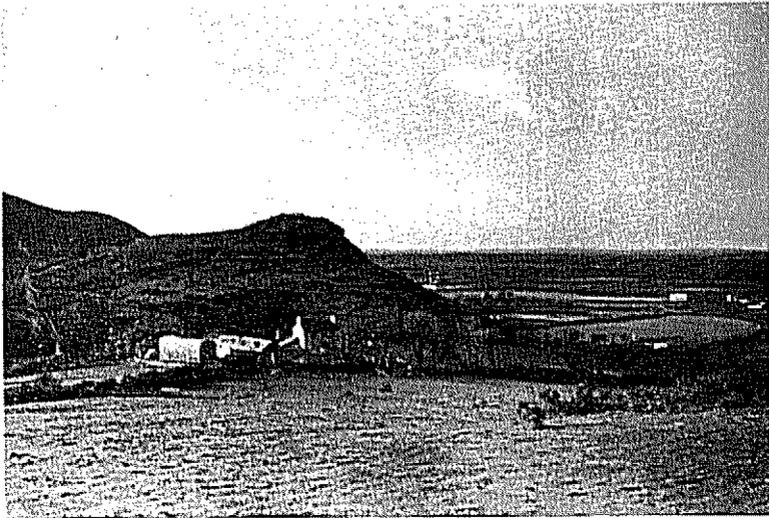


SKETCH-PLAN OF CRONK SUMARK HILL-FORT

(Based on air-photographs and Professor G. Bersu's field-notes).

- A.—Rocky western summit—a partly artificial terrace isolated by rock-cut ditches from the rest of the hill.
- B.—Eastern summit, with a roughly rectangular enclosure, possibly a Dark Age or Early Medieval fort.
- C.—Vitrified terrace-bank, probably the rampart of an Iron Age hill-fort of "Gallic-wall" type.
- D.—Remains of another terrace-bank, probably later replaced by C.



CRONK SUMARK HILL-FORT FROM THE EAST
 Showing ramparts (below summit), Grange farm in foreground,
 and the Curragh beyond.

VITRIFIED FORTS, AND THE CAMP ON CRONK SUMARK

MRS. M. A. COTTON, O.B.E., F.S.A.

THE 'camp' marked on the survey maps at Cronk Sumark, or Primrose Hill, is situated on an escarped hill at the foot of Sulby Glen and overlooks the Island's flat northern plain. The sides of the hill to the north and west are precipitous and require no artificial defences. The south side is steep but is defended; whilst the east side, which slopes gradually to the lower-lying ground and is the easiest of access, carries the strongest defences. At the north-west the hill rises to a steep peak which has, on its south-western aspect, been quarried for slate.

I am indebted to Mr. Megaw for drawing my attention to this site during a visit to the Island in the summer of 1949. He told me that in 1947 Mr. B. St. J. O'Neil, Chief Inspector of the Inspectorate of Ancient Monuments Department of the Ministry of Works, and Dr. Bersu, who is a leading authority on Manx prehistory, visited the site and made a preliminary survey of its surface defences.

The main defence appears to be the inner of two banks which start at the north-eastern corner of the hill and encircle its eastern and southern sides. An outer and smaller bank starts close to the inner but diverges from it and may cut off the promontory to the east. The terraced road on the south side which leads round the hill to the quarry and lies below the inner bank may be a continuation of this outer bank to the south. On the top of the hill inside these outer defences, and to the north-west, are two square levelled platforms defended by banks and separated by two ditches and a causeway.

O'Neil and Bersu noted that the main inner bank was burnt and contained vitrified material and that burnt slates occurred in one of the two small inner enclosures. I understand that Dr. Bersu suggested that the defences might possibly be of several periods and that the site may perhaps have been occupied at different times, but that in any case the main outer and inner banks did not appear on superficial evidence to be contemporary. There may be an entrance on the southern side. At present the site is unplanned in detail and is unexcavated. A specimen of vitrified material from the inner bank was obtained which is now lodged at the Manx Museum.

A vitrified fort is an earthwork or fort which contains in its ramparts broken stones fused together by heat to form a solid mass. Forts of this type are widely distributed. They have been recognised and studied in Scotland for nearly two centuries and in France and Germany since the early nineteenth century. They occur in Hungary and Czechoslovakia, and in recent years have been discovered in England and Wales. Ireland is not at present known to possess a certain example. Cronk Sumark is the first possible example to be noted in the Isle of Man.

The first recorded notice of a vitrified fort is that of Pennant in 1769,¹ in his description of Torr Duin near Fort Augustus, Inverness-shire. He regarded it, however, as the crater of an extinct volcano. The discovery of vitrified forts is usually attributed to the mining engineer John Williams. In 1777 he wrote²:—

'When I saw the first of these vitrified forts, I was greatly amazed, and the more so, that I had never so much as heard of such a thing: . . . Each of the vitrified forts that I have yet seen are situate on the top of a small hill . . . They always have a level area on the summit, of less or greater extent; and this level area has been surrounded by a wall, which, as far as I can judge by the ruins, has been very high, and very strong. But what is most extraordinary, these walls have been vitrified, or run and compacted together by the force of fire; and that so effectually, that most of the stones have melted down; and any part of the stone not quite run to glass, have been entirely enveloped by the vitrified matter, and in some places the vitrification has been so complete, that the ruins appear now like vast masses, or fragments of coarse glass . . .'

Williams was the first writer on this subject to suggest that vitrification was produced intentionally and was not a natural phenomenon.

From this time onwards, archaeologists and geologists found the question of the vitrified forts a fruitful field for discussion, and numerous theories have been proposed to explain their occurrence. Amongst those in vogue during the eighteenth and nineteenth centuries are these:—

- (i) vitrification was accidental and was due to natural products of volcanic eruption, or was the result of bloomerics on the site or of lightning striking the dry-stone walls of sheep or cattle-folds;

¹ Thomas Pennant, *A Tour in Scotland*, 1769. Published in London in 1776.

² John Williams, *An account of some remarkable ancient ruins lately discovered in the Highlands and northern parts of Scotland* (1777).

- (ii) it was due to beacon fires or to sacrificial fires lighted at a rendezvous of tribes on religious or festive occasions;
- (iii) it was produced intentionally by kindling wood laid in, against, or on top of a dry-stone wall built of fusible stones with or without an admixture of a flux or of an iron ore. In some theories it was stipulated that the fires must have burnt continuously for long periods; in others it was thought that the builders understood the use of 'cold blast' in order to achieve the required intensity of heat;
- (iv) vitrification was caused by an enemy assault in which the wall was burnt by piling wood against it externally and by setting this on fire.

More modern views were first suggested by the French archæologist Joseph Déchelette,³ and later by Bersu, when they maintained that vitrification resulted from the combustion of stone and timber built in the manner of a *murus gallicus*. This particular type of rampart construction was first described by Julius Caesar in his account of the Conquest of Gaul.⁴ His description reads:—

'All Gallic walls are, as a rule, of the following pattern. Balks are laid on the ground at equal intervals of two feet throughout the length of the wall and at right angles thereto. These are made fast on the inside and banked up with a quantity of earth, while the intervals above mentioned are stopped up on the front side with big stones. When these balks have been laid and clamped together a second course is added above, in such fashion that the same interval as before is kept, and the balks do not touch one another, but each is tightly held at a like space apart by the interposition of single stones. So the whole structure is knit together stage by stage until the proper height of the wall is completed. This work is not unsightly in appearance and variety, with alternate balks and stones which keep their proper courses in straight lines; and it is eminently suited for the practical defence of cities, since the stone protects from fire and the timber from battery, for with continuous balks, generally forty feet long, made fast on the inside it can neither be breached nor pulled to pieces.'

Recent work on vitrification was undertaken in Scotland by Professor V. Gordon Childe in conjunction with Mr. Wallace Thorneycroft. Examination of some of the Scottish sites showed that the ramparts exhibited faced walls on one or more faces, often so dilapidated and distorted that they were missed by older methods of excavation. Childe accepted the theory that a vitrified rampart

³ *Manuel d'Archéologie Préhistorique, Celtique et Gallo-Romaine*, III (1927 edition), 192-201.

⁴ *De Bello Gallico* VII, 23.

was the equivalent of a *murus gallicus* which had been burnt. He doubted, at first, whether the combustion of such a wall would generate a temperature of between 800 and 1,100 degrees such as was necessary to fuse the stones used, and with Thorneycroft made experimental tests.

A model *murus gallicus* made of fireclay bricks, timber pit-props and basalt rubble was built at Plean Colliery in Stirlingshire. Scrap timber and brushwood were heaped around and were set on fire. Within half an hour the whole structure was ablaze. The outer walls collapsed, the core was vitrified and a thick layer of charred material covered the earth under the site of the wall. The experiment was repeated at Rahoy (the site of a vitrified farmstead excavated by Professor Childe in 1936-37) using the actual stones of the fort itself. Here, when the fire died down, both faces of the wall were standing, but the buckling and sagging due to the consumption of the tie-beams produced an effect strongly reminiscent of the prehistoric rampart itself. The rubble core had subsided to some extent, practically the whole of the timber built into the wall had been consumed and some wood ash had fused into the stones. On dismantling the wall vitrified masses were found in the core.

The distribution of forts with timber-laced ramparts of *murus gallicus* type in England is at present confined to Cheshire, Yorkshire and one site in Warwickshire. There are three vitrified forts in Wales. No certain examples are known at present in Ireland. At least sixty-five sites in Scotland are known to have defences of this type. The fort at Burghead in Morayshire is unique in being the only example in the British Isles which has a nailed timber-framework like those common in Gaul. A group of some six forts, mostly in the vicinity of the Firth of Tay, have been proved to have *murus gallicus* construction but are not provided with nails. The remaining vitrified forts are distributed along the coast of Galloway, up the west coast of Scotland, along the Great Glen, and along the coasts of the Moray Firth and at places on the east coast. One fort at Edgerston in Roxburghshire has an atypical form of timber-framework.

Only four of the camps in England and Wales have been excavated sufficiently to permit of any suggested dating of their timber-laced defences. These are Fridd Faldwyn in Montgomeryshire; Maiden Castle, Bickerton and Castle Ditch, Eddisbury in Cheshire; and Castle Hill, Almondbury in Yorkshire. All are attributed to the end of the Celtic Early Iron Age and possibly to within the century preceding the Roman Conquest of 43 A.D.

Childe has grouped together the 'Gallic Wall' and vitrified forts of Scotland as the Abernethy complex as the relics derived from them are too few to allow of the recognition of any distinction between their builders.⁵ Dateable material from these sites is scarce, but on the whole he was inclined to attribute the beginning of the complex to about 100 B.C.

Different views have been proposed for the route by which the Abernethy complex may have reached Scotland. At first it was regarded as an Iron Age 'B' culture introduced by invaders coming direct from Continental Europe to Eastern Scotland. The most recent views,⁶ however, are that the builders of the 'Gallic Wall' forts of Scotland came, not as immigrants to the east coast direct from the Continent, but to the west coast, and from England. The culture may have reached south-west Britain and spread by way of the Welsh Marches to the south-west and western coasts of Scotland.

If the latter view is taken, the Isle of Man, between Cheshire and Galloway, lies on the route of the culture spread, and it is reasonable to expect to find sites of this type there. Cronk Sumark may prove to be the first Manx vitrified fort to be recognised, and may perhaps not be the only one of its kind in the Island.

Supplementary Notes by B. R. S. MEGAW, B.A., F.S.A.

THAT the six Manx hill-forts bear no very striking resemblance one to another may be attributed in part to the varied character of the island's topography.

The fortress of Cronk Sumark is particularly impressive. It occupies a central position of the southern margin of the Northern Plain of the Isle of Man, some four miles from the sea. The 'citadel' of the fortress rises about 300 feet above the level of the marshes, and there are two bigger enclosures at the lower level. The fortified area is, at the widest, roughly 350 feet across.

The earliest-known record concerning the place suggests that the estate of Myre-scogh, which included six farms as well as the old fortress, may have belonged to the Kings of Man in the early Middle Ages. At all events, King Godred II gave the estate to the abbot of Rievaulx in return for a personal service rendered him in 1170.

⁵ V. Gordon Childe, *Scotland Before the Scots* (1946), 12-15, 129-30 and 134-6.

⁶ Council for British Archaeology, *A Survey and Policy of Field Research in the Archaeology of Great Britain* (1948), 47; Professor Piggott, *Archaeological News Letter* 1.8 (1948), 9-10; Sir Lindsay Scott, *Proceedings of the Prehistoric Society* XIV (1948), 114.

Control of the monastic colony which Rievaulx Abbey established there passed to Rushen Abbey within a century of the grant, and the place became a grange where rents paid in kind by the tenants of the northern abbey farms were stored. Hence the present name of the farm which includes the hill, The Grange (locally pronounced Grān 'jē), in substitution for the older Cronk Sumark.¹

The modern farmhouse of the Grange is on the eastern slope of the hill, within 100 yards of the ancient ramparts; and the farmyard must be nearly on the forgotten site of the Cistercian monastery, if we can accept the evidence of an anonymous contribution to the *Manx Advertiser*, 4th June, 1818. This states that the foundations of the monastery were said to have remained 'in a small valley from the eastern side of Primrose Hill, between it and Glione Dowin,' but were cleared away in 1801. The same source adds the traditional information that 'the Northern Abbey Courts were antiently held in a castle built on the eastern summit of Primrose Hill, adjoining to which, on the western side of the hill stood a wooden frame or gallows for the execution of criminals. The castle is fallen, but there are evident traces of its foundation and it is not long since that the stump or remainder of the old gallows was removed from the hill.'

The juxtaposition of the sites of (1) a 'Celtic' fortress, (2) a Cistercian monastery, (3) a medieval grange, and a farmhouse of the present day is interesting and definitely established. For further and more precise information on Cronk Sumark scientific excavation would be required.

¹ The meaning of the latter element is unknown, though Professor Marstrander suggested O.N. *Skogr-mark*, 'the wood-boundary,' in allusion to the thickets of the Curraghs, known to the Norsemen as *Myr-skogr*, 'the swamp-wood.'

[It may be noted, however, that 'Sumark' is a modern map-spelling. In the 17th century it was *Shemerick*, and *Shammyrk* later, which suggests the Gaelic term *seamrach*, clover-grass. Similarly, there is a Glen Shameroc in Kirkcudbrightshire; and the Manx Ballashamrock, Braddan, may possibly be related to these.—Ed.]