

X.

A LONG CIST CEMETERY AT PARKBURN SAND PIT,
LASSWADE, MIDLOTHIAN.

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THE EXAMINATION OF THE SITE.

In the course of stripping the topsoil preparatory to extending the sandpit at Parkburn workmen unearthed a human skull and other bones on 14th August 1954. The discovery was reported to the police and Mr C. S. T. Calder went to investigate the site and examine 2 long cists then exposed besides the disturbed first burial. A week later the site was visited again, and 7 more cists were found, their tops just exposed on the stripped surface. It was obvious that there was a cemetery spread over the area that was about to be removed by the sand pit, and a hasty examination of the ground was undertaken. Excavation continued, mainly at weekends, from the end of August to the end of November, with also a day in January 1956, and evidence of a total of 116 burials was discovered.

The site was on the western part of a gentle rise known as Englands Hill, between the 300 and 350 ft. contour lines, with extensive views to the Pentland Hills to the W. and Moorfoot and Lammermuir Hills to the S. and E. (fig. 1 and 2). It was immediately outside the Edinburgh city boundary and some $4\frac{3}{4}$ miles SE. of the castle (map ref. 36/295673). Except for a narrow tree-planted strip along the N. edge the area is now totally destroyed by the sand pit which has gradually encroached on it from the W. The region covered by the graves was roughly triangular, measuring 160 by 264 by 182 ft.

The first graves discovered were on the edge of the working face of the pit, and had to be cleared and plotted quickly. The rest of the site had to be examined in haste to keep ahead of a second stripping (which removed the graves completely) and the fast moving working face. In the case of the cists to the N. and SW. of the site a layer of topsoil about 1 ft. 6 ins. thick had already been removed leaving exposed over most of the area a surface of discoloured sand or gravel. When the cists in immediate danger had been examined it was decided to cover the whole of what remained of the site with trenches 2 ft. 6 ins. wide and 5 ft. apart. As all the cists were aligned E. and W. and ranged from 5 ft. to 6 ft. 3 ins. in length internally, it was expected to pick up all the graves except those of small children, and also any remains of a building if such existed. The whole area was

examined by this means, as far as a field fence on the E., the temporary boundary of the sand quarrying operations, but the last 34 cists were not opened and the last 24 were not even fully exposed, the portion appearing

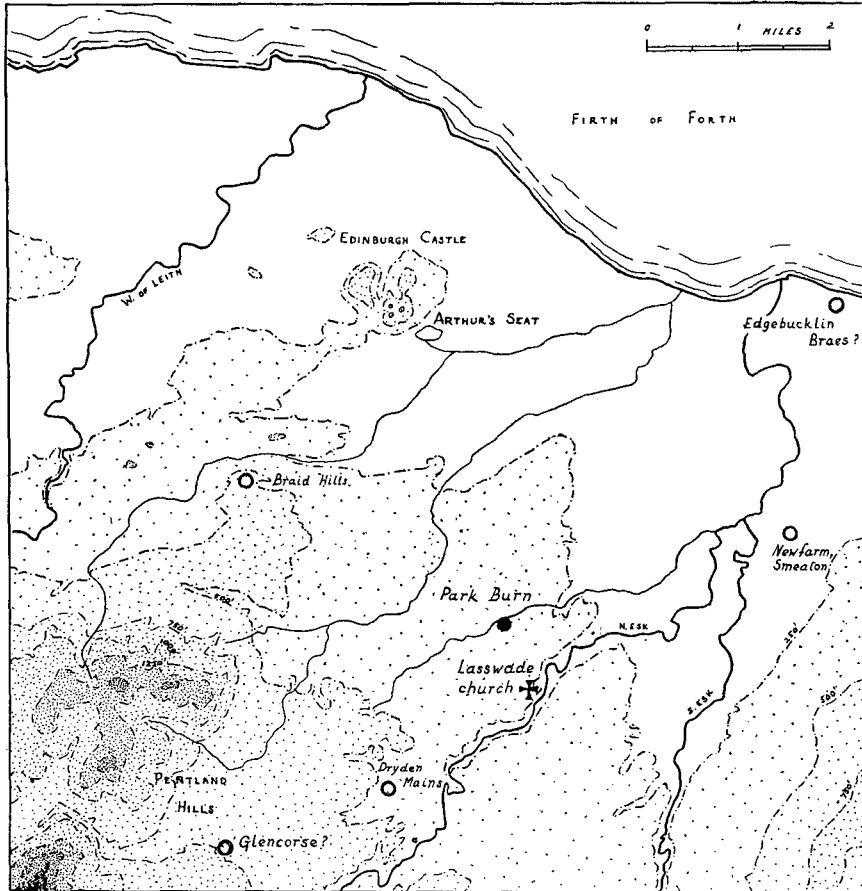


Fig. 1. Parkburn: location map with nearby long-cist sites.

in the trench being plotted. In the early spring of 1955 this fence was moved 75 ft. eastwards and the area between its old and new positions was completely stripped before any excavation could be done. The workmen thought there were about 6 graves in this area, but it seems probable from their distribution that this is a considerable underestimation. In January 1956 3 trenches were dug just E. of the fence and only 5 widely spaced graves were found, apparently the eastern edge of the cemetery.¹

¹ Most grateful thanks are offered to the many helpers who worked on this exposed site through a particularly wet and windy season, and especially to Mr D. A. P. Downs who undertook most of the surveying, to Mr Steel the quarry foreman for his friendly assistance, and to Messrs J. B. Alexander Ltd. who kindly presented the finds to the National Museum of Antiquities.

Even in the area examined (fig. 3) it is probable that there had been more graves than were actually found, for the area in the centre of the west side had already been bulldozed to a lower level before our arrival, on the north side the remains of very destroyed cists were difficult to detect and some may have been missed, and there is also the possibility of children's graves lying between the trenches. Evidence was also found which indicated the occasional reuse of cists, but it is not possible to estimate how frequently

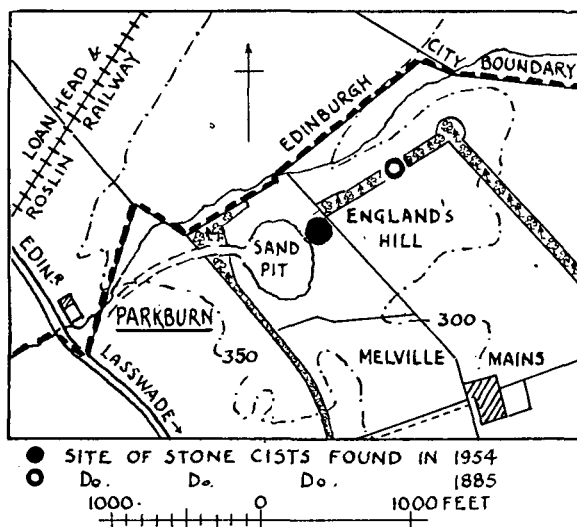


Fig. 2. Parkburn: location map.

this was done, though it does indicate a larger number of burials than cists. It is also probable that the full extent of the cemetery was not examined; some graves may have been destroyed on the west side before the first skeleton was recognised, and on the eastern edge there may have been a few cists beyond the limit of excavation. At a distance of about 400 ft. farther E. than the easternmost cist discovered the 6 ins. O.S. map records "stone cists found A.D. 1885." Along the northern edge of the site on the edge of a sharp bluff forming the S. bank of the Park Burn there is a strip of trees. This area could not be examined and it is probable that the north-east corner of the cemetery lies here. So only on the south side is it reasonably certain that the precise limit of the cemetery was found. In all 111 cists were found, and there was evidence for 5 more bodies than this number, making a total of 116 burials on the site. Considering that 75 ft. of the cemetery was destroyed and these various other uncertain points an original total of 150-200 burials would seem a reasonable estimate.

The cemetery consisted of burials in long stone cists, the skeletons lay on their backs, and orientated E.-W., the heads at the west end, though

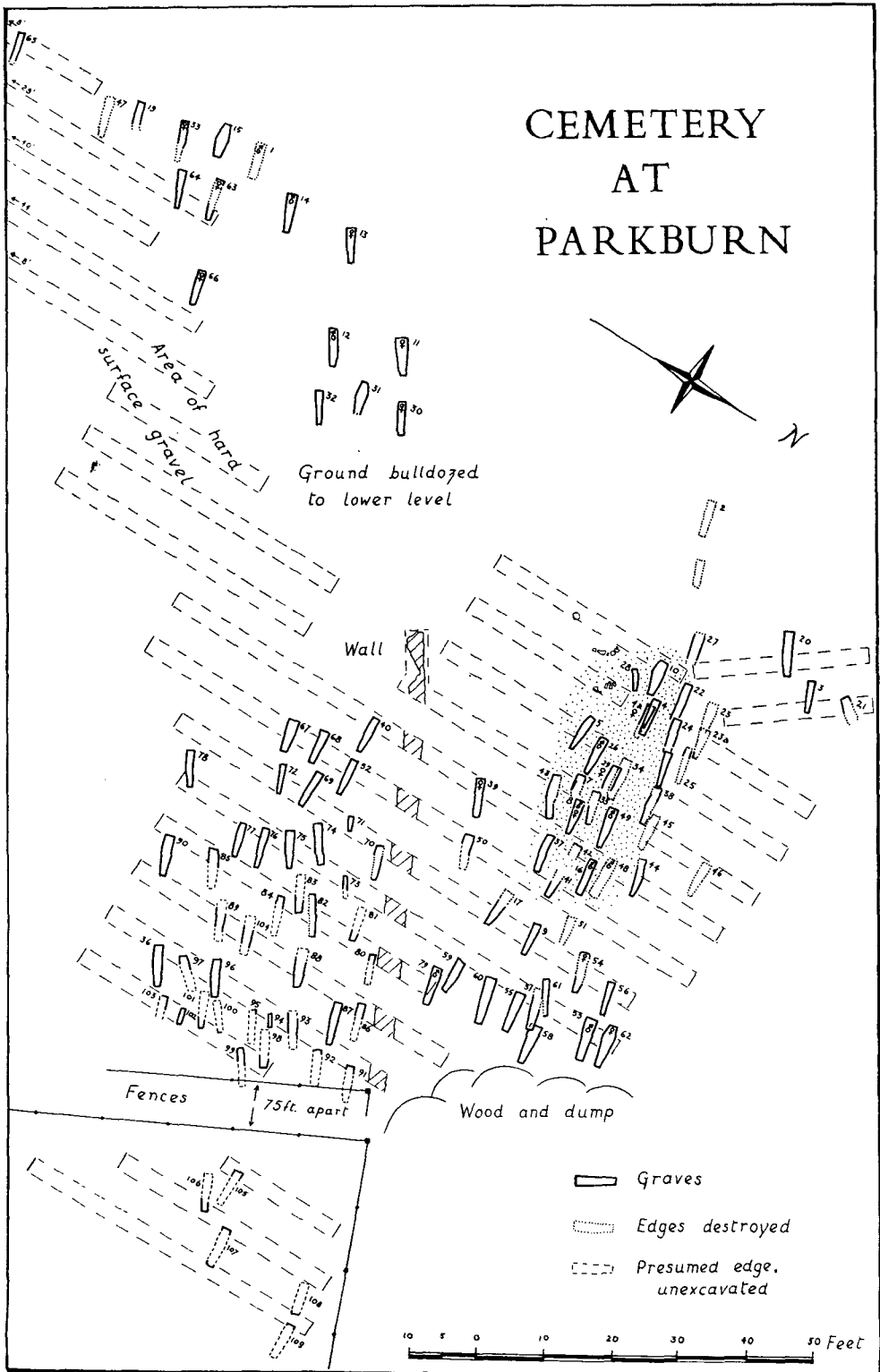


Fig. 3. Parkburn: general plan of the site.

actually there was a marked tendency to a ENE.-WSW. variation. The cists were all completely filled with sand or gravel. In describing the cists it is convenient to divide the cemetery into three groups; the northern area (to the N. of the wall), and the south-western area divided by a blank region in the centre of the cemetery from the south-eastern area. In the N. and SW. areas many of the cists had been robbed of stone and disturbed by later burials and it was not possible to be sure of the exact construction of some of them. But of those which were reasonably complete the forms only varied slightly. In general the cists were somewhat wider at the west end than the east end, the average internal measurements being 1 ft. 3 ins. across the head, 11 ins. across the foot, 11 ins. in depth, while the length was apparently adjusted to the length of the body. A few cists were practically parallel sided. Five cists were found to have been built deliberately in a coffin-shape expanding between the shoulders and hips before narrowing to the foot. These cists were scattered over the site (Nos. 10, 12, 15, 31 and 62), they contained both male and female skeletons, one was paved and the others were not.

The levels of the cists were fairly constant, about 1 ft. 6 ins. below the modern surface, and particularly so among the well-spaced graves of the south-eastern area. In the congested northern area there was more variation, in two instances a later grave having been built directly on top of an earlier grave without disturbing the skeleton of the latter (Nos. 4 and 4a, 23 and 23a). In the case of the immediately adjacent graves 53 and 62 the former was noted to be higher by 6 ins. Two-thirds of the cists were covered with capstones or had some capstones remaining, and it is likely that a covering of capstones was the general rule, those lacking them having been robbed. On cist 88 a quernstone had been used as a capstone.

The cists were built with one stone at the head and one at the foot, and the sides consisted of 2-5 slabs, 3 or 4 being the usual number. In the congested area, though often partially robbed, there was a greater variation in the forms of the cists. A few were noticeably well made and quite deep, but most had their side stones displaced, their capstones shattered, and many were built of rather slight slabs, or one or two of suitable weathered blocks with rounded edges. The headstone and adjacent south sidestone of cist 4 were broken quernstones. Some cists were particularly shallow, notably 21 was only 4 ins. deep, and 29 where the capstones rested directly on the skeleton. The south-western group of graves were similar, some built of slight or rotten slabs, and two which were both coffin-shaped were both built of cruder rather shapeless blocks. The cists in the south-eastern group were generally intact and always well built with heavy capstones up to 6 ins. thick.

Twice as many cists were unpaved at the bottom as paved. A number were found to be partially paved and this was thought to be generally due

to robbing, though in the case of the child's grave 28 which was complete, and 14 where the skeleton was intact, there was a slab under the head only. The presence or lack of paving seemed to bear no relation to the form of the cist, though no paved cists were found in the SW. group, nor among the few cists examined in the SE. group.

The skeletal remains were disappointing, the state of preservation varying in neighbouring graves and indeed within the grave itself. A considerable number of graves contained only the last vestiges of decayed bone, and some contained no sign of an occupant at all. The better preserved bone tended to come from graves without paving but one of the most complete skeletons came from the paved cist 2. Although the skeletons were found lying, as far as could be seen, in reasonable order, yet sometimes one or two bones were out of position. In the case of cist 13 where the headstone had been removed it was not surprising to find part of the left arm beyond the skull, but in other cases the disturbance must have been due to the shifting of soil and movement of worms and other animals, for in cist 35 the head end of the cist was complete with a heavy capstone in position yet the mandible was found between the top of the skull and the headstone, while cist 34 had a shattered capstone at the head but the mandible was found inside the top of the braincase.

A detailed description of and commentary on the human remains will be provided in a separate paper by Professor Wells (forthcoming) and here it suffices to record that the determinable remains, which represent less than half the number of graves excavated, show a preponderance of middle-aged or elderly persons of both sexes, with a few young people and children. Out of fragments of 30 skeletons there are probably 10 men, 14 women and 4 children. Besides the skeletons of children there were also 6 very small cists which must have been the graves of young children or babies, ranging in length internally from 3 ft. 3 ins. to 2 ft. 1½ ins. (Nos. 28, 71, 73, 94, 102 and 105).

The distribution of the cists is of considerable interest, and as has been indicated, they can be divided into three groups. The largest area is that to the SE., divided by a space devoid of cists from the group to the W. of it, and by a wall foundation of later date along the north side. As far as is known none of the cists is cut into another, and the proportion of disturbed cists appears to be very small. Out of 45 cists 2 had shattered capstones, and 5 were partly robbed: Nos. 70 and 80 probably by the wall builders, and 82 probably due to the closeness of 83, 103 and 105 for no obvious reason. Many of the cists in this area were not entirely exposed, and doubtless the number of imperfect cists would have been somewhat greater if this had been done, but nevertheless the SE. group is on the whole well-spaced out, in parts side by side almost forming regular rows, and the cists are well made of substantial slabs, the great majority having their intact capstones in

place firmly supported by the side and end slabs. The area gives an impression of greater orderliness and less disturbance than the other parts of the cemetery, and surely also indicates that some form of memorial existed originally to mark the individual graves.

The northern group is perhaps the most interesting. The E. limit is unknown for it is still covered with trees, on the S. it is bounded by the wall, on the W. it seems to have straggled away, and on the N. the land drops gently for a few yards until it reaches the top of a steep bluff above the Park Burn. A few cists were well built with heavy capstones comparable to the cists of the former group, notably cist 2 on the W. side and 55, 58, 59 and 60 at the E. end, whilst in the centre 5, 6, 10, 17 and 37 have been quite well made and sturdy. But without doubt most of the cists were built of slighter stones and some were very shallow. Out of 51 cists, only 5 were quite perfect, though 8 more were virtually intact. Some of the cracked capstones and displacement of sidestones may be due to the constant passing of bulldozers and tractors over parts of this area after stripping, but certainly it does not account for all the damage. Many of the graves had been robbed of stone, and parts of 2 burials were found without any signs of a cist round them. In a number of cases cists were found to have been built into or over an earlier grave. Thus 4 had been built directly over 4a which was complete, and 23 over 23a which had been robbed of its side slabs. More often the later grave had partly destroyed the earlier. There were 5 groups of cists where the succession of burials could be demonstrated. 23a was older than 23, and probably also older than 25; 4a was older than 4; 34, 29, 35 and 8 were built in that order, while 8 was also later than 7; 22, 24 and 6 were also built in succession, while the foot of 6 also served as the headstone of 38; 58, 57 and 61 were again built successively. Other evidence of the disturbance of earlier burials was also seen when the remains of 2 skeletons appeared in one grave. Cist 8 held the skeleton of an elderly man lying in the centre, while the remains of a middle-aged woman had been pushed to one side, and her skull lay in the corner beside that of the man. The cist was of no more than average width and did not appear to have been designed for 2 persons.¹ Cist 9 also appeared to have been reused, for over the feet of the main burial there were the flattened remains of a human skull, presumably the original occupant of the grave. It is possible that the burial No. 46, which was represented by a skull only, at an unusually deep level and with no sign of a surrounding cist but in a rather isolated position, might represent a hastily reburied occupant of a reused grave. On the other hand 45, also with no sign of a cist, was at an unusually high level and consisted of a skull and femur, and suggested a late and undisturbed burial. The northern area appears to be a congested and much used region,

¹ Two instances of the intentional burial of a man and a woman in one grave in the 7th or 8th centuries are recorded *Arch. Ael.*, 4 ser. XXXIV (1956), 206. See also *Camptoun*, p., 283 and p. 268.

with the cists tending to form rows, but lying end to end in contrast to those in the SE. area.

To the SW. of the cemetery there was a curiously isolated group of 16 widely spaced graves, strung out in a south-westerly direction. The ground to the E. of them, where it had not already been deeply bulldozed, was trenched without results, though it was noticeable that the surface here was a very firm gravel compared with a sandy subsoil elsewhere, cist 66 being the only cist dug into this gravel. The cists in this group were severely robbed and many of their stones displaced, none of them particularly well built.

The wall which crossed the site in a WSW. to ENE. direction stopped squarely at the former end, but was not traced for its full length in the opposite direction. It was reduced to its very lowest level and consisted of small angular stones in a foundation trench, the northern face was straight and intact, the southern irregular and badly robbed. It was 2 ft. 6 ins. wide, and had been built on roughly the same level as the tops of the cists. It was aligned on the same axis as many of the less accurately placed cists. It was certainly later than the SE. group, which was clearly seen in the case of cist 80. Its relation to the N. group is unknown, but it is notable that it ran 4 ft. from the nearest grave and considerably further from the others, and that its building had disturbed no grave in this group, which is hardly likely if in fact it were so late as to be totally unrelated to the cists. It is probably earlier than or contemporary with the north group. The foundations of a second narrower wall running at right-angles to this wall were found 16 ft. to the SE. of cist 65 and were traced for 22 ft. in a SSE. direction.

As has been mentioned the subsoil was either sand, or in places hard gravel, above which was lying about 1 ft. to 1 ft. 6 ins. of humus, the sand immediately below the soil being discoloured for 1 or 2 ins. All the area of the N. and SW. groups had been stripped and levelled before the site was visited. But in the area of concentrated burials there was left exposed another layer above the sand, a very hard black stratum with flecks of charcoal, still retaining a maximum thickness of 6 ins. It covered an area roughly including cists, 10, 22-45, 37-5, and the stone cluster S. of 28. Some of the cists in this area must have been cut through this layer, but although it was carefully observed at cist 10 it was extraordinarily difficult to detect the pit made for the grave. The upper parts of these cists, and even the skeletons which had been buried at a higher level than usual, were embedded in the black layer, though generally they were found to be below it. The groups of stones to the SE. of cist 28 were lying partly in discoloured sand and partly in the black layer, while the scatter of stones lying at the NW. corner of the site were entirely in sand. All this suggests the black layer was forming during the burial period. In the cases of cists 59 and 60, which were

built in sand, it seemed that the capstones had been covered with gravel including some burnt material, which had been rammed down hard. There were very few loose stones on the site, and these appeared to be quite featureless.

The trenches were extended well beyond the burials on the N. and S. but no indication of a fence or boundary wall, which must have existed originally, was found. Indeed it was difficult and sometimes impossible, to trace in the sand the edge of a grave not marked by stones, even when its exact position was known.

The cemetery must represent the burial ground of a nearby civil settlement, living under peaceful conditions, and presumably agriculturalists. The cemetery was in use for some time, but not for centuries; for instance taking the maximum number of burials, 200, a group of 10 families with 5 persons in each would only need 4 generations to fill all the graves, or 6 families with 4 persons would only require 8 generations. It seems unlikely that its use would have extended over more than one or at the most two centuries. The Scottish long cists have generally been supposed to belong to Christian communities, but there is little direct evidence at Parkburn either to prove or disprove this important point. The fact that graves are aligned more or less E.-W. cannot be, as Stevenson points out,¹ a criterion of Christianity. However a suggestive point at Parkburn is the careful burial of very small children apparently with the same rites as the adults. One grave was only 2 ft. 1½ ins. long and must have held a baby up to 6 months old.

It seems that the SE. group of cists was the earliest in the cemetery, and that it was later extended to the N. with a boundary wall on the S. side, excluding the older graves. If it were not for the evidence from the Cat Stane cemetery (p. 269), comparable to the older area at Parkburn, it might be suggested that this change was due to conversion. The entrance to the later enclosure was probably in the S. wall, though its extension beyond the entrance was not recovered. The centre of this new area is very congested, and it seems to indicate that for a time burial was enclosed between close limits, or, more likely, that this area was a particularly desirable one for burial; in either case there seems to have been very inadequate memorials or a cessation of the practice of marking graves. If the popularity of this area was due to the presence of a small chapel or a cross then a lack of memorials on the grave may have been due to practical reasons. The unexplained hard black layer with charcoal corresponds closely to the congested part of the cemetery, and must be another indication of intense activity, which included burning, in this area. That the well-built heavier cists were in the earlier tends to be born out by the group 58, 57 and 61 where the earlier were indeed the better built. In other cases where there

¹ *P.S.A.S.*, LXXXVI (1951-2), 109-10. Nor does a N.-S. orientation necessarily imply a pagan burial, *Arch. Ael.*, 4 ser., XXXIV (1956), 197.

was a chronological run of cists the earlier were generally too destroyed for a similar comparison, but 4, 22 and 24 were not remarkable. The relation of the SW. group of cists to the others is not known, but their form, and their robbed state suggests a nearer connection with the N. than the SE. group. Their distribution might indicate private burial grounds for one or more small family groups, contemporary with or later than the N. cists. The wide unused area between the SW. and other groups is not easy to explain.

THE FINDS.

(a) *The Querns.*—The only objects which were firmly associated with the cists were three broken rotary quern stones, used as side and capstones (fig. 4, *a*, *c* and *f*). Pieces of three other quern stones were found lying beside the graves. The only other finds were part of a jet armlet in cist 27 and a fragment of iron, probably a knife-blade, in cist 48.¹ Stray objects in the filling of cists have to be treated with caution (see p. 268).

Three of the upper quern stones (*a*, *b* and *c*) are similar, *a* and *b* being rectangular in section with a quite flat upper surface and slightly concave grinding surface, while *c* is rather thicker and slightly rounded above. One (*a*) has a funnel-shaped hopper and straight-sided feed-pipe, while in *c* the two parts of the central hole are indistinct but both are funnel-shaped, and in *b* the two are merged into one though the bottom of the hole is cut away to help the ingress of grain, and possibly also to hold the wooden rind. The handle-holes of these querns are unusual, that of *a* being complete, whilst enough of *b* remains to be sure of its form, and *c* was probably similar. They consist of a narrow hole perforating completely the upper angle of the stone. On *a* and *c* there is a slight pecked groove in the vertical side of the quern below the hole stretching about a third or half of the circumference but dying away on the opposite side from the handle-hole. In shape and size these querns are comparable to those from Kildonan, Argyll,² assigned to the 7th–8th centuries (though the only handle-hole surviving was a vertical perforation), and to others from Irish sites of a similar date.

In the collection of querns in the National Museum a handle-hole perforating the angle is rare, the only other examples being one from Dunadd, Argyll (GP 323), one from Arniston, Midlothian (BB 41) and another from Camptoun, East Lothian. The Arniston quern is not unlike *c* from Parkburn, but nothing is known of its history though some 40 years after it was donated to the Museum a group of long cists was found on the same estate. The stone from Camptoun (fig. 7) formed part of a long cist (p. 282). There is the possibility of another instance of such a quern associated with a long cist at Jedburgh.³ The Camptoun quern looks like *b* from Parkburn, the upper surface

¹ See p. 276 for a description of the finds.

² *P.S.A.S.*, LXXIII (1938–9), 217–19.

³ *H. Berw. N. C.*, VI (1869–72), 348–9.

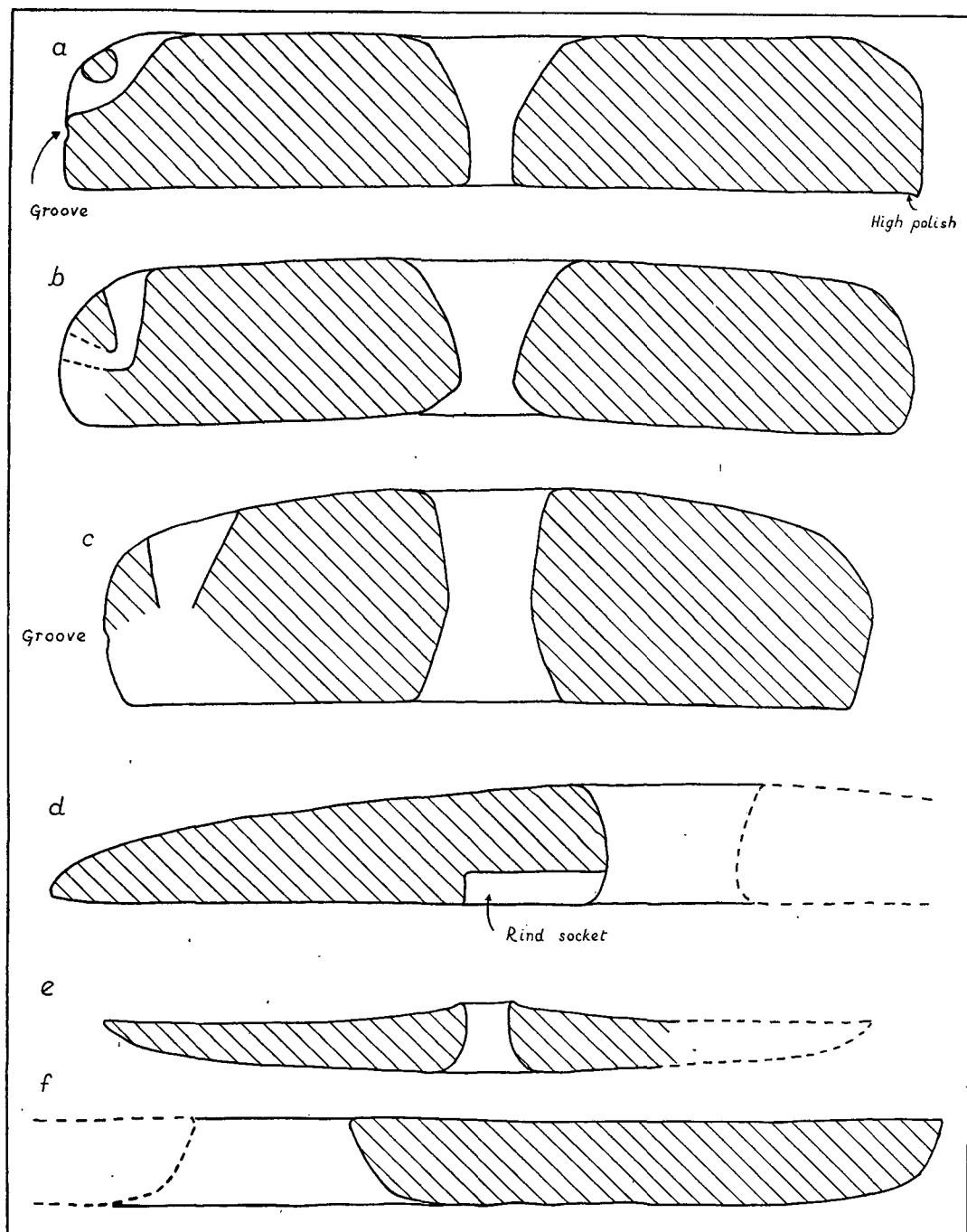


Fig. 4. Parkburn: sections through the quern stones. (†)

being only slightly concave, but the marked concavity of the grinding surface makes the stone itself considerably thinner. The Dunadd stone is smaller, and very thin and flat, and has a small cross carved on it. In the Isle of Man two querns similar to *a-c* from Parkburn but with a plain collar round the opening, were found on the complex Ronaldsway site occupied in the Early Iron Age and in the 8th–9th centuries.¹ Long cist burials were found here in some numbers but the querns were not associated with any of the structures. In Ireland the same type of handle-hole has been found on querns (but which have straight central perforations and flat grinding surfaces) at Cahercommaun,² Lagore Crannog,³ and Lough Gur, Carraig Aille⁴ where there is also a quern with a complete vertical perforation with a side perforation joining it. But in none of these querns is the feed-pipe or hopper like Parkburn. Cahercommaun was occupied in the 9th century, the querns at Lagore and Lough Gur are unstratified so may belong anywhere from the late 8th to the late 10th century, and the Dunadd quern between the early 6th to late 9th centuries.

The curious form of the handle-hole raises the question of how the handles were attached. The holes are very narrow at the point where the two borings, from the top and the side, meet. Certainly they were not designed for a wooden handle projecting either vertically or horizontally. The small bridge of stone must also have been a weakness. There is little sign of wear on the Parkburn and Camptoun handle-holes, though there has been considerable wear on the grinding surfaces. This is particularly noticeable in the Camptoun quern where the two borings have not met accurately, but the unevenness of the junction has not worn away. The Roman Niedermendig querns from Newstead were bored through the upper corner of the stone in order to fit in the tangs of the iron-loop which projected at the side to hold the vertical wooden handle.⁵ It is possible that these later querns were designed with a similar handle-loop which would be soldered in place: this handle would not wear the hole and could pass through the very narrow centre of the perforation.⁶ On the other hand the outer edges of the handle-holes are considerably splayed, and a straight boring would have seemed more suitable for the iron-loop and tang. The grooves below the holes were probably also connected with attaching the handle, perhaps for securing the bottom of the vertical wooden handle. The only other possibility is a

¹ *Ant. J.*, xx (1940), 72–86. Further information kindly supplied by Mr B. R. S. Megaw.

² Hencken, H. O'N, *Cahercommaun* (1938), extra vol. of *J.R.S.A.I.*

³ *P.R.I.A.*, LIII (1950–1), 175.

⁴ *Ibid.*, LII (1948–50), 84.

⁵ Curle, J., *A Roman Frontier Post* (1911), 145, Pl. xvii.

⁶ To test the possibility of there being traces of lead solder samples were scratched from the handle-holes of BB 117 and the Camptoun quern and from the rind socket of BB 118, and compared with samples from freshly broken surfaces of the same stones. The analysis was made by Mr A. Curtis using the dithiozone method which is quantitatively sensitive to about 0.001 per cent. of lead. The stones contained no lead, but the holes showed slight traces, 0.002 per cent. and 0.006 per cent., and the rind socket very slight traces of lead.

wooden handle attached to the quern by a thong through the handle-hole, which seems unlikely both because of the weakness of the bridge and constant wear on the thong.

If these querns are in fact derived from the Niedermendig type of quern, then a long series is implied on native sites, for, as has been seen, they last until at least the 6th century in Scotland, and at least the 9th century in Ireland. However the shape of the Parkburn querns suggests an earlier dating than the very thin flat Dunadd and Irish querns; the Dunadd quern may, of course, be considerably later than the 6th century. In short, the Parkburn querns fit somewhere between the 3rd and 9th centuries, and more probably in the 6th-8th centuries.

The fourth upper stone, *d*, is quite different, it is much thinner, tapering towards the edges, and has a much greater diameter, $28\frac{1}{2}$ ins.: $18\frac{3}{4}$, 20, $17\frac{1}{2}$ ins. The central hole has been larger and it has also a socket for a rind underneath. This socket is in the form of a cross, though the two bars do not meet quite accurately at right-angles (fig. 5). The only complete socket is 3 ins. long and $\frac{3}{4}$ ins. deep. There is no handle-hole surviving. Such sockets imply an iron rind, which first appear on Roman querns including Niedermendig, but are placed on the upper surface of the stone. The usual form of rind on querns from Roman till modern times is a single bar stretching across the bottom of the feed-pipe. The Dunadd and Cahercommaun quern stones already noted have such sockets, which are small and shallow compared to that from Parkburn, and an actual rind survives from Cahercommaun. The cross-shaped rind-socket is exceptional in Scotland, but was used in more modern times for heavy mill-stones.¹ The size and weight of stone *d* from Parkburn with the consequent double rind, and the wide feed-pipe, suggests it came from a mill rather than a quern. Though the recent Scottish horizontal mills seem to have had bar-shaped rinds the diameter of the stones was from $2\frac{1}{2}$ to 3 ft.² The stone at Parkburn was a surface find but a large lower stone, *f*, which might almost have partnered it, was found as a capstone of one of the earlier stones.

Both lower stones are completely perforated by the hole for the spindle, which implies an arrangement by which the fineness of the grinding could be regulated.³ The smaller, *e*, has a narrow central hole, while *f* is a particularly large stone, 33 ins. across and its central perforation is unusually wide.

(b) *The Jet Armlet*.—It has an almost triangular section and a scratchy unfinished-looking surface. Both these features can be paralleled by numerous fragments from Traprain Law, East Lothian, in the lowest levels

¹ See rinds on 17th- and 18th-century tombstones, e.g. *P.S.A.S.*, xxxvi (1901-2), 402; xl (1905-6), 236.

² *Ibid.*, xx (1885-6), 275-6.

³ *Antiquity*, xv (1941), 24.

where they may belong either to the Late Bronze Age or Iron Age.¹ Elsewhere the triangular section is unusual, but is found in Late Bronze Age contexts at Heathery Burn, Co. Durham² and Balinderry Crannog, Co. Offaly,³ though at all these sites there are contemporary D-section armlets.

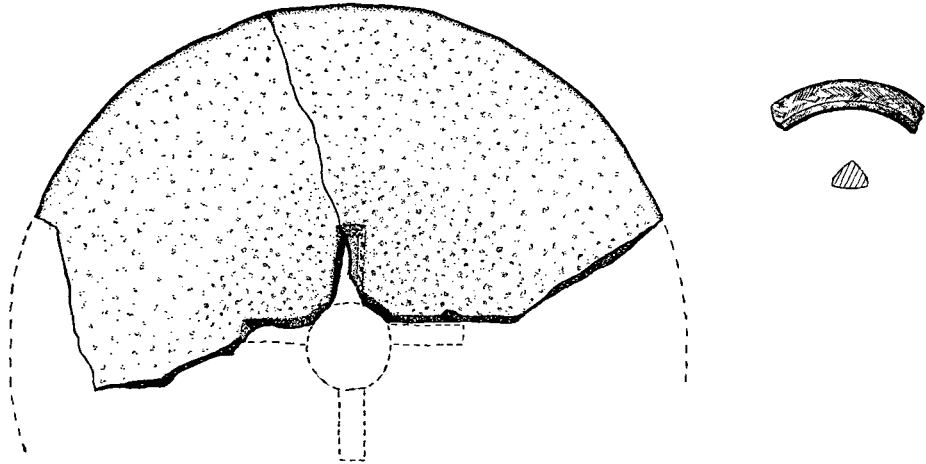


Fig. 5. Parkburn: under surface of quern stone BB 118 (½); jet armlet FN 189. (½.)

Slightly heavier armlets with a rather more rounded section, but still quite near to the Parkburn example come from Dunadd, Argyll⁴ and Buston Crannog,⁵ so the possibility of an Early Christian dating cannot be entirely dismissed. Although jet armlets occur on a number of other Scottish sites with Iron Age or Early Christian material the sections are quite different,⁶ and in Ireland the armlets of the Early Christian period are D-shaped, round or elliptical in section.

OTHER SCOTTISH LONG CIST CEMETERIES.

Although a considerable number of these cemeteries have been recorded in Scotland, information about them is still very meagre. Very few have been systematically excavated and none (including Parkburn) have been examined with the care and thoroughness expected of a modern excavation. When referring to cemeteries in this paper a total of six or more graves from a site has been taken, quite arbitrarily, as a qualification, and a list of such sites has been added (p. 278 and map fig. 6). In very few cases is there any indication what proportion of the number of burials have been

¹ *P.S.A.S.*, LVI (1921-2), 230.

² *Archæologia*, LIV (1894), 106 and *P.S.A.Lond.*, 2 ser., II (1861-4), 130.

³ *P.R.I.A.*, XLVII (1941-2), 13.

⁴ *P.S.A.S.*, LXIV (1929-30), 116.

⁵ Munro, R., *Ancient Scottish Lake Dwellings* (1882), p. 232.

⁶ *P.S.A.S.*, I (1915-16), 222-38, also Castlelaw, Midlothian; Craiglockhart Hill, Midlothian.

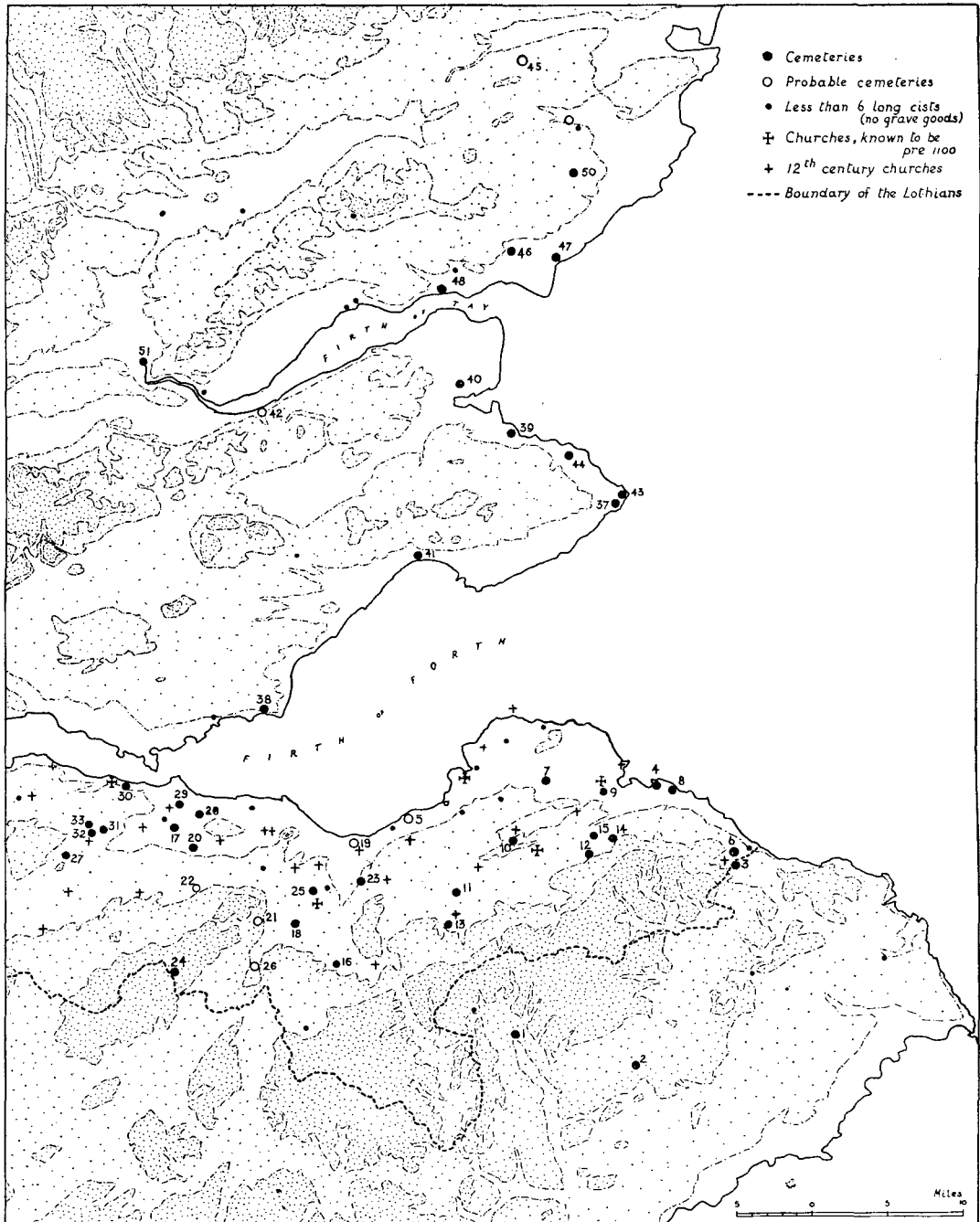


Fig. 6. Distribution of long cists without grave goods in SE. Scotland (churches only plotted in the Lothians).

discovered, and it is very probable that some of the discoveries of one to five graves are all that chance has revealed of a more extensive cemetery. However it is evident that the cemeteries vary greatly in size, Parkburn and Whittinghame probably having between one and two hundred, Windymains and Knowes perhaps rather wildly estimated at "hundreds" and "over 500," while the 16 at Hartlaw, 9 at North Esk Reservoir and 6 at West Grange of Conan are likely to be near the total at these places.

At various sites the regular layout of the graves is remarked, and a tendency to be placed side by side in rows (unfortunately all reports do not indicate in which direction the rows run). At Terally the 13 cists found were in one row, at Knowes in rows 2-3 ft. apart, at Nunraw 5 rows were 9-10 ft. apart, at North Esk Reservoir 3 rows 2 ft. apart, at the Cat Stane 8 rows, at Wyndford in 2 rows with perhaps a third about 3 ft. apart, at Cramond Bridge in 2 rows. In these cemeteries there is generally 1-3 ft. between the sides of the cists, at Belhaven they were 6-12 ft. apart, at Terally 6-10 ft. apart and at Woodend "a few feet to several yards apart." On the other hand there are congested cemeteries, at Addinstone the cists were "laid out irregularly," and at Edgebucklin Braes "without much apparent regard for order." At Leuchars and Hoprig the cists have a tendency to form rows on end, as also happened with some in the N. area at Parkburn. The cemetery starting about 635, attached to the Northumbrian site at Yeavering was also organised in a similar manner with crowded graves forming lines on end, though the interments were not in cists.¹ At Leuchars and Gogar stones of one cist formed part of the neighbouring cist (as 6 and 38, 26 and 7 at Parkburn), and at Hoprig, Addinstone, Pitmilly Law and Brouch-an-Drummin² there are instances of one cist being built into an earlier one. This contrast in the layout of the cemeteries seems to be real, and can be compared with the two main areas at Parkburn where the careful arrangement of the graves seems to be the earlier, an indication perhaps further strengthened by the Cat Stane and Conan cemeteries which are likely to be comparatively early in date.

At two sites, Belhaven and Gogar, burials are noted without a cist (as Nos. 45 and 46 at Parkburn), and this is a feature which could easily be overlooked, especially on sites where bone was badly preserved. Like Parkburn, the cists are usually wedge-shaped, but occasionally coffin-shaped cists are found without any apparent significance (Nunraw, Gogar, Addinstone, Perth, Camptoun (p. 283), Invergowrie,³ and the probably later sites at Kelso⁴ and Cambuskenneth (p. 269). It has been pointed out⁵ that the wedge-shaped cists with the sides formed of a single slab may not be contemporary with the main series, such cists occurring at Brough of

¹ Unpublished, information kindly given by the excavator, Mr Brian Hope-Taylor.

² *P.S.A.S.*, LXIII (1928-9), 157-8.

³ *Ibid.*, XXXVII (1902-3), 237.

⁴ *Ibid.*, VI (1864-6), 245-49.

⁵ *Ibid.*, LXXXVI (1951-2), 109.

Birsay and Iona, but at Gogar, Ardyne and Brouch-an-Drummin there were cists with one side formed of one slab, while of the two cists at Pitkerro¹ one had sides of single slabs and the other had three slabs per side.

Besides Parkburn, evidence for the reuse of cists comes from Gogar where there was one grave with two bodies, and again at Camptoun one cist held the skeleton of an elderly man and the skull only of a young woman (p. 283). Children's graves are noted at 12 sites.

Walls surrounding the cemeteries were only found at the Cat Stane and Hartlaw. The latter is a curious site, apparently two cemeteries were situated on adjoining knolls and indications of encircling walls were found on each. Considerable charcoal was also found over and in the cists and in 2 stone-lined pits 2 ft. deep. Burning was also found at Addinstone, but might be the result of the Bronze Age use of the site, and in the filling of cists on the Braid Hills,² while pits were noted at the Cat Stane (stone-lined with burning on the ground above it) and at Burnhouse. A layer of burning was noted, without comment, at Towyn-y-Capel, Anglesey,³ and a stone-lined square pit about 1 ft. 6 ins. across filled with charcoal and burnt clay was found beside the chapel at Clynnogfawr, Caernarvonshire,⁴ both sites with long cists in the earliest phases.

DATING EVIDENCE.

"The appearance of long cist graves seems part of a wider phenomenon over much of late Roman and sub-Roman Europe," their origins are pagan and probably Germanic.⁵ The occasional and isolated long cists in Scotland which have produced grave-goods⁶ are presumably pagan too, for they contrast strongly with the cemeteries where lack of grave-goods is invariable and must imply a deliberate rite. There is also an apparent association of long cists with Bronze Age burials; there are 7 sites where long cist cemeteries are mixed with or beside cemeteries of short cist inhumations, and at Addinstone there were cremations as well; at Kirkhill Braes beaker sherds were found beside a long cist, at Yarrow a food vessel sherd and jet ring were found in a grave. But it is certain that the 18th-century keys from the Cramond Bridge and Cockenzie cists are intrusive, and considering the other evidence the Bronze Age material can generally be regarded as incidental. But it is as well to bear in mind that full length inhumation

¹ *P.S.A.S.*, XLIII (1908-9), 317.

² *Ibid.*, VI (1864-6), 61.

³ *Arch. J.*, III (1846), 223-8.

⁴ *Arch. Camb.*, XIV (1914), 278.

⁵ *P.S.A.S.*, LXXXVI (1951-2), 100-11. This paper gives a summary of the dating evidence and is, of course, the basis of my own remarks. I am further indebted to Mr R. B. K. Stevenson for the loan of his MS. notes and for much advice and encouragement while preparing this paper.

⁶ Craigie, Angus, *Ibid.*, XXXVII (1902-3), 233, very near the Stannergate cemetery but apparently $\frac{1}{4}$ mile to the E. of it; Blackness, Midlothian, *Ibid.*, LIX (1924-5), 116; Dalmeny, Midlothian, *Ibid.*, XLIX (1914-15), 332-8.

was practised in the Bronze Age and by Vikings, singly and often under cairns.¹

Occasionally long cists are used for burial in the medieval period. The cists at Kelso and Coupar Angus² are likely to be connected with the abbeys (founded there 1128 and 1164), while even more convincing are those still to be observed at Cambuskenneth, Stirlingshire.³ Here, in the corner of the cloister walk of an abbey, founded in 1147, apparently on a new site, are a group of three cists, one coffin-shaped, beside a grave with a 14th-century tombstone. There is perhaps another example in the "slab-lined grave" containing a probably 13th-century pot (EH 9) found in Dunbar Churchyard.⁴ A very curious find at Muthill Old Churchyard, Perthshire, suggests long cists may even have been used in the 17th century, though there is the possibility that in this instance older graves were reused at a much later date. The bodies appear to have been placed in a wooden coffin with metal mountings.⁵ It is recorded that in the district of Ness, Lewis, it was the practise apparently until at least the end of the 18th century, to bury in a "coffin of stone," there being only one wooden coffin for each churchyard which was used for transporting the body.⁶ Thus it can be seen that this burial custom spans a very long period. The first long cists appear singly or in small groups, and sometimes include grave-goods. Long cists are also found sporadically in medieval times and perhaps still later. The cemeteries, however, appear to belong to neither of these phases. What evidence there is suggests they were in use mainly during the 5th-8th or 9th centuries.

It is difficult to prove beyond all doubt the association of a grave with an adjacent monument or structure, but the probability remains. It seems reasonably certain that Vetta, son of Victus, commemorated by and buried beside the Cat Stane, was one of the community whose long cist graveyard lay to the E. of the stone. Vetta was a Christian of the pre-Columban church and the inscription belongs to the early 6th century.⁷ The Yarrow stone has a similar background, but is less certainly associated with the nearby cists—their relative positions are unknown, and the stone had apparently been buried and so may have been moved from its original

¹ Childe, V. G., *Scotland Before the Scots* (1946), 119, and a particularly good example *P.S.A.S.*, XXI (1886-7), 316-24; *ibid.*, LX (1925-6), 160-82. ² *P.S.A.S.*, XXII (1887-8), 147.

³ I am grateful to Mr J. G. Dunbar for drawing my attention to these.

⁴ *P.S.A.S.*, LV (1920-1), 272-3.

⁵ Unpublished; my thanks are due to Mr A. H. Anderson, F.S.A.Scot., who reported the find. In November, 1951, when digging a new grave two long cists were discovered. They had heavy capstones, and were orientated E.-W., each was about 7 ft. 6 ins. long and 1 ft. 6 ins. deep. They lay side by side 2 ft. apart and each contained a complete skeleton. On top of each body were fragments of a metal mounting, and below were pieces of cloth, taken to be linen, which did not survive. The mountings are presumably from disintegrated coffins. Dr J. S. Richardson examined them and reported that they are 17th-century work and from the style, which resembles Dutch beaten brass-work of the time, probably imported from the Netherlands.

⁶ Stuart, J., *Sculptured Stones of Scotland*, II (1867), lxi.

⁷ *Antiquity*, XXIX (1955), 81.

position. Bronze Age finds also came from one of the cists. All the same it is tempting to associate the graves and the stone. A similar association of a long cist and tombstone of the early British church is known in Wales.¹

An earlier date might be suggested for the two groups of cists found beside, and presumably connected with, souterrains in Angus, at Carlungie and West Grange of Conan. Wainwright considers that souterrains went out of use before the 4th century, but also found at the two sites he excavated traces of huts of a continued occupation after the dismantling of the souterrains. It is possible there was a similar occupation at Conan too, unnoted by the excavators of 1859. Anyway the close proximity of the graves and habitation is interesting, and reminds one of the Galson site. If contemporary with the souterrain they are pagan, but if with the later huts might be as late as the Pictish conversion of the 6th century; in either case they suggest the lack of an organised Christian burial ground.

Wainwright has also pointed out that the association of burials with symbol stones may be fortuitous, but where they are not in a known graveyard there seems a fair likelihood of their association being real. At Cossins, Angus,² 5 graves were grouped round the stone within a radius of 12 ft., and at Wester Delnies, Nairnshire,³ "within a few yards" of the stone. A 7th-8th-century date is thus suggested for these cists. At Golspie, Sutherland,⁴ a long cist had a symbol stone, 8th century, used as a cover, which implies the grave is later, but by how long there is no indication, and similarly at other sites which incorporate Pictish stones into the graves.⁵ It is true that none of these stones is connected with a long cist cemetery but the main long cist and Pictish areas have only a peripheral overlap. The cists at Brouch-an-Drummin were probably connected with the ogam inscription found on the site subsequently,⁶ but as the stone is 8th century or earlier it does not give a close dating. The chapel site at Mare's Craig Quarry, Fife, has produced a Celtic bell and burials, their numbers are unknown but some at least were probably in long cists.⁷

THE DATE OF THE PARKBURN CEMETERY.

At Parkburn the querns provide the only direct dating evidence, and as has been indicated, lacking comparable material especially from Scotland, a date somewhere between the 3rd-9th centuries is indicated, and most probably near the middle of that period.

On historical grounds a similar date may be suggested. St Ninian is

¹ Nash-Williams, V. E., *Early Christian Monuments of Wales* (1950), pp. 90, 125.

² *P.S.A.S.*, II (18, 1854-7), 249.

³ Romilly Allen, J., *Early Christian Monuments of Scotland* (1903), pp. 117-18.

⁴ *P.S.A.S.*, LXXVII (1942-3), 26-30.

⁵ Listed *Ibid.*, LXXXVI (1951-2), 111.

⁶ *Ibid.*, LXVI (1931-2), 448-50.

⁷ *Ibid.*, LXXXVI (1951-2), 111.

generally considered to have started work in Galloway in 397¹ so the earliest possible date for the beginning of the cemetery would seem to be the early 5th century. The Cat Stane, a century later in date, shows that St Ninian or his disciples worked with some success in the Lothians, and that the area remained Christian is testified by the Gododdin.² This poem, describing events of about 600 shows a Christian king and court in Midlothian who gave gold to the church and did penance before battle against the pagan Angles of the south.

The site at Parkburn may have been superseded by the church at Lasswade, $\frac{3}{4}$ mile to the SE. This medieval parish church (in turn replaced by the church built in 1791 a little higher up the hill, and now pulled down) was built on the hill above the present village. It was consecrated in May 1240 by Bishop de Bernham³ and dedicated to St Mary the Virgin.⁴ Whether the building was new at the time of the Bishop's reorganisation is uncertain, but two earlier carved stones were found in the medieval churchyard. These stones are an arm of an 8th-9th-century Anglian cross and part of another monument of uncertain form, probably 10th century.⁵ By the 8th or 9th century, if not before, Lasswade was a centre for worship. Although it is likely, considering how close the two sites are, that Parkburn was no longer used it is at least possible that the two sites existed for a while concurrently (see further p. 275). But the quern stones *a* and *c*, which are likely to be no later than the 8th century, and may well be considerably earlier, are associated with late burials at Parkburn. The change in the grave layout presumably comes about halfway through its period, and if, as is very tentatively suggested (p. 272) the change is due to the development of the Celtic church under the influence of Iona, it is likely to have taken place at a date somewhere about A.D. 600. The Parkburn cemetery probably had a duration of only one or two centuries, and considering the vague but cumulative evidence from the site itself and other cemeteries, though unproven, a date between the early 6th and early 8th centuries seems most reasonable.

SECULAR CELTIC CHURCH SITES.

The Ninianic church, following the late Roman pattern, is thought to have been organised rather differently from the later predominantly monastic Celtic church which developed in virtual isolation from the mid 6th century. It is possible that at first the church in Scotland considered graveyards

¹ For the controversy on the precise date see *T. Dumf. and Gall. A. S.*, xxvii (1950).

² *Antiquity*, xvi (1942), 254.

³ *The Pontifical Offices Used by David de Bernham* (1885), x.

⁴ *Calendar of Papal Registers*, xiii (1955), 68 and 70. The letters in question are dated 1477-8 and no earlier reference to the dedication was found, and none to support the usual ascription to St Edwin which appears to be a 19th-century error.

⁵ Romilly Allen, J., *Early Christian Monuments of Scotland* (1903), pp. 423-4.

or areas of consecrated ground more important or more expedient than attempting widespread church-building. The incident in the Life of St Kentigern where he goes to Glasgow with the body of Fregus, and "they halted near a certain cemetery, which had been long before consecrated by St Ninian has often been quoted.¹ There appears also to have been a pre-church Christian burial ground at St Ninian's Point, Bute; the church was built in the 6th or 7th centuries.² The same tendency can be seen in Wales, where the prefix "llan" signifies primarily "enclosure" and has only later been equated with "church."³ As has been noted the earlier long cist cemeteries, in one instance dated to the early 6th century by the Cat Stane, are carefully laid out, and they may possibly represent this phase of the early Church.

The succeeding Columban church had close connections with the Irish church which can be shown, particularly clearly in the Isle of Man, to have built a great number of small chapels for the civil communities. While not wishing to imply any sudden contrast or change of policy, it is possible that the presence of a chapel presumably housing holy relics may have created a desire for burial very close to or within the building, and this might cause congested cemeteries such as are found in the Lothians.

In the Isle of Man the early chapel and graveyard sites have been studied in detail since 1908.⁴ The ruins of many such small chapels, or keeills, with graveyards and surrounding bank or wall have survived, and those excavated have produced crosses and gravestones of the 6th century to medieval date, and invariably long cists. The system has been based on an agricultural unit, the treen, each of the original treens having a keeill; there were 179 treens and 17 parishes. The system belongs primarily to the pre-Norse Celtic church but carried through to the diocesan and parish organisation of the 12th and 13th century, and should be comparable to the system in the Columban church in Scotland.

In Wales, though the ecclesiastical organisation cannot be seen so completely, there are some indications that the early Celtic church at first used long cists for burials. At Towyn-y-Capel, Anglesey,⁵ they were found in considerable numbers, and not always orientated E.-W., under later inhumations without cists, and also apparently earlier than St Bride's chapel. At St Beuno's Chapel, Clynnogfawr, Caernarvonshire,⁶ two long cists were the earliest burials on a site probably founded in the 7th century. A similar history may be attached to St Justinian's Chapel, Pembrokeshire, where long cists were found within the earliest (undated) foundations.⁷

¹ Forbes, A. P., ed., *Lives of St Ninian and St Kentigern* (1874), 51-2.

² *Trans. Buteshire, Nat. Hist. Soc.*, XIV (1956), 72.

³ Bowen, E. G., *Settlements of the Celtic Saints in Wales* (1954), pp. 1-2.

⁴ Field surveys in *The Manx Archaeological Survey Reports*, I-VI (1908-18); discussed by Marstrander, *Norsk Tidsskrift for Sprogvidenskap*, VIII (1937), 287-442, with English résumé; summarised in a review *J. Manx Museum*, IV (1938), 3-5.

⁵ *Arch. J.*, III (1846), 223-8.

⁶ *Arch. Camb.*, XIV (1914), 271-96.

⁷ *Ibid.*, LXXXI (1926), 381-94.

At the monastery on Ynys Seiriol, off Anglesey,¹ long cists are again not precisely dated but are pre-medieval on a site probably founded in the mid 6th century.²

In Cornwall also cists are sometimes associated with early Christian sites, at Mawgan Porth³ beside the civil settlement which flourished in the 7th–9th centuries, and in the graveyard at St Pieran's Oratory,⁴ not precisely dated.

In Ireland, too, the evidence seems to point to a similar situation to that in Scotland. Various of the single long cists may well be of Iron Age date as argued by Raftery⁵ but such cemeteries as Killegar, Co. Wicklow,⁶ with the nearby old church, seem analogous to the Early Christian sites elsewhere. Cemeteries appear to be frequently connected with ancient church sites in NE. Ireland, where the material has been discussed by Miss Tildesley⁷ who also quotes the Rev. John O'Laverty who gives a list of 15 ancient Christian graveyards in which long cists have been found.⁸

A study of the early chapels of Orkney, which appear to have been organised in a similar way to those of the Isle of Man, has been made by Storer Clouston.⁹ They have been attributed to the Norse adoption of Christianity in the 11th century, but Celtic Christianity has been shown to have survived the Norse invasions¹⁰ and their early organisation is surely based on the earlier Celtic system analogous to that of Man which is certainly pre-Norse. There were about 120 chapels in Orkney, one to each "district" of the parish *i.e.* urisland, a land division equivalent to the Manx *treen*, and like Man, many of the parish churches were built on the site of earlier chapels. The only excavated burial ground connected with the Celtic church belonged to the monastery at Brough of Birsay, and produced long cists, though the sides were of single slabs. None of the chapel graveyards have been investigated but long cists have been found accidentally at Monked House Chapel site near Stromness.¹¹

A similar arrangement has emerged in a study of Kintyre,¹² there are vestiges of it in Shetland and Caithness¹³ and probably also in the numerous chapel or graveyard "Teampul" sites of the Highlands, where there is also evidence that the ancient church was organised on the old land division or *davach*.¹⁴ It may be noted that the statistical account records that "several stone coffins have been found, one containing two skeletons" at Croicht

¹ *Arch. Camb.*, I, 6 ser. (1901), 98, or R.C.A.M. (*Anglesey*) (1937), 141–4.

² For other references to Welsh long cists, *P.S.A.S.*, LXXXVI (1951–2), 109.

³ Bruce-Mitford, R. L. S., *Recent Archaeological Excavations in Britain* (1956), pp. 187–9.

⁴ *J. of the Royal Institution of Cornwall*, XVI (1903–5), 133–43.

⁵ *P.R.I.A.*, XLVI (1941), 299–315.

⁶ *Ibid.*, 305–9

⁷ *Man* (1929), article 78.

⁸ *J. Royal Hist. and Arch. Ass. I.*, XV (1879–82), 105.

⁹ *S.H.S.*, XV (1917–18) 89–105, 223–40.

¹⁰ Marwick, H., *Orkney* (1951), pp. 104–18.

¹¹ *P.S.A.S.*, VII (1866–8), 60–61.

¹² *P.S.A.S.*, LXXXV (1950–1), 62.

¹³ *New Stat. Acc.*, XV (1845) (*Caithness-shire*), 25.

¹⁴ *P.S.A.S.*, LXXXV (1950–1), 61–64.

an Teampuil, Fodderty, Ross-shire,¹ but on the other hand the long cists at Galston, already noted as a probably early site, are presumed to antedate the nearby ancient graveyard and church Teampull nan Cró Naomh.

The only indication of the association of long cists with a Celtic chapel site in the SE. of Scotland was at Mare's Craig Quarry, a site which was of the greatest importance but now destroyed, and the information about it is very slight. It should also be recalled that long cists were not the only mode of interment at the period, even among Celtic churchmen,² and must be derived from local pagan customs. Attention has been drawn previously to the curious distribution of long cists in Scotland, and the fact they represent no known division of the country.³ They occur mainly in SE. Scotland and occupy sites on the coastal plain, often very near the shore. In general they are located on good easily cultivated land (a considerable number of sites are on sand or gravel) and in positions of easy communications; it is a commonplace that the Scottish firths were an aid to communication rather than a barrier, though the Forth was a political frontier for most of the 7th to the 10th centuries. The map (fig. 6) shows the SE. of the country with the known sites plotted, unfortunately there is insufficient data to indicate the earlier and later cemeteries.

When applying to the Lothians the information which the studies of these other regions has provided differences in history and economy have to be considered, the contrast increasing as the centuries progress. It has been suggested that most of the cemeteries belong to the 5th-8th centuries, but parish organisation does not begin until the 12th century. This implies a hiatus of three centuries, and either the cemeteries were used longer or there was a tendency to abandon some of the sites and use those which continued into the middle ages or even down to today. The eight hundred years considered here saw SE. Scotland first as a Celtic Late Iron Age kingdom, then annexed by Northumbria in the 7th century whose power waned until the country was finally ceded to the Scottish king in 973. The Lothians were the richest part of Scotland, and were two and a half centuries under Anglian rule. McKerral has pointed out the difference in land organisation in the Celtic N. and W. and in SE. Scotland as a result,⁴ in the former the population was scattered over its appropriate lands while in the latter the houses were grouped into villages and there was a tendency to centralisation. It might be that there was a parallel tendency to abandon some of the cemetery sites and to begin to anticipate the parish organisation of David I. An instance of such a change has been noted at Brampton, Cumberland, where a Ninianic church was founded inside an abandoned Roman fort and beside the still flourishing native village, while the Anglian

¹ *New Stat. Acc.*, XIV (1845) (*Ross and Cromarty*), 253.

² e.g. St Ninian's chapel, Bute, *Trans. Buteshire Nat. Hist. Soc.*, XIV (1956), 67.

³ *P.S.A.S.*, LXXXVI (1951-2), 109.

⁴ *P.S.A.S.*, LXXXV (1950-1), 59.

village, modern Brampton, grew up a mile and a half away: the oddity of this case is that the church was not removed.¹ In the Isle of Man, under rather different circumstances, the system of keeills seems to have declined by the 10th century and probably even earlier, while a few larger keeills begin to assume a greater importance, foreshadowing the later parochial system.²

It may well be that, as in Orkney, the Isle of Man and NE. Ireland, parish churches and their graveyards overly earlier sites and even long cist cemeteries. A particularly clear example of this process can be seen at Clynnogfawr where a 7th century chapel foundation and long cists is enclosed in a late medieval chapel attached to the parish church.³ There is little documentary or architectural evidence for the Lothian churches before the 12th century, and constant burial and rebuilding is likely to have destroyed most of the archæological evidence. But there are instances of medieval churches on or beside cemeteries; at Leuchars where the church is dedicated to St Athernaise and a chapel to St Bonoc, said to be 8th or 9th century foundations;⁴ at Our Lady of the Rock, Kirkheugh, St Andrews, supposed to be the site of a Culdee monastery, but in any case St Andrews was an important ecclesiastical site from the mid 8th century; "numerous cists" at Aberlemno, to the S. and E. of the church may perhaps be another instance; at the Abbey Green, Jedburgh, where there was probably a religious foundation from the 9th century;⁵ possibly also the graves found under and beside the round tower at Abernethy, Fife, in 1821.⁶

On the other hand there are instances, especially in the Lothians, of cemeteries of long cists near but not adjacent to medieval (or earlier) churches. At Parkburn the site is across the valley and $\frac{3}{4}$ mile from Lasswade church; at Gogar there is about $\frac{1}{4}$ mile between the sites, Nunraw is even less distance from Garvald church; Belhaven and Kirkhill Braes are $1\frac{1}{2}$ miles and 1200 ft. respectively from Dunbar church, Burnhouse is $\frac{3}{4}$ mile from Binny chapel, Wyndford $\frac{3}{4}$ and 1 mile from Uphall and Strabrock churches respectively, Milton $1\frac{1}{4}$ miles from Pencaitland church (but Hoprig lying $1\frac{1}{4}$ miles from Oldhamstocks church and New Farm $\frac{3}{4}$ mile from Newton church are not in their respective parishes). The relative position of these sites seems to imply a break rather than a continuity of site from Celtic to Norman church.

If the comparison between the long cist cemeteries and the Manx keeills and Orcadian chapels is valid, then a chapel should have stood in each of

¹ *T. Cumb. and West. A.S.*, xxxvi (1936), 179, discussed by W. Douglas Simpson, *St Ninian and Christian Origins in Scotland* (1940), 82-86.

² *Norsk Tidsskrift for Sprogvidenskap*, viii (1937), 418-23.

³ *Arch. Camb.*, xiv (1914), 271.

⁴ Discussed *P.S.A.S.*, xliii (1908-9), 174-6; *ibid.*, lxxxii (1947-8), 299.

⁵ *R.C.A.M. (Roazburghshire)* (1956), p. 37.

⁶ Small, A., *Interesting Roman Antiquities* (1823), appendix F, and *New Stat. Acc.*, x (1845), 849.

the congested cemeteries, besides the very many lost sites. These chapels have not been found with the possible exception of Mare's Craig Quarry and though regrettable is not altogether surprising, for they would have been wooden buildings,¹ and quite small if comparable with the stone chapels, about 12 × 10 ft.—26 × 14 ft. The picture then is of small scattered communities with their own nearby burying ground, perhaps in the 6th- or 7th-century building a tiny wooden chapel, surely suffering at first from a chronic lack of priests but later served by religious communities working over considerable areas, and only latterly centralised enough to support a larger church with a resident priest by means of tythes, and under the patronage of a manor.

APPENDIX I.

DESCRIPTION OF THE FINDS.

1. *Querns*.²—(a) Upper stone, half only, diameter 18.75 ins., depth 3.75 ins. Light grey bedded sandstone with bands of brown iron staining through the stone. The surface is pecked and there is a pecked groove round the vertical side becoming less distinct towards the broken edges. There is a circular handle-hole at one side which perforates the upper angle of the stone. The under surface is slightly concave, deep pecking being visible towards the centre but considerable and uneven wear towards the edge; at one side there is an area at the very edge worn to a high gloss where the stone evidently overlapped the lower stone. Side stone of cist 4. (BB 115.)

(b) Upper stone, broken in two, diameter 20 ins., depth 3.5 ins. Brown ferruginous sandstone dominantly quartz, some decomposed felspar and some brown iron staining. The upper surface is rather rough and the sides are pecked. The under surface is pecked but slightly worn towards the edge. The round handle-hole is broken away at the side but enough of the angle remains to show it was similar to *a*. Surface find. (BB 117.)

(c) Upper stone, three pieces representing over half, diameter 17.5 ins., depth 5 ins. Reddish gritty sandstone with quartz and felspar prominent, distinctly bedded, medium-coarse grained, with small weathered hollows possibly having contained clay pellets. The upper surface is uneven and weathered, the sides are pecked. The underside is worn for 3 ins. from the outer edge, the rest still shows the pecked surface. The upper part only of a slanting round handle-hole remains. There is a pecked groove round the edge below the handle. Side stone of cist 4. (BB 116.)

(d) Upper stone, three pieces representing over half, diameter 28.5 ins., depth 3 ins. Light grey quartzose sandstone, rather gritty, medium grained. The surfaces have been pecked and are hardly worn. There is no handle-hole remaining. The central hole has been about 3 ins. in diameter. On the under

¹ The evidence is summarised *P.S.A.S.*, LXXXV (1950-1), 82-83.

² I am indebted to Dr G. H. Mitchell for the description of and comments on the geology of the stones.

surface, which is very slightly concave, there has been a cross-shaped socket for a rind, portions of two arms of which survive (fig. 5). Surface find. (BB 118.)

(e) Lower stone, broken, diameter 18.5 ins., depth 1.7 ins. Volcanic tuff. The under side is roughly pecked but carefully shaped, and the upper surface is finely pecked with the outer half worn smooth. The spindle hole perforates the stone, there is a slight raised collar at its upper end and its upper half is worn smooth. Surface find. (BB 120.)

(f) Lower stone, broken, much weathered, diameter about 30 ins., depth 2.5 ins. Brown quartzose sandstone similar to *b* and *c*, with grains of decomposed felspar and small calcareous pebbles. The lower surface is very uneven, the upper surface is slightly concave and worn all over though less so towards the centre. Capstone of cist 88. (BB 119.)

In the case of *a* the top is a considerably coarser grain than the lower surface which is finer and harder, the latter having been chosen purposely for the grinding surface. A similar choice seems to have been made in the case of *d* also, though the variation in the bands is less marked. In the case of *c* which is a distinctly bedded rock the quern has been cut across the bedding plane. This is a disadvantage for a stone so cut will tend to break across the planes, and this has in fact happened.

The stones of querns *c*, *e* and *f* are probably from the Old Red Sandstone series, while *a* is probably of Carboniferous age. All the stones are probably fairly local or at any rate could be found within the county though it was not possible to give a precise identification or suggest a definite locality for their origin.

2. *Fragment of Shale Armlet*.—Inside diameter 2.75 ins., thickness $\frac{1}{4}$ in. The section is roughly triangular with each side very slightly convex and the two outside corners flattened. The innumerable scratches from rubbing the surface down during manufacture are very noticeable and there has been little or no polishing subsequently. From cist 27. (FN 189.)

3. *Fragment of Iron*.—Dimensions $1\frac{1}{2}$ by $\frac{3}{4}$ ins. It is between two layers of what appears to be wood preserved by iron oxide from the corroding iron inside. The piece suggests that it has been part of an iron blade inside a wooden sheath. From cist 48.

APPENDIX II.
SCOTTISH LONG CIST CEMETERIES.

	Site.	Parish.	No. of graves.	Comments.	References.
1	<i>Berwickshire.</i> Addinston	Lauder	20 +	Mixed with short cists. Burnings, but probably belongs to Bronze Age phase. Cists placed irregularly.	<i>P.S.A.S.</i> , IX (1870-1), 223-7.
2	Hartlaw (Hare Law)	Westruther	16	Apparently two separate but adjacent sites. Surrounding wall. Burnings. Three stone-lined pits. Possibly also stone structures.	<i>Ibid.</i> , VI (1864-6), 55-61.
3	Hoprig	Cockburnspath	6 +	Short cist cemetery nearby. Cists placed in rows on end, covering an area of 60 x 90 ft.	<i>T. E. Loth. A. S.</i> , II (1929-33), 69-70.
4	<i>East Lothian.</i> Belhaven (and Winterfield Mains)	Dumbar	9 +	Regularly spaced cists side by side. At least one skeleton without cist.	<i>P.S.A.S.</i> , XXXIX (1904-5), 350-2. <i>H. Berce. N. C.</i> , XIII (1890-1), 318-20; <i>Trans. Royal Soc. Edin.</i> , LI (pt. 1) (1915), 229.
(5)	? Cockenzie	Prestonpans or Tranent		Compared to Milton, no details.	<i>P.S.A.S.</i> , III (1857-60), 505.
6	Dunglass (Springfield)	Oldhamstocks	"A cluster"		<i>H. Berce. N. C.</i> , VIII (1876-8), 409; X (1882-4), 465.
7	East Fortune Hospital	Athelstaneford	2 + 4	Four cists were placed side by side.	<i>P.S.A.S.</i> , LXXXVI (1951-2), 111.
8	Kirkhill Braes	Dumbar	About 12	Cists placed side by side in rows, covering an area of about 162 x 78 ft.	<i>Ibid.</i> , LXXXV (1950-1), 179.
9	Knowes	Whitekirk	"Over 500"		<i>H. Berce. N. C.</i> , X (1882-4), 464.
10	Lennoxlove	Haddington			Muir, T. S., <i>East Lothian</i> (1915), 83.
11	Milton	Pencaitland	3 + 1 +		<i>P.S.A.S.</i> , III (1857-60), 503. <i>R.C.A.M.</i> (East Lothian) (1924), 90.
12	Nunraw	Whittinghame	24	Cists placed side by side in rows.	<i>P.S.A.S.</i> , XL (1905-6), 328-42.
13	Windymains	Humbie	"Hundreds"		<i>Ibid.</i> , III (1857-60), 51.
14	Woodend	Stenton	9		<i>Ibid.</i> , XXXIX (1904-5), 441.
15	Whittinghame (Luggate)	Whittinghame	About 200		<i>H. Berce. N. C.</i> , X (1882-4), 463.

LONG CIST CEMETERY AT LASSWADE, MIDLOTHIAN. 279

	<i>Midlothian</i>						
16	Arniston	Borthwick	7				<i>Trans. Roy. Soc. Edin.</i> , LI (pt. 1) (1915), 227.
17	Cat Stane	Kirkliston	51		Apparently associated with the 6th-century Cat Stane. The cists side by side in rows. Surrounding wall. A built pit.		<i>P.S.A.S.</i> , VI (1864-6), 184-98.
18	Dryden Mains	Lasswade	4 or 5 +		Cists spaced out but not in rows.		<i>Ibid.</i> , LXXXVI (1951-2), 111.
19	Edgebucklin Brae	Inveresk	"Numerous"		"Numerous ranges of skeletons . . . enclosed in slabs of stone"—presumably long cists.		<i>New Stat. Acc.</i> , I (1845), 277.
20	Gogar (Hanley)	Corstorphine	24 + 14 + 6 +		"Laid down without much apparent regard for order."		<i>Ibid.</i> , 217.
(21)	? Glencorse	Glencorse			Cists placed irregularly and crowded. Interments without cists. Total area about 750 x 150 ft.		<i>Ibid.</i> , 317.
(22)	? Harelaw	Currie	50 +		Compared to Edgebucklin Brae		<i>Ibid.</i> , 547.
23	New Farm	Dalkeith	9		Cut in soft rock. Cists side by side in rows.		<i>Ibid.</i> , 277, 502.
24	North Esk	Penicuik			The cists "lay quite close and parallel with one another."		<i>P.S.A.S.</i> , XI (1905-6) 60-76.
25	Reservoir	Lasswade	116 +		Compared to N. Esk Reservoir.		See present paper.
26	Parkburn Penicuik	Penicuik	"Group"				<i>P.S.A.S.</i> , XL (1905-6), 60.
	<i>West Lothian.</i>						
27	Burnhouse	Ecclesmachan	6 +		A built pit.		<i>P.S.A.S.</i> , VI (1864-6), 187.
28	Cramond Bridge	Dalmeny	24		Cists in 2 rows.		<i>Arch. Scot.</i> , III (1831), 40-2.
29	Craigie	Dalmeny			Compared to Cramond Bridge.		<i>Ibid.</i>
30	Hopetoun	Abercorn	6 ? +				<i>P.S.A.S.</i> , XII (1876-8), 65-69.
31	(Society) Hopetoun Oil Works	Kirkliston					<i>P.S.A.S.</i> , XXXV (1900-1), 327.
32	Wyndford 1	Uphall	20 +		Cists spaced out in rows side by side.		<i>Ibid.</i> , 325-8.
33	Wyndford 2	Uphall	35		Total area 21 x 30 ft.		<i>Ibid.</i>
(34)	<i>Rosburghshire.</i> ? Abbey Green Jedburgh	Jedburgh	"Cemetery"		Graves in "two tiers," possibly only the lowest tiers were long cists.		<i>H. Berw. N. C.</i> , VI (1869-72), 348-9; <i>New Stat. Acc.</i> , III (1845), 10.
35	<i>Selkirkshire.</i> Yarrow Kirk	Yarrow	9		Yarrow stone possibly associated. A food vessel sherd and jet ring in one cist.		<i>P.S.A.S.</i> , II (1854-7), 484. <i>Ibid.</i> , VI (1864-6), 62-70.

SCOTTISH LONG CIST CEMETERIES—continued.

	Site.	Parish.	No. of graves.	Comments.	References.
36	<i>Wigtownshire.</i> Terally	Kirkmaiden	13	In one row, side by side.	Information from Mr R. G. Livens. Forthcoming publication.
37	<i>Fife.</i> Kilminning	Crail	"Several"		<i>P.S.A.S.</i> , XXXV (1900-1), 327.
38	Kingswood	Burntisland	"Considerable numbers" 4 +	"In and about the ruined chapel."	<i>Ibid.</i> , LXXXVI (1951-2), 111.
39	Kirkheugh of St Andrews	St Andrews	34 + 1 + 3	Cists crowded and tending to form lines on end. Total area 39 x 17 ft. 9 ins.	<i>Ibid.</i> , VI (1864-6), 58. <i>Eidin. New Phal. J.</i> XIV (1861), 191-200.
40	Leuchars	Leuchars			<i>P.S.A.S.</i> , XLIII (1908-9), 170-6; LXXXII (1947-8), 298-9.
41	Landin	Largo	17 + 1	"The cists had been arranged in parallel rows, from E. to W., at regular distances from each other. Probably associated with chapel and celtic bell.	<i>Ibid.</i> , III (1857-60), 76-7; <i>Trans. Royal Soc. Edin.</i> , LI (pt. 1) (1915), 228.
(42)	? Mare's Craig Quarry	Abdie	Numbers unknown		<i>P.S.A.S.</i> , LXXXVI (1951-2), 111.
43	Old Haaks	Crail	30	Cists in 2 rows.	<i>Ibid.</i> , III (1857-60), 505; <i>New Stat. Acct.</i> , IX (1845), 956.
44	Pitmilly Law	Kingsbarns	6	One cist superimposed on another.	<i>P.S.A.S.</i> , VIII (1868-70), 55.
(45)	? Aberlemno (Flemington)	Aberlemno	"Numerous"	"Numerous cists to the S. and E. of the church," but they may be short cists.	<i>New Stat. Acct.</i> , XI (1845), 630; <i>P.S.A.S.</i> , II (1855-6), 192.
46	Carlungie	Monikie	"A great many"	Possibly connected with the souterrain and associated buildings (<i>Ant. J.</i> , XXXIII (1953), 65-71).	<i>P.S.A.S.</i> , XXXVII (1902-3), 237.
47	Carnoustie	Panbride	3 + 2 + 30	Possibly also Bronze Age cists.	<i>Ibid.</i> , XII (1876-8), 611-13.

48	Stannergate (Craigie)	Dundee	8 + 5	Mixed with Bronze Age cists.	<i>Ibid.</i> , XIII (1878-9), 303-5; XXXVII (1902-3), 236; <i>Old Stat. Acct.</i> , VIII (1793), 206-7. <i>New Stat. Acct.</i> , XI (1845), 386. <i>P.S.A.S.</i> , IV (1860-2), 497.
(49)	? Pitmuies	Kirkden	"Nearly a score", 6		
50	West Grange of Conan	Arbroath		Possibly associated with a souterrain.	
51	<i>Perthshire.</i> Perth (Other possible sites)	Perth	"Many"		<i>Ibid.</i> , XXXVII (1902-3), 236. <i>New Stat. Acct.</i> , X (1845), 1063, 1118.
52	<i>Argyllshire.</i> Ardyne	Inverchaolain	13 +	The cists seem to have been rather scattered. Some said to have been under tumuli.	<i>P.S.A.S.</i> , II (1854-7), 251- 5.
53	<i>Lewis.</i> Galson	Barvas	7	Associated with structures, not closely datable.	<i>Ibid.</i> , LXXXVI (1951-2), 106-8.
54	<i>Orkney.</i> Brough of Birsay	Harray		Around the S. and W. sides of the monastery church, either pre-Norse or 12th century or later.	<i>R.C.A.M. (Orkney)</i> (1946), 1-5.

APPENDIX III.

THREE LONG CISTS AT CAMPTOUN, E. LOTHIAN.

On the 1st December 1955, the National Museum of Antiquities was informed by the E. Lothian County Sanitary Officer of the discovery of long cists at Camptoun. The cists were exposed by trenches dug for laying drains behind a new house at Camptoun. The site (map ref. 36/503778) is on the gentle northern slopes of the Garleton Hills, $2\frac{1}{2}$ miles NNW. of Haddington and the same distance from the coast at Aberlady (fig. 7a).

The tops of the cists were about 21 ins. below the present surface. The sides were formed of a number of slabs, and there were cracked capstones on top. The cists were orientated NE.-SW. The cist to the NE. had already been destroyed when the site was visited, but the broken upper and lower stones of a quern

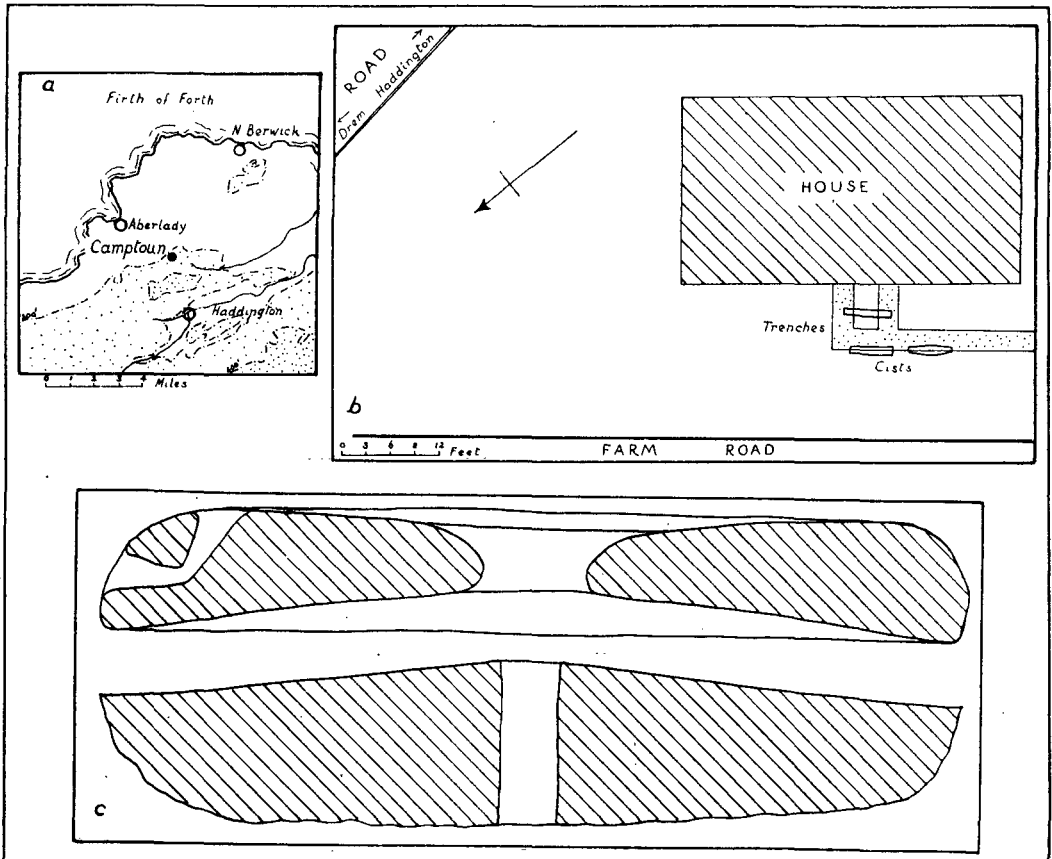


Fig. 7. Camptoun: (a) location map; (b) site plan; (c) sections through the quern stones. (1.)

(fig. 7c) which had formed two of the side stones and one of the covers, had been preserved. The cist was about 6 ft. long and about 1 ft. wide, and had not been paved. The cist which lay beside it to the NW. was complete, and of similar dimensions. The articulated skeleton of an elderly man lying on his back was found, together with the skull only of an adolescent or young adult woman, placed below and to one side of that of the man. A sherd was recovered from the filling of the grave. A third cist to the SW. was only partially examined. It was found to be coffin-shaped, 5 ft. 9 ins. long by 1 ft. 9 ins. wide across the centre. It held the remains of a child about 12 years old. The main trench had been extended 60 ft. SW. of the third cist without exposing more cists, but the rock outcrops just below the surface in this direction.

The upper and lower stones of the quern are made from the same sandstone with quartz, felspar and numerous brown ferruginous spots, from the Old Red Sandstone series. They had been cut across the bedding plane. The upper stone is in five pieces and is almost complete. It has a diameter of 18 ins. and a depth of $2\frac{1}{4}$ ins. The upper surface is slightly dished and the under surface very concave. There is a hole through the upper angle in the manner of the Parkburn querns, its diameter at the narrowest being only $\frac{5}{16}$ in. The diameter of the lower stone is $18\frac{1}{4}$ ins., the depth $3\frac{1}{4}$ ins. Its upper surface fits well to the upper stone. The central hole is narrower and there is a slight collar round the top of it. In two places the edge of the grinding surface is worn to a high gloss.

The sherd is from a vessel with a rim diameter of about $9\frac{1}{2}$ ins., the rim having a slight rounded internal bevel. The walls are $\frac{3}{8}$ in. thick, the ware is hard with large grits partly masked by a fine slip. In general character it is comparable with Early Iron Age sherds from SE. Scotland from such sites as Traprain Law.

The skeletal remains have been examined by Professor Wells whose report will be published later in the next volume of the *Proceedings*.