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The causes of famine

The Quern-Dust Calendar — Raghnall MacilleDhuibh

ICELAND sits at the northern end of the 'Mid-Atlantic Ridge', an area of shifting tectonic plates that is pushing America away from Europe at about the same speed as our fingernails grow — an inch or two every year.

That is what creates the fissures that allow magma to flow to the surface. As I described last time, it happened at Laki in 1783. The ash from Laki was full of fluorine which killed crops and livestock, contaminated the land, and resulted in a famine which killed ten thousand people. I have yet to find any confirmation of the statement that some of the ash fell on crops in Caithness, but that the overall effects were global in nature is beyond doubt, as I am going to show today.

Laki was remembered in the press in October last year when the same thing started to happen at nearby Grimsvotn in the heights of the Vatnajökul mountain. In this case, fortunately, the fissure was under an ice-cap six hundred metres deep. Ultimately the lid was not blown off, and the main result was some flooding as part of the ice-cap melted, and the distinct stench of sulphur in the atmosphere.

The effects of the Laki eruption were noted at the time by Benjamin Franklin. 'During several of the summer months of the year 1783,' he wrote, 'when the effects of the Sun's rays to heat the Earth in these northern regions should have been greatest, there existed a constant fog over all Europe and great part of North America.'

He observed that the rays of the sun were 'rendered so faint in passing through it that, when collected in the focus of a burning glass, they would scarcely kindle brown paper', and he attributed this dry fog to 'the vast quantity of smoke, long continuing to issue during the summer from Hekla, in Iceland, and from that other volcano which arose out of the sea near the island, spread by various winds over the northern part of the world'.

He went on to point out that because of the cool summer caused by this fog the surface of the earth froze early that winter, and the first snow remained unmelted. All in all, he concluded, the winter of 1783-4 was 'more severe than any that happened for many years', and it seemed worthwhile to enquire, therefore, 'whether other hard winters, recorded in history, were preceded by similar permanent and widely extended fogs'.

Now this is something that the climatologist Professor Hubert Lamb, whom I mentioned last time, has done, and his analysis of known volcanic activity since 1500 shows that similar effects have indeed followed all eruptions involving a high output of dust. In 1693 several volcanoes put up an extensive dust veil. During the seven cold summers that followed, the Arctic ice pack came abnormally far south, completely surrounding Iceland in 1695.

Now a glance at the globe shows you immediately what parts of Europe are closest to Iceland. First the Faeroes, second Shetland, and third — the Highlands and Islands. And sure enough, after a generation of relative prosperity since 1660, in which only four seasons out of 35 were marked by high grain prices in Scotland generally, there were suddenly four successive years of serious scarcity followed by a murrain among the cattle, causing perhaps the heaviest famine mortality for a century. These were 'King William's Ill Years', and they were so vividly remembered by those that survived that when the Statistical Accounts came to be compiled a hundred years later, awful stories were still being told.

More of that in due course, as I hope to be in a position to tell the step-by-step history of famine in the Highlands and Islands in future articles. But it is interesting to note that when Professor Smout tells of the 'Ill Years' in his "History of the Scottish People", he explains them as 'presumably an accident of the climate (particularly in the early spring) with its effects accentuated, perhaps, by increases of population in the three good decades that preceded it'.

It is a good illustration of the cyclical nature of famine. But the 'Franklin Syndrome', if we may call it that, has been proved by Professor Lamb for many other years as well — in global terms, similar effects apparently followed eruptions not only in 1793 in Iceland and Japan, but in 1811 in the Azores, in 1831 on Graham Island, in 1835 in Nicaragua, in 1875 in Iceland, in 1888 in Japan, and in 1902 in the Caribbean. The conclusion, as expressed by Lyall Watson in his book "Heaven's Breath", is this: 'Clearly, not all unusual weather can be blamed on volcanoes; but it seems significant that the period from 1430 to 1850, which was cold enough to have been called the Little Ice Age, coincided with a wave of volcanic activity in which great eruptions were abnormally frequent.'

That, then, is one part of the background to a study of famine in the Highlands and Islands. In the middle ages and for some time afterwards, famine was to rural parts what plague was to the towns, and in both types of society both types of disaster could be caused, or compounded, by war. Any of these three catastrophes might reduce the population substantially, thus enabling the surviving remnant to recover. Indeed, it may well be that what Professor Smout calls one of the most baffling problems in Scottish cultural history, namely the unexplained withdrawal of the Gaelic language from the whole of Lowland Scotland during the middle ages — around the start of the Little Ice Age — can be satisfactorily explained by those twin scourges of plague and famine. It is also striking that those years from 1430 to 1850 mark the steady descent of Gaeldom from the confident independence of the Kingdom of the Isles to the ultimate misery of clearance.

There was such a recurrent cycle of prosperity, plague, war, famine and prosperity again that it is striking how varied are the descriptions of Scotland by early travellers. One traveller finds a fertile land with an industrious healthy peasantry; the next finds everybody sunk in poverty and at each other's throats. Andrew

Wyntoun, in his Chronicle, speaks of the horrors of famine in his description of the aftermath of the siege of Perth in 1340. 'Mony ware in hungyr dede,' he says, and with some reluctance he reports tales of cannibalism among the survivors. This is a continuing undercurrent of famine stories. At Monquhitter in Aberdeenshire it was said that one victim of King William's Ill Years, a respectable tenant, was driven from his home by hunger and found dead on the shore with raw flesh between his teeth. I have to say, though, that I have come across no stories like this in the Highlands and Islands.

Legislation by Scottish Parliaments hints at crop failure leading to famines of national importance in 1449, 1452, 1478, 1485 (a 'great famine'), 1535, 1541-51, 1555, 1556, 1571-3 and 1585-7. One estimate shows another ten major famines between then and 1745. Bad years tended to go in pairs, because in their extremity the people would eat the seed corn which had been laid aside for sowing in the following year. This caused back-to-back famines in 1623-4, 1650-1, and 1673-4.

Governments struggled to cope. One of the major results of famine was begging; entire parishes might be emptied as their populations wandered roads and streets elsewhere. So legislation in 1535 made each parish responsible for its own poor, an arrangement which lasted until the nineteenth century, while in the Highlands and Islands the entire structure of society was geared to ensuring that people could be set back on their feet with the minimum of humiliation (more of that another time).

At various times Parliament legislated against the export of food, or against persistent gluttony or drunkenness. Grain crops were used to brew ale, and in 1436 the King ordered that no man in any burgh should be found in a tavern drinking wine, ale or beer after the bell has been rung for six o'clock. In 1551 further legislation limited the evening meal to three courses for burgesses, six for lords and abbots, and eight for archbishops. Not surprisingly, it was only a few more years before abbots and archbishops were themselves abolished.

We cannot generalise, however. Often in earlier times the Lowlands suffered while the Highlands did not; in later times, no doubt because the balance of economic and social advantage was inexorably shifting, things were usually the other way round; and anyway famine could always be local rather than national or regional in nature. There are good reasons for this, and I will give a couple of examples.

Some parts of the Highlands survived the famine of 1649 better than the Lowlands because, according to the Rev. James Fraser of Wardlaw, 'They had stores of milk, their cattle thriving, all manner of store grass in plenty, their pastures fertile beyond belief, such abundance of sea and fresh water fish, that men almost lived by it, such shoals of herrings in our [Beauly] Frith that a hundred was sold for two farthings.' In other words, as long as the people of the Highlands had cattle and plenty herring, they had no need to depend on their crops; and, it might be added, when they had no cattle of their own, they could always take a few from their Lowland neighbours — at least down to King William's time, after which cattle-lifting became more difficult.

But there were districts not much known for their cattle, or their warriors, or their fish; Strathnairn near Inverness was one, and it seems to have suffered chronically from famine, the reason being that, because of poor drainage, a large part of it was very liable to mildew in autumn. One morning of frost in August or September, and a farmer's entire labours could be blasted. Down to only a century ago, farming tenants in flat or low-lying parts of Strathnairn would suffer daily anxiety in those two months in case there was a morning frost. The result: we appear to have almost as many famine stories, and years remembered for their famines, from Strathnairn as from all the rest of the Highlands put together.

It is these famine stories, famine years, and years with names like *Bliadhna an Earraich Dhuibh* (the Year of the Black Spring) and *Bliadhna a' Bharr Ghoirid* (the Year of the Short Crop) that I hope to talk about over the next few articles.

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