of Hornblende and Ensttite were also picked up. This area should be watched after the Spring thaw, it may produce some very fine material.

Muncy, Pa.

F/M member Tom O'Neil has been active in the Muncy area and come up with some new and unusual minerals for this area. Tom found and had the following minerals identified, Enargite, Conichalcite and Cornubite. Anglesite, Cerussite and Smithsonite also occur in the Limestone vugs in another area in the quarry. While collecting in the quarry several weeks ago Martin Anne' found some specimens containing some very well developed Azurite crystals in Calcite.