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On a New Mineral Locality.

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IT is but seldom, at least in the experience of the writer, that a new mineral locality is now found in this country. By a mineral locality I mean, not a spot where one or two specimens may be gathered, but one at which there is a supply sufficient to entitle it to be recorded as a spot likely to be productive to a sequence of gleaners; and such as holds out hopes of its yielding specimens of more than average excellence.

The spot which I now notice was found by me during what I might call a passing visit; and as I had not an opportunity of thoroughly working it out, it offers to the collector a more than ordinary harvest.

The locality, moreover, is one which is most enticingly situated in the following respects:—

It is within a very short distance of a comfortable little inn,* and it lies embosomed in the midst of scenery of unusual grandeur.

* I regret to say that this comfortable house is now no longer an inn, and that the old small building is again the only place of entertainment. Provisions and rugs—*impedimenta* worse than hammers—must be taken now.

It is about three miles from the inn at Stainchol in Skye; which inn is now easily accessible during the summer months, as certain of the coasting steamers land passengers almost at its door.

Stainchol is about nineteen miles from Portree.

The Quirang, which lies still nearer to Stainchol, has long been known as a fruitful locality for minerals; but, while the writer can remember the time when both there and at the Storr every third or fourth bit of rock contained a specimen of one or other zeolite, interesting and instructive in some respect, so overflowing has been the stream of curio-pocketing scenery-hunters to these wondrous localities, that now scarce a crystal of any kind rewards a day's hammering.

Luckily the arrangements which have been made for visiting the Quirang from Portree give time only for a hasty rush to one spot of surpassing attraction, and so the locality to which I now direct attention has escaped.

There is some difficulty in describing its exact position, but the sketch which accompanies this paper will guide to it.

This sketch was taken from the north; and though the cliff-foot, throughout the ranges there seen, yields some few specimens, the spot of chief attraction is just below the two little sharp spikes which are seen on the left of the sketch.

In indicating it geographically, I would say that it is about a mile north of Quirang, and a quarter of a mile north-west of a deep round lakelet, which has only a subterranean escape for its blue-green waters.

It is a little corry among the cliffs, which will be at once individualised if the explorer but *lifts up his voice*, for the spoken words will be flung back to him in an echo of wondrous sharpness of articulation.

From the inn, the corry may be reached either by climbing the hill, and taking the little lake as a guide,—as the tint of its waters differs so markedly from the brown hue of that of the surrounding tarns;—or by taking the Quirang in the way, keeping along the cliff escarpment till the singular statuesque rocks called Leacan Fhionn are reached, and then, instead of climbing the summit of the sharp cliff seen in the sketch (Plate IV.), keeping *under* the line of cliff till the echo of the footsteps and the number of fallen masses of rock arrest attention.

Though the falls from the cliff have done much of the fracturing work necessary for the extraction of specimens, the collector must not imagine that he can pick them up here as he would pluck flowers, or that he will be able to cut them out with the trifling toys with which geologists as a class go about *tapping* the rocks. He has not far to carry his tools

here, and must not begrudge the portage of workmanlike weapons. A mineralogist should always remember that while a fourteen pound hammer is, all things considered, the most convenient to carry, yet a seventeen pound one will do nearly twice as much work. It will, indeed, perform perhaps as much thorough work as more ponderous ones; for while a 42 lb. quarryman's mallet will *break* a larger stone, there are but few men who can give both *speed* and *direction* to one heavier than seventeen, so as to *cut* a rock in a desired line.

The minerals which I found at this locality are:—*saponite*; *chabasite*, simple and modified twins; *gyrolite*; *plinthite*; *Thomsonite*; *Ferriolite*; *mesolite*, in downy tufts and in red granular dense masses; *apophyllite*; *analcime*; *stilbite*; *Laumonite*; and small crystals which were either *chalcopryrite* or *tetrahedrite*.

Of these substances the *saponite* is the closest to the skin of the druse. The *saponite* here is very peculiar. It is of a colour passing from a brick-red to pale red, and to almost white;—rarely it is oil green. Its structure is in minute botryoidal groupings, and thin vein-like processes. The specimens are quite beautiful.

The *plinthite* occurs in three forms.

First, in beds among these strata,—beds of a few inches to nearly a foot in thickness. Here it may be regarded either as loam which when overflowed by lava-stream had been burnt into this clay-like layer; or as a product of change in some part of the rock mass itself.

Second, in the singular form of clusters of spheres of the size of peas, which have apparently an internally radiated structure. The dolerite of the Shiant, and a liassic argillaceous-schist in the same islands, show a similar structure. The surfaces of the spheres of the *plinthite* are rough.

Third, as a thin layer or band occurring among the zeolites themselves. Such a mode of occurrence I never saw before; and I therefore analysed this variety, in fear that I might have mistaken its nature.

When thus occurring, it lies above *chabasite* crystallised in simple rhombs; this *chabasite* tops an inferior layer of *saponite*. The *plinthite* is, in turn, capped in the druse in succession by *calcite*; by a second layer of *chabasite* in singularly complex twin-crystals, by *apophyllite*, *red mesolite*, *Thomsonite*, and *analcime*.

The *plinthite* falls to pieces in water, like *bolc*; and it may, by this property and by its uniformly dense structure, be distinguished from the red massive *mesolite* which occurs along with it.

Analysis of <i>plinthite</i> —				Thomson.
Silica	...	...	29.547	30.88
Alumina	...	...	19.027	20.76
Ferric Oxide	...	...	28.018	26.16
Ferrous Oxide	...	...	8.251	
Manganous Oxide	...	...	.844	
Lime	...	...	2.234	2.60
Water	...	...	17.891	19.60
—————				
100.807				100.00

This *plinthite* loses 6.687 per cent. of the water at 212°. It appears to be a variety of *bole*.

Dr. Thomson's analysis of the Antrim mineral is appended for comparison.

The massive *mesolite* was to me an unknown substance, at least of this colour, until it was analysed. It occurs at the Storr of the same colour as here, though not commonly, nor in such large masses. At the former place it is found in flattish imbedded masses, and in small round granules,—both being in druses which are totally plugged by this one substance:

At Quirang, where this mineral is in large pieces, it not unfrequently is overlaid by large and fine opaque white crystals of *analcime*, forming specimens which are striking from the fine contrast of the colours. Sometimes it is directly underlaid by *red saponite*. Its structure is minutely granular, with a porous appearance. Its colour is nearly that of red blotting-paper, —passing however in parts to yellowish, or shading off to white. Its streak is nearly white. The hardness is 8.5, and the specific gravity 2.108. By some it has been considered as *plinthite*, but it has more resemblance to the red variety of *Lahuntite*.

Analysis of *mesolite*—

Silica	...	...	...	...	...	45.615
Alumina	...	...	...	...	...	26.465
Ferric Oxide	...	...	...	...	...	1.428
Manganous Oxide	...	...	...	...	...	.884
Lime	...	...	...	...	...	6.116
Magnesia	...	...	...	...	...	.461
Potash	...	...	...	...	...	.567
Soda	...	...	...	...	...	6.905
Water	...	...	...	...	...	12.246
—————						
100.178						

It loses .9 per cent. of moisture at 212°.

The *Thomsonite* is generally disposed in minute clusters of flat crystals, arranged in a stellate manner, on the surface of the compact red *mesolite*. It is accompanied by *analcime*.

It differs from *Faröelite* in never forming solid spheres; and it much resembles primary *stilbite*. The mineral is colourless, and its lustre is less pearly than that of *Faröelite*.

Analysis of the *Thomsonite*—

Silica...	...	...	...	...	...	...	39.696
Alumina	...	...	...	...	...	...	29.949
Ferrous Oxide	...	...	...	...	...	...	1.43
Manganous Oxide	...	...	...	...	...	...	.076
Lime...	...	...	...	...	...	...	10.076
Potash	...	...	...	...	...	...	.378
Soda...	...	...	...	...	...	...	5.511
Water	...	...	...	...	...	...	13.073
							100.189

It loses .848 per cent. of moisture at 212°.

This is the first locality in Britain in which I have found *Thomsonite* in igneous rocks associated with beds of the Liassic period, though I had before found it in rocks of that age in Faröe. Subsequently I have recognised it as of common occurrence at Talisker, and as rare at the Storr.

There is another variety of *Thomsonite* which occurs here, but more abundantly at the Storr. The specimen, the analysis of which is subjoined, was from the latter locality. This singular and new variety is one of the substances which have been considered to be "*rock-soap*." It is, however, devoid of all soapy feeling, and indeed is rather rough.

It is found at Storr, filling small nests near the foot of the "Old Man of Storr." There are no minerals associated with it in the druses. It is colourless, or yellowish white; its structure is fine granular, and massive; hardness, nearly 5.0; specific gravity, 2.147 to 2.131.

Its appearance is that of a hard *kaolin*, or more like the above-mentioned allomorph of *mesolite*.

Analysis of the variety of *Thomsonite*—

Silica...	...	...	...	...	...	...	39·016
Alumina	...	...	...	...	...	...	28·125
Ferric Oxide	...	...	...	...	...	...	8·281
Lime...	...	...	...	...	...	...	10·738
Magnesia	...	...	...	...	...	...	·646
Potash	...	...	...	...	...	...	1·01
Soda	...	...	...	...	...	...	8·709
Water	...	...	...	...	...	...	13·985

 100·505

There are two other closely adjacent mineral localities which can be visited from the Stainchol Inn. The first is a rocky gorge at the foot of the cliffs of Boda Bhuidhe—the hill immediately to the south of the road to Uig. Here the same minerals occur as at the first locality. The second, the cliff foot of Ben Ethra, where *analcime*, *stilbite*, *chabasite*, and *gyrolite* will be found. A lately-opened quarry in Portree has yielded green *gyrolite*, white *gyrolite*, *apophyllite*, and *analcime*.
