

ART. X.—*George Smith the Geographer and his ascent of Crossfell.* By Professor GORDON MANLEY.

*Communicated at Carlisle, July 13th, 1948.*

LAST year saw the bicentenary of an event in this neighbourhood of considerable interest and significance, not only locally but to the general development of English art, science and literature in the later eighteenth century. On 13 August 1747 (Old Style) a party of five made the ascent of Crossfell and one of them, George Smith of Brampton, sent an unsigned account to the Gentleman's Magazine. Forty-seven years later this account was reprinted by Hutchinson in his History of Cumberland, together with a note which tells us most of what we know of the obscure but, I think, decidedly significant Scotsman who became a Cumbrian by residence and, at a critical time, did much to arouse interest in this part of England. He was well known to his contemporaries, and a list of his contributions can be found in Gough's *British Topography* (1768); but no account of him is to be found in the D.N.B., and it seems an appropriate time to draw attention to some aspects of his work, in the hope that a fuller study of his life may follow.

I think it likely that George Smith was born soon after 1700; he died in 1773, so that Hutchinson may have known him personally: he describes him as a man "of considerable genius and learning, but irritable, assuming and of suspicious religious principles." Nevertheless Smith acquired the reputation in Cumberland of being a universal scholar; yet while he "excited a very general attention to literature in North Cumberland," his demerit

lay in his "promoting a spirit of suspicion and infidelity." As a young man he had attended the lectures of Desaguliers, Curator of Experiments to the Royal Society, who for many years (1713-44) lectured in London on a great variety of scientific subjects; the latter's father was a Huguenot refugee, and Desaguliers himself was one of the pioneers of "popular lecturing"; it appears that at some stage Smith became his assistant. Some time later Smith established himself at Wakefield as a schoolmaster, and in view of his mathematical accomplishments it would be tempting to speculate on the possibility that Ralph Thoresby, F.R.S., of Leeds (1658-1726) might have drawn his attention to this part of the West Riding, in which an interest in mathematics and surveying has long been found. But by 1741 he was settled at Brampton near Carlisle, with a small estate; and he begins to appear in print as a contributor to the Gentleman's Magazine, founded in 1731 and soon to become widely known up and down the country. His first contribution is of considerable archaeological interest, an account of a Roman altar found at Castlesteads by Mrs Appleby (presumably a neighbour of his). In 1742 he sent in a careful drawing of the Bewcastle cross, and disputed Bishop Nicolson's rendering of the runic inscription: from his account it appears that he was then engaged in compiling "a full and accurate description of Cumberland."

These contributions and others are well enough known to antiquaries, and Smith was merely following a fashion which had been spreading for many years in the North, deriving from the work of such men as Thoresby, Hunter and Horsley; but his later cartographical and descriptive work deserves further study. He seems to have had a strong desire to establish his reputation for learning, and he took full opportunity of the occasion provided by the rebellion of 1745, when knowledge of Cumberland was at a

premium; in the following year he sent in a long account, still full of interest, of the events in November and December 1745: on 11 November he visited "the Prince's life guards" at Naworth, "who were very solicitous to see a map of England, so I carried them one . . . to try if I could penetrate their intentions." But on 19 November he made his way to Haltwhistle, trying to join Marshal Wade, after "a long period of uneasiness and expense in carrying off and bringing back effects." On 21 December the Duke of Cumberland arrived before Carlisle, and two days later Smith sent him a plan of the city, with suggestions where "batteries might best be placed for bombardment to disturb the town least." In all these actions he evidently took some pride; but, in the light of Hutchinson's remarks about his "suspicious principles," what were his real views?

In any case, he executed an admirable little map of the Carlisle neighbourhood, reproduced in the magazine; and it is evident that he had established close relations with Edward Cave, its publisher; for we learn that in August 1746 he was surveying the Cumberland coast at the latter's expense. In 1746 and 1748 he published, also through Cave, two astronomical treatises; in his "Treatise on Eclipses" (1748) he calculated the elements of the total eclipses visible in England in 1927 and 1999. The account of the coastal survey appears in the magazine for 1748 and reveals a considerable knowledge of the art of surveying. From his account of Crossfell, as we shall see, he was already acquainted with one of Linnaeus's botanical works published in 1745, and with some of the elementary geological ideas of the day; while his later contributions (1754 onwards) include daily meteorological observations at Wigton. Hutchinson says that, with his fortune impaired by his literary pursuits, he later lived at Wigton on a small annuity, supplemented by teaching mathematics and philosophy; from the dating of his letters it appears

that he went to Wigton *c.* 1754, and perhaps the decline in his fortunes may have owed something to the cost of publishing his two books as well as that of travelling. He mentions "a journey to Edinburgh to determine the longitude"; but any project that Cave and he may have entertained, for a series of improved county maps, did not come to fruition. It was about this time that Bowen and Kitchin were also producing county surveys, and in 1754 the Society of Arts began to offer prizes for the best county surveys on a scale of one inch to a mile. It may be noted that Gough remarked in 1768 that some of Smith's projects had still not been fulfilled.

We may see signs of Smith's desire to "follow the fashion" and appear in print, not only in his earlier antiquarian contributions; his meteorological observations were accompanied by notes on "the weather and diseases," following a fashion begun by John Fothergill in the Magazine for 1751; but whatever else Smith may have been, he was not a medical man.

It may be presumed that he was well known in Cumberland. In the northern part of the county several observational scientists followed him; G. Carlyle began his rainfall record at Carlisle in 1757; Brownrigg of Ormathwaite was at work; a few years later Heysham was constructing his life tables, after helping to found the Carlisle Dispensary (1768). But Smith's contributions had a wider effect. Without doubt, his accounts of Crossfell, Borrowdale and the Caldbeck fells, did a great deal to start the interest in travel among our mountains; artists such as Bellers and T. Smith in the 1750's; Gilpin, Gray and Pennant in the 1760's; West's Guide in 1778, Crosthwaite's regatta in 1780, the Lake School of Poets and the contemporary founders of geology form a lineal succession. For it is evident that Smith's work excited interest at once, as the Gentleman's Magazine's two great rivals, the "Universal" (founded 1747) and the rather

older "London Magazine" (1732) immediately began to publish rival contributions from Cumberland; Smith's satirical comments on their cartography are very amusing.

Let us now see what Smith had to say about Crossfell. Almost every sentence of his account is of interest, because it is the first description of an English mountain-ascent by a qualified scientist, and we are led to wonder not only why we hear so little of mountain-ascents before the 1740's, but why Crossfell should have been chosen. His very reasonable accounts of Borrowdale and of the Caldbeck Fells may also be commended to any reader who wishes to trace the beginnings of our tourist industry; and in another article he mentions the growing regard for bathing at Allonby.

#### A JOURNEY UP TO CROSS-FELL MOUNTAIN.

The following account of Cross-fell, will entertain such of your readers whose genius inclines them to the description of romantic scenes.

A mountain that is generally ten months bury'd in snow, and eleven in clouds, cannot fail of exciting the attraction and curiosity of a traveller.

That immense ridge of mountains, which are reputed the British Alps, make their first appearance in Derbyshire, and are thence continued in one chain of different elevations to the river Tweed. The Lancashire and Copland heights, with those in Yorkshire and Durham, being only detached parts of this great body, such as are remarkably eminent have particular names assign'd them, whilst the general ridge bears one appellation for several miles together.

Cross-fell, tho' distinguished in none of our county maps, is most singularly eminent, whether you regard its height, or the immense base it stands on, being above 20 miles in circumference; in some parts the rise is very leisurely and gradual, in others more rugged and perpendicular, emitting considerable streams to both seas. This insensible ascent removes its top to a very great distance from the inhabited plains, and being in a manner encompassed with other desolate and barren mountains, it retains the snow much longer than any other we can see in Britain, there

being some who affirm that it has continued sometimes for seven whole years together.

Aldstone is the nearest town where one can get a safe conductor to cross these almost impervious wastes, a country extremely ill represented in all our maps yet published, not to mention their exhibiting the towns on the wrong side of the river (Nint). About two in the afternoon we set forward three in company, and two who join'd us afterwards, out of the same curiosity. We pass'd the river Tine near its confluence with Blackaburn, beyond which this immense waste begins, and could plainly perceive the alteration of air in riding a few miles. On the top of Roderic heights is a pretty large lake, called Green-castle-loch, which receives no visible feeder, but emits a small stream northward to the said burn; nor is there any vestige of a castle, from which it could be presum'd to borrow the name. The swallows, those incontestable remains of Noah's deluge, begin here to be very frequent. Some of these are 30 or 40 yards in diameter, and near as much deep, perfectly circular, but contain no water at any season, the ground having gradually fallen in at the sinking of the waters; but where they have happened amid rocks, the holes are left open to incredible depths. This naturally accounts for those surprising phaenomena in the Pyrenean and Narbone mountains and our Elden-hole in Derbyshire, whose depths have never been ascertained with the longest lines.

On the descent of Roderic-fell there is plenty of herbage, but few plants, save the scorpioides arvensis, and tormentil.

At the bottom of this height Blackaburn is divided into two branches, the easternmost tumbling over a precipice of 40 perpendicular yards, which makes a most wild, surprizing cascade.

From this rivulet we are to account the rise of Cross-fell. We were now so much environ'd with large and extended morasses, rocks and mountains, that they exhibited a very frightful appearance, not the vestige of a house, except some old shielings, where in former ages the people had resorted like the Asiatic Tartars to graze their cattle in summer, a practice now quite disus'd. There were a few sheep, but no deer, that we could see, tho' there are several on the heights; and notwithstanding the extraordinary drought, the water follow'd our horses footsteps for miles together, except where the ground was perfectly rotten. At a place called Bulmanscleugh there have been formerly lead-works, now left off. We had now ascended gradually about 3 miles, thro' very broken morassy wastes, when the mountain

began to rise in three very formidable ascents, very steep, in the manner of Mount Lebanon, pil'd one above another, with large and extensive plains to each of them, and loose shivery stones on brows, very troublesome to the horses which we were now obliged sometimes to quit. This continued for near 2 miles more, when we got on the edge of the highest, which forms a capacious plain of several hundred acres, if you reckon from the East ascent; but of such a barren soil, that there was not so much as a single leaf of grass, herb or plant to be found in so large a plain, exclusive of a few of those rings attributed to fairies, some of which are perfect circles of the *Gramen glumis variis*, in botany, ascribed by Linnaeus in his description of the Baltic isles to a particular quality of its affecting the dirtiest soil, where no other grass can thrive. This immense plain has no verdure, therefore, but a venerably grey aspect from the moss or down, and even this can hardly draw a subsistence to support itself; so inconceivably barren is this distinguished eminence. The West side towards the Cumberland plains is more rocky and steep than the way we ascended. Great part of six counties were to be seen, and notwithstanding our height, there seemed to be 4 or 5 mountains that disputed preheminence, the rest look'd all far below us. These were, Skiddaw in the West of Cumberland, Criffield in Scotland, Pennygent and Ingleborough in Yorkshire, and the highest Cheviot in Northumberland. I computed the diameter of our visible horizon to exceed 120 miles, 60 each way from the center. The mountains in Cleveland by the east sea were very fair, and the West sea sufficiently discoverable. As to the perpendicular height of the mountain, I could not so well judge, having no barometer, and the top suffers too much by refraction to be ascertained on geometrical principles.

Whether it takes its name Cross-fell from its transverse situation to the common run of the ridge, or from a papistical conjuring cross to dislodge the aerial demons, which that religion has ascribed to this desolate mountain, I take not upon me to determine.

P.S. Being the 13th of August, and a long drought, and hot season, we were not able to find any the least relicks of snow, in places most likely for it; which is very extraordinary.

## NOTES ON SMITH'S ASCENT.

The details of the route can easily be followed on a good topographical and geological map. The confusion between received opinion regarding snow, and the results of observation, is at once apparent; that mountains ought to be snow-clad was no doubt an opinion deriving, like so many early opinions, from the classical foundation of learning. August 1747 was nevertheless very dry and warm; it appears that on the 13th (O.S.) the temperature in the south was about the average for the month, with a light north-east wind after a week of dry weather. Under stable conditions in the late afternoon, with a light N.E. breeze from the cool North Sea, the Cheviots, the Cleveland hills and Ingleborough might well be seen (*experto crede*), though it augurs rather exceptional visibility. Smoke-haze in the Middlesborough region or, below the inversion, from Tyneside would be quite negligible compared with to-day. Meteorological conditions were probably not unlike those of the latter part of August 1947; there may, however, have been a light cloud sheet on the day in question.

The ascent past Greencastle (where the limestone with its light-coloured grass outcrops—the same name is given to the limestone spur at the head of Knock Ore Gill) and the swallow-holes can be repeated to-day. "Roderick" is clearly Rotherhope; the waterfall is still there; also the boggy impervious grits alternating with limestone scars; but no longer are there any deer. The reference to Linnaeus is interesting, as the work mentioned by Smith was only published in 1745; we may therefore judge that he was a keen botanist as well as a patron of London booksellers. His use of "loch" for "tarn" is suggestive of the Scot.

The further comment on the absence of snow is noteworthy, as the appallingly cold, though dry, year 1740 was fresh in memory. It is just possible that if a

particularly cold summer occurs, such as 1879, following a severe winter, an exceptional snow-drift might just linger through the year on the short steep north-easterly slope below the summit plateau, the height being about 2700 feet. A traveller has recorded that drifts were conspicuously visible from Penrith on 18 June 1785, and adds "I am told that in some places it remains all the year round"; nevertheless Hutchinson (1794) states that the oldest shepherds whose memory went back seventy years declared that this had never occurred within their knowledge. On Helvellyn John Dalton records on several occasions between 1812 and 1823 finding snow "in the usual place" at the end of the first week in July, north of the summit. Such an occurrence would nowadays be very exceptional.

It is also interesting to see that Ingleborough was recognised. Topographical maps of the Pennines were so imperfect that we must presume that it was the guide who knew its outline. We are thus led to wonder at the length of time required before the knowledge commonly possessed by one group or class became public property. Even the minor streams flowing northward and eastward from Crossfell had been named by the fifteenth century at latest; yet, as regards the relative height of the hills (a matter which Robinson of Ousby had evidently determined for himself) we find as late as 1777 an astonishing confusion of estimates. In that year Hutchinson, in his *Journey to the English Lakes*, gave Whernside, 4050 feet, as the highest summit in England; among others he mentions Crossfell 3390, Helvellyn 3324 and Ingleborough 3987. Yet in 1697 Frankland of Rathmell was able to quote the vertical height of Ingleborough, Penyghent and Pendle above his village with fair accuracy. Pennant gave Crossfell 3839 feet.

That exploration in the sixteenth century led to a great development in literature and in the observational

sciences is a commonplace; yet in the minor events of the eighteenth century we can see the process repeated. There is a moral for the geographer to-day. Field investigation of some out-of-the-way feature may lead to far more stimulus to a number of minds at any given time, than repetition of outmoded texts at second-hand. The published results of Smith's curiosity in 1747 and the succeeding years may have been some of the sparks which initiated a very considerable development in literature and art as well as science. Geographers may now have to go further in quest of objectives, or delve into greater detail, but it is indeed to be hoped that the exploratory outlook and the reconnaissance survey in whatever field will never be disdained by the advocates of diligent study in the library. It is still true that one of the best ways for the geographer to arouse the interest of the informed reader lies in the provision of fresh points of view. In this respect, as well as on account of his surveying and cartographical abilities, George Smith well deserves the title, and it would be interesting to know more of the life of this strangely versatile "off-comer," who did so much to bring Cumberland into the public eye two centuries ago.