

ANTRIM

MA 1 235 Gyrolite.

MM 17, 2.... Zeolites

MA 2 59. Zeolites

MM 12 378 "Alumyte"

= metahalloysite

J P Walker MM 29 773 Zeolites of Garron Plateau. Very good distribution - excellent maps.

J P Walker MM 32 503 Zeolites - distrib.
609 Calcite (= zeolites)

MM 31 790 boehmite; 437, magnetite - magheimite.

J Sweet MM 32 455 "What is plinthite?"
plinthite; red zeolites.

MM 32 505: Aragonite; zeolites;
calcite; apophyllite; chalcedony;
garronite

TMH (1865) "Also found" ... green-earth; tripoli;
Kirwanite; rock-soap; soapstone. [sic!!]

When an English collector thinks about Antrim, if he ever does at all, he most probably recalls that zeolites are found there & not much else. This is true insofar as zeolites & their relations are Antrim's main collecting minerals, but to cast it off at that is an injustice. In fact, having collected minerals here & on the mainland for about 12 years now, I don't honestly think that I've found any other area where collecting is so rich, so easy & so rewarding. Perhaps when you read this article you might come round to seeing why that is.

One obvious advantage, before even considering the zeolites themselves, is that mineralogy & lapidary, common hobbies on mainland Britain now, don't seem to have crossed the Irish Sea as yet. This may be a bad thing in some respects - there's only a handful of people that I know who share my hobby, for instance - but from a collecting point of view, it's a remarkably good thing. There's not many places in England where you can go & find that no one else has been there before you, but in Antrim it's a very rare event when someone beats you to it. Coupled with the fact that most collecting localities are quarries (or, rather, most quarries are collecting localities), where the rock is fresh & specimens are readily accessible, there's very little to be said against Antrim from a collector's point of view. An added bonus is that within a radius of about 8 miles of Belfast lie dozens of quarries - some of them the best collecting localities in the Province.

Antrim then is competition-free. But what of the zeolites themselves? Problems of identification, particularly of the fibrous or acicular zeolites, tend to put people off, & even many professional geologists here prefer to call them simply 'zeolite minerals', rather than make any attempt at proper identification. With a little experience, however, small differences in cleavage, lustre, or sometimes form begin to stand out, & with most you wonder how they ever confused you in the first place. It's a little like learning to tell iron pyrites from chalco or arsenopyrites.

The zeolites were formed at the close of volcanism in Ireland some 45m years ago. Hydrothermal water (such as you see as geysers or hot springs today) percolating through the basalt pile, caused partial solution of the plagioclase feldspars, among others. This led to the crystallising out of zeolites in gas cavities, cooling joints & so on, within the basalt. (Zeolites are, in fact, closely related to the feldspars.)

Differences in the temperature & types of dissolved material in these hot solutions produced various zeolite zones or assemblages. For instance, vertically through the basalt are three main assemblages, related mainly to water temperature. On the east coast salt water entered the basalt, & in the north are quartz-saturated tholeiite basalts. Each of these produced its own particular suite of minerals.

Some zeolites, especially mesolite & faoelite, consist of very fine white needles, looking a little like fibres of asbestos. It is most likely that these were deposited by direct crystallisation from gases - right at the very end of volcanic activity. These are sublimate zeolites.

The zonal arrangement of the zeolites was, in fact, mapped in the late 50s by Dr George Walker, now a lecturer in volcanics at Imperial College, London. This mapping is very valuable as a basis for determining what zeolites are found where, but only as a broad classification. Within each zone are various sub-zones. For instance, a dyke, perhaps, gave easy access to water solutions rich in analcite, & so abnormally large analcite develops close to it. Similarly the tops of flows - rich in free silica due to weathering at the time - fostered the growth of stilbite, whilst apophyllite is only found in the massive flow centres. Such small scale variations may seem of little importance, but without them the variety & even excitement of minerals here would be greatly depleted.

Basalt eruption in Antrim was in two main phases, each pouring out alkali, olivine-rich lavas - these are the 'Lower' & 'Upper' basalts & contain particular assemblages of minerals. The north, however, had an

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(SAE for Sub)

extra eruptive phase which resulted in the 'Middle' basalts, & these differ in that they are quartz-rich tholeiites, as I pointed out earlier. These produced a particularly quartz-rich mineral assemblage, entirely different from the alkali basalts. The differences can perhaps be illustrated by describing the minerals to be found in each.

To begin with the Lower & Upper basalts, one of the best areas for collecting is a line of quarries on the edge of the basalt plateau, just north of Belfast. In the west, (at Sale's Corner, near Lisburn), is a quarry which is literally 'loaded' with large (1" - 1½") white & usually perfect crystals of analcite (garnet-like in shape). The rock is so full of crystals that it can't be used as roadfilling, & so it has been pushed to a disused arm of the quarry, whilst in another part of the quarry natrolite growth was preferred. To try & describe a zeolite to someone who has possibly never seen a good specimen is difficult, but basically natrolite occurs as domes up to an inch across, which often merge into one another & are composed of very fine white fibres in 'fan' arrangement almost like a white tiger's eye. Set in a matrix of small, water clear analcite, with the odd growth of mesolite hairs over the top, this material really looks attractive. Yet again, in another arm of the same quarry, very good stilbite groups appear in the top of a flow. This mineral forms unusual crystals - 'haysheath' shaped in fact, with very lustrous faces & cleavage. Groups of ½" crystals form up to 6" x 4" or so.

All of these minerals, among many others, form part of the normal assemblage for the olivine basalts (but local abnormalities led to each being developed to a greater degree than the 'matrix' crystals). However, as I mentioned, other assemblages occur, in East & North Antrim. In East Antrim where salt waters entered the lavas, the main effect was that the sodium in the brine produced gmelinite - a sodic variety of chabazite (which is normally a potash zeolite). This mineral forms beautiful, biterminated, hexagons scattered over natrolite or analcite or both. The assemblage is also unusual in that certain ions in the water (probably iron), caused red colouration of the zeolites formed during the 'salty' phase. In effect this means that gmelinite & its associates are even more beautiful in that they occur as light pink to dark orange crystals. Previously-formed crystals are generally white or clear, so that these groups can look very attractive.

In North Antrim the quartz-saturated tholeiite basalts produced the third main assemblage. Free silica in the water was redeposited in amygdalae (gas bubbles), as chalcedony or white opal. Normally the chalcedony entirely filled these cavities, but at Craignahullier near Portrush, one can occasionally find vugs composed of reniform chalcedony (often with quartz crystals grown in towards the centre), that simply fall out of the rock as little pots up to about 8" x 4". (These are perhaps my favourite Antrim specimens.) The same quarry is in fact Britain's finest locality for phillipsite - large, white, highly twinned crystals - about 1cm across in groups up to 7" x 5", & recent reworking in the quarry has uncovered some really outstanding pieces.

Quarries such as these also demonstrate how 'classic' collecting localities - the better known ones on the mainland & abroad, such as the Giant's Causeway, Kenbane Head & Scant Hill - have been surpassed by new exposures arising out of the boom in basalt quarrying. Similar or better quality minerals are now more readily available. For instance, the Giant's Causeway - well known as a locality for chalcedony & phillipsite - is now second to Craignahullier Quarry. Similarly, natrolite as good as that from Kenbane Head is more plentiful at a quarry near Larne. This is contrary to the belief of many mineralogists in England.

But perhaps the most exciting aspect of collecting here, from a personal standpoint, is the chance of finding a new mineral occurrence, or even a new mineral. Gyrolite, garronite, jarnite, scautite & several others were all discovered here for the first time, within the last 20 or 30 years, & new records for Ireland & Britain are not altogether uncommon. What this means in effect is that every unusual crystal, or coating, or clay mineral that I find is taken home & identified as completely as possible.

NEWS FROM THE PAPERS

(WEH = Western Evening Herald; WI = Western Independent;
WMN = Western Morning News)

Recession hits ECC profits

WEH 20 6 75

In the six months to 31 3 75 the English China Clay group profits reached £M7.04 against £M7.69 previously. Sales expanded by £M6 to £M60. A significant improvement in trade is expected in the early autumn months.

New move over Moor china clay tip site

WEH 20 6 75

Devon planners to consider a new proposal by Watts, Blake, Bearne & Co for tipping china clay waste at Shaugh Moor.

A rich heritage of white hopes

WMN 9 7 75

Wheal Martyn museum described, with a photo of the 18' waterwheel.

WILD-GOAT RESCUE IN CLAY PITS

WI 20 7 75

Two of the wild goats known to have been roaming the Stenalees china clay area for many years were rescued by the RSPCA & St Austell firemen in an operation lasting five hours. Sad ending - both goats later died.

A miner asks: Where's all the glamour?

WI 10 8 75

Extracts from an article in Mebyon Kernow's official magazine "Cornish Nation" by miner Jack Webb of Wheal Jane. He attacks the nostalgia over Cornwall's past, describing every bal chimney as a memorial & every deserted mine shaft a mass grave. "The infamous smelters' ring, the unscrupulous merchants, the notorious mineral lords, the crooked Duchy officials were, with all too few exceptions, as Cornish as their victims."

I AM STILL CLERK, SAYS FRED

WEH 19 8 75

Mr Fred Trull, deposed Clerk & expelled member of the Cornish Stannary Parliament, said that, with fewer than 16 of the 24 members present at the meeting which expelled him, he was still Clerk & would organise a new election. Mr Brian Hambley, Speaker of the parliament, said that no one would be likely to give a damn about Mr Trull's views any more.

Fight for Moor site joined by author

WEH 6 9 75

Archaeologist & author Jacquetta Hawkes joins the battle to save "Area Y" a 130 acre section of Shaugh Moor. She has written to the Secretary of State for the Department of the Environment 'begging him to intervene'.

Mine memories

WMN 11 9 75

A reference to Vol 6 No 2 of this Journal mentioning the circulation arrangements between the PMMC & EGMS; also the mining superstitions item.

Arsenic pollution fears voiced

WEH 7 10 75

The Plans Sub-Committee of the West Devon Council were told that arsenic pollution of water courses could result from the disturbance of mine waste around Tavistock & its use as hard core for road-building. The South-West Water Authority were firmly against any such disturbance. The sub-committee turned down an application for removing waste from Wheal Emma, near Gulworthy.

WARNING ON DANGER OF FLOODING QUARRY

WEH 14 10 75

Concern has been caused by reports that disused Wilminstone Quarry, owned by Devon County Council & kept dry by continuous pumping at a cost of £1,500 per annum, is to be flooded. A geologist's report in 1971 stated that after flooding, a large rock fall could cause a surge wave which could over-top the rock sill on the opposite side & possibly have very serious consequences. Capacity of the quarry is 33 million gallons.

MINERAL COLLECTING IN ANTRIM (Continued)

This can be taken too far sometimes - my room is crowded with basalt, all showing one tiny speck of some strange mineral but, all the same, there's not many mineralogists who wouldn't like to find a new one, & Antrim is a likely place. I like to think this isn't too much wishful thinking.

In summary, whilst Antrim is not considered as classic as Devon, Cornwall or Derby for good samples, collectors here are perhaps more fortunate. True, our minerals can largely be classed as 'zeolites', but this is primarily a chemical classification, & certainly the range of large crystals, unusual crystals, mineral forms & rare minerals has not bored me yet.

ARDIHANNAN COVE, Giant's Causeway, Antrim, Ireland

TMH(1868) Giant's Causeway area. Natrolite

BM: Mesolite-

BAIRD'S BRAE, Roughfort, Antrim, Ireland.

MM 32 609 Calcite

BM: Aragonite

BALLINTOY, Antrim, Ireland.

TMH (1868)

Antrimolite; apophyllite; aragonite;
calcite; chabazite; heulandite;
laumontite; stilbite; olivine.

BM:

Flint; aragonite; chabazite

RSWB, GS; 13/8/63; III, 133. Fantastic scenery
near Ballintoy harbour - Chalk cliffs
behind basalt coast (receding) basalt
somewhat columnar, not amygdaloidal.
Some thin whitish veinlets with a little calcite.

BALLINTRAE HARBOUR, Antrim, Ireland.

TMH (1868) G's Causeway area: Steatite

BALLYCASTLE, Antrim, Ireland.

MM (1868) Coal; jet.

N Moles "Gems" 9 [1] 21-23 (1977) "Cliffs W of Ballycastle"
[ie towards KINBANE HEAD, q.v.] Thomsonite &
analcime plentiful.

BALLYCLARE Co. Antrim, N. Ireland.
6°0'W 54°45'N

RSWB 78-262 Ex R. Harker. Erionite and
cowlesite in vugs in black basalt

R Nawaz MM (1984) 48 565-6 Cowlesite

Ballyclare Q'y. spheres → 7mm diam

H Foy BMSNL (1999) 53 10. → BMS coll 2135 Saponite,
Green Road Q., J 302 905

BALLYCLORE, Antrim, Ireland.

MM 32 609 Calcite.

BALLYCRAIGY, Larne, Antrim, Ireland.

MM 30 293 Hyd. Ca silicates
672 Larnite; bredigite; plombierite.

MM 32 609 Calcite

BM: Plombierite

SWOB, TBG, 12/8/63; III, 126. Quarry beside main road, near Ballycraigy: chalk & basalt exposed, & small pile of shippings with small xls zeolites eg natrolite, chabazite, ~~an~~ analcime [BUT probably from elsewhere]

BALLYDUFF, nr Belfast, Antrim, Ireland.

Rayners Cat (1960) Thomsonite, var faröelite (2x2" 8/-)

B.M. "Ballyduff Quarry, Belfast" Faröelite.

BALLYHENRY,

Antrim, Ireland.

FNA Fleischmann, MM 15 288. 3 Quarries; (a) & (b) 300 yds apart by road NW from Glengormy to Ballyclaire junction; (c) a short distance SW from (b).

(a) N-most - "NELSON'S QUARRY". Two flows. Upper is hard, with gyrolite in aggs & crnks with cuboid apophyllite; secondary compact thomsonite; feroelite in v.v. small quantities. Lower is soft, with small chabazite xts & sometimes small analcite & feroelite nodules.

(b) SE of (a). 2 flows. Upper (hard, fine-grained) cavities small & plugged. Gyrolite, with

ferrochite nodules, sometimes v. large; cuboid apophyllite;
mesolite, fine hairs; small calcite xls.
Lower is altered & highly vesic. Chabazite; &
where rock is deep red, stilbite.

(c) Like (b) but only top flow (like (b)) exposed.

BALLY MENA, Antrim, Ireland.

TMH (1868) Felspar; hornstone; jasper; pearlstone

BELFAST, Antrim, Ireland

TMH (1868) NRS. Rose quartz; anhydrite; gypsum;
selenite.

M.A. 94M/0576 BELFAST (11)

J. Parnell. Irish J of Earth Sciences (1988) 9 [2]

119-122 "The min'y of red bed uran-van
mineral'n in the Perm-Triassic of Belfast"

Minor U-V in nodules from Perm-Tri red beds
esp in dark nodules, from

Larne, Glenties, E. Belfast & the
Belf Harbour & Lagan Valley boreholes.

U & V as discrete minerals:

V prob ab. intergrowths of oxides in
roscoelite & in a V-rich detrital mica.

U partly as coffinite

Co-nicotite, a Cu-As & a As-Se phase
recorded.

BELSHAW'S QUARRY, White Mtn., Antrim, Ireland.

See also WHITE MTN.

GPLW MM 33 504

Laumontite

BENBANE HEAD

97 45

Antrim, N. Ireland.

SM, Riv Comm (1994). Zeolites [Moles, 1977
see under PORTRUSH]

BENGORE HEAD, Antrim, Ireland.

MM 32 609 Calcite

MM 32 504 Thomsonite

GMH (1868) g's Causeway area. Antrimolite; apophyllite;
stilbite

BM. Apophyllite

BEN MORE, Fair Head, Antrim, Ireland.

See also FAIR HEAD.

G. Mus. Superb natrolite

GR's $\frac{1}{4}$ " OS map has "BENMORE or FAIR HEAD" at Fair Head.

BERK HILL

Antsim, Ireland

GPLW MM 32 504

Apophyllite

BLACK CAVE, Islandmagee, Antrim, Ireland

GPLW MM 32 504 Mordenite

TMH (1868) Faröelite; gmelinite; mesolite

BLACK HILL, Englishtown, Upper Belfast, Antrim, Ireland.

BM: Natrolite.

BLACK MTN., Belfast, Antrim, Ireland.

TMH (1868).

Heulandite.

BROUGHSHANE, Ballymena, Antrim, Ireland.

TMH (1868)

Steatite.

BRUCES CASTLE, Rathlin Is., Antrim, Ireland.

TMH (1868)

Stilbite

BRUSLEE QUARRY, Ballyclare, Antrim, Ireland.

BM. At $54^{\circ} 44' N$, $5^{\circ} 58' W$. gismondine.

CARN CASTLE, Larne, Antrim, Ireland.

TMH (1868) Natrolite.

BM: Natrolite

J 390 959

CARNEAL PLUG, Glenoe, Antrim, N. Ire

H. Foy, BMSN Let (1999) 53, 9-10 → BMS Coll

2121 Akermanite (ident in Sydney)

2136 Scaevite; 2139 Tobermorite

CARNLOUGH, Glenarm, Antrim, Ireland.

BM: Quartz

CARNMONEY HILL, Ballyduff, nr Belfast, Antrim, Ireland.

MM 20 436 "Hullite" = probably chlorophaeite; ~~grolite~~

MM 15 292 Gyrolite

MA 6 (1935-7), 222 "Hullite" = chlorophaeite (new anal). Chloropal

MM 23 (1932-4) 51 (MH Key) Thomsonite

MM 32 609 Calcite & zeolite

MM (1868) "Carnmoney Hill, Carrickfergus". Chalcedony; hydrophane.

① Quarry on Carnmoney Hill, Ballyduff.

Middle Q of group of three on hillside between 500-600 ft.

Only one flow. Cavities v. scarce & one only hard gyrolite, with greenish saponite.

② Q. on Carnmoney Hill, in Carnmoney townland.

2 layers: Upper v. vesicular, decomp. basalt. Occasional faroelite & small analcite. Lower hard

olivine-basalt, rudely columnar. Cav. not numerous, poor. Faroelite most common, with

occas. aggs. of gyrolite with cuboid & cubo-oct-oid apophyllite depos. on the faroelite.

CARRICKARADE, Ballintoy, Antrim, Ireland.

MA II, 35:

zeolites.

CARRICKFERGUS, Antrim, Ireland.

TMH (1868): Analcime; rock salt; satin spar;
selenite.

BM: Caliche

CAT CARN, Legoniel, Belfast, Intrim, Ireland

BM: Apophyllite; analcite.

FNA Fleischmann MM 15 288. Quarries on Cat Carn,
between Wolf Hill & Squices Hill, Legoniel. One ♂
on N, & one on S of Cat Carn - a small
eminence. Cavities largeish & numerous, with
hemispherical eggs of gyrolite with good
colourless cube-like apophyllite (v. common);
faeselite, v. common; thomsonite; chabazite.

CAVE HILL, Belfast, Antrim, Ireland

TMH(1868) Natrolite.

BM: Natrolite

COLLINWARD, ^{Lower} 1 Belfast, Antrim, Ireland.

MM23 80 (MHH). Thomsonite

BM: good analcite, gyrolite; apophyllite; Thomsonite.

FNA Fleischmann. MM 15 288. Quarry on Collinward at Collinward. Two basalts: (i) At entrance, on steep hillside small expos. of decomp, highly vesicular basalt - in cavities chiefly analcite & more rarely chabazite.

(ii) Main exposure hard olivine-basalt. Cavities large & irregular, and have

gyrolite, tufts of pearly leaflets; apophyllite, large tabular;
?thomsonite, hemisphs of radiating xls up to $1\frac{1}{2}$ in.
diam, with fine radiating needles mesolite on
surface; hemisph aggs & crust of thomsonite, in
more or less interlacing xls; analcite, large columns;
saponite, compact & powdery; more rarely
chabazite & calcite

CRAIGAHULLIAR, ^{Carey} Antrim, Ireland.

MM 17 274 GF Herb-Sm. Zeolites in 200 yd cutting connecting
quarry with Portrush-Bushmills road. Exposure
deteriorating rapidly. Phacolite; calcite.
(var of chabazite)

B.M. Craigahulliar, Lower Dumluc, Portrush. calcite;
chabazite; opal.

P. Francis PMMCJ (1975) [6] [B] 17-19 ~~near R~~
Craigahullier, nr Portrush - vugs of
reniform chalcedony which fall out
as "pots" to 8x4" sometimes w. qtz xls.
Same g'y is best Brit loc for phillipsite.

as 1 cm xls in groups to 7 x 5" - some vg
in recent reworking.

H Foy UKJMM(1992) 24
quarry

Paulingite in derelict

SM Priv Comm (1994) CR. Q'y. "8639" [? 8839] Extensive
modern basalt q. in Fowland of Upper Burnside,
~ 2.5 km SE of Portrush.

Plz prisms → 5 cm lining vert. pipes up
to 7 cm diam x 25 cm in basalt overlying
lignite [!]. Chalcedony.

"Q's SE of Portrush". Amygd basalts with chabaz.,
analc., heuland., phillips., mesolite etc. - see
Moles, N. (1977) Gems, 9 [1], 21-3.

CREGGANBOY, Antrim, Ireland.

See KINBANE

CROSS REAGH, Ballywillin, Antrim, Ireland.

TMH (1868) Opal; hydrophane

CRUMLIN, Antrim, Ireland.

TMH (1868). Steatite:

CULFEIGHTRIN, Ballycastle, Antrim, Ireland.

TMH (1868) Augite; olivine; pyroxene

CUSHENDALL, Antrim, Ireland.

See also TABULAR MTN.

BM: Analcime; Thomsonite.

N. Moles "Gems" 2 [1] 21-23 (1977)
-jasper.

Baked flint-

DEVIS, Belfast, Antrim, Ireland

(=DIVIS HILL? ^{qv})

BM: Quartz

DEERPARK, Glenarm, Antrim, Ireland.

See also LITTLE DEER PK.; GLENARM:

BM: Halloysite

DIVIS HILL, Belfast, Antrim, Ireland.
(? = DEVIS ?)

TMH (1868)

Rock crystal.

DUNCRAE MINES, Carrickfergus, Antrim, Ireland.

=DUNCROE | See also MAIDEN MOUNT MINE;

TMH (1868) Rock-salt ("Duncrae mines")

BM "Duncroe, Carrickf." Salt.

DUNLUCE CASTLE, Portrush, Antrim, Ireland.

TMH (1868) Analcime; flint; steatite; stilbite.

DUNSEVERICK, Antrim, N. Ireland

3ml E of giant's causeway, on coast.

R Nawaz MM (1984) 48 565-6

Cowlesite ≤ 2 mm thick cavity lining in
basalt.

EVISHNABLY MINE, Antsim, Ireland.

Lud: Iron mine. Pisolitic ore, lithomarge, etc.

FAIR HEAD, Ballycastle, Antrim.

See also BEN MORE

MM 25 238 olivine in sill of glomeroporphyritic
dolomite

TMH (1868). Analcime; augite; epidote; felspar;
fluorite; mesolite; olivine; pyroxene

BM: Gmelinite

GIANTS CAUSEWAY, Antrim, Ireland.

FNAshcroft MM 17 305 "Giants Causeway" natrolite loc is
near KINBANE [q.v.]

GeL (1858) Chlorophaeite, (confirmed by R. Heddle. see MM 20, 435)

MM 31 437 Titanomagnetite

GPHWalker MM 32 ⁵⁰⁴~~609~~ Heulandite.

TMH (1868): Agate; analcime; anthracite; aragonite;
brewsterite; calcite; chabazite; chalcedony;

flint; harmotome; heulandite; hornblende;
hyalite; "hydrophane"; lithomarge; onyx;
mesolite; obsidian; olivine; opal; phacolite;
phillipsite; steatite; stilbite; strontianite;
thomsonite

RSWB, TBE, GR, GS; 12/8/63; III, 128. The famous
columnar basalt is non-vesicular, brown,
& barren! On "great Stookan", near
Causeway Head, some v. small vesicles
with traces poor zeolites. "The further
from the causeway, the more the minerals"!!
RSWB 74-56 Heulandite w. stilbite. The Amphitheatre see
H Foy, UKJMM (1992) II, 24 Paulingite in see C 951 450

GLENARM, Antim, Ireland.

See also LITTLE DEER PARK; TICKMACREVAN

GPLW MM 32 504 Chabazite var. herschelike

TMH(1868). Analcime; gmelinite; gypsum; levyne;
lithomarge; mesolite; selenite.

BM. Tremolite; gmelinite.

H. Foy, BMSN'l (1999) 53, 10 BMS Coll., 2123:

? Chrysocolla from J 330 150

2124: Copper with natrolite, J 330 150

GLENDUN River

Anthrim

N. Moles, "gems" 9 [1] 21-23 (1977)

Gold

GLENGORMLEY, Antrim, N. Irel.

H. Foy, BMSN'let. (1999) 53, 9-10. BMS coll.

2126 Hydroxy-apophyllite, "a fine specimen, ident. in Sydney", from BOGHILL Q ("J 295803" but cf Kane's Q, Newtownabbey, given the same ref.)

GLENOE, Antim,

N. Ireland

See CARNEAL PLUG

HEDDLES PORT Islandmagee, Antrim, Ireland.

MM 32 609. Calcite

HILLS PORT, Ballykeel, Magee Is., Antrim, Ireland.

BM : chabazite.

Gobbinsite

KEADY MTN., Antrim, Ireland

MM 32 609 Calcare

Lower Toome, Ballymena.

KILLYFLUGH, Antrim, Ireland

MH4 MM 23 429 Mesolite

BM: Mesolite; natrolite; analcime; chabazite.

GFH-S MM 17 274: Quarry ca 700 yd NE of Killyflugh Farm, ca 2 ml S of Ballymena. Best reached from Ballymena - Take main rd. to Cushendall to where (ca 230 yds short of Croody Knowe Fm & 2nd milepost), 2 roads branch off, one NNE, other NW - ca 370 yds down this on RHS a small farm hse. Behind (NW) this is quarry. No vugs; spec's only by blasting. "Phacolite" good twinned xls; analcite; occas. mesolite.
=chabazite

KILROOT, Carrickfergus, Antrim, Ireland.

TMH(1868) Apatite; selenite.

KINBANE HEAD = WHITE HEAD.

Antrim

KINBANE, Cregganboy, Ireland. (I)

See also PLAISKIN HEAD; GIANTS CAUSEWAY.

FN Ashcroft MM 17 305.

The museum natrolites from "Giant Causeway" come from near Kinbane. From cliffs a little E of Kinbane ca 9 ml E of Causeway & 2 ml W of Ballycastle. On 6 in OS map, Sheet No 4, 2nd ed., (1906) exact spot on cliff face due N of letter "A" in Carmoon. In townland of Cregganboy on face of cliffs (ca 300' high), at a point ca 300 yds ENE of Cregganboy farm, & just over 800 yds SE by SSE of ruined Kinbane Castle. Reached either by boat from Ballycastle, or by descending small steep gap ca 300 yds E of spot, & climbing first along base of cliffs, and then over great mass

of fallen boulders again on cliff. In rough weather not accessible by boat or traverse! Access from W stopped by two sea-logged caves. Spot 50-60 ft above sea level, easily ident ~~by~~ as G's C. guides have driven several small levels into cliff face! Similar seams also visible on cliff face a little further E just beyond fall of rock, but steep cliff face prevents collecting. Small quarry at top of cliffs uninteresting.

The natrolite is very fine, assoc. with calcite & analcite.

MM 32 609 calcite at Kinbane Head.

BM. Natrolite; analcite.

Cont (II)

KIN BANE (HEAD), Cregganboy, Antrim, Ireland (II)

RSWB, TBG, GR, GS; 12-13/8/63; III, 127-132; map, 131; photos 128-

From 'boulder' scree on beach opposite Cregganboy Farm, end near 093 431: good natrolite, calcite; analcime; also saponite. Small analcime xls in situ.

From Portnakillew beach, at 089 433-4, boulders with a little analcime; saponite; natrolite; small black xls augite; Fairly good veiny natrolite exposed on cliffs on E side of beach.

Between these, almost inaccessible cliffs blocked from Portnakillew beach by sea-caves,

and very difficult to approach from the
Cregganboy beach by climbing-traversing.
In these cliffs, "guide holes" with superb
natrolite & calcite rhombs. One "guide-
hole" reached by TB6 & GR, yielding somewhat
iron-stained but superb natrolite.

KNOCKLAYD MTN., Ballycastle, Antrim, Ireland.

TMH (1868) Labradorite; rock xl.

LANGFORD LODGE,

Antrim, Ireland.

MM 32 609 In bone hole: calcite, p. 526 saponite,
zeolites

LARNE, Antrim, Ireland.

See also SCAWT HILL; SEAGNEW'S HILL; BLACK CAVE; CARN CAS;
MAGHERAMORNE Q.

MA 4 323 "Harringtonite" (Hey 1950 = mixt Thomsonite
+ mesolite)

MM 22 622 Larnite.

MM 23 59 (MAH). Thomsonite

TMH (1868) Lithomarge

P Francis PMMCJ (1975) 6 [3] 17-19. A quarry near
Larne has natrolite as good as Kenbane
Head, & more plentiful.

N. Moles "Gems" 9 [1] 21-23 (1977) Massive quartz
S of the port of Larne excellent for zeolites

P. S. Doughty et al (1982) Irish Nature's I 20 490-1 [83M-0711]

A 48g Pt nugget "thought to have been found
at the Curran, Larne" has chem comp = Ni-zhri-
Tagilsk material, so prob. a discarded Russian spec.

LISBURN, Antrim, N. Ireland

P. Francis PMMCTJ (1975) 6 [3] 17-19 Quarry at
SALE'S CORNER nr. Lisburn, loaded w.
big white amalcime xls - $1 \rightarrow 1\frac{1}{2}$ " in one
part, natrolite in another part, v.g
stilbite xls - $\frac{1}{2}$ " xls in groups to 6×4 ".
The natrolite is in 1" domes & fans.

LITTLE DEER PARK, Glenarm, Antrim, Ireland.

See also GLENARM; DEERPARK.

TMH (1868) Calcite; gmelinite; levyne; mesolite;
natrolite; plinthite.

BM: Levyne; chabazite; gmelinite

LOUGH NEAGH, Antrim, Ireland.

TMH(1868) (Shores of) Agate; chalcedony; lignite;
rock crystal.

LYLES HILL MINE, Templepatrick, Antrim, Ireland.

MM 31 viii a

Maghemite (cubic Fe_2O_3)

MAGEE ISLAND, Antrim, Ireland.

See also (ISLE OF) MUCK; HILLS PORT; PORTMUCK;

Lud: off E Coast of Antrim. Large octahedra of
magnetite.

TMH (1868) Apophyllite; chabazite; dolomite;
gmelinite; harringtonite; hyalite;
labradorite; levyne; lithomarge;
magnetite; mesolite; natrolite;
olivine; phillipsite; potstone;
scolecite; scoulerite; Thomsonite.

MAGHERAMORNE Q., Larne, Antrim, N. Irel.

Spec → RSWB (1976) Natrolite small but
superb, clear, thick, terminated xls
in vugh in reddish patch in grey
dolomite

MA 95M/0839. Artoli & Foy (1994) NM 615-620
gobbsinite.

H. Foy, BMSN'let (1999) 53, 10. BMS Coll. 2138:
Tetranatrolite, from J 435 985

MAIDEN MOUNT MINE, Carrickfergus, Antrim, Ireland

See also DUNCRAE MINE;

Lud: Clear colourless rock-salt xls.

(ISLE OF) MUCK nr. Magee Island, Antrim, Ireland.

See also MAGEE ISLAND.

Lnd. Off E coast of Antrim.
xls coated with

Magnetite, octahedral
brown iron oxide.

TMH (1868)

Magnetite

NELSON'S QUARRY, Ballyhenry, Antrim, Ireland.

See BALLYHENRY.

NEWTOWNABBAY, Antrim, N. Irel.

New name, not on old maps. S of
Glengormley, NE of Belfast.

H. Foy, BMS N'l (1999) 53, 10. BMS Coll. 2131:

Mordenite, KANE's Q'y, "J 295 803" (but
same ref given for Boghill Q, Glengormley)

NEWTOWN CRUMLIN, Clough, Antrim, Ireland.

MM 23 59 MHH. Thomsonite

PARKGATE QUARRY 7 Antrim, Irel.

MM (1981) 231-4 Thomsonite

PLAISKIN HEAD, Giant's Causeway, Antrim, Ireland

FN Ashcroft MM17 305 (footnote) good natrolite exposed
at foot of Plaiskin Head.

TMH (1868) G's Causeway area: Phillipsite

BM: Chabazite.

PORTADOWN, Antrim, Ireland

MM 32 609 Calcite; zeolites.

PORTMUCK, Magee Is., Antrim, Ireland.

BM: $\frac{1}{2}$ ml NW of Portmuck: Andradite.

H Foy BMSN'l (1999) 53, 10. BMS Coll 2122:

Chabazite-Na from D 330 150

2127: Leynite-Na from D 465 019

2129: Magnetite from D 465 019

2133: Phillipsite-Na, D 465 019

PORTRUSH, Antrim, Ireland.

See also DUNLUCE CAS., CRAIGNAHULLIER

TMH (1868):

Apophyllite; aragonite; augite;
chabazite; epistilbite; faröelite; flint;
gmelinite; harringtonite; heulandite;
laumontite; mesolite; natrolite; obsidian;
pyroxene; scoulerite; stilbite; websterite.
(= aluminite)

BM: Apophyllite; Thomsonite; chabazite.

N. Moles "gems" 9 [1] 21-23 (1977). Quarries to SE of
Portrush - amygd. basalts with chabazite,
analcime, heulandite, phillipsite, mesolite,
& rarer zeolites

Isis minerals, spec → RSWB 3/86 Stellerite,
"Poutrush area" in basalt [86-22]

RANDALSTOWN, Antrim, Ireland.

GPLW MM³² 504

Thomsonite.

RATHLIN IS., Antrim, Ireland.

TMH (1868).

Amber; analcime; anhydrite; anthracite;
chabazite; coal; epistilbite; iolite;
faröelite; haematite; mesolite; onyx;
opal; steatite; stilbite; thomsonite.

P. O'D & JCB Jems (1972) 4 [4] 2-6. good agates

ROUGHFORT, Belfast, Antrim, Ireland.

GPLW MM 32 504 Apophyllite.

BM: Roughfort Quarry, Belfast. Chabazite.

ST. AGNEW'S HILL, Larne, Antrim, I.

See also LARNE, etc.

TMH (1868)

Apophyllite; augite;
Harringtonite; laumont

Tardree,

SANDY BRAES, A, Antrim, Antrim, Ireland

May 1950 35.3.8

TMH (1868) "Chalilite"; felspar; heulandite. hyalite;
opal; pearlstone; pitchstone

BM: Opal

M Mag (1981) 44, 157-60 Sandy Braes vent-part of
Tardree rhyolite complex. Welded tuffs &
perlite obsidian. In the perlite
obsidian, allanite phenocrysts & coexisting
glass. Rare-earth partition examined.
Other phenocrysts are qtz $\rightarrow$ 1.5 mm, felspar $\rightarrow$ 3 mm

traces allanite, altered fayalite, brookite &
zircon.

SCAWT HILL, Larne, Antrim, Ireland.

See also LARNE.

MA 4 84 Merwinite in metam. limest.

4 330 Afwillite with calcite

MM 22 77, 222, 439.

MM 22 627 Scawtite.

23 419 Pontlandite (also p616)

23 513 Altered flint

23 607-631 Hydrocalumite

24 324 Eltringite

24 569 Iron-wollastonite

25 38 Scawtite pseudom. after spurrite

26 228 Merwinite

26 190, 340. Rankinite.

MM 28 255, 725 Bredigite

28 94 Larnite

29 875 Bredigite

30 672

31 788 Afwillite; 790, bredigite; 793 ettingite; 794, gehlenite,
797 ferrowollastonite; 796 hydrocalumite; 798 larnite;
799 merwinite; monticellite; 802 portlandite, rankinite,
803 scawtite; 804 spurrite; 806 xonotlite.

N. Moles "Gems" 9 [I] 21-23 (1977) Contact of olivine-doler
plug w. chalk & basalt: spurrite, larnite,
spinel, wollastonite, xonotlite, scawtite,
hydrocalumite, perovskite.

SKERRIES, Portrush, Antrim, Ireland.

TMH (1868) Harringtonite (= Thomsonite + mesolite)

SLIEVE MISH, Ballymena, Antrim, Ireland.

TMH (1868) Iron.

TABULAR MTN., Cushendall, Antrim, Ireland.

See also CUSHENDALL

BM: Analcite.

TARDREE, and
TARDREE HILL, Antrim, Antrim, Ireland.

BM: Tridymite. T. HILL

A. Von Lasaulx (1879) J.R. Geol Soc Ireland 15 30-8
Tridymite, thin hex. plates in rhyolite
("Tardree" or "Sandy Brae" rhyolite), in cavities in
from Tardree Mt.

R. Nawaz, MM (1983) 47 567. Tridymite re-
collected & X-rayed. A thin hex. plate
0.5 mm across examined. - 10 layer polytype
of low tridymite.
by Mr Edward Rowan of Lisburn, Co. Antrim.

H. Foy, BMSNL (1999) 53, 10. BMS Coll. 2132:

Offretite, LADYHILL Qy "J 320 300"

2134: Sanidine, Old Rhyolite Q

"J 188 298". [How can J 18 e 33 both
be at Tardree?]

TEMPLEPATRICK, Antrim, Ireland.

GPLW MM 32 504

Thomsonite.

TICKMACREVAN, Glenarm, Antrim, Ireland.

See also GLENARM

TMH (1868) In chalk: calcite.

Cushendal

TIEVEBULLIAGH, A Antrim, Ireland.

MM 21 803:

sapphirine, in a mullite-cordierite-
hercynite hornfels (metamorphosed
laterite).

MM 32 xlvii

bauxite; bole; lithomarge.

TIEVERAGH, Cushendall, Antrim, N. Ireland.

GA Chinner & PD Dixon, Min Mag 1973 39 189-192

"Irish osumilite". Osumilite (nr. K Mg end-member)
as signif constit of tridymite-eustatite-felspar-
cordierite-haem-magnetite buchites at contact
of the Tert. dolerite plug of Tieveragh, Co. Antrim.

TOR POINT

Antsim, Ireland.

TMH (1868)

Augite; olivine; pyroxene.

WHITE HEAD, Grogganboy, Antrim, Ireland,

See KINBANE

WHITE HEAD, Lower Belfast, Antrim, Ireland.

GFH-S MM. 17, 274.

- (i) Quarry on N side. Conspic scar just above Coastguard Sta @ S end of Whitehead town. Both chalk & basalt! Lower part of basalt hard - no zeo's but v. occas. flakes of native copper. Amygd. basalt with zeo's not exposed - got from boulders - gmelinite; analcite; calcite, natrolite "formerly".
- (ii) Quarry on S side. V. amygdal., but vesicles small & plugged. Exposure unstable and

falling. Disused. Chabazite, white to pinkish; analcite,
natrolite; gmelinite.

WHITE HOUSE, Belfast, Antrim, Ireland.

THH (1868) Chalcedony; slivine.

WHITE MOUNTAIN, Antrim, Ireland.

See also BELSHAW'S QUARRY

GPLW MM 32 504 Mordernite

WOLF HILL, Legoniel, Antrim, Ireland.

GPLW MM 32 504

Apophyllite.