

**TULLICH BURIAL GROUND EXTENSION
BALLATER
ABERDEENSHIRE**



Archaeological Evaluation
Carried out November 2012
by
Murray Archaeological Services Ltd



Report No: MAS 2012-30
by
H K Murray and J C Murray

H K Murray BA, PhD, MIFA, FSA Scot
J C Murray BA, MIFA, FSA Scot, FMA
Hill of Belnagoak, Methlick, Ellon, Aberdeenshire AB41 7JN
Telephone: (01651) 806394 e-mail: cmurray@btinternet.com

**TULLICH BURIAL GROUND EXTENSION
BALLATER
ABERDEENSHIRE**

-Archaeological Evaluation -

H K Murray and J C Murray

1. Background

1.1 When an extension of the cemetery at Tullich, Ballater, Aberdeenshire was proposed, Aberdeenshire Council Archaeology Service determined that a condition requiring an archaeological evaluation would be appropriate as the proposed extension is beside the remains of Tullich church and burial ground. Although the present ruined church is of medieval date, it is considered to have replaced a chapel built in the 7th century by St Nathalan. A Pictish symbol stone and a number of early Christian cross slabs found in the graveyard and the roughly circular line of the graveyard wall (the present wall follows the line of an earlier wall) all give support to the early date. It is common for such Early Christian foundations to have some monastic or secular settlement around them and it was considered possible that such settlement might extend to the site of the proposed burial ground extension.

The archaeological condition was applied to this application in the context of Scottish Planning Policy (PAN 2/2011, SPP, SHEP).

The condition required that no development should take place before the implementation of a 7-10% archaeological evaluation.

1.2 Murray Archaeological Services Ltd was commissioned by Aberdeenshire Council to undertake the work.

1.3 The evaluation was undertaken between 19th-28th November 2012.

2. The Site

2.1 The site lies c 2km to the E of Ballater, Aberdeenshire between the A93 road and the river Dee. It comprises part of the field lying directly to the E of the wire fence that surrounds the existing burial ground around the ruined medieval Tullich church.

Parish: Glenmuick, Tullich and Glengairn. NGR: NO 3912, 9757 (centre of evaluation site)

2.2 The field is in grass and has been used for grazing in 2012 but has been cultivated in the past. It lies at around 200m OD and slopes gently down towards the river. The former railway line, now a walking and cycle path runs along the S side of the field.



Illus 1 General view across site looking SW

3 Methodology

3.1 The cultivated topsoil was removed by a JCB with a 1.5m wide toothless ditching bucket. Any possible features were cleaned and excavated by hand.

3.2 All mapping was done with a Magellan Mobile Mapper CX.

4. Background

4.1

Tullich church Aberdeenshire SMR NO39NE0002 NMRS No: NO39NE 2

Historic Scotland SAM Index No: 86. Tullich church, burial ground to 6m from the old cemetery wall and the Pictish symbol stone, cross slabs and font stone are all registered as a Scheduled Ancient Monument (SAM).

The church, including the churchyard walls, is also a category B listed building: HB Number 9320.

The existing ruined church is considered to be of medieval date with a blocked doorway in the W end of the N wall of early 15th century date (Historic Scotland). The building was altered in the post-Reformation period from the 16th century when it would have been the parish church of Tullich- one of three parishes (Glenmuick, Tullich and Glengairn) established in the area c. 1560. In 1798 the parishes were united and the parish church built in Ballater and the Tullich church abandoned and later divided into burial enclosures. It is considered that both the church and graveyard wall overlie an earlier chapel and enclosure attributed to the foundation by St Nathalan in the 7th century AD. Medieval documentary references show that in the 12th century the church and its lands were granted to the Knights Templars and after the suppression of that order in c 1309 transferred with their other assets to the Knights Hospitallers in 1312. A fort is meant to have been built around the church in the 13th century which the RCAHMS in 1968 identify with the remains of the earlier wall and a slight dip outside it and describe as 'probably only a minor protective dyke and drainage ditch'.

A documentary reference to a manor or house of the Knights Templars (Bogdan and Bryce 1991) is listed as RCAHMS No: NO 39NE 18. Aberdeenshire SMR NO39NE0105. It is however possible that the order had a tenant on the land and collected the rents rather than actually occupying it.

Cross slabs Aberdeenshire SMR NO39NE0016 NMRS NO39NE 2.02

Historic Scotland notes 3 large and 12 smaller cross incised stones. RCAHMS notes 16 slabs in 1968 but in 2007 has changed this to 15. Aberdeenshire SMR notes 16 slabs. At present the slabs are away from the site so the number can not be verified. The cross marked slabs are of 6th-9th century date (Forsyth 2008, 405). Two of the slabs had been re-used as lintels over the S door of the church.

Pictish stone Aberdeenshire SMR NO39NE0015 NMRS NO39NE 2.02

A symbol stone with double disc and Z rod, Pictish beast and mirror is dated to the 7th century. It reflects the importance of the site at the period and the probability that the church would have been established near an existing settlement of some status.

Font stone A rough font stone found by the church is earlier than the existing building.

4.2 Map evidence

Gordon, Robert *A map of Scotland, north of Loch Linnhe and the River Dee and west of the River Deveron* (www.nls.ac.uk)

A map of Eastern Scotland, including basins of Rivers Don, Dee, Tay, Forth, and Tweed
Surveyed: c. 1636-1652

Tullich church is shown on both maps by symbol and named Tullich.

Blaeu, Joan, Duo Vicecomitatus Aberdonia & Banfia, una cum Regionibus & terrarum tractibus sub iis comprehensis / Auctore Roberto Gordonio à Straloch. (www.nls.ac.uk)

Published 1654

Tullich church is shown by symbol and named Tullich.

Roy's Military map 1747-55 (www.nls.ac.uk)

Roy shows the church in a rectangular enclosure/wall clearly marked K. of Tulloch. It is shown E of the Tulloch (sic) Burn and to the S side of the road, with one other, small building to the E, also S of the road and a cluster of 3 buildings and a small enclosure directly N of the road (near the present Braehead of Tullich). The Mill of Tullich appears to be further upstream than the present Milton of Tullich. The ground on either side of the road at Tullich is shown as rig and furrow.

1st Ordnance Survey Map. 1866 (published 1869) (www.nls.ac.uk)

Aberdeen, Sheet XCI.4 (Glenmuick, Tullich and Glengairn)

The graveyard is shown in its sub-circular plan, being slightly elongated towards the N to the road. The church is described as ruined. The field including both the area of the present burial ground and the area of the proposed extension is all in a single, undivided field. The railway line is shown forming the S boundary of the field.

Ordnance survey 1900 (published 1901) (www.nls.ac.uk)

Aberdeenshire, 091.04

The graveyard is shown as in 1866, but with more detail of paths and the church shown divided into 3 burial vaults.

Ordnance survey 1923 (published 1926) (www.nls.ac.uk)

Aberdeenshire, 091.04

As in 1900.

4.3 Aerial Photographs

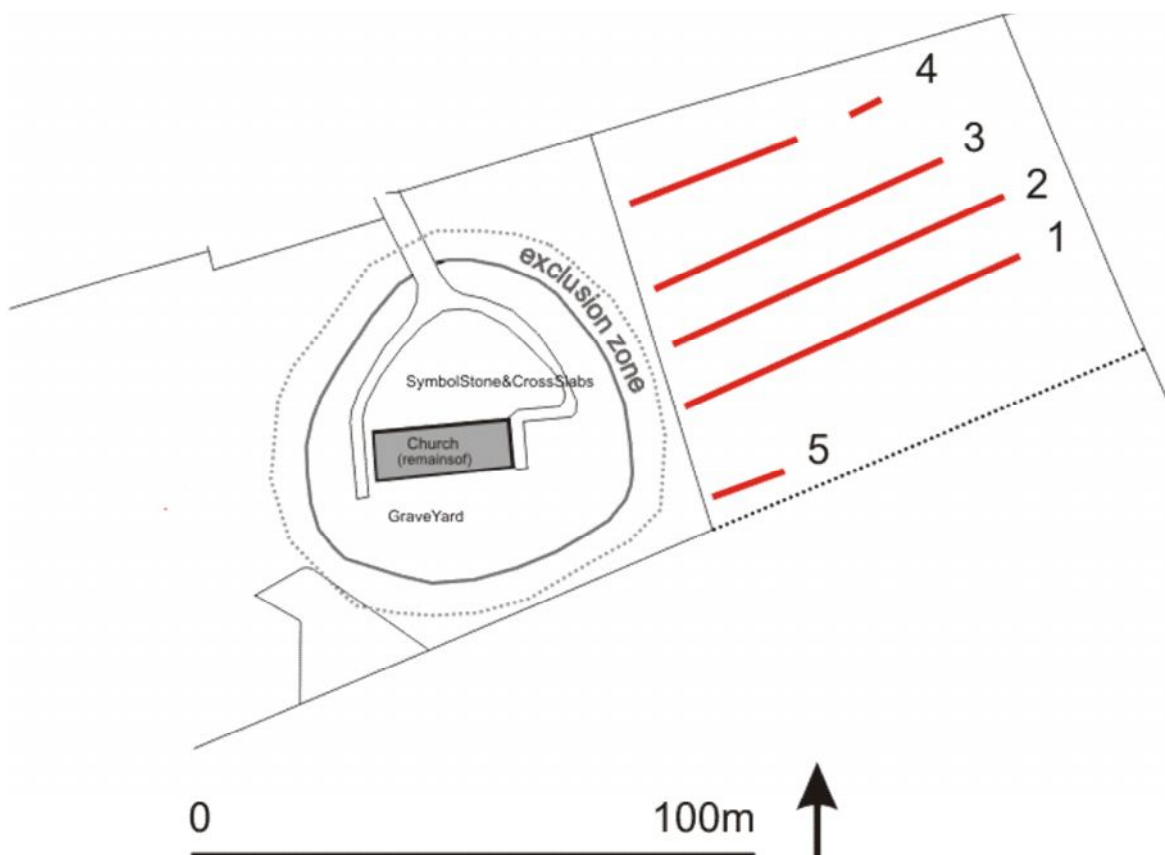
Only the aerial photographs available online have been accessed to date.

Aberdeenshire SMR :Image AAS/89/05/CT4- TULLICH CHURCH. This colour image shows a wide dark band in the grass forming an ovoid shape to the E and S of the walled burial ground.

NMRS Aberdeen Aerial Surveys B & W SC1010393, SC1010394, SC1010395. The dark band is not visible.

5 Results of the Evaluation

Five evaluation trenches were excavated.



Illus 2 Location of trenches (red). Reproduced from Ordnance Survey digital map data, © Crown Copyright, All rights reserved. 2012. License No 100041040

Trench 1

GPS NE end:339158,797578 SW end: 339100,797550

Orientation: NE/SW Length: 65m Width: 1.5m

Stratigraphy: Outside the line of the ditch, the E part of Trench 1 had c 300mm of topsoil lying directly on stony gravel natural. In the middle of the trench the gravel dipped to c 500mm with light coloured sandy subsoil below the topsoil. The W 10m of the trench cut through the line of a ditch with a number of features on the inner W side of the ditch, some post-dating the backfilling of the ditch.

Features: Full details of the contexts in the Trench 1 excavation are in Appendix 3.

Ditch (Illus 13, 14)

A ditch ran N/S across the trench. It was 1.7m deep from the top of the ditch cut in natural and 1.9m from the ground surface. The width of the ditch was at least 3.3m from the E side to the possible revetting (18) of the W (inner) side. However, it may have been wider as inside the possible revetting there was a rough stony scatter (24) which was not fully excavated. Like 19 it may derive from the revetment.

Contexts predating the backfilling of ditch (Illus 13, 14)

At the W end of the trench, below the lime spread and below the base of wall 10, there was an earlier cut into the natural alongside the S face of wall 9. The cut was c1.4m E/W and c 0.8m wide at the top, narrowing to 0.5m at the base. On the N side it was lined by the stones of wall 9 and on the E side there were several large stones set against the edge. All these stones were blackened by fire as were a number of stones in the secondary fill of the feature. The primary fill (16) was a layer of charcoal <60mm thick which extended across the base and up the sides. There was no associated lime or vitrified material and it is possible that this was a domestic hearth/oven. A sample has been retained. The open side of this hearth/oven appears to have been to the W with the E side limited by stones/wall 17.

The area to the E of the hearth/oven appears to be bounded by walls 17, 25 and 15 with a space c 2m wide suggesting the possibility of a small structure lying NE/SW near the inner edge of the ditch (Illus 3). The walls are low and may be the disturbed remnants of stone structures but could also be foundations for timber sills. Further excavation may clarify if this feature continued to the S and if wall 9 was part of another structure lying

to the N. Whatever this structure was it was backfilled by the same layer as the hearth/oven - a grey/brown loose sandy grit (11) with large boulders in the lower fill. Some possibly domestic midden rubbish in the top of layer 11 near 'wall' 15, including animal bone, window glass and an iron knife, may be contamination derived from overlying layer 8 which also yielded very similar window glass.



Illus 3 Looking E along Trench 1, walls 9 & 25 on LHS, wall 25 LHS in centre with cross walls 17 (foreground) and 15 (background)

Backfilling the ditch

The lower fills of the ditch (21, 20) were of redeposited dirty natural and appeared to have been a fairly rapid, deliberate filling with rubble 19 tumbled down the W edge and into the lower fill (21).

Contexts post-dating the backfilling of the ditch – the lime kiln (Illus 12, 14)

After the backfilling of the ditch a lime kiln was built at the W end of the trench (Illus 4). There seems to have been little time lag between the filling of the ditch and the use of the kiln as the burnt layer 13, thought to be associated with the kiln, lay directly on ditch fill 20.

Two walls (9 and 10) formed a flue splaying from c 0.6m at the W section to c1m at the E end. Wall 9 was either built on the base of an earlier wall or was the surviving remnant

of such a wall, re-used for the kiln. Wall 10 however was newly built. The walls survived for c 0.6m above the base of the lime. They appear to be cut at least partially into the natural but this can not be confirmed without further excavation. A very hard layer of lime (6) covered the base of the area between the walls and extended some 200mm up the face of the stones. It also extended c 1m E beyond the E end of the walls.



Illus 4 Lime kiln looking E showing spread of lime (6)

When excavated it was clear at the E end that there were three distinct layers of lime, each c 40-50mm thick interspersed with c 5mm black charcoal (Illus 5). Further E the lime was thinner and more friable and mixed into layer 8 (lighter orange on Illus 14), with just a few chunks of lime on and through charcoally layer 13. Some of the lime extended on top one of the stones of wall 15 which otherwise appeared to form an

effective barrier at the E end of the lime spread. Over the layered lime at the E end of the flue there was a layer of unburnt and partially burnt small pieces of limestone (23), thickest beside the stones and tapering to the E.

This appears to be part of a small lime kiln, probably the flue of a clamp kiln partially dug into the natural. It is considered that the main part of the kiln may have been further W outwith the trench. In this type of kiln the limestone and fuel would have been placed in alternating layers and lit from the flue. The top would have been covered with a temporary cover of sods. After several days the kiln would have burnt out and the sods removed to give access to the lime (Wild, 2010, 14-15). In this instance it would appear that the layered area of lime and fuel (6) and the partially burnt and unburnt limestone (23) were a remnant of the last firing.



Illus 5 Detail of lime spread showing layers of lime and fuel (A, B, C)

The fact that stone line 15 appears to form a barrier to the mortar spread suggests that this was an upright wall. Its flimsy nature and the evidence that it was only 1 or 2 stones

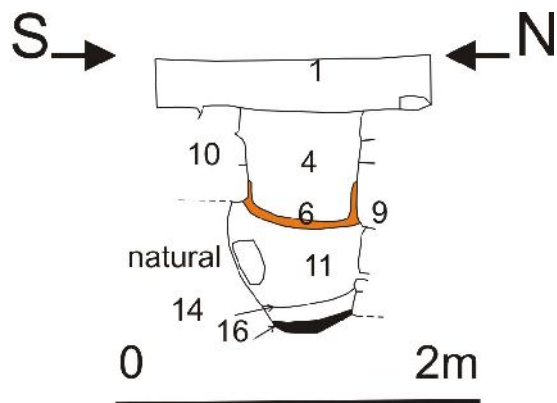
high suggest that it may have been a low foundation for a low shelter or lean to around the open end of the flue may be envisaged. This wall appears to have been part of an earlier wall still visible when the kiln was built.

After the final firing the kiln appears to have been filled in with soil burnt deep red with much charcoal (Illus 6 & Illus 7: 4), which may be or may include burnt sods from the clamp cover. Some vitreous lumps in this backfill and in layers 5, 6, 7,8, 11, 12 are likely to be stones that have vitrified during the lime kiln firing which would have reached temperatures of between c 900-1200° C. Samples have been retained- one clearly being stone vitrified on one face (layer 4).

A small area of stone scatter or rough cobbles- many of which were partly vitrified pieces of stone (7)- mixed through and overlain by a humic layer with midden material in it (8) post-date the final firing of the lime kiln or may even be stones thrown out from dismantling the final firing. A considerable amount of animal bone, three pieces of window glass, a small spalled sherd of medieval or post-medieval pottery and a small sherd of a post-medieval or early modern glass bottle neck (Appendix 2) were found in layer 8. The window glass is identical to that found in the top of layer 11 and it is possible that they derive from the same source as during the firing and cleaning of the lime kiln this area is likely to have been considerably trampled.



Illus 6 W section of lime kiln flue showing backfill of burnt earth (4)



Illus 7 W section

Trench 2

GPS NE end:339156,797588 SW end:339097,797561

Orientation: NE/SW Length: 64m Width: 1.5m

Stratigraphy: For most of the trench c 300mm topsoil lay directly on stony gravel natural. In the middle of the trench the gravel dipped to c500mm with light coloured sandy subsoil below the topsoil. At the W end of the trench the topsoil (Illus 10: section layer 1) overlay the E side of a ditch.



Illus 8 S section of ditch in Trench 2, looking W . Ranging rod on RHS indicates slight dip in grass considered to be ditch continuation

Features: Ditch. The E edge of a ditch was excavated by machine at the W end of the trench. The base was c 1.4m below the ground surface and c 1.15m below the top of the ditch cut in natural. The excavated (partial) width was c 4.6m. The fills (Illus 10: Trench 2 section layers 2-6) comprised a primary fill of grey brown silty gravel which can probably be interpreted as redeposited natural, covered by finer silt (5) which may have been a turf line developed on silt washed down from the ditch sides. Large stones (3) may relate to the stone in the lower fill of the ditch section in Trench 1. The upper fill (2) appears to be redeposited natural and possibly a deliberate infilling. One small vitrified fragment was found in the ditch fill.

Trench 3

GPS NE end: 339144,797591 SW end: 339093,797570

Orientation: NE/SW Length: 57m Width: 1.5m

Stratigraphy: Topsoil over stony gravel natural except in the middle of trench where the natural was sandier. Topsoil depths 200-300mm, up to 400mm in the middle of the trench.

Features: None. The trench disclosed one of the engineer's test pits.

Trench 4

GPS NE end:339134, 797604 SW end: 339089,797586

Orientation: NE/SW Length: 32m and 6m with a break between. Width: 1.5m

Stratigraphy: 300-400mm topsoil over natural gravel.

Features: None

Trench 5

GPS NE end: 339116,797539 SW end: 339105, 797535

Orientation: NE/SW Length: 12m Width: 1.5m

Stratigraphy: E of the ditch there was c 300mm of topsoil over natural gravels.

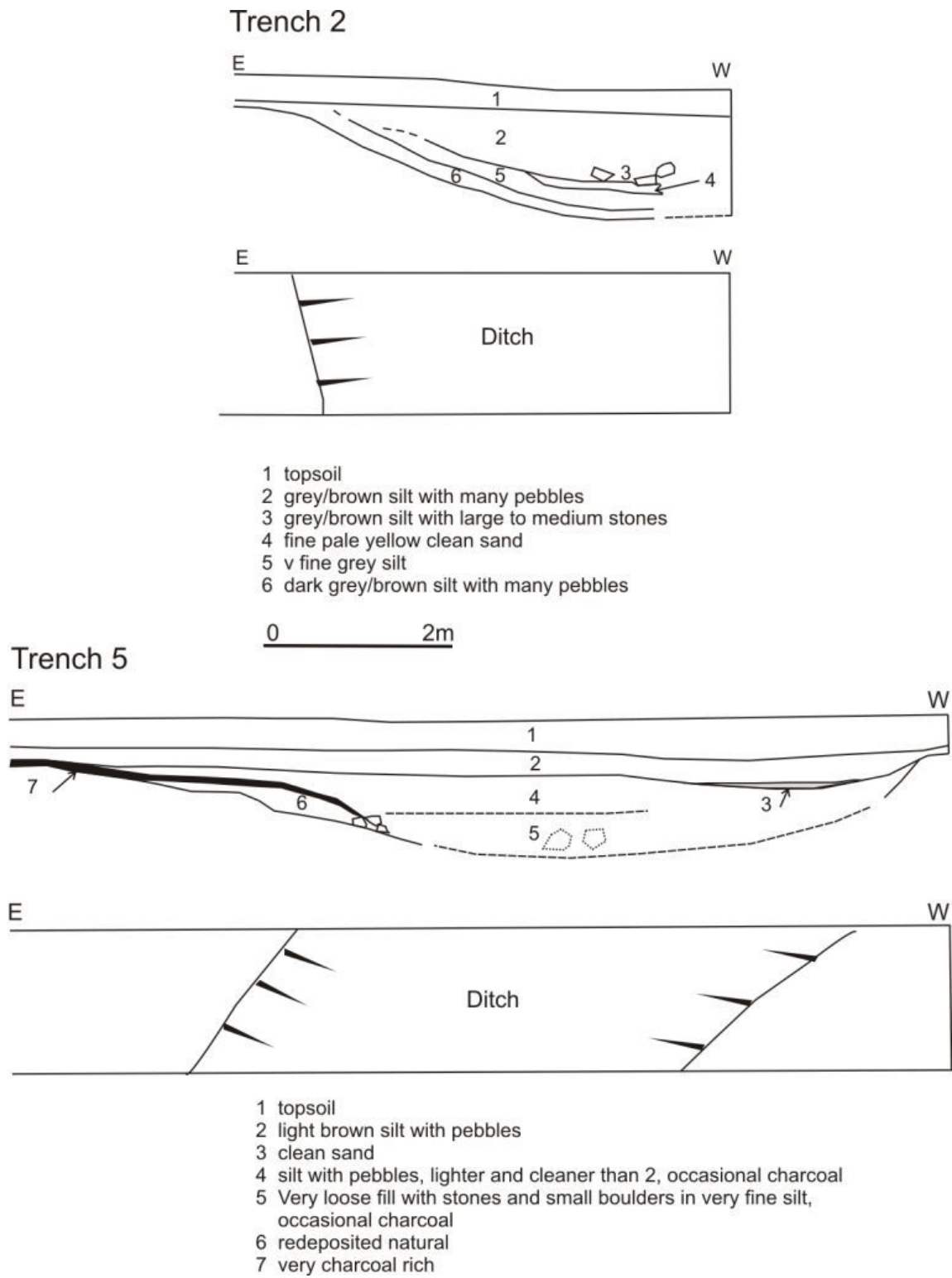
Features: Ditch. The full width of the ditch was revealed, the S end turning towards the W, towards the existing graveyard. Due to the very loose fill the N section collapsed and the S section was unstable. As a result measurements for the base of the pit and the central part of the section (Illus 10) were taken from the ground surface using the level staff. The base of the pit appeared to be 1.4m from the existing ground surface and c 1m below the ditch cut into natural. The average width of the ditch appeared to be c 5m but

at the S section where it was turning to run W, the trench was cutting obliquely across it so it appeared to be c 6.5m. The fills (Illus 10: Trench 5 section) comprised a primary slipping of redeposited natural down the outer edge (layer 6) and over this a thin layer of charcoal and burnt soil (7) which ran from the top of the outer E edge of the ditch and down the E side almost to the base; it could not be seen if this extended right across the base as it was unsafe to attempt to trowel the section. Above these primary fills there was a very loose fill of stones and boulders with very fine silt and occasional charcoal (layer 5) which was sealed by a finer more pebbly silt with some charcoal (layer 4). Both of these layers appeared to have been the result of a rapid backfilling of the ditch. The stones in layer 5 may equate with the stony tumble in the base fill of the ditch section in Trench 1.

No artefacts were found.



Illus 9 Trench 5 looking W. After collapse of ditch fill from N section. Ranging rods are positioned at the inner and outer edges of ditch, indicating the slight curve at this point.



Illus 10 Plan and section of ditch in trenches 2 and 5

6 The Finds

All finds from the evaluation and excavation were catalogued (Appendix 2).

Four sherds of window glass (SF 1, 3) were found; all were very thin clear glass. While they are not modern glass their condition suggests they may be of 17th or 18th century date at the earliest.

Both the iron knife (SF 2) and the fragment of glass bottle neck (SF 5) could also belong in a similar date range. Only the small sherd of pottery (SF 4) could possibly be medieval or post-medieval but is too small to be diagnostic; it could in any case be residual.

The finds from layer 8 are either contemporary with or post-date the lime kiln. The finds from the top of layer 11, which pre-dates the lime spread, are problematic as the glass appears identical to the glass from layer 8. It is considered probable that this area was trampled during the use and subsequent opening up of the lime kiln.

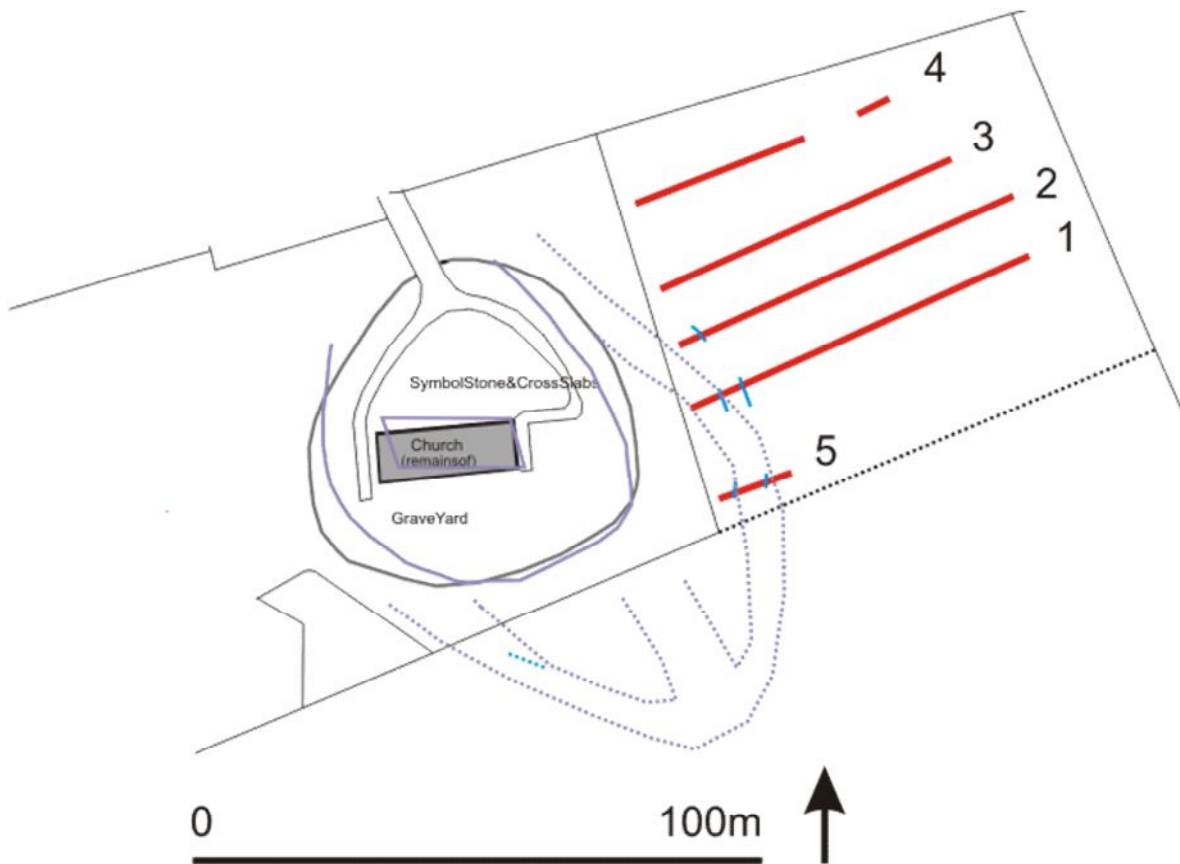
7 Discussion

The evaluation suggests that much of the proposed extension of the Tullich burial ground (outwith the ditch) has shallow topsoil over natural gravels. A slightly deeper band running approx N/S across the field with depths to the top of natural of c 500mm appears to be a natural feature. While there is still a possibility of isolated features cut into the top of natural, there is no evidence, such as unstratified artefacts, to suggest this is the case.

At the W end of the site near the existing graveyard fence, there are three significant archaeological features: the ditch, the early structural evidence with a hearth/oven and the later lime kiln.

The ditch was recorded in evaluation Trenches 1, 2 and 5 (Illus 11). In Trench 5 both sides were excavated and it was clearly turning to run W on a line to the S of the burial enclosure. A visible dip in the field to the S of the W end of the burial enclosure may be the ditch curving back around to the burial enclosure. Similarly in Trench 2, where only the outer edge was within the trench, the ditch appears to have been curving W towards the N side of the burial enclosure and again a shallow dip is visible on this line. Trench 1 where the full width of the ditch was excavated was along a relatively straight section of the ditch between the bends observed in Trenches 2 and 5. Overlays suggest that these ditch sections and the visible trends in the field correspond to the wide dark grass mark

visible on the colour aerial photograph in the Aberdeenshire SMR (transcribed on Illus 11).



Illus 11 Location of trenches (red) with edges of ditch shown (solid blue line), visible hollow in field to S (dotted blue line) and approximate overlay of dark grass mark from aerial photograph (pale purple). Reproduced from Ordnance Survey digital map data, © Crown Copyright, All rights reserved. 2012. License No 100041040

The sections show this to have been a cut ditch rather than a natural feature. The width was 5-6.5m in Trench 5 and at least 3.3m to a possible revetment in Trench 1 and probably c 5.5m in its full width (this was not ascertained as the contexts to the W of the ditch were not fully excavated). The depth from the surface ranged between 1.4 and 1.9m and from the top of the cut into natural between 1m and 1.7m. In both Trenches 2 and 5 there was some evidence to suggest that there had been a small amount of natural slippage from erosion of the outer face, followed by the wash down of finer silt which may have formed a turf line in Trench 2. In Trench 5 a layer of charcoal rich silt ran down the outer edge. There was no equivalent layer in Trench 1.

In all three trenches there seems to have been a phase of probably deliberate backfilling which included a large number of sizable stones (T1:19, 21. T2: 3. T5: 5). In T1 there was the possibility of an inner revetment (18) which had been cast down into the ditch

fill but as this was only observed in a narrow sub-section taken to the base of the ditch this may be a misleading appearance. If there was no inner revetment it would still appear that the stones derived from structures within the area enclosed by the ditch. The very loose nature of this filling (shown most dramatically in the collapse of the Trench 5 section) suggests this was a rapid and deliberate infilling.

Later fills in all trenches comprised dirty redeposited natural gravels mixed with some finer silt.

There is no artefactual dating for the digging of the ditch and none of the charcoal in the fills was in a context which would date it. It is however of a comparable size to ditches around other Early Christian churches and monastic sites such as the secondary enclosure ditch at Tarbat, Portmahomack which was 5-6m wide and 1.5 m depth in the subsoil dated to the 8th century AD

(<http://www.york.ac.uk/archaeology/staff/sites/tarbat/discoveries.html>) or the ditch at Fortingall which was 3.14m wide and 1.48m deep (www.socantsscot.org Culdee project 2010-11 NMRS No: NN74NW39). It is a reasonable conclusion that the Tullich ditch could be of Early Christian date. However, there is also a 19th- century reference (McConnachie 1898 *The Royal Dee*. Quoted in SMR and NMRS. Not yet accessed) to the Knights Templar making a fort around Tullich in the 13th century and moat ditches are known around other medieval ecclesiastical sites such as the Bishop's manor at Old Rayne (Murray & Murray, forthcoming) or at Fetteneer (Dransart, P & Trigg, J 2008). It is hoped that future work may provide suitable samples for dating.

If the stones in the primary backfilling do derive from a revetment or features within the ditched enclosure, this backfilling is unlikely to be much earlier in date than the Reformation in the 16th century and may be considerably later. The ditch was substantially backfilled by the time the lime kiln was built. The very small amount of artefactual material associated with the lime kiln and the layers on which it was constructed suggests it was of post medieval or early modern date. After the use of the lime kiln there appears to have been a final levelling of layers across the hollow of the partially filled ditch (T1: 2. T2: 2. T5 2, 4) followed by cultivation. There is no indication of either the lime kiln or the ditch on the 25th 1st Ordnance Survey map of 1866 (published 1869). It is tempting to suggest that the final levelling of the ditch to make a more level field may have used material dug out when the extension of the railway from Aboyne to Ballater was dug out between 1865 and 1866; the line of the railway track runs along the S side of the field.

The lime kiln almost certainly pre-dates the 1866 map which shows sizable lime kilns nearby, the two nearest being behind Braehead of Tullich. On the present evidence it appears to have been a relatively small and possibly short-lived kiln, possibly a clamp kiln. The lime may have been produced for agricultural land improvement in which case it is most likely to be of late 18th/early 19th century date pre-1866. In this case its position was probably due to the fortuitous survival of walling and a dip both of which were utilized in its construction. Alternatively the lime may have been produced for mortar to be used in building or renovation work in the adjacent church. As the artefactual material suggests a post-medieval date, this is unlikely to be the 15th century alterations/rebuilding. It is possible that it could relate to post-Reformation alterations or even to work involved in dividing the interior into burial compartments after the church became redundant in 1798.

The most enigmatic features on the site are the structures within the ditch which pre-date both the lime kiln and the backfilling of the ditch. The evidence suggests that these can be interpreted as a small structure or structures and an associated hearth or oven of possible domestic function. They lie within the area enclosed by the ditch and as such could be of medieval or even early medieval date. A sample of the well-sealed charcoal (Trench 1: context 16) from the hearth/oven has been retained and it is hoped that analysis will provide both some indication of function and also a sample/s for C14 dating.

8 Impacts and Mitigations

Impacts

1. There appears to be little potential impact on the E and central parts of the field outside the ditch.
2. The ditch and any features within it will potentially be disturbed or destroyed by the proposed extension. On the present plans they lie in the area of the proposed shelter for the symbol stones and cross slab, a number of paths and an area of hedging. Although some of the excavated features such as the lime kiln may be relatively late (although this is not absolutely proven), others such as the ditch itself are likely to be of medieval or Early Christian date. Their importance lies in

the very limited detailed knowledge of early church sites in Scotland as a whole and in the NE in particular.

Mitigations

1. The sample from the apparently early hearth/oven fill (Tr 1, 16) will be analysed and if appropriate material is available for C14 dating a date will be obtained.
2. The area on either side of the ditch and the structures within the ditch enclosure, preferably on both sides of the existing wire fence, should be the subject of a geophysical survey. It is suggested that this should include the area up to the existing stone enclosure wall including the 6m exclusion zone which is part of the Scheduled Ancient Monument (SAM). If this area is included Section 42 permission will be required from Historic Scotland to allow non-intrusive geophysical survey in that zone. This would be valuable in relating the ditch with the original underlying wall line. It is also suggested that, with the landowner's permission, it would be worth extending the geophysical survey in the area S of the existing burial enclosure in that part of the field that is not part of the current application. This would enable a greater understanding of the line of the ditch as it appears to be shown on the aerial photograph and of the potential for surviving archaeology in this area and might aid any future management of these assets.
3. On the basis of the results of the geophysical survey a further targeted excavation should be undertaken in 2013. Particular emphasis would be placed on dating the ditch itself and on exposing the possibly early structures within the enclosed area (some idea of the dating of these being hopefully indicated by the sample from Tr 1,16: see above).
4. The lack of surviving archaeology within the E end of the evaluation site outside the ditch does not preclude the possibility of chance finds or archaeological discoveries outwith the evaluation trenches in this area. Should such chance finds occur, then the Archaeology Service, Aberdeenshire Council, or Murray Archaeological Services Ltd, must be informed immediately so that

an appropriate archaeological response can be formulated and agreed by all parties concerned.

9 References

- Bogdan N & Bryce I B D 1991. Check list of the castles, fortalices and manor houses erected between c. 1052 and c. 1707 in Grampian Region. Unpublished.
- Dransart, P & Trigg, J 2008 *The Bishop's Palace, Fetternear 2005-2006*. Lampeter: Scottish Episcopal Palaces Project
- Forsyth, K (ed) 2008 *Studies on the Book of Deer*. Dublin: Four Courts Press.
- Murray, H K & Murray, J C forthcoming *Excavations at the Bishop's Manor, Old Rayne, Aberdeenshire in 1990 and 2008*. Scottish Archaeology Internet Report.
- Wild, C 2010 *Greenside Limekiln, Kendal, Cumbria*. Oxford Archaeology North. Grey literature report 2010-11/1137)

Acknowledgements

Murray Archaeological Services Ltd would like to thank David Hanson of Braehead Cottage, Tullich, for his interest and help during the site work.

Appendices

Appendix 1: Catalogue of digital photographic record in archive Aberdeenshire SMR and NMRS

| Digital frame number | Content |
|-----------------------------|---|
| Tullich 1 | |
| 001-002 | Trench 1, W end looking E |
| 003-010 | Trench 1, looking W Stonework and backfilled kiln |
| 011-012 | General view evaluation trenches 1 & 2 looking W |
| 013 | Trench 1. Sandy layer 5 and red infill of kiln 4 |
| Tullich 2 | |
| 001-003 | Trench 5, looking E. Dark soil of ditch fill with rods at edges |

| | |
|-----------|---|
| 004-009 | Trench 2 S section of ditch |
| 010-013 | Trench 2 Ditch looking W. Outlying rod on RHS shows visible dip in ground continuing line of ditch |
| 014 | Trench 2 S section of ditch |
| 015-017 | Trench 5 Ditch with fill collapsed from section, looking W |
| 018-023 | Trench 5 Ditch with fill collapsed from section, looking E |
| 024-026 | Trench 5 Ditch S section |
| 027 | Trench 1, looking E, wall 9 emerging. Layers 7 & 8 behind. E edge ditch in background |
| 028 | Trench 1, looking E, wall 9 emerging. Layers 7 & 8 behind |
| 029 | Trench 1, looking E layer 12 |
| 030-035 | Trench 1, looking W. 12 in foreground. Kiln in background |
| 036-038 | Trench 1, detail of S section in sondage through sandy 5, cobbles 7 and layer 8 to top of layer 11. |
| 039 | Trench 1 W end looking NE showing position of sondage |
| 040 | Trench 1 looking E to E side of ditch at level of top of layer 20 |
| 041-049 | General views relating trenches (marked by rods) with church and enclosure |
| Tullich 3 | |
| 001-005 | Trench 1 looking W. 12 in foreground, layer 4 and emerging kiln behind |
| 006 | Trench 1, layer 12 |
| 007 | Trench 1, W end, layer 4, tops of kiln walls 9, 10 and unburnt limestone |
| 009 | Trench 1, W end. Looking SW |
| 010 | Trench 1, W end. Looking E. kiln emerging, layer 4 |
| 013 | Trench 1, looking E lime beginning to emerge, stones 15 in background and sondage |
| 015-016 | Trench 1 looking E. Kiln walls of flue. White (lime) beginning to be exposed. Cobbles 7 behind |
| 019 | Trench 1 looking W. Kiln walls of flue. White (lime) beginning to be exposed. Cobbles 7 (middle) and 12 foreground. |
| 020 | Trench 1. W section with most of layer 4 removed, scatter of unburnt limestone in foreground |
| 022 | Trench 1. Wall 9 at level of lime kiln |
| 024-029 | Trench 1, looking E. Lime kiln with part of lime 6 exposed. |
| 030 | Trench 1 layers in kiln. 4 half sectioned with lime 6 part exposed |
| 031-032 | Trench 1, cobbles 7 |
| 033 | Trench 1 looking NW stones 15 and cobbles 7 in foreground, part excavated kiln in background |
| 034, 036 | Trench 1, looking SSW 12 in foreground, 15 in centre, cobbles 7 behind |

| | |
|-----------|--|
| Tullich 4 | |
| 001-006 | Trench 1, lime kiln in foreground with basal layer of lime 6, looking E |
| 007-008 | Trench 1 lime kiln looking S, wall 9 in foreground, 10 in background. Basal layer 6 |
| 009 | Trench 1 lime kiln looking N |
| 010-015 | Trench 1 looking W to W section through lime kiln |
| 016 | Trench 1 looking W 12 in foreground |
| 017-025 | Trench 1. Details of lime layer 6 with sub-layers marked A, B, C |
| 026-028 | Trench 1. W section. 11 below lime 6 |
| 029 | Trench 1. Detail of S section. Cut in natural showing below layer 6 lime and wall 10 |
| 030-031 | Trench 1. N section/face of wall 9 showing the earlier, lower part of wall below level of the lime 6 |
| 032 | Trench 1 looking E showing the earlier, lower part of wall below level of the lime 6 |
| Tullich 5 | |
| 001-003 | Trench 1, W end looking E. lower wall 9, wall 17 and 15 behind. Part of layer 16 visible in 002 |
| 004 | Trench 1, looking SW. wall 17 below level of lime 6 |
| 005-007 | Trench 1, looking W. wall 15 in foreground, 17 and 9 behind and on RHS |
| 008 | Trench 1. Ditch sectioned looking W to 15, 17 |
| 009-010 | Trench 1, Part of ditch S section with E edge |
| 011-012 | Trench 1, Ditch S section with E edge, possible revetment 18 on RHS, rubble 19 in section |
| 013-016 | Trench 1, Ditch S section with stones 24 and wall 15 |
| 017-018 | Trench 1, Part of ditch S section with E edge |
| 019-021 | Trench 1, ditch looking W to 18 |
| 022-027 | Trench 1, ditch looking W to 18, 24, 15, 25 |
| 028-032 | Trench 1 looking W. features 15, 17, 25 |
| 033-042 | General views SW showing area of evaluation in relation to Tullich church |

Appendix 2: Catalogue of small finds

| SF number | Description | Trench | Context | Possible date |
|-----------|--------------------------|--------|---------|-----------------------------|
| 1 | 1 frag thin window glass | 1 | 11 | Post medieval/ early modern |

| | | | | |
|---|--|---|----|-----------------------------|
| 2 | Iron knife with whittle tang and iron ferrule. Traces of wooden handle. Blade L:130mm Tang L: 35mm | 1 | 11 | Post medieval/ early modern |
| 3 | 3 frags thin window glass | 1 | 8 | Post medieval/ early modern |
| 4 | Small spalled redware sherd with external glaze | 1 | 8 | Medieval/post medieval |
| 5 | Small fragment of glass bottleneck | 1 | 8 | Post medieval/ early modern |

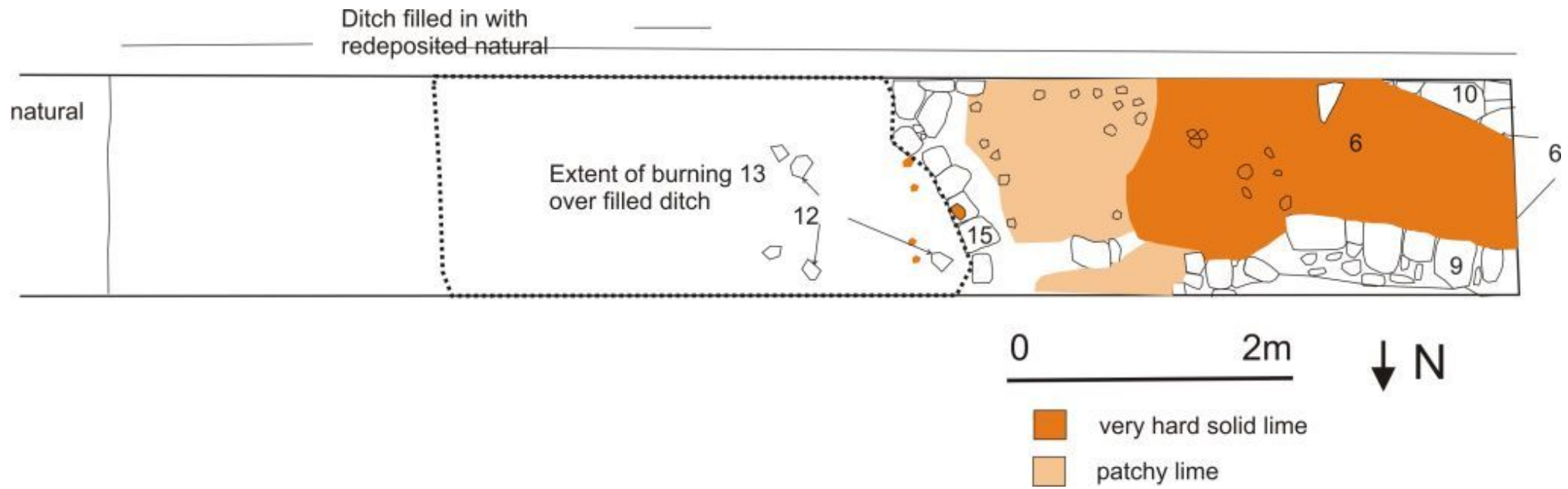
Appendix 3: Context data. Trench 1 excavation.

| Trench 1 Context | Description | Finds | Samples | Interpretation |
|------------------|---|-------|--|--|
| 1 | Topsoil | | | |
| 2 | Light coloured silty subsoil | | | |
| 3 | Fine light brown sandy | | | |
| 4 | Soil burnt deep red with much charcoal. Thins to E. Extends thickly to W between walls 9 and 10 | | Lumps of slag/vitreous material 1 x animal bone | Burning and possible superstructure associated with lime kiln and other industrial use |
| 5 | V light fawn/yellow sandy over cobbles | | Vitrified material | |
| 6 | V compact hard | | Vitrified material | Lime residue from |

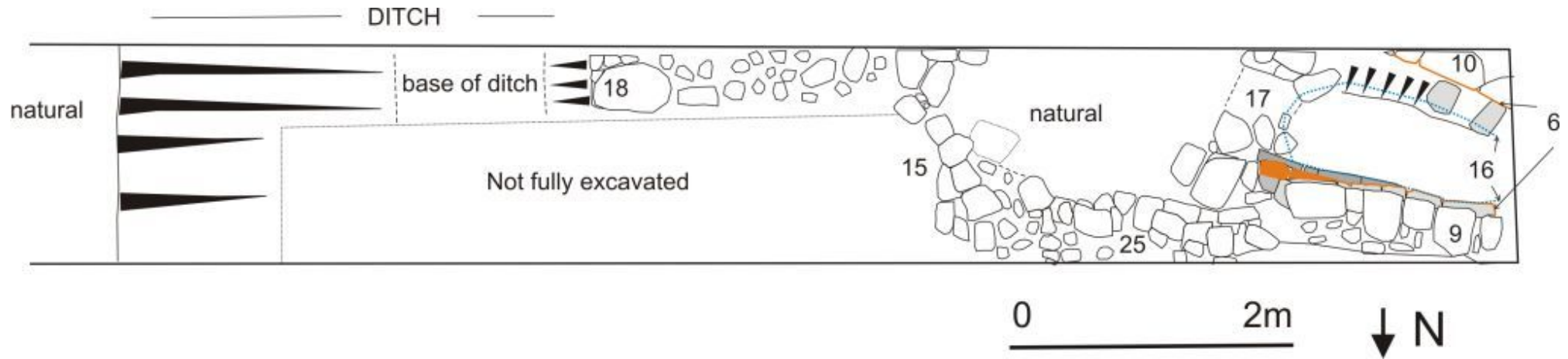
| | | | | |
|----|--|--|--|--|
| | lime between walls 9 and 10 and up walls. Slopes down towards E. Three layers each c. 40-50mm thick interspersed with c 5mm black charcoal. Thinner and more friable to E. | | BOX sample lime | lime kiln firing |
| 7 | Small area cobbles over lime to E of kiln, between kiln and 'wall' 15 | | Vitrified material 1 x small frag bone | Small yard/surface post-dating last use of lime kiln |
| 8 | Mid brown humic layer over and among cobbles 7 | 3 x window glass 1 x medieval (poss post-medieval) pottery 1 x small frag bottle glass (neck) post med/early modern | Much animal bone 2 x vitrified material | |
| 9 | Wall running E/W. Upper c 0.6m reused for lime kiln. Wall continues down below the lime for c 0.5m. Width (in trench):c0.40m May be dug into natural. | | | Primary wall reused for lime kiln |
| 10 | Wall running E/W. Only at level of lime kiln. Width (in trench):c0.40m May be dug into natural. | | | Wall built to form S side of lime kiln |

| | | | | |
|----|--|---|---|---|
| 11 | Grey/brown loose sandy grit with large boulders in it beside wall 9. Excavated as one layer but lower included more burnt/blackened stones. Extended E to wall/stones 15 | 1x window glass, Fe knife in top of 11, near 15 | 2 x vitreous material, 4 x animal bone, in top of 11, near 15 | Base more like rubble but upper 11 seems like typical midden rubbish |
| 12 | Random stones E of cobbles 7 and larger. Not structured | | 1 x animal bone 1 x vitreous material | Possible debris from wall 15? |
| 13 | Charcoal rich gritty layer. Extends E of wall 15 over ditch fill | | | Possibly contemporary with lime kiln- rake out material? |
| 14 | Fine light brown grey silt beside wall 9. Significant charcoal from underlying layer | | animal bone BOX sample | |
| 15 | Wall/wall foundation. SSE/NNW. Only survived to ½ courses and 1 stone wide | | | Consistently a barrier. Was in use at primary phase as barrier to 11. When lime kiln in use lime on top of some of stones so must have been exposed |
| 16 | Charcoal in base and sides of hollow to S of lower part of wall 9 | | BOX sample charcoal | No lime or vitreous associated. May be domestic hearth/oven |
| 17 | Disturbed band of stones NE/SW limiting E end of | | | Appears to link with wall 9 |

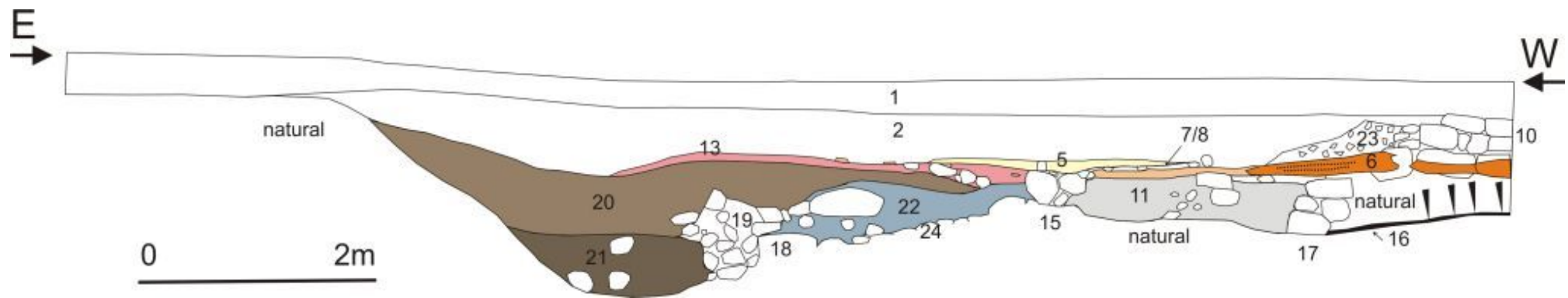
| | | | | |
|----|--|--|--|--|
| | 16 | | | |
| 18 | Possible revetting at W side of ditch. | | | Only observed in small section so needs confirmation |
| 19 | Rubble in W side of ditch fill and extending in top of 22 and over 18 and down into 21 | | | Possibly derived from 18 |
| 20 | Grey redeposited natural in ditch fill | | | Ditch fill |
| 21 | Redeposited natural with big boulders, probably from 19 | | | Ditch fill |
| 22 | V fine light grey silt between 15 and 18 | | | |
| 23 | Unburnt and partly burnt limestone chunks over lime in lime kiln | | | |
| 24 | Layer of stones between 15 and 18 | | | Not fully excavated |
| 25 | Wall? Stones up to 2 courses with smaller stones behind. continues line of 9 | | | |



Illus 12 Plan of Trench 1. Lime kiln



Illus 13 Plan of Trench 1 earlier features (blue line shows extent of burning 16). The upper later parts of wall 9 and wall 10 are also shown-(orange denotes lime stuck on wall face).



Illus 14 Trench 1. S section