

County Louth Archaeological and History Society

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Reviewed work(s):

Source: *Journal of the County Louth Archaeological Society*, Vol. 9, No. 3 (1939), pp. 209-243

Published by: [County Louth Archaeological and History Society](#)

Stable URL: <http://www.jstor.org/stable/27728506>

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Excavations at Lissachiggel.

By O. DAVIES, M.A.

The excavations described in this paper were carried out in September, 1940, as part of the unemployment relief scheme of archæological investigation, conducted by the Office of Public Works. I was asked by Mr. H. G. Leask to supervise, and I was assisted from time to time by Mrs. Wheeler and Messrs. D. P. Gamble, J. Scott and H. A. Wheeler. Four workmen were employed. Tools were partly supplied by the Office of Public Works, and partly borrowed in Belfast. Special thanks are due to Mr. H. G. Tempest, who suggested the site and took endless trouble to obtain permission which was kindly granted by the 24 joint-owners of the land on which the cashel lies, and who visited us frequently during the excavations and helped in many small ways. I would also mention Mr. John McDermott, who spent much time in interviewing the owners and in obtaining their consents. The bones found have been most kindly examined by Mr. A. W. Stelfox of the National Museum, the charcoal and similar material by Dr. P. O'Connor. Great trouble was taken by Miss Barnes in cleaning the iron finds. Detailed records and photographs have been deposited with the finds in the National Museum.

The cashel is situated in moorland country at the unusual altitude of 800 ft. (fig. 1, pl. I 1). It is partly sheltered from the north by a low mountain, which rises for about $\frac{1}{4}$ mile behind it; and the enclosed area is fairly steep, as may be judged from the contour-lines marked on the plan (fig. 2).¹ To the north-east a narrow valley, known as Gleandurrougha, leads past a small bog, probably formerly a lake towards the Anaverna stream. Southward, along the Ballymakellett stream, is a small and fairly level plateau, which forms as it were a step in the ascent of the higher mountains to the east and north, Carnavaddy and Clermont. On this plateau we mapped many ancient circular huts, folds and field-walls. The last are built partly of upright boulders, and do not run high up the mountains like the modern walls.² It seems clear that more than one system of fields is represented, and it is probable that older walls have been partly moved by later agriculturists. The type resembles that of

¹ The contour-lines are intended to give no more than a general idea of the configuration of the fort. On stony ground accuracy would be impossible, and the lines are sketched from a small number of measured points, normally along tapes run out at intervals of ten feet. As there is no bench-mark near, the heights are taken from a arbitrary point, and have meaning only relative to each other.

² Fig. 1 shews those which seem ancient; but some of the very straight lengths are uncertain.

the pre-peat walls of the Foyle basin¹; and like these, they may probably be dated to the late bronze and early iron ages, before climatic deterioration made the mountains uninhabitable and valueless. Walls of this type may, however, have continued to be constructed until comparatively modern times, and are common in many parts of northern Donegal. The huts on the open moor resemble those inside the cashel. About 250 yds. to the south are two clustered huts close to the river; the larger is apparently rectangular, about 20 ft. long, with the door on the south-east; the smaller is circular. Some of the folds in the area seem modern, and are flimsily built of loose stones; others are probably ancient. The best-preserved lies $\frac{1}{4}$ mile south-east of the cashel; it is oval, about 22 ft. across, and built partly of upright slabs; the door has a stone sill and two jambs (pl. II 8). At some period perhaps a synoecism was carried out, presumably for protection. But as we had no time to excavate outside the cashel, the date of the scattered huts remains uncertain.

I may record here a deposit of shells and other remains found about six inches below turf just outside the eastern cashel-wall (inv. no. 407, see fig. 2). They lay on a rough cobbling, which seemed to rise as if to enclose them in a small basin. They partly overlay the cashel-ditch, and were separated from it by several inches of black earth; so they can at earliest belong to a late phase of the cashel, and may be long subsequent to it. The shells have been identified by Mr. Stelfox as cockles (*cardium edule*); there may have been a hundred of them, tightly packed together. They were on the western edge of a thin occupation-stratum which extended for two or three feet. It contained a small amount of charcoal, mainly of whin, with a little holly, hazel and willow-poplar, a flint-chip probably burnt, and many pieces of pot u (fig. 5). This is of finer ware than most of the pottery from the cashel, with even surface, fairly hard and not crumbly, and fine paste; it is not sufficiently regular to be wheel-made. The exterior colour is reddish or grey, the interior dark grey, often sooted even near the neck but not at the base, as if the pot had lain on its side. Most sherds are 6-8 mms. thick. The shape is tentatively reconstructed in fig. 5; the external base-diameter was about 15 cms. Other diameters and height cannot be calculated; but the rim seems to have been wider than the base, and the pot was apparently jar-shaped. The rim is flattened and roughly smoothed on the inside. It is simpler than is usual in medieval ware, and there is no decoration. I think, therefore, that the pot is prehistoric, and the shape is not unlike some Hallstatt pots from England.²

The cashel is situated in Td. Doolargy.³ The enclosure is marked on the 1908 O.S., but without distinctive name or indication.⁴ The name, which is commonly known, is almost certainly derived from Lios-a'-tsiogail, the Fort of the Rye; but it

¹ *U.J.A.*, III, ii (1939), p. 61.

² E.g., Cunington, *All Cannings Cross*, pl. 29, 5.

³ O.S. Louth, 25" IV 12, 12" north 10" east; 6" 4, 9" north 33.6" east.

⁴ A short account of the cashel with rough plan was published by Tempest, *L.A.J.* ii, part 4 (1911), p. 434.

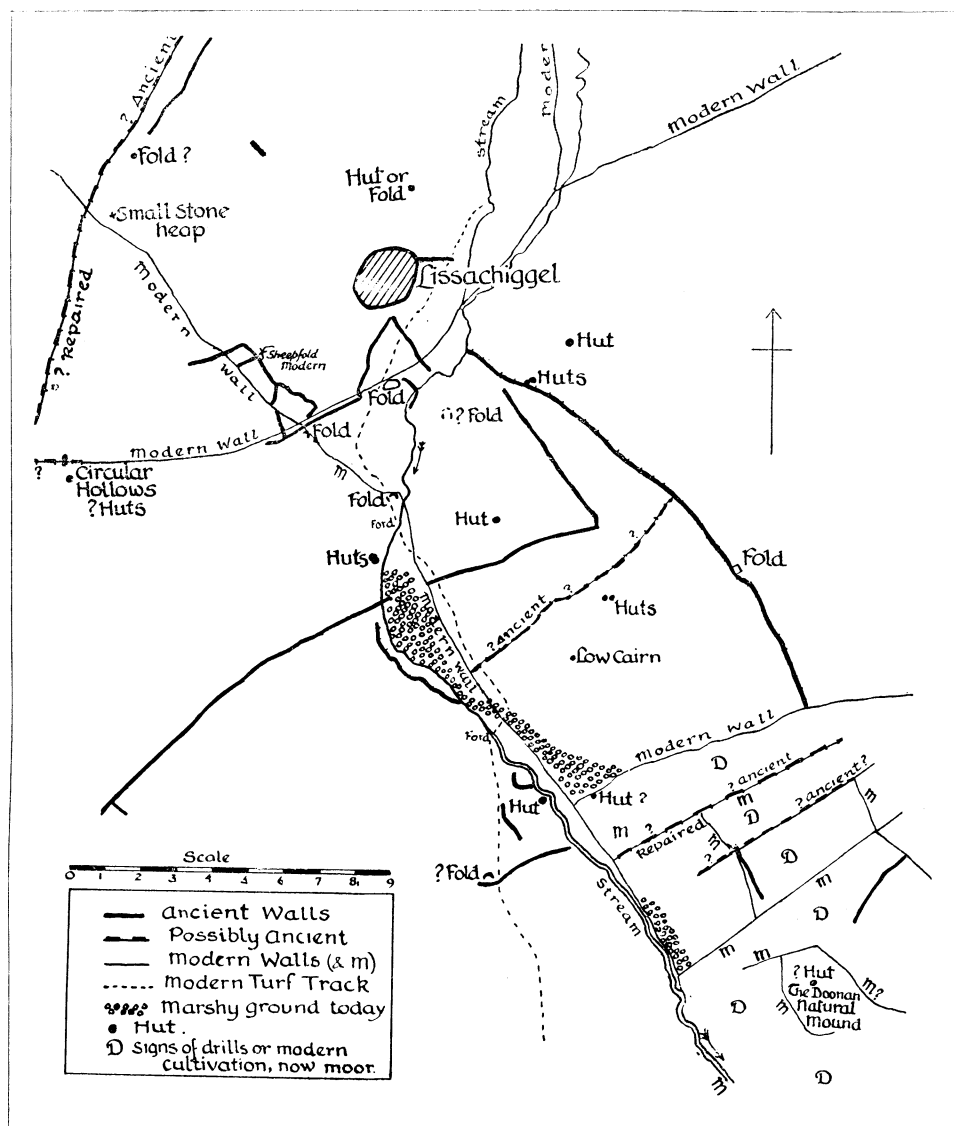


Fig. 1—SITE OF LISSACHIGGEL CASHEL.

The scale shown is in 100's of feet. It is equivalent to approximately 180 yards to the inch.
(Based on the Ordnance Survey by permission of the Minister of Finance of Ireland).

is not explained why this name was given to a site which lies on moor-land well above modern cultivation-level. The area is not quite circular, unlike most Irish forts ; but not enough of these have yet been examined to decide whether the shape provides a chronological criterion. The interior is largely covered with loose stones, especially on the west, where the wall was extended to include part of a very rocky dry valley. Why this was enclosed is uncertain, for it was not used for huts, and the numerous

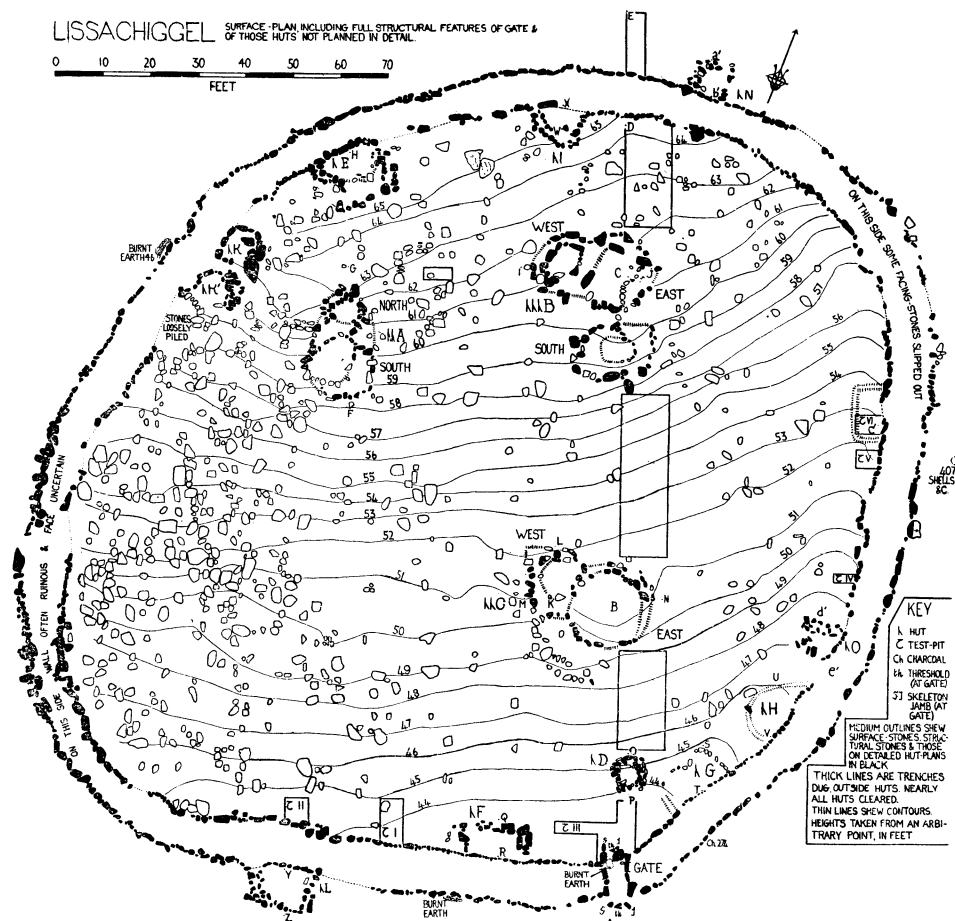


Fig. 2—Plan of the Cashel.

boulders preclude possible extra pasture for animals penned temporarily within the fort.¹ In general, there was little depth of earth in the fort, except against the wall on south and east (see section AE). On the slope were normally a few inches of dark

¹ Larger stones are shown on fig. 2 ; it has been thought unnecessary to include all the small ones. Loose or fallen stones, without structural purpose, are outlined but not blackened.

gravelly earth containing small stones and some larger boulders, perhaps fallen from huts or from the wall. In some parts we found yellow gravelly till, in others what resembled an irregular pitching of small angular stones on edge, firmly bedded, which may have been a rough cobbling to prevent rapid denudation, but was more probably rubble-rock. Finds were rare outside the huts ; on the steeper parts even charcoal appeared only occasionally.¹

The area had to be partially cleared and levelled before building the cashel-wall. In three places, to east and west of the gate,² and on the north-west,³ as shewn on the plan (fig. 2), were scraps of charcoal and burnt earth close to and under the outer face of the wall, perhaps from older habitation-sites. In Hut H was a deep pit in till, which extended beneath the inner face of the cashel-wall, but not as far as the outer. It was filled with loose tumbled stones, generally embedded in muddy silt. It had probably formerly been a pool, which was levelled to provide a solid foundation for the wall. About seven feet south of Hut D a similar depression was covered with paving-stones, probably to keep it dry. In other parts the cashel-wall rested on dark moorland-subsoil.

On the west, where the wall followed a boulder-strewn gulley, it was built entirely of loosely piled stones, and in many places is very ruinous ; no exterior drainage-ditch was there needed.⁴ Round the north and east may be seen surface-traces of a ditch a few feet from the wall-face, which section CE shews to have been quite shallow, and was presumably intended to drain the upper side of the fort and not for protection. On all sides except the west the wall was composed of a core of yellow stony gravel, faced with medium-sized stones (sections CE, QR, UV, fig. 3). These survive fairly well on the inside, but on the outside have often fallen. In many places the wall rested on a foundation-course of large stones, set aslant into the moorland-subsoil composed of rubble chips and black peaty earth (see sections DE a' b').

The core of the wall is rammed yellow clay or gravel, resting on dark moorland-subsoil.⁵ In some places the facing was backed with loose tumbled stones. A section shewed at the base light grey and then black earth, presumably an old subsoil, partly perhaps from inside the enclosure. In the grey earth were irregular black streaks, probably turf-lines ; they were not sufficiently even for the wall to have been

¹ There are inventoried various packets of charcoal, formless sherds, and flint flakes. For flint tools inv. 2 214, see below and fig. 6.

² Inv. 274 ; three pieces of holly and one of whin.

³ Inv. 46 ; mainly holly, whin and prunus (? blackthorn), one piece each of hawthorn, willow-poplar and yew-juniper, two rhizomes of bracken.

⁴ No confirmation of radiating walls on the west suggested in Tempest's account was found by the excavation.

⁵ A section on the north-east shewed beneath the wall-material a little grey leached earth and then dark gravelly till. This is a typical moorland-profile, and shews that when the cashel was built the hillside must have been rough pasture, with mixed grass and heather like to-day. It probably differed only in having a certain covering of bushes and trees, especially along the stream.

built of sods, but grassy blocks may sometimes have been piled in. One scrap of charcoal from this level probably came from the pre-fort surface. The black earth which overlay the grey may have been peat-stained subsoil or peat brought from a little distance ; it also was irregular and streaky. Above it was a foot or two of yellow gravel, which must be old till, on top presumably because it was dug out last, and perhaps because it is more compact and so would form a better coping. It did not look like river-gravel, and cannot all have come from the shallow ditch.

The maximum height of the wall to-day, including heather on top, is about six feet, though in most parts it is less. Some denudation may be assumed even at the highest places ; but the amount of silt was nowhere very great, and most of it probably came from the outer edge. It may therefore be reckoned that the original wall was not more than seven feet high, and probably not as much.

An area on top of the wall was cleared to test for a palisade. Near the centre were two soft dark patches, 12 ft. apart and about a foot deep, which contrasted markedly with the usual rammed yellow clay. They contained small loose stones, and may have held upright logs about six inches in diameter, which would have been connected with cross-bars.

Cashel-walls with stone revetments and an earthen core are not uncommon in Ireland. Westropp enumerates several in Clare¹ ; Macalister indicates a partial stone facing at Uisneach,² and O'Riordain at Cush.³ Some form of revetment would be very desirable, as Irish forts are never built with a berm.

The gate,⁴ on the south, is a little over three feet wide, and is bounded by four long upright blocks on each side (see plan, fig. 2). The upper courses on the east had fallen, and some of the stones were lying at all angles in the gateway, others against the inner face of the wall. On the west they had been pressed slightly forward (section AB, fig. 3). The stratum of brown earth and slipped stones, both within and on the inner side of the gateway, contained a fair amount of charcoal and three flints,⁵ which may have been washed down from the upper part of the fort.

The top of the ancient roadway was marked by the upper cobbling, mainly of small stones (section AB, fig. 3), which sloped a little so as partially to cover the inner " skeleton-jambs." The lower cobbling, which consisted on the west of small slabs and on the east of two layers of pebbles, was in the outer part of the gateway separated from the upper by an inch or two of dark dusty earth ; in the inner part the two cobbings merged. The lower cobbling was set into hard till-gravel, without intervening moorland-subsoil, which must have been stripped or have been denuded at a

¹ Creevaghbeg, *P.R.I.A.*, xxvii, C, no. 16 ; Bealboruma, *ibid.*, xxix, C, p. 206 ; Carrahan, *ibid.*, xxxii, C, no. 4.

² *P.R.I.A.* xxxviii C, no. 5.

³ *P.R.I.A.* xlv C, no. 7.

⁴ See pl. II, 1 and 2.

⁵ Inv. 50, a tiny red flake ; inv. 145, a heavily burnt chip ; inv. 165, a red chip with signs of working along the edges, perhaps a strike-a-light.

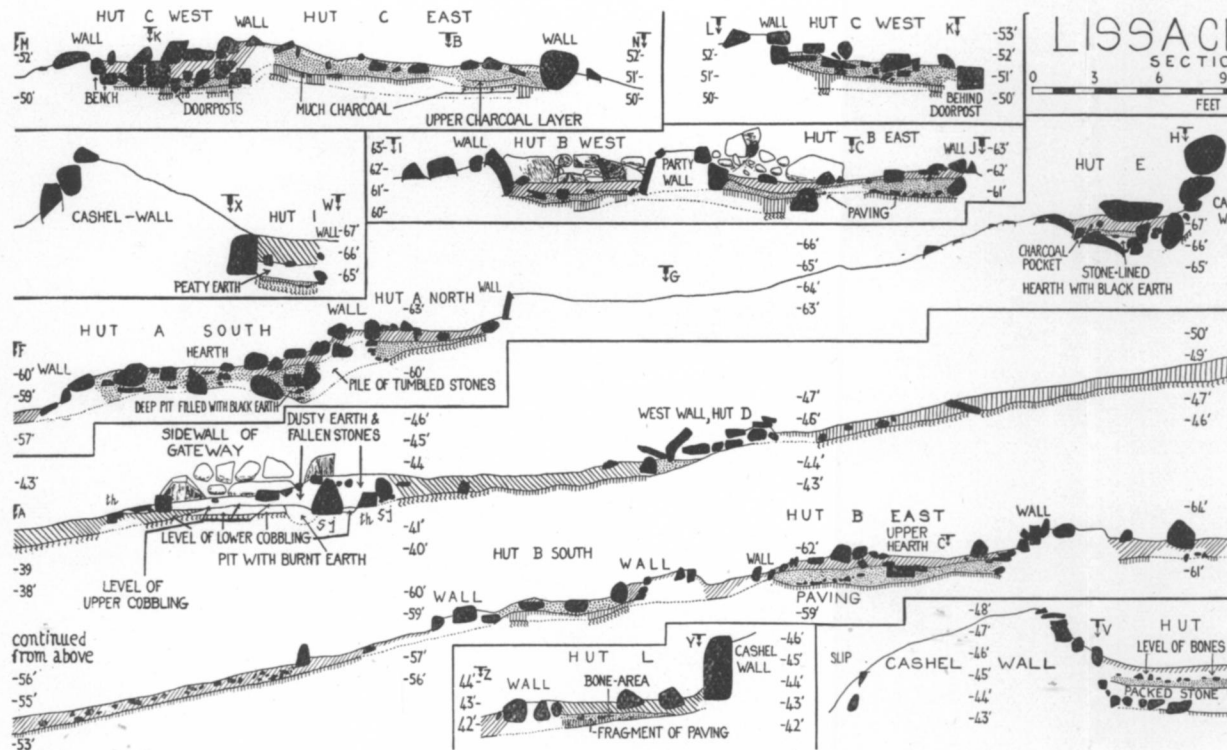
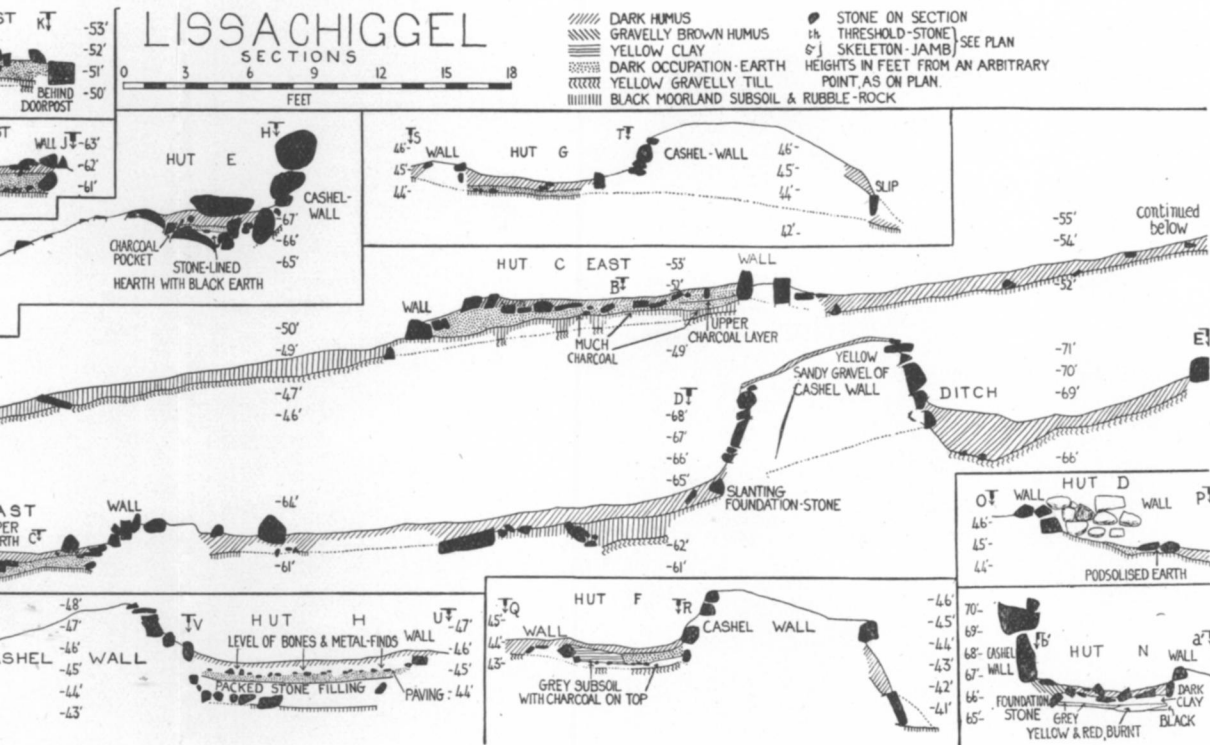


FIG. 3.



place of frequent passage. In and just above the lower cobbling were half a blue-glass bead (inv. 73, see below and fig. 6) and two formless sherds.

The outer edge of the gateway, beyond the passage through the wall, was flanked by two boulders 11 ins. high, set just above till (see plan, fig. 2). Between them were two flat paving-stones with small stones filling the chinks (see section AB, fig. 3), which marked the limit of stones in the gateway-area. On the inner edge of the gateway were two pairs of such "skeleton-jambs," set into gravelly subsoil, the southern about 18 ins. high, the northern about 9 ins. Between the northern pair was a step or threshold, marking the inner limit of the lower paving; behind it were a few packing-stones, beyond which the till rose steeply to the level of its top. Between the southern "skeleton-jambs," below the lower cobbling, was a pit tightly packed with small stones, burnt earth and charcoal; the subsoil-walls of the pit also had been partially blackened (for limits see plan fig. 2, and section AB, fig. 3).

Behind the south-eastern inner "skeleton-jamb" was a slightly soft patch of earth; but no evidence was found that the gate had a timber-structure embedded in the ground. The inner "skeleton-jambs" must seriously have impeded the roadway by reducing its width to 1 ft. 6 ins., and the inner threshold would have formed a step which would have rendered wheeled traffic impossible and even the passage of animals difficult. We cannot assume that these stones reached their position accidentally. They have obviously been set, and the southern interior pair to some extent support the corners of the cashel-wall, and could not be removed without undermining it. But equally, such low boulders can have had no practical significance in contracting or closing the gateway. It must, therefore, be assumed that they had a ritual meaning, which would explain the burnt earth between them. In the early Roman world, which had fairly close connection with proto-Celtic culture, we find numerous rites and superstitions associated with gates and doors; and it is not too much to assume that Celtic peoples may have had similar beliefs.¹

Our attention was from the first drawn to the irregular low piles and rings of stones in various parts of the fort, clearly the remains of huts. All these areas were wholly or partly cleared, and nearly every one yielded a well-marked occupation-stratum containing charcoal and the bulk of the finds. For the purposes of discussion they may be divided into four groups:

- a Clustered huts in the interior of the cashel, A, B (east and west), C;
- b Isolated huts in the interior of the cashel, B south D;
- c Huts abutting against the cashel-wall, which yielded no burnt bone, E, K, N, O;
- d "Huts," as I have called them for lack of a shorter or more comprehensive term, which abut against the cashel-wall, and yielded much burnt bone, F, G, H, I, L.

¹ I have found no evidence for such cults in any Celtic land among the large collection of texts printed by Zwicker, *Fontes Historiæ Religionis Celticæ*; nor was Dr. M. O'Brien able to make any suggestion bearing on this subject. Zwicker quotes the life of St. Medaid (*Acta SS.* 8 June II, p. 848) for a double-headed image at Crouy (Aisne), which must have resembled the Roman Janus-figures; and there is another on Boa Island (Fermanagh). But while Janus was a god of doors and gates, it is not proved that the Celtic two-headed god had any such character.

In addition, we carried out some tests along the inner face of the wall on east and south where there was a fair depth of earth, but little reason to expect huts or enclosures.

The huts, especially groups *a* and *b* in the centre, were bounded by very rough walls one or more stones thick. Seldom did more than one or two courses survive,¹ but loose stones were usually scattered within the hut-areas. In some cases it was difficult to distinguish fallen from structural stones. It was assumed that a stone resting on occupation-earth was not in situ, and thus the huts were cleared and the plans represented on figs. 4 and 8 constructed.² The wall-stones rested on dark moorland-subsoil, which often closely resembled occupation-earth; they were in no way bedded.

The walls of huts B west and D may be taken to survive to nearly the original height, which was hardly as much as two feet. The loose stones in most of the other huts would imply walls no higher. The sections of huts B and C (IJ, MN, fig. 3) seem to shew that the subsoil was hollowed out a few inches in the centre. Nearly all the huts were built on a steep slope with no attempt at terracing, so that the lower end would be deeper and often contained all the occupation-earth (e.g. huts A north and D, sections FG, OP, fig. 3). In none was any sign of timber-structure. They were presumably roofed with skins or thatch,³ which in a climate as damp as the Irish must have been laid on a gabled framework, even if it was of a weak or ephemeral character. Moreover, unless the roofs were partially raised, the huts would have been uncomfortably low, unsuitable for any movement save crawling; and it is difficult to see how fires could safely have been kindled in spaces not more than two feet high, covered by perishable and presumably inflammable material. It may therefore be assumed that one or more wooden posts supported the roofs; as no sockets were discovered, they may have rested on the ground like the pole of a bell-tent. Alternatively, posts may have been driven into the tops of the walls and wedged among their stones⁴; there also no sockets were found, but they could have been destroyed by the deterioration and disturbance which most of the walls have suffered. Or again, the stone walls may have been no more than foundation-courses for a super-structure perhaps of sods, into which roofing-timbers could be embedded. There would be an advantage in clustering such huts, with an unusually thick party-wall to form the central wall of the gable. On the steep slope of Lissachiggel, continually exposed to jumping sheep, most of the earth in the sods would have been washed away and would not have accumulated in mounds round the huts.

The irregularity of the hut-enclosures makes it difficult to classify them as circular or square. Those which abut against the cashel-wall are clearly conditioned by its long straight face; but whereas F and L are regular rectangles, E, H and I are

¹ There were several courses in huts B west and D, see fig. 3, sections IJ OP.

² These plans may not be absolutely accurate; owing to the difficulty of determining the line of the wall, it may occasionally be shewn too far in or out.

³ The large amount of ivy charcoal may be due to ivy branches having been used for roofing.

⁴ Many hut-walls seemed to have been built with a double row of stones.

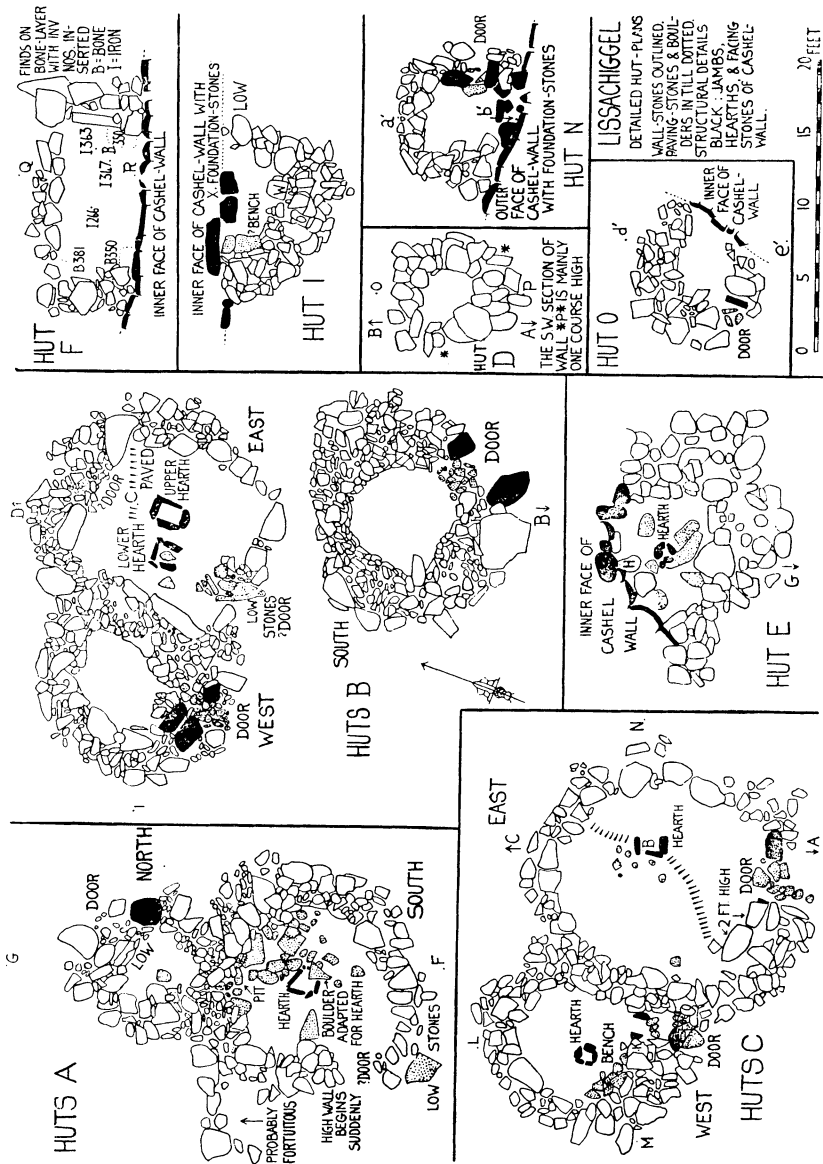


Fig. 4—Plans of Huts.

shapeless and nondescript. None of the interior huts can be called long ; all have approximately equal cross-dimensions. Huts A and C may be classed as circular, B and D have one or more angles in their outlines and may be roughly described as square.

Practically none of the enclosures abutting against the cashel-wall have entrances. There is a possible break near the north-west corner of hut F ; on the south-west of hut O are a few flat stones and one orthostat which could be a jamb ; the door on the east of hut N is better marked. Hut K has an obvious door, but the hut seems to be a fold not contemporary with the cashel. As for the isolated huts, in D no door could be identified. There is a break in the wall on the south ; but the foundation-stones survive on that side and rest on about two inches of natural podsolised earth (see section OP, fig. 3). Whether the entry into this hut was over a step or through the roof is uncertain. In Hut A South the ruined state of the south-west corner made it impossible to identify the door. In Hut A North the wall seems interrupted by some flat stones on the n.n.e. ; a large upright on the east could have formed one jamb, but there is nothing to correspond on the west. The doors of Huts B East and C East are not well marked. The former was probably on the south-west, where some flat stones could have been the threshold, though there are no obvious jambs. The latter seems to have been on the south, where several flat slabs are flanked by a massive upright on the east and a small stone on the west. Huts B South and West and C West have undoubted doors a little over a foot wide, flanked by orthostatic slabs not much more than a foot high ; the last seems to take a right-angled turn through the thickness of the wall. There is no evidence regarding the superstructure of these doors ; with their present width and height they would be too small even to crawl through. If the huts had tent-roofs, the doors may have been partially closed by flaps ; if they were built of sods, the openings could without difficulty have been extended upwards, and it is noteworthy that they are never exactly opposite the party-walls, which I have suggested may have formed gable-ends owing to their extra thickness.

Roughly square hearths built of small upright slabs usually sunk into till were found in Huts A South, B East, C East, C West and E (see detailed plans, fig. 4 ; also sections BC, FH, fig. 3). In the first and last a large boulder in the floor was used as one wall of the hearth. In Hut E the hearth overlies a deep cranny filled with charcoal and black earth, and burnt material also filled another cranny to the south-west (see section GH, fig. 3). In Hut B East are two hearths at different levels. The lower, to the west, has a stone floor-slab set very nearly on gravel till, round the edges of which we found much charred wood and shells and kernels of hazel-nuts. The eastern one is not sunk into the moorland-subsoil and its top is at a higher level, so it probably belonged to the upper floor identified in the hut. Its base was not a stone but yellow clay, like the hearth in Hut C West. In other huts, such as A North and D, black earth and charcoal were concentrated at the lower end, though there was no built hearth.

An unusual feature in Hut C West is the rough bench formed out of the lower courses of the wall on the south-west (see fig. 4 and section MB, fig. 3). Two stones on the west of Hut I could have had a similar function, and in Hut N the foundation-stones of the cashel-wall could have been used. Apart from the hearths, this was the only example of furniture in the huts. In several there was a boulder in till near the hearth, which may have been left as a seat.

Isolated hut-circles are not uncommon on the Irish mountains,¹ e.g. on the Divis range in Co. Antrim, on Scrabo (Co. Down), near Greencastle (Tyrone), and between Coleraine and Limavady (Co. Derry). I have been told of many in Co. Wicklow. Unfortunately, none have been scientifically excavated, and comparisons cannot be instituted without reliable plans and evidence as to date. Clustered huts are less common, but the pair down the valley (see fig. 1) provides a close parallel.

The Irish huts recorded lie at high altitudes, as do those in Scotland. Though they are ephemeral structures, which could have been destroyed by agriculture, it is unlikely that a few would not survive on lower slopes if they had existed. The majority lie well above modern cultivation-level, and the blank intermediate area is hard to explain on any theory of casual destruction. Nor do such surveys as have been made suggest that alternative types of settlement, cashels and raths, normally extend to nearly so high an altitude. Most houses may have been built of wood except on the mountains. But it is also possible that these mountain-huts were the summer shielings of transhumants.² If, however, Lissachiggel was summer settlement for pasture and for the small-scale agriculture implied by the ancient fields, it must have been occupied until September or October, when hazel-nuts would be ripe.

It is especially noteworthy that the Lissachiggel huts were not clocháns, as they contained too few loose stones and their walls were too thin for a stone superstructure, although down the Ballymakellett valley are a sweat-house and several sties built on the clochán-principle with corbelled stone roof. The clochán can be traced back to the earliest Christian times at Skellig, and should be related to the vaulted souterrain and descended from the megalithic chamber. It would be dangerous to assume that huts with stone foundations are earlier than stone-roofed huts. The flimsy huts of Lissachiggel may have belonged to a summer-village, whereas monastic cells intended for permanent habitation had to be better built.

The huts excavated by Hencken at Cahercommaun,³ though provided with hearths like those at Lissachiggel, are in other ways dissimilar. They are mainly built round the wall of the cashel; they are fairly large, and seem to cover most of the fort-area. The closest parallel which I know to Lissachiggel is Cashelnavean above

¹ E.g., *U.J.A.* III iii (1940), p. 5.

² Cp. Evans, *Geography* (Dec. 1940), p. 172.

³ O.S. Clare 10 9 6; *J.R.S.A.I.*, extra volume (1938).

Barnesmore Gap,¹ a cashel situated at an altitude of 720 ft. and containing traces of several huts.

The hut-circles of Cornwall and Wales, though often clustered, are usually better built and larger than Lissachiggel, with frequent traces of internal partition.² The walled hut-groups of Anglesey are very complex and the village-walls often polygonal, perhaps under Roman influence.³ In Scotland there are isolated and clustered hut-circles more like the Irish examples, though usually oval rather than circular. At Townhead in Dumfriesshire⁴ is an oval circle with central hearth built of slabs on edge.

GROUP A. CLUSTERED HUTS IN THE INTERIOR OF THE CASHEL.

HUTS A ; DETAILED PLAN FIG. 4, SECTION FG, FIG. 3. Pl. II 3.

Hut A North, roughly circular, about $4\frac{1}{2}$ ft. across. The walls are unevenly piled without facing ; in most places they are two stones thick and survive to two courses. The door was probably on the north-east. The floor of yellow gravelly till dips sharply southward towards a pit on the north side of Hut A South. The south end of Hut A North is bounded by a rough paving of small slabs, through which occupation-earth probably filtered into the pit. A few boulders were left in till, one perhaps as a seat. The occupation earth was concentrated on the lower side of the hut, and contained some charcoal,⁵ and nine small coarse sherds. These seem derived from several pots ; the only piece with significant shape is pot a (fig. 5), which was not found in the lowest part of the hut. It closely resembles pot q from Hut E, and will be described below.

Hut A South, roughly circular, about 10 ft. across. The walls survive to two or three courses, save on the south, where only one is preserved. On the south-west the wall disappears, perhaps on the site of the door, and the limits of occupation-earth could not be precisely determined as it seemed to have spread owing to the absence of the hut-wall. The hearth is nearly in the centre. A large boulder bedded in till to the west may have been a seat. On the east is a little paving. On the north is a

¹ O.S. Donegal 86 2 1. Tempest in *L.A.J.* ii, p. 434 quotes Westropp's opinion that similar huts are common within cashels in the west of Ireland. I have seen none of these, and owing to the diversity of hut-types am not prepared to quote them as parallels to Lissachiggel without personal inspection.

² E.g., Ty Mawr, *Arch. Camb.* (1868), p. 385 ; St. David's Head, *Arch. Camb.* (1899), p. 105.

³ Cp. *Historical Monuments Commission, Anglesey*, p. lxxiii ff.

⁴ *Historical Monuments Commission Scotland, Dumfries*, no. 67.

⁵ Inv. no. 244 ; of ten pieces nine were whin and one ivy.



LISSACHIGGEL. PLATE II.

1. Cashel Gate, finally cleared, from south.
2. do do. from north. (N.B.—The two pairs of skeleton-jambs.)
3. Hut A North, from north.
4. Hut B West, from north west.
5. Hut B East, from north east, showing paving on east side.
6. Hut H, from north west.
7. Hut B South, from north west.
8. Ancient sheepfold marked on fig. 1, 400 yards S.E. of Cashel.

deep pit filled with large boulders and black earth, probably a natural cranny in which rubbish accumulated. In the occupation stratum we found :

i. A good deal of charcoal ; there were identified whin, prunus (? blackthorn), sorbus-pyrus (? rowan or apple), willow-poplar, and a little holly, elm and hazel (inv. no. 302) ;

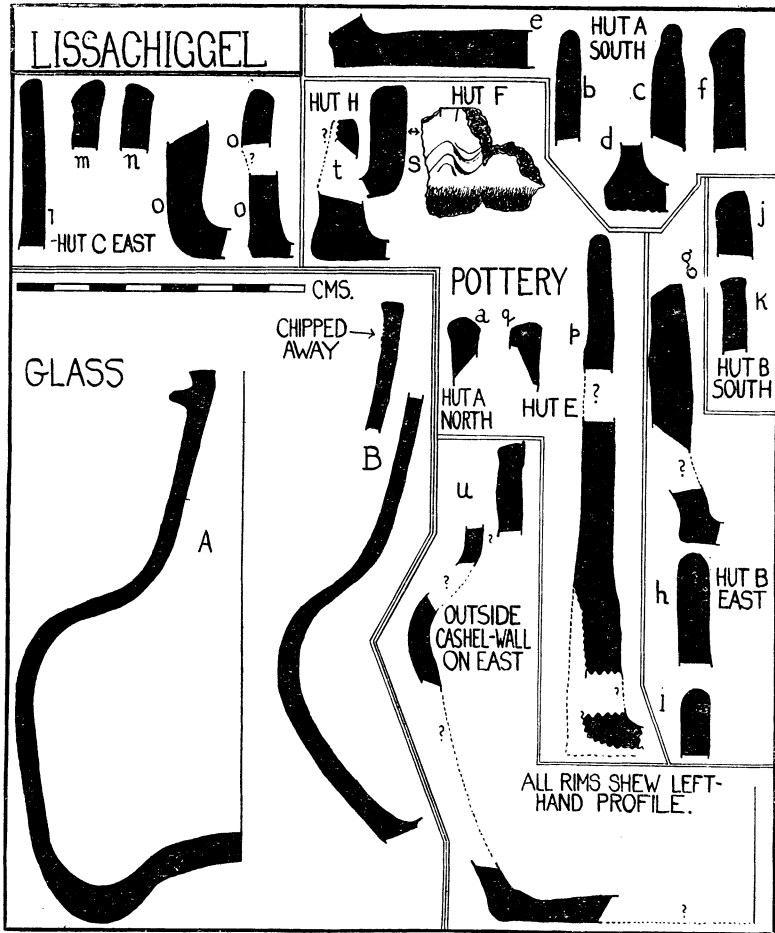


Fig. 5—Pottery and Glass.

ii. Fragments of pots b, c, d, e and f (fig. 5). Many small sherds, from coarse hard cooking-vessels, probably belong to one of these pots, but cannot be assigned with certainty. Much of the pottery was found close to the hearth ;

iii. Several flint chips, apparently natural, one burnt. A fairly thick flake (inv. no. 304), 3 x 4 cms., of poor opaque yellow-brown flint from a

pebble. On one side and along one edge of the other are signs of trimming and battering. Almost certainly a strike-a-light.

West of Hut A South is an agglomeration of stones resembling a third hut. In it we found brown earth with a little charcoal and one sherd, but no proper occupation-layer. Thus the stones seem to be arranged fortuitously.

HUTS B WEST AND EAST ; DETAILED PLAN FIG. 4, SECTIONS BD, IJ, FIG. 3.
Pl. II 4 and 5.

Hut B West, roughly rectangular, about 6 x 8 ft. The walls survive to two or three courses, and are partly faced with large upright boulders. The door, on the south, is well marked with three upright jambs and some small flat slabs. The occupation-layer was patchy, and mainly concentrated on the south which is slightly deeper. It contained some charcoal¹ and a few small sherds, none of which have any significant shape or can be assigned with certainty to any of the pots described.

Hut B East measures about 11 ft. square, and is one of the largest. The walls on the upper side survive to two or three courses, and are sometimes formed of massive uprights. On the lower side they consist of a single line of fair-sized stones ; but within these were many fallen or loose stones, without facing or alignment, which rested on occupation-earth, but may have represented a partial reconstruction for the second period of the hut. Several rough flat slabs on the west were perhaps the door-threshold, though there were no obvious jambs ; the pile of small loose stones in the north wall between two upright blocks could also mark the site of the door. The till-level is uneven. On the north it was covered by an inch of hard grey earth, probably an old subsoil with protruding pebbles. In the centre it had been hollowed out at least six inches to bed the hearths, above which it rises sharply. The hut contains two hearths, the upper being apparently contemporary with a paving an inch or two above till. Around them and on many parts of till was much charcoal.

The finds from Hut B East include :

- i. A great deal of charcoal. Out of ten pieces in inv. no. 211-337, three were willow-poplar, two each whin and hazel, one each holly, prunus and birch. Of 20 pieces from the lower layer in inv. no. 383, 13 were willow-poplar, two each sorbus-pyrus, hazel and yew-juniper, and one whin ;
- ii. Many shells and charred kernels of hazel-nuts, especially round the lower hearth ;
- iii. Some minute and unidentifiable fragments of burnt bone round the lower hearth ;

¹ Inv. no. 132 ; of ten pieces, five were whin, three prunus, and one each holly and ivy.

- iv. Several burnt flint chips, mainly round the lower hearth ;
- v. Some small flint flakes, from pebbles where identifiable. Inv. no. 296, of poor yellow-brown flint, seems to have traces of dressing on one side, though I do not know its purpose ;
- vi. Three probably flint tools, inv. nos. 143, 290 and 232, see below and fig. 6. The first two were probably strike-a-lights ;
- vii. A good many coarse sherds, including rims g, h and i. Many of the smaller sherds cannot be definitely assigned ; they do not closely resemble the rims identified, but the variations of surface and thickness of the coarse cooking-pots used at Lissachiggel makes it difficult to assert or deny that any sherd cannot be associated with any other. There is no good evidence that any of the sherds from this hut should be connected with those from elsewhere, except for no. 318, a piece 15 mms. thick, black and partly sooted on the outside, reddish on the inside, which closely resembles no. 122 from Hut B South. No distinction is apparent in the pottery from the two levels of the hut.

HUTS C ; DETAILED PLAN FIG. 4, SECTIONS AC, KL, MN, FIG. 3, PL. I 2.

Hut C West, roughly circular about $7\frac{1}{2}$ ft. across. The walls are mainly of orthostatic boulders, surviving to a height of rather more than a foot. The door is on the south, with two low jambs. Nearly in the centre is a small hearth, and on the south-west a rough bench in the wall. The slight slope of till caused occupation-earth to accumulate on the lower side. In the hut was found some charcoal,¹ especially round the hearth, hazel-nut shells, a flint which may be a broken scraper,² an iron knife (inv. no. 65, see below and fig. 7), and some very small sherds 6-9 mms. thick, with fine reddish biscuit and grey, rather uneven and soft surface ; all could belong to the same pot, but there is no significant shape ; they do not closely resemble the pottery from any other part of the site.

Hut C East, more or less circular, about 12 ft. across. Most of the wall has two thicknesses of stones ; not more than one course usually survives, to a maximum height of $1\frac{1}{2}$ ft. For some reason there are extra stones on the south-west, projecting into the chamber. The door seems to have been on the south, flanked by two small jambs. In the centre is a hearth. The till rises sharply across the middle of the chamber, which seems to have been roughly terraced, perhaps to bed the hearth ; the upper level has irregular traces of cobbling. The occupation-stratum was not very thick ; there was a great deal of charcoal just above till, and in the north-east part an upper black layer was observed a few inches higher.

¹ Inv. no. 89 ; of 10 pieces 5 were whin, 2 each hawthorn and ivy, and 1 willow-poplar.

² Inv. no. 81, of fine flint, 17 x 10 mms. x 4-5 mms. thick ; on one edge some steep secondary chipping.

The finds from Hut C East include :

- i. A good deal of charcoal ; of ten pieces in inv. no. 130, seven were willow-poplar, two hazel and one whin ;
- ii. Pieces of a lignite bracelet, no. 157-179, see below and fig. 6. Neither piece was found in the occupation-layer, but the association with the hut is probable ;
- iii. Seven flint tools ; for nos. 7, 70, 142, 148, see below. No. 105 is a small opaque flake, slightly chipped and worn to form a small rough hollow. No. 149 is part of a brown pebble, with chipping and battering along two edges, perhaps a strike-a-light. No. 182 is a small opaque flake with some signs of use along one edge, perhaps a strike-a-light, as too small for a tool ;
- iv. two burnt flints ;
- v. An iron object of uncertain use, inv. no. 42, see below and fig. 7 ;
- vi. Pieces of pots l, m, n and o ; also small coarse sherds, some sooted, which cannot be assigned.

South-west of Hut C East there appeared on the surface a ring of stones bounding a third hut. These stones, however, were proved to be loose, and within the area was light brown earth and no occupation-stratum. They may, therefore, be regarded as fortuitous.

GROUP B. ISOLATED HUTS IN THE INTERIOR OF THE CASHEL.

HUT B SOUTH ; DETAILED PLAN FIG. 4, SECTION BC, FIG. 3, PL. II 7.

Partly circular and partly polygonal hut about 6 ft. across. The wall survives to two or three courses. The door is on the south-east, flanked by two large jambs, and roughly paved with small stones. The hut yielded some charcoal¹ and a number of sherds, apparently from two pots j and k.

HUT D : DETAILED PLAN FIG. 4, SECTION OP, FIG. 3.

Apparently square, about 3½ ft. across. On north and east the wall is about two feet high, the stones being laid roughly as stretchers ; on south and south-west is mostly only one course, the stones being in general set radially. No door is apparent. The till slopes steeply, and the occupation-earth, containing a good deal of charcoal,²

¹ Inv. no. 131 ; of 10 pieces 4 each were whin and prunus, 2 willow-poplar.

² Inv. no. 115 ; of 10 pieces 6 were whin, 3 prunus and one willow-poplar.

was concentrated on the south and south-east, and continued to some extent beneath the stones of the wall. The only significant find was a bi-coloured glass bead from the burnt earth (no. 107, see below and fig. 6).

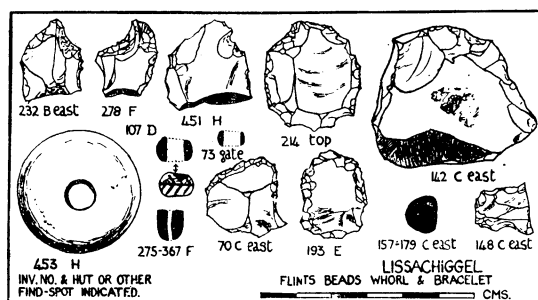


Fig. 6—Flints, Beads, Whorl and Bracelet.

GROUP C. HUTS ABUTTING AGAINST THE CASHEL WALL, WHICH YIELDED NO BURNT BONE.

HUT E ; DETAILED PLAN FIG. 4, SECTION GH FIG. 3.

Abuts against the inner face of the wall, which survives to three courses ; no bond of the walls, but this is of little importance with masonry so rough. The shape of the hut is irregular. In the west wall there may have been a small bench. The floor is partly composed of firm boulders, partly of rough paving-stones. The hearth is built of small vertical slabs. Around it and in other crannies was much charcoal, but elsewhere the occupation-earth was thin. The hut yielded :

- i. Much charcoal. Of 20 pieces, inv. no. 172, 8 were whin, 5 willow-poplar, 2 each ivy and hazel, and one each holly, hawthorn and yew-juniper ;
- ii. Two pieces of iron, no. 225 ; one is a broken nail with flat head 8 mms. across ; the other a bar of square section 6 mms. across and 2 cms. long, apparently with a small square hole down the centre, one end slightly thickened by hammering, the other end broken ;
- iii. Several flint chips perhaps broken flakes, one burnt ;
- iv. Six flint tools. Three are probably strike-a-lights, nos. 176, 195, and 198 ; a small opaque chip with wear round the edges, no. 188 ; an opaque flake, no. 260, partly lustrous and with signs of use, 24 x 18 x 8 mms., of steep triangular section ; a poor scraper, no. 193, see below and fig. 6 ;
- v. Many small and crumbly sherds, largely from the crannies apparently belonging to two pots p and q.

HUT K ; GENERAL PLAN, FIG. 2.

On the east is a loose stone wall of several courses, resting on large irregular boulders ; the western wall is lower and less well built. The enclosure is pear-shaped and the flimsy construction suggests a modern fold, like some of those on the hill-side. A small pit in the north-east corner revealed a few inches of black earth containing some charcoal¹ above the brown clayey till. Adjoining Hut K on the south-west is another apparent enclosure (K' on fig. 2), containing some loose stones, and bounded by a stone pile partly derived from the ruins of the cashel-wall. In this enclosure also we found about nine inches of black earth containing charcoal.

HUT N ; DETAILED PLAN FIG. 4, SECTION a' b' FIG. 3.

A well-preserved enclosure abutting against the outer face of the cashel-wall, with which its walls make some attempt to bond. It looks as if the cashel-wall has been refaced, as the lowest course is set slightly back and is roughly built with large chinks, while the upper courses lean a little forward, as if to form the beginning of a corbelled roof. The foundation-stones, mixed with light gravel and set aslant into till, may have acted as a bench. The hut-walls are generally two stones thick, and survive to about two courses. The hut is roughly square, and about four feet across. The door, on the east, is flanked by jambs and paved with pebbles. The hut seems to have been constructed in the cashel-ditch, and so the till rose southward. Below a humus-layer containing many loose stones and some charcoal was black peaty clay, gravelly in the top inch, and containing a few flat stones. Into the upper part of this layer the stones of the hut-wall were bedded. In the deeper part of the hut, towards the north, the black clay overlay a thick layer of yellowish and reddish burnt earth, densely black at base and containing much charcoal.² This burnt earth must have been produced by fires in situ, though it is difficult to understand their purpose and probable that they are not contemporary with the hut. Below it was gravelly till, sometimes covered by half an inch of clayey subsoil and a few stones, perhaps a rough and discontinuous paving. At the upper or southern side of the hut the burnt earth was replaced and overlain by a thin brown or grey stratum, probably due to natural accumulation or leaching, as it also is separated from till by a little dark clayey subsoil. Apart from the charcoal, Hut N yielded no artefacts, and its position outside the wall makes it likely that it is later than the cashel.

HUT O ; DETAILED PLAN, FIG. 4.

A very rough pile of stones, perhaps an artificial enclosure, though some wall-stones are not bedded deep while others are firm. They could not, however, have all

¹ Inv. no. 369. Of 10 pieces 3 each were willow-poplar and yew-juniper, 2 whin, and 1 each ivy and oak.

² Inv. no. 449. Of 10 pieces 4 were whin, 2 each prunus and ivy, and one each ash and willow-poplar.

fallen from the cashel-wall, so must presumably have been deliberately placed in position. The enclosure backs on to the cashel-wall, which at this point is faced with small stones. There was perhaps an entrance on the south-west, though it has no proper jambs. On the floor is a rough cobbling, which, however, was generally found on the south and east sides of the cashel, and need not be connected with the enclosure. There was no definite occupation-layer, but sparsely scattered charcoal occurred throughout the hut.¹ This suggests that if Hut O was an artificial enclosure, it was not used for human habitation.

GROUP D. HUTS ABUTTING AGAINST THE CASHEL WALL, WHICH YIELDED MUCH BURNT BONE.

HUT F ; DETAILED PLAN FIG. 4, SECTION QR, FIG. 3.

Rectangular enclosure with a wall of fair-sized stones, seldom more than one course high, abutting on the cashel-wall. They are set at a high level, and the rough cobbling which covers the whole area extends beneath them and is separated from them by half an inch of earth. Thus they seem to delimit an area rather than to be a wall-foundation. The gravelly till was covered by about two inches of dark grey earth with much charcoal on top, probably an old humus, slightly hollowed in the centre and rising under the walls of the enclosure and of the cashel. On it was a cobbling of small irregular stones, between which and the modern humus-layer were about six inches of clay, sometimes light yellow containing very little charcoal, sometimes rather darker with more scraps of charred wood and a few nut-shells. This seemed to be a natural accumulation of silt, which would contain some occupation-material from the higher parts of the fort. At the top, in the south-west corner, were fragments of a clay pipe.

The principal occupation-layer, in and just below the cobbling, on top of the old humus, yielded :

- i. A good deal of charcoal ; of 20 specimens inv. no. 288, 10 were whin, 7 prunus and 3 willow-poplar ;
- ii. Specimens of carbonised grain ;
- iii. An ornamented sherd, pot s, inv. no. 277 ; see below and fig. 5 ;
- iv. Three small sherds of pot r 4-5 mms. thick, with fine and dusty but uneven surface, rather soft biscuit, yellowish-grey in colour. There was no significant shape, but the ware is unlike the normal coarse cooking-pots from this site. These sherds lay slightly higher than pot s ;
- v. A minute flake and a chip of flint.

¹ Inv. no. 456 ; of 10 pieces 4 were willow-poplar, 3 hawthorn, 2 whin, and one prunus.

In the south-west, south-east, and north-west corners of the hut were isolated pockets of burnt bone, the pieces being scattered in small groups and not strewn evenly. They lay on and slightly above the cobbling, and were embedded in earth markedly darker than the usual yellow-brown silt and containing a good deal of charcoal. Mr. Stelfox thinks that many of them might be cremated human bone, but has been unable to recognise any pieces except two which he thinks are probably part of the mandible of an ox. With them were some unburnt teeth of ox and splinters of animal-bone.

On the paving, at the same level as the bones, were several pieces of iron. Inv. no. 347 (fig. 7) contains fragments of a small spur; the width of the iron hoop is about 8 mms., increasing to about 13 close to the spur; the thickness, as far as can be determined through the rust-encrustation, is about 2 mms. The spur has a double prong, now about 2 cms. long and slightly bent upwards. Spurs make their appearance in central Europe in the third or second century B.C., but do not become common until the first¹; but the early type, which lasted well into the middle ages, has a single conical prick. They were in due course replaced by the wheel—or rose-spur; but the double-pronged spur found at Lissachiggel, with slight upward inclination, cannot be earlier than the seventeenth century. Inv. no. 266 includes a thin iron bar, apparently bent, and probably a coarse nail; also, embedded in rust, a circular disc 8 mms. across and $2\frac{1}{2}$ thick, with a circular perforation in the centre $2\frac{1}{2}$ mms. across; it is impossible to see whether the object is flat on both sides or is the cap of a cylinder; but it looks like the cap of the cartridge of a miniature rifle with detonator removed. Inv. no. 363 is a rusted nail 4 cms. long with roughly spherical head. The problem of the iron object and burnt bones will be discussed generally when all the enclosures of group d have been described.

In the silt above the paving was charcoal, a flint chip from a nodule, a broken flake of opaque white flint $23 \times 17 \times 4$ mms., with secondary chipping along one concave and one convex edge (no. 278, fig. 6), and two pieces of a white bead (no. 275-367, see below, fig. 6). There is no reason why these objects should not be earlier than those on the paving, for they have probably been washed down from the upper parts of the fort.

HUT G; GENERAL PLAN, FIG. 2, SECTION ST, FIG. 3.

A very rough and discontinuous enclosure, formed by a low bank containing a few high-level stones. I had been at first unwilling to class it as a hut; but its walls are not unlike those of huts F and H. The till dips towards the cashel-gate, and at about five feet west of ST is as much as 20 ins. below turf. There was no paving. The hut was filled with dark dusty earth, containing a few pebbles, a good deal of charcoal, and a little carbonised corn.² The charcoal extended upwards into the

¹ Ebert, *Reallexikon der Vorgeschichte*, s.v. Sporn.

² No. 226. Dr. O'Connor reports 11 grains of barley, one of wheat, and another grain which cannot be identified with any native seed but may be a swollen wheat-grain.

modern humus. There were two principal pockets of burnt bone. The fragments were minute and could not be recognised; along with them were a few unburnt ox-teeth. Some of the smaller finds in the hut could have been washed down from higher levels. They included :

- i. Two small flakes and a burnt chip of flint ;
- ii. A formless piece of iron ; and part of a thin curved iron band, 1 cm. wide x $9\frac{1}{2}$ long x 2 mms. thick ;
- iii. A few small coarse sherds ;
- iv. Nearly at turf-level, a hone of fine-grained volcanic ash, measuring $3 \times 2 \times 1\frac{1}{2}$ ins., worn concave on the four sides and on one end.

HUT H ; DETAILED PLAN FIG. 8, SECTION UV, FIG. 3, PL. II 6.

The enclosure abuts against the cashel-wall, and is surrounded by an irregular ring of low stones, without generally more than one course. Below a few inches of humus and dark earth was a rather patchy cobbling of small stones, set at any angle, which as in Hut F extended beneath the enclosure-wall. Immediately below it were about two inches of black earth containing much charcoal,¹ some of which, with its contents, had filtered down into a layer of loose stones about a foot thick. The earth among these at a lower level became harder and more gravelly, and crannies shewed that they had been loosely tumbled in, probably as a foundation for the cashel-wall.

All the pottery, save for two small and indeterminable sherds which could have been washed down, came from below the cobbling, either from the black occupation-stratum or from among the loose stones. Probably all sherds, save for one finer and thinner piece, are from the same cooking-pot t, which must have been broken in situ. There were also at this level some small flakes, burnt chips, and rough tools of flint (inv. nos. 414, 451, 470, see below and fig. 6), and a ferruginous stain perhaps derived from a small iron object.

About $\frac{1}{2}$ -1 $\frac{1}{2}$ ins. above the cobbling was a discontinuous layer of burnt bone, which extended into crannies in the cashel-wall. The pieces were too small to recognise, but might have been cremated human bone. With them were a few unburnt teeth and bones of ox or calf.

On the same level were found a large number of iron and copper objects, illustrated on fig. 7. All were lying flat, save for some of the small nails, and the impression which they gave was of intentional and careful deposition. The copper articles were separately wrapped in fronds of gorse or bracken, whose structure was easily recognisable. The iron, which was much rusted, shewed no signs of wrapping.

- i. No. 355, a copper object, polished on the outer surface, rather rough on the inner, which is bent up round the edges as if it had been hammered

¹ Inv. no. 465. Of 20 specimens 8 were prunus, 6 whin, 2 each holly and ivy, and one each hawthorn and willow-poplar.

on to a hard surface, perhaps of wood. There are signs of wear at the wide end. The plate is curved at about 60 degrees, and the tang, which is slightly crooked, appears to be broken off at a rounded rivet-hole. The six other rivet-holes are square, and rather irregularly punched from the outside. It has been suggested that it is the buttplate of a musket; this should be bent at over 90 degrees, but if it had been wrenched off, the tang could have become displaced. Functionally, it could easily have served this purpose; it is unlike any standard example, but may have been of local rustic manufacture. It was found lying flat, with the tang downwards, wrapped both above and below in bracken and gorse. On the plate, among (probably originally below) the bracken, was a matting of plaited hazel-twigs, 2-3 mms. thick, which seems to be perfect on one edge but rotted on the others;

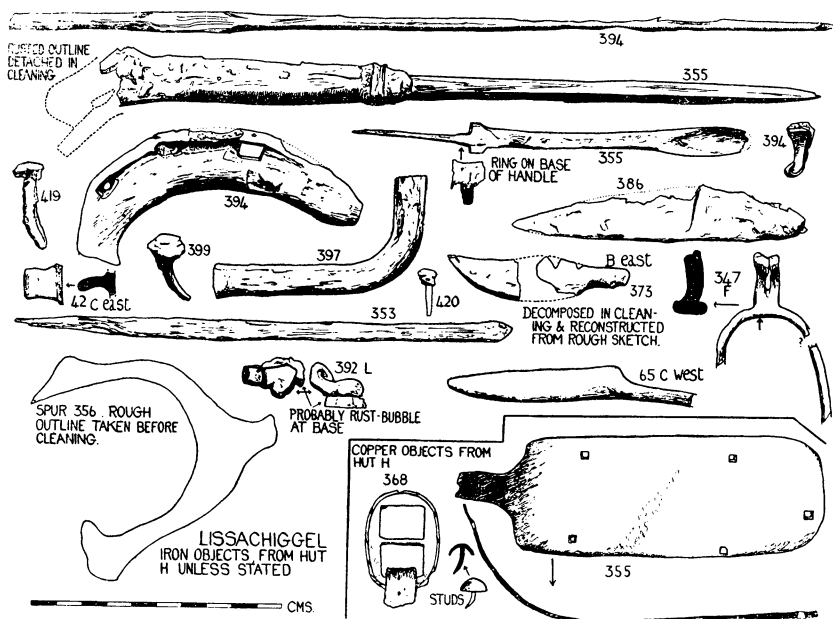


Fig. 7—Metal Objects.

it thus probably covered the copper plate but is too much curved to have been sewn on to it. Immediately beneath the plate were carefully laid side by side four unburnt bones of ox; at a slightly lower level was another splinter of unburnt bone. There was no bracken beneath the bones. Beside this pocket were two gilded iron objects. To the south and east of the copper plate several small stones on edge formed what seemed to be an intentional enclosure.

ii. No. 368, a flat copper buckle, smooth on the upper side and rough on the lower, about 1 mm. thick. Round the edge is a carelessly engraved

groove, the tool having slipped several times. Attached is a small loop of a leather strap, 12 mms. wide and 2 mms. thick, perforated with two narrow holes. Beside it was an iron fragment, perhaps the remains of a nail. The buckle, though not exactly datable, does not seem to be of great antiquity ; it might well belong to the seventeenth or eighteenth century.

iii. Twelve round-headed copper studs, of similar type but more or less decayed. The heads formed about a third of a sphere and were 9-10 mms. across ; the shafts are usually of square section, about 2 mms. across and 9 mms. long. Most of them are a little bent. Each stud was wrapped in

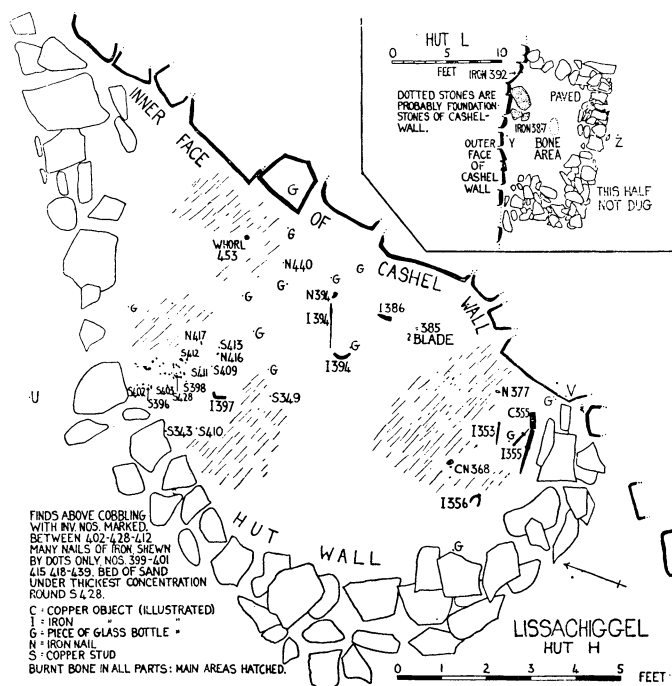


Fig. 8.

gorse or bracken and individually deposited ; they are not the remains of a perishable object. They may have been fastened on to leather, perhaps as harness-ornaments or something similar. The type is too simple to be even approximately datable. Similar studs, with hemispherical heads, are found in the Rhineland in Roman times¹ ; but there is no reason why the Lissachiggel examples should not belong to the seventeenth century or even later.

iv. No. 353, a plain iron bar, probably pointed ; now 20 cms. long, and of square section 7 mms. across, tapering towards the point. The top is

¹ *Germanische Denkmäler der Frühzeit*, iii : Uslar, *Westgermanische Bodenfunde*, pl. 23, nos. 34-7.

rough, but probably not broken. Like most of the iron found, it is much striated, as if it had been damascened and the rust had especially attacked the softer parts; but it has not been possible to carry out a technical examination. The piece may be a point, like no. 355, with the socket gone.

v. No. 355, an iron object with stout metal spike 17.2 cms. long, of square section, tapering from 8 mms. across just below the ring to 6 mms. shortly above the point. The upper part is circular, and contracts from 23 to 13 mms. It is probably formed of a separate piece of metal, and encloses a hollow socket, now filled with dirt and rust. The top end was bent, to form a distinct knee on the outer angle, while the circular section is flattened on the inner. The head became detached in cleaning and cannot be restored; one piece is an irregular plate measuring 34 x 19 mms., the other has disintegrated. On fig. 7 I have dotted the rusted outline of the head before cleaning, in order to shew its angle and that it was forked, with a slight cavity between the two prongs. At the base of the socket is a raised ring about 17 mms. in diameter, now rusted on but probably originally detachable. It seems to have been slightly concave in outline, and probably secured the socket, which is likely to have held a wooden handle, on to the spike. On the ring and socket, and at one point on the spike 17 mms. below the ring are traces of gilding. The gold leaf is laid irregularly on to an uneven surface, and has worn away especially from the higher parts; but it has been pressed into two fine grooves at the base of the ring. The gilding of iron by overlay and pressure without chemical medium was practised rarely from Roman times,¹ and was well known in the Renaissance. I have not been able to find what this object can have been; it was clearly not a common tool, which would not have been gilded.

vi. No. 355, a tanged gouge. The tang is of rectangular section, and tapers from 6 x 6 mms. near the shoulder to 2 x 4 near the point. The shoulders are rather irregular. The shaft maintains a constant thickness of 6 mms., until it is hammered out into a saucer-shaped blade, of which the edge has rusted away. The tang was attached into a wooden handle; it has not been possible to identify the wood. It was secured by a thin iron ring 16 mms. across and 14 wide, on which are traces of gilding.

vii. No. 356, parts of an iron spur, so disintegrated in cleaning that it cannot be reconstructed. The sides were of oval section, measuring about 10 x 6 mms. The illustration in fig. 7 has had to be taken from an outline made before cleaning. Unfortunately, its type cannot be determined, but it seems to have had a simple prong and was not forked like no. 347.

viii. No. 385, two thin fragments, probably part of a knife or other blade.

¹ Blümner, *Terminologie und Technologie*, iv p. 311, n.1.

ix. No. 386, straight single-bladed knife, partly decomposed, especially along the blade and at the tang. The top of the rib is 3 mms. thick, and it tapers gradually. The tang is only slightly wider than the blade, and is distinguished from it by being of even thickness.

x. No. 394, half a horse-shoe, broken. The lower side is rounded, the thickness not more than 2-3 mms. In it are three sockets for stout rectangular nails ; part of the head of one seems to survive. The shoe is clearly of an archaic pattern, much thinner than modern examples. But although horse-shoes occur as early as Roman times, there was little variation in the type for many centuries, and it cannot be stated that this one is as early as even the middle ages. It is of no value therefore for dating the deposit.

xi. No. 394, a thin rod of iron, now 32.9 cms. long, but probably rusted away at the point. In most parts the section is circular, tapering from $7\frac{1}{2}$ mms. across at the hilt to 6 in the upper part of the shaft and $4\frac{1}{2}$ near the point ; between 5.8 and 8.5 cms. from the hilt the section is square, $8\frac{1}{2}$ mms. across. This must either have held a wooden handle or have been a stop. If about a foot length had been broken or rusted off the point, the object could have been a ramrod, though it is not of standard pattern. Steel ramrods did not become obligatory in the English army until about 1750, but were occasionally used earlier.

xii. No. 394, nail of rectangular section, tapering from 9×5 mms. at the head to a blade $3\frac{1}{2}$ mms. wide at the base, which is curled over. The head swells out from the shaft, but is not distinct. The length would have been 29 mms.

xiii. No. 397, bent iron bar 11 cms. long, of square section with rounded edges 13×14 mms. The end of the shorter arm is rough and probably broken ; the longer is partly smooth and slightly flattened, as if it had been half sawn through and then broken with a hammer-blow.

xiv. It is unnecessary to describe in detail the 25 iron fragments which are certainly or probably nails, and five other formless scraps which may have been. Three (nos. 399, 419, 420) are illustrated on fig. 7. They lay in no order, and it was impossible by planning them to reconstruct some wooden vessel into which they might have been fastened. They were mainly concentrated on the north side of the hut, not far from the copper studs ; under one group was a bed of light-coloured coarse sand $\frac{1}{4}$ in. thick, overlying an inch of dark earth above the cobbling. They are a miscellaneous lot. The sections vary considerably, usually square or rectangular, sometimes circular. The heads may be flat, convex or spherical ; many have no head. Most are less than 25 mms. long ; but the points must often have been corroded. Many are bent or hooked. They give the impression of a stray assortment, collected or stolen from anywhere, often probably spoilt in use or in extraction.

xv. On the same level as the above objects was a whorl of fine-grained micaceous sandstone (inv. no. 453, fig. 6), 34 mms. across and 8 mms. thick. Both sides are flat, the upper edge is slightly bevelled. The perforation, 8 mms. across, is slightly eccentric and not quite perpendicular to the surface-planes.

xvi. Very slightly above these remains, but below most of the glass, were pieces probably of the chitinous outer skin of the large fresh-water mussel *Anodonta*, which may have been used for food (inv. no. 359).

xvii. A great deal of charcoal was found with the bones and iron objects. Of 10 pieces from inv. no. 455, 7 were whin, 2 willow-poplar and one hazel.

Considerable portions of two wine-bottles (fig. 5) were found scattered in all parts of the hut. Nearly all the pieces lay just below turf, sometimes of the foundation-stones of the cashel-wall, and several inches above the bones and iron; one or two fragments were on the level of the latter, but could without difficulty have worked their way down. A few sherds are corroded, most are in good preservation. Bottle A has been reconstructed; it is of clear thin glass. Bottle B is thicker and more opaque; the drip-band below the rim has been intentionally chipped off. This bottle was slightly wider and squatter than A; the internal diameter of the body was about 13 cms. Both bottles may date to about 1700, or if anything a few years earlier. In the top-soil, two inches above the cobbling, was found also a piece of a clay pipe.

HUT I; DETAILED PLAN, FIG. 4, SECTION WX, FIG. 3.

Abuts on the north on the cashel-wall, which within the hut has lost most of its facing, though some foundation-stones remain. On the east the hut-wall is low; elsewhere it survives to several courses, but the stones are tumbled and loose; some on the west may have served as a rough bench. On the dark gravel which formed the top of the till were a few small stones, perhaps a fragmentary paving. Above this was a thin layer containing much charcoal¹ and burnt bone,² a few unburnt teeth and other bones of ox, and one piece of charred turf. To the same level belongs a small flake of opaque white flint, with signs of wear and two shallow hollows on one side, probably formed by use as a scraper; it came from among the foundations of the cashel-wall, which are set into till. The bone-layer was covered by about eight inches of dark sticky clay, containing a few pebbles, which was probably laid down as a sealing. Into it were set the stones of the enclosure-wall, for fragments of charcoal, indicating a feeble continuation of the bone-layer, were found beneath some of them.

¹ Inv. no. 301, of 20 pieces there were 10 whin, 4 willow-poplar, 2 each hazel and prunus, one each holly and birch.

² A large number of fragments, of which a very few were able to be recognised as part of the head of the metacarpal, the sesamoid bone, part of the proximal end of phalanx, and ? root of pre-molar tooth, all of ox.

In the clay were some thin curved fragments, possibly of iron-pan, but I think of iron rust, apparently from a roughly conical object, perhaps a ring, about 20 mms. wide at the base and 13 at the top. Other ferruginous stains in the clay seemed natural. Above the clay was over a foot of loose gravel, probably from the core of the cashel-wall. Thus though in shape Hut I differs from F and H, it must be classed with them. Its walls also are founded at a higher level than the floor which supports the occupation-layer; it also contained many small fragments of burnt bone. Though it yielded no clearly datable objects, its date is probably the same as theirs.

HUT L; DETAILED PLAN FIG. 8, SECTION YZ FIG. 3; ONLY THE HALF OF THE ENCLOSURE CLEARED.

A rectangular enclosure, abutting against the outer face of the cashel-wall, of which some foundation-stones project nearly a foot. Its wall consists of large boulders, usually two stones thick, and surviving to three courses in the south-east corner; it is unlikely to have been much higher. A partial break towards the west end of the south side may have been an entrance. The enclosure was filled with about six inches (more in the corners) of light brown earth, containing a few loose stones. In this was one formless sherd, a tiny chip of red flint, three iron fragments $1\frac{1}{2}$ - $3\frac{1}{2}$ mms. thick, which may have been a knife-blade but are too disintegrated to draw or to identify with certainty, and a little charcoal. Below this layer was an inch or two of dark occupation-earth resting on an irregular cobbling which was missing in the centre and round the foundation-stones of the cashel-wall and sloped upwards in the north-east corner. Below it was a dark sterile layer, probably an old subsoil. The stones of the enclosure-wall were bedded on to the occupation-earth, at least an inch above the paving which ran beneath them. The occupation-layer contained:

- i. Much charcoal, 20 pieces from inv. no. 390 contained 6 each of whin and prunus, 2 each of hawthorn, hazel and willow-poplar, and one each of holly and ivy;
- ii. Many fragments of burnt bone in one area; one has been recognised as the proximal end of a pig's toe-bone. There were also a few unburnt fragments, perhaps of rabbit;
- iii. A small flint flake;
- iv. A formless lump of iron; another piece of iron (inv. no. 392, fig. 7), $22 \times 7 \times 4$ mms., apparently a strip hooked over on to itself, while the lower side seems to be a rust-bubble; possibly a fastener for a pouch or something similar.

None of these finds are datable; but the last does not look of great antiquity, and the analogy in structure and bone-deposits to Hut F makes it probable that L belongs to the same period.

All the enclosures of group D which abut against the cashel-wall are of the same type; with them may probably be associated Hut N, and as Huts K and O are of

very doubtful antiquity, the only huts against the wall which belong to the first period of the cashel are E and the lower level in H (probably not associated with the existing walls). Very few of the large number of pieces of burnt bone were able to be identified ; but of these, not one was certainly human. The enclosures therefore do not seem to have been for burials. The spur from Hut F is undoubtedly seventeenth-century, and there is a strong presumption that several of the objects in Hut H are of the same date. They may have been carefully buried a few inches below the surface, seeing that they were markedly lower than the sherds of the almost contemporary glass bottles. The peasantry would be unlikely to have reoccupied a cashel at such an altitude at this date. So the inhabitants were almost certainly rapparees, who would at that time have found excellent cover on a now bare hillside, for it will be demonstrated below that the landscape has changed considerably in recent years. The mountains between Dundalk and Newry were notoriously the haunt of rapparees in the seventeenth and early eighteenth centuries.¹ Their pitifully low standard of living is demonstrated by the care with which they seem to have collected and deposited fragments of iron nails and copper studs, whose monetary value can have been practically nothing. Metal they particularly prized, probably because they could not acquire it by ordinary commerce without danger of arrest. But they had also obtained a few fine objects, which would not be in general use among Irish country-people at this period. As several of these are of a military nature, it appears that they had robbed some army, perhaps the army of Schomberg, which in 1689 lay for some months near Dundalk and finally almost broke up owing to fever. The gilt objects and the wine-bottles could have belonged to some officer. This is the first time in which archæology has been able to supplement the literary evidence on the life of the outlaws and other unfortunates in the troublous period of the seventeenth century, before a settled, if sometimes oppressive, government was introduced by the English aristocracy.

TESTS ALONG THE INNER FACE OF THE CASHEL WALL.

It has been explained that there was some depth of earth along the inner face of the cashel-wall on south and east ; some test-pits were dug in this area. On the south-west, in I and II, a rough cobbling was found ; in III near the gate was no cobbling. On the east, in IV, V and VI, was a rough irregular cobbling, extending only a short distance from the wall. This suggests that paving-stones were put down most of the way round the lower side, presumably because the drainage was bad ; and as the walls of Huts F and H were proved to be later than the cobblings in them, the latter may be unconnected with the huts themselves. A little charcoal was found above the cobbling in the test-pits. In II were two pieces of iron, one no more than

¹ Mr. Tempest suggests to me that the name of an adjacent site which he has recorded, Labbyparagasta or the Strong Man's Bed, may be a reminiscence of a rapparee's hiding-place.

a stain, the other a bar 6 mms. sq., and 45 long, not tapering and without head. In IV, V and VI were fragments of unburnt teeth and other bones of ox, mainly about 8 ins. below turf. The majority came from a layer of dark brown earth in pit V, 8-12 ins. deep and a few inches above till, where they were mixed with charcoal, a strike-a-light and with much burnt bone, some of which resembled human bone but could not be certainly recognised. Low banks and stones round pits V and VI (see fig. 2) suggested that there had been an enclosure on this side ; but the so-called walls were found to be so discontinuous and lacking in plan that it is safer to regard the area as a stony part of the fort.

THE POTTERY.

Formless sherds have been mentioned in discussing the finds from the huts. It remains here to describe in detail those pots whose shape can be partly ascertained. All the pottery is in bad condition, and joins have been difficult to find. Most of the vessels were coarse straight-walled wide cooking-pots without decoration, known generally as *souterrain*-pots, see fig. 5.

Pot a, one rim from Hut A North, and pot q from Hut E, of similar type. The pot was fairly large, grey in colour, smooth and hard. These two sherds are the only representatives of what was probably one pot.

Pots b-e, two types of rim and two of base from Hut A South ; probably two pots are represented, but it is impossible to decide which rim should be associated with which base. The colour varies from reddish to dark grey, sometimes with soot attached ; the surface is soft and uneven, the biscuit rather gritty. The lower side of the bases have partly decayed and are rugose, owing to standing on damp earth. The walls were perpendicular. The external diameter of base d was about 20 cms., of e about 16-18 cms.

Rim f from Hut A South resembles in fabric pot m, but comes from a larger pot, of internal diameter about 15 cms. The paste is fine and reddish, the surface even but soft, the rim slightly rolled. On it are a few incisions, probably grassmarks and not regular ornament. This description is also applicable to pot m from Hut C East, save that its internal diameter was not much more than 6 cms. On its rim seem to be two rows of stabs impressed with a coarse comb, but too indistinct to draw. Both of these pots are reminiscent of bronze-age ware, especially of incense-cups, and may ultimately have a neolithic prototype. Sherds of rather similar fabric, but different shape, were found at Potter's Cave, Ballintoy. Pots f and m may belong to a native tradition, supposing that the coarse cooking-pot is derived from the bucket-urn.¹

From Hut B East come remains probably of three cooking-pots. Pot g is dark grey on the inside, heavily sooted on the outside ; I have assigned to it one sherd

¹ *U.J.A.* III ii (1939), p. 254.

of slightly splaying base. Pot h is grey inside and outside, pot i reddish, sometimes rather weathered on the surface. Pot h came from the lower level, g and i from the upper ; but they all belong to the same ware, and are difficult to distinguish from each other.

Hut B South yielded the remains apparently of two cooking-pots, j and k. The former thickens to about 9 mms. The surface is hard and uneven, blackish and slightly sooted on the outside, reddish-brown inside ; the biscuit is grey in the centre. Pot k is smoother and less hard, the colour reddish-grey, the biscuit red.

In Hut C East, in addition to pot m described above, were remains probably of three cooking-pots. Pot l is fairly thin, rather uneven and weathered, red or grey ; the internal diameter of the rim was about 12 cms. Pot n was a coarse uneven vessel, hard and dark grey or reddish ; the baking was poor, and some sherds have split down the centre. Pot o is heavily sooted on the outside, uneven and rather soft. I have associated with the rim two types of base, which might easily belong to the same pot, and do not resemble any of the other vessels from this hut. The internal diameter of the base was about 18 cms.

Nearly all the sherds from Hut E can be assigned to Pot p, of which the profile can be approximately reconstructed, though the height is uncertain. Less than a quarter of the pot survives. The paste is gritty and fairly dark, the internal surface red-brown and hard, the external surface red and much weathered to about an inch above the base, hard and sooted above. The base also is weathered, so the pot was probably partly buried in earth. On the inner surface of the base there is much soot. The internal diameter was about 18 cms., the height more than 11½.

Pot t, from below the paving in Hut H, was a fairly thin and fine cooking-pot, sooted on the outside, dark grey on the inside ; the biscuit is gritty, the surface hard but a little uneven. The external diameter of the base was 16-18 cms.

All the above pots, except f and m which have bronze-age affinities, are cooking-pots of a type which seems to have survived until the Norman period, when globular and sometimes glazed vessels became common. The upper chronological limit of these iron-age pots is uncertain. None of those from Lissachiggel is ornamented with applied bands with incisions or finger-tip impressions, such as are common on iron-age souterrain pottery ; but it is unknown whether the absence of these is an early feature or a sign of degeneracy. Pots f and m have receded a long way from their prototypes, and are unlikely to be earlier than the last centuries B.C.

It remains to consider pot s from Hut F. This was found in the charcoal-layer, at most a fraction lower than the seventeenth-century spur. The sherd can, however, hardly be of this date, and indeed lacks the outward curve of a medieval rim. The biscuit is grey and gritty, the surface grey, hard and fairly even. Along the inner edge of the rim are traces of thumb-nail notching, and a little below it shallow wavy incisions made with a blunt tool. The diameter of the neck was fairly large, though the pot was globular. This type of ornament is common on medieval pottery ; but

the technique of incising wavy lines, probably with a fine comb, is found in the pre-Roman iron-age on the continent¹ and in England.² A closer parallel is the pot from Corliss,³ a fort which can hardly be assigned to the end of the middle ages. In layer OX at Potter's Cave, Ballintoy, so far as can be made out from the most inadequate and unscientific publication,⁴ were sherds of globular pots with short upright necks. At Round Island were pieces of an unornamented globular pot of rather similar ware.⁵ It therefore seems probable that there were made in Ireland in the early iron-age globular pots with wavy incised lines, of better fabric than the usual cooking-pots. But at present we have no evidence as to the chronological or other relations of the two types.

FLINTS.

The flint-work from Lissachiggel is generally poor. Most of the material is opaque and second-class, and though occasionally fine flint pebbles were used as at Clontygora, there is no evidence for the use of good nodule-flint. The chipping is bad and uneven. Many of the tools shew much wear by battering or chopping, so flint as a material was clearly confined to rough uses. Some pieces seem to have been used for a long period, and not repaired by retouching.

A good many of the flints have already been described ; I will here enumerate those which need more detailed treatment, see fig. 6:

i. Scrapers or knives. No. 2 is a small fine chip from a pebble, apparently broken at both ends ; along one edge is some flaking and much wear ; rather fine for a strike-a-light. No. 7 is a burnt broken flake of fine flint from Hut C East ; along the one unbroken edge is good secondary chipping. No. 70 from Hut C East (fig. 6) is a fine flake 25 x 23 x 5 mms. ; the lower side is a flake-surface ; two of the edges are chipped fairly steeply to a convex and a concave outline. No. 148 from Hut C East (fig. 6) is a broken flake 5 mms. thick ; the lower side is a flake-surface ; it was trimmed along both edges, apparently as a knife, but then put to rough uses which damaged the blades. No. 193 from Hut E (fig. 6) is a thin scraper of poor flint, 25 x 18 x 3 mms., trimmed and battered round the edges ; the bulb has been mainly removed. No. 214 (fig. 6) is a round-nosed scraper of poor flint very roughly trimmed and mainly battered along the edges. No. 232 from

¹ Déchelette, *Manuel* (1914 ed.), II 3, p. 1485, from Beuvray, with references to similar designs in south Germany and Bohemia.

² Wookey Hole ; *Archæologia* lxiv, p. 340, fig. 1 3. Cp. Broadstairs, *Archæologia* lxi, p. 433, with chequers formed by dragging a comb over the surface.

³ O.S. Armagh 30 3 2 ; *L.A.J.* (1940).

⁴ *I.N.J.* v (1934-5), pp. 104 ff.

⁵ *U.J.A.* III iii (1940), p. 122.

Hut B East (fig. 6) is a broken flake of opaque flint 22 x 17 x 8 mms., with signs of trimming and of wear along both edges. No. 414 from Hut H is a broken flake 5 mms. thick, with traces of chipping and wear along both edges ; it was probably a two-edged knife. No. 451 from Hut H (fig. 6) is a flake 23 x 23 x 11 mms., worked to a roughly hooked point, and with signs of wear on both concave and convex edges. No. 470 from Hut H is a broken chip from a fine pebble, with traces of secondary work on one edge ;

ii. Chopper. It is difficult to describe by any other term no. 142 from Hut C East (fig. 6). It is formed from an inferior rolled pebble. The flake-edges also have been slightly rolled. It has been partly shaped by flaking and battering. It must have been a very rough tool, and indicates that fine flint was sometimes not available.

iii. Strike-a-lights. A good many of these have been enumerated in the descriptions of the huts.

JEWELRY.

We found three beads and parts of a lignite bracelet, see fig. 6. The last, no. 157-179 from Hut C East, had an internal diameter of about 53 mms., which implies a very small wrist. The surface is polished and rather scratched, with some knife-markings and one fault where the knife slipped. The section is D-shaped, nearly flat on the inside. Such bracelets are common on iron-age sites. The earlier ones are of irregular oval section, as at Cush, a site which it is thought was deserted before the first century A.D.

Bead no. 73, from below the upper paving in the cashel-gate, is about half a very small and rather irregular bead of medium blue glass. Such beads are common on iron-age sites in England, and one was found at Cush. They can hardly be used as a criterion for dating. Shape, Beck I B 1 b.

Bead no. 107 from Hut D is a bicoloured bead, shape Beck I B 1 b. The core is formed of medium blue translucent glass, which comes to the surface at both poles and in an irregular band round the centre. The intermediate zones were covered by a thin overlay of apparently nearly colourless glass, beneath which apparently were laid diagonal lines of opaque light green material, to form a herring-bone pattern. If the bead is held in the hand, the opaque lines look lighter ; but when it is seen against the light, the dark portions are seen to be translucent. On the surface are fine striations, probably due to shaping by polishing. Dr. Raftery has been unable to quote a parallel from Ireland ; but there are several similar beads in Belfast Museum.¹ It seems also to resemble technically some of the glass armlets from Newstead,² which are illustrated with a two-colour pattern in dark and light blue.

¹ A close parallel in technique but not in pattern is No. 306-13 from the Milligan Collection, find-spot unknown ; it has irregular wavy lines in opaque white. The herring-bone pattern is not uncommon in millefiori beads, sometimes made of three or four twisted tricoloured rods fused together. Similar in technique to our bead is no 476-27 from St. Tasach's Grave, Raholp, Co. Down, presumably early Christian.

² Curle, pl. XCI 5.

It may therefore be an import from the Roman world, but I am not certain that it is not of Irish manufacture.

Bead no. 275-367, from Hut F, consists of two pieces which do not exactly join, shape Beck I D 4 d c. It is made of white opaque glass ; it was probably dropped into water or otherwise rapidly cooled. One end is flat and not quite regular ; the other is curved. The perforation is slightly uneven.

IRON.

Two iron knives were found in the central huts. The typology of such knives has not been worked out in detail, and they cannot be accurately dated ; but they do not closely resemble the knives from Cahercommaun. No. 65 from Hut C West (fig. 7) has an oval tang 6 x 5 mms. x 28 mms. long. The blade was beaten out from a bar of metal, and is 15 mms. wide just below the tang and 7 cms. long. The rib curves to meet it at a blunt point. No. 373, from Hut B East (fig. 7) is very fragile. The core is hollow, and all the iron in it may have been corroded, in which case the original knife may have been slightly smaller than the drawing. The back-rib is 6 mms. thick. The blade is curved, and ends in a stumpy tang 2 cms long.

No. 42 from Hut C East (fig. 7) is an enigmatic rusted object, apparently broken at one or both ends. It is 14 mms. long and 12 wide, slightly curved. I can find no evidence for iron vessels with lugs, so I think that it may be part of the handle of a bell.

CHARCOAL.

The charcoal-specimens, which have been most kindly examined and tabulated by Dr. O'Connor, permit interesting conclusions about the ancient landscape. I give here a general summary of the results, which have also been set out in describing the individual huts ; only those areas which can be dated with some certainty have been included in the table.

Species English name	Ilex Holly	Ulex Whin	Prunus Black- thorn	Crataegus Hawthorn	Salix - Populus Willow- Poplar	Sorbus- Pyrus Rowan- Apple	Hedera Ivy	Ulmus Elm	Betula Birch	Corylus Hazel	Taxus- Juniperus Yew- Juniper	Pteris Bracken	Number of specimens examined
Below cashel- wall	8	7	4	1	1	—	—	—	—	—	1	2	24
Cashel- period	6	51	24	4	38	5	8	1	1	9	3	—	150
xvii century	2	33	15	2	11	—	1	—	1	5	—	—	70

The almost complete absence of forest-trees makes it clear that, though parts of the Cooley Mountains were densely covered in the sixteenth century and probably at all periods, as we know from the descriptions of the Moiry Pass,¹ the slopes around Lissachiggel must have been open. No pine was found, and only one specimen each of elm and oak.² Willow is common, and probably grew along the stream up to the neighbourhood of the site. But other high scrub, hazel and birch, is rarer than is usual among prehistoric remains. The great frequency of gorse and blackthorn, combined with a little holly, hawthorn, yew-juniper and rowan-apple (?), shews that the hillside must have been partially covered with scrub, in contrast with its modern barrenness. The bracken-fronds used to wrap the copper objects, imply that bracken, which is to-day confined to a few patches on the north slope, may formerly have been more extensive. It has already been suggested that ivy-branches may have roofed the huts, as they would not have made good fuel, and are unlikely to have grown on open heath. It seems that the Lissachiggel area was common rather than moor, with light well-drained soil supporting scrub, bracken and grass, but probably less heather than to-day. This type of landscape must have lasted until 1700; and it would not have been impossible to cultivate small patches of hillside, as the ancient field-walls suggest was done. It is even possible that the extension of heather was artificially encouraged in recent times, in order to assist the grouse.

CONCLUSION.

It is difficult to date precisely the finds from the cashel. The complex is poor, and does not closely resemble the groups from sites like Cahercommaun or Cush. The absence of bone-artefacts is noteworthy, considering that decorated bone was much used in the later iron-age. It is unlikely that a heavy peat-covering has caused all bones to dissolve; for the large iron-content of the pottery would also have been leached. The iron finds are not, in the present state of our knowledge, clearly datable. The pottery seems to me to belong to the first rather than to the second half of the first millenium A.D., with lingering bronze-age traditions. The number of pots represented need not imply an occupation of more than a century, considering how many sherds were found in Potter's Cave, Ballintoy; if ever pottery is in regular use, it would be bound to be broken from time to time. The jewelry may have Roman affinities, the bracelet is later than those from Cush, which may be dated during the last millenium B.C., I would, therefore, date Lissachiggel to the pre-Christian iron-age, probably after our era. One might indeed expect, in that case, that one or two Roman objects would reach a settlement so convenient to the coast. But the

¹ *B.N.H.P.S.* (1938-9), p. 31.

² From Hut K, not exactly datable and so not included.

relationship of Ireland to the Roman empire is at present very obscure. The commonest Roman finds in this island are of the fourth century A.D., and presumably represent loot¹; they are mainly clustered round the natural entries, the Bann mouth, Belfast Lough, Dublin Bay and Cork Harbour. But it cannot be proved that Lissachiggel is not several centuries later than the Roman empire, and it could be as late as the tenth century A.D.

NOTE—"Inv. No." refers to the inventory of finds deposited at the National Museum, Dublin.

¹ *English Historical Review* (1913), p. 1. A few finds have been reported since this article was written.