N18 Ennis Bypass
and
N85 Western Relief Road

Clare Abbey, Co. Clare

Final Archaeological Excavation Report

for
Clare County Council

National Monument Consent: C020

Record Number: E2021

Graham Hull

Job J04/01

(NGR 134700 175730)

15th October 2008

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Summary

Site name: N18 Ennis Bypass and N85 Western Relief Road, Clare Abbey, Co. Clare

Townland: Clareabbey

Parish: Clareabbey

Barony: Islands

County: Clare

SMR/RMP Number: CL033-120

National Monument No: 197

Planning Ref. No: N/A

Client: Clare County Council, New Road, Ennis, Co. Clare

Landowner: John Costelloe, Abbey Street, Ennis, Co. Clare

Grid reference: 134700 175730 (OSI Discovery Series, 1:50,000, Sheet 58)

Naturally occurring geology: Orangish brown glacial till with limestone pieces

TVAS Ireland Job No: J04/01

National Monuments Consent: C020

Record No: E2021

Licence Holder: Graham Hull

Report author: Graham Hull

Site activity: Excavation

Site area: 375m^2

Excavation sample percentage: 100%

Date of fieldwork: 17th October to 28th November 2005

Date of report: 15th October 2008

Summary of results: Pits, postholes, ditches, gullies and stone walls associated with Clare Abbey were excavated to the immediate west of the upstanding abbey west gable wall. Artefacts and radiocarbon determinations from the features show a range of dates from the medieval to the modern period.

Monuments identified: Features associated with medieval abbey

Location and reference of archive: The primary records (written, drawn and photographic) are currently held at TVAS Ireland Ltd, Ahish, Ballinruan, Crusheen, Co. Clare.

Report edited/checked by: Kate Taylor ✓29.09.08

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Graham Hull

Report J04/0lbb

Introduction

This report documents the final results of an archaeological excavation of features associated with Clare Abbey, Co. Clare (NGR 134700 175730) (Fig. 1). The excavation forms part of the Ennis Bypass Archaeological Contract 6.

The National Monuments Act 1930 (as amended) provides the legislative framework within which archaeological excavation can take place and the following government publications set out many of the procedures relating to planning/development and archaeology:

Framework and Principles for the Protection of the Archaeological Heritage (DAHGI 1999a)

Policy and Guidelines on Archaeological Excavation (DAHGI 1999b)

Code of Practice between the National Roads Authority and the Minister for Arts, Heritage, Gaeltacht and the Islands (NRA/MAHGI 2001)

Project background

As part of the National Roads Authority scheme for upgrading the N18 Limerick to Galway Road, Clare County Council, in consultation with NRA Project Archaeologist Sébastien Joubert, requested a series of archaeological investigations along the route of the proposed N18 Ennis Bypass and the N85 Western Relief Road. The proposed scheme has an overall length of 21km and involves the construction of a 13.8km eastern bypass of Ennis from Latoon, north of Newmarket-on-Fergus, to Cragard, north of Barefield. The Western Relief Road is 7.1km long and is to link Killow and Claureen.

A number of sites of archaeological interest were known to lie on the route of the new roads and the mitigation strategy agreed by the Project Archaeologist and the national licensing authorities for these sites was preservation by record, i.e. full archaeological excavation. Further sites, without surface expression, were located as the result of intensive test trenching along the course of the road (Hull 2003 and Rogers 2004). As preservation in situ was not a reasonable option, the resolution strategy for these new sites was also preservation by record.

Clare County Council intends to create a small carpark/turning space next to the abbey linked to the new N85 by a narrow roadway (Fig. 2). Related archaeological excavations took place on a contiguous plot of land that will form the roadway to the carpark. Those works are described in a separate final archaeological excavation report (Hull 2008, A025/001).

Consent to excavate in the carpark area adjacent to the abbey was issued on 28th July 2005 to Clare County Council on behalf of the Minister of the Environment, Heritage and Local Government, under Section 14 of the National Monuments Act 1930 as amended by Section 5 of the National Monuments (Amendment) Act 2004. These works have been registered as C020 and have the Record Number E2021.

Although the plot of land described in this report was privately owned, the archaeological excavation and post excavation work were funded by Clare County Council through the National Roads Authority and part-financed by the European Union under the National Development Plan 2000-2006.

Location, topography and geology

The excavation area was located in the townland of Clareabbey, parish of Clareabbey, barony of Islands and lay approximately 1.75km south-east of Ennis town centre (the O'Connell Monument), 1.5km north of Clarecastle and was centred on NGR 134700 175730 (Figs 1 and 2).

The site was situated in a triangular plot of land, bounded on the east by the west gable wall of Clare Abbey and on the west by the Ennis to Limerick railway. The total excavation area was 375m². The land use prior to the excavation was a roughly surfaced car park accessed from a level-crossing over the railway line. The ground surface of the excavation area was level and lay at approximately 6m above Ordnance Datum.

The naturally deposited geological material was an orangish brown sandy silt (glacial till) with occasional limestone pieces.

A topographical survey has been undertaken for lands surrounding the abbey for a private planning application. That survey (Fig. 3) demonstrates that the abbey is located on a tongue of slightly higher land, surrounded on three sides by low lying flood plains of the River Fergus. The River Fergus lies approximately 180m to the east of the abbey. The river has earthen banks that were constructed in the post-medieval period to prevent flooding and it is therefore very likely that the abbey when built was almost on an island surrounded by marsh.

Limestone bedrock outcrops in the fields to the south of the abbey and this may have been important in the construction of the abbey (quarrying, lime, etc).

Archaeological background of the road project

As part of the environmental assessment process for the road scheme, Clare County Council commissioned an EIS (ADS 1999) and desk-based and walkover surveys that formed part of an Environmental Statement (Babtie Pettit 2000). A total of 36 sites of known or potential cultural heritage significance were identified along the entire route of the proposed Ennis Bypass and Western Relief Road.

Earthwork and geophysical survey were undertaken on potential archaeological sites and invasive testing and excavation took place in 2002 and 2003 on some of the sites affected by the proposed road (Aegis 2002, IAC 2003, Geoquest 2002, Earthsound 2003).

A systematic programme of testing, along the new road route, involving the mechanical excavation of a central linear trench with offsets, took place in Summer/Autumn 2003. Twenty-two previously unknown sites, including cremation cemeteries, burnt spreads, enclosures and brick clamps were found (Hull 2003 and Rogers 2004). These monuments ranged in date from the Bronze Age to the modern period.

Archaeological test trenches were dug in the area adjacent to the abbey and along the access roadway in 2003 (Hull 03E1291). This testing located a number of linear features that were evidently archaeological and this information informed the decision to proceed with the full archaeological excavation that is the subject of this report. The features found in the testing correspond with those examined in the excavation. No artefacts were recovered and no features were dug during the testing.

Other archaeological sites excavated in Clareabbey townland as part of this project are discussed below.

Historical and archaeological background of Clare Abbey and its environs
Margaret McNamara and Graham Hull

Information for this study was taken from a number of documentary, cartographic and pictorial sources as well as from the Sites and Monuments Record (SMR)/Record of Monuments and Places (RMP). The abbey itself is a National Monument that is in the care of the State and has been allocated the National Monument Number 197 and the SMR/RMP number CL033-120. The County Clare Local Studies Library provided much of the material described below. The topographical files of the National Museum of Ireland do not list any artefacts from Clareabbey townland (Gibbons et al 1999).

Documentary sources

According to *A History of Clare Castle and its Environs* (Power 2004) the present boundaries of the parish of Clareabbey were created by the amalgamation of the monastic properties of Clare Abbey and Killone with the ancient parish of Killow, the monastic properties lying to the west of the River Fergus, and Killow to the east. *A History of the Diocese of Killaloe* (Gwynn and Gleeson 1962, 452) refers to Clare Abbey or 'The Abbey of SS. Peter and Paul' as an '…important house of the canons regular of Saint Augustine… founded by King Domnall Mór in 1189 on the banks of the Fergus'. Papal letters refer to it as *de Forgio*, a name presumably derived from the river. Clare Abbey is one of a number of Augustinian convents founded in the Fergus valley including Corcovaskin on Canons Island, the convent of St John at Killone and the small house in Inchicronan Lake (Westropp 1900a).

The 1461 copy of the original foundation charter of Clare Abbey describes the lands originally granted.

Now I have presented and confirmed with my seal the following lands…the place in which the abbey is situated, namely Kimony; Ballyannegain, Ballyockleary; Kellonia; Conc Inis Cormack; Kilbreakin; Inusla Sancti Cronain; Argonica; Dromora; Kilkerily in the diocese of Limerick; St.Peter's near Emly; Kitheany in the diocese of Kilfenora, with two rectories of Kandidarium…(Power 2004, 161).

The charter mentions an earlier church on the site at Kimony ('the church in the bog'), as well as an early church at Killow. 'Kimony is located just to the west of Doora bog, while Killow lies to the south of Doora bog' (Power 2004, 21).

The foundation charter for Clare Abbey has been shown, however, to be a probable forgery perpetrated in the 15th century for the purpose of extending the Augustinian's claims to other lands. Flanagan (2005, 163-74) states that:

In conclusion, although it is possible that Domnall Ua Briain founded Clare Abbey, and that he recorded his beneficence in the form of a charter, the extant text cannot be regarded as authentic. While there are elements of the exemplified charter-text that would not be inconsistent with a text of twelfth-century date, these are outweighed by features more characteristic of a fifteenth-century document. No definitive sub-structure of an earlier charter can be retrieved from the text. The weight of evidence rather suggests an outright forgery, though there remains a possibility that it is a rewriting of an original charter of Domnall Ua Briain, one that need not necessarily have been in favour of Clare Abbey. The use of the title 'king of Limerick', which by the fifteenth century would have had little resonance for an Ua Briain lord, remains the strongest indication of such a possibility.(*ibid* 173-4)

Westropp (1900a) also refers to 'Kilmony', and suggests that an earlier church existed, but notes that '…the only suggestion of a pre-Norman building at Clare may be an early-looking Bullaun in a

rounded block of pink granite, and, perhaps, a carved block over one of the northern windows of the choir.' Westropp (*ibid*) notes the poorly sheltered and un-commanding situation of Clare Abbey in an area of grassland littered with rock outcrops, and surrounded on three sides by swamps subject to flooding by the River Fergus and suggests that the site was chosen because it was perceived as sacred, which again suggests the existence of an earlier church on this spot. This sitting is not unusual as many medieval abbeys were located in remote places, echoing Christ's struggle with the Devil in the wilderness. A topographic survey of Clare Abbey's local landscape was undertaken for an unrelated archaeological project (Hull 2007) and is reproduced as Figure 3. The survey demonstrates that Clare Abbey was built on a 'tongue' of dry land extending out in the River Fergus flood plain. The lands surrounding the abbey have become relatively dry since the construction of flood defences in the last few centuries. Indeed, archaeological test trenching at the in the fields adjacent to the abbey (*ibid*) has shown deposits of peat below modern topsoil that are in places 3m deep.

The abbey is also sited within an area of general religious activity, represented by the church of Killoe (Killow) located a mile to the east, as well as the foundations, earthworks and well of Kilbreckan or Carntemple located a mile from Killoe. Kilbrecan is said to be the earliest monastery in Clare '…founded towards the end of the fifth century by Brecan, son of Eochy Baillderg, one of the earliest evangelisers of Thomond and Aran.' (Westropp 1900a).

The first reference to Clare Abbey in the papal records relates to the role played by the abbot of Clare, referred to simply as 'T', in persuading the Holy See to reject the '…unlawful intrusion of Robert Travis as bishop of the diocese in 1216.' (Gwynn and Gleeson 1962, 452) The rise in prosperity of the abbey coincides with the development of the Norman settlement at Clare. The strategic location of Clare on the River Fergus, its central position in Thomond combined with the existence of a wealthy abbey, castle, weekly market and annual fair made Clare an attractive settlement choice (Power 2004). Westropp refers to bloody activity associated with the abbey during the 13th century. Although a SMR/RMP number (CL033-121) has been allocated to this potential battlefield, no traces of this site were uncovered during the archaeological works associated with the N18 Ennis Bypass.

In 1278 Thomond was the theatre of a civil war of unusual horror, and, backed by the English of Bunratty, Donchad, the son of the late chief Brian Roe, had attained a temporary success. His rival, Torlough O'Brien, however, ventured out of the woods of Furroor to the west of Ennis, and went to the MacMahons of Corcovaskin to claim their aid. In his absence his brother Donall, with the Macnamaras, O'Deas, and the men of Owney, in county Limerick, determined to strike a blow at the adherents of Prince Donchad.
They concealed themselves for four days among the thick green oak woods and clear streams of Drumgrencha on the bank of the Fergus. At length their unsuspecting opponents, Mahon, son of Donall Connachtagh O'Brien with his adherents and the O'Gradies, billeted themselves at Clare Abbey (the first usage of this name for "Forgy.") Their rest was but short. Soon an alarm was raised, and they saw advancing the embroidered standard of Donallbeg O'Brien and the crimson coats of his followers. They "agreed that their lives would be longer for getting out of his way," and rushed out of the abbey in the utmost confusion, so "the rout of the abbey on Mahon O'Brien" became a proverb in the mouths of clan Torlough. Unfortunately the matter did not end in honourable battle, but left a stain on Donallbeg's bravery and his followers. They captured many of the "soldiers, fair-haired women, little boys, servants, kerne, horseboys, and herdsmen," making of them "one universal litter of slaughter, butchering both prisoners and cattle in the bog of Monashade," between Furroor and Dysert. "The carnage of Clare" took place almost in the presence of the united forces of Sir Thomas de Clare and Donchad's uncle, Murchad O'Brien; the slayers then escaped between two detachments of their foes at Dysert and Rath, taking refuge in the hills of Echtghe then covered with wolf-haunted forests and nearly impenetrable (Westropp 1900a).

Westropp (*ibid)* notes that Donal met an unfortunate end not long afterwards, and was brought from Quin castle to be buried in Clare Abbey but '…no monument now remains.' The Ordnance Survey Letters of 1839 refer to McGrath's *Wars of Thomond* (c.1350) detailing the period between 1194 and

1318, which state that no actual battle was fought, but concurs that captives were murdered (O'Donovan and O'Curry 2003, 169).

The taxation of 1302-6, values the abbey at Clare at 2 marks, a value which undoubtedly increased in later periods. The abbey's power and importance grew during the fourteenth century as evidenced by mention of the abbots as executors of 27 mandates between 1394 and 1490, and in 1399 the abbot of Clare, Donatus Mac Craith, was made bishop of Killaloe (Gwynn and Gleeson 1962). Papal letters dating to the fifteenth century refer to the control of Clare Abbey by the Mac Craith family for most of this period. This power was commandeered by the O'Brien family in the latter half of the century. In 1458 Matthew Mac Craith became abbot, replacing his father Roderick, who had been abbot since 1423. Matthew, a few years later, became bishop of Clonfert, retaining power over Clare Abbey, a position which he held until 1507. Mathew Mac Craith gave up Clare Abbey in 1470 to another Matthew, possibly a nephew (*ibid*). It is not known if the nephew Matthew was ousted or simply died, but Mac Craith control over Clare was usurped by the O'Briens in 1483, when '…Toirdelbach (Theodoric) Ua Briain was provided by Pope Sixtus IV as bishop of Killaloe, it being recited that he held in addition the *commendam* of the abbacy of Clare as well as other benefices prior to his provision.' (*ibid*, 455) The provision was contested by Bishop Matthew Mac Craith of Clonfert and allegations of theft of 'precious moveables' were made. Pope Sixtus IV ordered an investigation into these claims and it would seem that the O'Briens prevailed in the dispute.

Regardless of who was in control, Clare Abbey was seen as one of the most powerful and wealthy monasteries in the country and remained so up to the dissolution of the monasteries (Gwynn and Gleeson 1962). Clare Abbey was dissolved in 1543 by King Henry VIII and the site and possessions were granted to the descendants of Domnall Mór, the Earl of Thomond and the Baron of Inchiquin., '…the descendants of Murrough, 'the Tanist', inherited the monastic lands around Killone; while the descendants of Donough, 'the fat', inherited the monastic lands of Clare Abbey.' (Power 2004, 162)

Also at the dissolution: 'The grantee was pledged to forsake the name "Obrene", house the English manners, dress, and language, to keep no kerne (a medieval Irish foot soldier) or gallow-glasses (an armed retainer or mercenary, usually of Scottish decent, in the service of an Irish chieftain), obey the king's laws and answer his writs, to attend the Deputy and succour no traitors.' (Westropp 1900a).

Power notes that the properties were initially vested in the crown and leased to the O'Briens, but eventually the Earls of Thomond and the Barons of Inchiquin gained complete control. Such extensive properties and revenues would have been used to induce Irish lords to support the English crown. The 1543 grant was resisted by some locals such as Nellan who would have preferred if the property was granted to a school or college. The same individual also complained that the O'Briens were misusing Clare Abbey (Power 2004).

A 1570 lease renewal to Sir Donnell O'Brien, and Thady O'Brien mentions amongst other townlands, those adjacent to the abbey, namely Clare Abbey, Ballaghafadda and Killow, and states that the lands '…were let for a term of 21 years at an annual rent of £5. 10s. Conditions of the lease included a duty to maintain one horseman for military service if required...' (Power 2004, 163). An element of Anglo-Dutch settlement is evidenced by the leasing in 1622 of the abbey of Clare and 320 acres of land including Ballaghafadda East, Ballybeg, Knocknamagh and Carnelly to a Robert Taylor and family. The 1659 census, carried out at the end of the Commonwealth era, informs us that George Hurt, Sam Burton and John Copleman were important landowners in Clare Abbey, while the 1681 Spaight Survey shows Thomas Spaight holding the lease of the townlands of Clare Abbey and Ballybeg. The later O'Donovan *Ordnance Survey Name Books* (1840) refer to Thomas Crowe as the proprietor of 232 acres at Clare Abbey townland (*ibid*).

Despite references to Nicholas O'Neilan and Dr de Burgo as 'abbots of Clare' in 1613 and 1647-50, it is assumed that religious activity at Clare ceased after the 1543 dissolution (Power 2004). Although Westropp (1900a) notes that O'Neilan was referred to as abbot of Clare seventy years after the dissolution and that the Augustinians remained in the abbey until 1650 Westropp (1900b). Teige

O'Griffa is recorded as a priest at Dromcliff, Killone and Clare Abbey in 1622. In the 1650s, two 'priests of Clare', Roger Ormsby and Hugh Carighy were hanged without trial. Westropp (1900a) refers to the Carmelite Allemand's *Historie Monastique d'Irelande* (1690, Paris) which mentions the abbey but does not say whether the monks held it at this stage. After the 1543 suppression, the parish was administered by diocesan clergy under the Bishop of Killaloe. According to *The Churches of County Clare* (Westropp 1900b), there is no record of the adoption of the abbeys at Corcomroe or Clare as parish churches in the same way that Ennis friary was adopted for the parishioners of Doora and Dromcliff in 1615.

The fortunes of the town of Clare followed a different path to that of the abbey as the castle became a significant military stronghold during the 1641 rebellion, the Cromwellian conquest and the 1688-91 Williamite War. Reference is made by Power (2004) to a threat made to the properties of Sir Daniel O'Brien at Clare Abbey and the English settler Gregory Hickman at Barntick. Hickman was a substantial leaseholder by 1640, leasing 640 acres in Clare Abbey parish at this time. The arrival of Cromwell's forces in 1649 led to the invasion of Clare and besieging of Clare castle by Ireton in 1651. In the latter stages of the siege there were about 2000 English soldiers and 1500 cavalry encamped around Clare castle (*ibid*)

Defeat at the Battle of Aughrim in 1691 led to the retreat and besieging of Catholic forces at Limerick. The garrisons at Clare castle and Ross castle were strengthened in order to retain Jacobite control over Clare and Kerry as well as defend the areas around Limerick (Power 2004). Power notes that Clare castle was held by Catholic forces under Teige MacNamara of Ayle, Tulla. Conditions at the garrison may have been poor as evidenced by a complaint dated 28th January, 1691. 'Armed soldiers from Clare castle were looting around the Latoon district seeking victuals and terrorising the poor people in their cabins, including women and children.'(*ibid*, 54). There is also a reference to French officers and men stationed at Clare castle *c.* 1691, indeed nearly half the Jacobite cavalry seems to have been based in County Clare at this time. Articles 5 and 11 of the Treaty of Limerick refer to the garrison at Clare castle.

…the garrisons of Clare castle and Ross castle and all the other foot (soldiers)…shall have the advantage of the present capitulation; and such part of those garrisons as deign to go beyond seas, shall march out with their arms, baggage, drums beating, ball in mouth, match lighted and colours flying, with all of the provisions and half the ammunition that is in the said magazine, and join the horse that march to be transported… (Power 2004, 56, Article 11)

The Williamite army under Baron de Ginkle took control of Clare after 1691 and the English and later, British, army maintained a continuous base at the castle up to the end of the nineteenth century (Power 2004). This military presence had a major effect on the economy of the town as provisions, laundry services, fuel etc. were in constant demand. Nine pubs are recorded as operating in the village in the 1840s. What part the abbey and abbey buildings played in these developments is difficult to ascertain. Travellers moving through the region in the 17th century, such as the Franciscan Fr. Anthony Brody (1669), Thomas Dineley (1681) and William Molyneux (1682), mention the abbey 'Upon the west side of the said river of Forgus is the order of Saint Augustin's cannons regular and endowed with great livings.' (Molyneux referred to by Ó Dálaigh 1998, 64).

The architecture

The buildings present today at Clare Abbey consist of a church, domicile and cloister garth (Plates 1 and 2). In the 1300s the long church was apparently divided into nave and chancel by the erection of a belfry tower resting on two pointed arches. Gwynn and Gleeson (1962, 454) note that there were repairs and additions to the building in 1434. The layout of the buildings of Clare Abbey are very typical of medieval Augustinian establishments.

Eugenius IV (papal reign 1431-1447) *granted a relaxation during twenty years, of five years and five quarantines of enjoined penance, to penitents who, on the principal feasts of the year, and on that of the dedication and the usual octaves and days, and of one hundred days to those who on said octaves and days, visit and give alms for the repair and conservation of the church of the Augustinian monastery of SS. Peter and Paul the Apostle, Clare, in the diocese of Killaloe.* (*ibid*)

Repairs were carried out to the southern wing of the domicile in 1461 by Teige Acomhad O'Brien at the same time as the original charter was renewed (Westropp 1900a). Westropp deliberates as to why these events occurred, suggesting that repairs were carried out by O'Brien to stave off disease or improve his own popularity.

The Churches of County Clare (Westropp 1990b) states that areas of the single-aisled church date from the late twelfth century foundation and that the majority of the buildings are fifteenth century. Particular reference is made to the well-preserved east window, tower and domestic buildings with unusual floral window at the south-eastern corner. Westropp also notes one incised post-Norman cross at Clare Abbey (*ibid*). Westropp's 1900 description of the ruins is as follows (read in conjunction with Fig. 4):

The ruins consist of a church and cloister with ranges of domestic buildings to the east and south of the garth, and a gateway and enclosures. The church was originally a long oblong building, 128 feet by 31 feet, externally. The interior was subsequently divided into a nave and chancel by a belfry tower 15 feet 9 inches, and the chancel 48 feet 5 inches. The west window had fallen in 1680, but the gable was held up by its own solidity and the tightly-knotted ivy. It is now supported by a modern arch. There are a number of putlock holes in the north wall. In the same wall are a pointed door and a late traceried window of the same period as the east window, the hood ending in a human face to the north end. Both walls are capped by plain neat cornice and broken battlements.

The belfry has no staircase; it had three floors resting on corbels, the second had a double light window with cinquefoil heads in each of the sidewalls. The lower was reached by two large slightly-pointed doors opening on to the gutters. The battlements of the tower are low and badly-proportioned. The barge stones were nearly all loose, and some were balanced in most precarious state; they were reset in the repairs of December, 1898, and January, 1899. The arches underneath are pointed, are made of finely-cut limestone, with ribs resting on neat corbels; there are also corbels for a rood loft. The belfry dates from about the middle of the fifteenth century. A large tomb slab stands in the north recess under the tower, which is lit by a very primitive round-headed window slit with the usual chamfer and recess. The slab has no carving of inscription. The chancel had three north lights, a double one near the belfry, its head now destroyed, another of the time of the foundation. This has the pointed head recess and chamfer characteristic of the period, while over it on the outside is set a stone carved with scrolls. East of it is a low arch, and between it and the other window is a pointed arch, long built up. The east window is late and of the same period as the one in the nave; it has two shafts interlacing into two large pear-shaped loops, and a smaller one at the apex. The whole is set in the arch of the older and larger window which, like the opes at Killaloe and Canons Island, probably once had five lights…

The church lies along the north side of the cloister garth, and projects 14 feet beyond the eastern rooms. A range of domestic buildings adjoins from the chancel, and another lies along the southern side of the garth. There were no buildings to the west of the cloister. The latter space is nearly square, being 85 feet by 85 feet 9 inches. The corbels and weather ledge along the church wall shows there was a roofed walk, probably without an arcade. It had a skew arch, like those at Clare Galway and Canons Island, but with a plainly chamfered rib and no corbel, at the south-east corner. The southern wing contains a kitchen and refectory divided by a double fireplace with a lofty chimney, which leans ominously towards the east since 1868, when I first remember it. This was evidently an afterthought, and does not bond into either wall; a door lay to the north of it. The western room was two stories

high, with a wooden floor resting on corbels. Much of its south wall fell out in 1875 or 1876. The south wing has nearly all its features defaced; there only remain two double-light windows with trefoil heads and heavy angular hoods, a type which was in common use in county Clare (both in churches and castles) in the middle of the fifteenth century. One of these is in the west gable, another in the eastern room; another window is thickly ivied, but seems to have had only one light. The rest were destroyed before 1793. Four breaks, of which those at the extreme angles were evidently doors, open into the garth. A late gateway near the church is the only one in the west wall. Another leads into the nave, and three gaps and a door into the east wing, besides a long gap, probably made when the vault of the Crowes of Dromore was constructed about 27 years ago.

The eastern wing, like the southern, is 20 feet 6 inches wide; it is 109 feet long. There is no visible trace of sub-division, and all the features are defaced except a small window-slit at the south-east angle and in the east wall, a rude door in the west wall, and a window in the south gable. This originally consisted of two oblong lights, the sill and shaft of which were broken away; above these is an elaborate and boldly cusped tracery, consisting of six trefoils and a quatrefoil, the whole framed in a projecting hood, richly moulded and coming down the sides. It recalls a window at Ballyhack, and a simpler one at Rathfran, in Co. Mayo. Nearly all the outer wall of this wing has been levelled. (Westropp 1900a).

The oldest legible tombs at the end of the 19th century were Charles Hallinan 1692, Owen O'Haugh 1726 and Denis Flinn 1755 (Gwynn and Gleeson 1962, 457). There is a reference in *Folklore of Clare* (Westropp 2000) to the existence of an underground passage(s) which connected Killone with Clare Abbey. Moland notes the condition of the abbey and surrounding structures in 1703, as described below.

Clare Abbey: Content 138a. 3r. 0p. Value £36 16s 6d Distant from Ennis one mile, has on it the ruins of an abbey which gives it its name, a good thatched house, an orchard and 2 or 3 cabins. (Ó Dálaigh 1998, 90).

As for more recent times, there has been some additional damage to the fabric of the building. Westropp (1900a) notes that part of the south wall collapsed in 1875 or 1876. Modern collapse has been noted by the author in the last five years and vandals have destroyed many gravestones and architectural features within the abbey in *c.* 2003.

Burials still take place within the abbey ruins.

Cartographic sources

The town of Clare and the parish of Clareabbey and Killone were well mapped between *c*. 1700 and 1900. Maps of Ireland that show Clare, include Mercator's map of Ireland 1567, Boazio's map of Ireland 1599 and Speed's map 1610 (Power 2004). The appearance of the town of Clare on all of the major maps of Ireland between 1564 and 1610 probably bears testament to its importance as a military settlement in the 16th century. The Down Survey of 1685 is the first to depict, albeit in a crude fashion, the parish boundaries and a division between Clareabbey and Killone. The townlands of Ballaghfadda, Barntick and Buncraggy are also depicted. Taylor and Skinners 1778 map is the first to show the main road through the town of Clare and also mentions Clare and Killone Abbeys among other structures. Many eighteenth and nineteenth century maps were drawn up, with particularly intensive mapping carried out between 1838 and 1850. Power notes that some townlands were mapped more frequently, due to their advertisement for rental, or their being the subject of lawsuits, '…protracted lawsuits between the Hickmans and the O'Briens over properties in Clare Abbey…' (2004, 36)

A map compiled during an 1832 Survey of the River Fergus (Fig. 5) depicts Clare Abbey. The abbey image is representative and only shows the church.

The Ordnance Survey (O.S.) First Edition map, surveyed in 1840 (Fig. 6) depicts the abbey as U-shaped and angular in plan. The map also shows the abbey sited within an area of field boundaries that enclose five sub-rectangular plots of land. Three of these boundaries extend from the abbey walls at the north-east, south-east and south-west corners of the building. There is also a protrusion from the north-east corner of the abbey, the south-east corner of which meets another boundary. Most of these boundaries have been eradicated as the recently taken aerial photograph shows (Plate 3); apart from a small north-west to south-east aligned segment jutting out from the north-east corner of the extant remains. Traces of the removed boundaries are however still visible from the air. A smaller structure is depicted to the north of the abbey site on the 1840 map. This illustration may represent the thatched house or one of the cabins noted by Moland in 1703 (Ó Dálaigh 1998). The 1840 O.S. map also shows that the boundaries to the east of this area, between the abbey and the Fergus, enclose much larger areas of land than those located in the immediate area of the abbey.

Pictorial sources

Thomas Dyneley's (sometimes spelled Dineley) 1681 sketch (Plate 4, Ó Dálaigh 1998) shows the abbey buildings as unroofed apart from the south-west portion. This roofed part is seemingly the former kitchen that had been possibly converted into a house. Religious activity may have continued at the dissolved abbey into the later seventeenth century as is indicated by a small chapel with large crosses on the gables adjoining the east end of the abbey church.

A 1793 engraving of an original watercolour by Henry Pelham, the original sketch of which probably dates to 1779-82 (Plate 5, Grose 1793) was also examined. This painting exhibits changes to the building(s) in that the chapel is no longer upstanding and the kitchen/house is unroofed.

Early 20th century images (Plate 6, Lawrence Collection and Plate 7, Valentine's postcard series) show a slightly more dilapidated, ivy-covered ruin.

Previous archaeological excavations

No known full archaeological excavation, prior to that described in this report, has previously taken place at the site of Clare Abbey. Two test trenches were excavated in 2003 (Hull 03E1291) in the area designated for the carparking/turning space and these located a number of linear features.

Previous excavations have been carried out within 1km of the site as part of archaeological mitigation procedures relating to the N18 Ennis Bypass. These sites were all located within the townland of Clareabbey and are described briefly below.

AR120 (04E0027) was located 360m south-east of Clare Abbey within a flat, low-lying and slightly wet field adjacent to the west bank of the River Fergus. This site consisted of three separate brick clamps which, when combined with other earthwork evidence (outside the CPO), suggests that semi-industrial brick manufacturing was taking place in the post-medieval period in this area (Taylor 2006a).

AR121 (04E0031) was located 320m south-east of Clare Abbey within a field which was once part of the River Fergus floodplain. This site consisted of two possibly related burnt stone deposits. It is probable that this material relates to *fulacht fiadh* activity, with the lack of trough evidence explained by the possible existence of portable containers. The site has been date to the late Bronze Age (Taylor 2006b).

AR122 (04E0032) was located 380m south-west of Clare Abbey within an area of waterlogged ground. This site consisted of eleven pits, one burnt stone and charcoal spread, a series of furrows, two possible stone sockets and one soil and stone deposit. As with AR121, the pits and spread could relate

to *fulacht fiadh*-like activity and date to the late Neolithic/early Bronze Age. A small assemblage of bone was encountered at the base of one of the pits. It is likely that the furrows represent post-medieval agricultural activity, either ploughing or hand cultivation. (Taylor 2006c).

AR123 (04E0019) was located 470m south-west of Clare Abbey within an area of gently sloping pastureland. This site consisted of four pits, a hearth and a charcoal rich deposit. Two additional pits were recorded in the previous testing phase. Iron slag was also recovered. The hearth returned a radiocarbon date spanning the late 8th to late 10th centuries AD (Hull 2006a).

AR124 (04E0022) was located 420m south-west of Clare Abbey within an area of wet, boggy pastureland. This site consisted of a burnt stone spread and associated flat bottomed pit/trough(s). This has been interpreted as a *fulacht-fiadh*-like site albeit without the typical crescent shaped spread. It has been noted that such smaller burnt spreads are becomingly increasingly recognised as monuments in their own right. This example was dated to the early Bronze Age (Hull 2006b).

AR125 (04E0023) was located 500m south-west of Clare Abbey within a level field with limestone outcropping and wet areas. This site was unfortunately destroyed prior to commencement of the archaeological excavation phase although the extent and depth of the spread was ascertained during the testing phase. It is very likely that this site was an example of an episode, or episodes, of stone heating, and therefore of similar possible date as the aforementioned sites (Hull 2006c).

Site A025/001. As part of the project, reported here, a narrow strip of land, measuring 85m by 5m, was excavated under consent number A025/001 (Figs 2 and 7). The land will be used as an access road to the abbey carpark/turning space. Four linear features, (one of which is a ditch – the others may be agricultural) and four possible postholes were identified. These features are post-medieval in date (Hull 2008).

Earlier phases of archaeological intervention on newly constructed stretches of the N18 (Dromoland to Carrigoran), to the immediate south of this road project, have demonstrated that the locality has a rich range of prehistoric and later monuments (Hull and Tarbett-Buckley 2001).

Archaeological work on the BGE Gas Pipeline to the West in the neighbourhood of the new road route has tended to support the picture of continuous human activity in Co. Clare from the Neolithic and even becoming intensive from the Bronze Age. A number of burnt spreads and burnt mounds were excavated near the route of the new road in the summer of 2002 (Grogan *et al* 2007).

As part of the Gas Pipeline to the West, an underwater survey was undertaken by ADCO on behalf of Margaret Gowen and Co Ltd. This survey was in the River Fergus some 800m to the south-west of Clare Abbey and located an undated possible log boat (Kieran 2002).

An underwater survey was also carried out by Boland (2003) as part of the investigation works undertaken along the N18 Nothing of archaeological significance was recorded and it is likely that the river would have been dredged and all potential medieval features associated with the abbey (if there were any) would have been destroyed.

Record of Monuments and Places (RMP)

Clare Abbey is situated approximately 1.5km from the castle (CL041-089) and later buildings (townland: Clare Commons) which dominate the modern town of Clarecastle. There are also five sites with archaeological potential depicted on the County Clare SMR/RMP as being within 1km or so of the site of Clare Abbey. These are listed below.

RMP No.	NGR	Townland	Description	Distance from site
CL033-117	13360/17566	Clonroad More	Enclosure	1.05km to the W
CL033-118	13423/17654	Clonroad More	Rock Scribing/Art Site	0.86km to the NW
CL033-119	13444/17638	Clonroad More	Holy Well	0.65km to the NW
CL033-121	13479/17566	Clareabbey	Battlefield	0.065km to the SE
CL042-135	13552/17480	Skehanagh	Fulacht Fiadh	1.15km to the SE

There is therefore a variety of previously recorded sites situated within 1km of the abbey, ranging in possible date from prehistoric to medieval times.

Discussion of the historical and archaeological background

To summarise, there is probable evidence for archaeological activity at or around the site of Clare Abbey covering a vast time span from the prehistoric to the post-medieval period. This activity ranges from possible prehistoric rock art and burnt spreads/*fulachta fiadh* to later sites in the form of an enclosure, metal-working, and later post medieval agriculture and brick manufacturing. With regard to early ecclesiastical activity there is a holy well located to the north-west in Clonroad More as well as a degree of documentary evidence, (1461 probable forged charter of Clare Abbey), of an earlier church at Kimony (Power 2004, Westropp 1900a). Clare Abbey itself has a claimed founded date of 1189 by Domnall Mór (Flanagan 2005), the choice of site possibly influenced by a perceived sanctity attached to the location (Westropp 1900a).

A particularly bloody episode in the history of the abbey, 'the carnage of Clare' (Power 2004), relates to a 1278 battle of the O'Brien civil wars involving the abbey and its surrounds (CL033-121). Documentary evidence notes additions to the original structure in the 1300s, repairs and additions in 1434 (Gwynn and Gleeson 1962), and more repairs carried out in 1461 (Westropp 1900a).

The value of the abbey was placed at 2 marks in the 1302-06 taxation, but the stature and wealth of the abbey increased dramatically during the fourteenth century. Control of Clare Abbey swung between the MacCraith and O'Brien families throughout this period with the O'Briens taking control during the late fifteenth/early sixteenth century (Gwynn and Gleeson 1962).The abbey was dissolved in 1543 by Henry VIII and the site and possessions were granted to the O'Brien descendants of Domnall Mór, the Earl of Thomond and the Baron of Inchiquin (Power 2004).

It is assumed that religious activity stopped following dissolution and as Westropp (1900b) notes, Clare Abbey does not seem to have been adopted as a parish church as were other abbeys in the area. There are however references to 'abbots and priests of Clare' (Westropp 1900a) in later periods and it is thought that the monks remained in Clare Abbey up to 1650 (Westropp 1900b). Thomas Dyneley's 1681 sketch (Plate 4, Ó Dálaigh 1998) shows that the kitchen had been converted into a house and also depicts a small chapel adjoined to the abbey supporting the notion that religious activity continued up to the later seventeenth century. It may be that the aforementioned post-medieval agricultural and brick manufacturing activity detected to the south of the abbey also dates to this period (Taylor 2006a) and may be connected with the abbey. The discontinuation of religious activity and general decline of the abbey is supported by a 1793 sketch engraved by Pelham (Plate 5, Grose 1793) which depicts the kitchen/house as unroofed and the chapel as absent.

The lease of the abbey and townland of Clare Abbey changed hands numerous times in the centuries following the 1543 dissolution (Power 2004). The decline in importance of the abbey coincides with an increase in activity, particularly of a military nature, at Clare castle in the 17th century involving the Cromwellian and Williamite disturbances, followed by a continuous British presence up to the end of the nineteenth century (Power 2004).

The Limerick to Athenry railway was built in the middle of the 19th century and is very close to Clare Abbey. The abbey is currently relatively isolated and neglected and is accessed via a level crossing (Plate 8).

Excavation aims and methodology

The aims of the excavation were to:

1) Preserve by record all archaeological deposits and features within the excavation area
2) Produce a high quality report of the findings

The fieldwork took place between 17th October and 28th November 2005 and was directed by Graham Hull, supervised by Roy Krakowicz and assisted by Tim Dean, Toby Graystone, Vincent Hanley, Paddy Lawrence, Margaret McNamara, Astrid Lesley Nathan, Fergal O'Shea, Edel Ruttle and Kate Taylor.

The excavation area was triangular and examined 375m^2. Topsoil and modern overburden were removed by a 20 tonne, 360º, tracked machine, operated under direct and continuous archaeological supervision. The digger was fitted with a 6 foot toothless bucket.

Spoil management within the relatively small excavation area meant that the site was excavated in two phases. All archaeological deposits were 100% hand excavated.

In addition, a slot trench, 1.8m wide, immediately adjacent to the abbey wall, was excavated in its entirety by hand.

All features were hand-cleaned, sectioned and then fully excavated.

A metal detector, operated to archaeological best practice, was used to locate *in-situ* metal artefacts within stratigraphically secure contexts as well as to find objects in spoil.

A full written, drawn and photographic record was made following procedures outlined in the TVAS Ireland Field Recording Manual (First Edition 2003) and according to a specification drawn up by the Project Archaeologist and approved by the national licensing authorities.

Excavation results (Figs 7 to 14 and Plates 9 to 34)

A catalogue of contexts and deposits is given as Appendix 1 and a stratigraphic matrix is given as Appendix 4.

A total of eight walls (including two with associated construction cuts) were recorded, and are described individually in Table 1 (below). Linear features were also recorded and these are described in Table 2. The linear features include the two construction cuts associated with the walls, as well as: three gullies, two ditches, two drains and eleven furrows. Non-linear features were quantified as: four pits, nineteen postholes, fifteen stakeholes, one cess egress hole, features associated with the railway, stoneholes, natural depressions and other non-archaeological features. These non-linear features are described in Table 3. Twenty-three deposits including wall tumble, buried topsoil, made ground, hardstanding, interface layers and natural geology were also recorded and are described in Table 4.

The archaeological features were cut into the natural geological deposits and were sealed by either buried topsoil, 51, or by tumble, 58.

The features are described below by phase. This phasing is based on radiocarbon dating, pottery and other artefact typology and by association. Four main phases have been identified and these are:

Phase I - 11th century to early 13th century
Phase II - early 13th century to late 14th century
Phase III - mid 15th century to late 17th century
Phase IV - 18th century to 20th century

Except for a few features that have been closely dated by radiocarbon determinations it is not always possible to tease apart Phases I and II and consequently these phases are discussed together below.

Phases I (11th century to early 13th century) and Phase II (early 13th to late 14th century)

The earliest activity recorded on the site was the excavation of two large pits, 6 and 45, (Figs 9, 10 and 14, Plates 9 and 10). Pit 45 stratigraphically pre-dated Pit 6. Pit 45 was somewhat amorphous, measured 1.85m by 1.60m and was 0.35m deep. Pit 6 was a rounded rectangle in plan and was very precisely cut. The feature measured 2.1m by 0.7m-0.8m and was 0.6m deep. The fill of Pit 6 has been radiocarbon dated to AD 1030-1220 (Beta-231531) and could predate or be contemporary with the construction of the abbey that presumably began soon after the claimed foundation date of AD 1189 (see historical background above). The foundation wall 124 seems to respect the edge of pit 6. It is possible that pit 6 disturbed the wall but equally possible that wall 124 avoided pit 6.

There are two other features that seemingly pre-date, or coincide with, the initial construction of the present abbey. These are the somewhat amorphous features, 13 and 24, that were part-excavated, immediately adjacent to the abbey wall (Fig. 10 and Plates 11, 12 and 13). Both features continued (but were not excavated) beneath the abbey wall, suggesting an earlier date than the wall. A piece of Saintonge pottery, indicating a late 12th to mid 13th date, was found at the top of the fill of feature 24. A radiocarbon determination from the fill of feature 13 returned a date of 1200-1280 (Beta-237217). The earliest extent of this determination is only 11 years after the foundation charter was said to have been granted. Of course, it is possible that the cloister wall may be a later repair or addition.

Features 13 and 24 may have been stone holes as there were glacial erratics present in the vicinity until modern field clearance (see Plate 7) and it could be that some erratics were removed immediately prior to the building of the abbey west wall. It is also possible that features 13 and 24 represent an earlier phase of abbey building. It should be presumed that construction of the entire monument took many years and that soft buildings would have been present on site. A wooden cloister could, for example, have predated the stone cloister.

Two parallel gullies (or ditches), 3 and 35, were excavated in the centre of the site (Figs 8 and 11, Plates 14-19). These features were orientated from north-north-east to south-south-west and were typically 5m apart, parallel to the west wall of the abbey. Ditch 35 cut the similarly aligned feature 123. Also on the same alignment as the ditches, was a series of four postholes (38, 40, 41, 42) (Figs 8, 9, 10 and 11, Plate 21). Relative to the intensity of archaeology found on the rest of the site, the space between the linear features 3 and 35/123 was largely devoid of archaeological features (Fig. 8). It is possible that modern truncation had destroyed deposits here, but it is also noteworthy that this area corresponds with a trackway shown on the 1840 Ordnance Survey Map (Fig. 6). If these gullies are associated with the trackway, then they may have served to drain the track in a wet area.

The fill of ditch 35 returned a radiocarbon date of AD 1220-1310 and 1360-1380 (Beta-231533) and the fill of posthole 38 was radiocarbon dated to AD 1160-1290 (Beta-237218). Assuming that ditch 35 and posthole 38 are contemporary, the radiocarbon date overlap would suggest that the features were in use in the period AD 1160-1220. These dates correspond well with the claimed evidence for the founding of the abbey in 1189 and suggest that a defined access route to the abbey was laid out at the time of the abbey's construction.

The four postholes (38, 40, 41, and 42) are very likely to represent the location of timber uprights that correspond with the beam slots apparent in the cloister west wall (Plate 20). The beam slots are massive, measuring 0.4m wide by 0.3m high and are 0.45m deep – they are only visible on the external face of the cloister wall. This, being the case, it is probable that a timber structure abutted the abbey cloister in the 12th to 13th centuries. To the east of these four postholes, two rows of post/stake holes (109-113, 115-122) were recorded parallel to the abbey wall and these probably represent an internal division of the 'soft building' constructed against the abbey stonework (Figs 10 and 12, Plates 13 and 22). It is possible that these soft buildings or 'penthouses' may have provided shelter for people waiting entrance to the abbey – examples from French abbeys are known (Joubert pers. comm.). At the extreme northern limit of the excavation area, an insubstantial stone wall (8) (Figs 10 and 12, Plates 11 and 23), set at 90 degrees to the abbey, was observed. It is possible that this feature formed part of this extramural structure.

Three isolated stakeholes (103, 104 and 105) (Fig. 10) and the postholes or shallow pits, 43, 46 and 47, may also constitute part of the soft building appended to the outside of the abbey cloister. Posthole 43 may, however, belong to Phase III (below).

Six further postholes were recorded (48, 49, 100, 101, 102 and 106) and were aligned parallel to the abbey west wall and may also represent extramural timber structures (Fig. 9). It could also be possible that these postholes represent the remains of scaffolding – perhaps used in the construction of the abbey. A radiocarbon date from the fill of posthole 49 returned a date of AD 1200-1280 (Beta-237219). A putlock is a hole in stonework for supporting scaffolding and putlock holes were seen in the stonework of the abbey kitchen west wall (Plate 20), approximately corresponding with the excavated postholes.

Many of the postholes showed evidence of packing stones, supporting the concept that they held timber uprights.

Beneath the abbey west wall (28) a single course of foundation stones, 7 and 124, was observed. (Figs 9 and 10, Plates 11 and 24). These stones rested directly onto the natural geology. There was a break in the foundation stones that corresponded with the location of the cess-pit (see below) and with pit 6 (Fig. 10) and it is possible that stones had been removed from the abbey foundations to allow insertion of these features. It is also very possible that there were two different builds in the abbey west wall, corresponding to the construction of the kitchen and the cloister (Plate 20). Both walls are undoubtedly medieval in date and the foundations at the north (cloister) were numbered 7 and the foundation stones at the south (kitchen) were numbered 124. There is a slight difference of orientation between the kitchen wall and the cloister wall (Fig. 9) and foundation 124 appears slightly wider than foundation 7. and with the visible break in the masonry, this suggests at least two separate construction phases.

The cloister and kitchen wall was composed of approximately rectangular limestone blocks with occasional tool marks. The cloister wall was typically 0.8m thick.

Phase III (mid 15th century to late 17th century)

A rectangular cess-pit (defined by walls 4, 10 and 36) was abutted to the external wall of the abbey cloister and an egress hole (34) was cut into the west abbey wall (Figs 10 and 13, Plates 13 and 25). This hole allowed waste to flow into the cess-pit. The cess was seemingly drained from the pit via a pair of linear gullies, 37 and 44 (Figs 10 and 11). A radiocarbon date of AD 1460-1660 (Beta-233431) was obtained from the basal fill of the cess-pit. The cess-pit measured 1.5m by 1.25m and was recorded as 0.72m deep although the walls of the pit probably originally stood higher. The egress hole cut into the abbey cloister wall was rectangular and was 0.72m wide and 0.73m high. Would the insertion of the pit also have disturbed the foundations of the cloister wall (and potentially re-used stones from them for the construction of the cess-pit)? I also have a feeling that parts of the cloister wall just above the cess-pit was also disturbed and potentially re-built at that time.

Posthole 43, found at the northern end of gully 44, may be associated with the cess system but could belong to Phases I and II (above).

At the very base of the cess-pit, many fragments of high-quality glass from a single vessel were recovered and this vessel is likely to date to the 17th century (see specialist report below).

At the east of the site, close to the abbey west wall, the cess-pit and associated features and many of the Phases I and II features were sealed by a substantial layer of limestone rubble with sandstone roofing tile, 58 (Fig. 12, Plates 23 and 26). It is likely that deposit 58 represent collapse of part of the abbey west wall and also that the building adjacent was roofed. This building may have once been the abbey kitchen. The artefacts found in the collapse (tumble) 58 were generally post-medieval in date. It might be thought odd that artefacts were found in collapsed wall material and there may therefore be a degree of intent in the deposit that could indicate deliberate destruction. No cut stones were found within the rubble and it is therefore likely, given that the cloister would have been vaulted and pillared, that these architectural parts had been robbed prior to the deposition of layer 58.

Stratigraphically pre-dating the partial collapse of the abbey west wall, were wall 33 and the seemingly associated ditch 14 (Fig. 9, Plates 14, 27 and 28). These features post-dated the construction of the abbey west wall but were set at approximately right-angles to it, and these features may be the remains of a building appended to the abbey. It should also be considered that the collapse/tumble 58 may not relate to the abbey but represents this appended building. Wall 33 and ditch 14 did not disturb the foundations of the kitchen wall. The ditch was not dated although a piece of clay tobacco pipe from the 18th or 19th century was found in the upper fill.

Phase IV (18th century to 20th century)

At the north-west of the site the archaeological deposits were characterised by a series of parallel and perpendicularly orientated linear features (15-23, 25 and 27) (Figs 8 and 15, Plates 29 and 30). These shallow features were all to the west of the Phase I and II deeper linear feature 3. It is very likely, given the 18th-20th century material recovered from their fills that features 15-23, 25 and 27 represent the remnants of lazybed cultivation for potatoes dating to the pre-famine era. Four stakeholes 29-32 are very probably associated with the lazybeds. It is significant that no furrows were found east of the linear gully 3 as this indicates that the gully served as a boundary (see Phases I and II above). The gully (or at least the trackway) must have survived in part until the 18th century for it to have been respected.

At the south-west of the site, pits 2 and 9, posthole 107 and the depression 114, were seen to contain 19th/20th century pottery and ironwork and it is thought that these features relate to the construction of the Ennis to Limerick railway in the mid 19th-century (Fig. 8). It should also be noted that these features did not respect the medieval trackway defined by the ditches 3 and 35.

An above ground wall (1) was recorded and dismantled at the extreme south of the site (Fig. 7 and Plates 31-34). The wall was orientated from south-west to north-east and was 7.3m long, between 0.7m and 1m wide and between 1.5m and 2.1m high. This wall was clearly of 20th century construction as it incorporated concrete, breeze-block and frogged brick. Within the wall, were 27 worked stones that obviously derived from the abbey. Each architectural stone was numbered, photographed and drawn and a catalogue is in the site archive. Some of the pieces have tool marks, notably pecking. One piece may have derived from a window. Following discussion between the Project Archaeologist and the National Museum, it is anticipated that the stones will be deposited with the OPW store in Ennis Friary, Co. Clare.

Table 1: Wall descriptions

Wall No.	Dimensions (m) (length x width x depth/height)	Plan	Description	Comments
1	7.3 x 0.7-1.0 x 1.5-2.1	Curvilinear in plan. NE-SW orientated.	Mainly undressed limestone boulders with some dressed limestone blocks, concrete slabs and breeze blocks. Mainly off-white with some bluish-grey.	20th century wall. Fig. 7, Plates 31, 32, 33 and 34
4	1.5 x 0.25-0.35 x 0.43-0.72	Linear in plan. E-W orientated.	Four courses of rough hewn limestone blocks with smaller packing stones.	Wall partially defining cess-pit also defined by walls 10 and 36. Fill of construction cut 11 which has vertical profile. Only 0.1m below modern ground surface and overlain by modern car park surface. Figs 10 and 13, Plates 13 and 25
7	6.0 x 0.3-0.74 x 0.1-0.2	Linear in plan. N-S orientated.	Mostly roughly cut or shaped limestone as well as rough stones. See also 124. One course thick.	Wall foundations below west wall of abbey. Fig. 10, Plate 11
8	1.4 visible x unknown x 0.25	Linear in plan. Orientation difficult to ascertain?	Single faced limestone block. Extending beyond the limits of excavation.	Possible wall. Insubstantial. Figs 9, 10 and 12, Plates 11 and 23
10	1.15 x 0.2 x 0.36	Linear in plan. E-W orientated.	Two courses of rough hewn limestone blocks.	Wall defining north side of cess/waste cell, other side(s) defined by wall 4. Fill of construction cut 12 which has vertical profile. Butts west wall of abbey foundations 7. Figs 10 and 13, Plates 11, 13 and 25
28	Cloister wall 0.8m thick	Linear in plan. N-S orientated.	The cloister and kitchen wall was composed of approximately rectangular limestone blocks with occasional tool marks. Both walls were numbered 28.	West wall of Clare Abbey. Figs 9, 10, and 13, Plates 11, 13, 20, 24 and 26
33	5.4 x 0.9 x 0.5	Linear in plan. E-W orientated.	Composed of large undressed limestone blocks. Unmortared	Wall keyed into and therefore associated with wall 124? . Also situated just below west abbey wall. Inserted into ditch cut 14? Situated at 90 degrees to wall and not quite at 90 degrees to west abbey wall. Figs 8 and 9, Plate 27
36	1.4 x 0.2 x 0.5	Linear in plan. N-S orientated.	Two courses of rough hewn limestone blocks. unmortared	Part of cess-pit also defined by walls 4 and 10. Has been disturbed and some stones shifted back by 0.3m to the west. Fig. 10, Plate 13
124	7 x 0.3-0.74 x 0.1-0.2	Linear in plan. N-S orientated.	Mostly roughly cut or shaped limestone as well as rough stones. See also 7. Unmortared and one course thick	Wall foundations below west wall of abbey. Fig. 10, Plate 24

Table 2: Linear feature descriptions (Construction cuts, gullies, ditches, drains and furrows)

Cut No.	Dimensions (m) (length x width x depth)	Plan/Profile	Fill Nos and description	Comments
3	12.0 x 0.7 x 0.1-0.2	Linear in plan. NE-SW orientated. U-shaped, steep in parts.	53, loosely compacted dark grey-black silty sandy clay. Limestone inclusions.	Gully. Not quite parallel to the west gable of the abbey. Appears to cut features to the NW. Situated immediately below hard standing. Fig. 8, Plates 16, 17, 29 and 30 parallel to 35
5		Rectangular in plan	61, same as 50. Modern	Non archaeological feature. Footpad impression from JCB?
14	4.4 x 1.3-1.9 x 0.5	Linear in plan with rounded western end. E-W orientated. North side slopes quite steeply down to flat base.	Fills 73, 152, 153, 174, 175, 176. 73, loosely compacted grey-brown silty soil, with limestone rubble. 2 x 1.5 x 0.5 152, fairly compact light brown sandy silt with topsoil. Limestone inclusions. Length 0.4 x 0.1 153, fairly compact black/brown silty and topsoil-like fill. Limestone and charcoal inclusions. Width 1.1 x 0.2 174, moderately compact close textured, mid-tone grey with yellow-brown undertones, clayey silt. Limestone and charcoal inclusions. 1.0 x 0.8 x 0.15 175, moderately compact mid-tone grey with orange undertones, clayey silt and of smooth texture. Limestone and charcoal inclusions. 0.5 x 0.5 x 0.1 176, closely packed mid to dark tone grey brown, sandy silt, slightly gritty to the touch. Limestone inclusions.	Ditch associated with wall 33. Figs 8 and 9, Plates 14 and 28
15	2.3 x 0.5 x 0.15	Linear in plan. NW-SE orientated. Moderately steep sides and concave base.	76, fairly firm slightly sticky mid grey-brown, lightly sandy clayey silt (silty loam). Stone and charcoal inclusions.	Lazybed furrow. Probably 18th-19thc. Fig. 8, Plates 29 and 30
16	10.0 x 0.6-0.7 x 0.1	Linear in plan. NE-SW orientated. Shallow U-shaped cut with gently curving base.	77, closely packed but friable, dark brown loamy silt with slight grainy texture, sand content. Limestone and sandstone inclusions.	Lazybed furrow. Probably 18th-19thc. Fig. 8, Plates 29 and 30

Table 2: Linear feature descriptions (Construction cuts, gullies, ditches, drains and furrows) continued

Cut No.	Dimensions (m) (length x width x depth)	Plan/Profile	Fill Nos and description	Comments
17	0.9 x 0.4 x 0.2	Irregular/sub-rectangular/sub-linear in plan. Orientation difficult to ascertain. Irregular profile with generally steep sides and flat base.	78, moderately compacted mid-brown with orange-brown mottling silt. Stone inclusions.	Lazybed furrow/pit? Probably 18th-19thc. Full extent/shape/size unknown as feature is below northern and western baulks. Fig. 8, Plates 29 and 30
18	4.40 x 0.31 x 0.05-0.13	Linear in plan. E-W orientated. Flattish top. Acute angle slope. Irregular base.	79, fairly compacted, darkish brown, sandy silt. Stone inclusions.	Lazybed furrow. Probably 18th-19thc.. Truncated by subsequent agricultural activities. Feature runs downslope from abbey to modern railway. Figs 8 and 15, Plates 29 and 30
19	5.8 x 0.38 x.0.07-0.11	Linear in plan. E-W orientated. Flattish top. Acute angle slope. Irregular base.	80, fairly compacted, darkish brown, sandy silt. Stone inclusions.	Lazybed furrow. Probably 18th-19thc.. Truncated by subsequent agricultural activities. Figs 8 and 15, Plates 29 and 30
20	4.0 x 0.45 x 0.05	Linear in plan with irregular edges. E-W orientation. Shallow, concave, very irregular.	81, moderately compact and sticky, mid grey-brown, slightly sandy clayey silt. Stone and charcoal inclusions.	Lazybed furrow. Probably 18th-19thc. Not very clear as a cut. Fig. 8, Plates 29 and 30
21	1.4 x 0.4 x 0.05	Linear in plan. E-W orientated. Shallow with gently curving/concave base.	82, close-packed but not hard, mid-tone brown with grey undertones, fine textured silty loam with sand and clay. Stone inclusions.	Lazybed furrow. Probably 18th-19thc.. Cut by furrow 16. Figs 8 and 15, Plates 29 and 30
22	2.3 x 0.5 x 0.15	Linear in plan. E-W orientated. Shallow with flattish to gently curving base.	83, close- packed but easily deformed, mid-tone brown with grey undertones, smooth-textured loamy silt with sand. Limestone inclusions.	Lazybed furrow/linear gully? Probably 18th-19thc.. Cut by furrow 16. Figs 8 and 15, Plates 29 and 30
23	2.6 x 0.6 x 0.15	Linear in plan. E-W orientation. Shallow with flattish to gently curving/concave base.	84, close-packed but not hard or plastic, dark grey-brown, smooth textured loamy silt. Limestone inclusions.	Lazybed furrow. Probably 18th-19thc..Cut by furrow 16? Figs 8 and 15, Plates 29 and 30
27	3.0 x 1.4 x 0.01-0.1	Roughly linear in plan. E-W orientated. Gentle break of slope top, gradually sloping sides and relatively flat-bottomed base.	88, friable, greyish brown, silty clay. Stone inclusions.	Lazybed furrow. Unclear feature, may truncate cut 16 or *vice versa.* Fig. 8, Plates 29 and 30

Table 2: Linear feature descriptions (Construction cuts, gullies, ditches, drains and furrows) continued

Cut No.	Dimensions (m) (length x width x depth)	Plan/Profile	Fill Nos and description	Comments
35	14 x 0.8-1.4 x 0.3	Linear in plan. NE-SW orientated. Profile varies from V- to U-shaped, and shallow. Moderately steep sides, base varying from concave to flattish.	74, relatively compact light grey-brown, almost pink silty clay with sand content. Stone inclusions.	Gully/ditch. This feature truncates cut 123 but is itself truncated by cut 108. Figs 8, 9 and 11, Plates 14 and 19
37	4.8 x 0.3 x 0.2	Linear in plan. NW-SE orientated. Steep sides and flat bottomed.	155, loose dark grey-brown, organic rich silty clay. Stone inclusions.	Drain associated with cess-pit. Figs 9, 10, 11 and 12, Plate 13
44	2.4 x 0.25 x 0.18	Linear in plan. NW-SE orientated. Nearly vertical sides and flattish base.	162, fairly loose, greyish black, wet sandy silt that becomes stonier towards cess-pit. Pebble inclusions.	Drain associated with cess-pit. Figs 9, 10 and 11, Plate 13
108	3.0 x 0.6 x 0.1	Linear in plan. E-W orientated. Steep-sided and flat bottomed.	178, loosely packed but friable, very dark grey-brown to black, fine textured silt with sand content Limestone and charcoal inclusions	Gully/modern linear feature. Truncates cut 35 and fill 74. Figs 8 and 9

Table 2: Linear feature descriptions (Construction cuts, gullies, ditches, drains and furrows) continued

Cut No.	Dimensions (m) (length x width x depth)	Plan/Profile	Fill Nos and description	Comments
123	3.5 x 1.6-1.8 x 0.9	Linear in plan. NE-SW orientated. Roughly V-shaped in profile with moderately steep sides and a curved/concave base.	Fills 193, 194, 195, 196, 197 and 198 Upper fill 193 a close bodied but friable, mid-tone grey with brown and orange mottling, sandy silt. Limestone, sandstone and charcoal inclusions. >3.0 x 1.0 x 0.2 Mid fill 194 a redeposited natural that is compact/firm but breakable, multi-hued orange/grey/pink/brown, sandy silt with heterogeneously mixed clayey silt. Limestone, sandstone and charcoal inclusions. >3.5 x 1.5 x 0.6 Mid fill 195 a close-bodied but breakable, mid-tone grey with brown undertones, smooth-textured silt with possible sand content. Limestone and charcoal inclusions. >3.5 x 1.5 x 0.6 Mid fill 196 an iron-panned deposit of close-bodied but friable, grey with orange-brown mottling, fine-textured silt. >3.0 long x 0.1 thick Mid fill 197 a compact/ close-bodied, mid-tone grey with brown mottling, heterogeneous mixed fine-textured silt with limestone and sandstone content. Limestone inclusions. >3.5 x 0.7 x 0.2 Primary fill 198 a compact plastic, mid-tone brown with orange and pink mottling/undertones, heterogeneously mixed silt and clay almost alluvial in appearance. Limestone and charcoal inclusions. >2.8 x 0.4-0.5 x 0.1	Ditch. Cuts the natural, probably an old field boundary. Medieval. Large amount of redeposited natural infilling indicating nearby excavation between excavation of 123 and 35. Figs 8 and 11, Plate 18

Table 3: Non-linear feature descriptions (Pits, postholes, stakeholes, cess egress hole, stoneholes etc)

Cut No.	Dimensions (m) (length x width x depth)	Plan Profile	Fill Nos and description	Comments
2	1.89 x 1.7 x 0.59	Roughly trapezoidal/sub-rectangular. Sharp break of slope top, sides sloping in concave fashion, flat bottomed base.	52, loose brownish grey stony gravel and brown clay with frequent stone content.	Relatively modern pit. Perhaps a boulder socket. Fig. 8
6	2.1 x 0.7-0.8 x 0.6	Oval in plan. U-shaped with steep sides and flattish base, bath-shaped longitudinally.	65, closely packed but friable, mid- to dark brown with orange undertones, heterogeneously mixed fine textured silt, with limestone content and natural lenses. Fish bone. Charcoal and mortar inclusions.	Oval pit. Underling rubble and containing limestone possibly from collapse from abbey wall. Figs 9, 10 and 14, Plates 9 and 10 Medieval in date.
9	? at least 3.2m long x 0.7 deep	Oval in plan. Steep sides and concave base.	64, firm, dark brown/grey, fine silt. Limestone and natural inclusions. 3.2 x 0.7 70, loose to moderately compact, dark brown/orange, heterogeneous redeposited natural and fine textured silt mix. Stone inclusions. Length 0.95 x 0.25	Pit associated with railway construction although the fill does contain slag. Fig. 8
13	1.10 x 0.58 x 0.42	Ovoid in plan. Steep sides with concave base.	71, loose, mid brown, silt with limestone pieces.	Stonehole? Backfilling predates west cloister wall of abbey. Figs 9 and 10, Plates 11, 12 and 13
24	1.15 x 0.65 x 0.70	Ovoid in plan. Steep sides, concave/irregular base.	85, loose, brown orange, redeposited natural with limestone content.	Stonehole? Backfilling predates cloister west wall of abbey. Figs 9 and 10, Plates 11 and 13
26	1.7 x 1.05 x 0.05-1.0	Sub-circular. Shallow with gently sloping sides.	87, friable, bluish-grey, silty clay. Stone inclusions.	Natural depression
29	Diameter 0.2 x 0.15	Sub-circular in plan. Steep sided and V-shaped.	89, close-packed but not hard, light-brown with grey undertones, smooth textured silt.	Possible stakehole. Fig. 8

Table 3: Non-linear feature descriptions (Pits, postholes, stakeholes, cess egress hole, stoneholes etc) continued

Cut No.	Dimensions (m) (length x width x depth)	Plan Profile	Fill Nos and description	Comments
30	Diameter 0.1 x 0.15	Sub-circular in plan. Near vertical sides with rounded base.	90, close-packed but not hard, mid-tone grey brown, smooth textured silt.	Possible stakehole. Fig. 8
31	Diameter 0.08 x 0.15	Sub-circular in plan. Vertical sides and flat base.	91, close–packed but not hard, mid-tone grey brown, smooth textured silt.	Possible stakehole. Fig. 8
32	Diameter 0.12 x 0.15	Sub-circular in plan. Near vertical sides and concave base.	92, close-packed but not hard, mid-tone grey brown, smooth textured silt.	Possible stakehole Fig. 8
34	0.72 wide x height 0.73	Appearance in plan difficult to ascertain. Sides and top horizontal and vertical and the base is concave.	Fills 67, 95, 96 and 97. Primary fill 67, compact- less compact, mid brown (khaki) with olive hue to reddish brown to greyish, cess base fill. Fine silt. Width 1.4 x depth 0.06 Contains very fine glass 67:10, flint 67:9 and pins 67:19-21 95, friable, light greyish brown, silty soil. Limestone inclusions. Deliberate backfill. Width 0.72 x depth 0.3 96, friable, yellowish light brown, silty soil with mortar inclusions. Deliberate backfill. Width 0.72 x depth 0.1 97, friable, light greyish brown, fine silty soil. Limestone and mortar inclusions. Deliberate backfill. Width 0.72 x depth 0.2	Egress for cess from abbey. Aligned with the cloister. Abbey kitchen lies to the south. 34 very probably post-dates wall 28. Only finely dressed stones in the entire abbey wall. Backfilled deliberately. Figs 9, 10 and 13, Plate 25
38	Diameter 0.6 x 0.4	Semi circular in plan. Steep, near-vertical sides sloping down to a gently curving/concave base.	157, friable, dark grey-brown and off-white/ bluish white, heterogeneously mixed fine textured silt with sand and limestone.	Posthole in a line of three post-holes, 38, 40 and 41 aligned N-S. Packing stones in the fill. Figs 8, 9, 10 and 11

Table 3: Non-linear feature descriptions (Pits, postholes, stakeholes, cess egress hole, stoneholes etc) continued

Cut No.	Dimensions (m) (length x width x depth)	Plan Profile	Fill Nos and description	Comments
40	0.60 x 0.48 x 0.60	Sub-rectangular in plan. Sharp break of slope top with vertical sides apart from southern side which curves in slightly concave fashion, southern side is stepped, gradual break of slope base and slightly rounded /concave base.	158, moderately compact, grey brown, silty soil. Lined with stones. Stone and charcoal inclusions.	Posthole with side stones in a line of three postholes, 38, 40 and 41 aligned N-S. Different shape and appearance to postholes 38 and 41. Figs 8, 9 and 10, Plate 21
41	0.78 x 0.61 x 0.51	Oval in plan. Steep/almost vertical sides with flattish base.	159, fairly loose, light to dark brown, sandy silty loamy soil. Stone inclusions.	Posthole in a line of three postholes, 38, 40 and 41 aligned N-S. SE side has been truncated by modern feature, Figs 8, 9 and 10
42	Diameter 0.25 x 0.17	Semi-circular in plan. Steep-sided cut with uneven gradient, near vertical sides and curved base.	160, moderately compact/close-bodied, mid-tone grey, smooth textured silt with sand content. Sandstone and limestone inclusions.	Small posthole, in line with 38, 40 and 41. ?Associated with them. Figs 8, 9 and 10
43	0.23 x 0.20 x 0.20	Circular in plan with inner sub-circular cut. Vertical sides and pointed/V-shaped base.	161, moderately compact, greyish black, wet sandy silty soil. Pebble and charcoal inclusions.	Small posthole or stakehole. Possibly feature created by root or animal activity. Fig. 10, Plate 13
45	1.85 x 1.60 x 0.35	Oval in plan. Sides vary from steep to sloping at a 45 degree angle and the base is flat.	93, close-packed but friable, dark grey-brown, smooth textured silt. Limestone and sandstone inclusions.	Ovoid pit, maybe associated with pit 6. Figs 9 and 10, Plate 10

Table 3: Non-linear feature descriptions (Pits, postholes, stakeholes, cess egress hole, stoneholes etc) continued

Cut No.	Dimensions (m) (length x width x depth)	Plan Profile	Fill Nos and description	Comments
46	1.25 x 0.66 x 0.12	Sub-square in plan. Steeply sloping sides and irregular base.	163, loose, greyish black, wet silty soil. Stone inclusions.	Possibly 2 features. Posthole and shallow pit. Figs 9 and 10
47	0.44 x 0.41 x 0.26	Sub-circular in plan. Steep sides and almost U-shaped base.	164, moderately to loosely compacted, light grey, wet silty soil. Stone and charcoal inclusions.	Posthole. Figs 9 and 10
48	Diameter 0.4 x 0.16	Circular in plan. Steep sides with flattish base.	165, friable, light grey brown, fine silt with limestone gravel inclusions.	Posthole. Aligned with 49, 100 and 102. Figs 8 and 9, Plate 14
49	Diameter 0.28 x 0.1	Circular in plan. Bowl-shaped/ concave.	166, friable, light grey brown, fine silt with limestone gravel inclusions.	Posthole. Aligned with 48, 100 and 102. Fig. 9, Plate 14
100	Diameter 0.22 x 0.13	Circular in plan. Steep sides and concave base.	167, friable, light grey brown, fine silt with limestone gravel inclusions.	Posthole. Aligned with 48, 49 and 102. Figs 8 and 9, Plate 14
101	0.40 x 0.35 x 0.2	Oval in plan. All sides near vertical apart from north side which slopes gradually to flattish base.	168, friable, light grey brown, fine silt with limestone inclusions.	Posthole. Figs 8 and 9, Plate 14
102	Diameter 0.43-0.45 x 0.2	Circular in plan. All sides slope steeply apart from east side which is vertical flat base.	169, friable, light greyish brown, fine silt with limestone inclusions.	Posthole. Figs 9 and 10, Plate 14
103	Diameter 0.06-0.07 x 0.10	Circular in plan. Vertical sides and pointed base.	170, friable, mid greyish brown with charcoal flecking, fine silt and limestone gravel. Charcoal inclusions.	Stakehole. Fig. 10
104	Diameter 0.045 x 0.05	Circular in plan. Vertical sides and pointed base.	171, friable, mid grey brown charcoal flecked, fine silt with limestone. Charcoal inclusions.	Stakehole. Fig. 10

Table 3: Non-linear feature descriptions (Pits, postholes, stakeholes, cess egress hole, stoneholes etc) continued

Cut No.	Dimensions (m) (length x width x depth)	Plan Profile	Fill Nos and description	Comments
105	Diameter 0.09 x 0.13	Circular in plan. Vertical sides with pointed base.	172, friable mid grey brown, charcoal flecked, fine silt with limestone. Charcoal inclusions.	Stakehole. Fig. 10
106	0.28 x 0.25 x 0.18	Sub-circular in plan. Sides are steep and base is concave.	173, friable, light greyish brown, fine silt with limestone and limestone gravel inclusions.	Posthole. Figs 9 and 10, Plate 14
107	Diameter 0.5 x 0.18	Semi-circular in plan. Steep/near vertical sides with flattish base.	177, friable, mid-grey brown, fine silt with limestone inclusions.	Posthole. Fig. 8
109	0.37 x 0.34 x 0.3	Oval in plan. Vertical sides with flat base.	179, friable, mid grey, fine silt with limestone and limestone gravel inclusions.	Posthole. Fig. 10, Plates 13 and 22
110	Diameter 0.3 x 0.36	Sub-circular in plan. Vertical sides with sharp breaks of slope and flattish base.	180, fairly loose, mid grey brown, silty clay with topsoil. Lined with flat limestone pieces.	Posthole lined/packed with flat limestone pieces. Fig. 10
111	0.37 x 0.28 x 0.15	Oval in plan. Steep sides and flat base.	181, friable, mid greyish brown, fine silt with limestone gravel inclusions.	Posthole. Fig. 10
112	0.4 x 0.65 x 0.4	Almost semi-circular in plan. Near vertical sides with stepped west side and irregular concave base.	182, fairly loose, light brown/orange, silty sand. Limestone and limestone gravel and charcoal inclusions.	Posthole? Figs 9, 10 and 12
113	Diameter 0.16 x 0.33	Roughly circular in plan. Sharp break of slope, sides nearly vertical and base tapers out to concave point.	183, fairly loose, light brown/orange, silty sand. Limestone and limestone gravel and charcoal inclusions.	Posthole. Figs 9, 10 and 12
114	2.15long x unknown width x 0.48	Roughly rectangular-triangular in plan. Sloping sides and base.	184, loosely compacted, greyish brown, stony, gravelly, clayey silty soil. Limestone inclusions.	Pit possibly associated with railway. Fig. 8

Table 3: Non-linear feature descriptions (Pits, postholes, stakeholes, cess egress hole, stoneholes etc) continued

Cut No.	Dimensions (m) (length x width x depth)	Plan Profile	Fill Nos and description	Comments
115	Diameter 0.07 x 0.1	Circular in plan. Very steep sides and pointed base.	185, friable, mid greyish brown, fine silt. Limestone inclusions.	Stakehole. Fig. 10
116	Diameter 0.06 x 0.08	Circular in plan. Very steep sides and pointed base.	186, friable, mid greyish brown, fine silt. Limestone inclusions.	Stakehole. Fig. 10
117	Diameter 0.07 x 0.08	Circular in plan. Near vertical sides with pointed base.	187, friable, mid-greyish brown, fine silt. Limestone gravel inclusions.	Stakehole. Fig. 10
118	Diameter 0.07 x 0.08	Circular in plan. Near vertical sides with pointed base.	188, friable, mid-greyish brown, fine silt. Limestone gravel inclusions.	Stakehole. Fig. 10
119	Diameter 0.06 x 0.07	Circular in plan. Near vertical sides with pointed base.	189, friable, mid-greyish brown, fine silt. Limestone gravel inclusions.	Stakehole. Fig. 10
120	Diameter 0.06 x 0.09	Circular in plan. Near vertical sides with pointed base.	190, friable, mid-greyish brown, fine silt. Limestone gravel inclusions.	Stakehole. Fig. 10
121	Diameter 0.07 x 0.1	Circular in plan. Near vertical sides with pointed base.	191, friable, mid-greyish brown, fine silt. Limestone gravel inclusions.	Stakehole. Fig. 10
122	Diameter 0.12 x 0.23	Circular in plan. Vertical sides with pointed base.	192, friable, mid-greyish brown, fine silt. Limestone gravel inclusions.	Stakehole. Fig. 10

Table 4: Deposit descriptions

Wall No.	Dimensions (m) (length x width x depth/height)	Plan Profile	Description	Comments
50	Present over whole site		Loose, very dark-brown; blue grey hardcore/stones, heterogeneous mix of friable silt, limestone hardware and limestone blocks. Modern industrial inclusions.	Made ground overlying original topsoil. Fig. 14
51	0.3thick (max)		Closely-packed but friable, dark chocolate brown, smooth-textured silty soil with clay content.	Buried topsoil
54	0.14-0.16 thick		Loose, grey/brown/off-white/blue-grey, sub-angular gravel admixed with brown 'organic' silt.	Made ground beneath turf layer (pea gravel). Fig. 12
55	0.1m thick		Compact but easily deformed, not hard or plastic, dark chocolate brown, fine-textured silt. Stone inclusions.	Buried topsoil? Fig. 12
56	0.1m thick		Loosely-packed, very dark brown-black soil plus bluish-white stone, heterogeneous mix of silty soil and limestone fragments.	Subsoil layer containing building rubble
57			Same as 56- loosely-packed, very dark brown-black soil plus bluish-white stone, heterogeneous mix of silty soil and limestone fragments.	Same as 56- subsoil layer containing building rubble
58	0.5 thick (max)		Loose, dark-brown-black and bluish-greyish-white, limestone rubble within a silty soil, 2 dressed stones.	Stone tumble/collapse from abbey. Fig. 12, Plates 23 and 26
59			Loose, dark grey and off-white, heterogeneous mix of fine-textured silt, sub-angular limestone fragments and other stones. Many artefacts recovered from this layer	Made ground to give level surface. Fig. 14 Modern
60	0.06m thick		Loose/friable, very dark-brown to black, fine-textured silt. Charcoal and limestone fragments.	Subsoil layer
62	1.3 x 0.5 x 0.5 (max)		Quite loose, grey, roughly cut and uncut stones.	Stone tumble/collapse from abbey
63	Extends over whole site, depth 0.05-0.4		Moderately- compact but easily deformed under pressure, orange, fine-textured sandy silt. Chert/limestone inclusions.	Natural geological deposit.
66	0.05 thick		Compact, mixed orange-brown interface overlying natural at south end of hand dug slot, essentially a mix of deposits 59 and 63.	Interface above natural

Table 4: Deposit descriptions continued

Wall No.	Dimensions (m) (length x width x depth/height)	Plan Profile	Description	Comments
68	0.02-0.05 thick		Loose, light greyish brown, gravel and silt. Limestone and sandstone inclusions.	Laid gravel deposit over rough cobbling 69
69	0.1 thick		Loose, dark grey-black, angular limestone pieces and river rolled pebbles/cobbles, soil/silt.	Rough cobbling at north end of wall slot below deposit 68. Hardstanding. Fig. 12
72	0.05 thick		Friable, mixed orange and light grey, fine silt and limestone gravel pieces. Charcoal inclusions.	Interface between natural 63 and 69. Fig. 12
75	2.3 diameter x 0.09-0.15 thick		Reasonably compact, solid, light green/yellow speckled with brown/grey, mix of natural, stone and clay overlying hardcore layer.	Mixed layer of modern hardcore and natural underlying natural. Probably formed during work on earlier car park, topsoil moved and this mixed layer placed down as foundation for modern hardcore surface 50.
94	1.5 x width? x 0.15		Closely-packed but friable, dark brown with orange undertones, smooth-textured silt. Limestone inclusions.	Deposit associated with oval pit 6?
98	Length 0.70 x width? x 0.10		Fairly loose, brown/black with grey/white mortary mix, topsoil, stones and white/grey mortar style sandy silt. Friable, greyish yellow, mortar pieces and silt. Limestone gravel inclusions.	Patch where mortar fell and lay or was mixed for osp. Mortared consolidation layer. Fig. 12
99	1.10 x width? x 0.08		Fairly compact, cream, white, fine, almost ashes, angular stones.	Lens of ash/redeposited natural. Fire-related, black layer underneath.
151	1.6 x width? x 0.2		Very compact, mortar influenced brown, limestone and mortar.	Compacted rubble deposited to fill depression?
152	0.4 x width? x 0.1		Fairly compact, light brown mortar influenced sandy silt with topsoil. Limestone inclusions.	Fill of ditch 14
154	6.2 x 0.15-0.70 thick		Compressed but relatively loose, greyish brown, stone collapse within stony clay.	Stone tumble/rubble associated with abbey
156	4.6 x depth 0.15-0.20		Friable, dark brown, silty clay topsoil. Stone inclusions.	Buried topsoil. Fig. 12

Finds

The excavation produced a total of 6038 objects (artefacts and ecofacts) with a combined weight of 75kg (including limestone roofing tile, mortar, slag and bone). These items are listed under 624 separate finds numbers. The discrepancy is explained as bone has been counted as one artefact per context.

The finds have been cleaned and have been conserved (where necessary), numbered, labelled, properly packed and will be deposited with the National Museum of Ireland in accordance with *Advice Notes for Excavators* (NMI 1997).

A catalogue of finds is given as Appendix 2.

A metal detector, operated under licence and to archaeological best practice, was used daily on site. The use of this tool substantially increased the number of recovered small metal objects.

Pottery by Clare McCutcheon

Introduction

A total of 81 sherds of ceramics were presented for study. Following identification and some reassembly, this was reduced to 71 sherds of pottery of which 2 sherds (2.8%) are medieval in date.

Methodology

The material was identified visually and the identification of each sherd has been entered on a database table (Access format - in archive) as per the requirements of the National Museum of Ireland, the body responsible for the material remains from excavations within the state.

Results

The pottery identifications are summarised in Table 5 and presented in detail in Table 6.

Table 5: Pottery identification by fabric

Fabric type	**Sherds**	***MVR***	***Form***	***Date range***
Ham Green B	1	*1*	*Jug*	*L12th-M13th*
Saintonge green glazed	1	*1*	*Jug*	*13th-14th*
Total medieval	**2**	***2***		
North Devon gravel free	6	*1*	*Pancheon*	*17th*
North Devon gravel tempered	10	*2*	*Pancheon, bowl*	*17th*
Donyatt	4	*1*	*Dish*	*17th*
Creamware	2	*1*	*Plate*	*18th*
Black glazed ware	11	*2*	*Cup, jar*	*18th/19th*
Glazed red earthenware	6	*2*	*Bowl*	*18th/19th*
Pearlware	1	*1*	*Plate*	*18th/19th*
Transfer printed ware	7	*3*	*Cup, jug, plate*	*18th/19th*
Stoneware	20	*1*	*Blacking bottle*	*19th/20th*
Chinaware	2	*2*	*Dish, bowl*	*19th/20th*
Total post-medieval	**69**	***16***		

MVR=Minumum Vessels Represented

Table 6: Pottery identification by sherd

Find No.	Links	Type	Identification	Description
E2021:36:2		Pottery	North Devon gravel tempered	Body
E2021:39:1		Drainpipe		
E2021:39:9	11	Pottery	Black glazed ware	Body
E2021:39:10		Pottery	Black glazed ware	Base
E2021:39:11	9	Pottery	Black glazed ware	Body
E2021:51:16		Pottery	North Devon gravel tempered	Handle
E2021:51:17		Pottery	North Devon gravel tempered	Base
E2021:51:18		Pottery	Transfer printed ware	Rim
E2021:51:19		Pottery	Transfer printed ware	Rim
E2021:51:20		Pottery	Creamware	Body
E2021:52:4		Pottery	Pearlware	Base
E2021:54:15		Pottery	Stoneware	Base
E2021:54:16		Pottery	Stoneware	Base
E2021:54:17		Pottery	Stoneware	Body
E2021:54:18		Pottery	Stoneware	Rim
E2021:54:19		Pottery	Stoneware	Body
E2021:54:20		Pottery	Black glazed ware	Body
E2021:54:21		Pottery	Black glazed ware	Body
E2021:55:55		Pottery	North Devon gravel tempered	Body
E2021:55:56		Pottery	Creamware	Base
E2021:55:57		Pottery	Stoneware	Body
E2021:55:58		Pottery	Transfer printed ware	Base
E2021:55:59		Pottery	Transfer printed ware	Base
E2021:55:60		Pottery	Transfer printed ware	Body
E2021:55:61	63	Pottery	Donyatt	Rim
E2021:55:62		Pottery	Donyatt	Body
E2021:55:63	61	Pottery	Donyatt	Rim
E2021:55:64		Pottery	Donyatt	Rim
E2021:55:65		Pottery	Donyatt	Body
E2021:55:66		Pottery	North Devon gravel free	Base
E2021:55:67		Pottery	Black glazed ware	Body
E2021:55:68		Pottery	Black glazed ware	Body
E2021:55:69		Pottery	Black glazed ware	Rim
E2021:55:70		Pottery	Black glazed ware	Rim
E2021:55:71	72	Pottery	North Devon gracel tempered	Rim
E2021:55:72	71	Pottery	North Devon gravel tempered	Rim
E2021:55:73		Pottery	Stoneware	Body
E2021:55:74		Pottery	Chinaware	Base
E2021:55:75		Pottery	Stoneware	Body
E2021:55:76		Pottery	Chinaware	Rim
E2021:55:77		Pottery	North Devon gravel free	Base
E2021:55:78		Pottery	Transfer printed ware	Body
E2021:56:4		Pottery	Glazed red earthenware	Body
E2021:57:2		Pottery	North Devon gravel free	Rim
E2021:58:3		Pottery	North Devon gravel tempered	Body
E2021:58:4		Pottery	North Devon gravel free	Body
E2021:58:5		Pottery	Glazed red earthenware?	Body
E2021:58:6		Pottery	Transfer printed ware	Body
E2021:58:7		Pottery	North Devon gravel free	Body
E2021:58:8		Pottery	North Devon gravel tempered	Body
E2021:58:9		Pottery	Glazed red earthenware	Rim
E2021:58:10		Pottery	North Devon gravel free	Body
E2021:59:7		Pottery	Stoneware	Base
E2021:59:8		Pottery	Stoneware	Body

Table 6: Pottery identification by sherd continued

Find No.	Links	Type	Identification	Description
E2021:59:9		Pottery	Stoneware	Body
E2021:59:10		Pottery	Stoneware	Body
E2021:59:11		Pottery	Stoneware	Body
E2021:59:12		Pottery	Stoneware	Body
E2021:59:13	14	Pottery	Stoneware	Body
E2021:59:14	13	Pottery	Stoneware	Body
E2021:59:15		Pottery	Stoneware	Body
E2021:59:16		Pottery	Stoneware	Body
E2021:59:17		Pottery	Stoneware	Body
E2021:59:18	20	Pottery	Black glazed ware	Body
E2021:59:19	22	Pottery	Black glazed ware	Body
E2021:59:20	18	Pottery	Black glazed ware	Body
E2021:59:21		Pottery	Black glazed ware	Body
E2021:59:22	19	Pottery	Black glazed ware	Body
E2021:59:23		Pottery	Stoneware	Base
E2021:59:24		Pottery	Stoneware	Body
E2021:60:4		Pottery	North Devon gravel tempered	Rim
E2021:60:5		Pottery	Glazed red earthenware	Body
E2021:71:2		Pottery	Saintonge green glazed	Body
E2021:77:10	11	Brick	Brick	Body
E2021:77:11	10	Brick	Brick	Body
E2021:77:7		Pottery	Glazed red earthenware	Base
E2021:77:8		Pottery	North Devon gravel tempered	Body
E2021:77:9		Pottery	Glazed red earthenware	Rim
E2021:81:2		Pottery	North Devon gravel tempered	Base
E2021:85:2		Pottery	Ham Green B	Body
E2021:157:1		Drainpipe		

Ham Green B (Plate 35)

The kiln at Ham Green outside Bristol, and the ware produced there, has been extensively described (Barton 1963; Ponsford 1991). Two hand-built glazed wares were produced, Ham Green A dating to *c.* 1120-1160 and Ham Green B dating to *c.* 1175-1250 and a cooking ware which appears to have been contemporary with both glazed wares (*ibid* 98).

Saintonge mottled green glazed (Plate 35)

The wares from the Saintonge region of south-west France were imported into Ireland and Britain as by-products of the extensive wine trade (Chapelot 1983; Deroeux *et al.* 1994) and, with the Ham Green wares, are likely to be found on almost every Anglo-Norman site in Ireland. The fabric of all the Saintonge wares is generally the same, a fine white micaceous fabric with occasional quartz. The mottled green glaze results from the addition of copper filings to the clear lead glaze. While the term Saintonge ware is used for these vessels, it may be that some of them, particularly this variation, may have come from the Cognac area some kilometres east of Saintes.

North Devon wares (Plate 36)

These wares were produced in the Bideford and Barnstaple areas of North Devon from the late 15th century. A large scale export trade to Ireland developed in the mid-17th century and continued to a lesser extent in the 18th century (Grant 1983). The basic fine earthenware is used in all cases, with the addition of a distinctive gravel temper for the heavier vessels. The sgraffito vessels were covered with a white clay slip through which the design was scratched appearing brown in a yellow overall glaze on firing.

Donyatt (Plate 37)

These wares were made in Somerset are closely associated with the North Devon wares. Typically the bowl from Clareabbey was in red clay, covered with a white slip and then wet sgraffito decorated.

Creamware

Two sherds of a creamware plate were recovered. This was a popular tableware of the later 18th century and was developed by Josiah Wedgwood *c.*1760 to compete with porcelain but in fact replaced tin glazed earthenware instead (Savage and Newman 1985, 88).

Black glazed ware

Eleven sherds of black glazed ware were recovered dating to the 18th/19th centuries. These vessels were widely available in Ireland and some may also have been made here. The principal source of black glazed ware, however, is Lancashire and North Wales, often termed Buckley ware. Documentary evidence shows that considerable quantities of earthenware and black earthenware were imported into Galway from Liverpool in the late 18th century (Ó Cuileáin 1958, appendix 1). The clay can be intermixed with white clay giving a marbled effect, or near stoneware in dark red/brown, or soft red earthenware. The black glaze results from the addition of iron to the overall lead glaze.

Glazed red earthenware

A variety of sherds of glazed red earthenware were recovered. The fabric is generally sandy earthenware, usually oxidised buff to light orange through to brown. The clear lead glaze takes its colour from the fabric with variations due to firing conditions (Jennings 1981, 157). These are also known as brownwares and were made widely in England and Ireland in the later 17th and 18th centuries (Dunlevy 1988, 24-5). A typical kiln was excavated at Tuam, Co. Galway with milk pans and dishes comprising a majority of the vessels (Carey and Meenan 2004).

Pearlware

The further development of creamware into pearlware, which included adding cobalt blue to the glaze, forms the basis for a variety of decorative techniques. These include transfer printing and overglaze painting.

Transfer printed ware

There are several sherds of transfer printed ware, a decorative technique developed in the mid-18th century and used on creamware pearlware and stonewares. This consisted of inking engraved copper plate, transferring the design to paper and then pressing it onto the vessel when still wet (Savage and Newman 1985, 296).

Stoneware

Stoneware was developed in the later 17th century in England to compete with the huge quantities that were imported from Germany. In the 19th and early 20th century, stoneware bottles were widely used for blacking, ink, beers and whiskeys. The sherds in this assemblage represent a single bottle, cream-coloured at the base with a brown shoulder and neck.

Chinaware

The final two sherds recovered are a rim and base sherd of undiagnostic chinaware, dating to the later 19th/20th centuries.

Metal artefacts by Miriam Carroll and Annette Quinn

Introduction

A total of 123 metal artefacts were examined. The artefact types recovered are representative of a range of activities which may have taken place on or near to the site. The use of horses is clearly evident from the recovery of horseshoes and horseshoe fragments, horseshoe nails, a rowel spur and other spur accessories. Dress accessories are represented by buckles, a button and a wound-wire headed pin. The use of the site in the seventeenth century is attested to by the recovery of a James II halfpenny while items of structural ironwork are represented by a large number of nails. A number of items which could not be readily assigned a definite classification are listed under the miscellaneous section. The artefacts recovered are discussed below according to type and general function and each section is followed by a catalogue.

Horse Equipment

A number of artefacts which relate both directly and indirectly to the use of horses on or near to the site form a significant part of this assemblage (22 artefacts or 15.9 percent). The majority of these artefacts (thirteen) consist of horseshoe nails while five horseshoes or horseshoe fragments were also recovered. Of perhaps more interest, however, is the evidence for the horse riders which is also apparent within this assemblage. One rowel spur, a rowel and an attachment for a spur leather came from the site adding to the picture of horse use in the immediate area. The items are catalogued in Table 7.

Spurs and Spur Accessories

A relatively well preserved, although incomplete, rowel spur (E2021:59:41) (Fig. 16 and Plate 38) was recovered from the excavations. The rowel spur first appeared in the thirteenth century when it was in use with the earlier prick spur. The rowel spur replaced the latter, however, and by the second quarter of the fourteenth century most spurs had rowels (Clark 2004, 127-129). According to Clark (*ibid*, 129) spurs would frequently have been wet while in use which would have resulted in the corroding together of similar metals. This in turn would have restricted the movement of rowels and may have resulted in the use of rowels made from metals other than iron (*ibid*). The rowel spur from this excavation has a small iron rowel, however, a copper alloy rowel (E2021:51:66) was also recovered from the site.

By the fifteenth century the necks of spurs were becoming increasingly longer and this was in part a reflection of a fashion trend to lengthen and point items such as the toes of shoes and boots (*ibid*). The spur from this assemblage has a relatively long neck which may be indicative of a post 15th century date for the object. The spur sides would also suggest a later medieval or later date as they project down into a moderate curve which would have placed it under the wearer's ankle but are not strongly curved. By the end of the 15th century, for example, many spur sides were 'horizontally fairly straight' (*ibid*, 130) while earlier examples displayed deep curves. The extant terminal at the end of the spur side consists of a single ring which would have held an attachment for spur leathers or a buckle.

A copper alloy rowel (E2021:51:66) (Fig. 17 and Plate 39) was recovered during the excavations. It consists of a well preserved star rowel of eight, widely spaced points. The latter are triangular-oval in section and a central perforation would have allowed attachment to a spur neck. Detached spur rowels are difficult to date closely (Ellis 1990, 1038) and simple star rowels with varying number of points have been used on spurs from the introduction of rowels in the thirteenth century until modern times (Ellis 2004, 147).

The spur leather attachment (E2021:39:13) (Fig. 18) completes the group of spur related objects recovered from the excavation. These objects held leathers either by rivets, as in this example, or by a hook which pierced the end of the leather (*ibid*, 127). The leathers were then passed around the

wearer's foot to secure the spur in place. The 'attachment' was joined to the ring or figure-of-eight spur terminals by its looped terminal or a ring.

Strap Fittings

A strap fitting, classified here as a strap-loop (E2021:59:31) is likely to have been used as part of the strap fittings for reins or other straps used for horses. Similar items recovered from the excavations at Winchester (Goodall 1990a, 1046; fig. 334:3895-7) are categorised as strap loops and according to Biddle (1990, 1044) would have been riveted to the ends of straps or reigns. The loops may have been used to attach the straps to bits, to other links or fittings which formed part of the bridle or may have been used as 'strap-distributors' with several of them fitting on to a common ring (*ibid*).

Horseshoes

One complete horseshoe (E2021:58:11), an almost complete shoe (E2021:39:15) and three horseshoe fragments (E2021:59:26, E2021:59:27 and E2021:58:13) came from mainly 18th-19th century contexts. One example (E2021:39:15) was unstratified but is likely to be post-medieval in date. While horseshoes have a long history of use from the medieval period to the present, several indicators exist which may be indicative of date. According to Goodall (1990b, 1056) thirteenth century horseshoes had broad webs (20-30mm) and countersunk nail holes which would have held nails with eared, expanded heads. They also frequently had three nail holes per branch. The later form of horseshoe (i.e., from the 14th century to the present) had rectangular nail holes and fewer calkins (*ibid*). Calkins consist of projections formed by turning down the heels of the horseshoe whose function was apparently to provide a better foothold on soft ground. After the thirteenth century the holes were generally no longer countersunk and the shoe consequently had a plain outline (Scully 1997, 474). The complete example from Clareabbey (E2021:58:13) has large rectangular nail holes (three per branch), although not countersunk and also has a wide web measuring *c*. 24mm.

A more definitive post-medieval date may be suggested for the two smaller horseshoes represented in the assemblage (E2021:39:15 and E2021:59:27). Both shoes display a feature called fullering which consists of a groove close to the outer margin of the shoe in which the nail holes were sunk (Noël Hume 1969, 237). Fullering is thought to be no earlier than 17th century in date but would appear to have continued in use on horseshoes until the nineteenth century (*ibid*, 238).

Horseshoe Nails

Thirteen horseshoe nails came from the excavations at Clareabbey. Horseshoe nails are distinctive from other general nail types in that their heads are specifically shaped and expanded for the purpose of both securing the horseshoe to the hoof and also in some cases to project beyond the surface of the shoe. A number of examples of eared horseshoe nails occur in the assemblage and also display the distinctive 'spiral clenching' at the tip of the nail. Eared nails sat in the countersunk slot of the shoe while the function of the spiral clench is thought to have been to facilitate the tightening of loose nails (Clark 2004, 87). Eared horseshoe nails with spiral clenches are known from 13th-14th century contexts in London (Clark 2004) and an example of an unclenched horseshoe nail with an expanded head was recovered from the excavations at Clontuskert Priory, Co. Galway (Fanning 1976, 140; fig. 14:75). Five horseshoe nails from Clareabbey (E2021:53:1, E2021:53:2, E020:53:3, E2021:53:6 and E2021:74:3) came from 13th-14th century contexts and one (E2021:53:3) (Fig. 18 and Plate 40) is a fine example of an eared nail with spiral clenching.

Table 7: Catalogue of horse equipment

Find No.	Material	Identification	Description
E2021:39:13	*Fe*	Spur leather attachment	L. 36.7mm, W. 15.2mm, Th. 2.9mm, D. (ring) 1.3mm. Complete. Lozenge shaped, looped terminal at one end with ring attached. Two rivets extant. Likely to have functioned as an 'attachment' for spur leathers.
E2021:39:15	*Fe*	Horseshoe	L. 60.3mm, W. (branch) 10.7mm, Th. (branch) 4.2mm. Incomplete. Small corroded horseshoe with fullering and some nail holes visible. Unstratified
E2021:51:66	*Cu Alloy*	Rowel	D. 55.7mm. Complete. Well preserved star rowel of eight widely spaced points, triangular-oval in section. Roughly central oval perforation for attachment to spur.
E2021:52:3	*Fe*	Possible horseshoe Nail	L. 34.5mm, W. (head) 10.7mm, (shaft) 5.8mm, Th. (head) 8.6mm, (shaft) 3.9mm. Complete. Rectangular shaped, expanded head with slight shoulder. Shaft rectangular in section, bent towards tip
E2021:53:1	*Fe*	Horseshoe nail	L. 21.1mm, W. (head) 11.5mm, (shaft) 5.5mm, Th. (head) 8.2mm, (shaft) 3.2mm. Incomplete. Horseshoe nail with rectangular shouldered head. Shaft broken mid-way
E2021:53:2	*Fe*	Horseshoe nail	L. 36mm, W. (head) 13.4mm, (shaft) 5mm, Th. (head) 11mm, (shaft) 4.1mm. Complete. Rectangular expanded head, possibly shouldered. Possible clenching at tip
E2021:53:3	*Fe*	Horseshoe nail	L. 30.3mm, W. (Head) 14.3mm, Th. (Shaft) 3mm. Complete. Eared horseshoe nail with a spiral clench. From 13th-14th century context
E2021:53:6	*Fe*	Horseshoe nail	L. 31.8mm, W. (head) 16.2mm, (shaft) 5mm, Th. (head) 10.4mm, (shaft) 3mm. Complete. Horseshoe nail with expanded head and ears
E2021:55:4	*Fe*	Possible horseshoe nail	L. 34.7mm, W. (head) 9.1mm, (shaft) 5.5mm, Th. (head) 9.1mm, (shaft) 2.5mm. Incomplete. Square-headed nail with slim, rectangular sectioned shaft
E2021:58:11	*Fe*	Horseshoe	L. 117.4mm, W. 107.4mm, Th. (branch) 7.9mm. Complete. Complete horseshoe with tapered branches which are slightly upturned. Six nail holes visible
E2021:58:13	*Fe*	Horseshoe fragment	L. 57.4mm, W. 19.4mm, Th. 5.1mm. Incomplete. Tapered end of horseshoe branch. Corroded
E2021:58:52	*Fe*	Horseshoe nail	L. 27.5mm, W. (head) 14mm, (shaft) 6.1mm, Th. 5.6mm. Complete. Horseshoe nail with expanded rectangular head and spiral clenching at the tip
E2021:58:54	*Fe*	Horseshoe nail	L. 35.5mm, W. (head) 11.3mm, (shaft), 5mm, Th. (head) 9.6mm, (shaft) 2.4mm. Complete. Horseshoe nail with expanded rectangular head and rectangular sectioned shaft
E2021:58:55	*Fe*	Possible horseshoe nail	L. 34.9mm, W. 7.2mm, Th. 5.9mm. Complete. Highly corroded nail with possibly expanded head
E2021:59:26	*Fe*	Horseshoe fragment	L. 64.5mm, W. 20mm, Th. 7.5mm. Incomplete. End of one branch of horseshoe with portion of one perforation visible
E2021:59:27	*Fe*	Horseshoe fragment	L. 63.9mm, W. 11.5mm, Th. 4.4mm. Incomplete. Corroded fragment of small horseshoe with two perforations extant and possible fullering
E2021:59:31	*Fe*	Strap loop	L. 42.3mm, W. (arm) 12.7mm, Th. (arm) 1.9mm. Complete. Small strap loop comprised of flat folded piece of metal. Both arms splay to wide, flat terminal. Possible rivet extant. Corroded

Table 7: Catalogue of horse equipment continued

E2021:59:41	*Fe*.	Rowel spur	L. 133.5mm, (neck including rowel) 6.5mm, W. 48.4mm, Th. (neck) 10mm, (side) 5.1mm. Incomplete. Rowel spur with straight neck. D-sectioned sides at angle with neck to pass under wearer's ankle. Single ring terminal on one side, opposing side broken. Neck oval in section, tapers to end where 7 star rowel remains attached by rivet. Relatively sharp points, rectangular in section.
E2021:73:26	*Fe*	Horseshoe nail	L. 32.1mm, W. (head) 11.2mm, (shaft) 4.6mm, Th. (head) 4.4mm, (shaft) 4.2mm. Incomplete. Expanded head, shaft rectangular in section. Possible clenching at tip.
E2021:74:3	*Fe*	Horseshoe nail	L. 40.4mm, W. (head) 13.2, (shaft) 5mm, Th. (head) 8.1mm, (shaft) 4.6mm. Complete. Expanded head with ears also apparent. Corroded
E2021:77:2	*Fe*	Horseshoe nail	L. 45mm ,W. (Head) 13.3mm, Th. (Shaft) 3.3mm. Complete. Eared horseshoe nail. 18th-19th century context
E2021:77:3	*Fe*	Horseshoe nail	L. 30.8mm, W. (head) 13mm, (shaft) 7.5mm, Th. (head) 11.4mm, (shaft) 7.5mm. Incomplete. Expanded, shouldered head. Possible clenching at tip (broken).

Coins

One coin dating to the late seventeenth century was recovered from a 20th century context at Clareabbey (Table 8). The coin consists of a James II Halfpenny which was minted in Limerick when the city was under siege from William III forces in 1691 (Plates 41 and 42).

Under the reign of James II a mint was established at the Deanery in Limerick in May of 1690 under Commissioner Walter Plunkett (Colgan 2003, 149). The Duchess press was sent to Limerick with a set of obverse and reverse dies and punches that are distinguishable from the coins struck at Dublin from the same year (*ibid*). A proclamation of June 1690 called for all large shillings and half-crowns struck before May of the same year to be replaced by new smaller coins in an attempt to make supplies of metal go further (*ibid*). Small shillings were struck in Dublin in May and June of 1690 and also at Limerick in April, May and September, however, the decision to reduce the size of coinage further diminished public confidence in James's brass money (*ibid*, 151). Political and military events then came to a head with the Battle of the Boyne which saw William III defeat James II's army on the 1st July 1690. The majority of James's forces withdrew to Limerick, however, William pursued them and laid siege to the city. The War of the Kings continued into 1691 when the second siege of Limerick occurred and heralded the final stage in the history of James II's emergency coinage (*ibid*, 153). Behind the walls of Limerick the duchess press re-coined large and small shillings into halfpennies and farthings to meet the needs of the besieged city. The coins which are known as 'Hibernias' feature a portrait of James II on the obverse and the figure of Hibernia on the reverse and are the first coins to feature the figure of Hibernia (*ibid*). The halfpenny, as seen on the Clareabbey example, has a reversed 'N' in the word Hibernia.

Table 8: Catalogue of coins

Find No.	Material	Identification	Description
E2021:50:3	*Cu Alloy*	Coin	D. 26.3mm, Th. 1.2mm, Wt. 5.2g. Complete. Conserved. James II Halfpenny. Obverse shows bust facing left and legend reads IACOBVS·II·GRATIA· Reverse depicts Hibernia facing left with her left hand resting on harp and right hand raised holding a cross. Legend reads HIBERNIA 1691. Reversed 'N' in Hibernia.

Dress Accessories

Dress accessories were represented by buckles, a button fragment and several pins (Table 9).

Buckles

One iron buckle (E2021:39:5) (Fig. 17, Plate 43), a buckle frame fragment (E2021:54:4) and two possible buckle pin fragments (E2021:67:19 and E2021:60:2 (Plate 44)) were recovered from the excavations at Clareabbey. The size and form of buckles used in the medieval and post-medieval period varied widely and they also had a variety of functions. The smaller forms are generally thought to have been used on both men and women's clothing but were also used as stirrup buckles. In the post-medieval period small buckles were also used on shoes. Larger examples may have been used as part of horse equipment although it is known that large buckles were also used with swords and occasionally for men and women's waist belts (Egan and Pritchard 2002, 50). The size of the almost complete buckle from Clareabbey (E2021:39:5) may suggest that it was originally used as a belt buckle as it is probably too small to have been used as horse equipment and is too large to have functioned as a shoe buckle. According to Noël Hume (1969, 86), however, belt buckles are often indistinguishable from light ornamental horse harness buckles. Goodall (1990c, 526) suggests that the wide variety of D-shaped buckles from Winchester and Britain in general indicates that this form was an all-purpose type. The example from Clareabbey is unstratified.

Buttons

One button fragment (E2021:58:16) came from an 18th/19th century context at Clareabbey. The button consists of a fairly large flat disk of white metal with a looped eye in a boss. It is probable that the button was cast with the eye in place. The button is post-medieval and according to South's typology of buttons (after Noël Hume 1969, 90-2) is likely to be 18th/19th century in date.

Pins/needles

One wound-wire headed pin (E2021:67:20) (Plate 45), a fragmented pin (E2021:67:21) and three needle/pin shafts (E2021:58:19, E2021:58:20 and E2021:58:21) came from the Clareabbey excavations. The latter are classified here as possible needle/pin shafts due to the lack of a diagnostic head or eye. The wound-wire headed pin is a complete example of copper alloy and was recovered from a 15th-17th century context. Wound-wire headed pins were used in England and Ireland throughout the medieval period and appear to have become more abundant in the archaeological record during the 14th and subsequent centuries. The heads of wound-wire pins were made by twisting a length of wire around the shank in either a Z or S-direction (Egan and Pritchard 2002, 301). Two twists were usual and would appear to suggest that a uniformity of head wire length was in use throughout the industry (*ibid*). A wound-wire headed pin was recovered from a post-medieval context in Waterford city (Scully 1997, 453; fig. 15:5:5) and a number of examples came from medieval and post-medieval contexts in Cork city (Carroll and Quinn 2003, 274-5; fig. 5:9:2-6). Such pins are thought to have had a variety of functions including fastening clothes, fixing women's head-dress and pinning papers (*ibid*).

Table 9: Catalogue of dress accessories

Find No.	Material	Identification	Description
E2021:39:5	*Fe*	Buckle	L. 49.8mm ,W. 35.4mm, Th. 5.4mm. Incomplete. D-shaped buckle, now broken. Frame rectangular in cross section. Pin extant, rectangular in cross section tapers to blunt point.
E2021:54:4	*Fe*	Buckle frame fragment	L. 34.2mm, W. 33.4mm, Th. 5mm. Incomplete. Fragment of possible rectangular buckle frame. Corroded.
E2021:58:16		Button fragment	D. 28.4mm, Th. 1mm. Incomplete. Flat disk button with looped eyelet
E2021:58:19	*Fe*	Needle/pin shaft	L. 82mm, D. 2.3mm. Incomplete. Possible needle/pin shaft, bent and corroded.
E2021:58:20	*Fe*	Needle/pin shaft	L. 64.4mm W. 2.3mm Th. 2mm. Incomplete. Possible needle/pin shaft, corroded.
E2021:58:21	*Fe*	Needle/pin shaft	L. 40mm, D. 1.9mm. Incomplete. Possible needle/pin shaft, head missing. Tapers to rounded point at one end. Shaft circular in section, bent
E2021:60:2	*Fe*	Possible buckle pin	L. 61.1mm, W. 6.4mm, Th. 4.3mm. Incomplete. Rectangular in section, tapers to slightly rounded point. Possible buckle pin.
E2021:67:19	*Cu Alloy?*	Pin shaft/buckle pin fragments	L. 40.3mm, D. 2.8mm. Incomplete. Possible pin shaft in two pieces. Appears to consist of folded/rolled metal. Tapers to a rounded tip
E2021:67:20	*Cu Alloy*	Wound-wire headed pin	L. 20.2mm, D. (Head) 1.1mm, (Shank) 0.4mm. Complete. Fine wound-wire headed pin with spherical head. Shank bent towards tip, circular in section
E2021:67:21	*Cu Alloy*	Pin fragments	L. 22mm, D. (Head) 2mm, (Shank) 0.8mm. Incomplete. Fragmented pin. Shank circular in section. Possible solid head.

Domestic Equipment

A number of items which may have been used in a domestic context were recovered from the excavations (Table 10). Two rings (E2021:39:6 (Plate 46) and E2021:58:15) may have been used in a domestic setting but also could have been part of horse equipment. A fragment of a flat copper alloy object (E2021:154:2) may represent the remains of a plate/vessel rim (Fig. 19 and Plate 47). A highly corroded iron knife blade (E2021:59:25) was recovered from an 18th-20th century context. The tang of the knife is not extant therefore it is not known whether it was a whittle or scale tang knife, nor is it possible to classify it further. A possible handle (E2021:55:7) (Fig. 17) is composed of three strips of iron held together by seven white metal rivets and also came from a post-medieval context.

A small strip of window lead (E2021:55:8) was recovered from an 18th/19th century context. From the 17th century windows that were glazed utilised glass which was cut into small diamonds, rectangles and squares known as ‘quarries’ (Noël Hume 1969, 233). The quarries were then mounted in grooved strips of lead anchored to iron frames which in turn were nailed to wooden casements (*ibid*). Window lead is also known as ‘turned lead’ but should not be referred to as window cames as this is the name given to the cast H-sectioned lead rods prior to being drawn by the glazier to produce the flexible lead used in windows (*ibid*).

Table 10: Catalogue of domestic equipment

Find No.	Material	Identification	Description
E2021:39:6	*Cu Alloy*	Ring	D. 27.7mm, W. 3.1mm, Th. 2.7mm. Complete. Annular ring, lozenge-shaped in section. Possible domestic or horse equipment. Unstratified
E2021:55:7	*Fe*	Composite iron object	L. 52.6mm, W. 10.6mm, Th. 8mm. Incomplete Composite object comprising three strips held together by seven white metal rivets. Oval in section, although damage apparent to both outer strips. Possible handle
E2021:55:8	*Pb*	Window Lead	L. 42.1mm, W. 7.8mm, Th. 4.5mm. Incomplete. Strip of window lead, now flattened
E2021:58:15	*Fe*	Ring	L. 41.2mm, W. 28.9mm, Th. 3.9mm. Complete. Oval ring, rectangular in section. Corroded
E2021:59:25	*Fe*	Knife blade	L. 110.2mm, W. 18.4mm, Th. 4.9mm. Incomplete. Corroded knife blade with slightly curving back, blade possibly curving also. Tang not extant. 18th/20th century context
E2021:154:2	*Cu Alloy*	Possible plate/vessel rim	L. 46.9mm, W. 12mm, Th. 1.2mm. Incomplete. Thin strip of metal with incised line on either side. Possibly portion of vessel or plate rim. (18th/19th century).

Structural Ironwork and Fittings

The majority of objects classified under this section consist of nails and nail shafts (62 items – Table 11). Where nail heads were extant they largely consisted of flat, sub-rectangular or sub-circular heads with some domed examples also present. While different nail types can be identified through their distinct heads (e.g. horseshoe nails) and/or size little can be said of the typological development of nails with rectangular or circular heads which continued in use form the medieval period through to the nineteenth century. The examples from Clareabbey may have had a variety of uses in numerous types of timberwork and came from a range of contexts dating from the 13th-14th century through to the 19th/20th century. It is possible that some of the earlier nails derived from the roofing of the abbey.

A 'U'-shaped staple (E2021:52:2) and a possible example (E2021:58:18) are also included in this section and were recovered from 18th/19th century contexts. The former is rectangular/square in section and both arms taper to a point. The possible 'U'-shaped staple is rectangular in section and one arm is bent out of shape. Staples such as these were used to secure fastenings to wood and items of furniture (Carroll and Quinn 2003, 279).

Table 11: Catalogue of structural ironwork and fittings

Find No.	Material	Identification	Description
E2021:39:7	*Fe*	Nail	L. 40.8mm, W. (head) 7mm, (shaft) 4.5mm, Th. (head) 5.1mm, (shaft) 3.9mm. Complete. Club-headed nail. Shaft rectangular in section, tapers to a point
E2021:39:12	*Fe*	Nail	L. 51.2mm, W. (head) 15.1mm, (shaft) 6.8mm, Th. (head) 15.1mm, (shaft) 5.9mm. Complete? Domed square head, shaft rectangular in section. Corroded
E2021:51:2	*Fe*	Nail	L. 49.3mm, W. (head) 10.6mm, (shaft) 5.4mm, Th. (head) 7.7mm, (shaft) 4.8mm. Complete. Slightly expanded, flat rectangular headed nail. Shaft rectangular in section, tapers to a blunt point.
E2021:51:3	*Fe*	Nail	L. 50.5mm, W. (head), 11.7mm, (shaft) 3.8mm Th. (head) 9.1mm, (shaft) 3.7mm. Complete. Slightly domed, sub-rectangular head. Shaft rectangular in section, tapers to a point
E2021:51:4	*Fe*	Nail	L. 74.1mm, W. (head) 13.6mm, (shaft) 5.6mm, Th. (head) 12mm, (shaft) 4.7mm. Complete. Slightly domed, sub-rectangular head. Shaft rectangular in section, tapers to a blunt point.

Table 11: Catalogue of structural ironwork and fittings continued

E2021:51:5	*Fe*	Nail	L. 60.7mm, W. (head) 9.9mm, (shaft) 6.7mm, Th. (head) 8.5mm, (shaft) 5.1mm. Complete. Flat, rectangular headed nail. Shaft rectangular in section. Corroded
E2021:51:6	*Fe*	Possible nail shaft	L. 41.9mm, W. 3.9mm, Th. 3.2mm. Incomplete. Rectangular in section. Bent mid-way
E2021:51:7	*Fe*	Nail Shaft	L. 33.4mm, W. 6.4mm, Th. 4.6mm. Incomplete. Rectangular in section, tapers to a blunt point. Head missing.
E2021:51:8	*Fe*	Nail	L. 52.6mm, W. (head) 17mm, (shaft) 9.5mm, Th. (head) 11.4mm, (shaft) 6.6mm. Complete but fragmented. Highly corroded and fragmented nail with sub-rectangular head and rectangular sectioned shaft
E2021:51:9	*Fe*	Nail shaft	L. 43.4mm, W. 4.5mm, Th. 4mm. Incomplete. Shaft rectangular in section, highly corroded
E2021:51:10	*Fe*	Nail shaft	L. 46.7mm, W. 5.8mm, Th. 4.7mm. Incomplete. Rectangular in section, highly corroded
E2021:51:11	*Fe*	Nail Shaft	L. 22.3mm, W. 3.4mm, Th. 3.3mm. Incomplete. Highly corroded
E2021:52:2	*Fe*	'U'-shaped staple	L. 40mm, W. (arms) 4.9mm. Complete. Rectangular/square in section. Arms taper a point. Highly corroded with accretions
E2021:53:4	*Fe*	Nail Shaft	L. 47mm, W. 4.5mm, Th. 3.8mm. Incomplete. Rectangular in section, tapers to a point, bent
E2021:53:5	*Fe*	Nail	L. 50.9mm, W. (head) 15.6mm, (shaft) 5.3mm, Th. 4.1mm. Complete. Flat sub-circular headed nail. Shaft rectangular in section tapers to a point
E2021:53:7	*Fe*	Nail	L. 39.7mm, W. (head) 15.9mm, (shaft) 6.7mm, Th. (head) 9.5mm, (shaft) 5.1mm. Complete. Flat, sub-rectangular headed nail. Shaft rectangular in section, tapers to a point
E2021:54:5	*Fe*	Nail	L. 42mm, W. (head) 7.4mm, D. (shaft) 3.1mm. Incomplete? Flat, sub-circular head. Shaft circular in section, bent mid-way
E2021:55:2	*Fe*	Nail	L. 48.3mm, W. (head) 11.3mm, (shaft) 5.1mm, Th. (head) 7.4mm, (shaft) 4.4mm. Complete. Flat, sub-rectangular head. Shaft rectangular in section, tapers to a blunt point
E2021:55:3	*Fe*	Nail	L. 43.6mm, W. (head) 8.1mm, (shaft) 3.7mm, Th. (head) 4.8mm, (shaft) 3.7mm. Complete. Domed head, oval - sub-circular in shape. Shaft square in section.
E2021:55:5	*Fe*	Nail	L. 33.9mm, W. (head) 11mm, (shaft) 6mm, Th. (head) 8.7mm, (shaft) 4.8mm. Complete. Flat, sub-circular head. Shaft rectangular in section, tapers to a blunt point
E2021:55:6	*Fe*	Nail Shaft	L. 32.9mm, W. 7mm, Th. 6.7mm. Incomplete. Rectangular sectioned nail shaft, highly corroded
E2021:58:18	*Fe*	Possible 'U'-shaped staple	L. 32.9mm, W. 4.6mm, Th. 3.5mm. Complete. Possible 'U'-shaped staple with one arm bent out of shape. Both arms taper to rounded points. Rectangular in section
E2021:58:22	*Fe*	Nail	L. 80.7mm, W. 7.9mm, Th. 6.4mm. Incomplete. Large nail with flat, possible sub-rectangular head (broken). Shaft rectangular in section.
E2021:58:23	*Fe*	Nail	*Fe*. L. 68.2mm, W. 6.5mm, Th. 4.7mm. Complete. Nail with flat, possible sub-rectangular head. Shaft rectangular in section.
E2021:58:24	*Fe*	Nail	L. 58.4mm, W. 5.6mm, Th. 3.9mm. Complete. Nail with flat, sub-rectangular head. Shaft rectangular in section, slight bend towards tip.
E2021:58:25	*Fe*	Nail	L. 53.3mm, W. 5.8mm, Th. 5mm. Complete. Nail with flat, sub-circular head. Shaft rectangular in section
E2021:58:26	*Fe*	Nail	L. 42mm, W. 3.5mm, Th. 2.6mm. Complete. Nail with flat, sub-circular head. Shaft rectangular in section
E2021:58:27	*Fe*	Nail	L. 24.4mm, W. 3.8mm, Th. 2.1mm. Complete. Small nail with flat, sub-circular head (broken). Shaft rectangular in section.

Table 11: Catalogue of structural ironwork and fittings continued

E2021:58:28	*Fe*	Nail	L. 26mm, W. (head) 10mm, (shaft) 6.7mm, Th. (head) 8.5mm, (shaft) 4mm. Incomplete. Slightly expanded rectangular head. Shaft broken at tip
E2021:58:29	*Fe*	Nail	L. 78.5mm, W. 6.1mm, Th. 4.9mm. Incomplete. Large nail with flat, possible sub-rectangular head (broken). Shaft bent towards tip
E2021:58:30	*Fe*	Nail	L. 58.9mm, W. 6.3mm, Th. 6.7mm. Complete. Nail with flat, sub-circular head. Shaft rectangular in section and slightly bent towards tip
E2021:58:31	*Fe*	Nail	L. 67mm, W. 7mm, Th. 5.8mm. Complete. Large nail with flat, sub-rectangular head. Shaft bent towards tip
E2021:58:32	*Fe*	Nail	L. 59.5mm, W. 6.8mm, Th. 6.6mm. Complete. Large nail with flat, possible sub-circular head. Shaft rectangular in section and slightly bent towards tip
E2021:58:34	*Fe*	Nail	L. 44.7mm, W. 6.2mm, Th. 3.6mm. Complete. Crutch-headed nail, shaft rectangular in section. Highly corroded.
E2021:58:33	*Fe*	Nail	L. 51.7mm, W. 4.7mm, Th. 4.2mm. Complete. Nail with flat, sub-circular head. Shaft rectangular in section, bent towards tip
E2021:58:36	*Fe*	Nail	L. 40.5mm, W. 6.8mm, Th. 3.6mm. Complete. Nail with expanded head set laterally to the shaft
E2021:58:37	*Fe*	Nail	L. 37.9mm, W. 5.3mm, Th. 3.6mm. Incomplete. Shaft rectangular in section, head largely missing. Corroded and fragmented
E2021:58:38	*Fe*	Nail shaft	L. 45.4mm, W. 5.5mm, Th. 4.9mm. Incomplete. Highly corroded nail shaft, head not extant.
E2021:58:39	*Fe*	Nail shaft	L. 24.4mm, W. 6.3mm, Th. 3.7mm. Incomplete. Corroded nail shaft, head not extant
E2021:58:40	*Fe*	Nail shaft	L. 28.7mm, W. 7.4mm, Th. 6.1mm. Incomplete. Corroded nail shaft, head not extant
E2021:58:41	*Fe*	Nail shaft	L. 30.7mm, W. 4mm, Th. 3.9mm. Incomplete. Corroded nail shaft, head not extant
E2021:58:42	*Fe*	Nail shaft	L. 48mm, W. 6mm, Th. 5.7mm. Incomplete. Corroded and bent nail shaft, head not extant
E2021:58:43	*Fe*	Possible nail shaft	L. 31mm, W. 5.4mm, Th. 3.6mm. Incomplete. Rectangular in section
E2021:58:44	*Fe*	Nail	L. 78.3mm, W. 8.6mm, Th. 6.7mm. Complete. Large nail with flat, possible sub-circular head (corroded). Shaft rectangular in section
E2021:58:45	*Fe*	Nail	L. 71.4mm, W. 5.6mm, Th. 4.7mm. Complete. Large nail with flat, sub-circular head. Shaft rectangular in section
E2021:58:46	*Fe*	Nail	L. 49.2mm, W. 7.2mm, Th. 5mm. Incomplete. Fragmented and corroded nail with possible expanded head.
E2021:58:47	*Fe*	Nail shaft	L. 55.1mm, W. 12.4mm, Th. 11mm. Incomplete. Highly corroded nail shaft, head not extant.
E2021:58:48	*Fe*	Nail	L. 36.8mm, W. 5.5mm, Th. 3.7mm. Incomplete. Corroded and fragmented nail.
E2021:58:49	*Fe*	Possible nail shaft	L. 38.4mm, W. 6mm, Th. 3.8mm. Incomplete. Possible nail shaft, head not extant. Bent and corroded.
E2021:58:50	*Fe*	Nail	L. 37.7mm, W. 8mm, Th. 4.1mm. Complete. Nail with expanded head. Highly corroded
E2021:58:51	*Fe*	Nail	L. 40mm, W. 8.3mm, Th. 5.4mm. Complete. Highly corroded nail with possible rectangular head and rectangular sectioned shaft
E2021:58:53	*Fe*	Nail	L. 32.7mm, W. 6.9mm, Th. 6.7mm. Complete. Corroded nail, head type unknown
E2021:58:56	*Fe*	Nail	L. 31.7mm, W. 3.9mm, Th. 3.6mm. Complete. Crutch-headed nail, shaft rectangular in section

Table 11: Catalogue of structural ironwork and fittings continued

E2021:59:28	*Fe*	Nail	L. 73mm, W. 7.7mm, Th. 7.3mm. Complete. Large nail with flat, sub-circular head. Shaft bent towards tip.
E2021:59:29	*Fe*	Nail	L. 60mm, W. 4.2mm, Th. 3.7mm. Incomplete. Corroded nail with remnants of possible flat, circular head
E2021:59:30	*Fe*	Nail	L. 41.3mm, W. 4.5mm, Th. 4.1mm. Complete. Possible horseshoe nail, head highly corroded
E2021:67:2	*Fe*	Nail	L. 52mm, W. 5.7mm, Th. 4.1mm. Complete. Nail with flat, possible sub-rectangular head. Shaft rectangular in section. Corroded
E2021:67:18	*Fe*	Nail shaft	L. 29.3mm, W. 4mm, Th. 2.6mm. Incomplete. Corroded nail shaft, head not extant
E2021:67:22	*Fe*	Nail shaft	L. 35.3mm, W. 6.9mm, Th. 2.8mm. Incomplete. Corroded nail shaft, head not extant.
E2021:68:2	*Fe*	Possible nail shaft	L. 45.9mm, W. 2.7mm, Th. 2.2mm. Incomplete. Corroded, head not extant
E2021:97:2	*Fe*	Nail	L. 54.7mm, W. 7.2mm, Th. 4.7mm. Complete. Nail with flat, possible sub-rectangular head. Shaft rectangular in section. Corroded with accretions at tip.
E2021:153:2	*Fe*	Possible Nail shaft	L. 38mm, W. 6.7mm, Th. 5.1mm. Incomplete. Corroded nail shaft, rectangular in section. Head not extant.
E2021:161:2	*Fe*	Possible nail shaft	L. 21mm, W. 4.9mm, Th. 3.6m. Incomplete. Highly corroded possible nail shaft, head not extant
E2021:177:2	*Fe*	Nail	L. 41mm, W. 5.2mm, Th. 4.2mm. Complete. Crutch-headed nail, shaft rectangular in section

Miscellaneous

A number of items which are not readily classifiable due to their fragmentary state or which are undiagnostic are included here (Table 12). A total of 20 objects whose precise function could not be determined are listed below with a basic description. The copper alloy wire fragments (E2021:67:15) and possible gun pellet (E2021:67:24) both came from a context dated to the 15th-17th century. A number of objects were unstratified, while others were recovered from 18th/19th century contexts.

Table 12: Catalogue of miscellaneous metal items

Find No.	Material	Identification	Description
E2021:39:2		Miscellaneous	L. 45mm, W. 25.1mm, Th. 4.8mm. Complete? Undiagnostic metal object. Possible by-product of metal working?
E2021:39:3		Miscellaneous	L. 37.4mm, W. 20.8mm,. 6.7mm. Complete? Undiagnostic metal object. Possible by-product of metal working?
E2021:39:4	*Pb?*	Miscellaneous	L. 33.1mm, W. 16.5mm, Th. 3mm. Incomplete. Undiagnostic metal object. Possible by-product of metal working?
E2021:39:14		Miscellaneous	L. 16.4mm, W. 14mm, Th. 3.7mm. Incomplete. Undiagnostic metal object. Possible by-product of metal working?
E2021:50:2	*Fe*	Miscellaneous	L. 116mm, W. 13.8mm, Th. 4.1mm. Incomplete. Fragment of curved metal bar, concave in section. Possible handle fragment?
E2021:54:2	*Fe*	Miscellaneous	L. 265mm, W. 31.1mm, Th. 5.5mm. Incomplete. Flat strip of iron, bent at one end. Opposing end slightly curved. Undiagnostic
E2021:54:3	*Fe*	Miscellaneous	L. 44mm, W. 23.5mm, Th. 1.8mm. Incomplete. Fragment of iron strip with regularly spaced linear grooves on one surface. Function unknown
E2021:58:12	*Fe*	Miscellaneous	L. 77.4mm, W. 12.5mm, Th. 5.6mm. Incomplete. 'L'-shaped iron bar, rectangular in section. Possible handle fragment
E2021:58:14	*Fe*	Miscellaneous	L. 42.8mm, W. 15mm, Th. 2.3mm. Incomplete. Fragment of metal strip, undiagnostic

Table 12: Catalogue of miscellaneous metal items continued

E2021:58:17	*Cu Alloy*	Miscellaneous	L. 21.7mm, W. 11.3mm, Th. 1.2mm. Incomplete. Fragment of copper alloy strip now curved. One bevelled edge. Broken at either end
E2021:58:35	*Fe*	Bar	L. 64.6mm, W. 6.3mm, Th. 5.1mm. Complete? Corroded metal bar, function unknown
E2021:60:11	*Cu Alloy*	Miscellaneous	L. 7.3mm, W. 4mm, Th. 2.5mm. Incomplete. Tiny fragment of undiagnostic object.
E2021:67:3	*Cu Alloy?*	Miscellaneous	L. 20.2mm, W. 13.2mm, Th. 8.7mm. Incomplete. Lump of undiagnostic metal
E2021:67:15	*Cu Alloy*	Copper alloy wire fragments	D. 3.3mm, Th. 0.6mm. Incomplete. Numerous fragments of copper alloy wire, some portions of which are looped and twisted. Function unknown.
E2021:67:24	*Pb?*	Gun Pellet?	D. 4.2mm. Complete. Small spherical metal pellet, slightly flattened on one side
E2021:71:3	*Fe*?.	Miscellaneous	L. 27.1mm, W. 22mm, Th. 6.8mm. Incomplete. Undiagnostic fragment of porous substance
E2021:77:4	*Fe*	Miscellaneous	L. 29.7mm, W. 7.6mm, Th. 4.3mm. Incomplete. 'L' shaped object, broken at on end. Opposing end splays to slightly rounded terminal. Undiagnostic
E2021:77:5	*Fe*	Miscellaneous	L. 51mm, W. 10.3mm, Th. 7.1mm. Incomplete? 'L'-shaped object similar to E2021:77:4 although corroded
E2021:81:1		Miscellaneous	L. 21.8mm, W. 16.1mm, Th. 6.5mm. Incomplete. Lump of undiagnostic metal
E2021:151:2	*Fe*	Miscellaneous	L. 54.8mm, W. (head) 14.4mm, W. (shaft) 4.2mm, Th. (shaft) 3.5mm. Complete. Rectangular in section. Tapers to blunt point, opposing end splays to spatula-shaped head. Possible unfinished buckle pin? (Fig. 18)

Stone Artefacts by Michelle Comber

Whetstones

A whetstone is a piece of 'abrasive rock used to sharpen metal objects' (O'Connor 1991, 45). Common finds on archaeological excavations, hundreds have been recovered from ringfort / cashel enclosures. A large range of shapes and sizes is known, with only one attempt having made to classify them (O'Connor 1991). A large percentage of whetstones (approximately 50% or more) are found in a fragmentary state. Most are worked to a roughly regular, block-like shape of rectangular cross-section, averaging 70-150mm in length, reflecting a hand-held tool (*ibid*, 51). O'Connor identified four different groups of whetstones and five different forms of wear, each representing different sharpening tasks (*ibid*, 51-7).

The two examples from Clare Abbey, when complete, probably fell within the typical size range of hand-held whetstones identified by O'Connor. Neither their shapes nor patterns of wear are unusual.

<u>E2021:51:59 Whetstone fragment</u>
Small block of stone, broken in antiquity. Rectangular in shape, and roughly square in section. All angles are gently rounded, and the four large faces are quite smooth. In addition, the faces bear numerous small scratch marks of varied depth and orientation. One long angle is moderately chipped. The combination of smooth surfaces and haphazard scratches suggests that this piece formed part of a slightly longer whetstone used for sharpening blade edges by rubbing the stone along the blade. The stone was originally longer, though still relatively small and portable.
45.2mm x 15.5mm x 14.6mm

E2021:77:34 Whetstone fragment
Small block of stone, broken at one end. An elongated triangle in shape, and rectangular in section, it tapers to a blunt, broad 'point' at the intact end. All angles are rounded, though two adjacent long angles are very smooth, and the two broad faces are moderately smooth. Haphazard scratches are also visible on these two surfaces and on the side between the smoothed angles, with a couple of deeper gouges located roughly mid-way along one broad face. It is clear that one side, and the two broad faces of this piece have been used as a whetstone, to sharpen a metal blade by rubbing the stone along the blade face, near its edge. The surviving fragment suggests the original artefact was somewhat longer, though still relatively small and portable.
61.7mm x 23.6mm x 11.4mm

Carved fragment

E2021:158:4 Carved fragment (Fig. 20)
Small fragment of very finely-carved sandstone. The surviving piece is sub-triangular in shape and irregular in section. It formed part of a rectangular piece of stone with a rectangular recess carved in its finely-smoothed surface. This recess held at least one circular perforation – evident in the carved arc present on this piece. The smooth surface of the stone continues over the surviving sides of the piece. It is, however, broken along the top, diagonally through the perforation, and in thickness. The function of the original very carefully-made object is uncertain, whether practical or decorative in nature. It most likely originates from a relatively small, portable object such as a church font.

22mm broad at surface x 17.6mm surviving 'height' x 8.7mm maximum surviving thickness. 7.3mm diameter of perforation. 1.6mm depth of rectangular recess.

Stone roof tile by Edel Ruttle

A collection of one whole roof tile and 37 roof tile fragments was examined. The majority of the material was collected by hand, with only one fragment coming from a sieved sample. The highest quantity of material came from ditch 14, yielding 11 fragments; this was followed by nine fragments from context 58, tumble in the abbey wall slot. All the stone is sandstone. The assemblage is detailed in Table 13.

Description of the material

Whole roof tile

The tile (E2021:58:93) is mid grey coloured sandstone, both faces are flat and it is edge trimmed. There is a perforation or peg hole, for holding the tile in place with a peg, 8mm in diameter 70mm from the left edge, 140mm from the right edge and 30mm from the top of the tile. A particular feature of this tile is that the vertical edges are grooved to allow overlapping of tiles. The left edge is grooved to fit under its neighbour, while the right side is grooved to fit over its neighbour.

Roof tile fragment with double perforation

One fragment of roof tile has two perforations, E2021:58:88. The fragment has a peg hole at either vertical side and both are 15mm in diameter. The tile is broken at the peg holes. The tile is mid grey coloured sandstone with two spots of orange staining and is flat.

Roof tile fragments with perforations

Eleven roof tile fragments had a single perforation, six of which were broken at the perforation. All the tiles were flat grey coloured sandstone except three. Two fragments (E2021:58:85 and E2021:59:38) were blackened reddish colour possibly because they were heat affected. Tile fragment

E2021:53:12 (Fig. 20) was discoloured orange on the underside of the tile however, this discolouration seems natural and not due to heat action. The perforations were either 8mm or 10mm in diameter. Some of tiles displayed possible edges.

Roof tile fragments

The remaining material is fragmented. They are all flat and range from grey to dark blue sandstone. Again, some of the tiles had possible edges. One fragment has a concave groove that could be a weathered break or a feature of the tile.

Table 13: Catalogue of stone roof tile

Find No.	Cut	Deposit	Sample	Description	Weight (g)	Dimensions (mm)
E2021:53:12	3	53	-	Roof tile fragment with perforated hole 8mm in diameter	841	185 x 150 x 15
E2021:55:95	-	55	-	Roof tile fragment	295	125 x 55 x 15-20
E2021:55:96	-	55	-	Roof tile fragment with perforated hole 10mm in diameter	221	85 x 65 x 20
E2021:55:97	-	55	-	Roof tile fragment with broken perforation 8mm in diameter	594	135 x 130 x 20
E2021:55:98	-	55	-	Roof tile fragment, large	802	195 x 130 x 15
E2021:55:99	-	55	-	Very small fragment of roof tile	7	30 x 20 x 7
E2021:58:85	-	58	-	Roof tile fragment with perforated hole 10mm in diameter, possibly heat-affected	122	100 x 50 x 20
E2021:58:86	-	58	-	Roof tile fragment with broken perforation 10mm in diameter	174	85 x 80 x 15
E2021:58:87	-	58	-	Roof tile fragment with perforated hole 8mm in diameter	358	120 x 90 x 15
E2021:58:88	-	58	-	Large roof tile fragment, with two broken perforations 15mm in diameter	1100	175 x 170 x 15-20
E2021:58:89	-	58	-	Roof tile fragment	1515	200 x 150 x 10-20
E2021:58:90	-	58	-	Roof tile fragment	1201	150 x 140 x 20-25
E2021:58:91	-	58	-	Roof tile fragment	790	185 x 110 x 15-20
E2021:58:92	-	58	-	Roof tile fragment with concave edge	954	180 x 150 x 15
E2021:58:93	-	58	-	Large complete roof tile with perforated hole 8mm in diameter	2304	230 x 220 x 15
E2021:59:38	-	59	-	Roof tile fragment with perforation, not complete to get a diameter, heat-affected	48	50 x 35 x 15
E2021:59:39	-	59	-	Possible roof tile fragment	71	90 x 65 x 6
E2021:59:40	-	59	-	Roof tile fragment	258	110 x 80 x 12
E2021:60:9	-	60	-	Roof tile fragment with perforated hole 10mm in diameter	578	143 x 100 x 15
E2021:60:10	-	60	-	Roof tile fragment with perforated hole 8mm in diameter	786	175 x 140 x 13
E2021:67:14	34	67	5	Possible roof tile fragment	15	40 x 40 x 5
E2021:73:10	14	73	-	Roof tile fragment	40	45 x 50 x 7
E2021:73:11	14	73	-	Roof tile fragment	19	35 x 30 x 7
E2021:73:15	14	73	-	Roof tile fragment	189	90 x 80 x 10

Table 13: Catalogue of stone roof tile continued

E2021:73:16	14	73	-	Roof tile fragment	329	100 x 85 x 20-25
E2021:73:17	14	73	-	Roof tile fragment	499	110 x 110 x 20
E2021:73:18	14	73	-	Roof tile fragment with perforated hole 10mm in diameter	178	75 x 70 x 18
E2021:73:19	14	73	-	Roof tile fragment	66	78 x 41 x 10
E2021:73:20	14	73	-	Roof tile fragment	75	70 x 45 x 11
E2021:73:21	14	73	-	Roof tile fragment	177	85 x 60 x 13
E2021:73:22	14	73	-	Roof tile fragment	50	60 x 53 x 8
E2021:73:23	14	73	-	Roof tile fragment	53	58 x 43 x 9
E2021:77:35	16	77	-	Roof tile fragment	260	140 x 90 x 10
E2021:83:4	22	83	-	Roof tile fragment	201	88 x 80 x 20
E2021:83:5	22	83	-	Roof tile fragment	150	85 x 50 x 16
E2021:84:4	23	84	-	Roof tile fragment	91	90 x 50 x 10
E2021:84:5	23	84	-	Roof tile fragment	27	45 x 40 x 8
E2021:155:4	37	155	-	Roof tile fragment	18	37 x 29 x 7

Dimensions are at widest point

Sources of sandstone

The collection of stone tiles has characteristic mollusc trails (particularly seen on E2021:60:9) and dimpling indicative of Moher slates from the West Clare area, particularly from the Liscannor and Doonagore quarries (Halpin 2003). This type of slate is quarried from Liscannor to the Shannon Estuary. This part of West Clare is situated on the Central Clare Group of Namurian shale, sandstone, siltstone and coal. Clare Abbey itself is situated on thick bedded Ailwee and Maumcaha group of limestone formations (GSI 1999).

Discussion

It is seemingly apparent that the source of sandstone for the tiles was at least 30km away from the site. River transport would not be possible from the quarry to the abbey and so either labourious road transport was undertaken or perhaps sea transport was used and then the materials were brought via the River Fergus. A very similar roofing tile was recovered from Kilfiddane Church 25km to the south-west and the tile is thought to be medieval in date (County Clare Museum website, artefact 2000.197).

Ceramic Building Material and Mortar by Alan Vince

Introduction

The material is catalogued in Table 14.

Description of the assemblage

Mortar

Five samples of mortar, retrieved from archaeological deposits, were submitted, ranging in size from a small piece weighing 1gm to a large sample of 873gm (two fragments). All the fragments appear to have the same composition and contain abundant subangular gravel of unknown lithology. The larger fragments have flat surfaces which might either be wall facing or the impressions of ashlar blocks, although the lack of tooling marks makes the latter unlikely.

Ridge Tile

A small fragment from a ridge tile was submitted. The fragment has a fine, inclusionless groundmass The core is reduced grey and the surfaces and margins are oxidized. Spots of plain glaze are present on the upper surface. Such ridge tiles were used on Anglo-Norman structures in Ireland from the later 13th to the 16th or 17th centuries.

Brick

Sixteen fragments of brick were submitted and these could be divided into two groups based on an examination of their fabric at x20 magnification.

The first group, consisting of fourteen of the fragments, is composed of a calcareous, silty clay with whitened surfaces (salt surfacing) indicating that it was made from a calcareous salt-rich clay. Some of the fragments have moderate impressions of straw in the body but no other inclusions are present. One of the fragments has a slightly coarser texture than the remainder. Some of the fragments have a moulding sand on their bases and sides composed of well-rounded quartzose sand.

This sand is visually extremely close to that found in the Severn Valley around Worcester and it is possible that this fabric is indeed imported from Western England.

The second group consists of two fragments which contain moderate angular rock inclusions, amongst which visually chert appears to be present.

The ridge tile and the brick fragments could be of medieval or early post-medieval date and the bricks are very similar to those used in the 15th century at Tewkesbury Abbey and Llanthony Secunda Priory, Gloucester, both of which appear to have been produced at Worcester.

No brick was observed, however, in any part of the upstanding abbey.

Field Drain

Five fragments of field drain were submitted. All have a similar appearance, and were made from a fine, calcareous, clay and have smooth surfaces, inside and out. The field drains are of a type which became common in England in the mid 19th century and these are probably no earlier. Whether these are local or imported is uncertain to the author, but again good parallels exist in the Bristol Channel, for example at Bridgewater, where such fine calcareous clays were utilised.

Table 14: Catalogue of ceramic building material and mortar

Find No.	Cut	Deposit	Class	Cname	Subfabric	Description	Form	Part	Nosh	NoV	Weight (g)
E2021:39:16		39	CBM	Mtil	Silty calcareous; salt surfaced; moderate straw voids	Fine rounded quartz moulding sand	Brick	BS	1	1	272
E2021:50:4		50	CBM	Pmtil	Iron-rich clay pellets; fine calcareous groundmass; sparse straw voids	Moulded	Field drain	BS	1	1	38
E2021:50:5		50	CBM	Pmtil	Iron-rich clay pellets; fine calcareous groundmass; sparse straw voids	Moulded	Field drain	BS	1	1	8
E2021:50:6		50	CBM	Pmtil	Iron-rich clay pellets; fine calcareous groundmass; sparse straw voids	Moulded	Field drain	BS	1	1	1
E2021:50:7		50	CBM	Pmtil	Iron-rich clay pellets; fine calcareous groundmass; sparse straw voids	Moulded	Field drain	BS	1	1	0.5
E2021:51:60		51	CBM	Mtil	Silty calcareous; salt surfaced		Brick	BS	1	1	7
E2021:51:61		51	CBM	Mtil	Silty calcareous; salt surfaced	Fine rounded quartz moulding sand	Brick	BS	1	1	35
E2021:51:62		51	CBM	Mtil	Silty calcareous; salt surfaced		Brick	BS	1	1	5
E2021:51:63		51	CBM	Mtil	Silty calcareous; salt surfaced		Brick	BS	1	1	2
E2021:51:64		51	CBM	Mtil	Silty calcareous; salt surfaced		Brick	BS	1	1	0.5
E2021:51:65		51	CBM	Pmtil	Iron-rich clay pellets; fine calcareous groundmass	Moulded	Field drain	BS	1	1	17
E2021:55:86		55	CBM	Mtil	Silty calcareous; salt surfaced		Brick	BS	1	1	26
E2021:55:87		55	CBM	Mtil	Silty calcareous; salt surfaced		Brick	BS	1	1	27
E2021:55:88		55	CBM	Mtil	Silty calcareous; salt surfaced		Brick	BS	1	1	18
E2021:55:89		55	CBM	Mtil	Silty calcareous; salt surfaced		Brick	BS	1	1	11
E2021:55:90		55	CBM	Mtil	Angular rock fragments <3.0mm		Brick	BS	1	1	5
E2021:55:91		55	CBM	Mtil	Silty calcareous; salt surfaced		Brick	BS	1	1	4
E2021:55:92		55	CBM	Mtil	Coarse silty calcareous; salt surfaced		Brick	BS	1	1	1
E2021:55:93		55	CBM	Mtil	Angular rock fragments <3.0mm		Brick	BS	1	1	0.1
E2021:58:78		58	CBM	Mtil	Silty calcareous; salt surfaced		Brick	BS	1	1	13
E2021:59:34		59	CBM	Stone	Sparry limestone		Geo	BS	1	1	14
E2021:59:35		59	CBM	Mtil	Silty calcareous; salt surfaced		Brick	BS	1	1	4
E2021:59:36		59	CBM	Mtil	Inclusionless groundmass; sparse quartz and calcareous inclusions	Plain glaze spots; oxidised surfaces; grey core	Ridge	BS	1	1	2
E2021:93:2	45	93	Stone	Stone	Crinoidal limestone		Geo	BS	1	1	37
E2021:93:3	45	93	Stone	Stone	White/light grey micrite		Geo	BS	1	1	9
Sample 47	14	151	Mortar	Mortar	Abundant subangular gravel <5.0mm		Mortar	BS	13	1	702

Table 14: Catalogue of ceramic building material and mortar continued

Sample 48		59	Mortar	Mortar	Abundant subangular gravel <5.0mm		Mortar	BS	2	1	873
Sample 49	34	97	Mortar	Mortar	Abundant subangular gravel <5.0mm		Mortar	BS	1	1	1
Sample 50		68	Mortar	Mortar	Abundant subangular gravel <5.0mm		Mortar	BS	6	1	58
Sample 51	14	153	Mortar	Mortar	Abundant subangular gravel <5.0mm		Mortar	BS	2	1	41

Iron slag by Lynne Keys

Just over 18kg of material which had been categorised as slag was examined for this report. Most had been recovered by hand but some was found in soil samples taken on site. The assemblage was examined by eye and categorised on the basis of morphology alone. Each slag or other material type in each context was weighed; smithing hearth bottoms were individually weighed and measured to obtain statistical information. Quantification data are given in Table 15 in which weight (wt.) is shown in grams; length (len.), breadth (br.) and depth (dep.) in millimetres.

Activities involving iron can take two forms:
1) *Smelting* is the manufacture of iron from ore and fuel in a smelting furnace. The resulting products are a spongy mass called an unconsolidated bloom (iron with a considerable amount of slag still trapped inside) and slag (waste). The latter may take various forms depending on the technology used: tap slag, run slag, dense slag, or furnace slag.

2a) *Primary smithing*: hot working (by a smith using a hammer) of the bloom on a stringhearth (usually near the smelting furnace) to remove excess slag. The bloom becomes a rough lump of iron ready for use; the slags from this process include smithing hearth bottoms and micro-slags, in particular tiny smithing spheres.

2b) S*econdary smithing:* hot working, using a hammer, of one or more pieces of iron to create or repair an object. As well as bulk slags, including the smithing hearth bottom, this generates micro-slags: hammerscale flakes from ordinary hot working of a piece of iron (making or repairing an object) or tiny spheres from high temperature welding to join or fuse two pieces of iron.

Although the Clareabbey assemblage contained small quantities of both smelting slag and smithing slag, most of the slag was undiagnostic, i.e. could not be assigned to either process. This was either because of its morphology or because it had been broken up during deposition, re-deposition or excavation. Other types of debris in the slag assemblage may be the result of a variety of high temperature activities – including domestic fires – and cannot be taken on their own to indicate iron-working was taking place; these include fired clay, vitrified hearth lining and cinder.

The diagnostic smelting slag (tap slag) was found in very small quantities in fills of ditch 123 which are thought to be medieval in date. The smithing slag was found in features in Phase II (most noticeably) and later. Five smithing hearth bottoms had been found in gully 35 as well as a tiny amount of hammerscale, mostly flake. As gully 35 cut into the fills of ditch 123 there is the possibility that material may be re-deposited, in particular the undiagnostic slag which might represent smelting. The latter slag had large burnt-out wood or charcoal voids visible in the fragments but these could equally be medieval smithing hearth bottoms. Owing to the small amount of hammerscale the smithing activity does not appear to have taken place nearby.

Table 15: Quantification of iron slag

Find No.	Cut	Deposit	Sample	Slag description	Weight (g)	len	br	dep	Comment	No pieces
E2021:51:67		51		Undiagnostic	79					
E2021:51:67		51		Slag run	15					
E2021:51:68		51?		Undiagnostic	102					
E2021:51:69		51?		Undiagnostic	46					
E2021:51:69		51?		Smithing hearth bottom	200	80	75	35		
E2021:53:13	3	53		Slag run	17					
E2021:53:14	3	53	1	Undiagnostic	1					
E2021:58:94		58		Vitrified hearth lining	74					

Table 15: Quantification of iron slag continued

E2021:58:94		58		Iron rich undiagnostic	111					
E2021:59:42		59		Tap slag	36					
E2021:59:42		59		Undiagnostic	495					
E2021:59:42		59		Undiagnostic	744					
E2021:63:4	6	63		Undiagnostic	205				Silica rich	
E2021:63:4	6	63		Undiagnostic	1193					1
E2021:63:4	6	63		Undiagnostic	29					
E2021:64:5	9	64		Cinder	37					
E2021:64:5	9	64		Smithing hearth bottom	1073	145	115	45		
E2021:64:6	9	64	2	Undiagnostic	15					
E2021:65:2	6	65	3	Undiagnostic	148					1
E2021:65:2	6	65	3	Undiagnostic	38					
E2021:65:4	6	65	4	Undiagnostic	18					
E2021:66:4		66		Undiagnostic	95					
E2021:66:4		66		Cinder	13					
E2021:67:12	34	67	5	Undiagnostic	1					
E2021:67:13	34	67	5	Fired clay	3					
E2021:69:2		69		Iron rich undiagnostic	98					
E2021:69:2		69		Undiagnostic	153				Part of smithing hearth bottom?	
E2021:73:24	14	73		Undiagnostic	12					
E2021:73:25	14	73	20	Undiagnostic	1					
E2021:74:4	35	74		Cinder	26					
E2021:74:4	35	74		Magnetic residue	7				Tiny amount hammerscale flake & other heat magnetised material	
E2021:74:4	35	74		Smithing hearth bottom	1108	150	140	50		
E2021:74:4	35	74		Smithing hearth bottom	483	110	90	55		
E2021:74:4	35	74		Smithing hearth bottom	1251	150	125	50		
E2021:74:4	35	74		Smithing hearth bottom	641	120	120	50		
E2021:74:4	35	74		Smithing hearth bottom	413	110	80	40		
E2021:74:4	35	74		Undiagnostic	1148				** Lots burnt-out charcoal voids	
E2021:74:4	35	74		Undiagnostic	963				**	1
E2021:74:4	35	74		Undiagnostic	191				Dribbley run with lots burnt-out charcoal voids	
E2021:74:4	35	74		Undiagnostic	1678				One fragment	1
E2021:74:4	35	74		Undiagnostic	2174					18
E2021:74:4	35	74		Undiagnostic	461					
E2021:74:5	35	74	32	Undiagnostic	46				** Dribbley	
E2021:74:5	35	74	32	Hammerscale	0				One sphere	

Table 15: Quantification of iron slag continued

E2021:74:5	35	74	32	Undiagnostic	1					
E2021:77:36	16	77		Iron rich undiagnostic	27					
E2021:78:2	17	78	11	Undiagnostic	1					
E2021:88:1	27	88		Undiagnostic	293					1
E2021:93:4	45	93	17	Undiagnostic	4				Run	
E2021:153:3	14	153	22	Undiagnostic	17					
E2021:157:2	38	157	14	Undiagnostic	1					
E2021:158:2	40	158		Undiagnostic	871				** Probably smelting	1
E2021:158:3	40	158	16	Residue	2				Microslags and burnt clay	
E2021:159:3	41	159		Undiagnostic	112					
E2021:159:4	41	159	15	Undiagnostic	2					
E2021:164:2	47	164	24	Undiagnostic	1					
E2021:165:2	48	165		Undiagnostic	20					
E2021:168:1	101	168		Undiagnostic	192				** Possibly smelting	
E2021:168:2	101	168	29	Vitrified hearth lining	1					
E2021:174:2	14	174		Undiagnostic	3					
E2021:174:2	14	174		Undiagnostic	196				Possibly smithing hearth bottom	
E2021:175:7	14?	175		Tap slag	258				**	
E2021:175:8	14	175	28	Undiagnostic	2					
E2021:176:2	14	176		Run cinder	6					
E2021:176:3	14	176		Run cinder	11					
E2021:176:3	14	176		Undiagnostic	43					
E2021:177:3	107	177	30	Cinder	2					
E2021:178:1	108	178	31	Undiagnostic	1					
E2021:184:1	114	184	36	Cinder	2					
E2021:194:2	123	194		Undiagnostic	81				**	
E2021:195:2	123	195		Tap slag	36					
E2021:195:2	123	195		Undiagnostic	73					
E2021:195:2	123	195		Undiagnostic	227				Possibly part of smithing hearth bottom	
E2021:195:3	123	195	38	Undiagnostic	1					
E2021:197:2	123	197		Run cinder	1					
E2021:197:3	123	197		Runs	41					
E2021:197:4	123	197	37	Undiagnostic	5					

Flint, chert and quartz by Steve Ford

A collection comprising 100 lithic items was submitted for identification recovered from twenty contexts (Table 16). The collection mostly comprised items of quartz with one item of flint and one of chert.

The only certainly humanly worked pieces are those of flint and chert. The flint flake is made from brown flint with a large grey cherty inclusion (Plate 48). The flake is mostly cortical with a thin slightly rough cortex. The item made from a dark grey/ black fine grained chert is broken and as such it is not clearcut if this piece was a deliberately manufactured flake.

The remaining material is quartz. Three large lumps of quartz have a crystal structure of variable-sized crystals and are most ill-suited for flaking with any degree of predictability. The majority of the remaining pieces of quartz show no obvious patterns of deliberate flaking either as cores or as flakes. Whether these lumps are a product of deliberate breakage, with use of whatever shapes luck brought someone, is unclear.

Three lumps of quartz with what appear to be fresher breaks than the remainder of the lump may possibly be cores. These pieces by analogy with the techniques of the flaking of flint and chert have the correct juxtaposition of a face for flaking and striking platform. One piece of flattish quartz is possibly a flake. Characteristics of flake scars, such as bulbs of percussion are not, though, clearly marked as quartz does not, by and large, exhibit conchoidal fractures and there is clearly some doubt as to the authenticity of these pieces. It is also possible that even if any flakes produced are considered as valid, there is no certainty that their production were a deliberate intention. Yet the material can produce sharp edges (Knight 1991) and its presence here in areas where the natural material does not outcrop but may be found locally in drift deposits (Briggs 1988) could suggest it was brought to the site and used.

Table 16: Catalogue of flint, chert and quartz

Find No.	Cut	Deposit	Description	Weight (g)
E2021:51:21-51:58		51	36 lumps quartz. No flake scars observed	853
E2021:53:11	3	53	Lump quartz. Not obviously flaked	3
E2021:55:79-55:85		55	7 lumps quartz. Not obviously flaked	47
E2021:58:74-58: 77		58	4 lumps quartz. Not obviously flaked	95
E2021:59:32-59:33		59	2 lumps quartz. Not obviously flaked	38
E2021:60:6-60:7		60	2 lumps quartz. Not obviously flaked	19
E2021:60:8		60	1 lump quartz, possibly flaked	66
E2021:63:3		63	1 lump quartz. Not obviously flaked	299
E2021:64:3-64:4	9	64	2 lumps quartz. Not obviously flaked	46
E2021:67:9	34	67	Flint flake, brown with large grey cherty inclusion. Mostly cortical. Thin slightly rough cortex 27mm x 23mm	4
E2021:67:16	34	67 (sample 5)	Chert flake (probably) 26mm x 20mm	3
E2021:73:3	14	73	1 lump quartz, possibly flaked	43
E2021:73:4-73:9	14	73	6 lumps quartz. Not obviously flaked	96
E2021:74:2	35	74	Lump quartz. Not obviously flaked	6
E2021:77:12-77:25	16	77	14 lumps quartz. No flake scars observed	220
E2021:77:26	16	77	1 lump quartz, possibly a flake	1
E2021:77:27-77:33	16	77	7 lumps quartz. No flake scars observed	10
E2021:82:1-82:3	21	82	3 lumps quartz. No flake scars observed. The lumps have a mixture of medium sized and smaller crystals. Most improbable to have been selected for flaking as most unpredictable flaking properties	773
E2021:83:2	22	83	1 lump quartz. Not obviously flaked	16
E2021:83:3	22	83	1 lump quartz, possibly flaked	39
E2021:84:2-84:3	23	84	2 lumps quartz. Not obviously flaked	11
E2021:154:3		154/63	1 lump quartz. Not obviously flaked	24
E2021:159:2	41	159	1 lump quartz. Not obviously flaked	6
E2021:176:4-176:6	14	176	3 lumps quartz. Not obviously flaked	48

Quartz and flint some comments by Graham Hull

Ninety-eight pieces of white or clear quartz crystal, weighing 2759 grammes were recovered. Some of the quartz pieces are very good crystals. The majority of the quartz was found in modern features and

deposits but nine derived from medieval features. The local geology is limestone bedrock and glacial till, buried by deep alluvium eastwards towards the River Fergus and the quartz therefore would have been imported. Certainly many of the pieces of quartz are attractive objects (Plate 49) and may well have been collected and brought to the site, but of these 98 pieces, only four were possibly flaked and it therefore is unlikely that the quartz was worked.

The presence of quartz pebbles in close proximity to a medieval religious establishment is not without parallel. Notable examples include the excavations on Inis Cealtra, 30km to the east of Clare Abbey (and within the same diocese) at St. Michael's enclosure (de Paor 1997) and at the medieval St Michael's Church on Illaunloughan Island, Co. Kerry (White Marshall and Walsh 2005). At both sites, handfuls of quartz pebbles were included with infant burials. At Ardfert, Co. Kerry (Moore 1989) eight quartz pebbles were found in a grave associated with a medieval cathedral.

Further afield, monastic burials, with significant quartz pebble inclusions, have been excavated at the Cistercian abbey of St Mary, Rushden, Isle of Man (Butler 1988) and at later 13th to mid 15th century Whithorn Priory, Galloway, Scotland (Hill 1997).

There were nine pieces of human bone recovered from the excavation at Clare Abbey. This is not remarkable as the excavation was immediately adjacent to the cloister - an area reserved for burial of the priests and monks. It is reasonable to assume that the human bone and quartz derived from disturbed graves dating to pre-Reformation times.

Gilchrist and Sloane (2005, 144-5) suggest that the incorporation of quartz with burials is common in Western Britain and Ireland from later Iron Age to early Christian times and may have continued into the later medieval period. 'In the tradition of lapidaries, stones were sometimes used as protective amulets by the living, and this practice may have extended to their inclusion with the dead.' (*ibid*). The 12th century nun Hildegard of Bingen observed that the devil hates and avoids all gemstones because they remind him of Jerusalem (Jolly et al 2002, 35). The Revelations of St John (21:11) state that '[Jerusalem's] light is like unto a stone most precious, even like a jasper stone, clear as crystal'. In this context it is worth noting that the Irish for quartz is *grianchloch* literally 'sun stone'

The single flint flake E2021:67:9 (Plate 48), given its findspot within a cess-pit, may have been an artefact, perhaps part of 'strike-a-light' for making spark to set a fire. The possibility that the flint was a 'gun-flint' was considered but rejected given the unsuitable shape of the object.

Glass by Edel Ruttle

Thirty-nine pieces of glass were examined (Table 17). The majority of the material was collected by hand, except for four pieces which were retrieved from sieving. The highest quantity of material came from context 55, buried topsoil, yielding 25 fragments. A maximum of four bottles, seven vessels and six windows are represented in this assemblage. The material was examined and features identified that give an indication of the date and type of manufacture (Banks 1997 and Hedges 1975)

Bottle glass:
Three bottle bases are represented in the assemblage and these show considerable differences. Base sherd E2021:55:51 is clear with an aqua tinge and has an unusual square or rectangular kick-up. No pontil marks are evident and the surface is not patinated. Co-joined pieces E2021:55:52 and E2021:55:53 form the base of a bottle with a rounded kick-up. The kick-up has splayed lines radiating around it and no pontil marks are evident. The glass is clear in colour and the surface is patinated. It is probable the bottle was cylindrical in shape.

Bottle base E2021:64:2 is dark green in colour and has a uniform kick-up suggesting it was made in a mould. No pontil marks are evident. The surface of the glass is not patinated and the material is thicker

and appears to be more modern than the other bases. The surviving sides indicate a cylindrical bottle shape.

Finds E2021:55:30 to E2021:55:46 are the same material and thickness and although none of the pieces co-join it is likely that they come from the same bottle.

Window glass:
Eight small fragment of colourless window glass was recovered. The pieces have no original edges and range from 1mm to 2mm thick.

Curved glass:
A piece of curved glass came from the sieving of context 67. This piece of glass is moulded and post-medieval.

Table 17: Catalogue of glass

Find No.	Cut	Deposit	Description	Comment
E2021:55:30	-	55	Dark green bottle body sherd	E2021:55:30 to E2021:55:46 are probably from the same bottle
E2021:55:31	-	55	Dark green bottle body sherd	
E2021:55:32	-	55	Dark green bottle body sherd	
E2021:55:33	-	55	Dark green bottle shoulder/neck sherd	
E2021:55:34	-	55	Dark green bottle body sherd	
E2021:55:35	-	55	Dark green bottle body sherd	
E2021:55:36	-	55	Dark green bottle body sherd	
E2021:55:37	-	55	Dark green bottle body sherd	
E2021:55:38	-	55	Dark green bottle body sherd	
E2021:55:39	-	55	Dark green bottle body sherd	
E2021:55:40	-	55	Dark green bottle body sherd	
E2021:55:41	-	55	Dark green bottle body sherd	
E2021:55:42	-	55	Dark green bottle body sherd	
E2021:55:43	-	55	Dark green bottle body sherd	
E2021:55:44	-	55	Dark green bottle body sherd	
E2021:55:45	-	55	Dark green bottle body sherd	
E2021:55:46	-	55	Dark green bottle body sherd	
E2021:55:47	-	55	Light green vessel body sherd	
E2021:55:48	-	55	Clear vessel body sherd	
E2021:55:49	-	55	Clear vessel body sherd	
E2021:55:50	-	55	Clear, with aqua tinge, bottle body sherd	
E2021:55:51	-	55	Clear, with aqua tinge, bottle base sherd	Kick-up
E2021:55:52	-	55	Clear bottle base sherd	Kick-up
E2021:55:53	-	55	Clear bottle base sherd	Co-joins with E2021:55:52
E2021:55:54	-	55	Decaying vessel body sherd	
E2021:58:2	-	58	Colourless window glass fragment	
E2021:59:3	-	59	Clear, with aqua tinge, vessel body sherd	
E2021:59:4	-	59	Clear vessel body sherd	
E2021:59:5	-	59	Decaying vessel body sherd	
E2021:59:6	-	59	Decaying vessel body sherd	
E2021:64:2	9	64	Dark green bottle base sherd	Kick-up
E2021:65:3	6	65	Colourless window glass fragment	From sample 3
E2021:67:5	34	67	Decaying window glass fragment	
E2021:67:6	34	67	Colourless window glass fragment	
E2021:67:7	34	67	Colourless window glass fragment	
E2021:67:8	34	67	Colourless window glass fragment	
E2021:67:17	34	67	Decaying window glass fragment	From sample 5
E2021:67:25	34	67	Cleared curved glass fragments	From sample 5
E2021:67:33	34	67	Colourless window glass fragment	From sample 5

Glass vessel by Ed Bourke

Catalogue

E2021:67:10 and 67:26-32 (Fig. 21 and Plate 50) Beaker. Rim and body sherds (28 sherds, 21 of which co-join) of a tall beaker decorated with red, white and black *vetro a fili* (glass with threads) marvered (marver = glassblowing tool) trails, marvered into a lightly ribbed (vertical) mould. Rim simple and thickened. Base ring and base missing.

Height: 154.7mm Rim Diameter: 105mm Thickness: 0.4-1.5mm

From cess-pit adjacent to the cloister.

Comparanda

While glass beakers were common in the medieval period the products described as *façon de Venise* (in the manner of Venice) did not begin to arrive until the late 15th century (Tyson 2000, 97).

Wilmott defines the type as a cylindrical beaker with coloured trailing, usually white or blue. These he dates to the second half of the 16th and first half of the 17th century. He points out that although these are traditionally regarded as products of Venice these vessels are common in the Low Countries from where they are more likely to have come (Wilmott 2002, 40).

Drahotová depicts a precise parallel for this vessel from the collections of the Museum of Decorative Arts, Prague. The vessel, a beaker with white, red and black trails is provenanced to the Netherlands *c*. AD 1600 (Drahotová 1983, 57).

While glass vessels are not common on Irish ecclesiastical sites of the period, a *Façon de Venise* glass tazza (shallow saucer-like dish either mounted on a stem and foot or on a foot alone) came from a similar context at Kells Priory, County Kilkenny (Bourke 2007, 443).

The context here is from a cess-pit adjacent to the cloister and from below a clay pipe dating to the 1640s so a date somewhere between 1600 and 1640 would seem appropriate for this vessel.

Clay tobacco pipe by Edel Ruttle

Thirty-three pieces of clay tobacco pipe were examined (Table 18). All the material was collected by hand with the highest quantity of material from context 55, (buried topsoil) yielding sixteen fragments; this was followed by six fragments from context 58 (tumble in the abbey wall slot). A maximum of 29 clay tobacco pipes are represented in this assemblage.

The only complete bowls in the assemblage (E2021:55:14 and E2021:58:79-82, Fig. 22) are both post 1640 as they have a milled ring at the top of the bowl (Ayto 1994, 4). Both bowls are comparable to ones found at King John's Castle, Limerick (Sweetman 1980), Charlotte's Quay, Limerick (Lynch 1984) and at Barrack Lane, Galway (Fitzpatrick *et al* 2004). There were 116 pipe bowls found at King John's Castle and they were catalogued as six groups. Group 5 compares well to the Clare Abbey examples and are dated to 1680-1710. At Charlotte's Quay a clay pipe bowl, forward sloping and milled at the rim, is dated to 1660-80. The Galway pipe had a castle stamp with the initials 'FI', as had some of the Limerick ones. These pipes are manufactured in Limerick and are dated to c.1660-90.

The incomplete bowl (E2021:66:2) has a stamped heel (Fig. 22). The stamp is of a cross with a circle inside the cross. There are five dots; one in each quarter segment and one in the middle of the cross. This stamp is similar to a 'wheel stamp' found on a clay pipe from John Street, Limerick (Hodkinson

2006), though it is not identical. The heel developed from 1660-1680 and the marking of pipes by stamping them on the heel starts at the beginning of the seventeenth century.

Clay pipes were imported into Ireland as early as the last decade of the sixteenth century after the introduction of tobacco to Ireland by Sir Walter Raleigh. The rapid spread of pipe smoking in Ireland is most likely due to its use by soldiers (Norton and Lane 2007).Irish style clay pipes are not obvious in the Irish record until around the middle of the seventeenth century.

Table 18: Catalogue of clay tobacco pipe

Find No.	Cut	Deposit	Identification	Dimensions	Weight (g)	Comment
E2021:51:12	-	51	Bowl fragment	24mm long bowl (broken), 5mm thick	1	
E2021:51:13	-	51	Stem fragment	30mm long fragment, 9mm diameter stem, 3mm diameter bore	2	
E2021:54:13	-	54	Stem fragment	19mm long fragment, 8mm diameter stem, 3mm diameter bore	2	
E2021:54:14	-	54	Stem fragment	32mm long fragment, 8mm diameter stem, 2mm diameter bore	2	
E2021:55:14	-	55	Bowl Co-joins with E2021:58:83	37mm tall, 15mm external and 11mm internal diameter of bowl	8	Complete bowl. Part of spur attached. Milled just below the rim.
E2021:55:15	-	55	Bowl fragment	30mm long bowl (broken), 4mm thick	3	
E2021:55:16	-	55	Bowl fragment	18mm long bowl (broken), 3mm thick	<1	
E2021:55:17	-	55	Stem fragment	37mm long (broken), stem 12mm diameter at thickest and 7mm diameter at thinnest, bore 2mm diameter at thickest and 3mm at thinnest part of stem	5	Stem widens to where it would join bowl
E2021:55:18	-	55	Stem fragment	30mm long (broken), oval cross-section 11mm x 9mm at thickest and 9mm x 8mm at thinnest, 2mm diameter bore	3	
E2021:55:19	-	55	Stem fragment	125mm long (broken), 6mm diameter stem, 3mm diameter bore	1	
E2021:55:20	-	55	Stem fragment	17mm long (broken in half)	<1	
E2021:55:21	-	55	Stem fragment	26mm long (broken), 8mm diameter stem, 3mm diameter bore	2	
E2021:55:22	-	55	Stem fragment	23mm long (broken), 8mm diameter stem, 3mm diameter bore	2	
E2021:55:23	-	55	Stem fragment	12mm long (broken), oval section 7mm x 6mm, 3mm diameter bore	<1	

Table 18: Catalogue of clay tobacco pipe continued

E2021:55:24	-	55	Stem fragment	21mm long (broken), 8mm diameter stem, 3mm diameter bore	2	
E2021:55:25	-	55	Stem fragment	25mm long (broken), 7mm diameter stem, 3mm diameter bore	1	
E2021:55:26	-	55	Stem fragment	19mm long (broken section), 3mm diameter bore	<1	
E2021:55:27	-	55	Stem fragment	31mm long (broken), oval cross-section 7mm x 6mm, 2mm diameter bore	<1	
E2021:55:28	-	55	Stem fragment	37mm long (broken), 8mm diameter stem, 3mm diameter bore	3	
E2021:55:29	-	55	Stem fragment	18mm long (broken), oval cross-section 10mm x 7mm at thickest and 7mm x 6mm at thinnest, 1.5mm diameter bore	<1	
E2021:56:3	-	56	Bowl fragment	4mm thick	<1	
E2021:58:79	-	58	Bowl fragment	32mm long bowl (broken), 2mm-3mm thick	2	Milled just below the rim. Co-joins with E2021:58:80, E2021:58:81, E2021:58:82
E2021:58:80	-	58	Bowl fragment	32mm long bowl (broken), 2mm-3mm thick	2	Co-joins with E2021:58:79, E2021:58:81 & E2021:58:82
E2021:58:81	-	58	Bowl fragment	32mm long bowl (broken), 2mm-3mm thick	1	Milled just below the rim. Co-joins with E2021:58:79, E2021:58:81 & E2021:58:82
E2021:58:82	-	58	Bowl fragment	32mm long bowl (broken), 2mm-3mm thick	1	Co-joins with E2021:58:79, E2021:58:80 & E2021:58:81
E2021:58:83	-	58	Stem fragment Co-joins with E2021:55:14	32mm long (broken), oval cross-section 11mm x 10mm at thickest and 9mm x 8mm at thinnest, 3mm diameter bore	4	Start of heel at thickest point
E2021:58:84	-	58	Stem fragment	41mm long (broken), 8mm diameter stem, 3mm diameter bore	4	
E2021:59:37	-	59	Bowl fragment	1mm-3mm thick	<1	
E2021:66:2	-	66	Bowl fragment	Base of bowl 5mm thick, heel 10mm x 8mm and protrudes 5mm	<1	'Wheel' stamp on base of heel
E2021:73:2	14	73	Bowl fragment	3mm thick	<1	
E2021:77:6	16	77	Stem fragment	19mm long (broken)	<1	
E2021:80:2	19	80	Stem fragment	25mm long (broken), 10mm diameter stem, 3mm diameter bore	3	

Textiles by Maria FitzGerald

Four small textile fragments were recovered during the excavation (Table 19, Plate 51). Literary sources and paintings indicate that textiles were once a very important element of material culture for clothing and furnishings but they rarely survive on archaeological sites. These textiles although very

fragmentary (largest example measures 8mm by 4mm) therefore provide an interesting insight into the abbey's material assemblage.

The textile fragments relate to the period when the abbey was declining in importance as a religious centre and becoming more secular in function. The textiles were recovered from a primary fill of a cess-pit and relate to Phase III activity on the site. The radiocarbon dates from the site and analysis of the finds indicate that these textiles are likely to date to *c.* AD 1600. At this time the abbey had been dissolved but there was some religious presence with monks perhaps living there until *c.*1650.

Description of fabric fragments

All four fragments appear to have originally derived from the same cloth. The fabric is woven in the simplest tabby weave structure. This structure is formed when each weft (horizontal element) passes alternatively over and under successive warps (vertical element) and each subsequent weft reverses the procedure of the previous weft. The fabric is of medium to fine weave with approximately 18/18 threads per cm recorded. The fibre was examined under high magnification and appears to have been made from a vegetable fibre source (probably flax).

The cloth was woven from loose to medium Z-spun yarns in both systems. As a result of the fragmentary nature of the textiles and the absence of selvedges (the edges of a finished woven piece) and weaving errors, it is not possible to distinguish warp from weft. However, the yarn in one system is slighter finer (0.35mm) than the other (0.45mm) and is likely to have been used for the weft. As a rule, the warp needed to be more robust as it was fixed to the loom and sustained much more friction from the action of the heddles (one of a set of parallel cords or wires in a loom used to separate and guide the warp threads and make a path for the shuttle). The textile from Clare Abbey is a pale buff colour and the yarns have a golden lustrous appearance. The fragments appear to have come from an undyed cloth.

All of the textile fragments preserve oval-shaped needle holes but no actual thread survives. The thread was likely to have been formed from a different fibre type and did not survive. These fragments may have originally come from a hemmed textile edge.

Discussion

During the later medieval period, textiles would have been an extremely important element of material culture and have been used extensively for soft furnishings and for clothing. In addition to cloth woven in urban centres, the wealthy upper and middle classes in Ireland would have had access to imported cloth and clothing items in luxurious fabrics such as silk and velvet with gold trimmings. The occupants of the abbey after it was dissolved appear to have been materially wealthy as attested by the imported pottery and glass on the site, so they may have been purchasing their cloth from urban centres such as Limerick and Cork. Throughout the seventeenth century, linen cloth was both imported from and exported to England with important linen weaving centres in Dublin and Youghal. During the late seventeenth century acts were passed to allow plain Irish linen to be imported to England without duty (Dunlevy 1989, 90). The fabric from Clare Abbey is a simple undyed plain weave cloth so there is nothing to suggest that the fabric was not of Irish origin.

Most of the textiles recovered from medieval contexts such as Dublin, Cork and Waterford were woollen fabrics in twill weaves particularly in 2/1 structures (over two and under one structure) though the absence of vegetable fibre textiles in these contexts is probably accounted for by differential fibre survival. However, some fragments of linen cloth do survive e.g. the textile assemblage recovered from Waterford City preserves a few very delicate examples of plain woven vegetable fibre cloth from 13^{th} -14^{th} century contexts (Heckett 1993, 154).

There is evidence that other crafts such as metalworking and carpentry were being carried out during this period at the site but there is no evidence for textile production. Abbeys were traditionally centres

of textile work particularly for embroidery and sewing during the medieval period so the limited area of the excavation may account for the lack of production evidence. Additionally most of the tools used in the preparation of fibres, in spinning and in weaving were made from wood and would not have survived in this context.

Function

The fragmentary nature of the textile makes it difficult to ascertain its original function. The textiles from Clare Abbey ultimately became discarded scraps for use in the latrine but the fineness of the weave may suggest that it originally had a finer clothing function. Undyed linen cloth like that from Clare Abbey, was traditionally worn in medieval Ireland for tunics or other garments worn next to the skin and the cloth may have come from an undershirt or chemise, a headdress or from fine hose.

Table 19: Catalogue of textiles

Find No.	Cut	Deposit	Identification	Dimensions	Description
E2021:67:11 A	34	67	Textile fragment	9mm x 4mm	Buff- coloured, Z/Z tabby weave, 16/16 tpcm, warp medium Z-spun (0.45mm), weft loose Z spun (0.35mm). Fragment doubled over and may represent the remains of a hemmed edge though no thread survives. Oval-shaped needle holes present.
B	34	67	Textile fragment	5mm x 3mm	Buff-coloured, Z/Z tabby weave, 18/18 tpcm, warp medium Z-spun (0.45mm), weft loose Z-spun (0.35mm).
C	34	67	Textile fragment	8mm x 3mm	Buff-coloured, Z/Z tabby weave, 17/17 tpcm, warp medium Z-spun (0.45mm), weft loose Z-spun (0.40mm).
D	34	67	Textile fragment	6mm x 3mm	Buff coloured, Z/Z tabby weave, 18/18 tpcm, warp medium Z-spun (0.50mm), weft loose Z-spun (0.40mm).

Bone by Matilda Holmes

Methodology

Bones were identified using the author's reference collection, and further guidelines from Bass (1995), Cohen and Serjeantson (1996), Hillson (1992) and Schmidt (1972). Due to anatomical similarities between sheep and goat, bones of this type were assigned to the category 'sheep/goat', unless a definite identification using guidelines from Prummel and Frisch (1986) or Payne (1985) could be made.

Bones that could not be identified to species were, where possible, categorised according to the relative size of the animal represented (small – rodent / rabbit sized; medium – sheep / pig / dog size; or large – cattle / horse size). Ribs and vertebrae were not identified to species with the exception of 1st and 2nd cervical vertebrae and sacral elements.

Tooth wear and eruption were recorded using guidelines from Grant (1982) and Silver (1969), as were bone fusion (Amorosi, 1989 and Silver, 1969), metrical data (von den Driesch, 1976), anatomy, side, zone (Serjeantson 1996) and any evidence of pathological changes, butchery and working. The condition of fragments was noted on a scale of 1-5, where 1 is perfectly preserved and by 5 the bone is

so badly degraded to be unrecognisable (Lyman 1994). Other taphonomic factors were also recorded, including the incidence of burning, gnawing, recent breakage and refitted fragments.

A number of sieved samples were collected but because of the volume of such samples a selective process was undertaken, whereby fragments were recorded only if they could be identified to species and / or element, or showed signs of taphonomic processes.

All fragments were recorded, although articulated or associated fragments were entered as a count of 1, so as not to bias the relative frequency of species present. Unfortunately, the bones from adjacent site A025/001 could only be broadly dated to medieval / post medieval date, so it was decided that it would not be profitable to analyse these further than the species represented. The assemblage from site C020 was analysed more fully (Table 20), particularly the deposits from phase IV.

Table 20: Summary of bone by phase

Phase	Date	Number of identified fragments
I	11th - Early 13th Centuries	900 (of which 893 were fish)
I/II	11th – Late 14th Centuries	19
II	Early 13th – Late 14th Centuries	47
III	Mid 15th – Late 17th Centuries	428
IV	18th – 20th Centuries	1219

Taphonomy and Condition

The bones were in a fair to good condition, although they were fragmentary, and a small number of fragments from each phase were able to be refitted to make larger pieces which were then counted as 1; bones from phases II (1 fragment) and IV (47) showed signs of fresh breaks, probably occurring during or after excavation.

Other taphonomic factors affecting the material were recorded, of which only bones from phases III (2 fragments) and IV (65 fragments) showed signs of burning which, in the majority of cases showed as brown or black patches, usually associated with the roasting of meat, perhaps indicating that this method of cooking was not employed to any great extent before the 15th Century, maybe even as late as the 18th. A very low proportion of bones (less than 1%) showed evidence for canid gnawing in phases I/II, II, III and IV, suggesting that some bones were available for dogs to chew prior to burial, although the majority were disposed of soon after use. Evidence for butchery was present in phases I/II, II, III and IV, the mechanics of which will be discussed below.

A number of articulated and associated fragments were recorded from the cess-pit dated to phase III - 4 fragments from a chick partial skeleton, 15 fragments from 2 chicken partial skeletons as well as a number of duck legs.

Carcass Representation and Butchery

The butchery methods recorded for period IV were a mixture of knife marks and heavy chops. The former apparently being used primarily to disarticulate the carcass, as they were particularly found at the hock joint of cattle bones and neck of sheep / goats. A chopper was more likely to have been used to cut the carcass into joints suitable for cooking, all the main meat bearing bones of the main domesticates were chopped through in a transverse plane with very few exceptions.

Table 21 shows the number of bones by element for the main domesticates (cattle, sheep / goat and pig). A restricted count was used, which only included fragments where the epiphyses (ends) of bones were present. This reduces the effect of fragmentation, which may give a biased count weighted towards bones more likely to break into many pieces e.g. scapulae, over those less likely to fragment

e.g. phalanges. The results were grouped into carcass parts – head, vertebrae, upper fore leg, lower leg, upper hind leg and feet.

All parts of the carcass were present, with the exception of sheep feet and pig vertebrae, indeed feet and vertebrae are poorly represented for all species and may reflect a trend, whereby feet and the vertebral column were removed as part of the primary butchery process. Head fragments are the best represented parts of the body for sheep and pigs, but less commonly found for cattle, maybe indicating that sheep and pig heads were treated differently, being more 'portable' they may have been sold complete by the butcher, whereas cattle cheekmeats and tongue were perhaps removed to be sold separately. Upper and lower leg bones were found in significant, and roughly similar proportions for all species (although pig lower limbs were under represented). The evidence suggests that animals were brought as complete carcasses to the site prior to butchery and the presence of mainly meat bearing bones, combined with the butchery marks described above, suggests that these deposits were the result of food waste and domestic in origin.

Table 21: Anatomical fragment representation (epiphysis only count)

	Cattle	**Sheep / Goat**	**Pig**
Occipitale *	4	10	8
Zygomaticus	2	2	
Mandible **	2	6	9
Horn Core	1	9	
1st Cervical Vertebra *		2	
Sacrum	5	1	
Scapula	14	3	5
Humerus P	1		1
Humerus D	6	9	4
Radius P	11	9	5
Radius D	6	6	1
Metacarpal P	12	10	1
Metacarpal D	2	7	1
Metatarsal P	10	3	1
Metatarsal D	3		
Pelvis	4	2	2
Femur P	5	6	1
Femur D	6	3	1
Tibia P	2	2	
Tibia D	8	12	4
1st Phalange *	5		1
2nd Phalange *	5		
3rd Phalange *			1
Total	114	102	46

* Bone counts have been adjusted to account for their frequency in the body (phalanges /4, 1st cervical vertebra and Occipitale x2)
** Mandibles with cheek teeth

Species Representation and Diet

Table 22: Species representation (fragment count)

CO20	I	I-II	II	III	IV	%
Cattle	2	6	27	11	493	41
Sheep / Goat	4	4	10	17	412	34
Pig		8	10	17	195	16
Horse					26	2
Dog	1			2	25	2
Cat					1	-
Rodent				55	1	-
Deer				1	4	-
Hare				3	2	-
Human					9	1
Chicken				27	12	1
Goose		1		22	3	-
Duck				5		
Wild Bird				2	3	-
Amphibian				7		
Mussel				2		
Oyster				5	22	
Fish	893			250	11	1
Total Identified	900	19	47	426	1219	
Unidentified Large Mammal			18	16	564	
Unidentified Medium Mammal	16	3	16	36	623	
Unidentified Small Mammal				29	1	
Unidentified Mammal		1	18	54	619	
Unidentified Bird				81	5	
Total	916	23	99	642	3031	

Phases I – II

The very small samples from these phases were dominated by the main domesticates (cattle, sheep / goat and pig) although not in great enough quantities to reveal any husbandry or dietary trends. A large number of fish were also recovered from phase I.

Phase III

There were a significant number of bones from this phase from a great range of species. However, comparatively few domestic species were recovered, of which the main domesticates and dog were only present in 11% of the assemblage, the majority consisting of domestic birds (fowl and goose), wild birds (duck and woodcock), wild mammals (red deer and hare), molluscs (mussel and oyster) and fish. Background species were also recovered – rats, wood mice and frogs, indicating an environment with water nearby.

The majority of bones in this phase were retrieved from the heavily sieved contexts 67 and 97 of a cess-pit, perhaps explaining the low ratio of the main domestic mammals to wild and bird species in this phase. The recovery of such a high number of small bones from the cess-pit suggests that this medium served to preserve bones well, further enhanced by the use of sieving, where these small bones were given the best chance of recovery. As Table 23 shows, nearly all bones from birds, small mammals, amphibians and fish were recovered from these contexts, as well as a large number of pig and sheep bones. It may be that only certain species were deposited in the cess-pit – those from animals small enough that their deposition in such a place was easier than ‘putting them out with the rest of the rubbish’. Certain elements such as fish bones may have been deposited as a natural function

after the digestive process, and others, the background species mentioned above were probably the result of pit falls. It seems likely, however, that this deposit serves as a good illustration of the type and quantity of species missed, either by poor preservation or recovery when sieving is not carried out, as only the number of bones from the larger mammals are not significantly improved by such a mechanism.

Table 23: Investigating the influence of preservation and recovery on an assemblage (phase III)

NISP	Whole Assemblage	Cess-pit Assemblage	Sieved Assemblage	Hand Recovery
Cattle	11	5	1	10
Sheep / Goat	17	12	9	8
Dog	17	12	9	8
Rodent	55	55	53	2
Deer	1	0	0	1
Hare	3	3	3	0
Chicken	27	27	17	10
Goose	22	22	20	2
Duck	5	5	1	4
Wild Bird	2	2	2	0
Amphibian	7	7	7	0

Phase IV

This was the largest assemblage, again with a diverse species base, although the main domestic species were present in significant numbers; cattle in over 40% of the animal bones, sheep / goat 34% and pigs 16%. Horse, dog and oyster were present but in far smaller numbers, then chicken, hare, deer (red and roe), goose, wild bird (woodcock and corvid), cat and rat.

Due to small numbers of domestic animals from all phases except IV, only this will be investigated further to investigate trends in animal husbandry and the economy of the site.

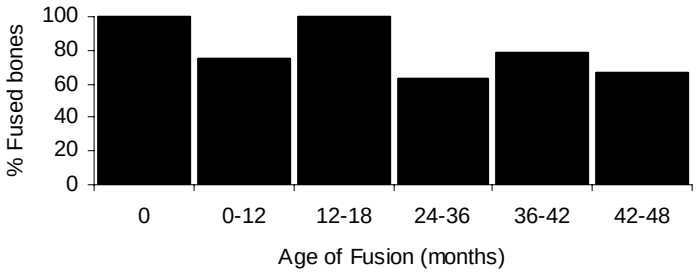
Animal Husbandry

Cattle

There was no evidence for neonatal deaths within the fusion data (Table 24), although two unfused pelves were recovered which would have come from animals less than 10 months at death. There was no further suggestion of animals being culled until reaching 24-36 months, at which point a steady cull of around 30% of the population died at each subsequent fusion stage, leaving a significant proportion alive into maturity. The two mandibles complete enough for wear stages to be calculated (Grant 1982) were from calves, one between 2 and 6 months old and the other 1-2 years old. Tooth eruption and wear from loose teeth is more indicative of older and mature animals. This information suggests that cattle were not bred in the vicinity; the majority were mature at death, suggesting they were important for secondary products such as dairying and/or traction and the presence of immature animals and calves probably a surplus of stock.

There were very few complete bones, although two metacarpals gave shoulder heights of 1.04m and 1.14m (using indices from Fock in von den Driesch and Boessneck 1974).

Table 24: Cattle Fusion Data (phase IV)



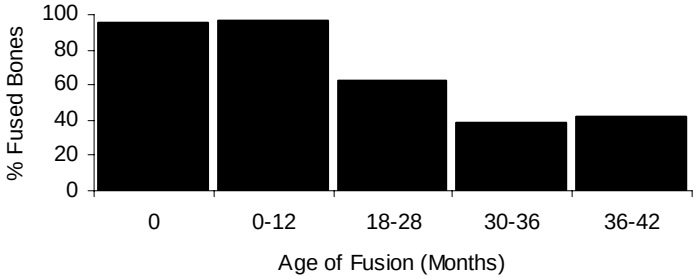
n=110

Sheep / Goat

One sheep metacarpal was unfused at the proximal end, suggesting it was from a neo- or peri-natal mortality. With this exception there was no evidence for animals being culled prior to 12 months of age, after which 40% of the population died before reaching 28 months, then around 60% before 30-36 and again at 36-42 months (Table 25). A small but significant proportion of the sheep population were still alive into maturity. The tooth wear and eruption data generally reflected the fusion data, as all loose teeth were in wear or from animals over 18 months with the exception of one mandible which was from an animal between 9 and 12 months when it died. This type of mortality data suggests a compromise between animals culled for meat and those required for secondary products (wool or milk). The steady cull from 18 months may represent an excess of animals. The presence of a neonatal death may have been incidental, or indicate that sheep were bred on or near the site.

Only two radii were complete enough to be used for the calculation of shoulder heights (using indices by Teichert, quoted in von den Driesch and Boessneck 1974) from animals approximately 0.54m and 0.70m tall. Two pelves were complete enough to suggest that one was female, and one male (Greenfield 2006).

Table 25 Sheep / Goat Fusion Data (phase IV)



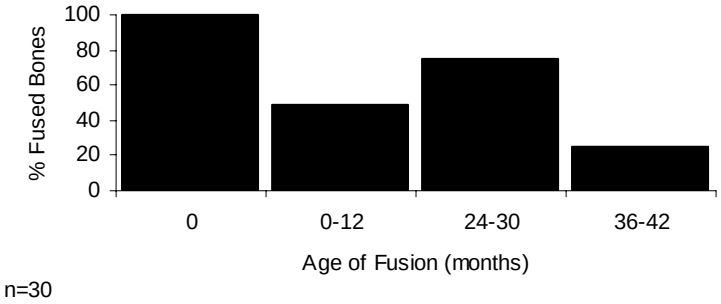
n=76

Pig

The fusion data for the pig assemblage (Table 26) suggests there were no neonatal fatalities on site, although around half died in the first year. Following this there was a relatively small cull of 25% of animals before reaching 30 months, but by 42 months 75% of the remaining population had died, leaving very few alive into maturity. The tooth wear data reflects the fusion data, whereby there were only two incidences of the 3rd molar being in wear, suggesting that most animals were immature at death, the three mandible wear stages that were calculated were from animals between 7 and 21 months of age. This is not an unusual mortality pattern for animals whose only contribution is to the diet, the majority appear to have been culled at prime meat ages, with a few adult animals presumably used for breeding stock. There is no evidence for animals to have been bred on site.

A number of canines were used to indicate the sex of the animals, of which four were from females and fifteen from males.

Table 26: Pig Fusion Data (phase IV)



Dog and Horse

All dog and horse bones were fused and this, coupled with the absence of butchery marks suggests they were not eaten, but were important for other duties such as guarding and herding or riding and driving and hunting.

Domestic Birds

The bones from domestic fowl and geese in this phase were fused, with the exception of one chicken humerus which may suggest that they were bred on site, as indicated in phase III from the large numbers of immature bird bones recovered from the cess-pit (see above).

Wild Animals

Red and roe deer were represented by postcranial bones (red deer metatarsal and roe deer radius fused proximally) as well as red deer antler fragments. A humerus was recovered from an adult hare. Two bones were recovered from crow, and one from woodcock, the latter are indicative of woodland and waterways. It is likely that the deer, hare and woodcock were hunted from the local area.

Fish

A summary of species identified is given in Table 27, nearly all of which were retrieved by the sieving programme. The largest group of those from phased contexts came from phase I but they were also present in significant numbers in phase III and, to a lesser extent, IV suggesting they were less commonly eaten with time. The presence of flounder and cod species suggests connections with the coast but eel, perch and pike would have been common in local rivers.

Table 27: Fish species present

C020	I	III	IV	Unphased
Eel	X	X	X	X
Flounder		X		X
Gadoid	X			X
Percidae				X
Pike		X		
Unidentified	X	X	X	X
Number of Fragments	893	250	11	1173

Human bone

All fragments of human bone came from phase IV, and were presumably disturbed from burials associated with the abbey, with the exception of a premolar from context 51, which may have fallen out or been extracted pre mortem. A fragment of radius from an individual over 16 years old, and a piece of parietal skull fragment with pitting visible on the inside surface were recovered from context 55. Context 58 contained two fragments of fibula, one from a humerus and one unidentified long bone fragment, this layer overlay context 60, from which a tibia was recovered. A piece of pelvis, again from someone over 16 years old came from context 73.

Summary

This area of the site appears to have been inhabited most intensively from the 15th century, and the variety of wild and domestic mammals, birds, shellfish and fish suggests that this was a high status site (Grant 1988). The economy of the hinterland was probably based on secondary products, utilising animals for traction, milk and wool, any surplus stock being sent to the abbey. Cattle, sheep and pigs were probably brought to the site on the hoof to be butchered, although domestic fowl and geese may have been bred and kept on site. A number of animals were most likely hunted from nearby woods (deer, hare and woodcock), and local rivers were important sources of molluscs, fish and duck. There is also some evidence for links with the coast in the presence of sea fish.

Samples

Carbonised plant remains and charcoal by Lucy Cramp

Introduction

Samples of soil, measuring between 0.5 and 60 litres, were taken from 46 features across the site. These samples were assessed for environmental remains for the recovery and identification of preserved plant remains and charcoal which might allow the reconstruction of human activity or environmental conditions at the site.

Methods

Organic flots were obtained through wet-sieving and flotation of sediment samples over a 0.3mm and then a 0.2mm mesh. Samples were dried and the resulting flots were sorted using a low-power binocular microscope at x10-x20 magnification.

Charcoal was examined using a x45 magnification binocular microscope and further analysed using up to x400 magnification to examine the tangential and radial sections where charcoal could not be identified by the transverse section alone. The charcoal was identified with reference to a modern reference collection and Vernet (2001). Where <20 identifiable fragments were present (>~2mm fragment), all fragments were examined. Where >20 fragments were present then 20 were randomly selected for identification.

Cereal grains and other plant macrofossils were all picked out, quantified and identified at x10-x20 magnification.

Results

Initial sorting revealed that 27 samples from this site were worthy of further analysis; the remaining samples contained little or no material of significance and do not warrant further attention.

All of the material recovered from the samples was preserved by carbonisation. Results are summarised overall and then by feature below, whilst results are presented quantitatively (according to a three-point scale of + present, ++ some, +++ much for charcoal, or the absolute number of grains for cereal caryopses or other plant parts) in Table 28.

Charcoal

The majority of samples contained fragments of charcoal; however in numerous instances this was too fragmentary to permit reliable identification. Suitable charcoal was therefore identified from nineteen samples. Taxa consisted of: oak (*Quercus* sp.), hazel (*Corylus* sp.), alder (*Alnus* sp.), ash (*Fraxinus* sp.), and hawthorn/apple family (Rosaceae, subfamily Pomoideae). Some fragments of charcoal could only be identified as either alder (*Alnus* sp.) or hazel, as they were too fragmentary to be differentiated. The presence of both alder and hazel at numerous other archaeological sites in the region means that alder cannot be excluded despite the positive identification of hazel here. A mixture of one or more of these charcoal types was present in most samples.

Other plants

Cereal grain was relatively common in all samples, although grains were never present in large numbers. The main crops represented by the carbonised grains were barley (*Hordeum* sp.), including hulled barley and twisted lateral grains which are diagnostic of 6-row barley. Wheat was also present and comprised mostly free-threshing bread (*aestivum*) or rivet (*turgidum*) wheat. A low number of oats (*Avena* sp.) were also recovered but these may be wild crop contaminants rather than a cultivated crop since it is not possible to differentiate wild from domesticated by the grain alone. There was no cereal chaff or weed seeds except for a very low number of goosegrass (*Galium aparine*), a common arable weed seed.

Further plants include hazel nut (*Corylus avellana*), which was represented by fragments of shell, and vetch or tare (*Vicia* or *Lathyrus* sp.), which included at least one domesticated vetch (*Vicia sativa* subsp. *sativa*).

Sample 1 Gully [3] deposit 53

The sample from this gully contained only sparse wheat grains and a low scatter or oak and hawthorn/apple-type charcoal.

Sample 2 Pit [9] deposit 64

This deposit did not contain any cereal grains but had a low abundance of hazel and oak-type charcoal (which could not be confidently identified in the absence of large aggregate rays).

Samples 3 and 4 Pit [6] deposit 65

The samples from this feature contained a low number of wheat and barley grains, including evidence for hulled and 6-row barley. Hazelnut shell fragments were also recovered. Charcoal was relatively abundant and included fragments of hazel, oak and hawthorn/apple-type species.

Sample 5 Deposit (67)

Cereal grains were relatively abundant in this deposit compared with other samples from this site. They were dominated by wheat grains (including free-threshing bread or rivet wheat) but a low number of barley grains and isolated oats were also present. There was no cereal chaff, however. Several vetch or tare and weed seeds of goosegrass were recovered along with fragments of hazelnut shell. Charcoal included oak, hawthorn/apple-type and ash.

Sample 7 Deposit (72)

There were no seeds or grains in this sample. However, charcoal was relatively abundant and comprised predominantly oak, along with some hawthorn/apple-type charcoal.

Sample 8 Stonehole [13] deposit (71)

This sample contained a scatter of badly-preserved wheat grains, along with a few grains of barley including a twisted lateral grain of 6-row barley. There was a single oat grain. Charcoal was sparse but included a mixture of hazel, ash and oak.

Sample 11 Lazybed furrow [17] deposit (78)

Isolated grains of wheat and barley and a single vetch/tare were recovered here.

Sample 13 Stakehole [31] deposit (155)

This deposit contained sparse wheat and oats and fragments of hazelnut shell.

Sample 14 Posthole [38] deposit (157)

This deposit contained isolated wheat grains.

Sample 15 Posthole [41] deposit (159)

This deposit contained isolated wheat and barley grains, along with a few fragments of hazelnut shell and charcoal of hazel and oak.

Sample 16 Posthole [40] deposit (159)

This sample only contained alder or hazel charcoal.

Sample 17 Pit [45] deposit (93)

Free-threshing wheat grains were relatively abundant here, along with a few barley grains. This sample also contained a cultivated vetch.

Samples 20, 22, 23, 28 and 41 Ditch [14] deposits (73), (153) and (175)

The samples from this ditch were broadly similar in character, containing a thin scatter of wheat and barley grains, along with an isolated oat. Charcoal was not particularly abundant but included oak, ash and hawthorn/apple-type wood.

Sample 24 Posthole [47] deposit (164)

A few grains barley which included evidence for hulled and 6-row barley were present in this deposit.

Sample 27 Stakehole [105] deposit (172)

No seeds or grains were recovered; however charcoal was relatively abundant and comprised wood from a hawthorn/apple-type species and a lower amount of oak.

Sample 31 Gully [108] deposit (178)

The sample from this gully contained a small number of wheat grains along with hazelnut shell and vetch/tare.

Sample 33 Posthole [109] deposit (179)

This sample contained only a single barley grain and an unidentifiable cereal grain.

Sample 34 Drain [37] deposit (155)

This sample contained wheat and hulled barley, along with hazel charcoal.

Sample 43 Stakehole [32] deposit 69

This contained oak charcoal.

Sample 44 Egress hole [34] deposit (97)

The charcoal could only be identified as like hawthorn-type.

Sample 45 Deposit (60)

The charcoal was either alder or hazel.

Sample 46 Deposit (83)

The charcoal was either alder or hazel.

Discussion and conclusions

Whilst charcoal was found in considerable quantities throughout the samples taken from the site, it was often too fragmentary to permit identification. Where identifiable, assemblages tended to include a mixture of oak and ash, in addition to scrub species including hazel, alder/hazel and hawthorn/apple-type (Pomoideae) charcoal. No sample contained abundant charcoal which only represented one species of tree, and there were no obvious trends between types of charcoal and particular context types. All of these species are native to Ireland and common throughout, although alder tends to be found on damper ground. These species would have been suitable and probably locally-growing woods for fuel, although most would also have had structural or artefactual potential.

Cereal grains were present in low quantities throughout the samples. Cereal-containing deposits contained a mixture of barley and free-threshing wheat. There was no cereal chaff and only isolated weed seeds of goosegrass, and so the grain appears to have been kept or imported as cleaned grain rather than being stored or imported as ears. The grain may therefore have become accidentally charred through cooking or drying prior to milling for flour. Vetch or tare were also not uncommon and included at least one cultivated vetch. Cultivated vetch was commonly cultivated as a fodder crop and it may therefore have been grown as animal feed.

Hazel nut fragments were frequently found in the samples and may also have been consumed at the site; these may have been collected or retained as a by-product of the collection of hazel wood for fuel.

The results of the archaeobotanical analysis of samples from this site are indicate a settlement exploiting a mixture of local wood and scrub for fuel, and consuming barley and free-threshing wheat which may well have been grown and processed elsewhere. The samples taken from this site are all broadly similar in character and no differences can be discerned from different context types (pits, gullies, ditches etc.); all therefore are likely to derive from the disposal of waste from domestic burning. These findings are entirely consistent with expectations for a medieval to post-medieval rural settlement in this area.

Table 28: Catalogue of carbonised plant remains and charcoal

Sample		**1**	**2**	**3**	**4**	**5**	**7**	**8**	**11**	**13**	**14**	**15**	**16**	**17**	**20**	**22**
Cut		3	9	6	6			13	17	31	38	41	40	45	14	14
Deposit		53	64	65	65	67	72	71	78	155	157	159	158	93	73	153
Sample vol. (L)		8	4	16	20	60	-	8	8	4	4	4	4	4	10	10
Context type		Gully	Pit	Pit	Pit			Stone hole	Lazybed furrow	Stake hole	Posth ole	Post hole	Pit	Pit	Ditch	Ditch
Cereal grain																
Free-threshing *Triticum* sp. (*aestivum* or *turgidum*)	Free-threshing bread or rivet wheat					38			2					17		
Triticum sp.	Wheat	2		2	3	24		15		4	3	3		7	10	3
Hordeum sp. (hulled)	Hulled barley			2												
Hordeum sp. (lateral)	Barley (lateral grain)				2			1								
Hordeum sp.	Barley			1	3	2			1			1		1	1	2
Avena sp.	Oat					9		1	1	2						
Cereal indet.		2		1	5	43		3	3	2	4			2	4	1
Other plants																
Corylus avellana (shell)	Hazelnut shell			+	+	+		+		+		+				+
Vicia sativa cf. *subsp. sativa*	Cultivated vetch													1		
Vicia or *Lathrus* sp.	Vetch or tare					2			1							
Galium aparine	Goosegrass					2										
Items/litre		0.5	-	0.36	0.65	2	-	2.5	1	2	1.75	1	-	7	1.5	0.6
Charcoal																
								+								
Quercus sp.	Oak	+		++	+	+	++ +	+				+			+	
Cf. *Quercus sp.*			+													
Corylus sp.	Hazel		+	+	+							+				

Radiocarbon determinations

Seven radiocarbon dates were obtained from organic material submitted to Beta Analytic Inc, Miami, Florida, USA and is catalogued in Table 29. The dates were obtained using the IntCal04 calibration dataset (Reimer et al. 2004).

Table 29: Radiocarbon dates

Lab Code	Cut	Deposit	Sample or Find	Context	Sample	Yrs BP	Calibrated date ranges
Beta-231531	6	65	4	Pit	Cereal (*Hordeum* sp. *Triticum* sp) grains	910 ± 40	AD 1040-1170 one sigma AD 1030-1220 two sigma
Beta-231532	-	67	5	Base of cess-pit	Cereal (Triticum sp) grains	10 ± 40	AD 1960 to 1960+ one sigma AD 1890-1910 and AD 1950 to 1960+ two sigma
Beta-231533	35	74	32	Ditch	Charred hazelnut (*Corylus avellana*) shell	720 ± 50	AD 1260-1290 one sigma AD 1220-1310 and AD 1360-1380 two sigma
Beta-233431	-	67	67:23	Base of cess-pit	Hare (*Lepus*) vertebra	270 ± 40	AD 1490-1640 one sigma AD 1460-1660 two sigma
Beta-237217	13	71	71:1	Pit below cloister wall	Pig (*Sus*)	720 ± 40	AD 1220-1270 one sigma AD 1200-1280 two sigma
Beta-237218	38	157	157:3	Posthole	Pig (*Sus*)	790 ± 50	AD 1210-1270 one sigma AD 1160-1290 two sigma
Beta-237219	49	166	166:1	Posthole	Pig (*Sus*)	720 ± 40	AD 1220-1270 one sigma AD 1200-1280 two sigma

The dates range from the mid 11th century AD to the 20th century. The sample of cereal from the base of the cess-pit (Beta-231532) returned a date in the late 19th and 20th centuries. This was surprising as the feature contained artefacts dating from the middle of the 17th century and was securely stratified. The possibility of contamination (or recording error) was considered and a second radiocarbon determination was made from a hare vertebra from the base of the cess-pit. This determination (Beta-233431) dated the deposit to the mid 15th to mid 17th century and confirms the on-site archaeological observations.

Discussion

The archaeological excavation at Clare Abbey has, perhaps unsurprisingly, produced evidence of medieval activity that was most likely associated with the construction and use of this part of the abbey during the monastic period. Despite the small size of the excavation area, the site has provided an enhancement of our understanding of this medieval monastic establishment, in terms of construction dates, architecture and external structures as well as giving us an insight into the rich and varied diet of the monks that lived at the abbey.

Less expectedly was the post-Dissolution activity in the post-medieval period. Here we have evidence of part of the abbey cloister being used as a latrine with an associated cess-pit and run-off drains, further evidence of the consumption of good quality foods and indications that the abbey buildings took on a military function, perhaps associated with horse-mounted warfare in the 16th and 17th centuries.

Modern uses of the abbey grounds include intensive cultivation, probably of potatoes, in the immediate pre-famine period and some association with mid 19th century railway construction.

Medieval monastic activity

Documentary sources indicate that the foundation charter for the Augustinian Clare Abbey (the Abbey of SS. Peter and Paul) was granted by the 'king' of Munster Domnall Mór in 1189 (Gwynn and Gleeson 1962, 452). The foundation charter has, however, been shown to be a probable forgery dating to 1461 (Flanagan 2005, 163-74). There is the possibility that an earlier ecclesiastical building stood on the site (Westropp 1900a). The archaeological evidence demonstrates that it is possible that at least two pits may have pre-dated or be contemporary with the late 12th century foundation charter as pits 6 and 45 are likely to date from between the early 11th and early 13th centuries. Additionally, dates for the two features beneath the abbey west wall (13 and 24) are centred on the 13th century. Westropp (1900b) states (on architectural grounds) that while the abbey church is late 12th century, the majority of the other buildings are 15th century. It should be noted however, that Westropp's 1886 plan (Fig. 4) suggests that the cloister dates to the 12th century. It is possible that some of the earlier features found in the archaeological excavation pre-date the existing structures visible at the abbey. This said, there is a problem with the concept that the abbey cloister west wall is, at least in that part adjacent to the excavation area, 15th century in date as the postholes and stakeholes that seemingly represent a 'soft building' appended to the external wall of the abbey cloister at the north of the archaeological site are dated to the later 12th to late 13th centuries. Indeed, the beam slots in the cloister west wall have a good degree of correspondence with the post holes.

A small piece of carved stone, perhaps from a church font (Fig. 20), was found in the fill of a 12th to 13th century posthole (40) and supports the contention that earlier ecclesiastical activity took place in the immediate vicinity.

A hearth and pits excavated 470m to the south-west of the abbey gave radiocarbon dates indicating these features were in use between the late 8th century and late 10th century AD (Hull 2006a). It might not be too fanciful to suggest that these features were in use simultaneously with a precursor to the extant abbey.

The putlock holes in the external face of the kitchen gable (Plate 20) correspond well with postholes 48, 49, 100, 101, 102 and 106, one of which has been dated to the 13th century. This suggests that the postholes were for scaffolding and that the gable wall was constructed in the 13th century as well. Westropp's (1900a) observation that this gable has a double-light window with trefoil head and heavy angular hood - a type in common use in County Clare (both in churches and castles) in the middle of the 15th century (Plate 20) can only be squared with the archaeological evidence if it presumed that the 15th century window is an insertion into a 13th century wall. There is indeed documentary evidence that notes additions to the original structure in the 15th century with repairs and additions taking place in 1434 ('…repair and conservation of the Augustinian monastry of Saints Peter and Paul the Apostles, Clare.' - Calendar of Papal Letters VIII, Bliss 1896, 501 in Gwynn and Gleeson 1962, 454), and more repairs carried out in 1461 (this took place at the same time as the exemplification of the charter when repairs to the south wing of the domicile were undertaken by Teighe Acomhad O'Brien perhaps to ward off disease or unpopularity - Collectanea de Rebus Monast. Hiberniae MSS TCD F.1.15 in Westropp 1900a, 121).

The pair of parallel ditches (3 and 35) that share the same north-north-east to south-south-west alignment as the upstanding abbey buildings were backfilled – at least in part - by the early 13th to later 14th centuries. It is very probable that the routeway to the abbey church west door was defined by these ditches until at least the middle of the 19th century (see 1840 Ordnance Survey 1st Edition Map – Fig. 13). The unmetelled laneway that leads to Clare Abbey from the south-west is, then, almost certainly a continuation of the medieval route.

The specialist analysis of the artefacts and ecofacts provides useful information about life at the abbey in the medieval period.

The range and form of the foodstuffs consumed at Clare Abbey in the medieval period would be common in medieval towns and demonstrates the relative high status and economic power of the resident Augustinian order. Indeed, Clare Abbey's power and importance grew during the fourteenth century and the establishment was seen as one of the most powerful and wealthy monasteries in the country and remained so up to the Dissolution (Gwynn and Gleeson 1962). This good living contrasts with an observation quoted by Power (1987, 6) that the Augustinians '…lived austere lives of prayer, fasting and work.'

Two pieces of pottery from wine jugs indicate that wine and storage containers were being imported to Clare Abbey from south-west France and the Bristol region of England around the late 12th to 14th centuries. In addition to French wine, the monks at Clare Abbey enjoyed a rich diet of beef, mutton and pork as well as fish. The early 11th to early 13th century pit 6 contained over 2000 fish bones, of which more than half were from eel. The River Fergus is famed for its eels and the presence of so many bones from a pit that was adjacent to the abbey kitchen strongly suggests that eel formed a significant element in the diet of the monks in the medieval period. Sea fish such as cod and flounder were also found in pit 6 demonstrating that the abbey was part of a wider economy. Some fisheries were owned by the local nobility and were often donated to a monastery or church. The charter bequeathed to Clare Abbey by Donal Mór O'Brien in 1189 granted various fisheries and fishing rights to the Canons Regular of St Augustine (MacMahon, 1993 and Westropp 1900a, 119). Meat was seemingly brought to the abbey as complete carcasses prior to on site butchery. Barley and free-threshing wheat was probably grown and processed elsewhere and further processed and consumed at the abbey – perhaps as bread, gruels and beer.

Building materials such a brick and tile were seemingly imported to Clare Abbey in the medieval period. It is ironic, given that the clays on the adjacent Fergus floodplain were used for brick-making nearby in the 18th to 19th centuries, that some of the brick found in the abbey excavation may have come from Gloucester, England.

The roofing material for the abbey had a more local source and was found, unsurprisingly, in post-medieval contexts. The abbey – but most probably the abbey kitchen – was roofed with sandstone tiles held in place by mortar with pegs or nails (Halpin pers. comm.) and these tiles very likely came from the Moher region of west Clare, no more than 30km to the north-west.

Manufacturing as well as consumption was also occurring at the abbey in the medieval period. The large quantity of nails and fittings and the iron slag found in the excavation indicate carpentry and other industrial activities such as iron smelting and smithing were taking place there.

The presence of non-local quartz crystals, particularly in association with a medieval abbey, suggests that these stones may have been votive lapidaries, collected and deposited for their perceived powers.

Post-Dissolution activity

Clare Abbey was dissolved in 1543 and the site and possessions were granted to the descendants of Domnall Mór, the Earl of Thomond and the Baron of Inchiquin (Power 2004, 162).

The physical decline of Clare Abbey after the Dissolution is apparent from the archaeological evidence and is in part supported by documentary evidence.

John Nellan, the Protestant Archdeacon of Killaloe, complained in *c.* 1567 in 'A boke putt by Nellan for the countrey of Thomond' (Gallwey 1968, 65-73) to the English authorities about the abuse to the former monastic properties of Killone and Clare Abbey (amongst a litany of other observations) that the Earl of Thomond and his brother Sir Donald O'Brien of Ennistymon were misusing the abbey:

Whereas the abbey of Kyloyn [Killone] *in time past, when it was possessed by a nun or an abbess, was kept up indifferent well as a parish church and the revenues thereof (which was great) converted for*

the most part to whoredom, gluttony, and other forms of excess and dissolute living; yet some relief was to be had there then for the poor, feeding and clothing the needy, naked, hungry and impotent, but now all the emoluments thereof is wholly converted to the use of thieves, murderers, rebel, and other kinds of riot. Morough O Bryen's sons hath the same, and it might please her Highness [Elizabeth] *to abrogate the grant made herein already, seeing it is so ill disposed, and to dispose it upon somer college or school for education of the youth of the same country, and to use the abbey of Clarmore* [Clare Abbey] *with the lordship thereof in like sort, seeing the same abbey too is misused as Kylloyne. The Earl* [of Thomond*] and Sir Donell O Bryen hath this abbey of Clare.* (Gallwey 1968, 70-1).

Thomas Dyneley's 1681 sketch (Plate 4) shows that the abbey kitchen had been converted into a house and also depicts a small chapel adjoined to the abbey supporting the notion that some form of religious activity continued up to the later seventeenth century. The ending of religious activity and the general decline of the abbey are supported by a 1779-82 sketch engraved by Pelham (Grose 1793), which depicts the kitchen/house as unroofed, and the chapel as absent (Plate 5).

The decline of the abbey and the change of use to something more secular is attested to by the presumed insertion of a latrine in the abbey cloister, and the archaeological evidence of the opening of a cess egress hole in the cloister wall and the construction of a cess-pit with associated cess run-off drains took place after 1460 (radiocarbon date) and before 1640 (clay tobacco pipe in layer above). The presence of a fine piece of glassware (a beaker probably from the Low Countries, made in the Venetian style and dating to *c.* 1600) at the base of the cess-pit indicates that some very high status individuals were drinking wine or beer at the abbey after the Dissolution. William Harrison, writing in 1587, states that 'In these our daies, wherein gold and silver most aboundeth…our gentilitie…do now generallie choose rather the Venice glasses, both for our wine and beere.' (Edelen 1968, 128).

Further, the cess-pit fills, and particularly the basal fill (67), have provided a wealth of information about the use of Clare Abbey after the Dissolution. Two pins, that may have been for fastening clothing, were found in the cess-pit and these might not be unsurprising finds given the latrine context. Also found in the cess-pit were a large quantity of animal bones. The species represented were: cattle, sheep/goat, pig, dog, hare, black rat, woodmouse, chicken, goose, duck, woodcock, frog, pike, flounder, eel and oyster. Some of these animals undoubtedly fell into the cess-pit, but some of the body parts from others were either thrown in or the smaller bones passed through the digestive system. The mixture of domestic and wild animals is notable and suggests that a rich diet was enjoyed by the post-Dissolution users of the abbey. Seemingly the users of the latrine were wealthy enough (or dissolute enough) to be using linen as a toilet article.

Also found at the base of the cess-pit was a probable lead, spherical gun pellet. This artefact was slightly flatted on one side and had a diameter of 4.2mm and it is possible that the pellet came from the body of an animal (perhaps a wild bird).

At the east of the site, close to the abbey west wall, the cess-pit and associated features and many of the Phases I and II features were sealed by a substantial layer of limestone rubble with sandstone roofing tile. It is likely that this deposit represents collapse of part of the abbey west wall and also that the building adjacent was roofed. This building may have once been the abbey kitchen. The artefacts found in the collapse (tumble) were generally post-medieval in date and, where datable, 17th century. It might be thought odd that artefacts were found in collapsed wall material and there may therefore be a degree of intent in the deposit that could indicate deliberate destruction.

The arrival of Cromwell's forces in 1649 led to the invasion of Clare and the besieging of Clare Castle by Ireton in 1651. In the latter stages of the siege there were about 2,000 English soldiers and 1,500 cavalry encamped around Clare Castle (Power 2004, 46).The Cromwellian occupiers of Clare Abbey may well have decided to deface the Catholic establishment, but this said, it is quite possible for 'Cromwell' to be used as a false-shorthand to describe damage to buildings in Ireland in the 17th century – in those turbulent times, many others might have had cause to damage medieval buildings (Ní Cheallaigh 2007, 133).

After the Cromwellian victory over the Irish Confederate forces in 1651, the lands of the Earl of Thomond were given to English settlers and in particular Cromwellian supporters such as army officers (Power 2004, 169-71). The Court of Chancery in Dublin ordered a survey of the Earl of Thomond's estate in 1656. This survey shows that Clare Abbey and adjoining lands were rented to Edmond Blood and William Keatinge. The Plantation under the Cromwellians included a 'mile-line' within which English Protestant soldiers were planted to control the transplanted Catholic Irish who were sent to Clare. This mile-line included lands one mile from the banks of the River Fergus and also 500 acres around Clare Castle. Clare Abbey was then, until the Restoration in 1660, under the control of the Cromwellian military and its sympathisers. Edmond Blood may have retained his lands for a number of years, as a person with the same name was ordered to be imprisoned in Ennis gaol along with other prominent Protestants by the Jacobeans in 1690 (Gwynn and Gleeson 1962, 392).

There is a possibility that some of the archaeological information recorded at Clare Abbey relates to the wars of the 17th century. Artefactual evidence, in the form of spur parts, buckles and horse equipment and a 1691 James II gun money halfpenny, struck in the Jacobite-held city of Limerick, may be related to the historically attested presence of military forces in the neighbourhood of Clare Castle.

Gun money, or brass money, was issued by James II to pay for the war and, if victorious, the base metal coinage would have been redeemable for regular silver currency (Rice 1990, 212–4). Twenty-eight James II gun money coins were found in a hoard at Ballyea, Co. Clare, 6km south-west of Clare Abbey, in 1982 (Lenihan 1983, 7). The large body of cavalry that was stationed at Clare in 1691 (Gilbert 1892, 188, 296) would have required grazing for their horses and, indeed, Major-general Wauchope wrote a letter on 18 October 1691, following the capitulation of Limerick, stating that County Clare 'was almost the only place we had to subsist the horse and dragoons' (*ibid*, 310). The flat pasture, near the castle in Clare and adjacent to a partly roofed institutional structure - the abbey - would have been ideal. Of the 123 metal artefacts recovered during the archaeological excavation, 22 (15.9%) were related to horses and indicates '…horse use in the immediate area.' (Carroll and Quinn above).

Defeat at the Battle of Aughrim in July 1691 led to retreat and the besieging of Jacobite forces at Limerick. The garrisons at Clare Castle and Ross Castle were strengthened in order to retain Jacobite control over Clare and Kerry, as well as to defend the areas around Limerick (Simms 1969, 240). Power (2004, 54) notes that Clare Castle was held by Jacobite forces under Teige MacNamara of Ayle, Tulla. Conditions at the garrison, even before the defeat at Aughrim, may have been poor, as evidenced by a complaint dated 28 January 1691: 'Armed soldiers from Clare Castle were looting around the Latoon district seeking victuals and terrorising the poor people in their cabins, including women and children'. Colonel Richards' diary, written in Limerick at the time of the siege there, notes that on 23 September 1691 a message should be sent 'to Dominick Sheldon at their horse-camp at Castle Clare' (Gilbert 1892, 296) and that on 25 September 1691 'Major-general Dominick Sheldon with the [catholic] archbishop [of Armagh] and the [catholic] bishop [of Cashel] arrived from Clare at the General's tent' (*ibid*, 297). French officers and cavalry were also based at Clare Castle c. 1691 and, indeed, nearly half the Jacobite cavalry seems to have been based in County Clare at this time. Article XI of the Treaty of Limerick refers to the garrison at Clare Castle:

> *' The garrisons of Clare castle and Ross castle and all the other foot [soldiers] … shall have the advantage of the present capitulation; and such part of those garrisons as deign to go beyond seas, shall march out with their arms, baggage, drums beating, ball in mouth, match lighted and colours flying, with all of the provisions and half the ammunition that is in the said magazine, and join the horse that march to be transported'* (quoted in Gilbert 1872, 304–5).

After this period of warfare, later use of the ground adjacent to the abbey seems to have been for cultivation, most probably of potatoes in the later 18th and earlier 19th centuries. The construction of

the railway to the immediate west of the excavation site in the middle of the 19th century may very well account for the modern features found.

Archaeological potential on adjacent land

The ground to the north and south of the excavation area, as well as the existing abbey remains to the east, has a very high probability of containing archaeological deposits and features associated with the abbey's foundation, use and decline from at least the 13th century onwards. Any private groundworks in the immediate vicinity should be subject to archaeological constraint. To the immediate west of the excavation area, it is very likely that early deposits have been destroyed by the construction of the railway in the mid-19th century. Archaeological deposits may, however survive to the west of the railway. Topographic survey (Murphy 2007), geophysical survey (06R0195, Leigh 2006) and archaeological test trenching (07E0703, Hull 2006d, Hull and McNamara 2006 and Hull 2007) have been carried out on the lands immediately surrounding Clare Abbey for a proposed private development (Figs 3 and 23). The geophysical survey identified high archaeological potential in the form of probable ancillary buildings to the south, east and north of the abbey as well as cut features (possibly graves) to the immediate north of the abbey church. The archaeological test trenching demonstrated an absence of archaeological features or deposits on or in the deep peat (up to 3m deep) to the north of the abbey. Further archaeological features, perhaps relating to post-medieval brick making, were also identified in the geophysical and topographic surveys.

The walls uncovered by the archaeological excavation were protected with geotextile and then buried under gravel. These features have been effectively preserved *in situ*.

Publication and further work

A summary of the findings of the excavation has been submitted to *Excavations 2005*.

This archaeological final report will be posted on the County Clare Library website (**www.clarelibrary.ie**)

A public lecture, highlighting the excavation results, was made in September 2007 and the proceedings of that seminar have been published by the National Roads Authority (Hull and Joubert 2008).

An article, illustrating the excavation results, has been published in *The Other Clare* (Hull and Joubert 2008).

The excavation results from Clare Abbey will be published as part of a National Roads Authority monograph devoted to the archaeology of the N18 Ennis Bypass and N85 Western Relief Road.

An accessible archive of primary records has been prepared for long term storage and will be kept at the offices of TVAS (Ireland) Ltd until such time as a State archive repository becomes available.

The finds have been cleaned and conserved (where necessary), numbered, labelled, properly packed and will be deposited with the National Museum of Ireland in accordance with *Advice Notes for Excavators* (NMI 1997).

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Graham Hull MIFA MIAI
TVAS Ireland Ltd
15th October 2008

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Appendix 1: Catalogue of features and deposits

Context No.	Description	Date	Phase
1	Boundary wall	19/20	IV
2	Pit	18/19	IV
3	Linear feature (gully)	13/14	II
4	Wall (cess-pit)	?15/17	III
5	Non archaeological	n/a	n/a
6	Pit	1030-1220 c14	I
7	Abbey west wall foundations (see also 124)	13+	II
8	?Wall	?	?
9	Pit	19/20	IV
10	Wall (cess-pit)	?15/17	III
11	Construction cut for wall 4	?15/17	III
12	Construction cut for wall 10	?15/17	III
13	Backfilled stone-hole	1200-1280 c14 13/14 pot	II
14	Ditch	?	?
15	Lazybed furrow	18/19	IV
16	Lazybed furrow	18/19	IV
17	Lazybed furrow/pit	18/19	IV
18	Lazybed furrow	18/19	IV
19	Lazybed furrow	18/19	IV
20	Lazybed furrow	18/19	IV
21	Lazybed furrow	18/19	IV
22	Lazybed furrow	18/19	IV
23	Lazybed furrow	18/19	IV
24	Backfilled stone-hole	L12-M13 pot	I/II
25	Lazybed furrow	18/19	IV
26	Depression in natural	n/a	n/a
27	Lazybed furrow	18/19	IV
28	West wall of abbey	13+	II
29	?Stakehole	?18/19	IV
30	?Stakehole	?18/19	IV
31	?Stakehole	?18/19	IV
32	?Stakehole	?18/19	IV
33	Wall	?	?
34	Egress hole in abbey west wall for cess	?15/17	III
35	Linear feature (gully)	1220-1310 & 1360-1380 c14	II
36	Wall (cess-pit)	?15/17	III
37	Drain associated with cess-pit	?15/17	III
38	Posthole	1160-1290 c14	I/II
39	Number allocated for unstratified finds	n/a	n/a
40	Posthole	?12/13	I/II
41	Posthole	?12/13	I/II
42	?Posthole	?12/13	I/II
43	Posthole	?	?
44	Drain associated with cess-pit	?15/17	III
45	Pit	?	?
46	Posthole/shallow pit	?	?
47	Posthole	?	?
48	Posthole	?13	II
49	Posthole	1200-1280 c14	II
50	Made-ground	20	IV
51	Buried topsoil	19/20	IV
52	Fill of 2	18/19	IV
53	Fill of 3	13/14	II
54	Made-ground	19	IV

Appendix 1: Catalogue of features and deposits continued

Context No.	Description	Date	Phase
55	?Buried topsoil	Pipe 18/19	IV
56	Deposit	18/19	IV
57	Deposit – same as 56	18/19	IV
58	Tumble	Pipe 18/19	IV
59	Made-ground	18/20	IV
60	Deposit	18/19	IV
61	Fill of 5	n/a	n/a
62	Tumble	18/19	IV
63	Natural geology	n/a	n/a
64	Fill of 9	19/20	IV
65	Fill of 6	1030-1220 c14	I
66	Interface above natural	Pipe L 17 +	IV
67	Cess	1460-1660 c14 glass E17	III
68	Gravel deposit	Pot 18/19	IV
69	Hardstanding	?	?
70	Fill of 9	19/20	IV
71	Fill of 13	1200-1280 c14 13/14 pot	II
72	Interface above natural	?	?
73	Fill of 14	Pipe 18/19	IV
74	Fill of 35	1220-1310, 1360-1380 c14	II
75	Made-ground	20	IV
76	Fill of 15	18/19	IV
77	Fill of 16	18/19 pot	IV
78	Fill of 17	18/19	IV
79	Fill of 18	18/19	IV
80	Fill of 19	18/19	IV
81	Fill of 20	17 pot 18/19	IV
82	Fill of 21	18/19	IV
83	Fill of 22	18/19	IV
84	Fill of 23	18/19	IV
85	Fill of 24	L12-M13 pot	I/II
86	Fill of 25	18/19	IV
87	Fill of 26	n/a	n/a
88	Fill of 27	18/19	IV
89	Fill of 29	18/19	IV
90	Fill of 30	18/19	IV
91	Fill of 31	18/19	IV
92	Fill of 32	18/19	IV
93	Fill of 45	?	?
94	Deposit	?	?
95	Fill of 34	M17 +	III
96	Fill of 34	M17 +	III
97	Fill of 34	M17 +	III
98	Deposit	19/20	IV
99	Deposit	19/20	IV
100	Posthole	13	I/II
101	Posthole	13	I/II
102	Posthole	13	I/II
103	Stakehole	?	?
104	Stakehole	?	?
105	Stakehole	?	?
106	Posthole	13	I/II
107	Posthole	?	?
108	Linear feature (gully)	13/14 +	?

Appendix 1: Catalogue of features and deposits continued

Context No.	Description	Date	Phase
109	Posthole	?	?
110	Posthole	?	?
111	Posthole	?	?
112	?Posthole	?	?
113	Posthole	?	?
114	Feature associated with railway	19/20	IV
115	Stakehole	?	?
116	Stakehole	?	?
117	Stakehole	?	?
118	Stakehole	?	?
119	Stakehole	?	?
120	Stakehole	?	?
121	Stakehole	?	?
122	Stakehole	?	?
123	Ditch	E13-L14 or earlier	?
124	Abbey west wall foundations (see also 7)	13+	?
125-149	Not used	n/a	n/a
150	Deposit	19/20	IV
151	Deposit	19/20	IV
152	Fill of 14	?	?
153	Fill of 14	?	?
154	Same as 58	18/19	IV
155	Fill of 37	?15-17	III
156	Same as 51?	19+	IV
157	Fill of 38	1160-1290 c14	I/II
158	Fill of 40	12/13	I/II
159	Fill of 41	12/13	I/II
160	Fill of 42	12/13	I/II
161	Fill of 43	?	?
162	Fill of 44	?15/17	III
163	Fill of 46	?	?
164	Fill of 47	?	?
165	Fill of 48	13	II
166	Fill of 49	1200-1280 c14	II
167	Fill of 100	13	II
168	Fill of 101	13	II
169	Fill of 102	13	II
170	Fill of 103	?	?
171	Fill of 104	?	?
172	Fill of 105	?	?
173	Fill of 106	13	II
174	Fill of 14	?	?
175	Fill of 14	?	?
176	Fill of 14	?	?
177	Fill of 107	?	?
178	Fill of 108	13/14 +	?
179	Fill of 109	?	?
180	Fill of 110	?	?
181	Fill of 111	?	?
182	Fill of 112	?	?
183	Fill of 113	?	?
184	Fill of 114	19/20	IV
185	Fill of 115	?	?
186	Fill of 116	?	?

Appendix 1: Catalogue of features and deposits continued

Context No.	Description	Date	Phase
187	Fill of 117	?	?
188	Fill of 118	?	?
189	Fill of 119	?	?
190	Fill of 120	?	?
191	Fill of 121	?	?
192	Fill of 122	?	?
193	Fill of 123	E13-L14 or earlier	?
194	Fill of 123	E13-L14 or earlier	?
195	Fill of 123	E13-L14 or earlier	?
196	Fill of 123	E13-L14 or earlier	?
197	Fill of 123	E13-L14 or earlier	?
198	Fill of 123	E13-L14 or earlier	?

Appendix 2: Catalogue of finds

Find No.	Cut	Deposit	Category	Description	No. of pieces	Weight (gm)
36:1		36	Bone	Animal bone	5	30
36:2	36		Pottery	North Devon gravel tempered - body sherd	1	1
39:1		39	Bone	Animal bone	28	486
39:2		39	Metal	Undiagnostic metal object - by-product of metal working	1	31
39:3		39	Metal	Undiagnostic metal object - by-product of metal working	1	21
39:4		39	Metal	Undiagnostic metal object - lead waste, flat, thin	1	9
39:5		39	Metal	Buckle- iron, D-shaped, incomplete	1	13
39:6		39	Metal	Annular ring- copper alloy, complete	1	4
39:7		39	Metal	Nail- iron, complete	1	2
39:8		39	Bone	Animal bone	1	18
39:9		39	Pottery	Black glazed ware- body sherd	1	32
39:10		39	Pottery	Black glazed ware- base sherd	1	35
39:11		39	Pottery	Black glazed ware- body sherd	1	6
39:12		39	Metal	Nail- iron, ?complete (corroded)	1	12
39:13		39	Metal	Spur leather attachment- iron	1	6
39:14		39	Metal	Undiagnostic metal object- by-product of metal working	1	4
39:15		39	Metal	Horseshoe- iron, incomplete	1	21
39:16		39	Brick/Tile	Red brick fragment with straw impression, moulding sand adhered	1	272
39:17		39	Brick/Tile	Drainpipe- thick, glazed	1	113
50:1		50	Bone	Animal bone	21	214
50:2		50	Metal	Possible handle fragment- iron, curved, concave in section, incomplete	1	52
50:3		50	Metal	Coin- James II halfpenny 'gunmoney' 1691 - copper alloy	1	6
50:4		50	Brick/Tile	Field drain fragment, red clay, moulded- ?modern	1	38
50:5		50	Brick/Tile	Field drain fragment, red clay, moulded- ?modern	1	8
50:6		50	Brick/Tile	Field drain fragment, red clay, moulded- ?modern	1	1
50:7		50	Brick/Tile	Field drain fragment, red clay, moulded- ?modern	1	<1
51:1		51	Bone	Human (premolar human tooth) & animal bone	171	770
51:2		51	Metal	Nail- iron, complete	1	7
51:3		51	Metal	Nail- iron, complete	1	5
51:4		51	Metal	Nail- iron, complete	1	8
51:5		51	Metal	Nail- iron, complete (corroded)	1	5
51:6		51	Metal	Possible nail shaft- incomplete	1	2
51:7		51	Metal	Nail shaft- iron, incomplete	1	2

Appendix 2: Catalogue of finds continued

Find No.	Cut	Deposit	Category	Description	No. of pieces	Weight (gm)
51:8		51	Metal	Nail- iron, complete but fragmented (highly corroded)	3	12
51:9		51	Metal	Nail shaft- iron, incomplete (highly corroded)	1	2
51:10		51	Metal	Nail shaft- iron, incomplete (highly corroded)	1	5
51:11		51	Metal	Nail- iron, complete, crutch-headed	1	<1
51:12		51	Clay tobacco pipe	Bowl fragment	1	1
51:13		51	Clay tobacco pipe	Stem fragment	1	2
51:14		51	Bone	Animal bone	34	369
51:15		51	Bone	Animal bone	9	165
51:16		51	Pottery	North Devon gravel tempered- handle sherd	1	44
51:17		51	Pottery	North Devon gravel tempered- base sherd	1	9
51:18		51	Pottery	Transfer printed ware- rim sherd	1	3
51:19		51	Pottery	Transfer printed ware- rim sherd	1	<1
51:20		51	Pottery	Creamware- body sherd	1	<1
51:21		51	Stone	Quartz	1	45
51:22		51	Stone	Quartz	1	282
51:23		51	Stone	Quartz	1	21
51:24		51	Stone	Quartz	1	13
51:25		51	Stone	Quartz	1	14
51:26		51	Stone	Quartz	1	28
51:27		51	Stone	Quartz	1	46
51:28		51	Stone	Quartz	1	2
51:29		51	Stone	Quartz	1	153
51:30		51	Stone	Quartz	1	2
51:31		51	Stone	Quartz	1	1
51:32		51	Stone	Quartz	1	2
51:33		51	Stone	Quartz	1	3
51:34		51	Stone	Quartz	1	14
51:35		51	Stone	Quartz	1	2
51:36		51	Stone	Quartz	1	<1
51:37		51	Stone	Quartz	1	11
51:38		51	Stone	Quartz-	1	14
51:39		51	Stone	Quartz	1	4

Appendix 2: Catalogue of finds continued

Find No.	Cut	Deposit	Category	Description	No. of pieces	Weight (gm)
51:40		51	Stone	Quartz	1	51
51:41		51	Stone	Quartz	1	3
51:42		51	Stone	Quartz	1	1
51:43		51	Stone	Quartz	1	4
51:44		51	Stone	Quartz	1	8
51:45		51	Stone	Quartz	1	5
51:46		51	Stone	Quartz	1	<1
51:47		51	Stone	Quartz	1	4
51:48		51	Stone	Quartz	1	<1
51:49		51	Stone	Quartz	1	11
51:50		51	Stone	Quartz	1	2
51:51		51	Stone	Quartz	1	26
51:52		51	Stone	Quartz	1	21
51:53		51	Stone	Quartz	1	9
51:54			cancelled	Cancelled		
51:55		51	Stone	Quartz	1	12
51:56		51	Stone	Quartz	1	17
51:57		51	Stone	Quartz	1	8
51:58		51	Stone	Quartz- small prism tip fragment, struck, ?votive/manufacture	1	<1
51:59		51	Stone	Whetstone fragment- rectangular, numerous small scratches, smooth surfaces	1	24
51:60		51?	Brick/Tile	Red brick fragment	1	7
51:61		51	Brick/Tile	Red brick fragment, moulding sand adhered	1	35
51:62		51	Brick/Tile	Red brick fragment	1	5
51:63		51	Brick/Tile	Red brick fragment	1	2
51:64		51	Brick/Tile	Red brick fragment	1	<1
51:65		51	Brick/Tile	Field drain fragment, red clay, moulded- ?modern	1	17
51:66		51	Metal	Star rowel- copper alloy (well preserved)	1	18
51:67		51	Slag	Slag run & undiagnostic	2	94
51:68		51?	Slag	Undiagnostic	1	102
51:69		51?	Slag	Smithing hearth bottom & undiagnostic	2	244
52:1	2	52	Bone	Animal bone	3	1
52:2	2	52	Metal	U-shaped staple- iron, complete (corroded w/accretions)	1	8
52:3	2	52	Metal	Possible horseshoe nail- iron, incomplete	1	8

Appendix 2: Catalogue of finds continued

Find No.	Cut	Deposit	Category	Description	No. of pieces	Weight (gm)
52:4	2	52	Pottery	Pearlware- base sherd	1	12
53:1	3	53	Metal	Horseshoe nail- iron, incomplete	1	5
53:2	3	53	Metal	Horseshoe nail- iron, complete	1	7
53:3	3	53	Metal	Horseshoe nail- iron, eared w/spiral clench, complete, 13th-14thc	1	4
53:4	3	53	Metal	Nail shaft- iron, incomplete	1	<1
53:5	3	53	Metal	Nail- iron, complete	1	7
53:6	3	53	Metal	Horseshoe nail- iron, w/expanded head & ears, complete	1	6
53:7	3	53	Metal	Nail- iron, complete	1	6
53:8-10				Cancelled		
53:11	3	53	Stone	Quartz	1	3
53:12	3	53	Stone	Roof tile fragment w/perforated hole-sandstone	1	841
53:13	3	53	Slag	Slag run	1	17
53:14	3	53	Slag	Undiagnostic	2	1
53:15	3	53	Bone	Animal bone	45	603
53:16	3	53	Bone	Animal bone	50	12
54:1		54	Bone	Animal bone	14	96
54:2		54	Metal	Flat strip, bent at one end- iron, incomplete, undiagnostic	1	215
54:3		54	Metal	Strip w/spaced linear grooves- iron, incomplete	1	14
54:4		54	Metal	Buckle frame fragment- iron, incomplete (corroded)	1	7
54:5		54	Metal	Nail- iron, complete	1	2
54:6		54	Shell	Oyster fragment	1	3
54:7		54	Shell	Oyster fragment	1	2
54:8		54	Shell	Oyster fragment	1	13
54:9-12				Cancelled		
54:13		54	Clay tobacco pipe	Stem fragment	1	2
54:14		54	Clay tobacco pipe	Stem fragment	1	2
54:15		54	Pottery	Stoneware- base sherd	1	7
54:16		54	Pottery	Stoneware- base sherd	1	6
54:17		54	Pottery	Stoneware- body sherd	1	8
54:18		54	Pottery	Stoneware- rim sherd	1	6
54:19		54	Pottery	Stoneware- body sherd	1	9
54:20		54	Pottery	Black glazed ware- body sherd	1	52
54:21		54	Pottery	Black glazed ware- body sherd	1	24

Appendix 2: Catalogue of finds continued

Find No.	Cut	Deposit	Category	Description	No. of pieces	Weight (gm)
54:22-24				Cancelled		
55:1		55	Bone	Human (radius frag, pariental skull frag) & animal bone	340	2087
55:2		55	Metal	Nail- iron, complete	1	4
55:3		55	Metal	Nail- iron, complete	1	2
55:4		55	Metal	Possible horseshoe nail- iron, incomplete	1	4
55:5		55	Metal	Nail- iron, complete	1	4
55:6		55	Metal	Nail shaft- iron, incomplete (highly corroded)	1	6
55:7		55	Metal	Composite iron object- three strips held together w/seven white metal rivets, incomplete, poss handle	1	13
55:8		55	Metal	Window lead- strip, lead, incomplete	1	3
55:9		55	Shell	Oyster fragment	1	7
55:10		55	Shell	Oyster fragment	1	5
55:11		55	Shell	Oyster fragment	1	3
55:12		55	Shell	Oyster fragment	1	8
55:13		55	Shell	Oyster fragment	1	2
55:14		55	Clay tobacco pipe	Whole pipe bowl- milled ring post1640	1	8
55:15		55	Clay tobacco pipe	Bowl fragment	1	3
55:16		55	Clay tobacco pipe	Bowl fragment	1	<1
55:17		55	Clay tobacco pipe	Stem fragment- widens to where bowl adjoins	1	5
55:18		55	Clay tobacco pipe	Stem fragment	1	3
55:19		55	Clay tobacco pipe	Stem fragment	1	1
55:20		55	Clay tobacco pipe	Stem fragment	1	1
55:21		55	Clay tobacco pipe	Stem fragment	1	2
55:22		55	Clay tobacco pipe	Stem fragment	1	2
55:23		55	Clay tobacco pipe	Stem fragment	1	<1
55:24		55	Clay tobacco pipe	Stem fragment	1	2
55:25		55	Clay tobacco pipe	Stem fragment	1	1
55:26		55	Clay tobacco pipe	Stem fragment	1	<1
55:27		55	Clay tobacco pipe	Stem fragment	1	<1
55:28		55	Clay tobacco pipe	Stem fragment	1	3
55:29		55	Clay tobacco pipe	Stem fragment	1	<1
55:30		55	Glass	Dark green- bottle body sherd	1	43
55:31		55	Glass	Dark green- bottle body sherd	1	12

Appendix 2: Catalogue of finds continued

Find No.	Cut	Deposit	Category	Description	No. of pieces	Weight (gm)
55:32		55	Glass	Dark green- bottle body sherd	1	11
55:33		55	Glass	Dark green- bottle shoulder/neck sherd	1	6
55:34		55	Glass	Dark green- bottle body sherd	1	6
55:35		55	Glass	Dark green- bottle body sherd	1	4
55:36		55	Glass	Dark green- bottle body sherd	1	4
55:37		55	Glass	Dark green- bottle body sherd	1	3
55:38		55	Glass	Dark green- bottle body sherd	1	3
55:39		55	Glass	Dark green- bottle body sherd	1	<1
55:40		55	Glass	Dark green- bottle body sherd	1	2
55:41		55	Glass	Dark green- bottle body sherd	1	2
55:42		55	Glass	Dark green- bottle body sherd	1	3
55:43		55	Glass	Dark green- bottle body sherd	1	<1
55:44		55	Glass	Dark green- bottle body sherd	1	1
55:45		55	Glass	Dark green- bottle body sherd	1	<1
55:46		55	Glass	Dark green- bottle body sherd	1	<1
55:47		55	Glass	Light green- vessel body sherd	1	<1
55:48		55	Glass	Clear- vessel body sherd	1	<1
55:49		55	Glass	Clear- vessel body sherd	1	<1
55:50		55	Glass	Clear w/aqua tinge- bottle body sherd	1	8
55:51		55	Glass	Clear w/aqua tinge- bottle base sherd, kick-up	1	9
55:52		55	Glass	Clear- bottle base sherd, kick-up	1	29
55:53		55	Glass	Clear- bottle base sherd	1	1
55:54		55	Glass	Decaying dark- vessel body sherd	1	17
55:55		55	Pottery	North Devon gravel tempered- body sherd	1	2
55:56		55	Pottery	Creamware- base sherd	1	3
55:57		55	Pottery	Stoneware- body sherd	1	2
55:58		55	Pottery	Transfer printed ware- base sherd	1	4
55:59		55	Pottery	Transfer printed ware- base sherd	1	2
55:60		55	Pottery	Transfer printed ware- body sherd	1	<1
55:61		55	Pottery	Donyatt- rim sherd	1	24
55:62		55	Pottery	Donyatt- body sherd	1	3
55:63		55	Pottery	Donyatt- rim sherd	1	27
55:64		55	Pottery	Donyatt- rim sherd	1	9

Appendix 2: Catalogue of finds continued

Find No.	Cut	Deposit	Category	Description	No. of pieces	Weight (gm)
55:65		55	Pottery	Donyatt- body sherd	1	3
55:66		55	Pottery	North Devon gravel free- base sherd	1	62
55:67		55	Pottery	Black glazed ware- body sherd	1	14
55:68		55	Pottery	Black glazed ware- body sherd	1	20
55:69		55	Pottery	Black glazed ware- rim sherd	1	<1
55:70		55	Pottery	Black glazed ware- rim sherd	1	<1
55:71		55	Pottery	North Devon gravel tempered- rim sherd	1	40
55:72		55	Pottery	North Devon gravel tempered- rim sherd	1	40
55:73		55	Pottery	Stoneware- body sherd	1	3
55:74		55	Pottery	Chinaware- base sherd	1	5
55:75		55	Pottery	Stoneware- body sherd	1	1
55:76		55	Pottery	Chinaware- rim sherd	1	2
55:77		55	Pottery	North Devon gravel free- base sherd	1	3
55:78		55	Pottery	Transfer printed ware- body sherd	1	3
55:79		55	Stone	Quartz	1	20
55:80		55	Stone	Quartz	1	<1
55:81		55	Stone	Quartz	1	6
55:82		55	Stone	Quartz	1	6
55:83		55	Stone	Quartz	1	4
55:84		55	Stone	Quartz	1	5
55:85		55	Stone	Quartz	1	2
55:86		55	Brick/Tile	Red brick fragment	1	26
55:87		55	Brick/Tile	Red brick fragment	1	27
55:88		55	Brick/Tile	Red brick fragment	1	18
55:89		55	Brick/Tile	Red brick fragment	1	11
55:90		55	Brick/Tile	Red brick fragment	1	5
55:91		55	Brick/Tile	Red brick fragment	1	4
55:92		55	Brick/Tile	Red brick fragment	1	1
55:93		55	Brick/Tile	Red brick fragment	1	<1
55:95		55	Stone	Roof tile fragment-sandstone	1	295
55:96		55	Stone	Roof tile fragment w/perforated hole-sandstone	1	221
55:97		55	Stone	Roof tile fragment w/perforated hole-sandstone	1	594
55:98		55	Stone	Roof tile fragment-sandstone	1	802

Appendix 2: Catalogue of finds continued

Find No.	Cut	Deposit	Category	Description	No. of pieces	Weight (gm)
55:99		55	Stone	Roof tile fragment-sandstone	1	7
56:1		56	Bone	Animal bone	12	112
56:2		56	Shell	Oyster fragment	1	1
56:3		56	Clay tobacco pipe	Bowl fragment	1	<1
56:4		56	Pottery	Glazed red earthenware- body sherd	1	8
57:1		57	Bone	Animal bone	12	67
57:2		57	Pottery	North Devon gravel free- rim sherd	1	40
58:1		58	Bone	Human (fibula frag x2) & animal bone	602	5493
58:2		58	Glass	Colourless- window glass fragment	1	<1
58:3		58	Pottery	North Devon gravel tempered- body sherd	1	11
58:4		58	Pottery	North Devon gravel free- body sherd	1	6
58:5		58	Pottery	Glazed red earthenware?- body sherd	1	1
58:6		58	Pottery	Transfer printed ware- body sherd	1	2
58:7		58	Pottery	North Devon gravel free- body sherd	1	44
58:8		58	Pottery	North Devon gravel tempered- body sherd	1	10
58:9		58	Pottery	Glazed red earthenware- rim sherd	1	15
58:10		58	Pottery	North Devon gravel free- body sherd	1	6
58:11		58	Metal	Horseshoe- iron, complete	1	158
58:12		58	Metal	L-shaped bar/?Poss handle fragment- iron, incomplete	1	26
58:13		58	Metal	Horseshoe fragment- iron	1	23
58:14		58	Metal	Metal strip- iron, incomplete	1	5
58:15		58	Metal	Oval ring- iron, complete (corroded)	1	9
58:16		58	Metal	Button-flat disc w/looped eyelet, incomplete, C18th-19th	1	5
58:17		58	Metal	Copper alloy strip, incomplete, curved w/one bevelled edge	1	2
58:18		58	Metal	Possible 'U'-shaped staple- iron, complete	1	5
58:19		58	Metal	Needle/pin shaft- iron, incomplete (corroded)	1	2
58:20		58	Metal	Needle/pin shaft- iron, incomplete (corroded)	1	1
58:21		58	Metal	Needle/pin shaft- iron, incomplete, bent	1	<1
58:22		58	Metal	Nail- iron, incomplete	1	14
58:23		58	Metal	Nail- iron, complete	1	7
58:24		58	Metal	Nail- iron, complete	1	6
58:25		58	Metal	Nail- iron, complete	1	6
58:26		58	Metal	Nail- iron, complete	1	1

Appendix 2: Catalogue of finds continued

Find No.	Cut	Deposit	Category	Description	No. of pieces	Weight (gm)
58:27		58	Metal	Nail- iron, complete	1	<1
58:28		58	Metal	Nail- iron, complete	1	3
58:29		58	Metal	Nail- iron, incomplete	1	16
58:30		58	Metal	Nail- iron, complete	1	13
58:31		58	Metal	Nail- iron, complete	1	13
58:32		58	Metal	Nail- iron, complete	1	15
58:33		58	Metal	Nail- iron, complete	1	7
58:34		58	Metal	Nail- iron, complete, crutch-headed	1	6
58:35		58	Metal	Bar- iron, ?complete (corroded)	1	8
58:36		58	Metal	Nail- iron, complete	1	2
58:37		58	Metal	Nail- iron, incomplete (corroded)	1	2
58:38		58	Metal	Nail shaft- iron, complete (corroded)	1	4
58:39		58	Metal	Nail shaft- iron, incomplete (corroded)	1	l
58:40		58	Metal	Nail shaft- iron, incomplete (corroded)	1	5
58:41		58	Metal	Nail shaft- iron, incomplete (corroded)	1	3
58:42		58	Metal	Nail shaft- iron, incomplete (corroded)	1	4
58:43		58	Metal	Possible nail shaft- iron, incomplete	1	2
58:44		58	Metal	Nail- iron, complete	1	12
58:45		58	Metal	Nail- iron, complete	1	10
58:46		58	Metal	Nail- iron, incomplete (corroded)	1	6
58:47		58	Metal	Nail shaft- iron, incomplete (highly corroded)	1	24
58:48		58	Metal	Nail- iron, incomplete (corroded)	1	3
58:49		58	Metal	Possible nail shaft- iron, incomplete (corroded)	1	4
58:50		58	Metal	Nail- iron, complete (corroded)	1	8
58:51		58	Metal	Nail- iron, complete	1	8
58:52		58	Metal	Horseshoe nail- iron, complete (corroded)	1	6
58:53		58	Metal	Nail- iron, complete	1	7
58:54		58	Metal	Horseshoe nail- iron, complete	1	7
58:55		58	Metal	Possible horseshoe nail- iron, complete	1	7
58:56		58	Metal	Nail- iron, complete, crutch-headed	1	3
58:57		58	Shell	Oyster fragment	1	40
58:58		58	Shell	Oyster fragment	1	7
58:59		58	Shell	Oyster fragment	1	1

Appendix 2: Catalogue of finds continued

Find No.	Cut	Deposit	Category	Description	No. of pieces	Weight (gm)
58:60		58	Shell	Oyster shell	1	10
58:61		58	Shell	Oyster fragment	1	26
58:62		58	Shell	Oyster fragment	1	10
58:63		58	Shell	Oyster fragment	1	7
58:64		58	Shell	Oyster fragment	1	20
58:65		58	Shell	Oyster fragment	1	4
58:66		58	Shell	Oyster fragment	1	<1
58:67		58	Shell	Oyster fragment	1	<1
58:68		58	Shell	Oyster fragment	1	2
58:69-73				Cancelled		
58:74		58	Stone	Quartz	1	13
58:75		58	Stone	Quartz	1	15
58:76		58	Stone	Quartz	1	14
58:77		58	Stone	Quartz	1	53
58:78		58	Brick/Tile	Red brick fragment	1	13
58:79		58	Clay tobacco pipe	Bowl fragment- milled just below rim	1	2
58:80		58	Clay tobacco pipe	Bowl fragment	1	2
58:81		58	Clay tobacco pipe	Bowl fragment- milled just below rim	1	1
58:82		58	Clay tobacco pipe	Bowl fragment	1	1
58:83		58	Clay tobacco pipe	Stem fragment- start of heel, thickest point	1	4
58:84		58	Clay tobacco pipe	Stem fragment	1	4
58:85		58	Stone	Roof tile fragment w/perforated hole-sandstone-possibly heat affected	1	122
58:86		58	Stone	Roof tile fragment w/perforated hole-sandstone	1	174
58:87		58	Stone	Roof tile fragment w/perforated hole-sandstone	1	358
58:88		58	Stone	Roof tile fragment w/ 2 perforated holes-sandstone	1	1100
58:89		58	Stone	Roof tile fragment-sandstone	1	1515
58:90		58	Stone	Roof tile fragment-sandstone	1	1201
58:91		58	Stone	Roof tile fragment-sandstone	1	790
58:92		58	Stone	Roof tile fragment, concave edging-sandstone	1	954
58:93		58	Stone	Roof tile w/perforated hole, complete-sandstone	1	2304
58:94		58	Slag	Vitrified hearth lining & undiagnostic- iron rich	2	185
59:1		59	Bone	Animal bone	753	5215
59:2		59	Shell	Oyster fragment	1	1

Appendix 2: Catalogue of finds continued

Find No.	Cut	Deposit	Category	Description	No. of pieces	Weight (gm)
59:3		59	Glass	Clear w/aqua tinge- vessel body sherd	1	15
59:4		59	Glass	Clear- vessel body sherd	1	5
59:5		59	Glass	Decaying- vessel body sherd	1	27
59:6		59	Glass	Decaying- vessel body sherd	1	6
59:7		59	Pottery	Stoneware- base sherd	1	20
59:8		59	Pottery	Stoneware- body sherd	1	16
59:9		59	Pottery	Stoneware- body sherd	1	6
59:10		59	Pottery	Stoneware- body sherd	1	3
59:11		59	Pottery	Stoneware- body sherd	1	14
59:12		59	Pottery	Stoneware- body sherd	1	10
59:13		59	Pottery	Stoneware- body sherd	1	12
59:14		59	Pottery	Stoneware- body sherd	1	5
59:15		59	Pottery	Stoneware- body sherd	1	8
59:16		59	Pottery	Stoneware- body sherd	1	5
59:17		59	Pottery	Stoneware- body sherd	1	4
59:18		59	Pottery	Black glazed ware- body sherd	1	12
59:19		59	Pottery	Black glazed ware- body sherd	1	17
59:20		59	Pottery	Black glazed ware- body sherd	1	23
59:21		59	Pottery	Black glazed ware- body sherd	1	9
59:22		59	Pottery	Black glazed ware- body sherd	1	12
59:23		59	Pottery	Stoneware- base sherd	1	17
59:24		59	Pottery	Stoneware- body sherd	1	<1
59:25		59	Metal	Knife blade- iron, incomplete (corroded), C18th/20th	1	46
59:26		59	Metal	Horseshoe fragment- iron	1	36
59:27		59	Metal	Horseshoe fragment- iron	1	11
59:28		59	Metal	Nail- iron, complete	1	17
59:29		59	Metal	Nail- iron, incomplete (corroded)	1	5
59:30		59	Metal	Nail/poss horseshoe nail- iron, complete	1	6
59:31		59	Metal	Strap loop- iron, used for strap fitting	1	8
59:32		59	Stone	Quartz	1	24
59:33		59	Stone	Quartz	1	13
59:35		59	Brick/Tile	Red brick fragment	1	4
59:36		59	Brick/Tile	Ridge tile fragment- grey w/spots of clear glaze on upper surface	1	2

Appendix 2: Catalogue of finds continued

Find No.	Cut	Deposit	Category	Description	No. of pieces	Weight (gm)
59:37		59	Clay tobacco pipe	Bowl fragment	1	<1
59:38		59	Stone	Roof tile fragment w/perforated hole-sandstone-heat affected	1	48
59:39		59	Stone	Roof tile fragment, possible-sandstone	1	71
59:40		59	Stone	Roof tile fragment-sandstone	1	258
59:41		59	Metal	Rowel spur- iron (neck including rowel)	1	56
59:42		59	Slag	Tap slag & undiagnostic	12	1275
59:43				Cancelled		
60:1		60	Bone	Human (tibia frag) & animal bone	241	2616
60:2		60	Metal	Possible buckle pin- iron, incomplete	1	6
60:3		60	Shell	Oyster fragment	1	3
60:4		60	Pottery	North Devon gravel tempered- rim sherd	1	85
60:5		60	Pottery	Glazed red earthenware- body sherd	1	3
60:6		60	Stone	Quartz	1	5
60:7		60	Stone	Quartz	1	14
60:8		60	Stone	Quartz	1	66
60:9		60	Stone	Roof tile fragment w/perforated hole-sandstone	1	578
60:10		60	Stone	Roof tile fragment w/perforated hole-sandstone	1	786
60:11		60	Metal	Fragment of undiagnostic object- copper alloy	1	<1
60:12		60	Bone	Animal bone	16	5
62:1		62	Bone	Animal bone	59	764
63:1	6	63	Bone	Animal bone	70	791
63:2				Cancelled		
63:3	6	63	Stone	Quartz	1	299
63:4	6	63	Slag	Undiagnostic (205g- silica rich)	5	1427
64:1	9	64	Bone	Animal bone	27	305
64:2	9	64	Glass	Dark green- bottle base sherd, kick-up	1	89
64:3	9	64	Stone	Quartz	1	43
64:4	9	64	Stone	Quartz	1	2
64:5	9	64	Slag	Smiting hearth bottom & cinder	2	1131
64:6	9	64	Slag	Undiagnostic	2	15
64:7	9	64	Bone	Animal bone- burnt/unburnt	50	12
65:1	6	65	Bone	Animal bone	7	57
65:2	6	65	Slag	Undiagnostic	over 50	176

Appendix 2: Catalogue of finds continued

Find No.	Cut	Deposit	Category	Description	No. of pieces	Weight (gm)
65:3	6	65	Glass	Colourless- window glass fragment	1	<1
65:4	6	65	Slag	Undiagnostic	4	19
65:5	6	65	Bone	Animal bone- mostly fish	ca 1000	48
65:6	6	65	Bone	Animal bone- burnt/unburnt	30	23
66:1		66	Bone	Animal bone	14	102
66:2		66	Clay tobacco pipe	Bowl fragment- 'wheel' stamp base of heel	1	<1
66:3		66	Metal/Slag	Vitrified material- small, thin, w/ stone inclusions- ?slag ?metal	1	<1
66:4		66	Slag	Cinder & undiagnostic	3	108
67:1	34	67	Bone	Animal bone	78	223
67:2	34	67	Metal	Nail- iron, complete	1	6
67:3	34	67	Metal	Lump of undiagnostic metal- ?copper alloy, looped, amorphous	1	1
67:4	34	67	Shell	Oyster fragment	1	1
67:5	34	67	Glass	Decaying- window glass fragment	1	<1
67:6	34	67	Glass	Colourless- window glass fragment	1	<1
67:7	34	67	Glass	Colourless- window glass fragment	1	<1
67:8	34	67	Glass	Colourless- window glass fragment	1	<1
67:9	34	67	Lithic	Flint- cortical pc, brown flint, tip missing	1	4
67:10	34	67	Glass	Glass vessel- *facon de Venice*- C16th - red & white striped pattern , 20pcs co-joining (a-u), also 67:26-32 co-joining	21	41
67:11	34	67	Fabric	Small fragile pieces of fabric	4	<1
67:12	34	67	Slag	Undiagnostic	3	1
67:13	34	67	Slag	Fired clay	over 50	3
67:14	34	67	Stone	Roof tile fragment, possible-sandstone	1	15
67:15	34	67	Metal	Copper alloy wire fragments- various looped & twisted	7	<1
67:16	34	67	Lithic	Chert- struck/debitage	1	6
67:17	34	67	Glass	Decaying- window glass fragment	1	1
67:18	34	67	Metal	Nail shaft- iron, incomplete (corroded)	2	1
67:19	34	67	Metal	Pin shaft/buckle pin fragments- ?copper alloy, incomplete	2	<1
67:20	34	67	Metal	Wound-wire headed pin- copper alloy, complete, 14thc onwards	1	<1
67:21	34	67	Metal	Pin fragments- copper alloy, incomplete	3	<1
67:22	34	67	Metal	Nail shaft- iron, incomplete (corroded)	1	1
67:23	34	67	Bone	Animal bone	ca 1000	197
67:24	34	67	Metal	Gun pellet?- lead?, complete, spheroidal ?slag	1	<1

Appendix 2: Catalogue of finds continued

Find No.	Cut	Deposit	Category	Description	No. of pieces	Weight (gm)
67:25	34	67	Glass	Clear- curved glass sherd, 2 pcs co-joining (a-b)	2	1
67:26	34	67	Glass	Tiny glass sherd - *facon de Venice*- C16th - red & white striped pattern, 2pcs co-joining (a-b), part of 67:10	2	<1
67:27	34	67	Glass	Tiny glass sherd - *facon de Venice*- C16th - red & white striped pattern, part of 67:10	1	<1
67:28	34	67	Glass	Tiny glass sherd - *facon de Venice*- C16th - red & white striped pattern, part of 67:10	1	<1
67:29	34	67	Glass	Tiny glass sherd - *facon de Venice*- C16th - red & white striped pattern, part of 67:10	1	<1
67:30	34	67	Glass	Tiny glass sherd - *facon de Venice*- C16th - red & white striped pattern, part of 67:10	1	<1
67:31	34	67	Glass	Tiny glass sherd - *facon de Venice*- C16th - red & white striped pattern, part of 67:10	1	<1
67:32	34	67	Glass	Tiny glass sherd - *facon de Venice*- C16th - red & white striped pattern, part of 67:10	1	<1
67:33	34	67	Glass	Colourless- window glass fragment	1	<1
68:1		68	Bone	Animal bone	28	269
68:2		68	Metal	Possible nail shaft- iron, incomplete (corroded)	1	5
68:3				Cancelled		
69:1		69	Bone	Animal bone	132	1494
69:2		69	Slag	Undiagnostic (98g- iron rich) -poss part of smithing hearth bottom	2	256
71:1	13	71	Bone	Animal bone	24	125
71:2	13	71	Pottery	Saintonge green glazed- body sherd	1	2
71:3	13	71	Bone	Animal bone- burnt/unburnt	25	9
71:3	13	71	Metal/Slag	Undiagnostic fragment of porous substance- ?iron slag	1	4
73:1	14	73	Bone	Human (pelvis frag) & animal bone	546	3893
73:2	14	73	Clay tobacco pipe	Bowl fragment	1	<1
73:3	14	73	Stone	Quartz	1	18
73:4	14	73	Stone	Quartz	1	11
73:5	14	73	Stone	Quartz	1	39
73:6	14	73	Stone	Quartz	1	27
73:7	14	73	Stone	Quartz	1	19
73:8	14	73	Stone	Quartz	1	19
73:9	14	73	Stone	Quartz	1	4
73:10	14	73	Stone	Roof tile fragment-sandstone	1	40
73:11	14	73	Stone	Roof tile fragment-sandstone	1	19
73:12-14				Cancelled		
73:15	14	73	Stone	Roof tile fragment-sandstone	1	189
73:16	14	73	Stone	Roof tile fragment-sandstone	1	329

Appendix 2: Catalogue of finds continued

Find No.	Cut	Deposit	Category	Description	No. of pieces	Weight (gm)
73:17	14	73	Stone	Roof tile fragment-sandstone	1	499
73:18	14	73	Stone	Roof tile fragment w/perforated hole-sandstone	1	178
73:19	14	73	Stone	Roof tile fragment-sandstone	1	66
73:20	14	73	Stone	Roof tile fragment-sandstone	1	75
73:21	14	73	Stone	Roof tile fragment-sandstone	1	177
73:22	14	73	Stone	Roof tile fragment-sandstone	1	50
73:23	14	73	Stone	Roof tile fragment-sandstone	1	53
73:24	14	73	Slag	Undiagnostic	1	12
73:25	14	73	Slag	Undiagnostic	7	1
73:26	14	73	Metal	Horseshoe nail- iron, incomplete	1	6
73:27	14	73	Bone	Animal bone- mostly fish	20	4
73:28	14	73	Bone	Animal bone	200	46
74:1	35	74	Bone	Animal bone	137	2853
74:2	35	74	Stone	Quartz	1	6
74:3	35	74	Metal	Horseshoe nail- iron, w/expanded head & ears, complete	1	4
74:4	35	74	Slag	Smithing hearth bottom & cinder & hammerscale & undiagnostic	56	10833
74:5	35	74	Slag	Hammerscale (1 sphere) & undiagnostic	11	47
74:6	35	74	Bone	Animal bone	21	1
76:1	15	76	Bone	Animal bone	4	54
76:2	15	76	Bone	Animal bone	25	12
77:1	16	77	Bone	Animal bone	23	127
77:2	16	77	Metal	Horseshoe nail- iron, eared, complete, C18th-19th	1	7
77:3	16	77	Metal	Horseshoe nail- iron, incomplete	1	7
77:4	16	77	Metal	L' shaped object/undiagnostic- iron, incomplete	1	2
77:5	16	77	Metal	L' shaped object/undiagnostic- iron, incomplete (corroded)	1	5
77:6	16	77	Clay tobacco pipe	Stem fragment	1	<1
77:7	16	77	Pottery	Glazed red earthenware- base sherd	1	8
77:8	16	77	Pottery	North Devon gravel tempered- body sherd	1	<1
77:9	16	77	Pottery	Glazed red earthenware- rim sherd	1	<1
77:10	16	77	Brick/Tile	Red brick fragment	1	<1
77:11	16	77	Brick/Tile	Red brick fragment	1	<1
77:12	16	77	Stone	Quartz	1	51
77:13	16	77	Stone	Quartz	1	32

Appendix 2: Catalogue of finds continued

Find No.	Cut	Deposit	Category	Description	No. of pieces	Weight (gm)
77:14	16	77	Stone	Quartz	1	38
77:15	16	77	Stone	Quartz	1	12
77:16	16	77	Stone	Quartz	1	18
77:17	16	77	Stone	Quartz	1	11
77:18	16	77	Stone	Quartz	1	8
77:19	16	77	Stone	Quartz	1	4
77:20	16	77	Stone	Quartz	1	15
77:21	16	77	Stone	Quartz	1	8
77:22	16	77	Stone	Quartz	1	5
77:23	16	77	Stone	Quartz	1	5
77:24	16	77	Stone	Quartz	1	2
77:25	16	77	Stone	Quartz	1	5
77:26	16	77	Stone	Quartz	1	1
77:27	16	77	Stone	Quartz	1	2
77:28	16	77	Stone	Quartz	1	2
77:29	16	77	Stone	Quartz	1	1
77:30	16	77	Stone	Quartz	1	1
77:31	16	77	Stone	Quartz	1	<1
77:32	16	77	Stone	Quartz	1	<1
77:33	16	77	Stone	Quartz	1	<1
77:34	16	77	Stone	Whetstone fragment- triangular (elongated), tapers	1	28
77:35	16	77	Stone	Roof tile fragment-sandstone	1	260
77:36	16	77	Slag	Undiagnostic- iron rich	1	26
77:37	16	77	Bone	Animal bone	20	3
78:1	17	78	Bone	Animal bone	1	1
78:2	17	78	Slag	Undiagnostic	1	1
78:3	17	78	Bone	Animal bone	30	10
79:1	18	79	Bone	Animal bone	16	54
80:1	19	80	Bone	Animal bone	8	31
80:2	19	80	Clay tobacco pipe	Stem fragment	1	3
81:1	20	81	Metal	Lump of undiagnostic metal	1	8
81:2	20	81	Pottery	North Devon gravel tempered- base sherd	1	13
82:1	21	82	Stone	Quartz	1	168

Appendix 2: Catalogue of finds continued

Find No.	Cut	Deposit	Category	Description	No. of pieces	Weight (gm)
82:2	21	82	Stone	Quartz	1	184
82:3	21	82	Stone	Quartz	1	422
83:1	22	83	Bone	Animal bone	4	17
83:2	22	83	Stone	Quartz	1	16
83:3	22	83	Stone	Quartz	1	39
83:4	22	83	Stone	Roof tile fragment-sandstone	1	201
83:5	22	83	Stone	Roof tile fragment-sandstone	1	150
84:1	23	84	Bone	Animal bone	4	18
84:2	23	84	Stone	Quartz	1	8
84:3	23	84	Stone	Quartz	1	2
84:4	23	84	Stone	Roof tile fragment-sandstone	1	91
84:5	23	84	Stone	Roof tile fragment-sandstone	1	27
85:1	24	85	Bone	Animal bone	1	35
85:2	24	85	Pottery	Ham Green B- body sherd	1	16
88:1	27	88	Slag	Undiagnostic	1	293
93:1	45	93	Bone	Animal bone	144	1399
93:2	45	93	Brick/Tile	Brick fragment- crinoidal limestone	1	37
93:3	45	93	Brick/Tile	Brick fragment- white/light grey micrite	1	9
93:4	45	93	Slag	Undiagnostic- run	1	3
93:5	45	93	Bone	Animal bone	30	7
97:1	34	97	Bone	Animal bone	17	60
97:2	34	97	Metal	Nail- iron, complete	1	9
97:3				Cancelled		
151:1	14	151	Bone	Animal bone	10	91
151:2		151	Metal	?Poss unfinished buckle pin- iron, complete	1	7
153:1	14	153	Bone	Animal bone	66	485
153:2	14	153	Metal	Possible nail shaft- iron, incomplete (corroded)	1	3
153:3	14	153	Slag	Undiagnostic	over 20	17
153:4				Cancelled		
153:5	14	153	Bone	Animal bone	100	59
154:1		154	Bone	Animal bone	22	148
154:2		154/63	Metal	Possible plate/vessel rim- copper alloy, w/incised line, incomplete, C18th-19th	1	5
154:3		154/63	Stone	Quartz	1	24

Appendix 2: Catalogue of finds continued

Find No.	Cut	Deposit	Category	Description	No. of pieces	Weight (gm)
155:1	37	155	Bone	Animal bone	29	231
155:2	37	155	Shell	Oyster fragment	1	<1
155:3	37	155	Bone	Animal bone- burnt/unburnt	25	8
155:4	37	155	Stone	Roof tile fragment-sandstone	1	19
155:5	31	155	Bone	Animal bone- burnt/unburnt	20	8
157:1	38	157	Brick/Tile	Drainpipe fragment- glazed	1	22
157:2	38	157	Slag	Undiagnostic	3	<1
157:3	38	157	Bone	Animal bone	20	18
158:1	40	158	Bone	Animal bone	6	51
158:2	40	158	Slag	Undiagnostic- probably smelting	2	923
158:3	40	158	Slag	Residue- microslags & burnt clay	over 20	2
158:4	40	158	Stone	Carved fragment- small, finely-carved sandstone (part of small object, e.g. Church font)	1	2
158:5	40	158	Bone	Animal bone	22	13
159:1	41	159	Bone	Animal bone	12	83
159:2	41	159	Stone	Quartz	1	4
159:3	41	159	Slag	Undiagnostic	2	114
159:4	41	159	Slag	Undiagnostic	2	2
159:5	41	159	Bone	Animal bone	20	4
161:1	43	161	Bone	Animal bone	7	16
161:2	43	161	Metal	Possible nail shaft- iron, incomplete (corroded)	1	<1
161:3	43	161	Bone	Animal bone- burnt/unburnt	30	5
162:1	44	162	Bone	Animal bone	7	14
162:2	44	162	Shell	Oyster fragment	1	1
163:1	46	163	Bone	Animal bone	4	12
164:1	47	164	Bone	Animal bone	22	131
164:2	47	164	Slag	Undiagnostic	18	1
164:3	47	164	Bone	Animal bone	15	4
164:4	44	164	Bone	Animal bone- burnt/unburnt	20	3
165:1	48	165	Bone	Animal bone	2	3
165:2	48	165	Slag	Undiagnostic	2	20
166:1	49	166	Bone	Animal bone	1	<1
167:1	100	167	Bone	Animal bone	2	1
168:1	101	168	Slag	Undiagnostic- possibly smelting	1	192

Appendix 2: Catalogue of finds continued

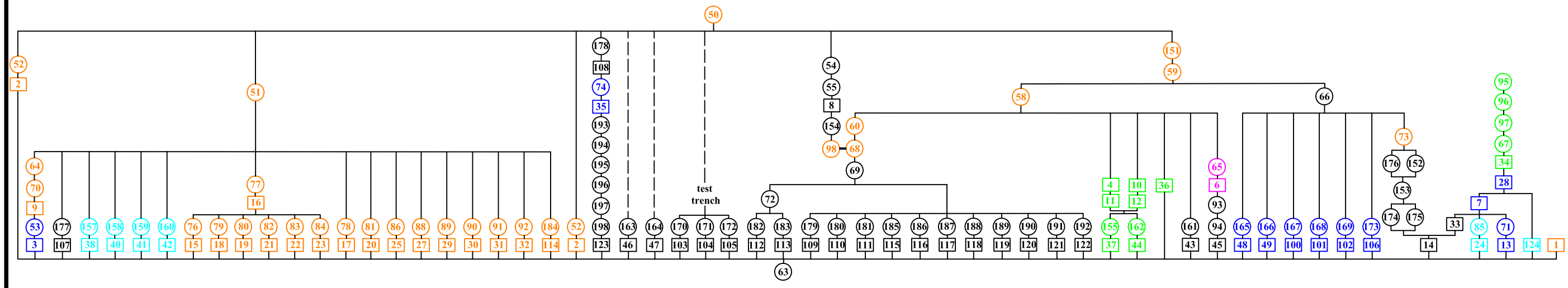
Find No.	Cut	Deposit	Category	Description	No. of pieces	Weight (gm)
168:2	101	168	Slag	Vitrified hearth lining	1	1
168:3	101	168	Bone	Animal bone	2	1
169:1	102	169	Bone	Animal bone	2	<1
172:1	105	172	Bone	Animal bone	9	1
174:1	14	174	Bone	Animal bone	53	446
174:2	14	174	Slag	Undiagnostic- possibly smithing hearth bottom	2	204
175:1	14	175	Bone	Animal bone	5	69
175:2	14?	175	Shell	Oyster fragment	1	<1
175:3	14?	175	Shell	Oyster fragment	1	2
175:4	14?	175	Shell	Oyster fragment	1	<1
175:5	14?	175	Shell	Oyster fragment	1	<1
175:6	14?	175	Shell	Oyster fragment	1	<1
175:7	14	175	Slag	Tap slag	1	258
175:8	14	175	Slag	Undiagnostic	2	2
175:9				Cancelled		
175:10	14	175	Bone	Animal bone	15	3
176:1	14	176	Bone	Animal bone	19	187
176:2	14	176	Slag	Run cinder	1	6
176:3	14	176	Slag	Run cinder & undiagnostic	3	54
176:4	14	176	Stone	Quartz	1	34
176:5	14	176	Stone	Quartz	1	9
176:6	14	176	Stone	Quartz	1	3
177:1	107	177	Bone	Animal bone	3	1
177:2	107	177	Metal	Nail- iron, complete, crutch-headed	1	3
177:3	107	177	Slag	Cinder	5	2
177:4	107	177	Bone	Animal bone	20	2
178:1	108	178	Slag	Undiagnostic	4	1
178:2	108	178	Bone	Animal bone	120	12
179:1	109	179	Bone	Animal bone	3	1
181:1	111	181	Bone	Animal bone- burnt/unburnt	10	6
182:1	112	182	Bone	Animal bone	7	79
184:1	114	184	Slag	Cinder	32	1
184:2	114	184	Bone	Animal bone	5	3

Appendix 2: Catalogue of finds continued

Find No.	Cut	Deposit	Category	Description	No. of pieces	Weight (gm)
190:1	120	190	Bone	Animal bone	1	1
194:1	123	194	Bone	Animal bone	4	30
194:2	123	194	Slag	Undiagnostic	3	81
195:1	123	195	Bone	Animal bone	19	722
195:2	123	195	Slag	Tap slag & undiagnostic- possibly part of smithing hearth bottom	3	336
195:3	123	195	Slag	Undiagnostic	10	2
195:4	123	195	Bone	Animal bone	5	1
197:1	123	197	Bone	Animal bone	5	30
197:2	123	197	Slag	Run cinder	1	<1
197:3	123	197	Slag	Runs	1	41
197:4	123	197	Slag	Undiagnostic	10	5
197:5	123	197	Bone	Animal bone	23	6
198:1	123	198	Bone	Animal bone	3	26

Appendix 3: Catalogue of samples

Sample No.	Cut	Deposit	Vol. sieved (L)	Vol. floated (L)	Charred plant material?	Finds?
1	3	53	8	8	Y	Slag, bone
2	9	64	4	4	Y	Slag, bone, chert
3	6	65	16	16	Y	Glass, slag
4	6	65	20	20	Y	Slag, bone
5		67	60	60	Y	Roof tile, bone, slag, glass, lithic, metal, fabric
6		60	4	4	Y	N
7		72			Y	N
8	13	71	8	8	Y	Bone
9	15	76	4	4	Y	Bone
10	16	77	4	4	Y	Bone
11	17	78	8	8	Y	Slag, bone
12	14	73	2	2	Y	Bone
13	31	155	4	4	Y	Bone
14	38	157	4	4	Y	Bone, slag
15	41	159	4	4	Y	Bone, slag
16	40	158	4	4	Y	Bone, slag, worked sandstone
17	45	93	4	4	Y	Bone, slag
18	43	161	2	2	Y	Bone, small iron nail frag
19	44	162	2	2	Y	Bone
20	14	73	10	10	Y	Bone, slag, nail frag
21	14	151	-	-	N	N
22	14	153	10	10	Y	Bone, slag
23	14	153	0.5	0.5	Y	N
24	47	164	0.5	0.5	Y	Slag, bone
25	103	170	0.5	0.5	N	N
26	104	171	0.5	0.5	N	N
27	105	172	0.5	0.5	Y	Bone
28	14	175	4	4	Y	Bone, slag
29	101	168	4	4	Y	Bone, slag
30	107	177	4	4	Y	Bone, cinder
31	108	178	4	4	Y	Bone, slag
32	35	74	4	4	Y	Bone, slag
33	109	179	4	4	Y	N
34	37	155	4	4	Y	Bone
35	111	181	4	4	Y	Bone
36	114	184	8	8	Y	Bone, cinder
37	123	197	15	15	Y	Bones, slag
38	123	195	10	10	Y	Bone, slag
39	13	71			Y	*Charcoal sample
40	123	195			Y	*Charcoal sample
41	14	175			Y	*Charcoal sample
42	19	80			Y	*Charcoal sample
43	32	69			Y	*Charcoal sample
44	34	97			Y	*Charcoal sample
45		60			Y	*Charcoal sample
46		83			Y	*Charcoal sample
47	14	151			N	*Mortar sample
48		59			N	*Mortar sample
49	34	97			N	*Mortar sample
50		68			N	*Mortar sample
51	14	153			N	*Mortar sample



Key

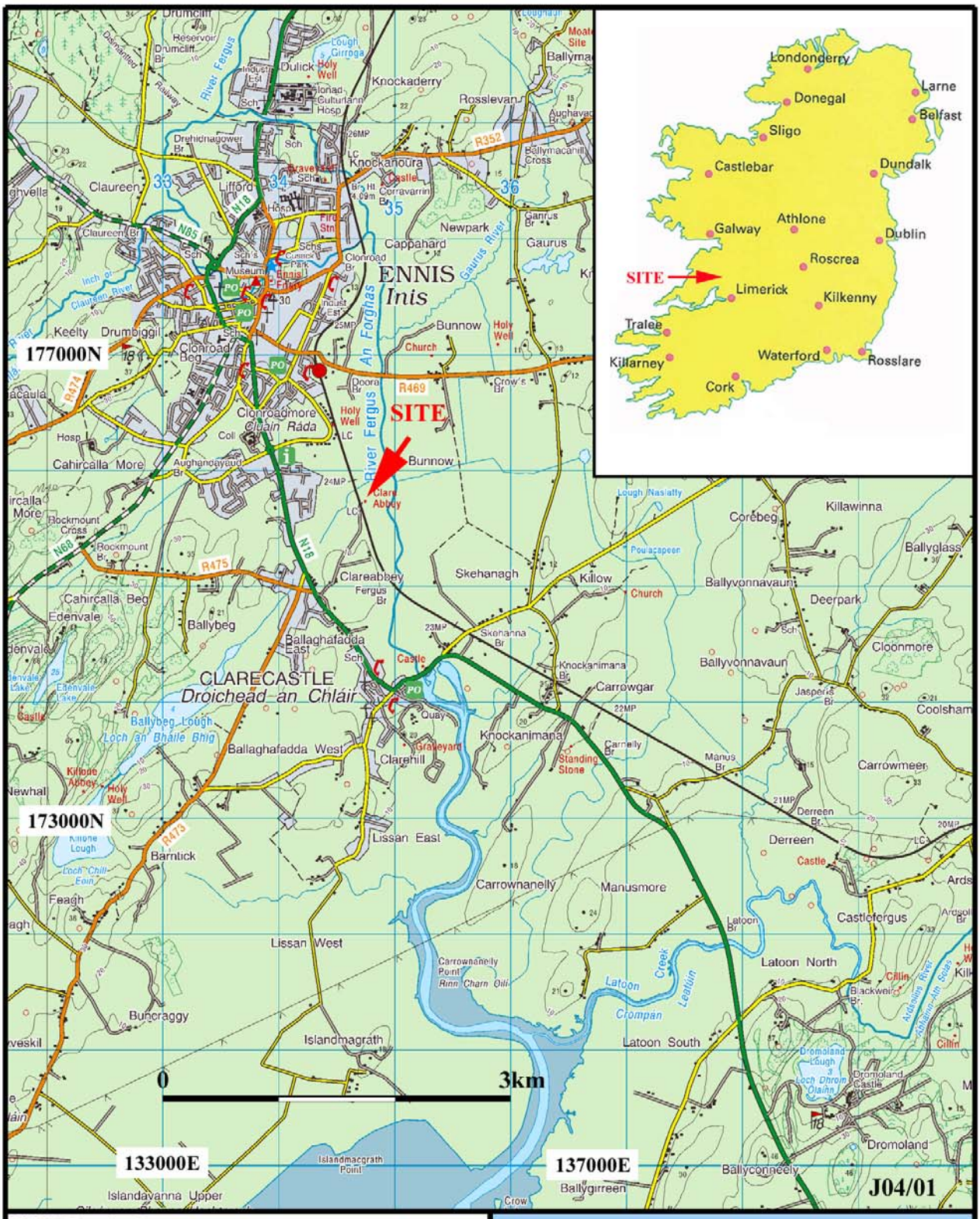
- 6 Phase I 11th-E13th
- 38 Phase I/II
- 3 Phase II E13th-L14th
- 44 Phase III M15th-L17th
- 15 Phase IV 18th-20th
- 46 Unphased

N18 Ennis Bypass and N85 Western Relief Road
C020, Clare Abbey, Co. Clare, E2091

Appendix 4

Stratigraphic matrix

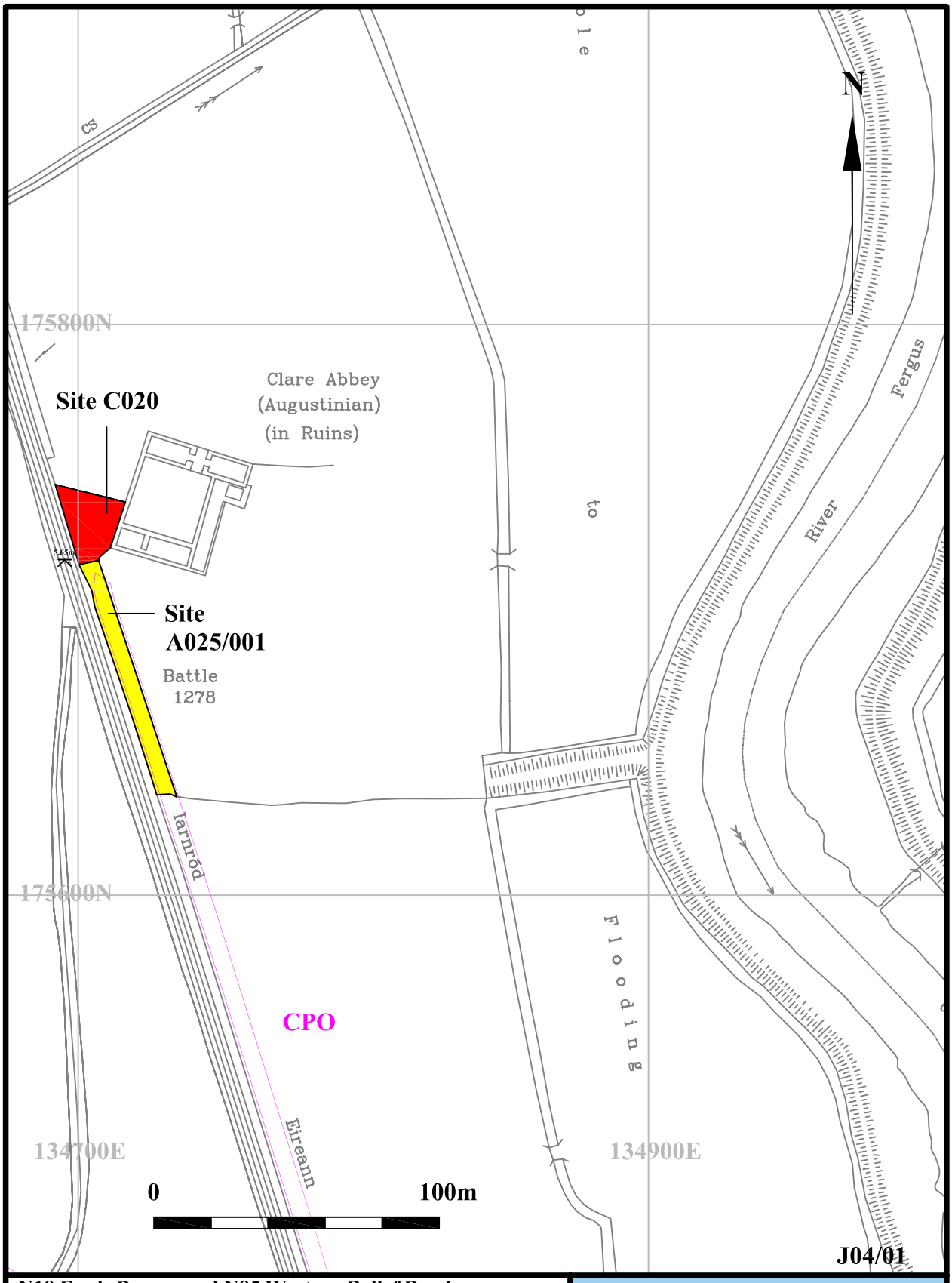
TVAS IRELAND LTD



N18 Ennis Bypass
and N85 Western Relief Road
C020, Clare Abbey, Co. Clare E2021

Figure 1: Site location

TVAS IRELAND LTD



N18 Ennis Bypass and N85 Western Relief Road
C020, Clare Abbey, Co. Clare, E2021

Figure 2: Site location

Scale 1:2000
Based on digital OSI mapping supplied by Clare Co. Co.

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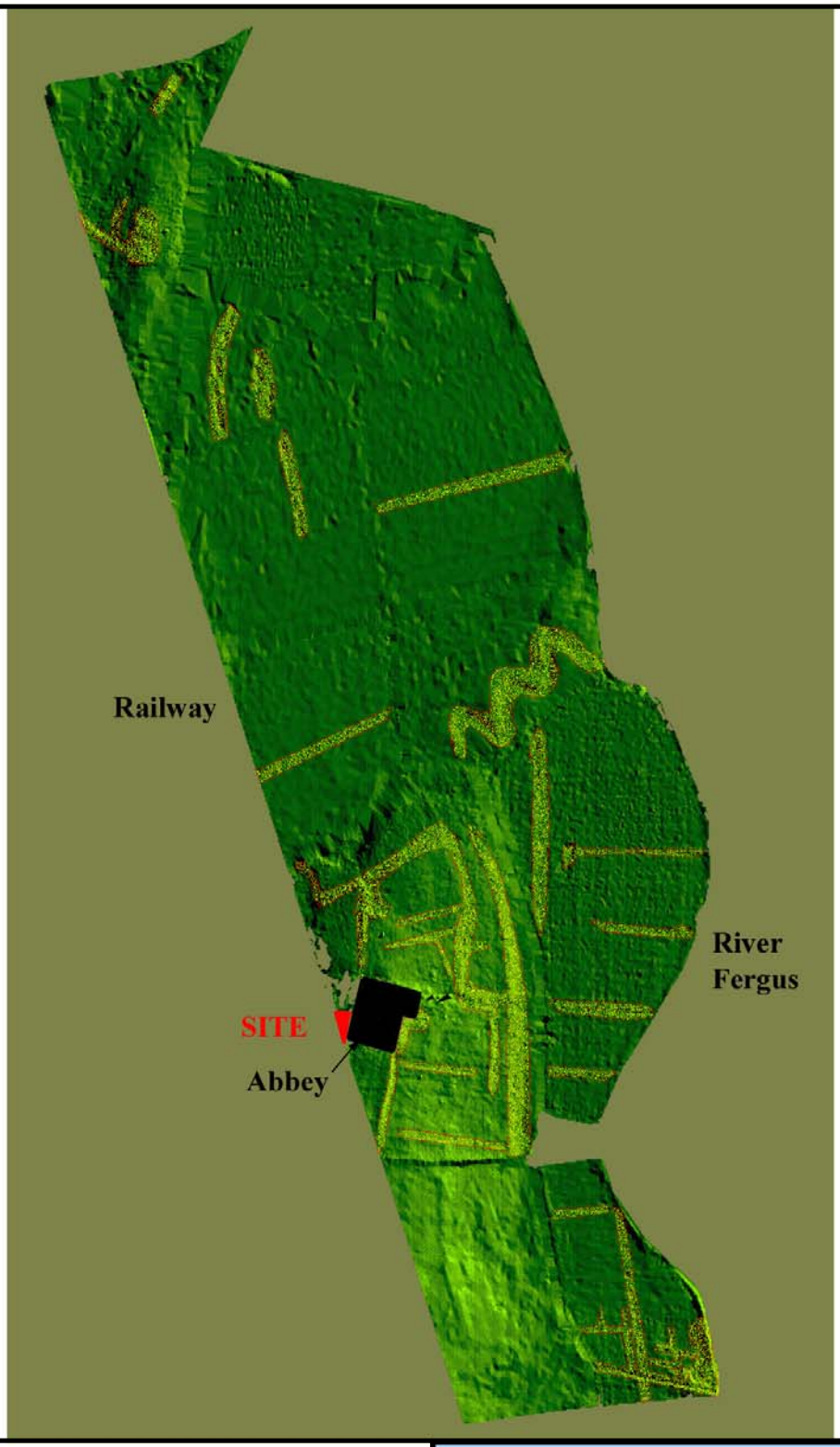
TVAS IRELAND LTD

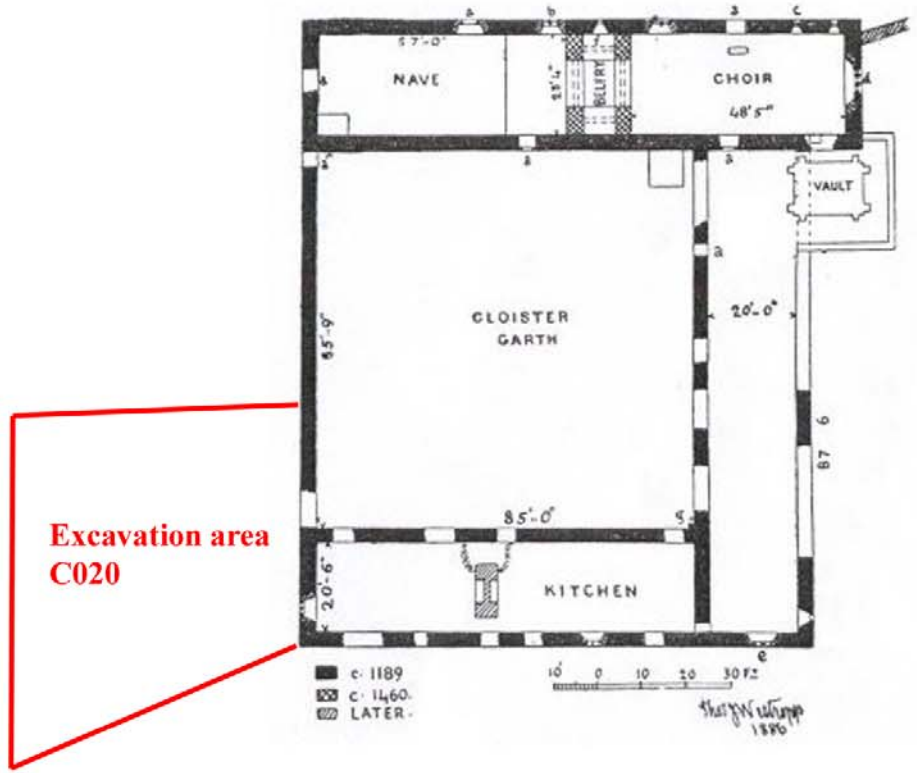


N18 Ennis Bypass and
N85 Western Relief Road
Clare Abbey, C020, E2021

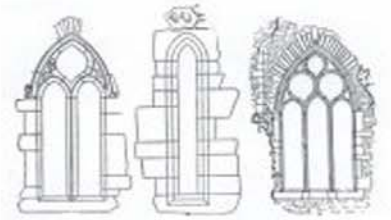
Figure 3: Topographic survey

Based on Murphy Surveys mapping.
Showing archaeological trends

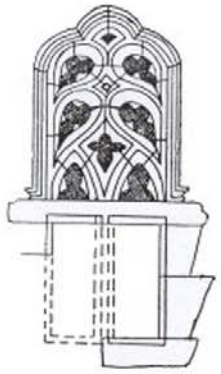
TVAS IRELAND LTD



N. chancel



N. nave E. chancel



S. window

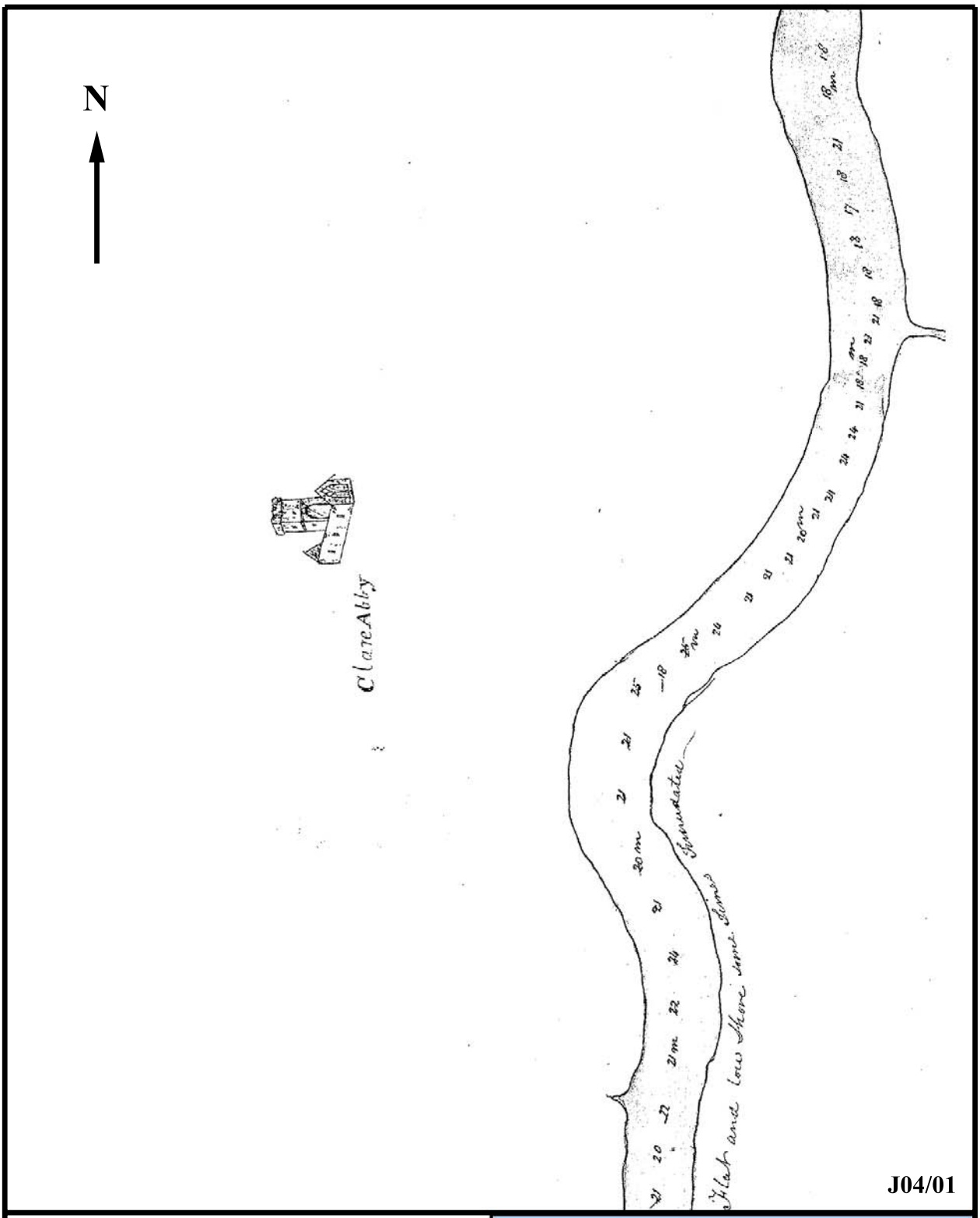
C020

N18 Ennis Bypass and N85 Western Relief Road
C020 Clare Abbey, Co. Clare, E2021

Figure 4: Plan of Clare Abbey by Thomas Westropp 1886 and details of architectural features

From 'The Augustinian Houses of County Clare' 1900

TVAS IRELAND LTD

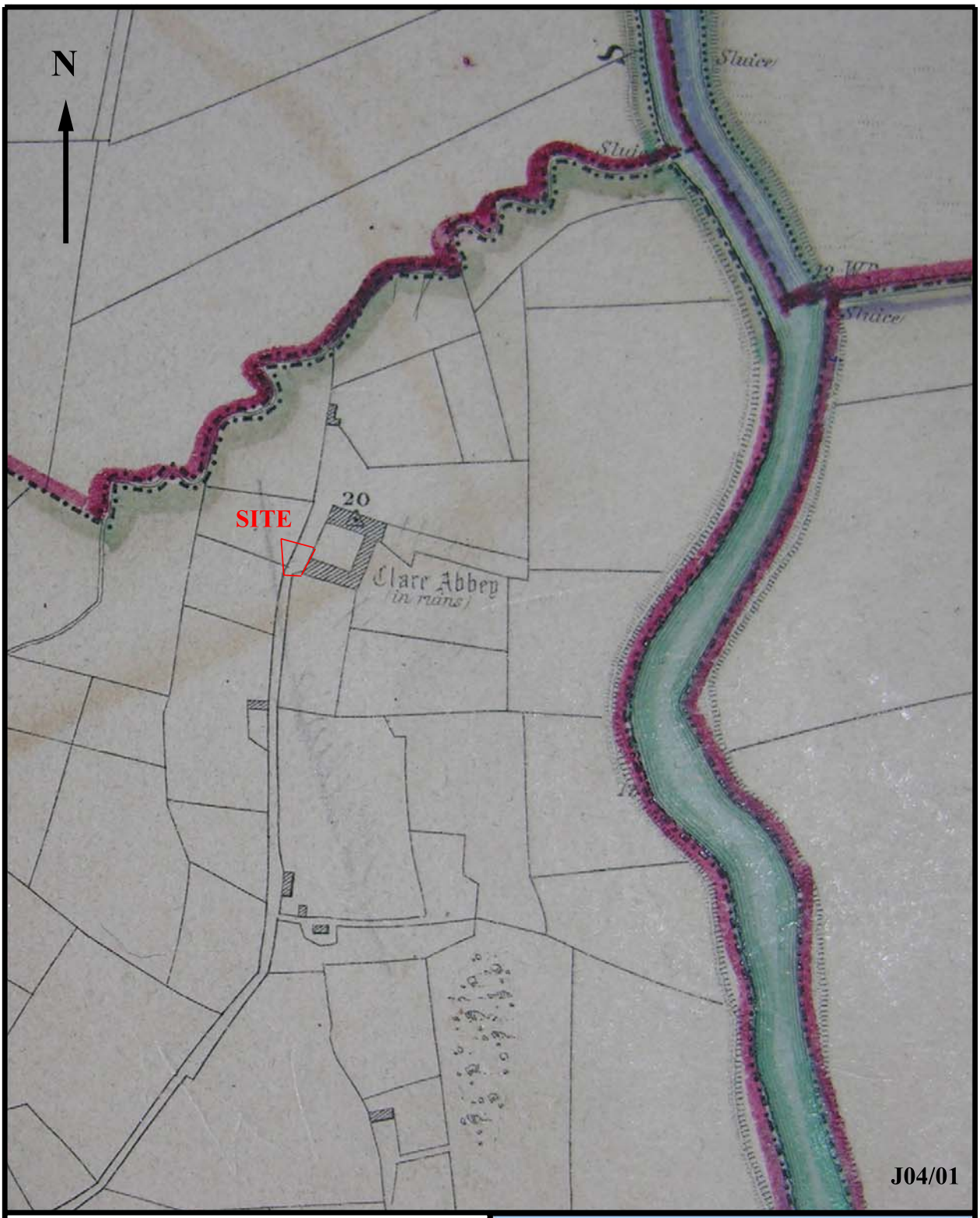


N18 Ennis Bypass and
N85 Western Relief Road
C020 Clare Abbey, Co. Clare, E2021

Figure 5: Clare Abbey 1832

Reproduced from: Map of The Fergus from Clare to Ennis

TVAS IRELAND LTD

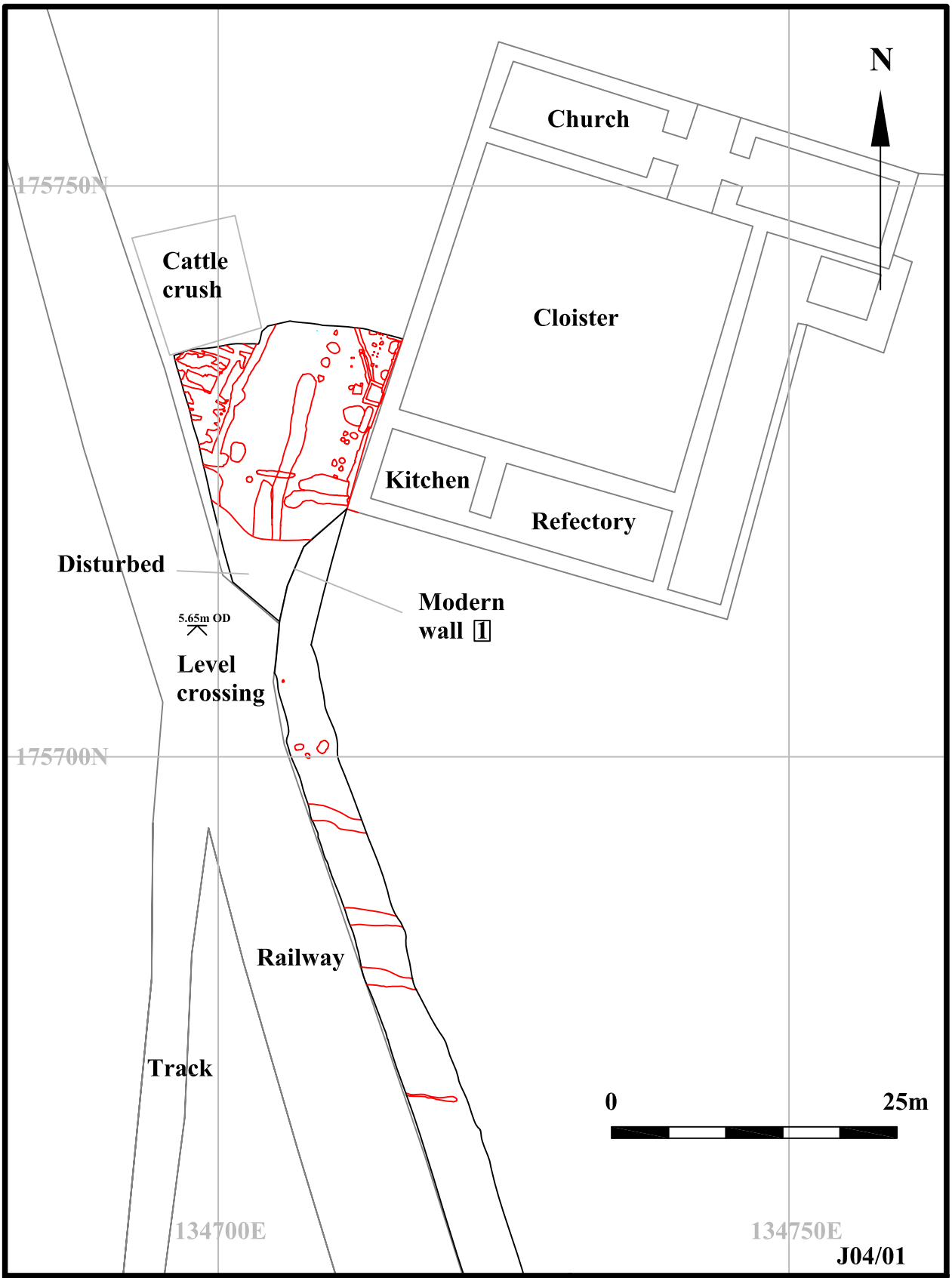


N18 Ennis Bypass and
N85 Western Relief Road, C020,
Clare Abbey, Co. Clare, E2021

Figure 6: Ordnance Survey 1st Edition

Surveyed 1840. Co. Clare Sheet 33

TVAS IRELAND LTD



N18 Ennis Bypass and N85 Western Relief Road
C020, Clare Abbey, Co. Clare, E2021

Figure 7: Location of archaeological features and abbey

Scale 1:500
Based on digital OSI mapping supplied by Clare Co. Co.

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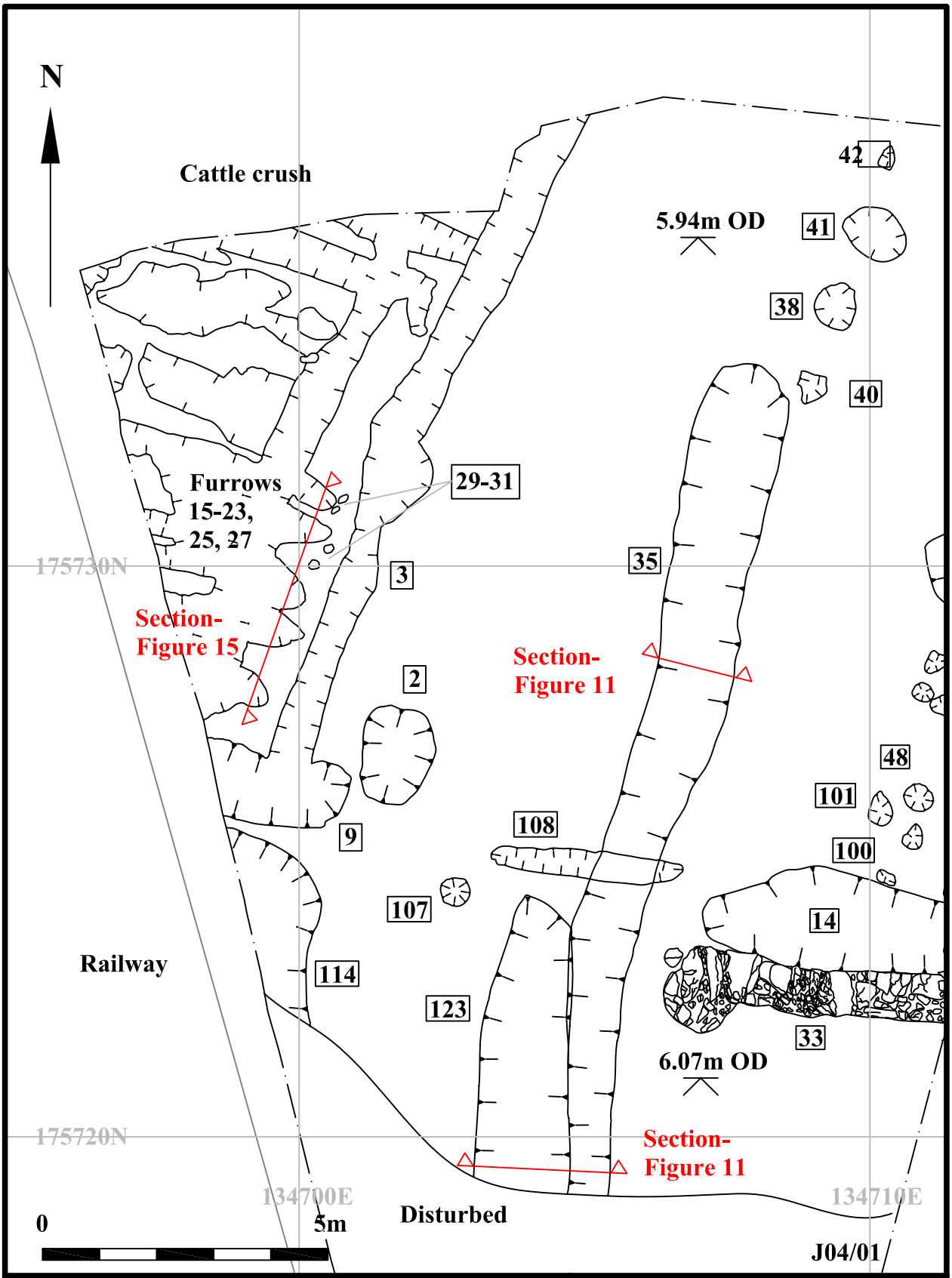
TVAS IRELAND LTD



N18 Ennis Bypass and N85 Western Relief Road
C020, Clare Abbey, Co. Clare, E2021

Figure 8: Western part of site

Scale 1:100
Based on digital OSI mapping supplied by Clare Co. Co.

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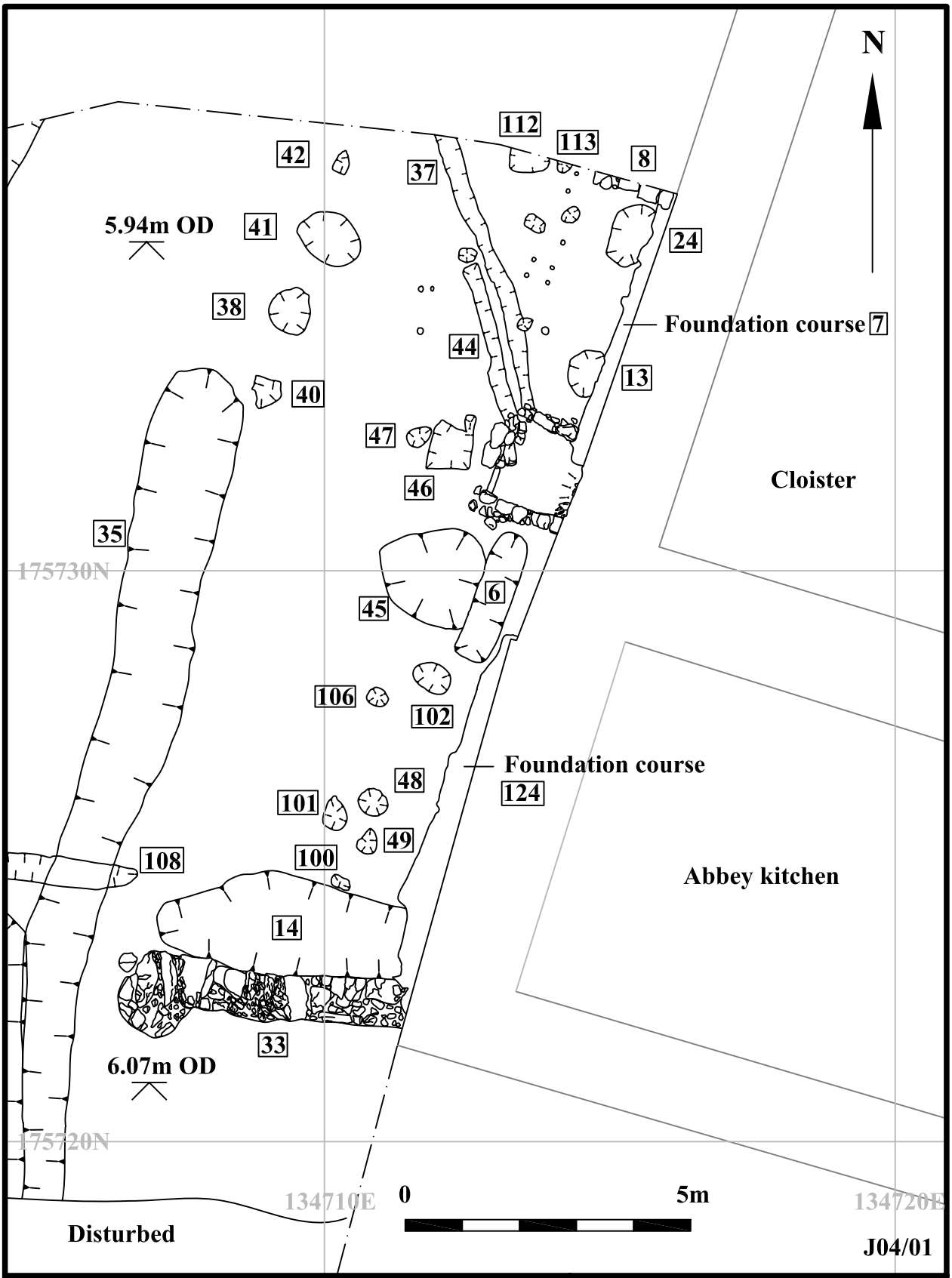
TVAS IRELAND LTD



N18 Ennis Bypass and N85 Western Relief Road
C020, Clare Abbey, Co. Clare, E2021

Figure 9: Eastern part of site

Scale 1:100
Based on digital OSI mapping supplied by Clare Co. Co.

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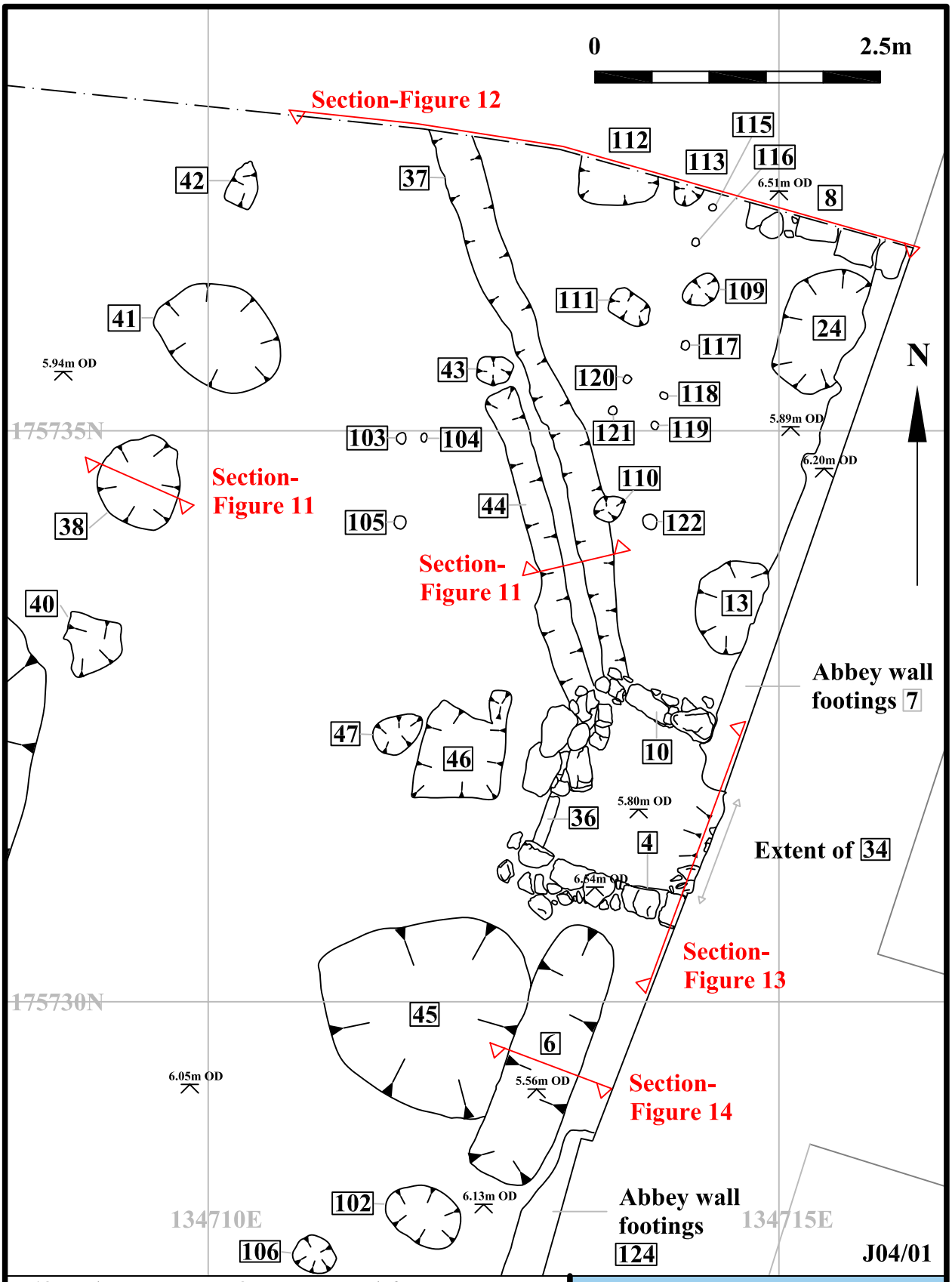
TVAS IRELAND LTD



N18 Ennis Bypass and N85 Western Relief Road
C020, Clare Abbey, Co. Clare, E2021

Figure 10: North-eastern part of site

Scale 1:50
Based on digital OSI mapping supplied by Clare Co. Co.

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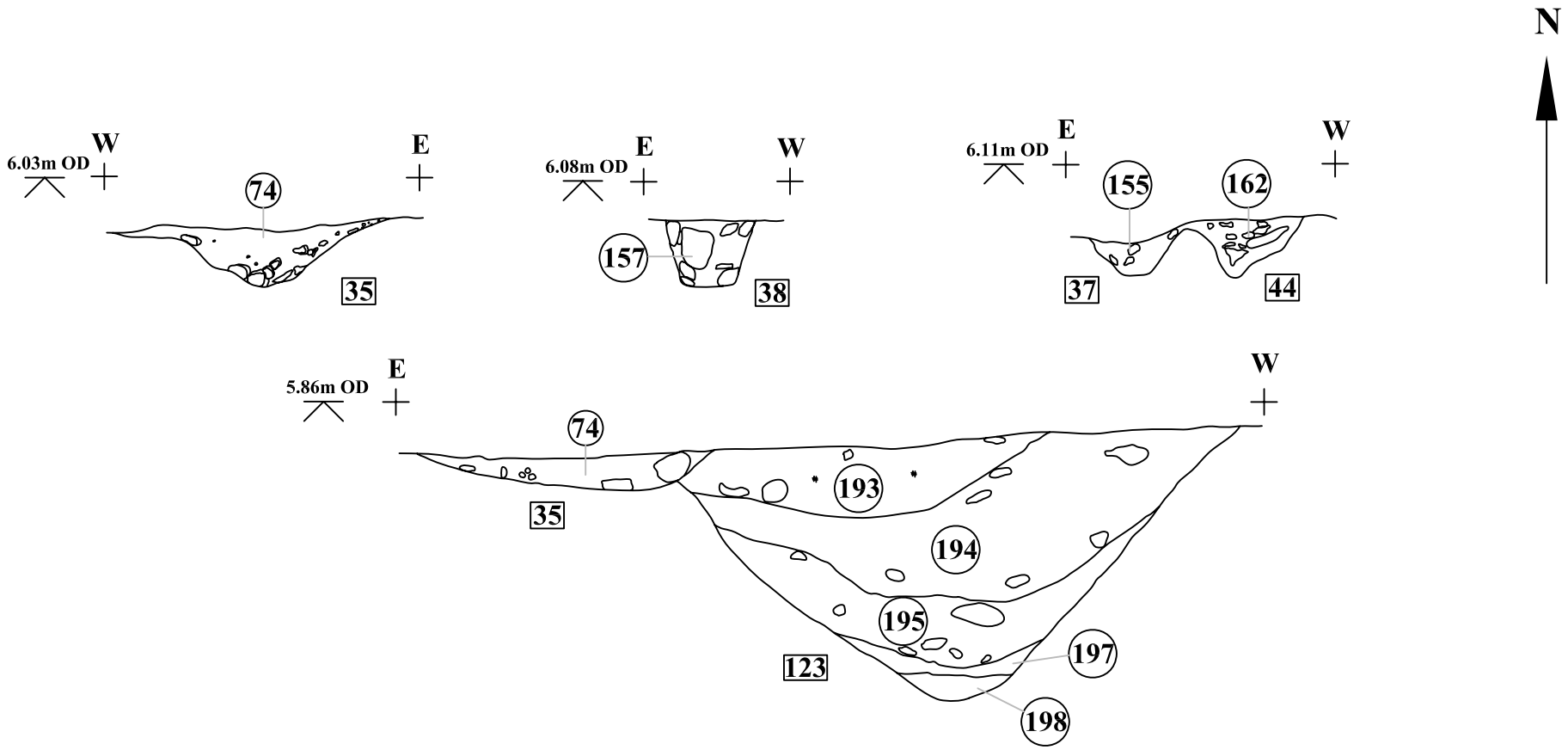
TVAS IRELAND LTD



J04/01

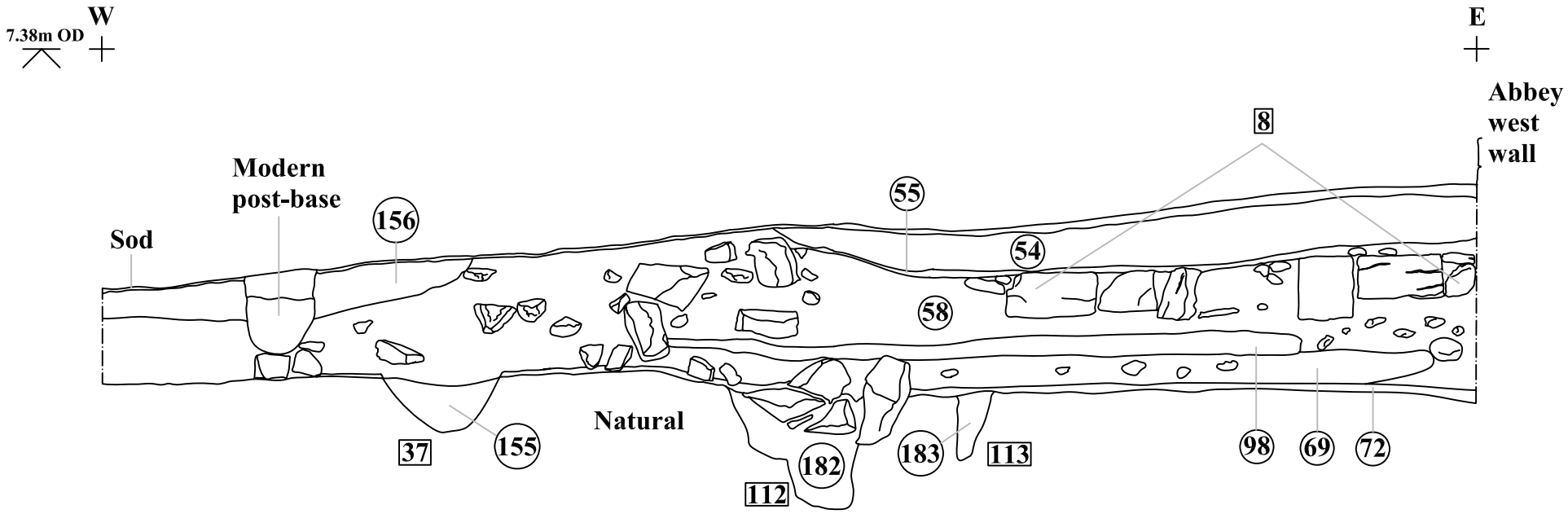
0 1m

N18 Ennis Bypass and N85 Western Relief Road
C020, Clare Abbey, Co. Clare, E2021

Figure 11: Sections of Posthole 38, Gully 35, Ditch 123 and Gullies 37 and 44

Scale 1:20

TVAS IRELAND LTD



J04/01

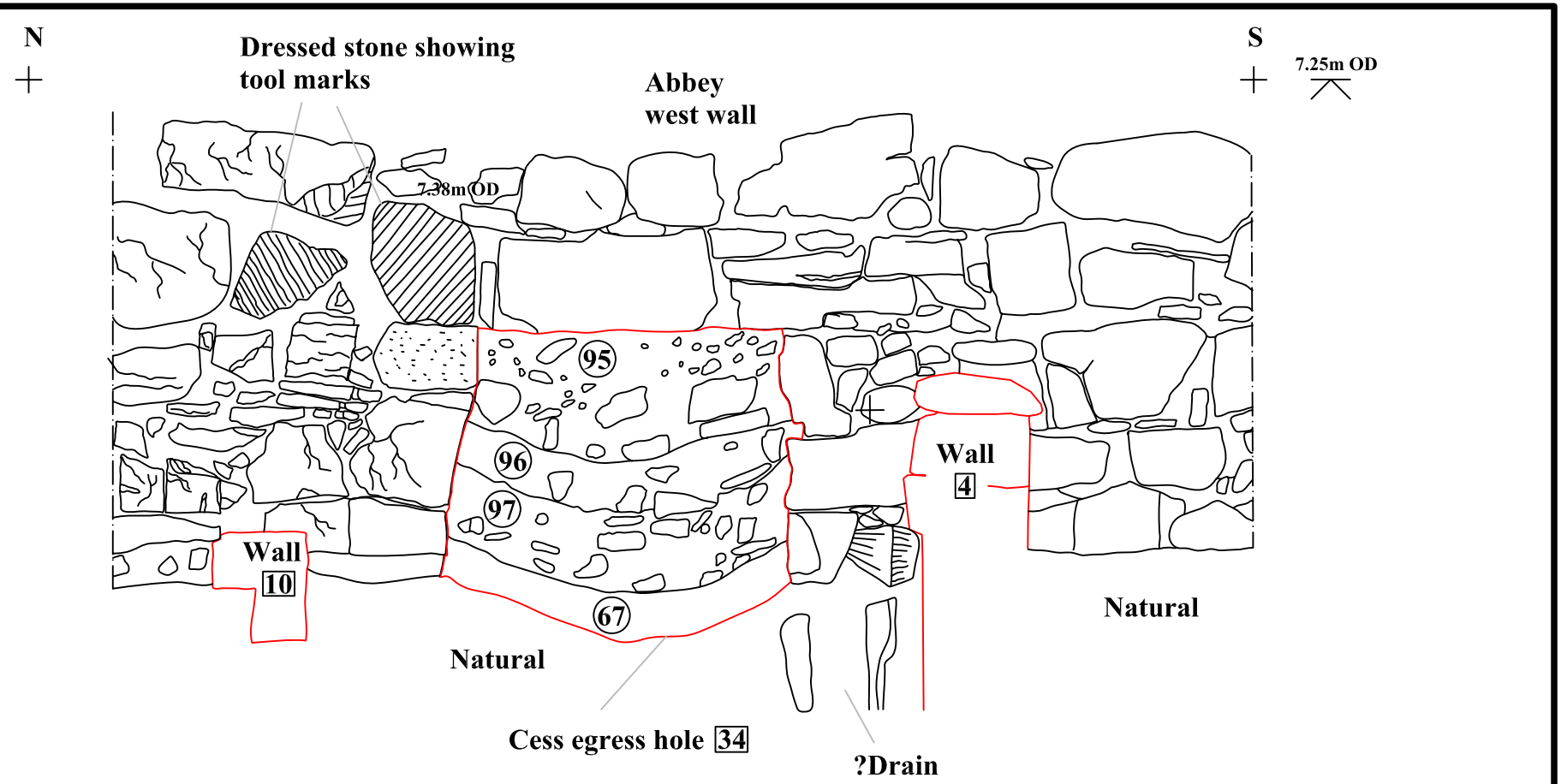
0 1m

N18 Ennis Bypass and N85 Western Relief Road
C020, Clare Abbey, Co. Clare, E2021

Figure 12: South-facing section at north-east part of site

Scale 1:25

TVAS IRELAND LTD



J04/01

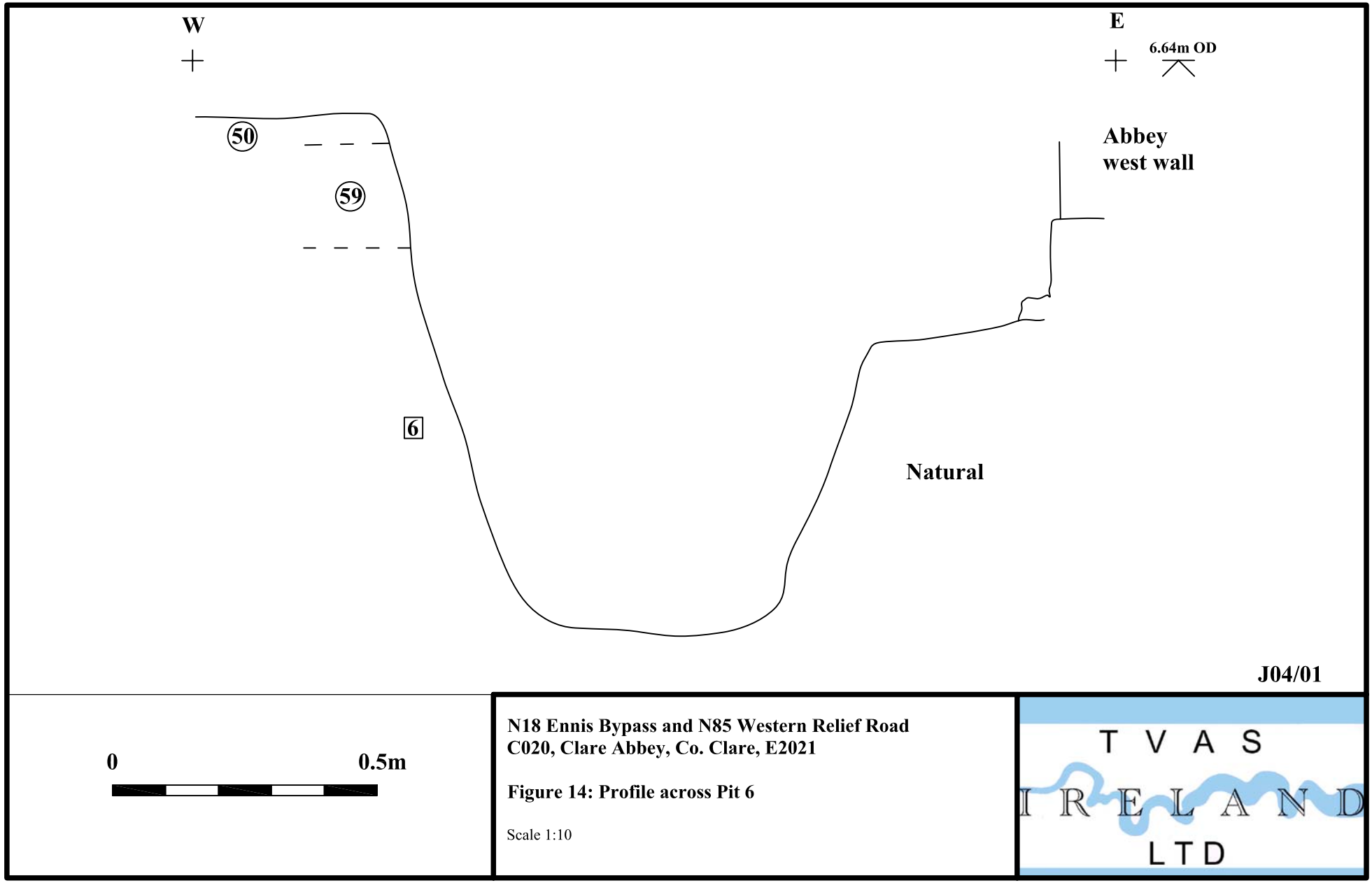
0 750mm

N18 Ennis Bypass and N85 Western Relief Road
C020, Clare Abbey, Co. Clare, E2021

Figure 13: West-facing elevation of Abbey west wall showing cess-egress hole

Scale 1:15

TVAS IRELAND LTD

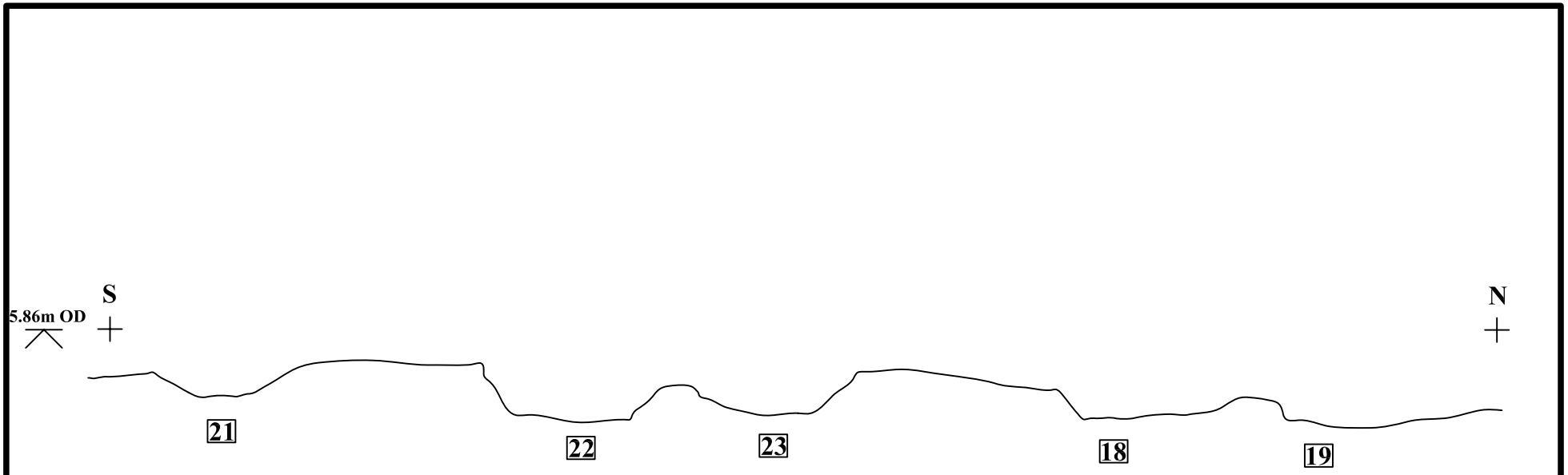


N18 Ennis Bypass and N85 Western Relief Road
C020, Clare Abbey, Co. Clare, E2021

Figure 14: Profile across Pit 6

Scale 1:10

TVAS IRELAND LTD



J04/01

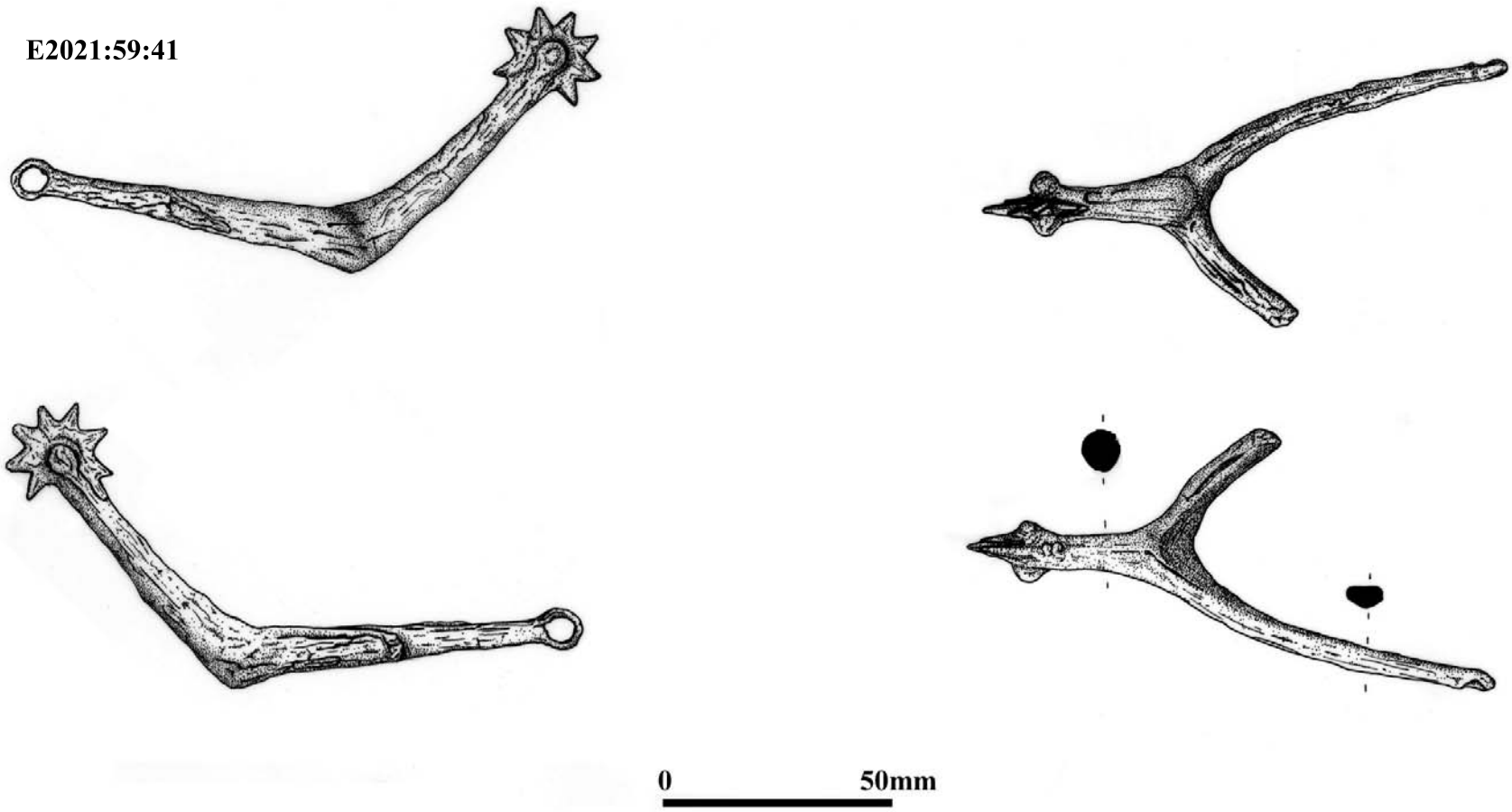
0 1m

N18 Ennis Bypass and N85 Western Relief Road
C020, Clare Abbey, Co. Clare, E2021

Figure 15: Profile across furrows 18, 19, 21, 22 and 23

Scale 1:20

TVAS IRELAND LTD

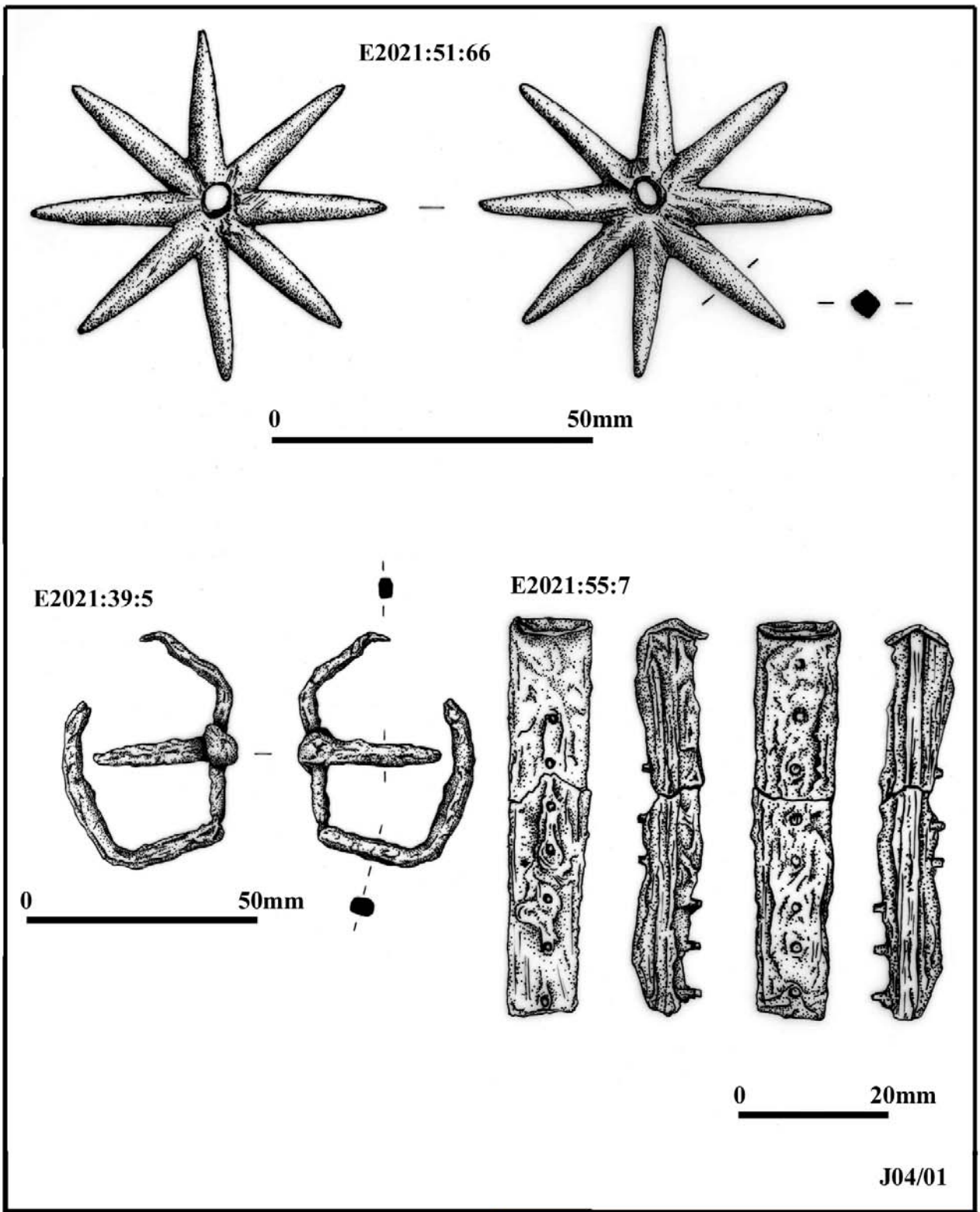


N18 Ennis Bypass and N85 Western Relief Road
C020 Clare Abbey, Co. Clare, E2021

Figure 16: Iron rowel spur

Drawn: Astrid Nathan

TVAS IRELAND LTD

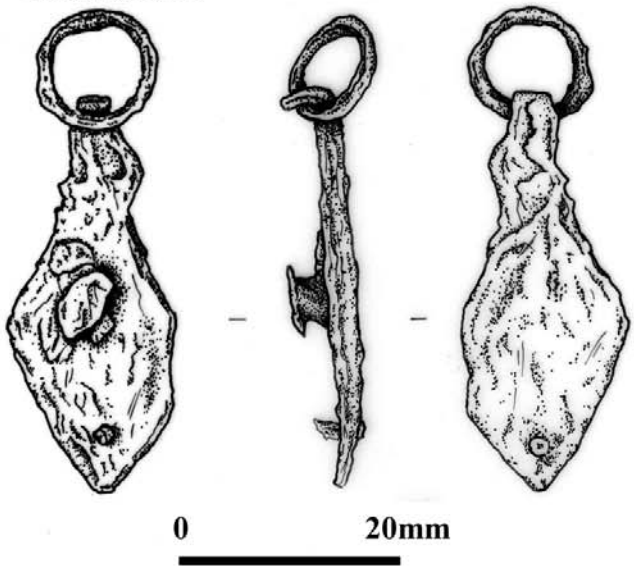


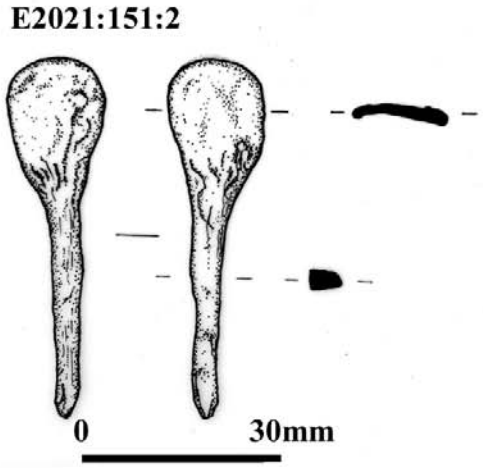
N18 Ennis Bypass and
N85 Western Relief Road
C020 Clare Abbey, Co. Clare, E2021

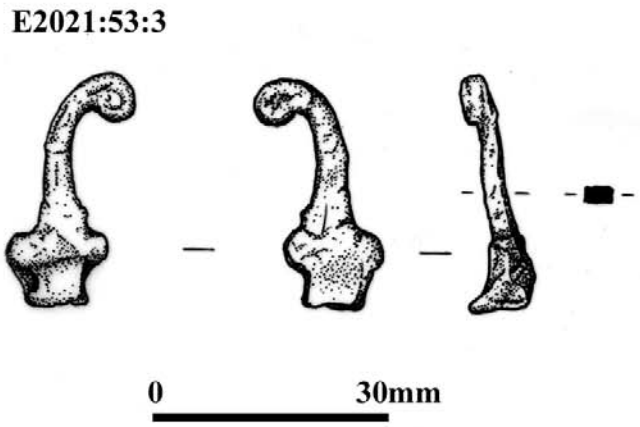
Figure 17: Iron artefacts

Drawn: Astrid Nathan

TVAS IRELAND LTD







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N85 Western Relief Road
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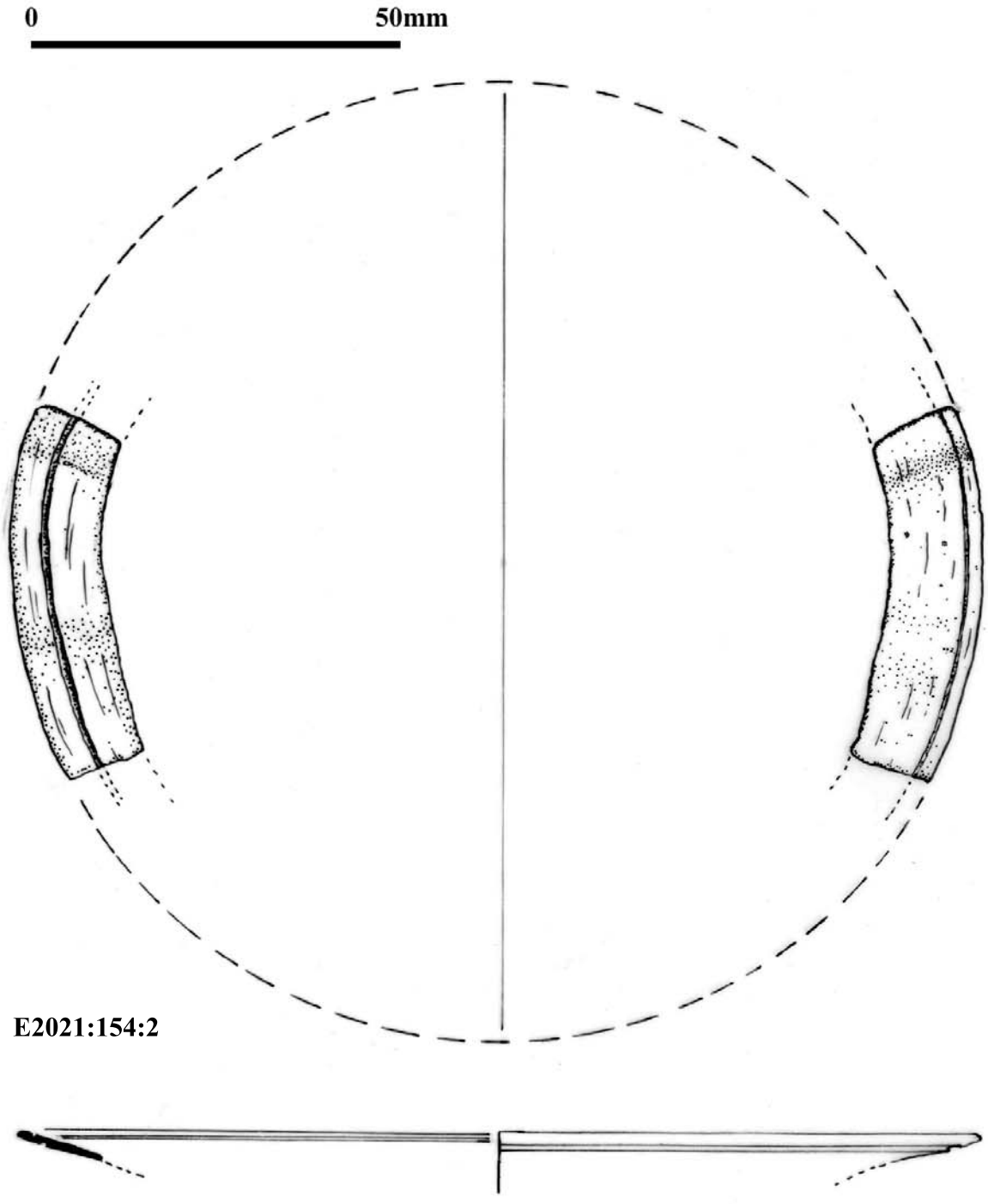
Figure 18: Metal artefacts

Drawn: Astrid Nathan

TVAS IRELAND LTD



N18 Ennis Bypass and
N85 Western Relief Road
C020 Clare Abbey, Co. Clare, E2021

Figure 19: Copper alloy plate

Drawn: Astrid Nathan

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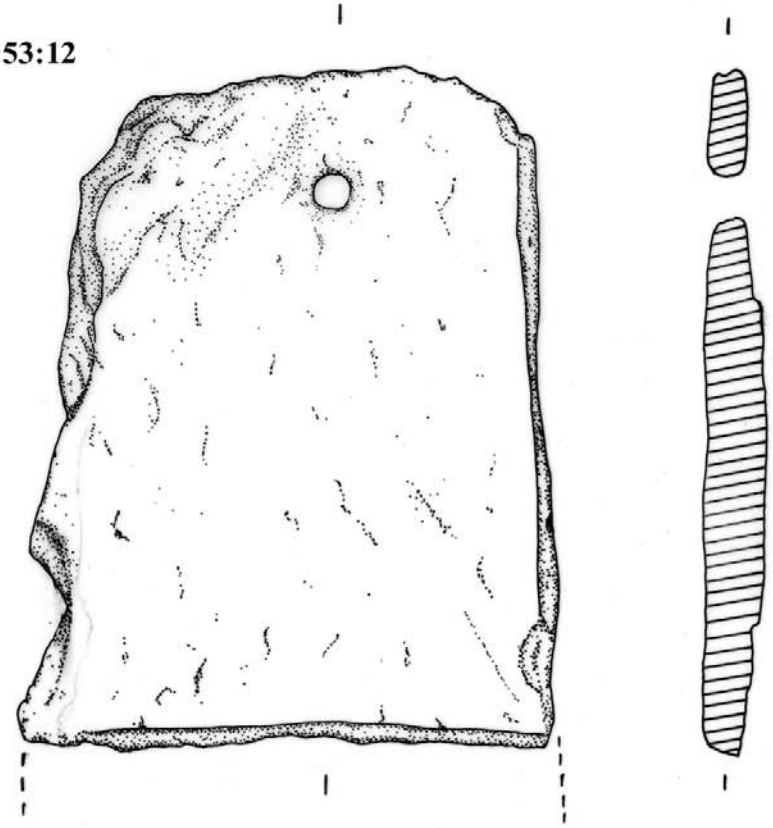
E2021:158:4

0 20mm

E2021:53:12



0 50mm

J04/01

N18 Ennis Bypass and
N85 Western Relief Road
C020 Clare Abbey, Co. Clare, E2021

Figure 20: Stone artefacts

Drawn: Astrid Nathan

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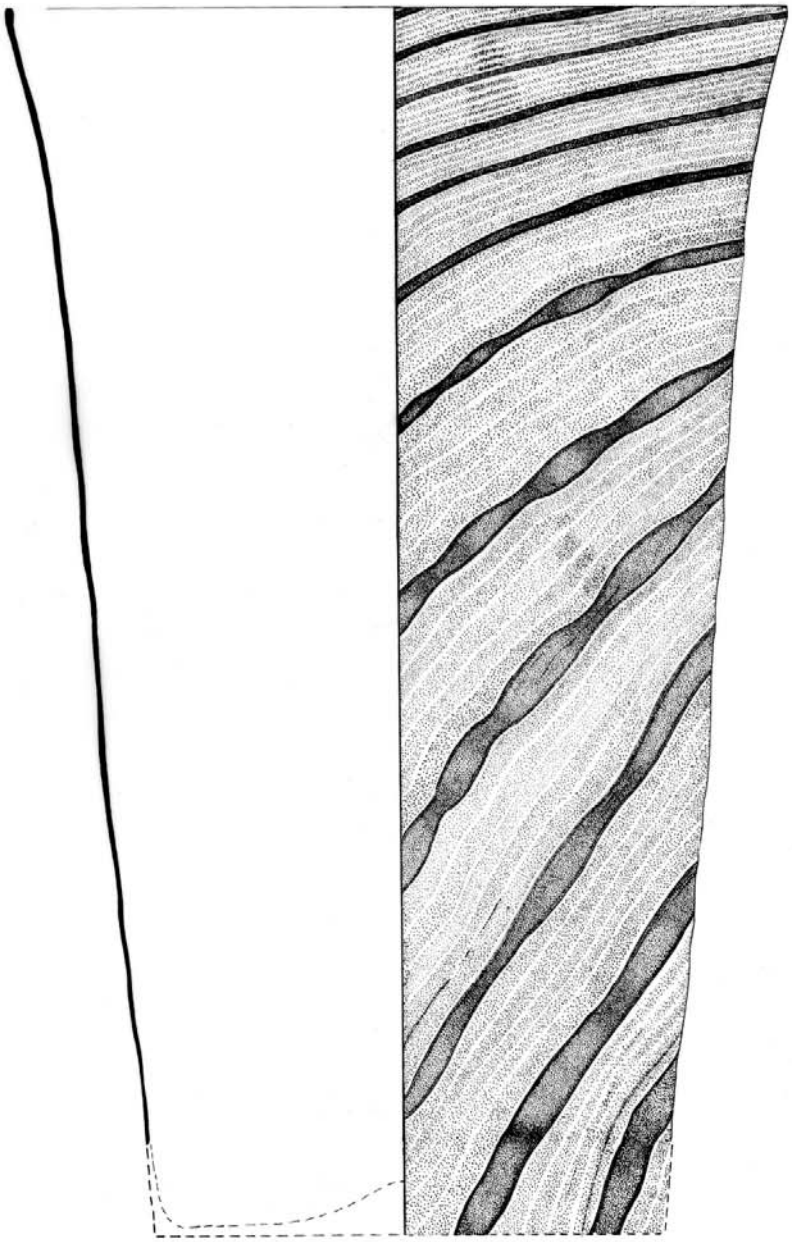

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N18 Ennis Bypass and
N85 Western Relief Road
C020, Clare Abbey, Co. Clare, E2021

Figure 21: Façon de Venise glass beaker

Drawn: Astrid Nathan

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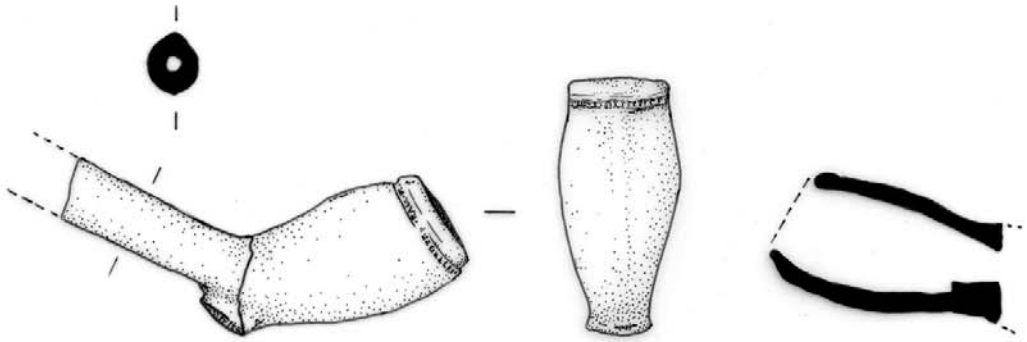
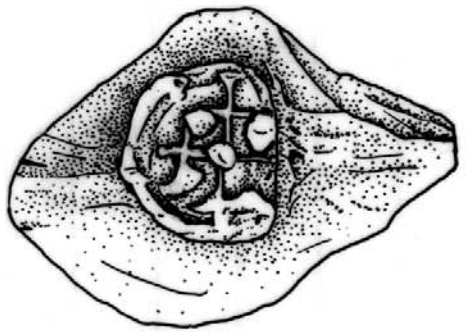


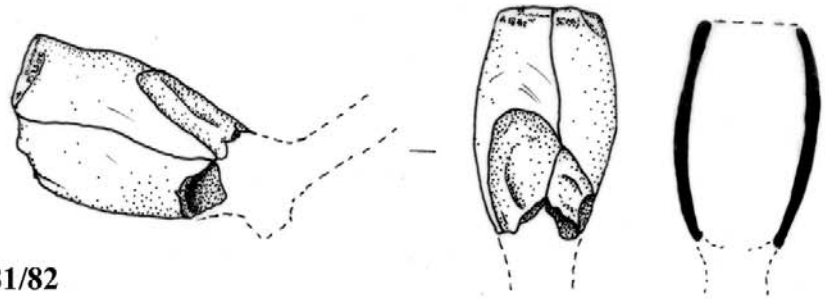
E2021:58:83 and E2021:55:14

0 50mm

E2021:66:2



0 20mm



E2021:58:79/80/81/82

J04/01

N18 Ennis Bypass and N85 Western Relief Road
C020 Clare Abbey, Co. Clare, E2021

Figure 22: Clay tobacco pipe

Drawn: Astrid Nathan

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175800N

N

Church

Cattle crush

Cloister

SITE

Kitchen

Refectory

Disturbed

175700N

Railway

134700E

134800E

J04/01

Key

= Archaeology?

= Trend

= Ferrous response

N18 Ennis Bypass and N85 Western Relief Road
C020, Clare Abbey, Co. Clare., E2021

Figure 23: Geophysical survey results

Survey JML Survey Ltd

Scale 1:500

0 25m

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Plate 1: Clare Abbey. Looking north-west

Plate 2: Cloister. Looking south-west. Kitchen at rear

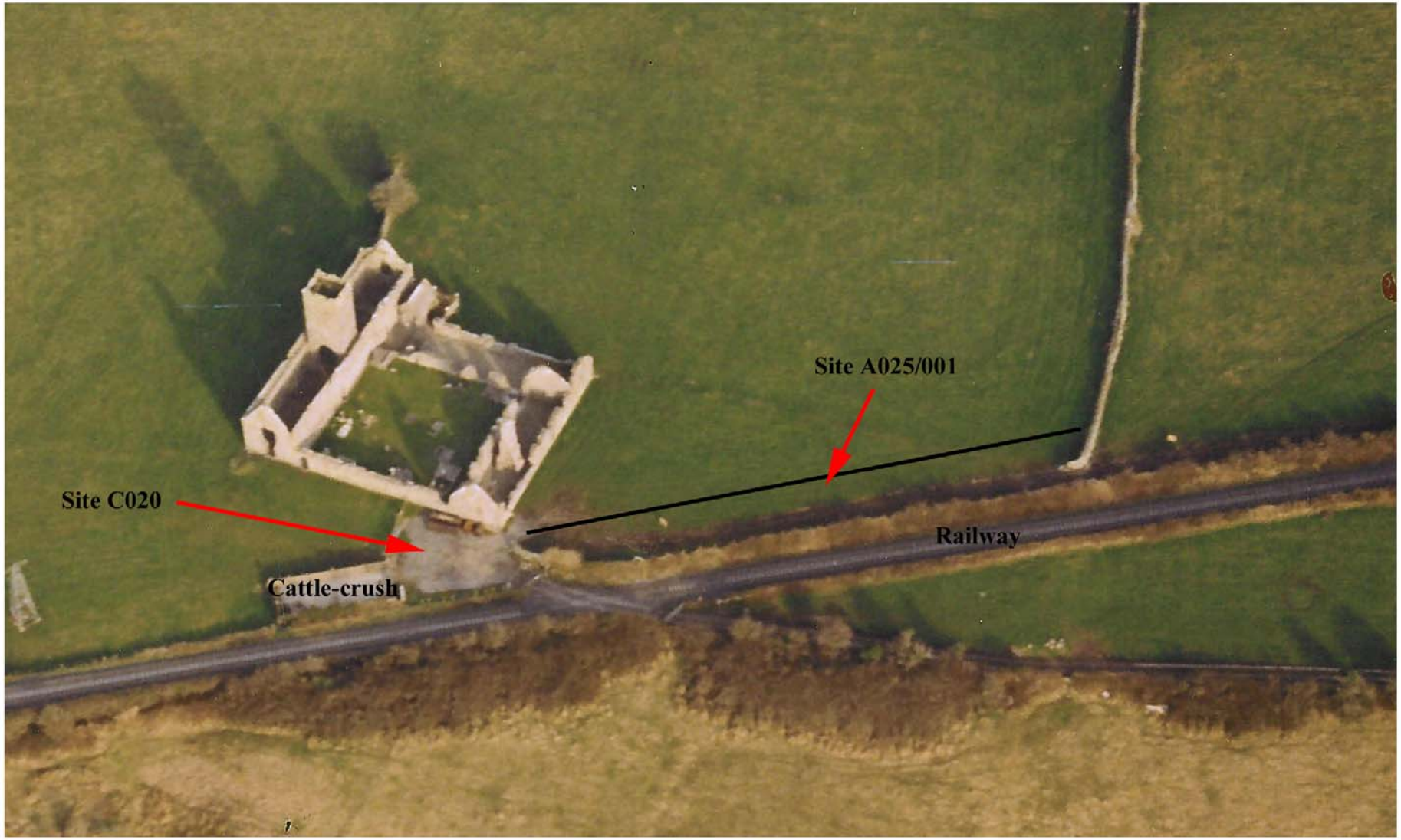
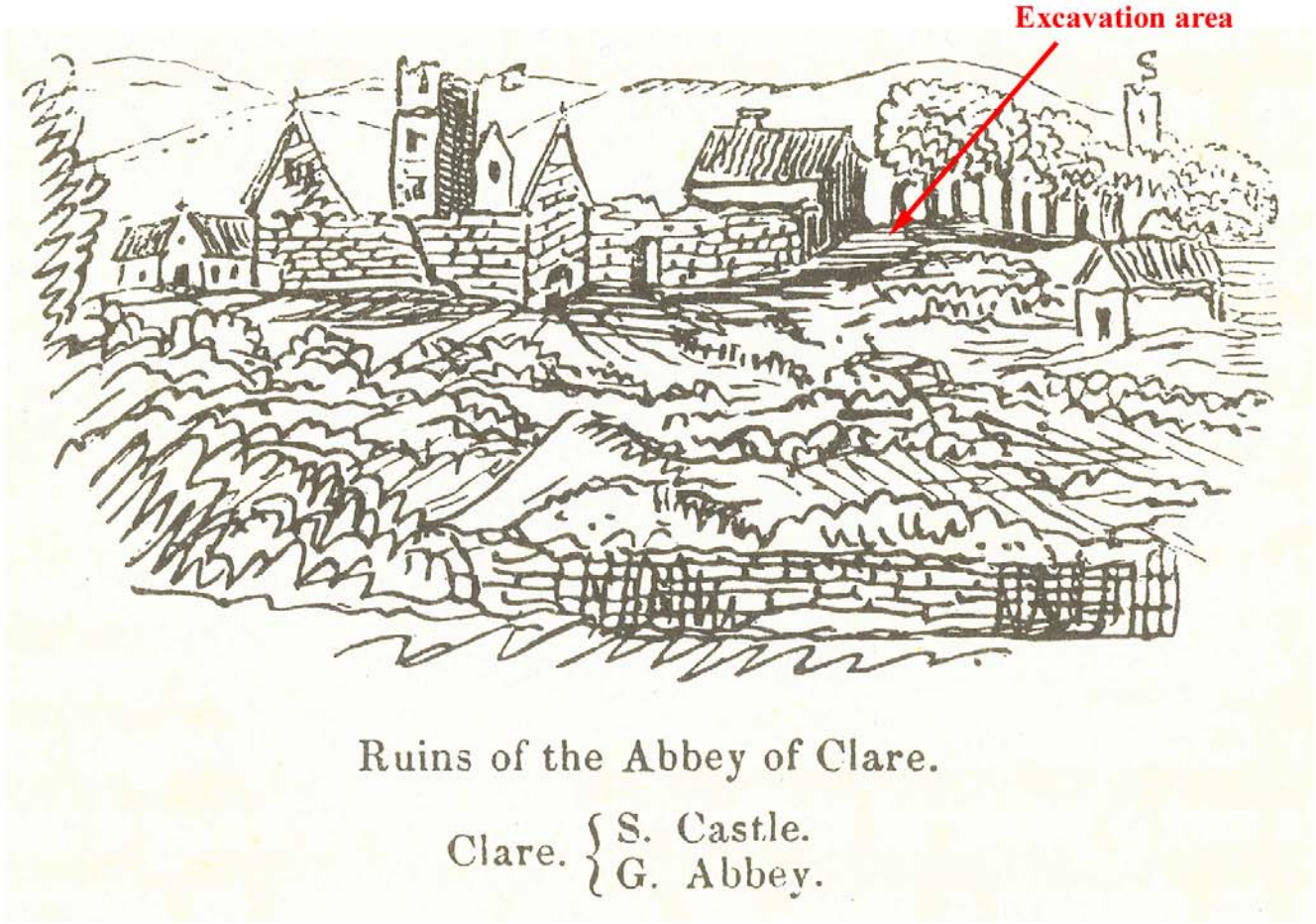


Plate 3 : Clare Abbey from the air. Looking east



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N18 Ennis Bypass and N85 Western Relief Road
C020 Clare Abbey, Co. Clare, E2021

Plate 4: Thomas Dineley's sketch of 1681. Looking south-east

Reproduced from O'Dalaigh 1998, 57

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N18 Ennis Bypass and N85 Western Relief Road
C020 Clare Abbey, Co. Clare, E2021

Plate 5: Clare Abbey in 1779-82. Looking north-west. Excavation area is behind gable at left

Grose, F, 1793, The Antiquities of Ireland, Vol. 2

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N18 Ennis Bypass and N85 Western Relief Road
C020 Clare Abbey, Co. Clare, E2021

Plate 6: Clare Abbey in early 20th century. Looking south-east.
Excavation area in front of gable at right

Reproduced from photograph in Clare Local Studies Library

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N18 Ennis Bypass and N85 Western Relief Road
C020 Clare Abbey, Co. Clare, E2021

Plate 7: Clare Abbey early 20th century. Looking south-east.
Excavation area in front of far gable on right

Reproduced from original postcard

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Plate 8: Clare Abbey. Looking north-east

C020

Plate 9: Pit 6. Looking north. Scales 2m, 1m and 0.3m

Plate 10: Pits 6, 45 and cess pit walls 4 and 36. Looking west, scales 1m, 0.3m and 0.2m

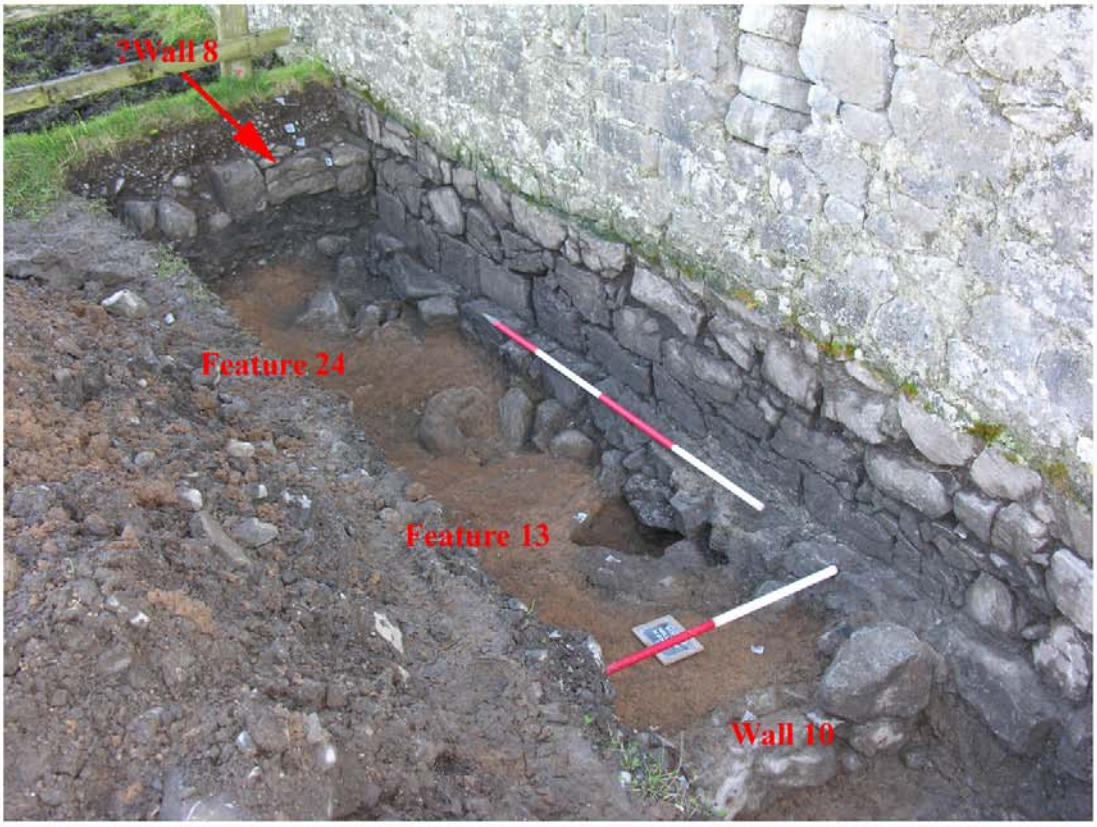

Plate 11: Hand-dug slot against abbey west wall. Looking north-east. Scales 2m and 1m

Plate 12: Feature 13. Looking east. Scales 1m and 0.3m

Plate 13: North-east part of site. Looking south-east. Scales 2m and 1m

Plate 14: South-east part of site. Looking south-west. Scale 2m

Plate 15: South-east part of site. Looking south-east. Scales 2m, 1m and 0.3m

Plate 16: Gully 3. Looking south-west. Scales 0.3m and 0.2m

Plate 17: Gully 3. Looking north. Scale 0.3m

Plate 18: Feature 123. Looking west. Scales 2m and 1m

Plate 19: Ditch 35. Looking south. Scales 1m and 0.3m

Plate 20: West wall of abbey. Looking east

Plate 21: Posthole 40. Looking north. Scales 0.5m and 0.3m

Plate 22: Posthole 109. Scale 0.5m

Plate 23: South-facing section showing Tumble 58 and possible Wall 8. Looking north. Scales 2m and 1m

Plate 24: Foundation stones 124. Looking south-east

Plate 25: Cut 34 in abbey west wall for cess egress. Looking east. Scale 1m

Plate 26: North-east part of site. ShowingTumble 58. Looking east.

Plate 27: Wall 33. Looking east. Scales 2m and 1m

Plate 28: Ditch 14. Looking east. Scales 2m and 0.5m

Plate 29: North-west part of site. Pre-excavation. Looking west. Scales 2m, 1m and 0.3m

Plate 30: North-west part of site. Mid-excavation. Looking south-west

Plate 31: Wall 1. Looking south-west. Scales 2m and 1m

Plate 32: Stone 17 from Wall 1. Scales 0.5m and 0.1m

Plate 33: Stone 13 from Wall 1. Scales 0.3m and 0.2m

Plate 34: Stone 24 from Wall 1. Scales 0.5m, 0.3m and 0.2m

Plate 35: Pottery. Ham Green B (left). Saintonge (right)

Plate 36: Pottery. North Devon gravel-free (top). North Devon gravel-tempered (bottom)

Plate 37: Donyatt pottery

Plate 38: Rowel spur E2021:59:41

Plate 39: Rowel. E2021:51:66

Plate 40: Eared horseshoe nail with spiral clenching. E2021:53:3

Plate 41: James II halfpenny 1691. Obverse. E2021:50:3

Plate 42: James II halfpenny 1691. Reverse. E2021:50:3

Plate 43: Buckle. E2021:39:5

Plate 44: Possible buckle pin. E2021:60:2

Plate 45: Wound-wire headed pin. E2021:67:20

Plate 46: Copper alloy ring. E2021:39:6

Plate 47: Copper alloy possible plate/vessel rim. E2021:154:2

Plate 48: Flint. E2021:67:9

Plate 49: Examples of quartz pieces

0 50mm

Plate 50: Façon de Venise glass beaker

Plate 51: Textile pieces