

## Into the west: excavation of an Early Christian cemetery at Montfode, Ardrossan, North Ayrshire\*

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### ABSTRACT

*A previously unknown cemetery of 60 graves, a mix of long cists, partial cists and simple earth-dug graves, some within a sub-circular enclosure, was located and excavated on the banks of the Montfode Burn near Ardrossan. The work was carried out in 2003, in advance of the construction of the A78 Ardrossan, Saltcoats and Stevenston bypass, funded by Transport Scotland and managed by Historic Scotland.*

*Although frequent throughout the south-east of Scotland, few Early Christian cemeteries have been identified in the south-west. This paper discusses this distribution and the potential for other similar sites in the region.*

### INTRODUCTION

The site was located on the northern outskirts of the town of Ardrossan, on what was waste ground to the west of the Montfode housing estate (NS 2280 4410; illus 1). It was discovered during evaluation undertaken in advance of the construction of the A78 Ardrossan, Saltcoats and Stevenston bypass. The evaluation and ensuing full excavation were commissioned and monitored by Historic Scotland on behalf of the then Scottish Executive Development Department Transport and Planning Division, prior to the land being made available for the road (Brown 2003).

The site occupied a plateau of a gentle hill at c 33m OD on the southern bank of the Montfode Burn at its confluence with an unnamed tributary flowing in from the north. The surviving archaeology was delimited on the northern edge by the steeply sloping bank

of the burn. The evaluation trenches established the extent of the enclosure and found no other features in the surrounding area (illus 1). For the full excavation, an area was stripped to include the entire sub-circular enclosure ditch and a 25m buffer zone surrounding its exterior edge. Sixty grave cuts were identified and excavated: 49 located entirely within the enclosure; eight cut into the enclosure ditch; and three wholly outside the ditch. These comprised eight long cist graves, three partial cists and 49 simple graves cut into the gravelly sand subsoil or the upper fills of the enclosure ditch.

The site affords excellent views of the Firth of Clyde, especially the eastern coastline of the Isle of Arran (illus 2). The surrounding area is good quality agricultural land, under arable at the time of fieldwork, and the truncated condition of the graves and negative features suggest that this area has been ploughed in the past. Within the immediate vicinity of the site

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ILLUS 1 Site location plan



ILLUS 2 View of the site during excavation, looking north-west towards Arran

are a number of important archaeological sites. Montfode Castle, a 16th-century fortified tower, is located several hundred metres west of the site across the Montfode Burn. To the south-west is Montfode Mount, which recent investigations have suggested may have been part of a defended later prehistoric settlement (Stronach 2002).

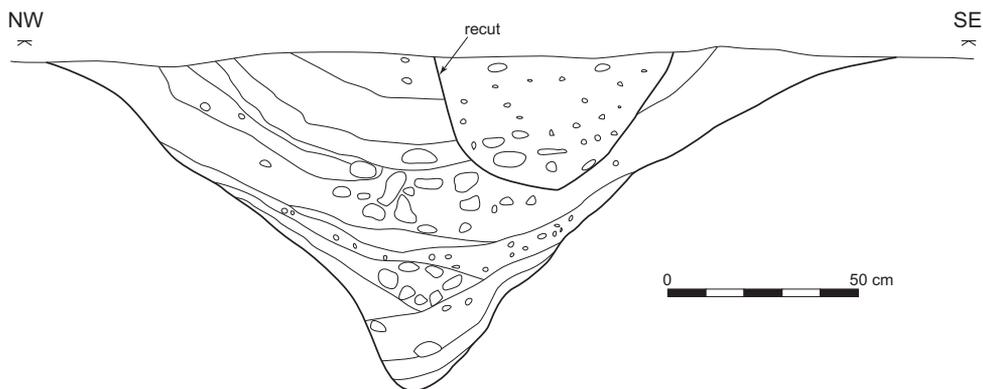
## THE EXCAVATION

### THE ENCLOSURE DITCH

The main part of the cemetery lay within a substantial semi-circular ditch. The ditch

traversed the crown of the hill on the east, west and south side, using the natural topography to enclose the plateau. Overall it measured approximately 50m in diameter. The ditch, where best preserved, measured 2–3m wide and 0.5–1m deep with a steep U-shaped profile (illus 3). The width and depth of the ditch varied throughout its length due to increased weathering in areas of clean sand subsoil.

An entranceway was positioned on the south-east side of the enclosure. It was approximately 4m wide, with clearly defined rounded terminals showing a similar profile to the remainder of the ditch with steeply sloping edges and a flat base.



ILLUS 3 North-east facing section of the enclosure ditch

A single terminus was also identified on the north-west side, now lying close up against the edge of the riverbank, located directly opposite the south-east entrance. On the north-east edge, the ditch petered out, clearly eroded by the steeply sloping cut of the Montfode Burn. There was no further evidence for the enclosure ditch on the northern side, suggesting that the ditch diggers chose to terminate the enclosure at the edge of the burn, using this natural topographic boundary to define the C-shaped enclosed area.

The enclosure ditch was created in a single episode with evidence of an internal bank from the asymmetrical profile seen in a number of sections cut through the ditch. Indirect evidence of the former presence of an internal bank is demonstrated by the layout of the early phases of graves, which appear to avoid a margin 3–4m wide set in from the ditch. It is possible that later graves once cut into the sides and top of an upstanding bank, which has now been ploughed out, removing the higher graves along with the bank itself. A narrow, flat cleaning slot was identified cutting into the base of the ditch, indicating that the ditch was maintained for at least part of its lifetime. This practice was abandoned at some point and a single post-hole was cut into the base of the ditch close to the southern terminal of the entrance prior to any silting. No dating evidence was obtained for these initial phases of the enclosure.

The ditch remained open for some time after the cleaning was abandoned, with layers of weathering and silting evident in the base. Above the initial weathering, thicker and more stony layers were identified; these probably relate to episodes of deliberate backfilling with bank material. When the ditch was almost completely silted up, a number of simple graves were dug into these top deposits. These graves were subsequently truncated by a shallow U-shaped re-cut present along part of the enclosure ditch.

The final phase of activity relating to the ditch was represented by five post-holes cut into the southern entrance terminal, cutting through

the now silted up re-cut ditch and the north-west edge of the enclosure.

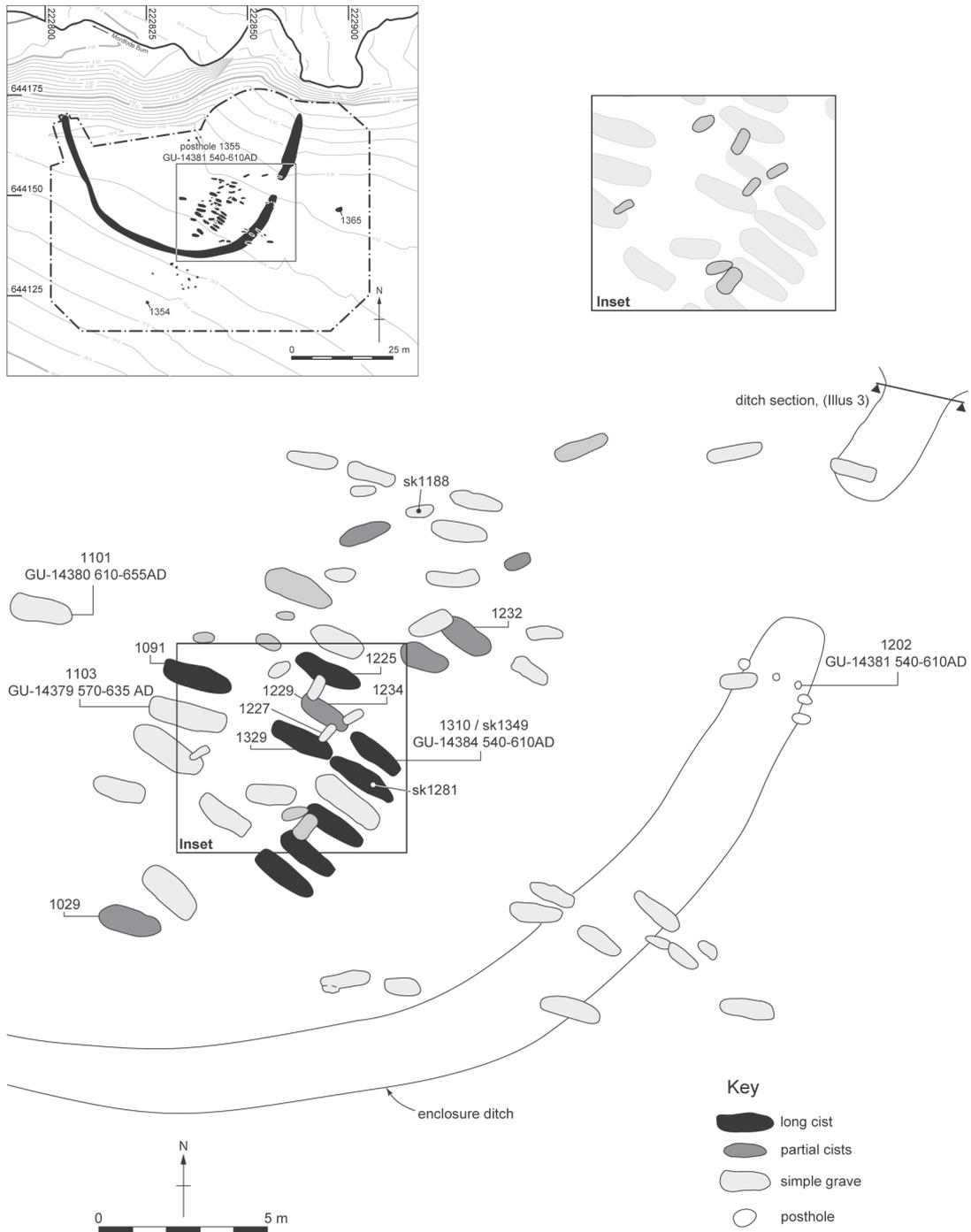
#### PITS AND POST-HOLES

Two sub-circular pits were discovered outside the enclosure ditch on the peripheries of the excavation area (illus 1). Pit 1354 was located 12m south-west of the enclosure, beyond a cluster of post-holes. It was filled with charcoal-rich silt and lined with cracked and blackened stones, suggesting that it may have been the remnants of a cooking pit. A larger pit (1365) was located 15m to the east of the enclosure, in line with the entranceway. It contained no evidence of burning or lining.

A cluster of ten post-holes was uncovered in the area between Pit 1354 and the edge of the enclosure. These post-holes were all very shallow and appeared to have been heavily truncated with no coherent ground plan. Three further post-holes were located on the crest of the hill immediately to the south of the edge of the riverbank. These were in a line, orientated north-east/south-west and were very shallow, possibly due to truncation or erosion of the bank edge.

#### THE GRAVES

The cemetery consisted of 60 graves; 49 concentrated within the south-east sector of the enclosure close to the entrance. Three graves were located outside the ditch but in close proximity to its external edge (illus 4). No graves were located within the entrance to the enclosure or in a 'corridor' of space leading north-west from the entrance into the cemetery area. The majority of the graves also appear to respect a margin 3–4m wide running around the inside of the ditch, perhaps indicating the presence of an internal bank at the time of the first interments. Three grave types were identified within the cemetery: stone-lined long cists, partial cists and simple (earth-dug) graves. Within these groups, three differing grave orientations were noted. Radiocarbon dates obtained from three of



ILLUS 4 The graves

the graves indicated that these were constructed between the mid-6th and mid-7th century.

Due to the acidic nature of the soil at Montfode, the preservation of the bone was poor. Of the 60 graves excavated, bone was recovered from only 14 of them. The quality of preservation of the bone appeared to be determined by the presence of stones over and around the bones, presumably protecting the skeletons against leaching by percolation of water. All the better preserved in situ material came from long cist burials and one partial cist. The remaining, less well-preserved skeletal material came from simple graves.

The stone architecture of all the long cist burials was partially disturbed by the plough. A further eight graves had been damaged in antiquity, truncated by later inhumations.

#### BURIAL TYPES AND ORIENTATION

Eight graves were stone-lined long cists, constructed from local Old Red Sandstone slabs lining the base and sides with a single layer of capstones (illus 6, 7). These graves were all well constructed, orientated roughly N/SE and laid out in three rows. Their construction was all similar, with an elongated sub-oval pit lined with base, side and end slabs. After interment, the cist was sealed by capstones and the grave cut backfilled over the top of the slabs. Due to the poor quality of the skeletal material no pre-burial treatment such as shrouds could be identified.

The majority of the long cists were approximately 2m in length, 0.6m wide and 0.3m deep, with a truncated lozenge shape on plan. The long cists have no stratigraphic relationship with the enclosure ditch, but pre-dated a number

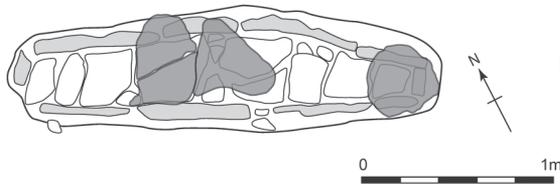


ILLUS 5 Grave 1310 after excavation

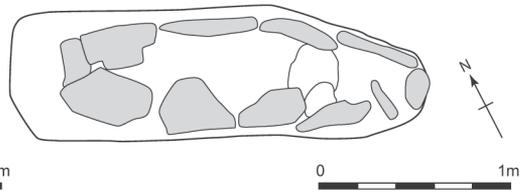


ILLUS 6 The founding row

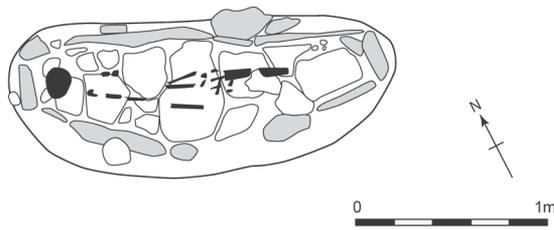
Cist 1044



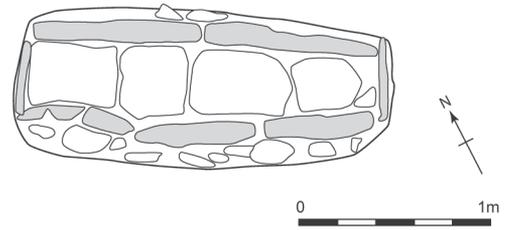
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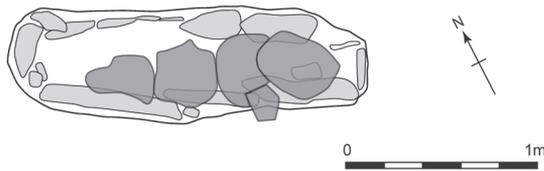
Cist 1225, skeleton 1282



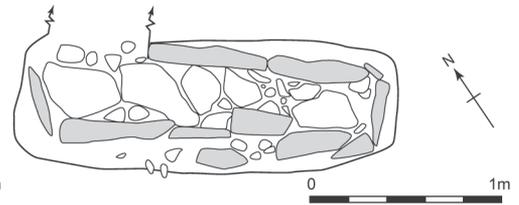
Cist 1260



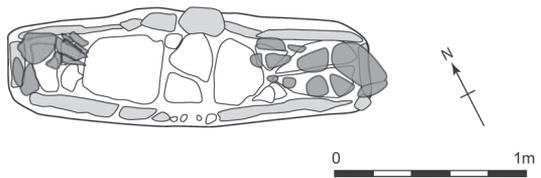
Cist 1310



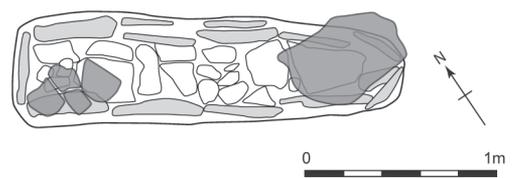
Cist 1308



Cist 1329



Cist 1333



-  side stones
-  cap stones
-  basal and packing stones
-  skeletal remains

ILLUS 7 Detail of cist construction

of simple graves. One long cist (1225) had duplicate skull fragments, suggesting that it had cut an earlier grave, or at some point contained two inhumations. The layout and construction of the long cists suggest that this group may represent the earliest interments at Montfode.

The second burial type was a group of six graves which shared some structural attributes with the long cists but did not include the full panoply of base, side and capstones. Two graves (1029 and 1232) were capped with stones in a similar fashion to the long cists but contained no base or side slabs. Another grave (1234) was lined with side slabs, but bore no evidence of capping or base stones. These graves were oriented NW/SE or WNW/ESE, which aligned them with the long cist rows within the enclosure ditch. They appeared to be a hybrid of the long cist, constructed when the location of the long cists was still visible. Two of these partial cists were later cut by a number of simple graves.

The predominant burial rite at Montfode was simple graves. Forty-nine earth-dug graves were excavated containing no stone architecture. These included all graves cut into the top of the silted enclosure ditch and those located outwith the ditch. The simple graves had three different orientations: NW/SE, WNW/ESE and NE/SW. The majority of the NW/SE and the WNW/ESE orientated graves were located within or beside the three rows of long cists, seemingly following on this initial ordering of the cemetery. A small cluster of graves of both orientations overlay part of the enclosure, truncated by the re-cut of the ditch. A further two graves, one of each orientation, were located over each of the terminal ends of the enclosure ditch.

Thirteen simple graves were oriented NE/SW, eight of which were certainly children's graves. This orientation appeared to represent the final phase of the cemetery, with most of these graves cutting long cists or earlier simple graves. Six of the children's graves appeared to be laid out in two loose rows containing three graves each. A single grave was located between these rows, in line with the grave behind. The remaining

graves in this group appeared disordered, located beyond the rows to the north-west.

## THE HUMAN REMAINS

David Henderson

The site yielded scant human remains, with small quantities of in situ material recovered from 14 grave contexts (out of a total of 60 graves). Where it was possible to identify the interments with certainty, it appeared that all these graves bar one contained a single inhumation. The exception was the long cist (1225) which yielded a second left temporal bone (probably from an intercut earlier grave), as well as foot bones most likely intrusive from an overlying grave (1229). For the catalogue of bones and demographic notes see Appendix below.

## TAPHONOMY

Almost all the assemblage of bone was in very poor condition, with loss of structural integrity and extensive chemical erosion of the outer surface. In most of the graves, any bone survival seemed to depend on the protection offered by overlying stones from the percolation of acidic groundwater. The best surviving material tended to be from areas of the skeleton with thick compact bone (eg longbone shafts and the petrous part of the temporal bone) or teeth (often only the enamels, with no surviving roots).

## METHODOLOGY

All the bone was hand collected and was cleaned by lightly brushing the bone surface to avoid damage to the delicate material. The assemblage was identified as much as possible and examined for signs of pathological conditions. Sex was assessed, where possible, by examining the form of the skull and the pelvis (W E A 1980), with more emphasis being given to pelvic form. Skeletal measurements were taken as per Cross and Bruce (1989), and non-metric traits were

recorded from those in Brothwell (1981, 93–100). Very few measurements were possible, due to the eroded quality of the bone. All results are available in the archive. Tooth-wear analysis (as outlined by Brothwell 1981, 72) was used to determine the age classes of the skeletons. No other areas of the skeleton that are normally used to estimate a more exact skeletal age were available.

#### DEMOGRAPHY

Age estimates were possible from eight of the inhumations; four were between about 15 and 25 years of age, three about 25 to 35 years of age and one over 45 years old. The rest of the inhumations were all adult. Of the four youngest individuals, it was not possible to age them more closely as the roots of the teeth were eroded, so the stage of root growth was not ascertainable. The wear of the teeth was generally lighter than is considered normal for ancient peoples in Scotland. For example, very light wear (Brothwell's 2+) was seen on first molars, when the third molars were in wear (this would more usually be expected to be 3+ or 4). It may be that this was a function of diet; possibly grain was ground with querns which were harder than the norm, causing less grit to get into the flour.

It was possible to assess the sex of only five of the inhumations. Two of the young adults (25 to 35 years of age) were female, one was male. The oldest individual was female and one of the unaged adults was probably male. A full list of burials with a catalogue of bones present is in the Appendix below.

#### PATHOLOGY

Only one anomaly was recorded in the assemblage. The cranium of young adult female 1281 showed early fusion of the coronal suture (between the frontal bone and the parietal bones) producing a narrowing of the forehead with a ridge up the centre of the brow. The frontal bone had retained the midline metopic suture, which

is a common anomaly. It is not likely that this craniostenosis would have produced symptoms in the living woman.

#### DENTITION

The in situ skeletons from the site provided eight dentitions. Of these, one (1188) was represented by a single, upper-right, second molar. Only the elderly female (1349) showed any significant dental pathology; two upper molars (left second and right first) had been lost ante mortem to abscesses, the upper-right second incisor socket was abscessed, and the upper-left first and second right molars had caries cavities.

#### SPATIAL PATTERNING

With the exception of skeleton 1343 (grave cut 1339), all the sub-adult remains (below 25 years old) were recovered from graves to the north of the excavated area. This may represent a spatial segregation of the interments, although with the paucity of securely aged and sexed skeletons, this conclusion is tentative at best.

#### DATING AND DEVELOPMENT OF THE CEMETERY

##### RADIOCARBON DATING

Six radiocarbon dates were obtained from Montfode cemetery. One sample of human bone from a long cist grave (1310), and carbonised grain from the backfill of three simple graves (1101, 1103 and 1227) were submitted. In addition, two post-holes, one cut into the top of the enclosure ditch (1202) and one within its interior (1355), were also dated from charcoal and carbonised grain respectively. One sample from simple grave 1227 produced an anomalous date in the mid-2nd millennium BC, potentially indicating contamination from earlier occupation on the site. There are no other indications of prehistoric occupation on the site, such as pottery

TABLE 1  
The radiocarbon dates, calibrated using OxCal3

<i>Context</i>	<i>Sample</i>	<i>Material</i>	<i>Radiocarbon age BP</i>	$\delta^{13}\text{C}$ rel. VPDB	<i>Calibrated age ranges – 1<math>\sigma</math></i>	<i>Calibrated age ranges – 2<math>\sigma</math></i>
1102 Fill of simple grave 1103	SUERC-11303 (GU-14379)	Carbonised grain – Hordeum vulgare (barley)	1465 $\pm$ 35	-23.6‰	AD 570–635	AD 540–650
1100 Fill of simple grave 1101	SUERC-11304 (GU-14380)	Carbonised grain – Hordeum vulgare (barley)	1410 $\pm$ 35	-23.8‰	AD 610–655	AD 575–670
1203 Fill of posthole 1202	SUERC-11305 (GU-14381)	Charcoal: Alnus (alder) wood	1490 $\pm$ 35	-26.6‰	AD 540–610	AD 440–490 AD 530–650
1356 Fill of posthole 1355	SUERC-11307 (GU-14383)	Carbonised grain – Hordeum vulgare (barley)	1445 $\pm$ 35	-26.1‰	AD 590–650	AD 555–655
1310 Fill of long cist grave 1310	SUERC-11308 (GU-14384)	Bone: right femur	1490 $\pm$ 35	-19.1‰	AD 540–610	AD 440–490 AD 530–650
1228 Fill of simple grave 1227	SUERC-11526 (GU-14382R)	Carbonised grain – Hordeum vulgare (barley)	3220 $\pm$ 35	-25.8‰	1520–1445 BC	1610–1570 BC 1540–1410 BC

or lithics, but it is possible that the cemetery did reuse an earlier enclosure.

The material available for radiocarbon dating was very limited due to the paucity of datable bone (in good enough condition), carbonised grain or charcoal from the site. The results (Table 1) therefore give a general date for the burials, but do not give an indication of the timescale of the life of the cemetery, nor do they allow for a tight chronology of individual events to be gained. The three dated burials include one of the eight long cist graves and two simple graves, both on the WNW/ESE orientation. None of the long cists or WNW/ESE simple graves intercut each other, and those located within the enclosure respect the row layout. There is strong evidence from the cemetery layout to suggest that these tightly clustered burials were somehow marked or visible during later phases of burial and that they represent the earliest period of interment at Montfode. These graves all date between the mid-6th and mid-7th century AD.

The stratigraphic relationships between the long cists and WNW/ESE simple graves with the NW/SE simple graves indicate that the NW/SE simple graves were a later addition to the cemetery, cut when the earlier graves were no longer visible on the surface. These NW/SE simple graves represent the final phase of interment at Montfode and are undated.

The post-hole (1202) cut into the top of the re-cut of the enclosure ditch was backfilled with material dating from the mid-5th to mid-7th century, giving a *terminus ante quem* for the backfilling of the enclosure and its subsequent re-cut. Another post-hole (1355) located within the enclosure, close to the northern edge of the riverbank, is also dated to this period, suggesting that other activities associated with the burials were taking place within the enclosure at this time.

Extensive programmes of radiocarbon dating have been undertaken on long cist cemeteries, predominantly within the densest concentration of sites in the south-east of Scotland. These cemeteries can contain up to 200 inhumations

and date from the 2nd to the 10th century, with the majority active between the 5th to the 8th/9th century (Dalland 1992, 203). The Montfode dates indicate that this cemetery falls within this latter bracket and is clearly within the main tradition of long cist cemetery burial.

#### DEVELOPMENT AND ORGANISATION OF THE CEMETERY

The cemetery appears to have had a well-ordered beginning, with the initial focus on the five long cists and one simple grave forming a neat row (illus 4; 6b). This row may well represent the founding graves, dated to the mid-6th century. These founding graves were almost certainly visible or marked on the surface in some way, evinced by the close proximity and precise layout of the individual grave cuts. The two subsequent rows located to the north-west were less neatly ordered, with the second row containing a long cist (1329), a partial cist (1234) and a number of simple graves, their layout echoing that of the first. Possible later insertions, including a further long cist (1225), do not conform as closely to this layout and were potentially later additions, dug when the majority of the grave markers were less visible or gone.

By the time the third row was laid out, a looser and more haphazard layout is seen, suggesting that these graves were later still. After these initial rows the cemetery appears to have spread to the north-east, with the continuation of the three rows visible, but poorly organised. The orientation of these graves shifts slightly from NW/SE to WNW/ESE, a move which may indicate two phases of activity in this group of interments. These graves within the interior of the enclosure, on NW/SE and WNW/ESE orientations appear to represent the natural growth of the cemetery, slowly expanding to the north-east and north-west over time. The ditch and internal bank must have been at least partially visible during these phases of burial.

A small group of nine graves were located overlying or outside the enclosure ditch, all at

some distance from the main cemetery layout. Other, seemingly isolated graves were located to the north of this group, still on the NW/SE and WNW/ESE orientation and close to or cut into the enclosure ditch. Both the isolated graves and the cluster of nine burials may well be later additions to the primary cemetery layout. The graves are no longer physically confined by the ditch and bank of the enclosure, but the gravediggers were possibly still aware of the location of the entrance into the cemetery and the general orientation of the other graves.

A number of the graves within the group that cut into the now silted enclosure ditch were subsequently cut by a re-cutting of the enclosure ditch, presumably undertaken to redefine the cemetery entranceway. Although undated, this re-cut must have been dug at a much later date, with diggers unaware of the location of the graves it truncated. Also undated is the final phase of burial, simple graves orientated NE/SW, which cut through numerous earlier long cist and simple graves. These graves are all located inside the enclosure and within the centre of the dense concentration of earlier burials.

#### MONTFODE IN CONTEXT

Long cist cemeteries in Scotland are generally ascribed to the Early Historic period, in use between the very late 4th and the start of the 9th century. The majority are believed to be Early Christian, with many common traits that include a general E/W orientation with the head located at the west, organisation in rows, and a lack of grave goods. These cemeteries are often located in river valleys or on coastal strips and occupy low mounds or raised open areas.

A dense concentration of long cist cemeteries has been observed in the south-east of Scotland, especially in the Lothian regions, while in SW England and Wales, concentrations are common along the western seaboard (Etheridge 1993, 19). Long cist cemeteries are generally much

rarer in western and south-western Scotland than in the south-east. This appears to be an artefact of visibility and discovery rather than a reflection of true distribution. The majority of sites in the east have been discovered by aerial photography of land under the plough, whereas soils and agricultural regimes in the west and south-west simply do not produce anything approaching the same number of cropmarks. A proportion of sites are also discovered during the course of developments, as was the case with Montfode, but again, the scale of development for housing and infrastructure reduces considerably once outside the Central Belt, with a corresponding reduction in the number of chance discoveries.

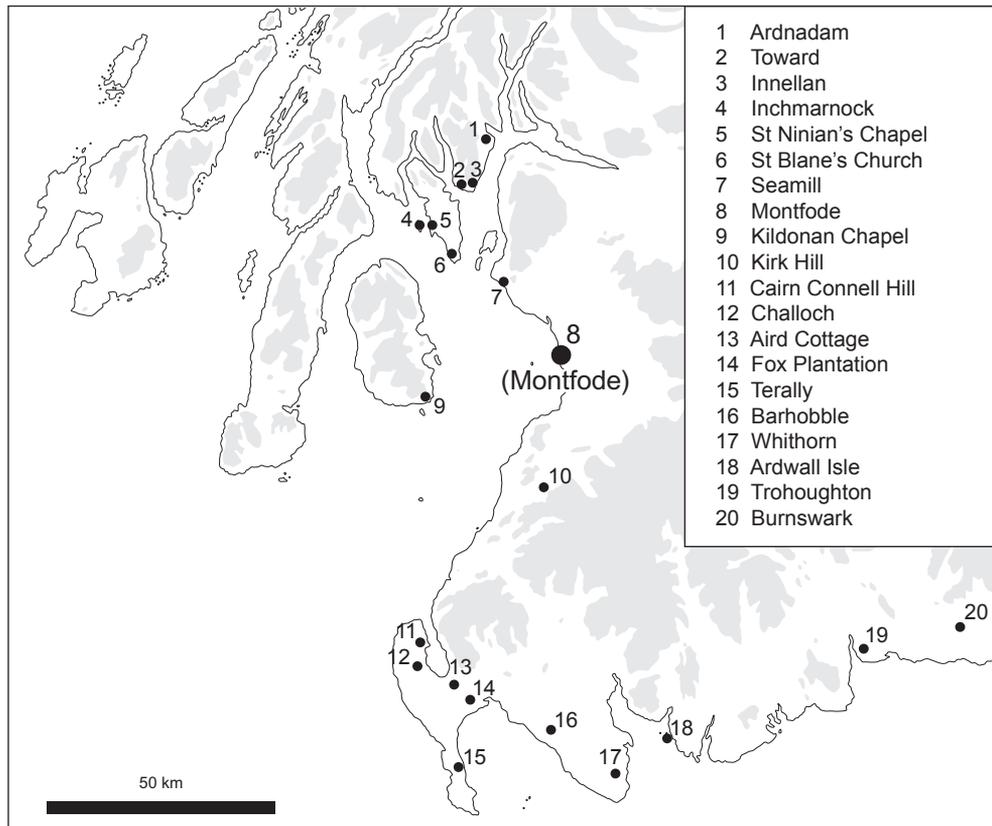
However, work by RCAHMS is currently bringing together evidence for potential sites in Dumfries and Galloway, in addition to better known sites such as Ardwall Isle and Whithorn (Dave Cowley pers comm). These include Terally (Kirkmaiden parish), where a line of 13 cists was discovered between a standing stone and a mound known as Terally Mote (Livens 1958). At Burnswark, a square enclosure (approximately 8m x 8m) within the fortlet was identified as a small, enclosed Early Christian cemetery after the excavation of five E/W-aligned grave-like pits in the interior (RCAHMS 1997, 180). Other square burial enclosures are known in the south-west, including Aird Cottage, Dalswinton and Fox Plantation. Closer to home and much more similar to Montfode is Kirk Hill, South Ayrshire, where a hilltop enclosure can be seen to contain E/W-aligned grave pits visible on aerial photographs. The graves are tightly clustered and appear to respect an area of clear ground in the centre of the enclosure – perhaps a building, shrine or some other focal point for the cemetery (Dave Cowley pers comm).

The Montfode cemetery shares many common attributes with other long cist cemeteries in Scotland. These include the deliberate organisation of the cemetery, observed by the three rows of long cists and

simple graves, probably marked by mounds or memorials. The short, well-defined rows may well be the primary burials within the cemetery and represent related individuals or family groups. The founding graves appear to impose order on the development of the cemetery from the beginning, which was sustained for some time, but eventually broke down as the original graves and enclosure became less visible and the memory of them was lost.

The practice of enclosing cemeteries with a ditch and bank has been observed throughout Early Christian Britain and Ireland, a proportion of which further develop into churches with attached burial grounds in the later part of the 1st millennium AD. Of those that did not develop, and therefore survived

in their original form, two types of enclosed cemeteries have been identified. The first type is a deliberately constructed enclosure contemporary with the initial laying out of the cemetery, notably seen at Knockea, County Limerick (where the cemetery was located inside a circular enclosure within a square ditched enclosure – O’Kelly 1967), and putatively in Scotland at the Catstane long cist cemetery, Midlothian (Cowie 1978, 1804). The second type is imposed onto an existing prehistoric enclosed structure such as at Trohoughton in Dumfriesshire, where Early Christian burials were inserted into an Iron Age defended settlement (Simpson & Scott Elliot 1964, 130). These enclosures may have served a dual purpose – for the burial of the



ILLUS 8 Distribution map of Early Christian cemeteries and chapel sites in south-west Scotland

dead and a place of religious observation, with the demarcation of sacred ground physically separating the holy from the profane and the living from the dead.

The evidence for enclosed cemeteries in Scotland is very limited, although many sites do appear to be within an 'invisible' restricted area, causing clustering and intercutting of burials, as is the case for the northern group of burials at Parkburn, Midlothian (Henshall 1956, 255). Some sites show very neat limits, such as Thornybank, Midlothian (Rees 2002, 327). These factors may be due to the desirability of certain locations within the cemeteries, potentially causing a clustering of graves close to a cross or special grave, or it may be that many enclosures have been lost due to their construction, formed by earth and turf banks or natural barriers such as trees.

The cemetery at Montfode only occupied a small area of the substantial enclosure. There are a number of possible interpretations. There may have been a structure or structures within the enclosure, restricting the expansion of the cemetery and causing bunching of the graves. Three post-holes in a linear E/W alignment were identified on the northern edge of the excavation, one dating to the c mid-6th to mid-7th century, contemporary with the graves, which provide evidence for structural elements within the enclosure. Another possibility is the reuse of a pre-existing enclosure by a small community who only required a certain area and therefore further enclosed the cemetery with other barriers such as fences. However, it is highly likely that the cemetery was simply abandoned before the enclosure was filled with graves, possibly due to changes within the community or movement to another site.

It has been suggested that these enclosed cemeteries were the primary focus of communal worship from the 4th to the 6th century, with the church having no direct control over the organisation of burial. Structures such as small private chapels, *memoriae* housing relics, or markers above special graves may have been

built within the cemetery but generally the church and burial ground were on separate ground (Lynch & Musson 2001, 115). An example of an Early Christian monument associated with a putative enclosed cemetery was seen at the Catstane cemetery near Edinburgh, dated to the 5th to 6th century (Cowie 1978, 181). The blending of church and community burial ground was a later development in the 8th or 9th centuries, due to belief in the spiritual benefits of being close to relics (Lynch & Musson 2001, 115). These 'proto-parochial' churches would have been placed within their congregation, shifting the focus of the worship from cemetery to chapel, and the place of burial to the church's consecrated ground. The earlier established cemeteries were often abandoned during this process unless structures within the cemetery, such as private chapels or important graves, evolved into a timber or stone chapel. These developments are evident in south-west Scotland at St Ninian's Point in Bute, where a stone chapel was imposed upon an established enclosed burial ground in the 6th/7th century (Aitken 1955, 65). At Ardwall Isle, Kirkcudbright, a partially enclosed Early Christian cemetery of the late 5th to 6th century was overlain by a timber chapel which was subsequently built on by a stone chapel (Thomas 1967). It is worth noting that both the enclosures were circular and the burial grounds appeared to serve a small community or family group.

An interesting and perhaps significant observation at Montfode is the location of a farm called Chapelhill, 300m to the east of the cemetery. The name 'Chapellohil' is on Blaeu's 1654 map of Cunningham, a map copied from a Pont map of the late 16th century. Moll's map of 1745 (Chapletou), Roy's military map of 1747-55 (Chapleyhill) and Armstrong's map of 1775 (Chapelaw) all show the location of a building or group of buildings. The First Edition Ordnance Survey map of 1860 shows the farm of Chapelhill immediately to the west of a sub-oval piece of ground called Chapelhill Mound, a

natural mound which survives today. No chapel symbol is shown on any of the maps, and it is highly likely that the name represents an estate or farm. However, the actual significance of the place-name is unclear; the word ‘chapel’ is English from the Latin ‘cappella’ in use from the 13th century (Johnston 1970). It is possible that ‘Chapel on the Hill’ named on Blaeu and Pont’s map may be an anglicised form of the prefix ‘Kil-’, the Gaelic ‘church’ or ‘burial ground’ (Atkinson 2000, 670). The location of the 10th-century burial ground at Chapelhall in Inellan, Argyll also suggests that there maybe a connection between some early Christian cemeteries and this place-name (Atkinson 2000).

## CONCLUSION

Montfode cemetery appears to fit with the model of a small enclosed community cemetery for a group of about 18 individuals, in use for approximately 100 years (Lynch & Musson 2001, 113). As stated above, periods of abandonment and reuse, observed by the disintegration of the organisation of the interments, may have extended this use. During its lifetime the cemetery may have contained a marker or shrine of some kind, and although there is a nearby ‘chapel’ place-name, there

is nothing at the cemetery site that could be positively identified as such. This fits with the rest of Scotland, where none of the earliest Christian burial grounds have evidence of chapel structures, which remain generally unseen until the late 8th or 9th century (Alcock 1992, 127). The discovery of Montfode, and work by RCAHMS examining aerial photographs and records of known sites (Cowley pers comm/ forthcoming) makes it clear that the apparent concentration of such sites in eastern Scotland is an artefact of visibility. This work is now telling us where to look: at hilltop enclosures; at sites associated with ‘chapel’ place-names; and among existing records.

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## APPENDIX I: GRAVE REGISTER

### *Catalogue of bones and demographic notes*

<i>Skeleton</i>	<i>Age</i>	<i>Sex</i>	<i>Cut</i>	<i>Catalogue</i>
1116	15–25	?	1117	Tooth enamels from W end of grave. Very low wear, but M3 just in wear.
1161	15–25	?	1162	Very eroded fragment of longbone, probably femur shaft. Also tooth enamels of molars, and upper L P4, very light wear, but M3 in wear.
1177	Adult	?	1164	Powdery fragments of skull. Only a few grammes.
1188	15–25	?	1189	Upper M2 (left) enamel; very light wear.

*Catalogue of bones and demographic notes (cont.)*

<i>Skeleton</i>	<i>Age</i>	<i>Sex</i>	<i>Cut</i>	<i>Catalogue</i>
1245	25–35	Male	1246	Vertebrae and left side of mandible, male form. Also left mastoid and petrous temporal. All vertebral annular epiphyses fused.
1266	Adult	?Male	1091	Fragment of left zygomatic process of frontal (Male form), left parietal (temporal suture area) and of left humerus shaft, robust, with a well-marked deltoid tuberosity.
1281	25–35	Female	1044	Cranium only (with part atlas and dens of axis). Part of occipital missing (eroded). Surface very eroded; form quite female (mastoids missing). Metopic, with (especially left) coronal sutures in early synchondrosis, leading to keeling of the frontal. Midline palatine torus.
1282	25–35	Female	1225	Fragments of skull, mandible, right ribs, right radius, right femur and patella, cervical vertebrae 1 to 4, 1st and 11th thoracic vertebrae. Fill also contains an additional left temporal bone (squamous part, with patent squamomastoid suture, and petrous part, possibly male). Possible reuse of cist or double interment. Appears to be one cist cutting another. Right metatarsals I, IV and V, and left IV of another individual overlies the femur, possibly from 1231, which also cuts cist 1225.
1283	Adult	?	1260	Very scant remains. Left radius midshaft and fragments of ilium blade.
1318	Adult	?	1234	Knees only (distal left femur, distal right femur, proximal right tibia, proximal right fibula, right patella).
1340	Adult	?	1308	Right femur midshaft fragment.
1343	15–25	?	1329	Left tibia and fibula, left talus, tooth enamels and temporal fragment. Very low wear on the teeth.
1345	Adult	?	1333	Right tibia, fibula and talus, left clavicle and scapula.
1349	>45	Female	1310	Left femur head, left acetabulum and ischium, right ischium, right humerus distal, proximal ulna and radius, left humerus distal shaft, left scapula coronoid and blade fragment, left clavicle shaft and right clavicle fragment. Atlas to Thoracic 1, Occipital, temporals, posterior parts of parietals, maxilla and right zygomatic, mandible; left condyle to right incisors and left third molar.

## REFERENCES

- Aitken, W G 'Excavation of a chapel at St Ninian's Point, Isle of Bute', *Trans Buteshire Natur Hist Soc* XIV, 62–76.
- Alcock, E 1992 'Burials and cemeteries in Scotland', in Edwards, N & Lane, A (eds) *The Early Church in Wales and the West*, Oxbow monograph 16, 125–9. Oxford.
- Atkinson, J A 2000 'Excavation of 10th-century burials at Chapelhall, Innellan, Argyll, 1994', *Proc Soc Antiq Scot* 130, 651–76.
- Brothwell, D R 1981 *Digging Up Bones*. British Museum (Natural History) and Oxford University Press.
- Brown, G 2003 *A78 Ardrossan, Saltcoats and Stevenston Bypass, North Ayrshire: Data Structure Report for an Excavation at Montfode*,

- near Ardrossan. Unpublished data structure report for Historic Scotland.
- Cowie, T 1978 'Excavations at the Catstane, Midlothian 1977', *Proc Soc Antiq Scot* 109, 166–201.
- Cross, J F & Bruce, M F 1989 'The skeletal remains', in Stones, J A (ed) *Three Scottish Carmelite Friaries: Excavations at Aberdeen, Linlithgow and Perth 1980–1986*. Edinburgh: Society of Antiquaries of Scotland.
- Cruden, S 1960 *Scottish Abbeys: An Introduction to the Medieval Abbeys and Priors of Scotland*. Edinburgh: HMSO.
- Dalland, M 1992 'Long cist burials at Four Winds, Longniddry, East Lothian', *Proc Soc Antiq Scot* 122, 197–206.
- Etheridge, D J 1993 *Some aspects of Early Medieval burial practices in Southern Scotland AD 400–1100*. Unpublished MPhil thesis, University of Glasgow.
- Henshall, A S 1956 'The Long Cist Cemetery at Parkburn Sand pit, Lasswade, Midlothian', *Proc Soc Antiq Scot* 89, 252–83.
- Johnston, J B 1970 *Place-names of Scotland*. Wakefield.
- Livens, R G 1958 'Excavations at Terally, 1956', *Trans Dumfriesshire Galloway Natur Hist Antiq Soc* 3rd 35 1956–7, 85–102.
- Lynch, F & Musson, C 2001 'A prehistoric and early medieval complex at Llandegai, near Bangor, North Wales', *Archaeol Cambrensis* 150, 17–142.
- Proudfoot, E 1996 'Excavations at the Long Cist Cemetery on the Hallowhill, St Andrews, Fife, 1975–77', *Proc Soc Antiq Scot* 126, 387–454.
- RCAHMS 1997 *Eastern Dumfriesshire: An Archaeological Landscape*. Edinburgh: The Stationery Office.
- Rees, A 2002 'A first millennium AD cemetery, rectangular Bronze Age structure and late prehistoric settlement at Thornybank, Midlothian', *Proc Soc Antiq Scot* 132, 313–55.
- Rennie, E B 1984 'Excavations at Ardnadam, Cowal, Argyll, 1964–1982', *Glasgow Archaeol J* 11, 13–39.
- Simpson, D D A & Scott-Elliott, J 1964 'Excavations at Camp Hill, Trohoughton, Dumfries', *Trans Dumfriesshire Galloway Natur Hist Antiq Soc* 41, 125–34.
- Stronach, S 2002 'Montefode Mount, Ardrossan, North Ayrshire', *Discovery Excav Scot* 2002, 84.
- Thomas, C 1967 'An Early Christian Cemetery and Chapel on Ardwall Isle, Kirkcudbright', *Medieval Archaeol* 11, 127–210.
- Thomas, C 1971 *Britain and Ireland in Early Christian Times AD 400 – 800*. London.
- Thomas, C 1997 *Celtic Britain*. London: Thames & Hudson.
- WEA = Workshop of European Anthropologists. 1980. Recommendations for age and sex diagnoses of skeletons. *Journal of Human Evolution* 9, 517–49.

#### CARTOGRAPHIC SOURCES

- Armstrong, A 1775 'A new map of Ayrshire', National Library of Scotland, EMS.s.515.
- Blaeu, J 1654 'Cuninghania/ex schedis Timotheo Pont; Ioannia Blaeu excudebat. Cunningham', National Library of Scotland, WD3B/20.
- Gordon, R 1636–52 'Cunningham', National Library of Scotland, Adv.MS.70.2.10 (Gordon 59).
- Moll, H 1745 'The shire of Renfrew with Cuningham. The north part of Air', National Library of Scotland, EMS.b.2.1(15).
- OS 1860 = Ordnance Survey 1st edition, Ayrshire Sheet XVI (surveyed 1858; published 1860), 1:10560.
- Roy 1747–55, Military Survey of Scotland, 'Area around Saltcoats, in Ayrshire' Sheet 03/2f.

