

N8 Cashel Bypass & N74 Link Road

Phase 2 Archaeological Investigations

Licence Number: 03E0394

Site Name: Site 15

Townland: Monadreelela / *Móin na Draoile & Boscabell / An Ráth Dhaingean*

Barony: Middlethird

Parish: St Patrick's Rock

County: Tipperary

NGR: 209667 / 141643 (centre of road)

OD Level: 148.65 m (cobble surface)

Excavation Area: 4,200 m²

Fieldwork Date: May 2003

Site Director: Joanne Hughes

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Client: South Tipperary County Council

Report Status: Final Report

Report Date: June 2013



CONTENTS	PAGE
Executive Summary	3–4
Introduction	4–14
Table i: Excavations undertaken on the N8 Cashel Bypass mainline	
Table ii: Excavations undertaken on the N74 Link Road	
Table iii: Excavations which produced non-archaeological sites	
Table iv: Excavations where archaeology was preserved <i>in situ</i> within the CPO	
Geology & Soils	15
Archaeology of the Cashel Area	16–27
Appendix i: Catalogue of objects from Cashel in the National Museum of Ireland	
Historical Sources	28–45
Figure i: Down Survey Map of the Barony of Middlethird	
Table v: Extracts from the Book of Survey and Distribution for 1640	
Table vi: Census of Ireland <i>c.</i> 1659	
Figure ii: Taylor Skinner Road Map 1778	
Figure iii: Municipal Corporation Boundaries 1831	
Table viii: Tipperary Hearth Money Records for 1665	
Table ix: Census Returns for 1841 & 1851	
Figure iv: 1st Edition OS six-inch map of Boscabell, 1840	
Table x: Extract Griffith's Valuation, 1850	
Figure v: Griffith's Valuation, 1850	
Figure vi: Smith-Barry Cashel Estate <i>c.</i> 1870	
Figure vii: 1st Edition OS 25-inch map of Boscabell 1901–05	
Figure viii: 2nd Edition OS six-inch map of Boscabell 1906	
Figure ix: 3rd Edition OS six-inch map of Boscabell 1953–54	
Plate 1: Vertical aerial image from 1994 of Boscabell townland	
Plate 2: Vertical aerial image from 2000 of Boscabell townland	
Excavation	46–66
Figure x: Archaeological investigations in Boscabell in 2003, Sites 15–19	
Plate 3: Mid-excavation of pit [411] showing burnt stone fill (410), looking north	
Plate 4: Post-excavation of pit [411], looking north	
Plate 5: Post-excavation of pit [428], looking south	
Plate 6: Pre-excavation of Croke's Lane, looking west	
Plate 7: Pre-excavation of Croke's Lane, looking east	
Plate 8: Mid-excavation of Croke's Lane, looking west	
Plate 9: Mid-excavation of southern bank, looking west	
Plate 10: Mid-excavation of external face of southern bank, looking north	
Plate 11: Mid-excavation of northern bank, looking east	
Plate 12: Mid-excavation of stone-facing (802) on southern bank, looking south	
Plate 13: Detail of herringbone pattern on southern bank, looking southeast	
Plate 14: Mid-excavation of stone-facing (803) on northern bank, looking north	
Plate 15: Mid-excavation of cobbling (100), looking west	
Plate 16: Mid-excavation of cobbling (100) showing junction area, looking east	
Plate 17: Mid-excavation of cobbling (100), looking east	
Plate 18: Mid-excavation of cobbling (100) showing wheel ruts, looking east	
Plate 19: Mid-excavation of cobbling (100) & layer (103) at passing area, looking east	
Plate 20: Mid-excavation of cobbling (100), looking west	
Plate 21: Post-excavation of Croke's Lane following removal of cobbles, looking west	
Plate 22: Mid-excavation of stone deposit (07) cut by ditch [08] at its western side, looking north	
Plate 23: Mid-excavation of stone deposit (414), looking north	
Plate 24: Mid-excavation of stone deposit (414) showing angled nature of cobbles, looking north	
Plate 25: Field boundary (104), looking west	

Plate 26: Close-up of field boundary (104), looking west	
Plate 27: Mid-excavation of modern activity, looking north	
Plate 28: Mid-excavation of modern activity, looking north	
Plate 29: Mid-excavation of modern activity, looking north	
Plate 30: Mid-excavation section of ditch [405], looking south	
Plate 31: Mid-excavation section of ditch [408], looking south	
Plate 32: Mid-excavation section of drains [401] & [403], looking south	
Plate 33: Mid-excavation section of drains [401] & [403], looking south	
Plate 34: Mid-excavation section of drain [415], looking north	
Discussion	67–71
Conclusion	72
References	73–79
Appendices	80–97
Appendix 1 Context Register	
Appendix 2 Finds Register	
Appendix 3 Drawing Register	
Appendix 4 Sample Register	
Appendix 5 Photography Register	
Appendix 6 Post Medieval Pottery Report	
Appendix 7 Small Finds Report	
Appendix 8 Metal Finds Report	
Plate 35: Copper alloy ferule (03E0394:06) front view, scale 1 cm	
Plate 36: Copper alloy ferule (03E0394:06) rear view, scale 1 cm	
Plate 37: Copper alloy ferule with internal wood fragment (03E0394:06), scale 1 cm	
Figure xi: Illustration of copper alloy ferule (03E0394:06)	
Appendix 9 Radiocarbon Date	
Figures	
Figure 1 Location of N8 Road Scheme	
Figure 2 Scheme Location & RMP Details	
Figure 3 Location of Sites 13–18	
Figure 4 Post-excavation plan of Site 15	
Figure 5 Post-excavation plan of Site 15 field boundaries	
Figure 6 South facing section of pit [411]	
Figure 7 Section through Croke’s Lane, Site 15	
Figure 8 North facing section through southern boundary of Croke’s Lane	
Figure 9 North facing elevation of stone-faced bank (800), Site 15	
Figure 10 Sections of features on Site 15	

EXECUTIVE SUMMARY

This report contains the final results of an archaeological excavation carried out as part of the N8 Cashel Bypass & N74 Link Road (03E0394). Site 15 (NGR 209667 / 141643, road chainage 6460–6520) measured 60 m long north/south and 70 m wide east-west. It was situated in the townland of Boscabell, and part of this site known as ‘Croke’s Lane’ formed the townland boundary between Boscabell and Monadreela. The site was located in an area of low-lying ground, and apart from Croke’s Lane the land was under pasture at the time of the excavation. The lane was demarcated by stone-faced banks / field boundaries with tree and shrub vegetation at its northern and southern sides. This lane and a north/south orientated tree-lined field boundary were the dominant features on the site prior to archaeological investigations. The north/south field boundary extended from Site 15 to the southern limit of site 19 to the south, where it also bounded the western side of Boscabell moated site (T1061-027).

Phase 1 pre-construction testing undertaken by Mary Henry Archaeological Services Ltd in 2002 (licences 02E0375 & 02E0286) identified areas of high archaeological potential in the townland of Boscabell (Lennon 2002). A section of Croke’s Lane was also excavated as part of this work and concluded that the laneway was at least post-medieval in date. Phase 2 testing of Site 15 in 2003 by Judith Carroll Network Archaeology (JCNA) Ltd (03E0295) identified a number of features including cultivation furrows, drains and pits (Fairburn 2006). Full topsoil stripping and excavation (03E0394) revealed a roasting pit/pot-boiler pit of Early Bronze Age date: ash (*Fraxinus excelsior*) charcoal from the fill was dated to cal. BC 2341–2142 (UBA-13904). The pit classification was based on the overall morphology of the feature, and on the inclusions of heat shattered sandstone and charcoal within (Hughes & Barker 2003). Contemporary Early Bronze Age dates were found in the same field to the south on Site 16 (03E0427); two pits containing heat shattered stones also had birch (*Betula sp.*) and ash (*Fraxinus excelsior*) charcoal, and should be read in conjunction with this report.

No evidence to suggest a medieval date for Croke’s Lane was identified, however such routeways are notorious to accurately date. The adjoining north/south orientated stone-faced bank/field boundary was of possible medieval date, being a link between the Monadreela medieval settlement and the moated site (TS061-027). The boundary was

clearly cut with the construction of Croke's Lane which, as it was possibly depicted on the Down Survey map 1654–6, could make the field boundary at least pre-17th in date.

Other features such as linear ditches and drains may have been associated with houses shown on the 1840 1st Edition OS map for Cashel to the west of the site (Figure iv). The site was fully excavated and all works have been completed.

INTRODUCTION

This report contains the final results of an archaeological excavation carried out as part of the N8 Cashel Bypass & N74 Link Road. The scheme involved an 8 km bypass of the town and a 2 km link road to the N74 (Figure 1). South Tipperary County Council completed the bypass and the new roads opened in October 2004. The project was funded by the Irish Government under the National Development Plan, 2000–6. The total archaeological cost was administered by the National Roads Authority through South Tipperary County Council, as part of the Authority's commitment to protecting our cultural heritage.

Project Background

RPS Consultants Ltd carried out a desk-based archaeological survey of the N8 Cashel Bypass and N74 Link Road route in 1995, recommending an eastern bypass of the town so as to avoid direct negative impacts on the Rock of Cashel, a National Monument (Cronin 1995). There was no Environmental Impact Statement (EIS) prepared for the project. RPS Consultants Ltd compiled an archaeological impact assessment of the route in 1999 (Lane 1999). The report identified five sites of cultural significance that would be directly impacted upon by the construction of the N8 Bypass. In addition five sites of archaeological potential were discovered by the Project Archaeologist from the examination of aerial photographs and a walkover survey of the route in April 2001. Between April and May 2002, Phase 1 Pre-Construction Archaeological Testing of these ten cultural heritage sites was undertaken by Mary Henry Archaeological Services, under Excavation Licence Numbers 02E0286, 02E0287, 02E0288, 02E0374, 02E0375, 02E0376, 02E0377, 02E0378, 02E0379 & 02E0380 (Lennon 2002). Those townlands investigated were Gortmakellis, Ballyknock, Monadreela, Boscabell, George's-Land, Windmill and Farranamanagh.

Archaeological features discovered during this work formed the basis of the Phase 2 investigations of the bypass in 2003.

In 2003 a joint venture company Judith Network Archaeology Ltd (JCNA) was contracted by South Tipperary County Council to undertake Phase 2 works. This involved further archaeological testing of areas of the bypass previously unavailable, carried out under Excavation Licence Number 03E0295. Phase 2 works also involved Fixed Price archaeological resolution of a number of sites discovered in the Phase 1 works. Thus both testing and resolution works often occurred within the same field. This work began in April and continued until August 2003, during which the main construction contractor Roadbridge Ltd began on-site works. The bypass officially opened in 2004. Initial post excavation works began in August 2003 but were suspended as JCNA Ltd went into liquidation in January 2004. Over the succeeding years some preliminary reports were issued by the various licence holders on an individual basis, while some specialist works were undertaken. Between 2008–10 the bulk of report writing and specialist analysis was completed under the supervision of the NRA Project Archaeologist. Remaining work since 2011 was undertaken directly by the NRA Project Archaeologist.

Project Description

The N8 Cashel bypass began north east of Cashel town, *c.* 3.5 km from the Rock of Cashel, in the townland of Gortmakellis. The bypass generally kept to the east side of Cashel for most of its length so as to minimise visual impacts on the Rock of Cashel. It continued south through flat, good agricultural land, before rising gradually and cutting through the eastern end of Ballyknock Hill, *c.* 166 m OD, at the western end of the Slieveardagh ridge. The bypass continued south through slightly undulating ground, skirting the eastern side of the Monadreela ridge, *c.* 151 m OD. The lower part of this ridge was low-lying, heavily water-logged ground. The bypass continued southeast through relatively flat land, before terminating 2 km south of Cashel in Owen's and Bigg's-Lot townland. The mainline of the bypass measured *c.* 70–80 m wide.

The N74 Link Road began in Windmill townland *c.* 400 m from the old N8 Cork road end of the bypass, heading west and then northwest for its length. The route skirts close to the hilltop enclosure at Windmill TS061-072, before descending through Windmill along flat,

good agricultural land, before cutting through a low ridge in Deerpark townland. The route descended through Farranamanagh townland continuing north toward the N74 Tipperary road. The link road was 2 km in length, and *c.* 60 m wide.

The project was designed to avoid in as much as practical all known archaeological sites located close to the CPO such as Gortmakellis ringfort TS061-003, Gortmakellis tower house TS061-011, Ballyknock ringfort TS061-008, Boscabell moated site TS061-027, Rathordan ringfort TS061-074, Windmill ringfort TS061-072, Windmill Leper Hospital (*site of*) TS061-073, Windmill moated site TS061-167 and Farranamanagh ringfort TS060-084. The investigation of the *Rian Bo Phadriag* roadway (TS061-071) was the only example where the bypass directly impacted a known RMP site and this was unavoidable as the roadway had to be traversed by the bypass.

Excavation Methodology

The investigations began across the entire bypass although lands at Owen's and Bigg's-Lot were unavailable for investigation until July. All sites were investigated by mechanical excavators under constant archaeological supervision. The topsoil was removed down to the natural glacial till, or to the top of archaeological features, depending on what was encountered first. In the main the natural consisted of compacted yellow / orange clay. In areas of water-logged conditions such as at Monadreela, George's-Land and Owen's and Bigg's-Lot the natural changed to grey / white malleable clay. In areas of higher ground in Ballyknock, Windmill and Deerpark bedrock limestone outcropped close to the base of the topsoil. In particular on the northwest-facing slope of Windmill Hill (Sites 31–35) and Windmill/Deerpark ridge the natural contained bedrock outcropping and bands of gravel (Sites 38–39). A cave is shown on the 1st Edition OS Map at the extreme southwest corner of Hughes'-Lot East, near the Corporation Boundary junction with Waller's-Lot.

A total of 56 Excavation Licence Numbers were issued by the Department of Environment, Heritage and Local Government during the course of the bypass archaeological works. This total included the general archaeological testing licence 03E0295 which was used across the scheme, the specific testing of the *Rian Bo Phadriag* roadway (TS061-071) in Owen's and Bigg's-Lot 03E1211, and the archaeological monitoring of bypass outfall drains across various townlands, 03E1087. In most instances the licence issued for specific

archaeological testing of a site was retained for the subsequent resolution of that site, as resolution followed on immediately once archaeology was definitively identified.

The following tables list those sites on the N8 Bypass mainline and N74 Link Road where excavations uncovered definitive archaeological remains (see below). What is clear from these tables is the multi-period nature of many of the sites investigated. Such discoveries have been mirrored on both NRA-funded projects north and south of Cashel, although it is clear the density of sites uncovered around Cashel is exceptional (McQuade 2009, xiii). Although it could be explained that this higher site density was due to Cashel's prominence as an ancient royal capital in the early historic era, the higher numbers of prehistoric sites appears to indicate intense settlement around Cashel from the beginnings of the Early Bronze Age. The good quality farming land, based on brown podzolic soils over limestone bedrock, was a main attraction for settlement. Coupled with this was Cashel's strategic location south of the bog lands around Littleton/Thurles, and north of the Galtee Mountains and River Suir plain. Although Cashel has no river many number of small streams (Arglo, Black, Halfmile & Maddock) fed by a widespread system of ponds served as convenient water sources: it was no coincidence that when excavations occurred beside these ponds i.e. Monadreela, Boscabell and Owen's and Bigg's-Lot, multi-period sites were uncovered.

There are three RMP sites within the townland. Two ringforts, RMP TS061-028 and TS061-029 (one of which may be eponymous with the 17th century name), indicate habitation during the Early Christian era. The third is a moated site, TS061-027, possibly of 13th century date, lying immediately adjacent to the road-take. The southern portion of the moat was impacted by the construction of the Dualla road in the late 19th century.

Between April and May 2002, Phase 1 Pre-Construction Archaeological Testing undertaken by Mary Henry Archaeological Services Ltd in 2002 (licence no. 02E0375, held by Anne Marie Lennon) a section of Croke's Lane was investigated. The results concluded that the laneway was at least post-medieval in date (Lennon 2002, Site 4, Drawing 1, Figures 1–4, Plates 1–9). Further testing under licence 02E0286 between Croke's Lane and the Dualla road revealed a burnt stone pit (C.81) southeast of Croke's Lane (Lennon 2002, Site 3, Drawing 1, Figure 7, Plates 7–8). This pit was sectioned and then back-filled and preserved *in situ* until the full archaeological resolution works occurred in Spring 2003. Phase 2 testing of Site 15 in 2003 by Judith Carroll Network Archaeology (JCNA) Ltd identified a

number of additional features including cultivation furrows, drains and pits south of Croke's Lane (Fairburn 2006). Full topsoil stripping and excavation at Site 15 was carried out by JCNA Ltd between 15th and 20th May 2003, directed by Joanne Hughes, under licence no. 03E0394 (Hughes & Barker 2003).

Site No	Licence No.	Townland	Mesolithic	Neolithic	Copper Age	Early Bronze Age	Middle Bronze Age	Late Bronze Age	Iron Age	Early Medieval	Medieval	Post Medieval
			7000–4000 BC	4000–2400 BC	2400–2200 BC	2200–1600 BC	1600–1100 BC	1100–800 BC	800 BC–400 AD	400–1200 AD	1200–1500 AD	1500–1900 AD
1i	03E0673	Ballyknock										
1ii	03E0740	Ballyknock										
1iii	03E0727	Clonmore										
5	03E0299	Monadreela										
7	03E0300	Monadreela										
8	03E0379	Monadreela										
9	03E0345	Monadreela										
10	03E0392	Monadreela										
11	03E0346	Monadreela										
12	03E0393	Monadreela										
13	03E0378	Monadreela										
14	03E0395	Monadreela										
15	03E0394	Monadreela										
16	03E0427	Boscabell										
17	03E0413	Boscabell										
18	03E0425	Boscabell										
19	03E0426	Boscabell										

20	03E0470	Boscabell						Yellow		Green	Pink	Magenta	
21	03E0480	Boscabell				Light Green	Yellow						
22	03E0503	George's-Land				Light Green							
23	03E0508	George's-Land				Light Green		Red	Green				
24	03E0507	George's-Land								Pink			
25i	03E0731	Kilscobin & Hughes'-Lot East											Purple
25ii	03E0730	Kilscobin & Hughes'-Lot East			Orange		Yellow		Green	Pink			
25iii	03E0746	Hughes'-Lot East				Light Green		Red	Green	Pink			
25iv	03E0807	Hughes'-Lot East							Green	Pink			
25v	03E0756	Rathordan					Yellow						
27	03E0289	Waller's-Lot & Rathordan											Purple
29	03E0287	Waller's-Lot											Purple
30i	03E0754	Cooper's-Lot						Red					
30ii	03E0762	Cooper's-Lot								Pink			
30iii	03E1086	Owen's and	Pink	Light Blue	Orange	Light Green	Yellow	Red	Green	Pink			Purple

		Bigg's-Lot										
42	03E0582	Gortmakellis										
TI061:071	03E1211	Owen's and Bigg's-Lot										

Table i: Excavations undertaken on the N8 Cashel Bypass mainline

Site No	Licence No.	Townland	Mesolithic 7000-4000 BC	Neolithic 4000-2400 BC	Copper Age 2400-2200 BC	Early Bronze Age 2200-1600 BC	Middle Bronze Age 1600-1100 BC	Late Bronze Age 1100-800 BC	Iron Age 800 BC-400 AD	Early Medieval 400-1200 AD	Medieval 1200-1500 AD	Post Medieval 1500-1900 AD
31	03E0391	Windmill										
32	03E0399	Windmill										
33	03E0398	Windmill										
34	03E0418	Windmill										
35	03E0424	Windmill										
36i	03E0675	Windmill										
36ii	03E0676	Windmill										
37	03E0419	Windmill										
38	03E0760	Windmill, Deerpark &										

		Farranamanagh										
39	03E0757	Farranamanagh										
40	03E0502	Farranamanagh										
41	03E0674	Farranamanagh										

Table ii: Excavations undertaken on the N74 Link Road

Table ii illustrates the very prominent geographical attraction of the upland areas of Windmill Hill and Windmill / Deerpark, being the focus of settlement and ritual activity throughout prehistory. For Windmill Hill itself (Sites 31–36i) there is an apparent hiatus in activity between the Late Bronze Age and Medieval periods, centred round the hilltop enclosure (TI061-072): it is likely the enclosure itself was occupied during this time with the surrounding fields perhaps used for agriculture rather than settlement.

Table iii lists those sites where licences were issued and investigations proved to be non-archaeological:

Site No.	Licence No.	Methodology	Townland
1iii	03E0727	Resolution	Clonmore
2	03E0297	Testing	Ballyknock
3	03E0296	Testing	Ballyknock
4	03E0298	Resolution	Monadreela
6	03E0349	Testing	Monadreela
25vi	03E0747	Resolution	Rathordan
25a	03E0294	Resolution	Waller's-Lot
26	03E0347	Resolution	Rathordan
28	03E0292	Resolution	Waller's-Lot
43	03E1087	Monitoring	various
1, 1a, 25, 30, 36, 38	03E0295	Testing	various

Table iii: Excavations which produced non-archaeological sites

No further works were undertaken on these sites.

As the bypass was a design-and-build-type project design changes were made during the construction period in 2003. Such changes only involved works within the Compulsory Purchase Order lands (CPO), and were subject to the prior approval of South Tipperary County Council. These changes meant that some areas which had been archaeologically tested were not impacted further and therefore archaeological remains were preserved *in situ*. Such areas have been identified in each relevant final report and notified to the Archaeological Survey of Ireland:

Site	Licence	Townland	NGR	Description
Site 22	03E0503	George's-Land	209522 / 141100	ploughed-out <i>fulacht fia</i> dated to the Early Bronze Age
Site 24	03E0507	George's-Land	209520 / 140985	undated pits & ditches
Site 25ii	03E0730	Hughes'-Lot East	209380 / 140607	western portion of an Early Medieval ringfort
Site 25iv	03E0807	Hughes'-Lot East	209317 / 140363	eastern portion of an Early Medieval ringfort
Site 25v	03E0756	Rathordan	209140 / 140070	pits & ditches, one date from the Late Bronze Age

Table iv: Excavations where portions of the archaeology was preserved *in situ* within the CPO

Local Information

The route of the bypass traversed a number of upstanding townland boundaries generally consisting of high clay and/or stone banks topped with hedging, occasionally with a ditch either on one side or both. In some cases these ditches were active streams (Boscabell / George's-Land boundary; George's-Land / Hughes'-Lot East boundary). The townlands of Gortmakellis, Ballyknock, Monadreela, Boscabell, George's-Land, Kilsobin and Rathordan were located within St. Patricks Rock parish. At the George's-Land / Hughes'-Lot East boundary (Site 25i) the route entered St. John Baptist parish, formerly the Cashel Corporation Municipal Boundary too, and included the townlands of Hughes'-Lot East, Waller's-Lot, Cooper's-Lot and Owen's and Bigg's-Lot. On the link road Windmill was located within Part of St. Patricks Rock parish. At the junction of Windmill / Deerpark (Site 38) the route entered Farranamanagh in the parish of Hore Abbey. The profiles of townland boundaries were recorded during excavation and incorporated into the relevant final report. Changes to these boundaries over time can be traced in the Historical Background section below.

There are many interesting placenames around Cashel recorded cartographically and / or in historical sources, such as *Poulmawkeorish* in Castlelake; *Poulagower* in Attykit; *Foresdin* in Hill's-Lot; *Carrigeenedeen* and *Fawnsuir* in Carron; *Parknapeast*, *Turreen Spring* and *Mullenavivva Pool* in Ballinamona; *Knockananulla* in Hore Abbey; *Grancias Well* in Deerpark; *Loughroentagart*, *Lough Nahinch* and *Doon Fort* in Farranamanagh; *Ogaunoch and Coun* [Rathcoun?] and *the hill of Tubbiradoon...a well called Tubbiradoon near Doon Fort* (Davis White 1866, 47); *Goul's Pool* in Waller's-Lot; *Corralough Well* in Corralough; *Gallows Hill* in Hughes'-Lot East; *the Fahy and the common lands of the town alias Cottyne* (Fiants 1994, 485); *'Brockroghtie and a meadow near Gallows hill called Monyarnycrohy'* (IMC 1966, 281).

GEOLOGY & SOILS

The Cashel environs are situated on the eastern edge of the Golden Vale, and the southern edge of the central limestone plains of Ireland. The landscape has been formed by glacial meltwater and morainic deposition. The bypass route traversed the low-lying, fertile, well-drained and easily worked soils with underlying calcareous tills, which sweep away from the Knockmealdown and Galtee Mountains and Slievenamon to the south.

Ballyknock, in the north of the main route, and Windmill, in the southern part of the link road, are high prominent landmarks. The undulating land is made up of gently sloping rounded ridges oriented east/west. The streams create a cross-drainage system running between the ridges and along the bottom of the slopes, eventually flowing to the west, towards the River Suir drainage basin. The rock type of the area is composed of limestones from the Carboniferous period. On the west and south-west are the Hore Abbey Limestone and Lagganstown formations. To the south-east is the Ballyadams formation, with the Killeshin Siltstone and Clogrenan formations to the north-east and north respectively. The Hore Abbey formation consists of pale grey bedded limestone with chert, with the Lagganstown formation made up of dark thin cherty limestone. The Ballyadams formation is a Burren-type limestone with thick ledges. The Clogrenan formation is bluish-grey limestone with irregular nodules of black or blue chert, wackestones and packstone limestones. The Killeshin Siltstone formation is composed of muddy siltstone and silky mudstone (Archer, Sleeman & Smith 1996).

Geological features such as swallow holes are recorded in Cooper's-Lot and Owen's and Bigg's-Lot. There is a cave marked on the 1st Edition OS six-inch map at the southwestern edge of Hughes'-Lot East near its junction with Waller's-Lot: the site is not recorded on later mapping. Locations of stepping stones and fords are first recorded on the 2nd Edition OS six-inch map in Hughes'-Lot East, possibly associated with the Cashel Reservoir on the Dualla Road. On the same map disused limekilns are shown in many townlands such as Farranamanagh, Rathcoun, Rathordan, Spafield and Windmill. The dominant soil type is the grey brown podzolic which are fertile, well-drained soils ranging in depth from 0.20–0.60 m. It is an excellent soil type for agriculture, in particular horse breeding, for which this area of south Tipperary is renowned for.

ARCHAEOLOGY OF THE CASHEL AREA

Prior to the bypass archaeological excavations little was recorded of Cashel's prehistory, with a few uncontexted finds from around Cashel including a stone axe head, and various artefacts of bronze (axes, javelins / spearheads) and curiously, 262 bronze rings (see Appendix i). No prehistoric settlement sites were recorded – a situation that was to change with the bypass investigations. To the east of Cashel a Bronze Age burial had been discovered in Fussough townland, Dualla in 1933: a stone-lined cist burial containing an urn and human bones was dug up from a sandpit at the western base of the Kill Hills TS053-096 (O'Brien 2007, 93–4; Waddell 1990, 134).

The prehistory of Cashel has emerged slowly from beneath the citadel of the Rock of Cashel, whose mix of ecclesiastical and secular architecture generally dominates all discussion and research. The discovery from the middle of the 19th century onwards of metal artefacts from around Cashel, mainly bronzes such as axes, hinted at prehistoric activity in the area (Shearman 1852, 203). The recovery of artefacts from the Rock of Cashel summit is recorded from as early as 1849, with a bronze bell being found (Wyse Jackson 1956, 18). Perhaps the first archaeological excavation in Cashel occurred in the 1850's with investigations inside the Round Tower on the Rock (Fitzgerald 1857, 292). This may have been spurred by the establishment of the Cashel Chapter House Museum on John Street by Mr. Newport B. White in 1855. Two publications by his brother Rev. John Davis White listed a range of objects housed in the Museum, many of which were described as being found from around Cashel (Woodworth 1989, 149).

John Davis White included amongst the museum collection a large helmet [and human bones] found in Farranavarra, northeast of Cashel, possibly associated with the 1170's battle between the Irish and Anglo-Normans (Davis White 1892, 12). In his history of Ireland Giraldus Cambrensis described earthworks being thrown up near Cashel during a battle between the Anglo-Normans and Irish – *As [Raymond le Gros] was advancing towards Cashel...he heard that the men of Thomand had...come to block his path in the pass of Cashel. By laying down broken branches of trees and digging trenches they had greatly broken up a terrain already naturally difficult, and had also built a very strong palisade right across the path...the stockade was completely broken down and destroyed, not without great loss of life among the defenders, and they opened up a path with their swords, and then enlarged it* (Scott and Martin 1978, 161–3). The location of this ancient pass of Cashel is still unknown. Davis White also reported on the discovery of human skulls and bones in Doon Fort, Farranamanagh, possibly associated with the Desmond Rebellion of 1581 (Davis White 1866, 46–7).

Following in the footsteps of Davis White a later cleric, Rev. Robert Wyse Jackson began recording antiquities around Cashel's hinterland in the 1950's, and some of the objects he discovered are listed in Appendix i (Wyse Jackson 1956a, 21). Cashel's Anglo-Norman moated sites were included in Barry's seminal study of this monument type in the 1970's, including the Boscabell moated site TS061-027 (Barry 1977). These and the other rural sites around Cashel were visited and listed as part of Reynolds's 1975 survey of Tipperary South Riding, followed by Cahill's 1982 study of the barony of Middlethird, as part of an unpublished Master's thesis for UCC. Local historians such as A. Finn, P. J. Davern, J. Knightly, M. 'Bob' O'Dwyer and E. Dalton have over the years lectured and occasionally published about Cashel (see Moloney 1994).

Prior to the bypass excavations in 2003 no discoveries of Mesolithic sites had been made in the Cashel area – the nearest such activity was represented by the uncontexted flints found at Ballybrado House, near Cahir (Woodman & Finlay 2001, 189); a Mesolithic date from the Bronze Age site of Curraghatoor, Co. Tipperary is considered unreliable (Cleary 2007, 39); a single Mesolithic macro flint was found in a medieval context in Toureen Peakaun near Cahir (Ó Carragáin 2011, 341–2) while a possible Mesolithic object, a single retouched jasper point from Chancellorsland, Co. Tipperary is paralleled with objects from the later Mesolithic site at Ferriter's Cove, Co. Kerry (Doody 2008, 329).

Cashel did not feature as a place of recorded Neolithic activity with no megalithic monuments nor house sites known. Only three flints were retrieved from the Rock of Cashel excavations in the 1990's – no further details are known at present (www.homepage.eircom.net/~dunamase/Dunamase.html) There are a number of undated megalithic structures around Clonoulty and Hollyford northwest of Cashel, recorded by the Archaeological Survey of Ireland. The nearest megalithic tomb is the portal tomb at Lissava TS075-045 near Cahir, c. 18 km south of Cashel. In Rathcoun townland southwest of Cashel four undated barrows TS060-107007–TS060-107010 and one unclassified cairn TS060-107011 are recorded clustered together.

A number of the metal artefacts now in the National Museum of Ireland have been assigned in the Early Bronze Age period (Grogan 2005, Fig. 3.1–3.4, 24–29) – see Appendix i below. Recently three standing stones have been identified northeast of Cashel and are now RMP sites: Palmer's Hill TS061-052, Corralough TS061-053 and Ballyknock TS061-054 – these may date to sometime in the Bronze Age and significantly are located along the prominent Ballyknock ridge, as is a newly discovered ploughed-out burnt spread / *fulacht fiadh*, overlooking many of the N8 Bypass

prehistoric sites (O'Brien 2003 17–26; O'Brien 2006, 15–23; O'Brien 2007, 87–96; O'Brien 2009, 72–4). Other recent discoveries around Cashel have been made from field walking including further ploughed-out burnt spreads / *fulacht fia* in Ballinamona (two sites), Ballinree (one site), Carron (two sites), Gortmakellis (one site), Kilsobin (one site) and Newtown (eight sites) (O'Brien 2008, 73–82), and artefacts such as a thumbnail scraper from Ballinamona, worked flint from Boscabell and Kilsobin, slag from Ballyknock, stone spindle whorls from Ballykelly, George's-Land and Ballinamona respectively, and a hammer stone from Ballinree and George's-Land (O'Brien 2003a, 48–52; www.facebook.com/rathnadrinna). These discoveries have been incorporated into the relevant final reports.

In later prehistory high status activity in the wider area is well represented; the discovery of two Late Bronze Age gold rings at Ardmayle, beside the River Suir and dated to the late 13th – early 12th centuries BC (Cahill 1989, 146), a Late Bronze Age Class IV sword from Aughnagomaun dated *c.* 700 BC (O'Brien 2007, 89–90), and a gold reel containing small gold balls (NMI W306) recorded as being found from Cashel (Cahill 1995, 66). The discovery of the Aughnagomaun sword is significant as earlier Middle / Late Bronze Age evidence was found in the same townland at (E2361) on the M8 North Project (Moore *et al* 2009, i). The lack of Bronze Age settlement sites was highlighted by Doody (1997, 94).

Iron Age Cashel was best represented in literature and with very occasional archaeological discoveries: the Clonura leather shield, *c.* 20 km northeast of Cashel. However recent excavation in advance of development has identified potential and definitive Iron Age sites: the discovery of a blue glass bead in Deerpark (Sherlock 2008, 350) may point to Iron Age activity and in the wider Cashel area a possible ritual site in Knockgraffon. The latter site consisted of an arc of eight postholes dated to 380–50 cal BC (SUERC–25889) while an internal posthole to the arc was contemporary, dated to 380–90 cal BC (SUERC–25890). Artefacts recovered included unidentified prehistoric pottery, a polished stone axe, three highly polished stones, two copper-alloy fragments and cremated bone (MacLeod 2012, 200–1).

Although Cashel was located on the south-eastern periphery of the Discovery Programme's North Munster Project nevertheless its inclusion saw a number of sites traditionally and locally classified as ringforts re-classified as prehistoric. Upstanding monuments such as Camus TS060-028 [classified as a ringfort on www.archaeology.ie], Carron / *Rathnadov* TS069-002001 [also classified as a henge], Knocksaintlour TS060-179, Lalor's-Lot / *Rathnadrinna* TS061-089001 and Windmill TS061-072 were classified as hilltop enclosures (Grogan 2005, Fig. 7.6, 116). A number of other

monuments perhaps could be added to this list; Ballyknock TS061-008 due to its very prominent location at over 180 m OD, Hughes'-Lot East enclosure 05E0671 (143 m OD), Rathordan TS061-074 at 140 m OD, and the multi-ramparted Ballinree TS060-110 are worthy of future study. Based on current evidence the nearest hillfort to Cashel is Kedrah TS075-040, located on the eastern side of the River Suir near Cahir, *c.* 16 km south of Cashel. The only definitive crannog in south Tipperary is recorded from Marhill TS069-072 just south of Rockwell College. Significantly this site is located in the same townland as a Middle Bronze Age site (E2269) and Medieval sites (E2124 & E2268) discovered on the M8 Cashel to Mitchelstown Road Project (see below).

The *Dhuvclloy* earthwork TS061-022 (road / hollow-way) in Charterschool Land TS061-022 has recently been associated with kingship processional rites (Gleeson 2012). In the extents of the Lands of Monecurialy of 1688 the highway from Cashel to Deansgrove was mentioned and the blacke ditch commonly called the *Doocly* (Davis White 1863, 5). Another road TS060-025 which serves as the townland boundary between Farranananagh and Rathcoun is now classified as a redundant record (www.archaeology.ie/NationalMonuments/Flex/Viewer/). However on the 1st Edition OS six-inch map the boundary is shown as *Boheragaddy* and a much earlier reference and description of *Bothar Gadie*, 'a double-ditched road (*a biffosario lapideo*)' is found in an Inquisition taken at Clonmel in 1553 (Curtis 1941, 15). In the same source another road called *Botherewolyngyhy* has been equated with Windmill (www.logainm.ie).

Exotic material is represented by the Roman-period occultist's stamp from Spital-Land in Golden, *c.* 7 km west of Cashel (Bateson 1973, 74), and the Roman-type fibula, a dolphin brooch (Type H), the earliest datable find from the Rock of Cashel (Cahill 1982a, 101). The evidence of international trade is further represented by Romano-British pottery sherds and Bii amphorae sherds from the Rock of Cashel; the Bii amphorae were also found at Derrynaflan *c.* 15 km northeast of Cashel (Kelly 2010, 59–60). Other well-known objects from Cashel include bronze bells, a silver brooch (decorated with Scandinavian thistle design from the late Norse period), a gilded copper crozier-head (set with turquoise and sapphire), the Kennedy-Crux Crozier, the silver-gilt Cashel Pyx, and various chalices and seals (Wyse Jackson 1956, 18–20; see Appendix i). A rare zoomorphic pennanular brooch dated to *c.* 600 AD was found in *Loughnafina*, west of Cashel town (Henry 2000, 200–1).

Early medieval Cashel is well attested in historical sources with the dominance of kings on the Rock under *Éoganachta*, *Uí Briain* and *Meic Carthaig* dynasties (see Historical Background below; Hodkinson 1994; Collins 1997; Gleeson 2012). In Rathcoun a complex of ecclesiastical sites

include a church TS060-107002, recorded as (*site of*) *Templemobe* [Mobhi], the unclassified religious house TS060-107003 (*site of*) *Monastery*—the only monastic site marked around Cashel and holy well TS060-107004. Rathcoun and Templenoe are two townlands southwest of Cashel that preserve the word ‘temple’ in their name.

The plethora of ringforts and possible *Óenach* sites in the region point to a vibrant early medieval hinterland. Some of the forts around Cashel are recorded in historical sources. In the *Life of Saint Declan of Ardmore* a stone fort called *Rath na nIrlann* is specifically identified as being on the western side of Cashel (Power 1914, 28) – this fort may equate with Ballinree TS060-110. *Lis na nUrlann* (location unknown) is recorded in the Yellow Book of Lecan as being associated with the twelfth-century inauguration of the kings of Munster (Fitzpatrick 2004, 178–9). In a description of the lands of James Boiton recorded in the Calendar of the Patent and Close Rolls Elizabeth I 1594–6 local names such as ‘*High Rathe on the east*’ and ‘*the lands of Asmon, otherwise Boiton Rath*’ [Boytonrath] are recorded (Morrin 1862, 392). Could the ‘*High Rathe on the east*’ either be referring to one of the Ballyknock forts TS061-008 or else to the Hughes’-Lot East enclosure [05E0671], (see below)? In the Patent Rolls of James I, Pat. 7 c. 1610 the following entry for the Windmill area is very informative – ‘*the stone house, towns and lands of the Windmill, Fleming’s Rath, and Parkinigrogory in the southern part of Cashell*’ (IMC 1966, 146). Could *Fleming’s Rath* be Windmill hilltop enclosure TS061-072?

King Brian Uí Briain is recorded as fortifying Cashel c. 995 (AI) - this annalistic reference may not be restricted to fortifying of the Rock itself. King Muirheartach Uí Briain had a house at Cashel c. 1091 (AFM) and within 10 years had handed over the Rock to the church in 1101 (Bracken & Ó Riain-Raedel 2006). Cormac’s Chapel, with its renowned Romanesque architecture was consecrated in 1134 (Ó Carragáin 2010). Although the OPW-funded excavations of the 1990’s on the Rock still remain unpublished, two of the burials excavated in Area 1 have been dated by the Mapping Death Project to cal AD 1029–1155 and cal AD 1033–1155 (Gleeson 2013, 22). These burials are contemporary with activity at two of the bypass sites: oats from the lower fill of a cereal-drying kiln in Boscabell (Site 19, 03E0426), and a single adult femur displaying trauma, from the upper levels of the Hughes’-Lot East bivallate fort (Site 25ii, 03E0730); see respective final reports.

The archaeological inventory for South Tipperary has been updated and new data added to RMP sites around Cashel, see www.archaeology.ie. A recent rural excavation unearthed evidence of a ploughed-out ringfort / enclosure at Hughes’-Lot East (Hurley 2005, 348). Significantly, this site

was located on a hillock to the southeast of the town, and its discovery suggested every such elevated location around Cashel was utilised as some form of defended settlement.

The last 20 years witnessed profound development changes in and around Cashel town itself, with a corresponding increase in the number of licence archaeological excavations taking place (Hughes & Ó Droma 2011, 19–20). Despite the large number of investigations little in the way of pre-13th/14th century AD material has come to light, equally compounded by a lack of publication. One of the more significant Cashel excavations was that in Friar Street in 1998 (O'Donovan 2004). New discoveries are still being made in Cashel town: a medieval carved head in the Dominican Friary (O'Brien 2010) and, a carved capital, probably from the Franciscan Friary was found built into a wall on the Dualla Road in Hughes' -Lot East (Hughes 2011).

A number of Anglo-Norman moated sites are recorded around Cashel including an elevated example at Windmill TS061-167 and one at Boscabell TS061-027, which was located close to the edge of the bypass (Sites 18–20). Gortmakellis tower house TS061-011 is a fine example of a five-storey late medieval structure, and the bypass was designed to avoid all impacts on this castle and its' environs.

Recent NRA Excavations Around Cashel

From 2005–7 archaeological discoveries around rural Cashel greatly increased - south of Cashel as far as the county boundary with Limerick on the M8 Cashel to Mitchelstown road and north of Cashel as far as the county (and provincial) boundary with Kilkenny on the M8 Cullahill to Cashel road. These excavations revealed sites containing multi-period activity similar to that found on most of the Cashel excavations too.

The following list summarises the archaeological excavations made south of Cashel on the M8 Cashel to Mitchelstown Road Project, final reports for which were produced in 2007 (all townlands are in Co. Tipperary unless otherwise stated).

Neolithic sites - Suttonrath (E2128), Caherabbey Lower (E2266), Loughfeedora (E2292) & Caherabbey Upper (E2298)

Early Bronze Age sites - Ballylegan (E2265), Ballydrehid (E2267), Cloghabreedy (E2273), Dogstown (E2288), Dogstown (E2289), Templenoe (E2290), Racecourse Demesne (E2297), Caherabbey Upper (E2298), Caherabbey Upper (E2299), Carrigane (E2303 Co. Cork) & Brackbaun (E2338 Co. Limerick)

Middle Bronze Age sites - Killemlly (E2126), Suttonrath (E2128), Ballydrehid (E2267), Marlhill (E2269), Knockgraffon (E2270), Knockgraffon (E2271), Cloghabreedy (E2273), Cloghabreedy (E2274), Shanballyduff (E2275), Dogstown (E2289), Clonmore North (E2294), Raheen (E2295), Lissava (E2296), Caherabbey Upper (E2299), Carrigane (E2303 Co. Cork), Brackbaun (E2306 Co. Limerick) & Brackbaun (E2339 Co. Limerick)

Late Bronze Age sites - Killemlly (E2126), Suttonrath (E2128), Ballylegan (E2265), Ballydrehid (E2267), Knockgraffon (E2270), Cloghabreedy (E2274), Loughfeedora (E2292) & Caherabbey Upper (E2299),

Iron Age sites - Killemlly (E2126), Ballylegan (E2265), Caherabbey Lower (E2266), Ballydrehid (E2267), Knockgraffon (E2270) & Knockgraffon (E2272),

Medieval sites - Marlhill (E2124), Marlhill (E2268), Suttonrath (E2127), Ballylegan (E2265), Knockgraffon (E2271), Tincurry (E2293) & Brackbaun (E2339 Co. Limerick)

Post Medieval sites - Loughfeedora (E2291) & Cloheenafishogue (E2302).

The following list summarises the archaeological excavations made north of Cashel on the M8 Cullahill to Cashel Road Project, final reports for which were produced in 2010 (all townlands are in Co. Tipperary unless otherwise stated):

Neolithic sites - Borris (E2491), Fennor (E2384) & Islands (E2388, Co. Kilkenny)

Late Neolithic sites - Gortmakellis (E2816)

Early Bronze Age sites - Borris (E2378), Borris (E2491), Inchirourke (E2383), Fennor (E2384), Fennor (E2385), Islands (E2386, Co. Kilkenny), Islands (E2388, Co. Kilkenny) & Warrenstown (E2390, Co. Kilkenny)

Middle Bronze Age sites - Parkstown (2368), Rathcunikeen (E2372), Borris & Blackcastle (E2374), Borris (E2375), Borris (E2376), Borris (E2378), Borris (E2379), Inchirourke (E2383), Islands (E2386, Co. Kilkenny), Islands (E2387, Co. Kilkenny), Islands (E2389, Co. Kilkenny) & Foulscourt (E2391, Co. Kilkenny)

Late Bronze Age sites - Aughnagomaun/Ashhill (E2361), Ballydavid (E2370), Coolcree (E2818), Borris (E2376), Inchirourke (E2382), Islands (E2386, Co. Kilkenny), Islands (E2388, Co. Kilkenny), Islands (E2389, Co. Kilkenny), Foulscourt (E2391, Co. Kilkenny) & Glashare (E2394, Co. Kilkenny)

Iron Age sites - Coolkip (E2362), Coolkip (E2363), Ballydavid (E2370), Borris (E2376), Borris (E2491), Inchirourke (E2382) & Glashare (E2394, Co. Kilkenny)

Early Medieval sites - Parkstown (2368), Ballydavid (E2370), Borris (E2376) & Borris (E2491)

Late Medieval sites - Moycarky (E2365), Moycarky (E2366), Moycarky (E2367), Parkstown (E2368), Borris & Blackcastle (E2374), Borris (E2376) & Inchirourke (E2382)

Post Medieval sites - Borris & Blackcastle (E2374)

The results of some of these excavations are incorporated into various Cashel final reports, can be viewed at www.nra.ie/archaeology and see McQuade (2009, 2, Table 1.1). The apparent lack of Mesolithic discoveries on either of these major road projects was mirrored on earlier infrastructure projects in south Tipperary - the Gas Pipeline of 1981–2 (Cleary 1987, vii), the Gas Pipeline of 1986 (Gowen 1988, vii), the Lisheen Mine Project 1996–8 (Gowen 2005, 61), and more recently again from the research excavation at Curraghatoor (Cleary 2007, 39). Clearly then, the hinterland of Cashel, where four townlands spread across the bypass produced Mesolithic material and/or radiocarbon dates, featured significantly in the movement of both people and materials during the Mesolithic. This movement was in no small part facilitated by Cashel's closeness to the River Suir.

Recent Geophysical Investigations Around Cashel

Between 2009–12 a number of research-led geophysical surveys were conducted on a number of sites around Cashel. Earthsound Archaeological Geophysics Ltd undertook geophysical surveys at Rathnadrinna fort TS061-089001 and TS061-089002 in Lalor's-Lot. This work revealed complex multi-period sites, with evidence of large-scale earthworks predating the known fort (O'Brien *et al* 2011, 26). Also in 2011 Earthsound undertook geophysical survey at Hughes'-Lot East (Site 25ii, 03E0730) in order to identify the full extent of the Early Medieval ringfort beyond the CPO (Bonsall 2012). The western edge of the ringfort was identified and the results have been incorporated into the final report for that site. Further research work centred on Windmill Hill sites TS061-072, TS061-073 and TS061-167 in 2011 by UCC and the University of Bradford / NRA and in 2012 by Earthsound Archaeological Geophysics identified archaeological features, some of which appeared to relate to the activity discovered on Sites 31–36i (Gimson 2012). These results are incorporated into the various Cashel final reports.

Appendix i: Catalogue of objects from Cashel in the National Museum of Ireland

Object: Copper alloy harness mount
 NMI No: 2004:178
 Find-spot: Ballytarsna
 Description: Copper alloy harness mount found by Mr. Alfie Coyle in a potato field on the southern side of the old N8 road, near the junction with Killock Quarry.

Object: Medieval pot sherd
 NMI No: 2004:146
 Find-spot: Rock of Cashel, surface find at exterior base of Cathedral south wall
 Description: Curved pot sherd probably belonging to a medieval vessel. The outer surface of the sherd is glazed. This glazing is green in colour with random dark green and brown dots. On one area of the outer surface of the sherd, there are traces of five incised lines. Max L 5.25; max W 3.28; T 6.90

Object: Socketed iron axehead
 NMI No: 2002:88
 Find-spot: St. Patrick's Rock, garden of Mr. Dinny O'Brien
 Description: Iron axehead with modern iron spike thru the shaft hole. The axehead has a widely splayed blade the sides of which curve inwards towards the shaft hole. This is triangular in shape and folds back to form the perforation to take the handle. In poor condition. Max L of axehead 13.15; W of blade 10.00; max T of blade, max 2.1

Object: Copper alloy ferrule
 NMI No: 1992:29
 Find-spot: Garden in Dogstown, New Inn
 Description: Copper alloy ferrule, decorated bronze mount

Object: Wood
 NMI No: 1984:107
 Find-spot: Curraghtarsna, Cashel
 Description: Trough of *fulacht*, reused from a dug-out canoe. Excavated timber C14 dated to 3120_35 BP (GrN 12618)

Object: Bronze spearhead or javelin head
 NMI No: 1968:285
 Find-spot: Cashel
 Description: Rounded blade with ornamental deep grooves close to the ridge of the socket, broad ribbon loops on the large squat socket. l. 6.4cm, l of loop 1.5cm, w of loop 2.1cm, diameter of socket mouth 2cm

Object: Bronze spearhead or javelin head
 NMI No: 1968:282
 Find-spot: St John Baptist Cashel
 Description: Bronze spearhead, socketed, looped, with bevelled edges on the blade and decorative ribbing. Conical socket. Loops are lozenge-shaped and placed midway between blade and mouth of socket. l. 11.3cm, l of blade 6cm, w of blade 3.5cm, l of loop 1.8cm, diameter of mouth 1.9cm

Object: Iron spike
 NMI No: 1953:9

- Find-spot: Hummocky' field near Ballysheehan Motte-and-Bailey
Description: Iron spike
- Object: Fragment of an iron horseshoe
NMI No: 1953:10
Find-spot: Hummocky' field near Ballysheehan Motte-and-Bailey,
Description: Fragment of an iron horseshoe
- Object: Five medieval pottery sherds
NMI No: 1953:11-5
Find-spot: Hummocky' field near Ballysheehan Motte-and-Bailey
Description: Five medieval pottery sherds
- Object: Bronze spearhead
NMI No: 1938:8589
Find-spot: Cashel vicinity
Description: Bronze spearhead
- Object: Socketed bronze axehead
NMI No: 1937:3678
Find-spot: Cashel vicinity
Description: Socketed bronze axehead
- Object: Silver seal matrix
NMI No: 1912:59
Find-spot: Co. Tipperary
Description: Matrix of seal silver with a green stone set inside. The device on the stone is a sea horse. The legend reads S.IOKIS-CASELL-ARCHID. The matrix was formerly in the possession of Sir William Betham. It has been in the RIA collection for many years. The seal measures 1 1/6inch x 15/16inch.
- Object: Stone adze
NMI No: 1909:33
Find-spot: Near Cashel
Description: Of very unusual form, of close grained hard black stone. It measures 9 & 1/8 in length and 2 1/2 in breadth. It has a label gummed on which reads "ancient Irish stone adze found at Cashel Co. Tipperary."
- Object: Casts of Cormac's Chapel north doorway
NMI No: 1911:5
Find-spot: Rock of Cashel
Description: Casts of cormac's chapel north doorway also arcading from interior and side of ornamented stone coffin.
- Object: Bronze axehead
NMI No: 1892:49
Find-spot: Near Cashel
Description: Socketed celt. Bronze looped cutting edge curved socket fractured filleted near mouth. Extreme length 2 1/4in. greatest width 1 7/8in. external diameter at mouth of socket 1 1/4in.
- Object: Copper axehead
NMI No: 1881:133

- Find-spot: Dundrum, found in 1842
Description: Copper, broad and flat, surface rough, narrow and straight large gaps in one end of cutting edge, workmanship very rude. Extreme length 6 ½inches thickness at centre ¼inch, greatest width 4 inches, width at narrow end 1 ¾inches
- Object: Bronze axehead
NMI No: 1880:15
Find-spot: From Cashel
Description: Socketed celt, bronze, brownish, patinated, looped, cutting edge curved, mouth of socket nearly round portion battered by hammering, length 2 7/8in. width at cutting edge 2 ¼in. greatest external diam. Of socket 1 ½inch
- Object: Silver paten
NMI No: 1880:98
Find-spot: Found when digging a grave in burial ground adjoining Cormac's Chapel, Rock of Cashel
Description: Silver circular and thin rim broad and flat centre portion slightly concave cracked in several places part of rim detached diameter 4 ½in width 5/8ths inch length detached portion 3 11/16ths inches wt. 1oz. 9dwt. 11gr.
- Object: Silver coin Edward II
NMI No: 1875:122
Find-spot: Northeast part of Cathedral, Rock of Cashel
Description: Edward II, found with Bronze pin No. 121
- Object: Bronze pin
NMI No: 1875:121
Find-spot: Northeast part of Cathedral, Rock of Cashel
Description: Pin bronze, stem tapering to a fine point and slightly diminishing towards head, on upper half of its length ornamented with diagonal hatchings, head formed by two horse's faces turned outwards, length 3 5/8inches, and greatest thickness of stem more than 1/8inch
- Object: Copper and silver coins
NMI No: 1877:16
Find-spot: Cashel
Description: Copper square Youghal Token 9/16 inch square.
Silver Mecklenburg shilling
- Object: Iron key
NMI No: 1877:12
Find-spot: Cashel
Description: Iron brown much rusted, pipe in shank, bow semi-oval and attached to shank by two scrolls. Extreme length 3 3/8inches, greatest width of bow 1 15/16inch. Measurement across shank and bit 1 inch
- Object: Stained glass
NMI No: 1877:11
Find-spot: Cormac's Chapel, Rock of Cashel
Description: Fragment of stained glass. Greenish with reddish brown stripes. Portion of latter forming lozenge shaped ornamentation with central circlet of same colour. Pattern similar to that of fresco painting on walls of Cormac's Chapel, in which structure it was found. Greatest length 1 ¾inch, extreme width 1 ½inch
- Object: Bell metal portions

- NMI No: 1877:10
Find-spot: Cormac's Chapel, Rock of Cashel
Description: Portions of bell metal (2) brownish green, respective measurements 1 1/2inch x 7/16inch, and 3/4 inch x 1/2inch
- Object: Copper alloy Lion
NMI No: 1877:1
Find-spot: Found in open space between Cormac's Chapel & Cathedral, Rock of Cashel
Description: Brass lion, greenish in sitting posture, rectangular socketed projection in rear of hind legs, base oblong and irregularly rounded in front, height 2 ft 20inches length of base 7/16th inch width 5/8th inch
- Object: Glass fragment
NMI No: 1877:14
Find-spot: Cashel
Description: Greenish grey remains of 'bull's eye' on one of the faces. Extreme length 3 1/8inches greatest width 1 1/4inch greatest thickness 5/8inch
- Object: Wooden bow
NMI No: R:2470
Find-spot: Near Dundrum
Description: Wooden bow, found in the moat of a square rath near Dundrum
- Object: Gold bracelet
NMI No: W307-309
Find-spot: Cashel
Description: Three individual gold bracelets
- Object: Gold ball & reel
NMI No: W306
Find-spot: Cashel
Description: Gold ball & reel
- Object: Copper alloy bell
NMI No: W2 WK209
Find-spot: Cashel
Description: Copper alloy bell
- Object: Bronze rings (262)
NMI No: W232-493
Find-spot: Cashel
Description: Bronze patinated and tarnished. Apparently solid. Annular but one is cut through showing it to be solid. Some are circular in cross-section. Some are regular on the inside and some seem to be rough or unfinished casting. The sizes range from 1.50 external diam with 1.40 internal diam to 2.90cm

HISTORICAL SOURCES

For the historical background to Cashel town and its environs see White (1863: 1866 & 1892), Gleeson (1927), Finn (1930), Bradley (1985), Fogarty (2000), MacShamhráin (2004), Marnane (2007), and more recently Marnane & Darmody (2011). Some key dates in the history of Cashel include:

- AD 370 Traditional date of Kings of Munster ruling from Cashel.
- 448 Traditional date for Saint Patrick's visit to Cashel, and baptism of King Aengus.
- 580 Cairpre, King of Cashel died.
- 593 Feidlimid, King of Cashel died.
- 662 Maenach, King of Cashel died.
- 666 Cú-cen-Máthair, King of Cashel [& Munster] died.
- 713 The battle of Carn Feradaig, in which Cormac King of Cashel, died.
- 742 Cathal, King of Cashel died.
- 820 Feidlimid, son of Crimthann, took the kingship of Cashel.
- 821 Artrí, King of Cashel died.
- 847 The first recorded king-bishop of Munster died in Cashel.
- 976 Brian Boru was crowned King of Munster.
- 995 The fortifying [building] of Cashel, Inis Locha Gair, and Inis Locha Sainglenn, and many buildings besides, by King Brian Boru.
- 1093 Diarmait, son of Tairdelbach Ua Briain, submitted to Muirchertach, i.e. his brother, and they made peace and a covenant in Cashel and in Les Mór, with the relics of Ireland, including the Staff of Jesus, as pledges, and in the presence of Bishop Ua hÉnna of Cashel and the nobles of Mumu.
- 1095 Cashel [the Rock] was burned [cause of burning unknown].
- 1101 Muirchertach O'Brien, King of Munster bequeathed the Rock to the church.
- 1102 Cashel was attacked and burned by the *Éili* of north Tipperary.
- 1107 Cashel [the Rock] was burned by lightning.
- 1115 Cellachán Ua Cellacháin of Cashel was slain.
- 1118 Mael Sechnaill Ua Faeláin was treacherously slain in Cashel.
- 1127–34 Traditional date for the building of the Cormac's Chapel on the Rock.
- 1130's Benedictine monks settle on the Rock of Cashel
- 1141 The bishopric of Cashel was made Metropolitan.
- 1172 King Henry II of England presided over a synod in Cashel.
- 1178 Cashel was plundered by the Normans.
- 1179 Cashel [the Rock] was burned [cause of burning unknown].
- 1194 Tadc, son of Mathgamain Ua Briain, was put to death by the foreigners in Cashel, despite the protection of the legate Archbishop Ua hÉnne of Cashel and Patrick.
- 1216 Cashel was designated as a borough town.
- 1220's References to the old and new *vill* (town) of Cashel survive.
- 1224–37 Sir David Latimer founded a Leper Hospital of St. Nicholas in Cashel.

- 1228 King Henry III returned the town to the ownership of the Archbishop, and a Fair was granted.
- 1243 Foundation of the Dominican Friary of Cashel, north of the town wall.
- 1265 Foundation of the Franciscan Friary of Cashel, east of the town wall.
- 1272 Foundation of the Cistercian monastery of Hore Abbey, south of the Rock.
- 1279 Letters of protection for two years for Adam Stripling, merchant of Cashel, about by the King's licence to go to parts beyond the sea.
- 1317 Edward Bruce of Scotland visits Cashel during his invasion of the country.
- 1320 Grant to the bailiffs and worthy men of Cashel, in aid of enclosing the town with a stone wall, that they may take the following customs in the accustomed form for five years from every crannock of wheat, peas, beans and every kind of corn, 1d.
- 1346 Commission to Adam Preston of custody of the castle of Cashel, during the King's pleasure, with the accustomed fee.
- 1378 King Richard II confirmed all the privileges of Cashel' Corporation; in Cashel Royal Service was proclaimed.
- 1378 King Richard II learned that there was no law, justice or good governance in any parts around the town of Cashel, but rather rebellion, extortion, murder, killing, robbery and open war made by the King's Irish enemies and rebels upon that town, so that the provost and commons of that town can scarcely be kept without great relief by the King in this part.
- 1381 The town of Cashel was situated in the march and was so devastated by invasions of the King's enemies that it cannot support the household of the King's Lieutenant and other officers except in the houses of the Friars Preachers and Friars Minor of that town; and because of the destruction of the surrounding parts where the said friars are wont to receive alms for sustenance, they have scarcely enough on which to live. Order to pay the Friars Preachers 5m as an aid for repairing their church and houses.
- 1494 The Earl of Kildare, Gerald Mór burned St. Patrick's Cathedral, believing the bishop to be hiding inside!
- 1540 The religious institutions of Cashel were seized by the English Crown.
- 1581 During the Desmond Rebellion cattle raids in Cashel result in the deaths of 60 townsmen.
- 1637 King Charles II of England granted a Charter to the town: it was to be known as '*City of Cashel*'.
- 1622 Archbishop Miler Magrath of Cashel died.
- 1641 The town of Cashel was invaded by the O'Dwyer Clan and many English settlers killed.
- 1647 The Rock of Cashel was conquered by forces loyal to the English Parliament, led by Irish man Lord Inchiquin.
- 1687 King James II of England granted Cashel a Charter.
- 1749 The roof of St. Patrick's Cathedral was removed.
- 1869 Following a Parliamentary inquiry the Corporation of Cashel was dissolved.

Townland History

The name Boscabell was a mid-17th century application celebrating the escape of King Charles II of England who hid in an oak tree in *Boscobel* after the battle of Worcester in 1652. Oak Apple day was celebrated by royalists following the restoration in 1666, and into the 20th century. It would have been a celebratory event in Cashel's early Corporation calendar. In the Tipperary Hearth Money Records for 1666–7 the Irish name Rathdangin was still listed (see Table viii below) Therefore the name Boscobel/Boscabell can only have arrived to Cashel in the early 1670's, undoubtedly brought over by English settlers to Cashel who were given land following the Cromwellian confiscations in Ireland in the 1650's. The Placenames Database of Ireland (www.logainm.ie) translated Boscabell as *An Ráth Dhaingean / na Rátha Daingne* meaning the fort of Daingean / Daingean's fort. The name *Boscobell* appeared first in 1773 although the name *Rathangan* was also recorded from 1775 (www.logainm.ie).

In the Civil Survey for County Tipperary 1654 the Parish of Patricks Rock was described as follows: *“The sd Parish lyeth intirely in the Barony of Middlethird & County of Tipperary. The Tythes of the sd Parish is an intire Viccarage belonging to the Sea of Cashell. The whole Tythes was worth in 1640 £100. The sd parish containeth the severall Townships following with their old extent of Irish Acres whereof...Kylscoubine one acre, Georgesland one Acre. Rathdangen three acres; Banadrily one acre, Ballin Knuck five acres. Gort McEllis two acres...Windmill fower Acres...”* (Simington 1931, 219–20).

In the Civil Survey Boscabell was known as Rathdangan comprising ‘three Acres old extent’. The townland consisted of 160 Plantation Acres; 97 acres arable, 60 acres pasture and 3 acre of meadow, valued at £10, none unprofitable. The Proprietors names in 1640 were *‘Thomas Kearney of Cashell Alderman Irish Papist Archybald Lord Archbishops of Cashell. The sayd lands are bounded on the South by the lands of Kyltafford in this parish, on the West with the Corporation of Cashell, on the North with the lands of Banadrilly in this parish, on the east with ye lands of Garranmore in this parish, and Dwally in the parish of Ballyshyane. The sd Thomas Kearney Inheritor mortgaged the sd lands to Archyball Lord Archbishops of Cashell long before the Rebellion (as wee are informed). The sd land is at prsent wast without impvemt.’* (Simington 1931, 223).

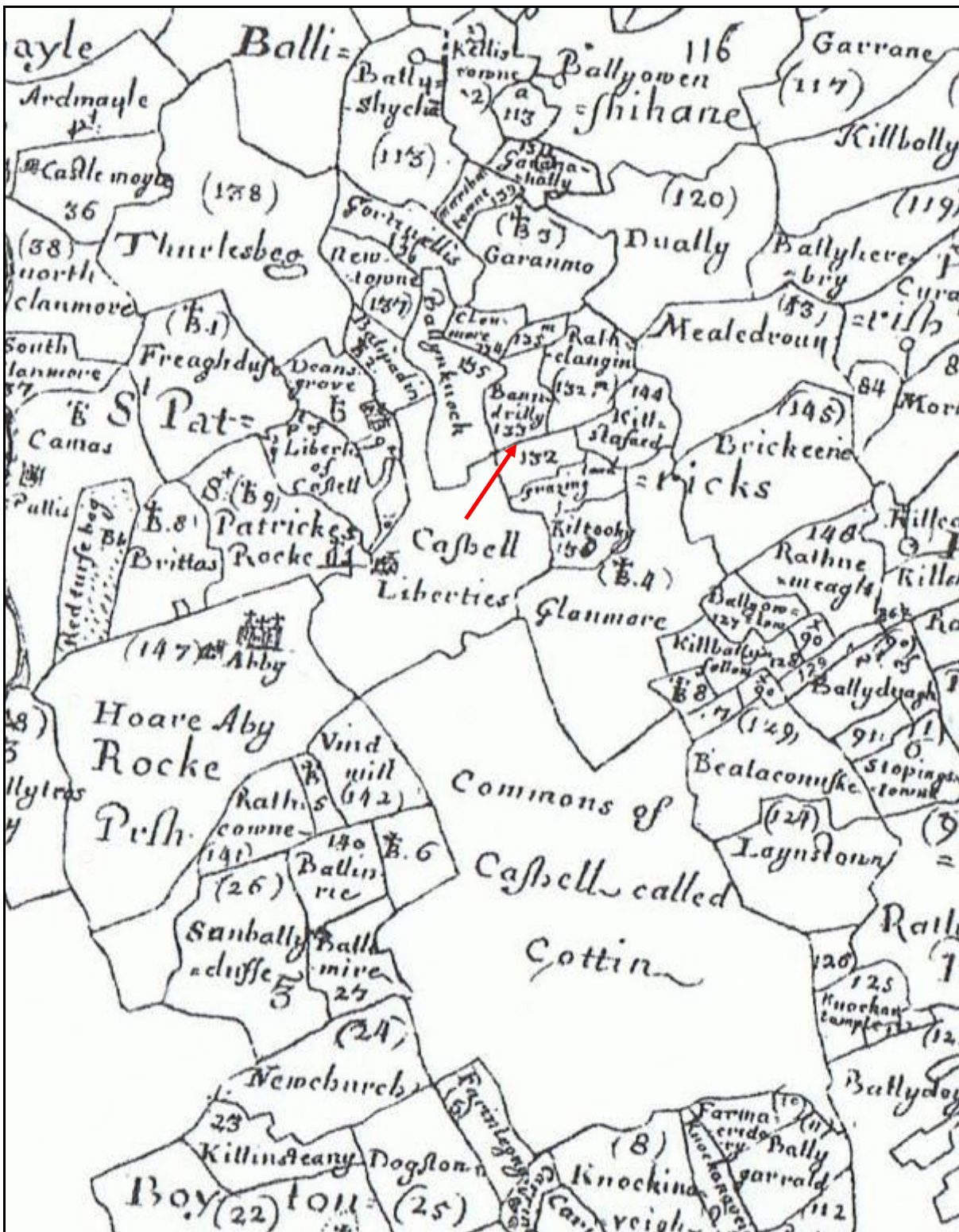


Figure i: Down Survey Map of the Barony of Middlethird by W. Petty, 1654–6. Rathdangin was marked (132)

It appears that Croke’s Lane was marked on this map as the boundary separating Banndrilly (Monadreele) and Rathdangin (132) was linear, and led directly into Cashel (Figure i).

Books of Survey and Distribution for County Tipperary

In the Books of Survey and Distribution the following proprietors are listed in 1640 for the townlands in the parish of St. Patrick's Rock that were investigated on the bypass:

Proprietor	Townland
Edmond Stapleton, Gortmakellis	Gortmakellis
Walter Sall, Garrane	Bandrilly & Clonmore
John Hanly, Cashel	Kilscobin
Derby Ryan, Cashel	Windmill

Table v: Extracts from the Books of Survey and Distribution for St. Patrick's Rock, 1640 (Marnane 2001)

In Petty's Census of Ireland for 1659 can be found the following information for those townlands where excavations took place on the bypass:

Parishes	Places	No. of People	Titulados Name	English	Irish
St Patrickes rocke Parish	Georg island	7	Oliver Lathom gent Anne Salli Widdow gent		7
	Killstobine	3	as above		3
	Rathardin	22	Thomas Perkins	2	20
	Gort McEllice	29	Mathew Pennyfether gent	2	27
The additional upon review					
St Patricks rock P'ish	Rathardin	2	?		2

Table vi: Census of Ireland c. 1659 (Pender 1939, 306–9)

In the Tipperary Hearth Money Records can be found the following information for those townlands where excavations took place on the bypass:

[Year] 1665 Baronia de Midlle Third. Parochia De St. Patrick's Rocke		
[Name]	Hths.	s.
John Kearney, de Kyllscobyne	1	2
James Hyad	1	2
Math. Pennyfeather, Gorttmcellis	2	4
Hugh Sterman, Rathordan	1	2
Thomas Kealy	1	2
Teige Kealy	1	2
William Dwegin	1	2
Edmond Rushell, Windymill	1	2

Table vii: Tipperary Hearth Money Records for 1665 (Laffan 1911, 13)

[Year] 1666–7 Barony of Middlethird. Parishes of St. Pates, Rock...					
[Name]	Hths.	s.		Hths.	s.
*Ballyfarsny			Rathdangin		
Edmund Leary	2	4	Morrish Hackett	1	2
Richard McJames	1	2	Richard Brittine	1	2
Connor Harrell	1	2	Donnogh Carny	1	2
Teige O'Kelly	1	2	James Head	1	2
Daniel Scully	1	2	Richard Carny	1	2
John Boyton	1	2	Windmill		
Teige Rian	1	2	Edmund Russell	1	2
Gortmaceill	Hths.	s.	Rathordane	Hths.	s.
Mathew Pennyfather	2	4	Thomas Kelly	1	2
William Hackett	1	2	James Woodlocke	1	2
Edmond Lahy	1	2	Teige Kelly	1	2
Gerald Listune	1	2	Thomas Hickey	1	2
David Nolane	1	2	John Kent	1	2
			John Carny	1	2
Killscobin	Hths.	s.			
Mr. Richey	1	2			

*Most likely this is Farnamanagh as it is in the Parish of St. Patrick's Rock and next to Hoar Abbey.

Table viii: Tipperary Hearth Money Records for 1666–7 (Laffan 1911, 97–8)

For *Rathdangin* five houses paid the Hearth Tax for 1666–7 but none were listed for the preceding year. Of the named individuals Morrish Hackett was of the well-known family of that name, associated with Ballytarsna northeast of Cashel; Donnogh and Richard Carny {Kearney} may have been associated with that well-known Cashel family.

The Taylor Skinner Road Map clearly showed Croke's Lane extending as a by-road off the Cashel to Killenaule 'hill road', before terminating at *Baskabell Ryves Es* (Figure ii). This evidence proved Croke's Lane dated at the earliest to the mid-18th century, but was likely to be much older, as it would have been a direct route from Cashel to Meldrum Castle, and also was the only route lying between the Cashel to Killenaule / Cashel to Fethard roads (Figure iv).

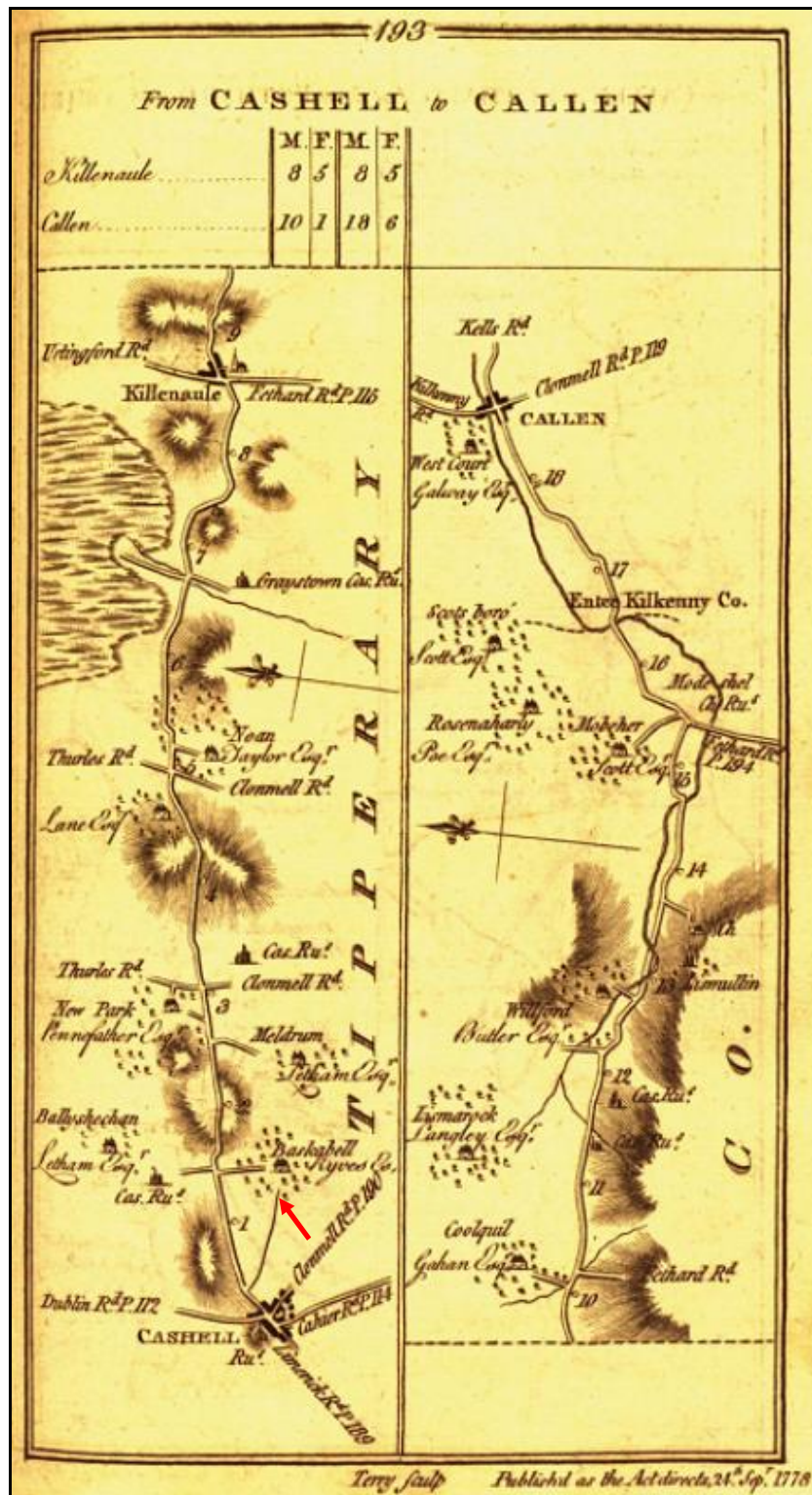


Figure ii: Taylor Skinner Road Map 1778. 'Baskabell Ryves Es.' was marked

Tithe Applotment Books for Cashel

In the Tithe Applotment Books for Cashel dating from 1827 nine surnames were listed under Boscabell - Butter, Cushian, Dee (x2), Fagarty, Maher, Mara, Martin and Murphy; listed under Rathdangan / Boseobel were 10 surnames - Butler, Dee (x2), Fogarty, Maher, Mara, Martin,

Murphy, Power and Quishion (www.titheapplotmentbooks.nationalarchives.ie). There was obvious duplication and errors in spelling amongst the entries. Names including Mara and Power were still listed in the Griffiths Valuations of 1850 (see below).

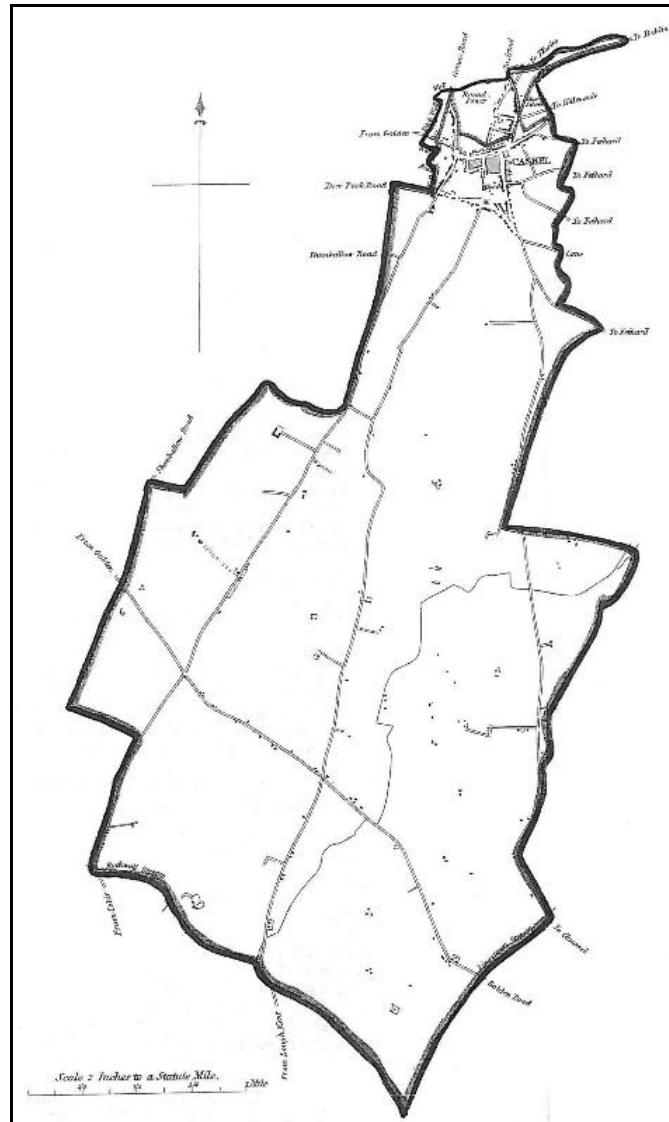


Figure iii: Municipal Corporation Boundaries (Ireland) Proposed Municipal Boundary of the Borough of Cashel, December 1831.

Although Boscabell was located outside the remit of the Corporation, the previous tenants, the Pennefathers had exercised almost autocratic control of Cashel Corporation from the 18th century (Finn 1930, 27).

Census Returns for 1841 & 1851

These census returns reveal the full extents of the Great Irish Famine in the Cashel area.

Census Year	1841			1851				
	Houses	Male	Female	Tot. Persons	Houses	Male	Female	Tot. Persons
Gortmakellis	14	-	-	95	8	-	-	43
Ballyknock	13	-	-	88	6	-	-	39
Clonmore	4	-	-	23	2	-	-	9
Monadreele	10	35	33	68	2	4	8	12
Boscabell	16	49	48	97	8	23	25	48
George's-Land	1	4	2	6	1	3	5	8
Kilsobin	2	3	5	8	2	2	3	5
Hughes'-Lot East	10	28	33	61	8	21	22	43*
Rathordan	27	102	92	194	18	58	58	116
Waller's-Lot	6	27	14	41	9	31	25	56*
Cooper's-Lot	7	14	18	32	5	15	18	33
Owen's & Bigg's-Lot	5	17	15	32	5	20	13	33
Windmill	20	57	61	118	8	26	16	42
Deerpark	2	6	8	14	1	4	4	8
Farranamanagh	47	160	159	319	34	92	83	175

Table ix: Census Returns for 1841 & 1851. *indicates part included in Cashel Urban District (Dalton 1994, 167–8; Meskell 1987, 254–6)

Such comparative information allows the full impacts of the Famine to be realised at local level. These figures should be treated with caution, however, as Smyth (2012, 13) has recently illustrated the inaccuracies in the 1841 statistics. Townlands like Clonmore and Windmill saw a 50 % or more reduction in the number of houses over the 10 year period represented in the censuses. Monadreele lost eight of its 10 houses and suffered a drastic reduction in population (68 persons reduced to 12). This would have had enormous negative impacts on the locality, both socially and economically. In Monadreele, the remains of the dwelling discovered on Site 14, adjoining Croke's Lane, may represent one of these mud-walled houses abandoned during the Famine.

1st Edition OS six-inch map

On the 1st Edition OS Map Boscabell is bounded on the west and north by Monadreele, on the north by Ballymackane and Garranmore, on the east by Ballyheens and Meldrum, on the south by Killistafford and George's-Land and on the southwest by Hughes'-Lot East. The bypass dissected the western portion of the townland in a north/south direction, where the townland narrowed to two fields in width only, lying between both 500ft contours. Several houses are shown on the south side of Croke's Lane, which runs along the northern townland boundary, all to the west of the land-take. Houses are also shown on the northern side of Croke's Lane, at Site 14 excavated under licence no.

03E0395. No houses occurred on the area of Site 15 within the land-take for the new road (Figure iv).

The source of the stream identified on Site 21 was shown and served as the townland boundary with George's-Land, formed by a flat-topped clay and stone bank with a deep water-filled ditch on either side. Another similar boundary but with an in-filled ditch on each side, was common to Sites 5–21 inclusive running north/south from Monadreela to Boscabell. This boundary ran west of and was kinked to avoid the Boscabell moated site TS061-027 before terminating at an east/west orientated townland boundary with George's-Land. This east/west boundary also consisted of a flat-topped clay and stone bank with a deep water-filled ditch on either side. In the 1980's the northern side of the boundary was partially altered by cutting into the bank and infilling the ditch with material removed (see Site 21 Final Report).



Figure iv: 1840 1st Edition OS six-inch map of Boscabell with Croke's Lane indicated. Source: www.osi.ie

Primary Valuation of Tenements in St. Patrick's Rock & St. John Baptist Parishes

In the Primary Valuation of Tenements recorded in Griffith's Valuation for South Tipperary taken in August 1850 the following information is of relevance for those townlands investigated on the bypass.

Townland	Acres (roods & perches)	Land £	Buildings £	Total £
Gortmakellis	357 (1 r. 18 p.)	£302 16s	£15 8s	£318 4s
Ballyknock	250 & 27 perches	£200 3s	£10 7s	£210 10s
Clonmore	65 & 15 perches	£47 18s	£4 11s	£52 9s
Monadreea	20 & 38 perches	£68 13s	£2 3s	£70 16s
Boscabell	268 (1 r. 5 p.)	£165 3s	£10 1s	£175 4s
George's-Land	104 (2 r. 5 p.)	£70 8s	£1 2s	£71 10s
Kilscobin	117 (1 r. 16 p.)	£86 2s	£3 4s	£89 6s
Hughes'-Lot East	413 (9 p.)	£680 7s	£140 14s	£821 1s
Rathordan	842 (3 r. & 4 p.)	£848 11s	£37 5s	£885 16s
Waller's-Lot	153	£314 13s	£24 16s	£339 9s
Cooper's-Lot	199 (1 r. 20 p.)	£245 4s	£8 19s	£254 3s
Owen's & Bigg's-Lot	143 & 27 perches	£148 10s	£3 19s	£152 9s
Windmill	299 (2 r. & 31 p.)	£382 15s	£11 5s	£394
Deerpark	152 (3 r. 9 p.)	£276 7s	£35 17s	£312 4s
Farranamanagh	655 (3 r. 10 p.)	£565 16s	£51 5s	£617 1s

Table x: Extract from the Primary Valuation of Tenements in St. Patrick's Rock & St. John Baptist parishes recorded in the Griffith's Valuation, August 1850, listed per total value of land and buildings.

All the land bar one tenant was held in fee of Mr John Power, Esq. who held the most substantial holding in nearby Ballyknock townland. Tenant John Cully (the Immediate Lessor being Thomas Mara) had a house valued at 9s Tenant Mary Ryan had a house only valued at £1 7s. Thomas Mara himself had a house and land held from Mr John Power, 66 acres and 37 perches valued at £33 19s and buildings at £2 9s, with a cumulative value of £36 and 8s. In addition to Mr. Mara four other tenants were listed with house and land, with Edward Daniel being the poorest having 1 acre (2 r. 29 p.), valued at 13s and house at 6s with a cumulative value of only 19s. The total acreage for Boscabell was 268 acres (1 r. 5 p.), with land valued at £165 3s, buildings at £10 1s giving a total value of £175 4s.

The listed occupier of the Boscabell lands impacted by the bypass (Sites 15–20) was Walter Grace, held in fee of Mr John Power, Esq. Mr. Grace held a house and land on the southwest side of Croke's Lane, valued at 16 acres (2 r. 37 p.), with land valued at £13 19s, buildings at 16s giving a total value of £14 15s.



Figure v: Griffith's Valuation showing Croke's Lane (this map depicted the Cashel-Dualla road, with field boundaries across it! the road was not built this early).

In the Ordnance Survey Namebooks No. 120 Barrisnafarney to Coolmundry, Boscabell was described as *'In the Eastern border of the Parish South of the road from Cashel to Killenaule, & on a cross road from Cashel to Fethard, also in the Barony of Middlethird. Is all tillage and pasture'* (O'Flanagan 1930, 130).

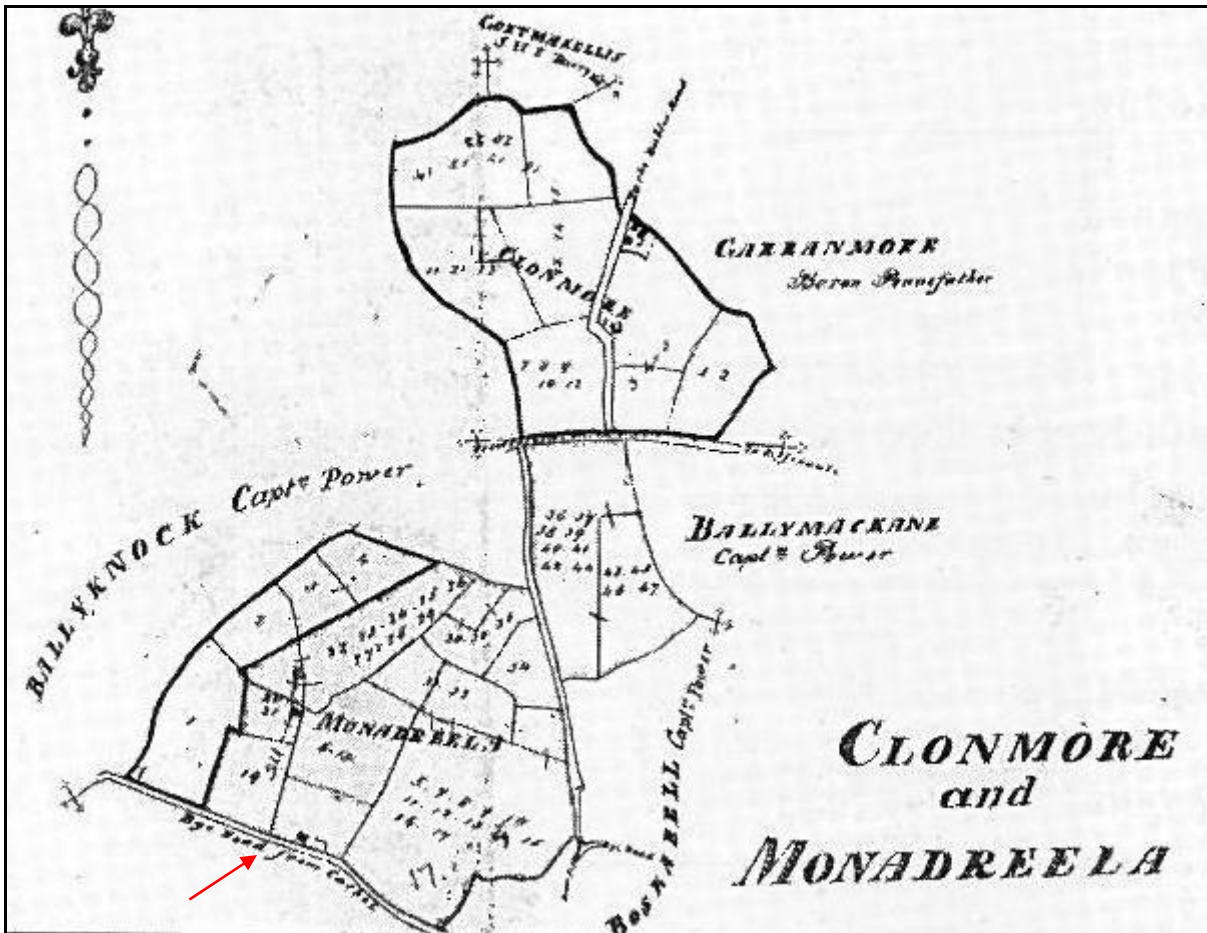


Figure vi: Smith-Barry Cashel Estate c. 1870. Source: Dr. Denis Marnane, Tipperary Town

Figure vi shows a portion of the Smith-Barry Cashel Estate map from c. 1870. Croke's Lane was marked as 'Bye road from Cashel'.

1st Edition OS 25-inch map

By the time of the 25-inch map there was no change in Croke's Lane from previous mapping; to the south the Cashel-Dualla road had been constructed, just avoiding the Boscabell moated site TS061-027 (Figure vii). Fundamental changes occurred in the size of adjoining fields; formerly 12 fields that lay between the moated site and Croke's Lane, all the boundaries had been removed to form two single fields, respectively 10.779 and 9.872 acres in size. Some of the former east-west aligned smaller field boundaries were rediscovered during the excavations in Boscabell (see Final Reports Sites 18 & 19). The stream, leading south from Croke's Lane to the moat itself of TS061-027 and then continuing south again to the George's-Land townland boundary, had been diverted, filled in or drained by this time.

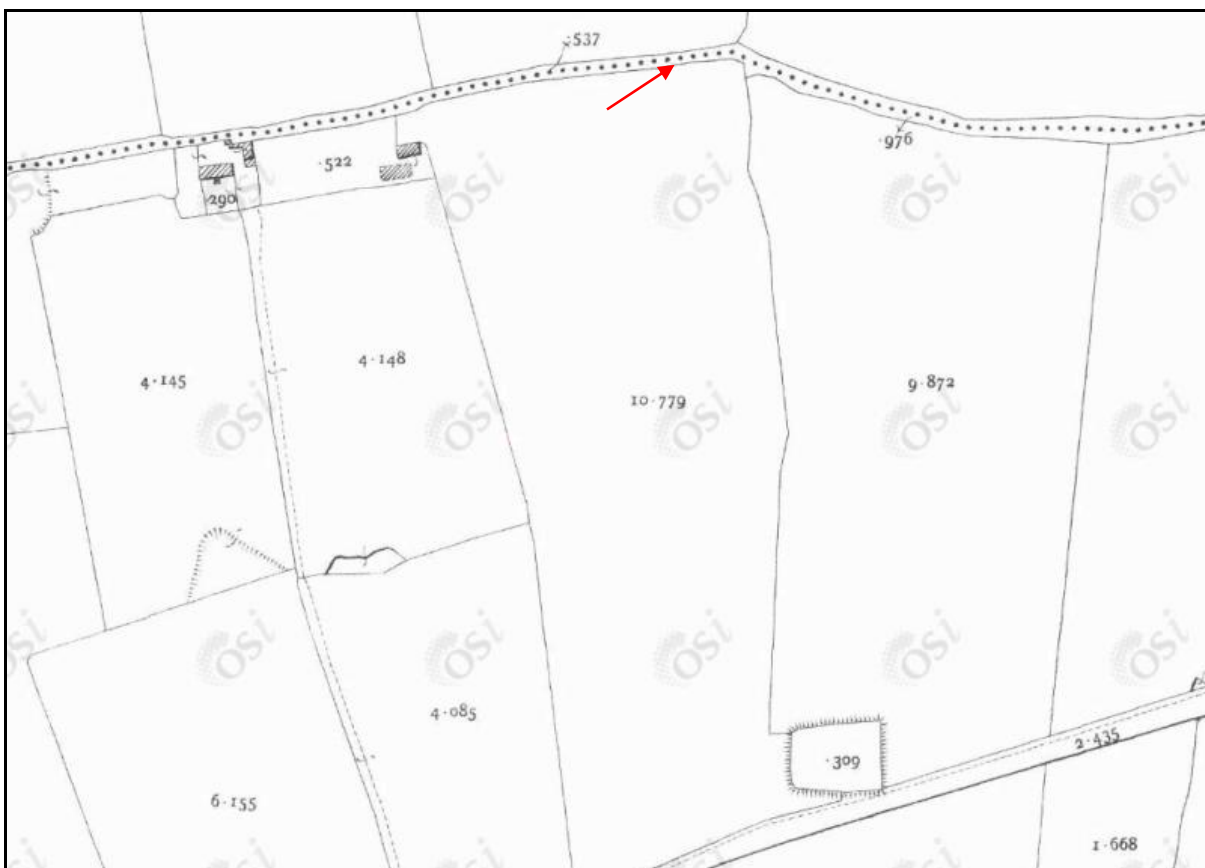


Figure vii: 1st Edition OS 25-inch map of Boscabell 1901–05. Source: www.osi.ie

There was no change to Croke's Lane on either the 2nd or 3rd edition OS six-inch maps (see Figures viii & ix).

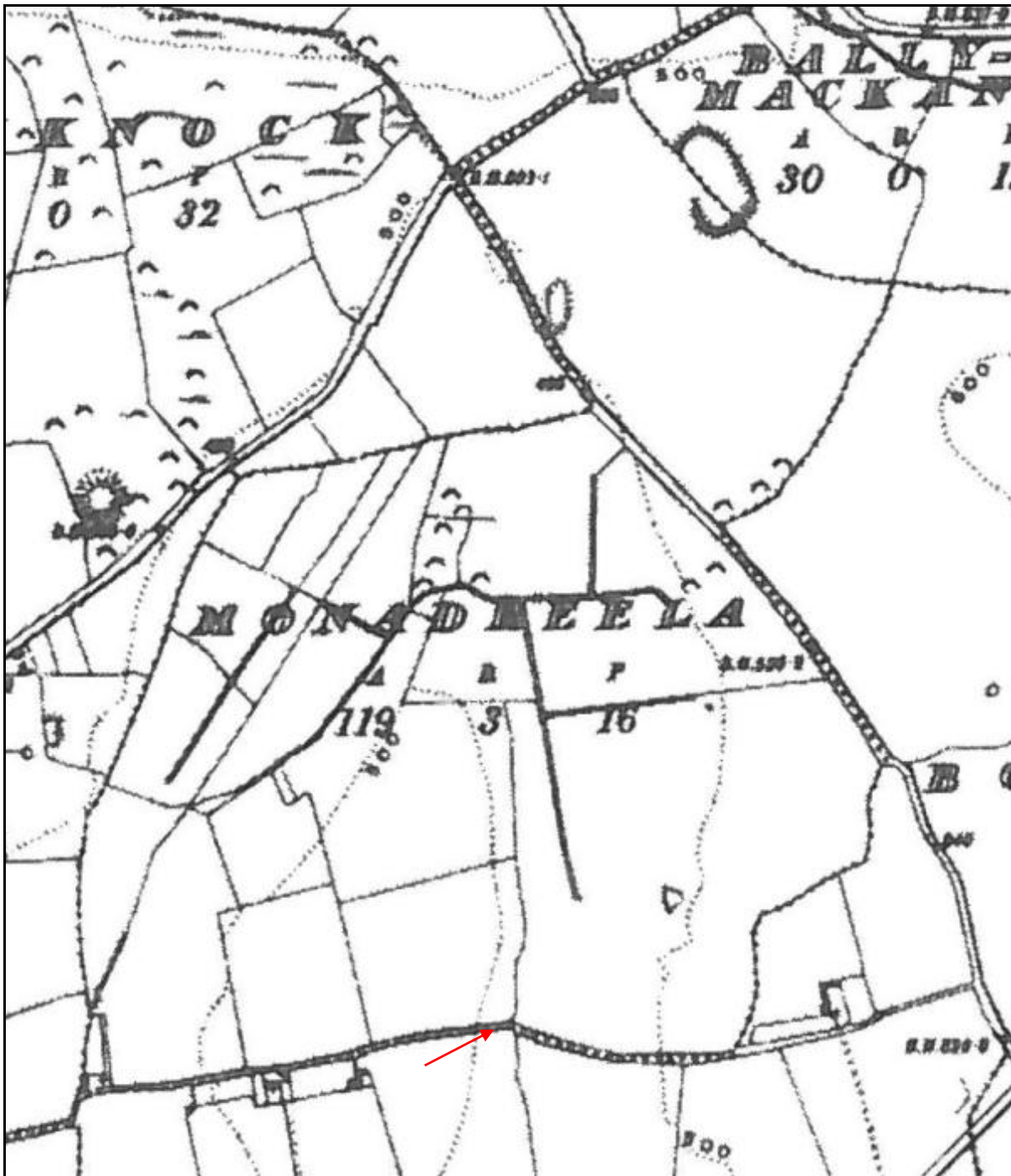


Figure viii: 2nd Edition OS six-inch map location of Site 15, surveyed 1903, published 1906. Source: www.osi.ie

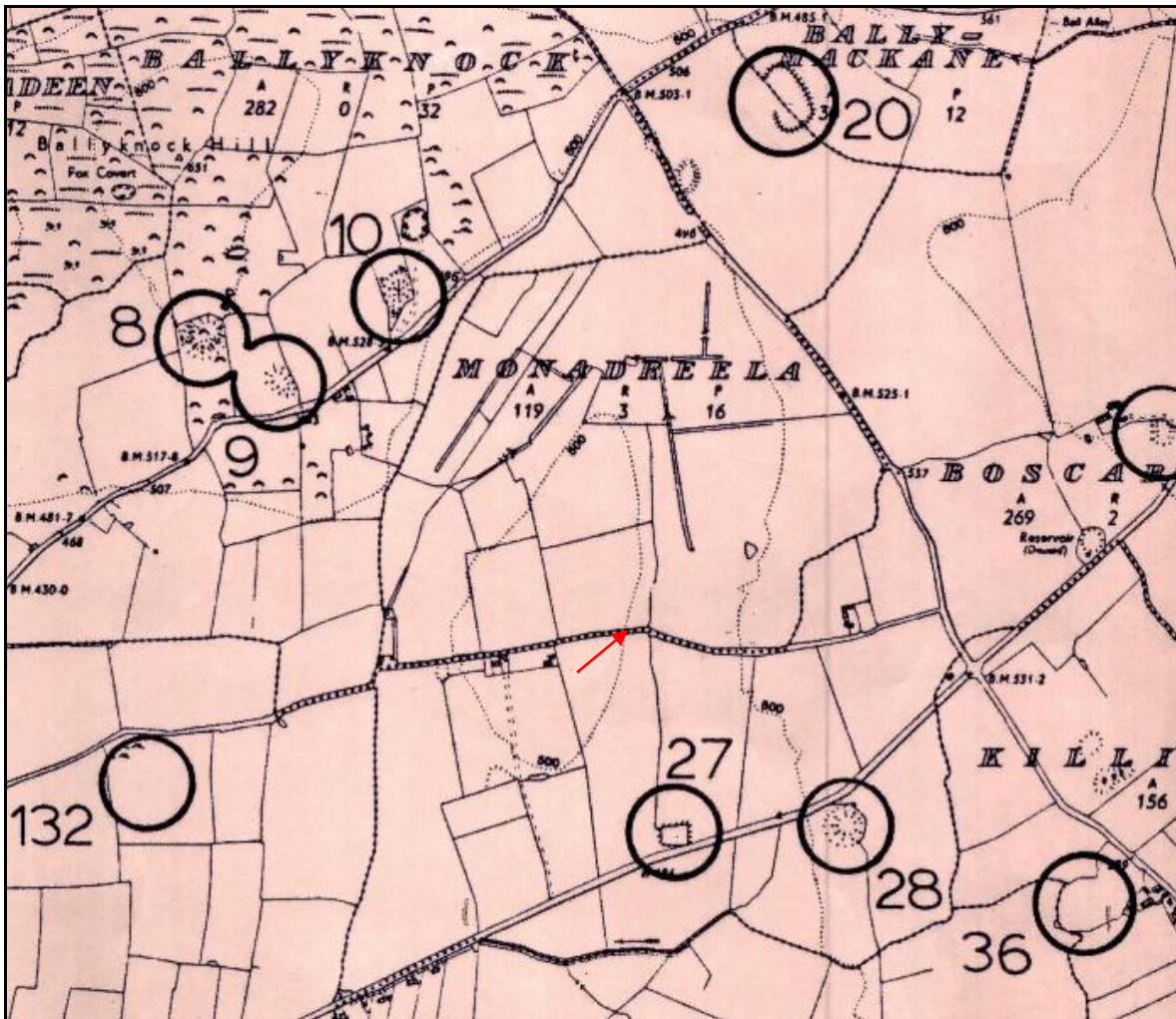


Figure ix: 3rd Edition OS six-inch map location of Site 15, 1954 (revised 1952 & 1954). Source: www.osi.ie

Vertical Aerial Information

As can be seen below no significant changes occurred within Boscabell since the 1950s (Plates 1 & 2). At the time of the JCNA excavations in Spring 2003, sites 15–19 were located within one field lying between Croke’s Lane and the Dualla road (Figure x below). The portion of Site 15 south of Croke’s Lane was under pasture at the time of excavation.



Plate 1: Vertical aerial image of Monadreela townland taken in 1994; N to right (source: South Tipperary County Council)



Plate 2: Vertical aerial image of Monadreela townland taken in 2000; N to right (source: Kilkenny County Council)

EXCAVATION (Figures x, 3–10 & Plates 3–34)

The sequence of investigations in Boscabell was informed by the results of the Phase 1 archaeological test excavations (Lennon 2002). It was decided in consultation with South Tipperary County Council that the areas be sub-divided for either further testing or fixed price resolution works. Testing consisted of sites 16, 18 and 21 while resolution, where definite archaeology had been found during Phase 1 works, were sites 15, 17, 19 and 20 (Figure x).

On Site 15 the area investigated was *c.* 4,200 m²; the ground level sloped from west to east, 148.65 m OD was the top of the cobbled surface. The field south of Croke's Lane was under pasture prior to excavation. Excavation of Croke's Lane was hampered by adverse weather conditions, and the eastern part of the laneway could not be excavated because of local flooding from an adjacent land-holding. In total, a *c.* 38 m stretch of the laneway was excavated from the western edge of the CPO line to the 'kink' (a passing place) in the laneway at NGR 209672/141642, and an additional 5.5 m eastwards from the kink. Dense woody scrub and vegetation was cleared manually from the banks and walls at either side of the laneway; and other than removal of vegetation and sod on the laneway by machine all other excavation on this site was by hand. To the south of Croke's Lane an area measuring 1,908 m² was fully topsoil stripped to the natural subsoil or archaeological features, whichever was encountered first, using a 360° tracked excavator with a toothless bucket. All identified features were hand-excavated and recorded using written descriptions, scale drawings, digital photography and layout recorded with DGPS.

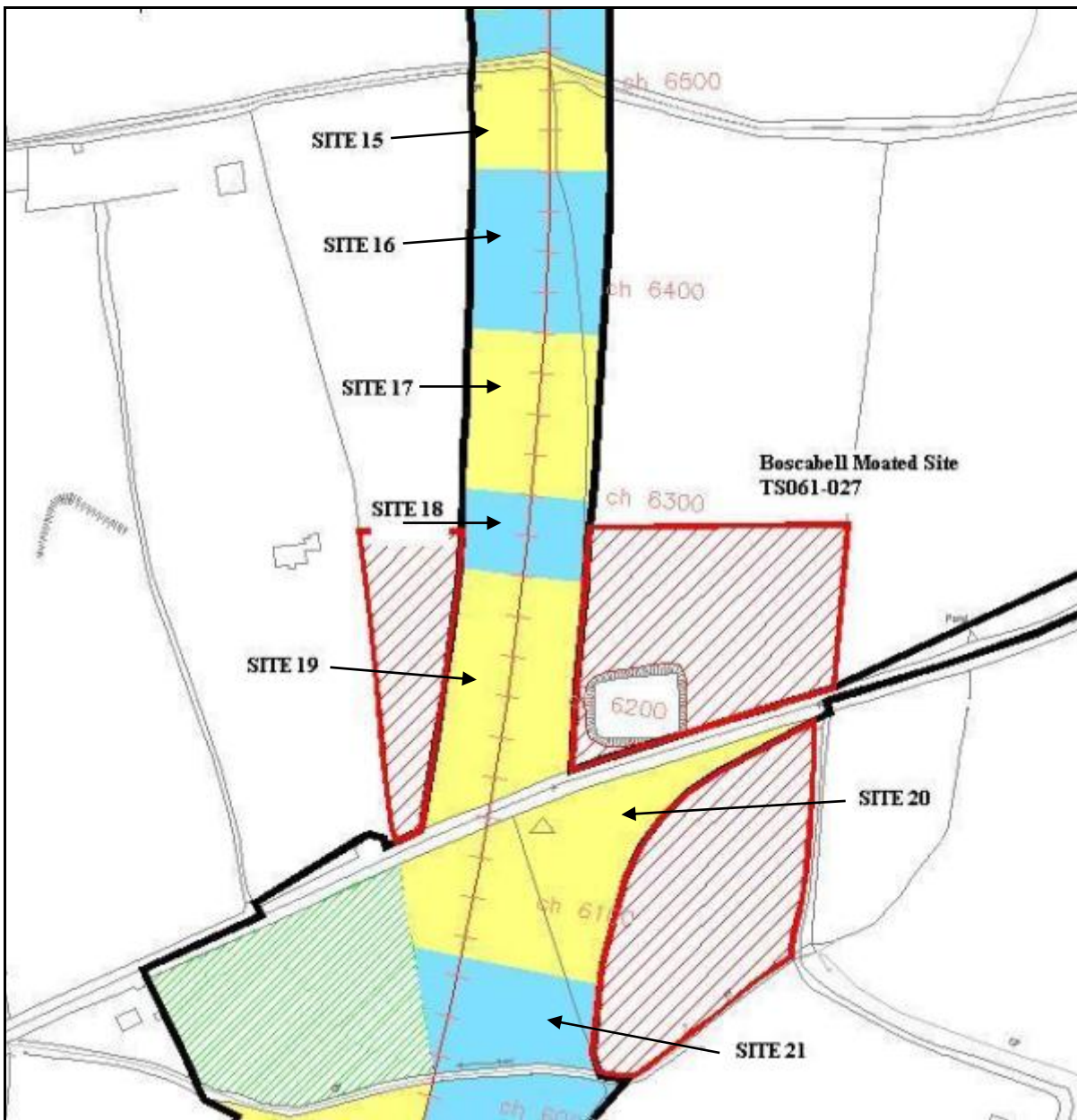


Figure x: Archaeological investigations in Boscabell in 2003, sites 15–21

Topsoil

At the southern part of the site the topsoil (101) comprised mid brown silty clay with frequent small angular and sub-angular limestone inclusions throughout. It was on average 0.3 m deep, but became slightly more shallow at either side of field boundary (104) at the eastern side of the site (see below).

Subsoil

The subsoil (102) on this site generally comprised orange brown sandy /silty clay with very frequent limestone inclusions throughout. Patchy variation in the natural was observed across the

site where the orange brown sandy / silty clay appeared grey in colour, possibly due to retention of moisture in the substrate.

Early Bronze Age and possible Early Bronze Age Features

Two features found during Phase 1 testing were re-identified in Phase 2 archaeological resolution. The pit (C.81) containing burnt stones (C.80) sectioned during Phase 1 works was relocated, and re-numbered [411] and [428] respectively. Full excavation revealed pit [411] was a sub-circular feature with steeply cut sides and a sharp break of slope to an irregular base. It was filled with a single deposit (410) of pyroclitic material, in a sandy silt matrix. It closely resembled pits identified on Site 16 less than 20 m to the south and is interpreted as a roasting pit or pot-boiler feature, part of a complex of such features in this part of Boscabell (see discussion below). A radiocarbon date of cal. BC 2341–2192 (UBA-13904) from *Fraxinus excelsior* (ash) charcoal came from (410), and this date compares favourably with a date received from *Betula sp.* (birch) charcoal from a roasting pit [121] (151) on Site 16, cal. BC 2351–2202 (UBA-13905), see Site 16 Final Report. These dates are also contemporary with the Early Bronze Age dates from pits identified on Site 13, immediately to the north in the adjoining field in Monadreela (see Site 13 Final Report).



Plate 3: Mid-excavation of pit [411] showing burnt stone fill (410), looking north, scale 0.5 m



Plate 4: Post-excitation of pit [411], looking north, scale 0.5 m

A second small sub-circular pit [428] was not as well defined as [411], but did have gradually sloping sides and a U-shaped base. It contained a single grey clay fill (427) which had inclusions of macerated limestone throughout. There was no evidence for charcoal or archaeological inclusions in this deposit, but on the basis of its proximity to the dated example it is included as a possible prehistoric feature.



Plate 5: Post-excitation of pit [428], looking south, scale 0.5 m

Croke's Lane

The excavation showed Croke's Lane was post-medieval in date. It comprises two earthen banks and a metalled laneway surface and, although it was heavily overgrown, was still occasionally used for farm access at the time of the excavations.



Plate 6: Pre-excitation of Croke's Lane, looking west



Plate 7: Pre-excitation of Croke's Lane, looking east



Plate 8: Mid-excavation of Croke's Lane, looking west, scale 2 m

A north/south-orientated section was excavated through the boundary banks (801) (southern bank) and (804) (northern bank) of the roadway. The banks consisted of sandy yellowish orange subsoil with occasional stone inclusions, and were up to 1.3 m high and 1.5 m wide. Within the core of the banks frequent roots and numerous animal burrows were noted throughout. The banks directly overlay natural subsoil (102), with no evidence for cobbles / metalled surface beneath at either side.



Plate 9: Mid-excavation of southern bank, looking west



Plate 10: Mid-excavation of external face of southern bank looking north, scale 2 m



Plate 11: Mid-excavation of northern bank, looking east

The earthen banks were faced with limestone ((802) and (803) respectively) on both faces of each bank. The stones were in general sub-angular to rounded cobbles which were on average 0.1–0.2 m in diameter. In some places the limestone facing was arranged in a herringbone pattern, for the most part this pattern had been destroyed through bioturbation. Stone lintels (not retained for specialist analysis) were incorporated into the facing (802) of the southernmost boundary wall, at the western side of the ‘kink’. The lintels may have been used as steps for access across the bank, and could be associated with one of the structures indicated on the 1st Edition OS six inch map.



Plate 12: Mid-excavation of stone-facing (802) on southern bank looking south, scales 2 m



Plate 13: Detail of herringbone pattern on southern bank looking southeast, scales 2m



Plate 14: Mid-excavation of stone-facing (803) on northern bank looking north, scales 2m

The laneway between stone-faced banks (801) and (804) was between 3.5 m and 4.2 m wide. It was convex in profile and comprised a compacted natural subsoil core which was covered with a metalled limestone surface (100). The metalled surface comprised sandstone and predominantly limestone cobbles that were on average 0.10–0.20 m in diameter. The stones comprising the metalled surface were randomly laid in a single layer, tightly compacted and compressed into the underlying natural subsoil (102). An undecorated post-medieval copper alloy ferule (Find no. 03E0394:06) was recovered from between these cobbles (see Figure xi & Plates 35–37 in Appendix 8). No cobbles were found below the stone-faced banks (804) and (801), suggesting that the metalled surface is contemporary with the stone-faced boundary banks.



Plate 15: Mid-excavation of cobbling (100) looking west, scale 2m



Plate 16: Mid-excavation of cobbling (100) showing junction area looking east, scales 2m



Plate 17: Mid-excavation of cobbling (100) looking east, scales 1m & 2m

Evidence for wheel ruts was identified along the course of the metalled surface of the laneway, a generic number of [105] was given to these ruts. In general the ruts comprised long linear and relatively wide (up to 0.3 m in diameter) depressions within the metalled surface (100). The ruts were identified at approximately 1.6 m to 1.7 m apart and were located at the central part of the laneway.



Plate 18: Mid-excavation of cobbling (100) showing wheel ruts looking east, scales 2m

A modern organic deposit (103) was identified as the fill of the cart ruts [105] and above the metallised surface (100). It was a humic peaty clay with grassy vegetation. This deposit contained frequent recent finds such as a cream jar, glass, ceramic and metal objects (none of which were retained for specialist analysis) and lay directly above the metallised surface (100). The general orientation of Croke's Lane was east/west, but at the point that the north/south boundary wall (104) meets the laneway, the orientation changed to east-south-east. The laneway widened at this point also – this area is visible on the 1st Edition OS six inch map (Figure iv). Phase 1 testing suggested that the southern bank of Croke's Lane was a later insertion at this point and originally there had been access to the field (Lennon 2002). The excavation could not confirm that this part of the laneway boundary was a later insertion, and it was shown on the 1st Edition OS six inch map, so clearly was earlier than the early 1800's. Part of the northern boundary post-dates the early 19th century as the same map shows open access to a settlement at that side of Croke's Lane, investigated as Site 14 (see Final Report 03E0395, & Figure iv). The most easterly portion of the lane was waterlogged and covered with manure.



Plate 19: Mid-excavation of cobbling (100) & layer (103) at passing area looking east, scales 2m



Plate 20: Mid-excavation of cobbling (100) looking west, scales 2m



Plate 21: Post-excavation of Croke's Lane following removal of cobbles looking west, scales 2m

Stone Deposit

A stone deposit (07) was found on the eastern side of the north/south field boundary (104). This deposit comprised rounded limestone cobbles and smaller angular and sub-angular limestone and sandstone fragments within a firm light brown silty clay and gravel matrix. The deposit extended over 15 m in a north/south direction parallel with the eastern side of (104), was c 3 m wide at its widest narrowing to c. 1.5 m at its southern limit. Frequent root inclusions were also noted throughout the deposit. The stones were laid directly on the natural subsoil (102) and no evidence for a cut or retaining feature associated with them was identified. No finds or charcoal were identified for dating the deposit. It extended. A box-section through deposit (07) and ditch [08] showed that the deposit had been cut at its western side by the later ditch (see below).



Plate 22: Mid-excavation of stone deposit (07) cut by ditch [08] at its western side, looking north. Stone-faced bank (104) had been removed from the higher ground at left, scale 2m

Brick and cobbled deposit

At the northwestern limit of the site, and immediately adjacent to the southern bank (801) of Croke's Lane a deposit of red brick and cobbles (414) were identified. The red brick and limestone cobbles were within a compact mid brown sandy silt matrix. The red bricks were on average 0.10 m by 0.10 m by 0.65 m. The stones were on average 0.13 m by 0.10 m and 0.07 m deep; some were sub-angular to rounded and slightly larger. In total the deposit measured approximately 3 m long and 2 m wide, and was a single course deep.



Plate 23: Mid-excavation of stone deposit (414) looking north, scales 0.5 & 2m

The eastern side of the deposit comprised mainly closely set red brick whilst the western side of the deposit comprised mainly stone. Although no direct evidence to suggest phasing within the deposit was identified, the change in materials and construction could indicate an extension or addition during the life-span of the feature. The deposit represented a compacted floor surface / yard, however, no traces of a building or structure were identified in association with them, nor was any building shown on the 1st Edition OS six inch map (Figure iv). Perhaps a clay-walled structure existed at this location most likely associated with the Site 14 dwelling to the north of Croke's Lane - the depth of clay covering the feature may reflect such a construct? The stone trackway (07) may also have been associated with this surface?



Plate 24: Mid-excavation of stone deposit (414) showing angled nature of cobbles looking north, scale 1 m

The majority of the finds recorded from Site 15 were recovered from above or around deposit (414). The finds included two clay pipe fragments (03E0394:04 & 03E0394:21); three sherds of post-medieval ceramic (03E0394:03, 03E0394:13 & 03E0394:14); two shards of window glass (03E0394:07 & 03E0394:15); three iron nails (03E0394:17, 03E0394:18 & 03E0394:19); a structural iron link (03E0394:08); an iron fragment (03E0394:16); a fragment of red brick (03E0394:12); a fragment of possible ceramic or burnt clay (03E0394:11); a flat heat shattered stone (03E0394:02). Two copper alloy objects were also recovered from this deposit, they include a copper alloy mount (03E0394:09) and a button (03E0394:20) dated from the early to mid eighteenth century (Appendix 8).

North/south orientated stone-faced bank / field boundary

Stone-faced bank / field boundary (104) was a prominent landscape feature on Site 15 prior to excavations taking place. There was dense hedgerow vegetation including hawthorn, ash and shrubby vegetation on and around the bank also. This feature extended intermittently from Site 5 at the north to Site 19 and the western side of the Boscabell moated site in the south (see separate reports). No ditches were noted in association with this bank / boundary before the excavations took place. The stone-faced bank comprised a compacted earthen core with limestone facing in surviving in places along its course. In composition it closely resembled the construction of the northern and southern boundaries of Croke's Lane. This boundary was recorded fully in section on Site 17 to the south, and for that reason it was not recorded in detail during the excavations on this site.



Plate 25: Field boundary (104) looking west, scale 1 m



Plate 26: Close-up of field boundary (104) looking west, scale 1 m

A gap through the field boundary near its junction with Croke's Lane was investigated. Local information confirmed the gap had been made in the 20th century to allow vehicular access through the fields here. These contexts (417–424) consisted of clays, redeposited natural, with layers of branches / twigs visible. The clays were removed by machine and bottomed to the natural gravel beneath. There were no finds from these contexts.



Plate 27: Mid-excavation of modern activity looking north, scale 2 m



Plate 28: Mid-excavation of modern activity looking north, scale 2 m



Plate 29: Mid-excavation of modern activity looking north, scale 2 m

North/south orientated ditches

A total of three roughly north/south orientated ditches were identified on Site 15 to the south of Croke's Lane. One of these ditches [08] extended the full length of Site 15, and represented an extension of either ditch [179] or [184], on Site 16 to the south. This ditch was located at the eastern side of the field boundary (104), but no surface expression of this ditch was noted before excavation. Ditch [08] was a wide and shallow feature which had a steep eastern side and gradually sloping western side and a gently rounded to U-shaped base. It contained a homogenous and archaeologically sterile deposit (03) of loose greyish brown sandy silt with frequent gravel and some larger flat angular stones which were mainly concentrated towards the base. The ditch was cut through stone deposit (07) at its western side, however no dating evidence was recovered from either of these features to indicate when this activity occurred.

The double ditch [405] / [408] was identified located at the western side of field boundary (104). There was no surface expression of these ditches before excavation. The ditches extended north/south but appeared to terminate *c.* 5 m south of the southern boundary (801) of Croke's Lane. Ditch [408], at slightly more than 30 m length, was the longest of the two ditches. Ditch [408] had gradually sloping sides with no discernible break of slope to a relatively flat base. It contained two deposits which were differentiated on the basis of colour only. Primary fill (407) was a light greyish brown silty clay with occasional limestone stones and charcoal flecking throughout. It was below secondary fill (406) which was a compact greyish brown fine silty clay. Ditch [405] was located to the west of [408] and had gently sloping sides with a very gradual break of slope to a flat base. It

contained a loose orangeish-brown fine sandy silt deposit (404) which had inclusions of limestones and occasional charcoal flecking throughout. Surface finds of unstratified post-medieval ceramic (03E0394:01) and an iron nail (03E0394:05) were recovered from the top of these ditches.



Plate 30: Mid-excavation section of ditch [405] looking south, scale 0.5 m



Plate 31: Mid-excavation section of ditch [408] looking south, scale 0.5 m

Post-medieval drains

A total of five field drains were identified in the part of Site 15 to the south of the Croke's Lane. Three of these drains were north/south orientated, and two were northwest / southeast orientated. The north/south orientated drains [401] and [403] were *c.* 0.50 m wide and *c.* 0.75 m apart. Although both features were shallow, both had relatively steeply sloping sides with a gentle break

of slope to an irregular flat base. They were both filled with a similar stony deposit (400) and (402), which was archaeologically sterile. These features lead directly towards the brick and cobbled deposit (414) near Croke's Lane, and towards ditch [141] on adjacent Site 16 in the south. The north/south orientated drain [425] was similar in size and morphology to [401] and [403], and contained a brown silty clay deposit (426) with occasional stones and red brick inclusions (not retained for specialist analysis) throughout.



Plate 32: Mid-excavation section of drains [401] & [403] looking south, scale 2 m



Plate 33: Mid-excavation section of drains [401] & [403] looking south, scale 2 m

The two remaining field drains [409] and [415] were northwest/southeast orientated and possibly represent part of a different phase of land improvement to their north/south counterparts. Drain

[409] was the more substantial of the two at 6 m long and 0.75 m wide. It was a shallow feature but had steep sides and an irregular flat base. It contained a compact silty clay fill (412) with moderate small stone inclusions throughout. It was located c. 5 m to the north of [415] which was up to 4 m long, and 0.45 m wide. It contained a single compact orange brown deposit (416) with small stone inclusions throughout. Neither drain was considered archaeological.



Plate 34: Mid-excavation section of drain [415] looking north, scale 0.5 m

DISCUSSION

Early Bronze Age Pit [411]; pit [428]?

Two pits were identified on Site 15 to the south of Croke's Lane. One of these pits [411] was interpreted as a roasting pit / pot-boiler feature and, ash (*Fraxinus excelsior*) charcoal from the fill was dated to cal. BC 2341–2142 (UBA-13904), which placed this activity firmly in the Early Bronze Age. The pit classification was based on the overall morphology of the feature, and on the inclusions of heat shattered sandstone and charcoal within deposit (410). The creation of roasting pits / pot boilers involved a process where stones were heated in a fire and were subsequently introduced to a dry or water filled pit. The burnt stones were used either for dry roasting or for heating water. Roasting pits / pot boilers were often lined, but unlined examples are also common. It is assumed that a utilitarian purpose such as cooking was a major function of these pits, however they could also be associated with diverse activities such as brewing, plant fibre processing or with ritual activity such as the processing of human remains.

Pyrolithic technology in Ireland is traditionally associated with *fulachtí fia* or burnt mound deposits, in this country these constitute the most common and widespread prehistoric field monument and have been dated from the Neolithic to the Medieval period. Pits are commonly found in association with these *fulachtí fia* and often display a wide typological diversity. Roasting pits / pot boilers in many ways resemble the troughs and pits associated with these *fulachtaí fia*, with the notable absence of a mound or large spread of burnt stones. These pits are often found in association with prehistoric structures and in many cases are thought to represent the area of domestic activity in the direct absence of sub-soil cut evidence for habitation. Similar pits are found in archaeological and modern contexts worldwide, their efficiency is demonstrated in the fact that their morphology and design remains unchanged from prehistory to the present day.

On the N8 Cashel Bypass and N74 Link Road scheme Early Bronze Age sites have been identified across the entire road route from Ballyknock townland in the north to Owen's and Bigg's-Lot on the main Bypass route, and from Windmill in the east to Farranamanagh in the west on the N74 Link Road. In Monadreela (immediately north of Site 15) evidence for Early Bronze age settlement and ritual activity was identified c. 60 m on Site 13 (licence 03E0378), where two features were dated to cal. BC 2467–2236 (UBA-13737) and cal. BC 2484–2236 (UBA-13736). On Site 7 (licence 03E0300) which was approximately 100 m to the north, oak (*Quercus sp.*) charcoal associated with a kiln-like feature produced a date of cal. BC 2564–2310 (UB-13712). On Site 5 (licence 03E0299) a further contemporary set of dates associated with a *fulacht fia* (cal. BC 2566–2349 (UBA-13708),

cal. BC 2474–2341 (UBA-13707) and cal. BC 2479–2307 (UBA-13709)) might indicate the source of the burnt stone from the pits on Site 15? In addition to these dates, a further contemporary date from Site 8 (licence 03E0379) from a posthole containing a cortical flint flake (03E0379:03) could represent further domestic activity. In Boscabell townland *c.* 20 m to the south on Site 16 a broadly contemporary date (cal. BC 2457–2202 (UBA-13905)) was obtained from feature (151)/[122], which was also interpreted as a roasting pit.

Further afield, archaeological excavations along the M8 Cashel to Mitchelstown road-scheme in 2006–2007 produced evidence for similar features and dates (sites E2274 & E2303). At Ballylegan (E2265) roasting pits were associated with Beaker pottery; at Kilemly (E2126) an Iron Age date was recorded for a roasting pit associated with domestic activity; at Knockgraffon (E2270) environmental remains including charred cereal grains and animal bones were found in the fill of a roasting pit associated with houses; and at Carrigane (E2303) undated roasting pits with evidence for burning *in situ* were recorded (McQuade 2009).

Although no Early Bronze Age pottery was found on Site 15, it was recovered from deposits on Site 13 to the north; Sites 18 and 20 in Boscabell (Figure x); on Site 25iii in Hughes'-Lot East and on Windmill at Sites 36i and 36ii, and in Owen's and Bigg's-Lot / Cooper's -Lot at Sites 30 and 34. Overall, the finds and environmental samples from the project have provided additional and well distributed evidence for previously unknown Early Bronze Age settlement and activity in the area.

The other pit in the pair, pit [428] was suggested to be of Early Bronze Age date based on its proximity to the dated example. Although pit [411] was interpreted as a roasting pit/pot boiler the same interpretation could not be suggested for this example – its function remains unclear. However, it was noted on Site 16 to the south that a number of similar features were identified adjacent to, or in association with roasting pits (for example pit [166] and Bronze Age roasting pit [163]); for that reason pit [428] on Site 15 was included in this Early Bronze age group.

Croke's Lane

Site 15 included part of Croke's Lane (crossed by the main bypass route at chainage 6510–6520), which formed the boundary between the townlands of Monadreela and Boscabell. Croke's Lane was a route linking the urban centre of Cashel and Dualla/Ballinure until the late 19th century, when the New-Line/Dualla road was constructed. However, Croke's Lane continued to service houses along its route and linked Cashel and Killastafford Crossroads until the 1960's. At its

western limit this laneway joined the *bohereen* in Hughes's–Lot East which linked the Palmer's Hill road to Cashel. Croke's Lane appeared to be indicated on the Down Survey map 1654–6, and clearly was shown on the Taylor and Skinner road map of 1778 (Figures i & ii). The excavation did not reveal any evidence to suggest a medieval date for the creation of the laneway as such evidence would be difficult to find but it could have dated from the later medieval period.

Croke's Lane comprised two earthen banks with dry-stone facing on both sides. The stones would have maintained the erect bank and prevent erosion onto the lane. The lane itself was made up of a core of heavily compacted subsoil with a convex surface profile. Above this core was a compact metallised limestone surface which mirrored the profile of the underlying subsoil profile. Drains were constructed at either side of the lane, and cart ruts were evident along its surface. The 'kink' in the laneway at the eastern side of the excavation showed that provision for passing vehicles was made during its construction. A north/south orientated field boundary of post-medieval date adjoined Croke's Lane at its southern side; no phasing evidence between the two features was identified during the excavation. The finds from the laneway comprised mainly modern and post-medieval glass and ceramics which were not retained for specialist analysis. A copper alloy ferule (03E0394:09) was found below the metallised surface of the laneway, and dated to the post-medieval period. However such roads are very difficult to date; little in the way of artefactual evidence can survive and one generally has to rely on cartographic, folklore and historical sources, some or all of which may not be accurate (O'Lochlainn 1940, 473).

As part of the N8 Cashel Bypass and N74 Link Road test excavations were conducted on the RMP road – the *Rían Bó Phadraig* (track of St. Patrick's cow). No evidence for an earlier roadway was noted on this excavation (Hughes 2003f). This roadway comprised a modern road that was thought to lie over the ancient ecclesiastical route between Cashel and Lismore, dating to the early medieval period. Previous excavation had been undertaken on the route between Ardfinnan in Co. Tipperary and Lismore in Co. Waterford, but no direct dating evidence was identified during the excavation (O'Donnell 1999). O'Donnell suggested that the manner of construction could be indicative of a relatively recent cutting, possibly 19th century, although this does not negate the possibility that it was an ancient route that survived in its present state due to long and continued use (1999, 183). Nugent (2005) suggested that the area of the road on which archaeological testing was conducted by JCNA in 2003 was not the line of the original, ancient road, and suggested that the *Rían* at one time may have followed the line of a linear townland boundary at Price's-Lot (2005, 4). The siting of a roadway on an ancient boundary was comparable to the situation of Croke's Lane and might indicate an earlier date for its origins.

Possible Medieval Field Boundary

The stone-faced bank (104) was the main upstanding landscape feature on the southern side of Croke's Lane before excavation. This bank was a north/south orientated feature with predominantly hawthorn and ash hedgerow which extended from Monadreela, terminating at Croke's lane, and continuing southwards until the townland boundary junction with George's-Land: the boundary was a common feature on all the excavations from sites 5–21. In Monadreela the field boundary was shown to be directly associated with the medieval settlement here: it may have been a link between the Boscabell moated site TS061-027 and this 13th/14th century settlement (Hughes & Ó'Droma 2011, 24). The portion of the field boundary immediately north of Croke's Lane was removed post-1954 (compare Figure ix & Plate 1).

No direct evidence to suggest a medieval date for the creation of this bank was identified in any of the excavations in Boscabell. However, on all of the excavations in Boscabell evidence for a double ditch on either side of this bank was encountered. These ditches were interpreted as drainage features, and in all cases they had silted up. During the excavations for the M8 Cullahill to Cashel road scheme excavations beside Gortmakellis ringfort (TI061-003) revealed the ploughed-out remains of a field boundary beside that ringfort (Moore 2010, 26). Oat grain from the sealing deposit of one of the boundary ditches was dated to cal AD 1029–1155 (UBA-11633). This medieval date was interpreted as a date for the field boundary itself - the grain is an excellent dating agent - and, if correct, could indicate a similar date for the Boscabell, and other double-ditched field boundaries around Cashel.

Possible lane or trackway (07)

During Phase 1 testing evidence for a north/south orientated cobbled surface was identified, this surface was re-identified as deposit (07) during excavation. It had been suggested that deposit (07) represented the remains of a possible laneway or trackway linking Croke's Lane with the moated site, as the orientation of the deposit would suggest (Lennon 2002). However, the full excavation of this feature showed it clearly terminated short of the southern side of Croke's Lane, and did not extend into Site 16 (see 03E0427 report). Deposit (07) was cut at its western side by later ditch [08] and in that respect some evidence of phasing was represented. However, no finds or dating evidence was recovered from either of the features. The date for the creation of deposit (07) remains unclear. It could be a post-medieval deposit of stones associated with the construction of any number of features indicated on the 1st Edition OS map, including stone-faced bank (104), the stone facing on

the banks of Croke's Lane (800) and (801), the cobbled/metalled surface (100) of the laneway, or one of the buildings depicted on the map (see Hughes 2003c & Figure iv). No parallels for this kind of deposit were noted on any of the other sites excavated along the course of the bypass.

Brick and cobbled deposit (414) [413]

A red brick and cobbled deposit identified immediately adjacent to the southern boundary of Croke's Lane was interpreted as the partial remains of a floor surface, however, no traces of a building or structure were identified in association with them. It might be surmised that a clay walled structure existed at this location, but no traces were identified during the excavation nor was it recorded on any edition of the OS maps. Perhaps this was a shed/out-building associated with the nearby Site 14 house too insubstantial to be recorded cartographically? A comparable stone (but no brick) cobbled deposit was identified on Site 7 in Monadreela to the north. Post-medieval finds were recovered from between and above the cobbled spread on Site 7 (see 03E0300 report).

The majority of finds from Site 15 were recovered from on, or between the cobbled deposit of brick and stone (414). The presence of a copper alloy button (03E0394:20) confirmed the surface was in use in the 18th century, contemporary with the 1778 Taylor and Skinner depiction of Croke's Lane (Figure ii). Some of the other finds from deposit (414) were easily interpreted as building materials (nails, iron objects) or fabric (window glass) of a building. Domestic artefacts were also recovered from around the deposit (clay pipe, button and ceramics). In all, the date range was clearly post-medieval and could be ascribed to the houses which appear on the 1st Edition OS map here (Figure iv).

Ditches and drains

The double ditches [408] and [404] were identified at the southern side of Croke's Lane and at the western side of the field boundary (104). It was suggested that (as on Site 16 immediately to the south) this double ditch represents part of a possible medieval field system that was associated with the north/south orientated drains identified across the southern part of Site 15. A change of drainage practices might be suggested by the realignment of some field drains from northwest/southeast to north/south (or vice-versa). The northwest/southeast orientated drains (notably often wide, shallow features that yielded post-medieval brick fragments) differed from the north/south orientated drains that ran parallel with field boundary (104).

CONCLUSION

All excavation works have finished in association with the N8 Cashel Bypass & N74 Link Road. The excavation produced evidence of Early Bronze Age pitting activity dated to cal. BC 2341–2142 (UBA-13904). Similar dates have been found for pits immediately north and south of Site 15, and the archaeological here was part of an intensive Early Bronze Age settlement east of Cashel. This concentration of Early Bronze Age settlement in Monadreela/Boscabell, on the east-facing slope of the Monadreela ridge was in later eras disturbed with the creation of medieval field boundaries (associated with the Boscabell Moated site), the construction of Croke's Lane itself, the Site 14 buildings and early modern agricultural changes which, taken together, severely truncated these earlier archaeological features. The excavations on the bypass have allowed this earlier archaeological landscape to be revealed. Further investigations on the remainder of the Monadreela ridge might uncover associated Early Bronze Age settlement and ritual activity.

Other excavations on the bypass have provided evidence of continuous Early Bronze Age settlement activity occurring on Windmill Hill to the southwest (see Site 34 Final Report for detailed discussion on Early Bronze Age sites here). Contemporary Early Bronze Age settlement sites were again identified around the River Suir (Caherabbey Upper, Ballydrehid, Ballyegan and Cloghabreedy near Cahir, and at Dogstown *c.* 5 km south from Cashel (McQuade *et al.* 2009, 28).

Croke's Lane was an ancient routeway into Cashel and still survives on either side of the bypass although it has been infilled in places with modern debris. It may have been represented on the 1654–6 Down Survey map, being the division between Monadreela and Boscabell, or could have been constructed in the later 17th century along this division, when new settlers came to Cashel following the Cromwellian confiscations. Local townland names such as Rathdangin changed to Boscabell, reflecting new influences into the area. The fields remained in pasture until the bypass construction and the fields outside the roadtake are still used for grazing cattle. A topographical and photographic survey of the remainder of Croke's Lane would be beneficial for its' long-term maintenance and survival.

REFERENCES

- Archer, J.B., Sleeman, A.G. & Smith, D.C. 1996 *Geology of Tipperary. A geological description of Tipperary and adjoining parts of Laois, Kilkenny, Offaly, Clare and Limerick, to accompany the Bedrock Geology 1:100,000 Scale Map Series, Sheet 18, Tipperary, with contributions by K. Claringbold*. Geological Survey of Ireland. Dublin.
- Bateson, J.D. 1973 'Roman Material from Ireland: A Re-Consideration'. Proceedings of the Royal Irish Academy, C, Vol. 73, 21–97
- Bonsall, J. 2012 Novel Methods Testing 2011: Land adjacent to M8, Hughes'-Lot East, Cashel, County Tipperary. Unpublished Archaeological Geophysical Survey Report for National Roads Authority and University of Bradford.
- Bracken, D. & Ó Riain-Raedel, D. (eds) 2006 *Ireland and Europe in the Twelfth Century Reform and Renewal in the Twelfth Century*. Four Courts Press. Dublin
- Bradley, J. 1985 'The medieval towns of Tipperary', in W Nolan & T McGrath (eds), *Tipperary History & Society*, 34–59. Geography Publications. Dublin.
- Cahill, M. 1982 'The Archaeology of the Barony of Middlethird'. *Unpublished Masters Thesis for University College Cork*.
- Cahill, M. 1982a 'A Roman-type fibula from the Rock of Cashel (note)'. *North Munster Antiquarian Journal*, XXIV 99–101
- Cahill, M. 1989 'Two gold rings from Ardmayle, Co Tipperary'. *Tipperary Historical Journal* 146–8
- Cahill, M. 1995 'Later Bronze Age Goldwork from Ireland – Form, Function and Formality'. In J. Waddell & E. Shee Twohig (eds) *Ireland in the Bronze Age Proceedings of the Dublin Conference April 1995*, 63–72. The Stationery Office. Dublin.
- Cleary, K. 2007 'The prehistoric landscape' In M. Doody *Excavations at Curraghatoor, Co. Tipperary*. UCC Department of Archaeology Monograph. University College Cork.
- Cleary, R.M., Hurley, M.F. & Twohig, E.A. 1987 *Archaeological Excavations on the Cork - Dublin Gas Pipeline (1981–82)*. Cork Archaeological Studies No. 1 Department of Archaeology, University College Cork
- Collins, T. 1997 'The Medieval Town Defences of Cashel', *Tipperary Historical Journal*, 124–130
- Conboy, G. & Green, B. 2009 *M8/N8 Cullahill to Cashel Road Improvement Scheme: Archaeological Resolution Final Report A027/000 E2378 Site AR 35, Borris Townland, Co. Tipperary*. Unpublished Client Report by Valerie J. Keeley Ltd for Kilkenny County Council.
- Conboy, G., Hardy, C., Stevens, P. & Green, B. 2010 *M8/N8 Cullahill to Cashel Road Improvement Scheme: Archaeological Resolution Final Report A027/000 E2491 Site AR 36, Borris Townland, Co. Tipperary*. Unpublished Client Report by Valerie J. Keeley Ltd for Kilkenny County Council.
- Cronin, J. 1995 *Archaeological Survey Route Option Analysis Cashel Bypass*. Unpublished Client Report by RPS Cairns Ltd for South Tipperary County Council.

- Curtis, E. 1941 *Calendar of Ormond Deeds*, Vol. V. 1547–1584 A.D. The Stationery Office. Dublin
- Dalton, E. 1994 'Tides of Change'. In B. Moloney (ed) *Times To Cherish Cashel and Rosegreen Parish History 1795–1995*, 164–171. Parish of Cashel and Rosegreen. Cashel.
- Doody, M. 1997 'Bronze Age Settlements in County Tipperary: 15 Years of Research', *Tipperary Historical Journal*, 94–106
- Doody, M. 2007 *Excavations at Curraghatoor, Co. Tipperary*. R. M. Cleary (ed). UCC Department of Archaeology Monograph. University College Cork.
- Doody, M. 2008 *The Ballyhoura Hills Project*. Discovery Programme Monograph No. 7. Wordwell. Bray.
- Downey, L. & O'Sullivan, M. 2010 'The archaeological imprint of agricultural drainage systems'. *Archaeology Ireland* 36–39. Vol 24, No.2, Issue No. 92.
- Fairburn, N. 2006 'N8 Cashel Bypass and N74 Link Road Testing [03E0295]' In I. Bennett (ed) *Excavations 2003: summary accounts of archaeological excavations in Ireland*, 457–9. Wordwell. Dublin.
- Feehan, J. 2003 *Farming in Ireland History, Heritage and Environment*. Faculty of Agriculture University College Dublin. Dublin.
- Fiants 1994 *The Irish Fiants of the Tudor Sovereigns During the Reigns of Henry VIII, Edward VI, Philip & Mary, and Elizabeth I*, Volume 2, 1558-1586. Edmund Burke. Dublin.
- Finn, A. 1930 *Cashel And Its Ancient Corporation*. The Talbot Press. Dublin.
- FitzPatrick, E. 2004 *Royal Inauguration in Gaelic Ireland c.1100–1600 A Cultural Landscape Study*. The Boydell Press. Woodbridge.
- Fogarty, C. 2000 *The disfranchisement of the boroughs of Cashel and Sligo*. Unpublished MA in History for NUI Maynooth.
- Gimson, H. 2012 *Windmill Hill, Windmill Townland, Cashel, County Tipperary. Archaeological Geophysical Survey Detection Licence No. 11R0067*. Unpublished Client Report by Earthsound Archaeological Geophysics for Richard O'Brien.
- Gleeson, J. 1927 *Cashel of the Kings A History of the Ancient Capital of Munster from the date of its foundation until the present day. Including historical notices of the Kings of Cashel from the 4th century to the 12th century. The succession of bishops and archbishops from St. Ailbe to the present day. Notices of the principal abbeys belonging to the territory around Cashel, together with items of local history down to the 19th century*. James Duffy & Co. Ltd, Dublin.
- Gleeson, P. 2012 'Constructing Kingship in Medieval Ireland: Power, Place and Ideology', *Medieval Archaeology* 56, 1–33.
- Gleeson, P. 2013 'Kingship and Architecture at 11th and 12th century Cashel', *Journal of Church Archaeology* 17, 17–32.
- Gowen, M. 1988 *Three Irish Gas Pipelines: New Archaeological Evidence in Munster*. Wordwell. Dublin.

- Grogan, E. 2005 *The North Munster Project Volume 2: The prehistoric landscape of North Munster*. Discovery Programme Monograph No. 6. Wordwell. Bray.
- Gwynn, A. & Hadcock, R. N. 1970 *Medieval Religious Houses Ireland*. Irish Academic Press. Dublin.
- Henry, M. 2002 Pre-construction archaeological testing, N8 Cashel By-Pass & N74 Link Road – Phase 1. Parts I & II. *Unpublished Client Report by Mary Henry Archaeological Services Ltd for South Tipperary County Council*.
- Hodkinson, B. 1994 ‘Excavations at Cormac’s chapel, Cashel, 1992 and 1993: a preliminary statement’, *Tipperary Historical Journal*, 167–74
- Hughes, J. 2003c *Preliminary Archaeological Report Site 14, Monadreela 03E0395*. Unpublished Client Report by the author for South Tipperary County Council.
- Hughes, J. 2003f *Archaeological Testing Report on the Rian Bo Phadriag, Owen’s and Bigg’s - Lot 03E1211*. Unpublished Client Report by the author for South Tipperary County Council.
- Hughes, J. 2006c ‘Site 15, Monadreela / Boscabell Post-medieval laneway, field drains, pit [03E0394]’ In I. Bennett (ed) *Excavations 2003: summary accounts of archaeological excavations in Ireland*, 474. Wordwell. Dublin.
- Hughes, J. & Barker, L. 2003 *Preliminary Archaeological Report Site 15, Boscabell 03E0394*. Unpublished Client Report by the authors for South Tipperary County Council.
- Hughes, J. & Ó’Droma, M. 2011 ‘Finding the plot: urban and rural settlement in 13th-century Cashel, Co. Tipperary’ In S. Conran, E. Danaher and M. Stanley (eds) *Past Times, Changing Fortunes*, 17–29. National Roads Authority Monograph Series No. 8. National Roads Authority. Dublin.
- Hurley, M. 2008 ‘Dualla Road Possible enclosure [05E0671]’, In I. Bennett (ed) *Excavations 2005: Summary accounts of archaeological excavations in Ireland*, 348. Wordwell. Dublin.
- Hughes, J. 2011 ‘Fragments from the Franciscan Friary’, *Cashel & Rosegreen Parish Journal*, 26–7
- Irish Manuscripts Commission 1966 *Calendar of Irish Patent Rolls of James I*.
- Kelly, A. 2010 ‘The discovery of Phocaean Red Slip Ware (PRSW) Form 3 and Bii ware (LR1 amphorae) on sites in Ireland—an analysis within a broader framework’, *Proceedings of the Royal Irish Academy, C*, Volume 110, 35–88
- Laffan, T. 1911 *Tipperary Families: Being The Hearth Money Records for 1665-1667*. James Duffy and Co. Ltd. Dublin.
- Lane, S. 1999 *Cashel Bypass; Archaeological Assessment Field Walking*. Unpublished Client Report by RPS Cairns Ltd for South Tipperary County Council.
- Lennon, A. 2002 *Pre-construction archaeological testing, N8 Cashel By-Pass & N74 Link Road – Phase 1. Parts I & II*. Unpublished Client Report by Mary Henry Archaeological Services Ltd for South Tipperary County Council.

- MacLeod, R. 2012 'Knockgraffon Iron Age ritual structure and isolated gully [09E0123]', In I. Bennett (ed) *Excavations 2009: Summary accounts of archaeological excavations in Ireland*, 200–1. Wordwell. Dublin.
- Maccotter, P. 1999 'A history of the Sall(e) family of Cashel', *Irish Genealogist* 10:2, 215–33
- MacShamhráin, A. 2004 'Historical Background of Cashel, with Special Reference to the Town Area', in E. O'Donovan *Excavations at Friar Street, Cashel: a story of urban settlement AD 1200-1800. Tipperary Historical Journal*, 3–90
- Marnane, D. 2001 'A Valuable Property': the Smith Barry Cashel Estate', *Boherlahan / Dualla Historical Journal*, 96–106
- Marnane, D. 2007 *Cashel: History and Guide*. Nonsuch Publishing. Dublin.
- Marnane, D. & Darmody, M. G. 2011 *Finding Tipperary Cashel & District Aspects of its History and Heritage*. Tipperary Studies. Thurles
- Meskeel, P. 1987 *History of Boherlahan - Dualla*. Litho Press Co. Midelton.
- McQuade, M., Molloy, B. & Moriarty, C. 2009 *In the Shadow of the Galtees*. NRA Scheme Monographs 4. National Roads Authority. Dublin.
- Moloney, B. 1994 (ed) *Times To Cherish Cashel and Rosegreen Parish History 1795–1995*. Parish of Cashel and Rosegreen. Cashel.
- Moore, E., Stevens, P., Barker, L., Hardy, C. & Green, B. 2010 *M8/N8 Cullahill to Cashel Road Improvement Scheme: Archaeological Resolution Final Report A027/000 E2356 Site AR1, Gortmakellis Townland, Co. Tipperary*. Unpublished Client Report by Mary Henry Archaeological Services Ltd for Kilkenny County Council.
- Moore, E., Stevens, P., Hardy, C. & Green, B. 2010 *M8/N8 Cullahill to Cashel Road Improvement Scheme: Archaeological Resolution Final Report A027/000 E2816 Site AR2, Gortmakellis Townland, Co. Tipperary*. Unpublished Client Report by Mary Henry Archaeological Services Ltd for Kilkenny County Council.
- Morrin, J. 1862 *Calendar of the Patent and Close Rolls of Chancery in Ireland*. Dublin.
- Nugent, L. 2005 'Rian Bó Phádraig – Fact or Fiction: Problems facing medieval roads in the twentieth century.' *Tipperary Historical Journal*, 1–8
- O'Brien, R. 2003 'A Preliminary Report on the N8 Bypass, Archaeological Excavations in the Parish and its Environs', *Boherlahan / Dualla Historical Journal*, 17–26
- O'Brien, R. 2006 'Cashel Antiquities Rediscovered – Standing Stones', *Tipperary Historical Journal*, 15–23
- O'Brien, R. 2006a 'Appendix AP4. N8 Cashel Bypass and N74 Link Road, Co. Tipperary, Summary Report' In I. Bennett (ed) *Excavations 2003: summary accounts of archaeological excavations in Ireland*, 558–9. Wordwell. Dublin.

- O'Brien, R. 2006b 'Startling New Information On Ancient Cashel', *Seanda*, NRA Archaeology Magazine, 6
- O'Brien, R. 2007 'Artefacts from the parish of Boherlahan-Dualla in the National Museum of Ireland', *Boherlahan / Dualla Historical Journal*, 87–96
- O'Brien, R. 2008 'Fulachtaí Fia', *Boherlahan / Dualla Historical Journal*, 73–82
- O'Brien, R. 2009a 'A short update on some prehistoric sites in the parish', *Boherlahan / Dualla Historical Journal*, 72–4
- O'Brien, R. 2010 'The Dominican Lady New Figurative Sculpture from St. Dominic's Friary, Cashel', *Cashel & Rosegreen Parish Journal*, 20–2
- O'Brien R., Bonsall, J & Gimson, H 2009 *Rathnadrinna Fort (RMP No. TI061-089001), Lador's-Lot Townland, Cashel, County Tipperary, Report on Year 1 of Archaeological Geophysical Surveys*, Unpublished Report to the Heritage Council, Ref. 17108
- O'Brien R., Bonsall, J & Gimson, H 2010 *Rathnadrinna Fort (RMP No. TI061-089001), Lador's-Lot Townland, Cashel, County Tipperary, Report on Year 2 of Archaeological Geophysical Surveys*, Unpublished Report to the Heritage Council, Ref. 17108
- O'Brien, R., Gimson, H. & Bonsall, J. 2011 'Revealing royal Rathnadrinna', *Current Archaeology*, 26-33. Issue 259. Selkirk Publishing, London.
- O'Brien, W. P. 1893 *Royal Commission on Labour: The Agricultural Labourer. Vol. IV. Ireland, Part II. Report on the Poor Law Union of Cashel. (Co. Tipperary)*. HMSO. London.
- Ó Carragáin, T. 2010 *Churches in Early Medieval Ireland*. Yale University Press. London. Ó Carragáin, T. 2011 'Early medieval monastery [05E0247]', In I. Bennett (ed) *Excavations 2008: Summary accounts of archaeological excavations in Ireland*, 341–2 Wordwell. Dublin.
- O'Donnell, M. G. 1999 'Excavation of a section of the Rian Bó Phádraig near Ardfinnan', *Tipperary Historical Journal*, 183–189
- O'Donovan, E. 2004 'Excavations at Friar Street, Cashel: a study of urban settlement', *Tipperary Historical Journal*, 3–90
- O'Flanagan, M., (Ed) 1930 *Ordnance Survey Name Books, Co. Tipperary No. 126 from Relickmurry to Templemore*. Reproduced under the direction of Rev. Michael O'Flanagan. Bray
- O'Flanagan, M., (Ed) 1930 *Letters containing information relative to the Antiquities of the County of Tipperary collected during the progress of the Ordnance Survey in 1840*. Volume I. Reproduced under the direction of Rev. Michael O'Flanagan. Bray.
- O'Lochlainn, C. 1940 {1995 repr.} 'The Botháin Scóir'. In J. Ryan (ed) *Féil-Sgríbhinn Eóin Mhic Néill Essays And Studies Presented To Professor Eoin MacNeill*, 465–474. Four Courts Press. Dublin.
- O'Sullivan, M. & O'Connor, B. 2009 'Megalithic Art in County Tipperary', in *Archaeology Ireland*, 17–19. Wordwell. Bray.

- Pender, S. 1939 *A Census of Ireland, Circa 1659 with supplementary material from the Poll Money Ordinances (1660–1661)*. The Stationery Office. Dublin.
- Reynolds, M. 1975 'A Preliminary Report of Archaeological Interest in Tipperary South Riding, October 1975' *An Foras Forbartha Teoranta*. Dublin.
- Scott, A. B. & Martin, F. X. (eds) 1978 *Expugnatio Hibernica The Conquest of Ireland by Giraldus Cambrensis*. Royal Irish Academy. Dublin.
- Shearman, J. F. 1852 'Proceedings', *Journal of the Royal Society of Antiquaries of Ireland*, Vol. II Part 1, 203
- Sherlock, R. 2008 'Deerpark [05E1341]', In I. Bennett (ed) *Excavations 2005: Summary accounts of archaeological excavations in Ireland*, 350. Wordwell. Dublin.
- Simington, R. C. 1931 *The Civil Survey A.D. 1654-1656, County of Tipperary, Eastern and Southern Baronies*, Vol. I. The Stationery Office. Dublin.
- Smyth, W. J. 2012 'Mapping the people': The growth and distribution of the population' In J. Crowley, M. Murphy & W. J. Smyth (eds) *Atlas of the Great Irish Famine*. Cork University Press. Cork.
- Taylor, G & Skinner, A. 1778 *Maps of the Roads of Ireland, surveyed 1777*. G. Terry. London.
- Waddell, J. 1990 *The Bronze Age Burials of Ireland*. Officina Typographica, Galway University Press. Galway.
- White, J.D. 1863 *Cashel of the Kings. Part I. "Chronicle"* Office. Clonmel.
- White, J.D. 1866 *Cashel of the Kings, being a history of the city of Cashel, compiled from scarce books and original documents. Part II. "Gazette"* Office. Cashel.
- White, J.D. 1892 *Anthologia Tipperariensis being some account of the abbeys, priories, churches, castles and other objects of interest in the county of Tipperary. "Gazette"* Office. Cashel.
- Woodman, P.C. & Finlay, N.J. 2001 'Trial Excavations at Ballybrado House, Cahir'. *Tipperary Historical Journal*, 189–196
- Wyse Jackson, R. 1956 'Antiquities of Cashel' *North Munster Antiquarian Journal*, VII, 18–20
- Wyse Jackson, R. 1956a 'Mediaeval objects from Ballysheehan' VII, *North Munster Antiquarian Journal*, VII, 21–22

MS

- Book of Survey and Distribution, County Tipperary (Manuscript copy County Library, Thurles).
- Records of the Municipal and Parliamentary Boundaries Commission, being drafts of maps and plans, 1831-6. Public Record Office. London, T. 72: (Extracts).

Websites Consulted:

<http://webgis.archaeology.ie/NationalMonuments/FlexViewer/> [accessed June 2012]
<http://www.census.nationalarchives.ie/> [accessed June 2012]
<http://www.chancery.tcd.iee> [accessed June 2012]
<http://www.downsurvey.tcd.ie/landownerss> [accessed May 2013]
<http://griffiths.askaboutireland.ie> (Primary Valuation of Tenements, made under the Act 9 & 10 Vict., Cap. 110. Barony of Middlethird. Unions of Callan, Cashel and Tipperary) [accessed June 2012]
<http://homepage.eircom.net/~dunamase/Dunamase.html> [accessed June 2012]
<http://landedestates.nuigalway.ie/LandedEstates/jsp/family-show.jsp?id=2536> [accessed May 2013]
<http://www.logainm.ie/> [accessed June 2012]
<http://www.maps.osi.ie/publicviewer> [accessed June 2012]
<http://www.nli.ie/LimerickPapers> (papers of the Pery family, later earls of Limerick, Accession No.: PC 875–9, compiled by A.P.W. Malcomson) [accessed June 2012]
<http://titheapplotmentbooks.nationalarchives.ie> [accessed June 2012]
<http://theoenachproject.wordpress.com/2012/03/28/117/> [accessed June 2012]
<http://www.ucc.ie/celt/published/T100004/index.html> [Annals of Inisfallen, accessed June 2012]
<http://www.ucc.ie/celt/published/T100005C/index.html> [Annals of the Four Masters, accessed June 2012]

Appendix 1 Context Register

Context No.	Type	Description
[01]	Cut	Cut of north/south-orientated pit or possible natural depression. Shallow cut on the western side, possibly a result of compaction into the underlying deposit (07). The base is relatively flat. Measured 10 m long, 2.30 m wide & 0.49 m deep. Filled with (04) & (05). Cuts (07)
[02]	Cut	Cut of irregular shaped probable tree-bole or burrow. Measured 0.87 m long, 1.05 m wide & 0.26 m deep. Filled with (06). Cuts (04). Modern. Non-archaeological
(03)	Fill	Single fill of ditch [08] . Loose greyish brown sandy silt with frequent gravel & some larger flat angular stones – most notably at the base. Measured 32 m long, 0.75 m wide & 0.41 m deep. Same as (424)
(04)	Fill	Secondary & uppermost fill of depression [01]. Loose greyish brown silty clay with occasional small gravel & frequent root inclusions throughout. Measured 10 m long, 2.30 m wide & 0.10 m deep. Below (101) topsoil. Above (05). Cut by [02]. Modern pottery & leather finds
(05)	Fill	Primary fill of depression [01]. Predominantly small rounded boulders & roots within a loose dark brown organic soil matrix. Measured c.10 m long, 1.8 m wide, 0.25 m deep. Below (04). Possibly a dump from clearance of loose stone from the nearby boundary wall [193] on Site 16, or a possible stone causeway. Similar to (192) in Site 16 to the south
(06)	Fill	Fill of tree-bole [02]. Loose dark brown silty sand with frequent limestone pieces & roots. Measured 1.05 m long, 0.87 m wide, 0.26 m deep. Below (101)
(07)	Deposit	Deposit of predominantly rounded limestone cobbles & smaller angular & sub-angular limestone & sandstone fragments within a firm light brown silty clay & gravel matrix. Above (102). Cut by drain [08] & possible cut [01]. Measured 0.66 m wide, 0.27 m deep, seen in section only
[08]	Cut	Cut of north/south-orientated ditch. Irregular break of slope at the top, shallow gradient on the western side & a steeper, almost vertical eastern side with a sharp break of slope to a flattish base. Measured 32 m long, 0.75 m wide & 0.41 m deep. Filled with (03). Cuts through stone deposit (07) at its western side. Parallel with double ditch [408] & [405] to the west. Post-medieval by association with other field drains in the area. May have been designed to drain into east-west orientated ditch [141] on adjacent Site 16
09–99		Numbers not used
(100)	Deposit	Cobbled road surface. Layer of sandstone & predominantly limestone cobbles of average size 0.10–0.20 m in diameter. Coarsely laid, but tightly compacted with wheel-ruts [105] cut into the surface. Varies between 3.20 m & 4 m wide, Measured 0.10 m deep. Compressed into natural subsoil (102). Below (103). Copper alloy fitting of probable post-medieval date found within the cobbles (find no.03E0394:09). Post-medieval. Same as Phase 1 investigations C.6; Site 4
(101)	Deposit	Topsoil. Friable mid brown silty clay with frequent small angular & sub-angular limestone inclusions throughout, this kind of topsoil was noted at the southern part of the site, to the south of Croke's Lane. It was on average 0.3 m deep, but became slightly more shallow at either side of north/south orientated stone-faced bank / field boundary (104) at the eastern side of the site
(102)	Deposit	Natural subsoil. Orange brown sandy /silty clay with very frequent limestone inclusions throughout. Patchy variation in the natural was observed across the site

		where the orange brown sandy / silty clay appeared grey in colour, possibly due to retention of moisture in the substrate
(103)	Deposit	Organic deposit over cobbles (100). Humic peaty clay with grassy vegetation. This deposit contained frequent recent finds such as a cold-cream jar, glass, ceramic & metal objects (none of which were retained for specialist analysis)
(104)	Stone-faced bank.	North/south-orientated stone-faced bank / field boundary. Varies between very compact to moderately compact yellowish orange redeposited natural subsoil with frequent stone & root inclusions throughout. Measured 1.3 m high & 1.5 m wide. Same as [193] on adjacent Site 16. Similar in construction to stone-faced banks (801) & (801) at Croke's Lane. Above (102)
[105]	Cut	Generic number given to parallel wheel ruts within metal surface (100). Identified in at least two places across the laneway. Measured 3.60 m long, 0.30 m wide. Compressed into (cuts) the cobbles (100). Below (103)
106-399		Numbers not used
(400)	Fill	Single fill of north/south orientated drain [401]. Loose mid orangey brown sandy silt with frequent small (averaging 0.04 m) & large (c. 0.3 m) sub-angular & rounded stones (limestone). Measured c. 30 m long, 0.51 m wide; 0.16 m deep. Below (101). Stone fill of a post-medieval drain
[401]	Cut	Cut of north/south orientated drain, filled with (400). Steep sides with a sharp break of slope to a u-shaped base. Measured c. 30 m long, 0.51 m wide, 0.16 m deep. Parallel with adjacent drain [403]. Both drains extend towards wide modern ditch [141] on Site 16. This feature was identified as double linear stone feature in Phase 1 testing C.73
(402)	Fill	Single fill of north/south orientated drain [403]. Loose mid orangey brown sandy silt with frequent small (c. 0.04 m) & large (c. 0.30 m) sub-angular & rounded stones (limestone) throughout. Measured c. 30 m long, 0.49 m wide, 0.19 m deep
[403]	Cut	Cut of north/south orientated drain, filled with (402). Steep sides with a sharp break of slope to a u-shaped base. Measured c. 30 m long, 0.49 m wide, 0.19 m deep. Parallel with adjacent drain [401]. Both features drain towards wide modern ditch [141] on Site 16. Identified as "double linear stone feature in Phase 1 testing" (C.73).
(404)	Fill	Single fill of north/south-orientated ditch [405]. Loose mid orangey brown fine sandy silt with occasional small sub-angular limestone fragments & charcoal flecking throughout. Below (101). Same as 418. Measured c. 22 m long, 1.20 m wide, 0.17 m deep
[405]	Cut	Cut of shallow north/south-orientated ditch, filled with (404). Gradually sloping sides with no obvious break of slope to a flat base. Measured c. 22 m long, 1.20 m wide, 0.17 m deep. Same as 417. Filled with (404). Parallel with [408] - c. 0.80 m to the east; the drains [401] & [403], c. 25 m to the west; stone-faced bank / field boundary (104) 1-1.8 m to the east
(406)	Fill	Uppermost fill of north/south-orientated ditch [408]. Firm mid greyish brown fine silty clay with occasional inclusions of sub-angular limestone fragments & charcoal. Measured c. 30 m long, 0.45 m wide, 0.14 m deep. Above (407). Below (101)
(407)	Fill	Primary fill of north/south-orientated ditch [408]. Light greyish brown silty clay with occasional small sub-angular limestone fragments & charcoal inclusions. Measured c. 30 m long, 0.45 m wide, 0.14 m deep. Below (406)

[408]	Cut	Cut of north/south-orientated ditch. Steep sided with a flat base. Measured c.30 m long, 1.20 m wide, 0.17 m deep. Same as 419. Filled with (406) & (407). Parallel with [405]. Measured c. 0.80 m to the west; the drains [401] & [403] c.25 m to the west; stone-faced bank / field boundary (104), 1-1.8 m to the east
[409]	Cut	Cut of northwest-southeast-orientated drain. Steep sided with a u-shaped base. Measured 0.75 m wide, 0.25 m deep. Filled with (412). Cuts (102). Post-medieval
(410)	Fill	Single fill of sub-circular pit. Loose dark brownish black sandy silt with frequent sub-angular burned stones (limestone & sandstone – ranging between 0.02 & 0.11 m in size). Frequent charcoal (concentrated towards base in the north-west corner) & burnt clay inclusions throughout. Measured 1.91 m long, 1.40 m wide, 0.18 m deep. Below (101). Probably the same as Phase 1 testing feature C.80 (Strip Area 3)
[411]	Cut	Cut of sub-circular pit. Gradually sloping sides (slightly steeper on the southern side) with an irregular base. Measured 1.91 m long, 1.40 m wide, 0.18 m deep. Filled with [411]. Cuts (102). Identified in Phase 1 testing as C.81 (Strip Area 3)
(412)	Fill	Single fill of northwest-southeast-orientated field drain [409]. Mid brown silty clay with occasional stone inclusions & some red brick fragments. Measured 6 m long, 0.75 m wide, 0.25 m deep. Post-medieval
[413]	Cut	Possible cut containing cobbles (414). Vertical sides & flat base. Possibly derived from compression of cobbles into natural subsoil. Measured 1.47 m wide; 0.13 m deep; 3.40 m long. Cuts (102)
(414)	Fill	Single fill of possible cut [413]. Comprises red brick (10%) & cobbles (90%) within a firm mid brown sandy silt matrix. The bricks were on average 0.10 m by 0.10 m by 0.65 m. The stones were on average 0.13 m by 0.10 m by 0.07 m, some were sub-angular to rounded & slightly larger. Post-medieval glass, clay pipe, ceramics & metal inclusions. Measured 1.47 m wide; 0.13 m deep; 3.40 m long. Below (101). Cobbled surface of Croke's Lane
[415]	Cut	Cut of northwest-southeast-orientated field drain. Shallow sided with a flattish base. Measured 4 m long, 0.45 m wide, & 0.21 m deep. Filled with (416). Cuts (102)
(416)	Fill	Single fill of northwest-southeast orientated field drain [415]. Compact orangey brown silty clay with small stone inclusions. Measured 4 m long, 0.75 m wide, & 0.21 m deep. Below (101)
(417) – (424)	Deposits	Redeposited natural clays, with layers of branches / twigs visible. The clays were removed by machine & bottomed to the natural gravel beneath. There were no finds from these contexts
[425]	Cut	Cut of north/south-orientated field drain. Shallow sided with a flat base. A box section measuring 0.49m long, 2.57 m wide, 0.15 m deep was excavated through this feature. Filled with (426)
(426)	Fill	Fill of north/south orientated field drain [425]. Compact orangey brown silty clay with small stone inclusions throughout. A box section measuring 0.49 m, 2.57 m wide, 0.15 m deep was excavated through this feature
(427)	Fill	Single fill of oval pit [428]. Firm light grey clay with decayed limestone inclusions. Measured 0.73 m long, 0.60 m wide, 0.14 m deep. Below (101)
[428]	Cut	Cut of sub-circular pit. Gradual break of slope at the top, evenly sloping sides with no discernible break of slope to a u-shaped base. Measured 0.73 m long, 0.60 m wide, 0.14 m deep. Filled with (427). Identified in Phase 1 testing as C.82 (Strip Area 3)

429–800		Numbers not used
(801)	Deposit	Southern boundary bank of Croke's Lane. Earthen bank standing to 1.2 m high & 1.5 m wide. Compact to loose light yellowish orange sandy clay with occasional random limestone & frequent root inclusions throughout. Below (802). Identified in Phase 1 testing as C.1; (Site 4). Above (102). Below (802)
(802)	Deposit	Stone facing on both sides of southern boundary bank. Angular & sub-angular limestones averaging 0.10 m - 0.20 m. Some reused stone lintels incorporated into the inner face at the eastern side. Above (801). Identified in Phase 1 testing as C.3;(Site 4)
(803)	Deposit	Stone facing on both sides of northern boundary bank. Angular & sub-angular uncut limestones averaging 0.10–0.20m. Above (804)
(804)	Deposit	Northern boundary bank of roadway. Earthen bank standing to 1.2 m. Loose light yellow brown sandy clay with occasional random limestone inclusions. Identified in Phase 1 testing as C.2. Above (102). Below (803)

Appendix 2 Finds Register

Find No.	Context No.	Description
03E0394:01	Surface	Glazed red earthenware body sherd
03E0394:02	[413](414)	Stone. Possibly heat affected with schist/mica inclusions. Flat shape.
03E0394:03	[413](414)	Pearlware rim sherd
03E0394:04	[413](414)	Clay pipe stem
03E0394:05	Surface	Iron. Nail. Badly corroded and encrusted.
03E0394:06	Below (100) / above (102)	Ferule? Copper alloy. Rectangular, slightly tapering with hollow D-shaped section containing wood fragments. Three raised bands north of centre - two narrow outer bands and a broad inner band. Rivet hole at the back of the wider end. Edges of narrower end slightly turned inwards
03E0394:07	[413](414)	Flat pale green (window?) glass
03E0394:08	[413](414)	Structural iron link. Flattened oval, broken at one curve. Originally round section, now fractured. Probably post-medieval.
03E0394:09	[413](414)	Copper alloy mount. Circular terminal with off-centre perforation, remnants of the main body of mount roughly broken off. Flat rectangular section. No decoration. Post-medieval.
03E0394:10	Surface find	Pearlware body sherd
03E0394:11	[411] (410)	Glazed red earthenware crumbs
03E0394:12	(414)	Brick
03E0394:13	[413](414)	Pearlware? base sherd
03E0394:14	[413](414)	Pearlware base sherd
03E0394:15	[413](414)	Flat clear (window?) glass
03E0394:16	[413](414)	Iron fragment. Amorphous, badly corroded.
03E0394:17	[413](414)	Nail shaft. Badly corroded and encrusted.
03E0394:18	[413](414)	Nail shaft. Badly corroded and encrusted.
03E0394:19	[413](414)	Nail. Square head, square shaft tapering to point. Badly corroded.
03E0394:20	[413](414)	Button. Copper alloy. Flat plain disc with raised loop-foot on rear. Loop missing. Early to mid 18th century.
03E0394:21	[413](414)	Clay pipe stem and base fragment. Evidence of burning at the stem end.

Appendix 3 Drawing Register

Sheet No.	Scale	Description
1	1:20	North facing section of (801) & (802) (inked up version)
2	1:50	Pre-excavation outline of Croke's Lane
3	1:20	North facing section of southern boundary of Croke's Lane
4	1:20	West facing section of Croke's Lane (inked up version)
5	1:10	North facing section of [401] & [403]
5	1:10	South east facing section of [415]
5	1:10	North facing section of [401] & [403]
5	1:10	South facing section of [425]
5	1:10	North east facing section of [405] & [408]
5	1:10	South facing section of [411]
5	1:10	North facing section of [423]
6	1:20	South facing section of [417], [419] & [421]
6	1:20	South facing section of [08], [01] & [02]
6	1:20	North facing section of (801) & (802)
7	1:20	East facing section of (801)
8	1:20	West facing section of Croke's Lane
9	1:20	Mid-excavation plan of Croke's Lane cobbling
10	1:20	Mid-excavation plan of Croke's Lane cobbling
11	1:20	Mid-excavation plan of Croke's Lane cobbling
12	1:10	South facing section of [804]
13	1:20	East facing section of [804]
13	1:20	West facing section of [801]

Appendix 4 Sample Register

Licence No.	Sample No.	Context No.	Description
03E0394	10	[411] (410)	Charcoal rich fill from pit [411].

This sample contained *Fraxinus excelsior* (ash) charcoal when analysed.

Appendix 5 Photography Register

Date	Description
12.05.03	North facing mid-ex of (15000) - [02]
09.05.03	West facing section of cobbled surface [413]
09.05.03	West facing section of cobbled surface [413]
09.05.03	North facing section through ditch [423] (424)
09.05.03	East facing section of [83] and (82)
09.05.03	North facing photo of [428] post excavation
09.05.03	North facing section of pit [411] and (410) mid excavation
09.05.03	Southeast facing section through ditch [415] and (416)
09.05.03	South facing section through ditch [425] and (426)
09.05.03	South facing section through ditches [417], [419]
09.05.03	South facing section through ditches [417], [419] and [421]
09.05.03	South facing section through ditch [419] cutting [421]
09.05.03	South facing section through ditch [419].
08.05.03	North facing section through drains [401] and [403]
08.05.03	North facing section through field drains [401] and [403]
08.05.03	North facing section through drain [405] and (404)
08.05.03	South facing bank / boundary (western portion)
08.05.03	South facing wall elevation (eastern portion)
08.05.03	North facing shot of north facing wall elevation
08.05.03	South facing section of pit [411] (410) mid-excavation
24.04.03	West facing shot of cobbles (post excavation)
24.04.03	West facing shot of cobbles (post excavation)
24.04.03	East facing shot of cobbles (post excavation)
24.04.03	East facing shot of cobbles (post excavation)

Appendix 6 Post-medieval Pottery Report

The post-medieval pottery from Site 15: Boscabell (03E0394)

N8 by-pass and the N74 link road, Cashel, Co. Tipperary

Clare McCutcheon MA MIAI

Introduction:

A total of six sherds of pottery were presented for study, dating to the later 18th-19th century.

Methodology:

The material has been identified visually and the information has been entered on an Access database as per the requirements of the National Museum of Ireland. The pottery identification is presented in Table 1 showing the quantity of sherds in each fabric type and the minimum number of vessels (MNV), an objective number based on the presence of rim/handle sherds in the assemblage. The more subjective minimum number of vessels represented (MVR) is also listed and is based on the numbers of diagnostic pieces such as differently shaped rims, quantity of handle etc. The most likely form of the vessels represented by the sherds and the known date of distribution of the fabric type are included in the table.

Fabric	Sherds	MNV	MVR	Form	Date
Glazed red earthenware	2	-	1	Bowl	L17th-19th
Pearlware	4	-	1	Saucer	19th
Total	6	-	2		

Table 1: Pottery identification, Site 15: Boscabell (03E0394)

Glazed red earthenware:

Glazed red earthenware or 'brownwares' were made widely in Britain and Ireland from the later 17th century through to the 19th century (Dunlevy 1988, 24-5). Because of the standardisation of the clay and vessel form it is always difficult to specify a particular production site but a typical kiln was excavated at Tuam, Co. Galway with milk pans and dishes comprising a majority of the

vessels (Carey & Meenan 2004). 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).

Pearlware:

Wedgwood's development of creamware was further refined as pearlware, with a harder-fired clay and a blue rather than a green tinge in the collected glaze (Savage & Newman 2000, 216). This formed the basis for many decorative forms of the later 18th and 19th centuries such as shell-edged, mochaware, transfer printed and banded wares. Some items were decorated with free-hand painting, often rather crudely drawn.

Registration No	Context No	Item	Simple Name	Full Name	Material	Dimensions
03E0394:01	0	1	Pottery	Glazed red earthenware	Ceramic	Body
03E0394:03	0	10	Pottery	Pearlware	Ceramic	Body
03E0394:10	411	11	Pottery	Glazed red earthenware	Ceramic	Crumbs
03E0394:11	413	3	Pottery	Pearlware	Ceramic	Rim
03E0394:13	413	13	Pottery	Pearlware?	Ceramic	Base
03E0394:14	413	14	Pottery	Pearlware	Ceramic	Body

Table 2: Pottery identification, Site 15: Boscabell (03E0395)

Bibliography:

- Carey, A. & Meenan, R. 2004 'Excavation of a post-medieval pottery kiln, Tuam, Co. Galway', *Journal of the Galway Archaeological & Historical Society*, **56**, 37-45.
- Dunlevy, M. 1988 *Ceramics in Ireland*. Dublin.
- Jennings, S. 1981 *Eighteen centuries of pottery in Norwich*. Norwich.
- Savage, G. & Newman, H. 2000 *An illustrated dictionary of ceramics*. London. Reprint 1985 edn.

Appendix 7 Small Finds Report**N8 Cashel Bypass & N74 Link Road****03E0394 Site 15 Boscabell, Cashel, Co. Tipperary****By Edel Ruttle****Small Finds Report**

A total of five finds was recovered during the excavation at Site 15 at Boscabell: three ceramic – one brick and two clay pipe, and two glass. All finds came from deposit (414) of post-medieval cobbled surface [413].

*Ceramic**Brick*

The brick fragment (03E0394:12) represents almost two thirds of a complete red brick.

Clay pipe

Both clay pipe finds are undecorated stem fragments (03E0394:04, 03E0394:21). Neither of the stem fragments bears no maker's mark. Given that Harrington's stem bore technique has been proven unreliable, it is difficult to identify this find in any more detail.

Glass

Glass assemblage consists of two clear and flat window glass fragments (03E0394:07, 03E0394:15).

Table 1 gives more detailed description and dimensions of the finds.

Site No.	Find No.	Context	Category	Type	Identification	Description
15	03E0394:04	(414) [413]	Ceramic	Clay pipe	Stem fragment	Clay pipe stem fragment. Undecorated. L: 22mm; D: 8mm. Weight: 2g.
15	03E0394:12	(414) [413]	Ceramic	Brick	Fragment	Red brick fragment. L: 124mm; W: 102mm; T: 60m. Weight: 1002g.
15	03E0394:21	(414) [413]	Ceramic	Clay pipe	Stem fragment	Clay pipe stem fragment. Undecorated. L: 36mm; D: 7mm. Weight: 4mm.
15	03E0394:07	(414) [413]	Glass	Window glass	Fragment	Flat, clear window glass fragment. L: 33mm; W: 27mm; T: 2mm. Weight: 3g.
15	03E0394:15	(414) [413]	Glass	Window glass	Fragment	Flat, clear window glass fragment. L: 25mm; W: 21mm; T: 2mm. Weight: 2g.

Table 1: Site 15 Finds Overview

Appendix 8 Metal Finds Report**Catalogue of metal finds from N8 Cashel Bypass.****Jacqueline Mac Dermott.**

The finds are catalogued by site number, excavation number and artefact number. Objects recommended for illustration or photography are listed within each site.

Site 15, Boscabell, Cashel, Co. Tipperary.

Site 15 produced nine metal objects, seven of which came from the cobbled surface (414). One object, copper alloy button 03E0394:20, could be dated to the post medieval period. It is a livery or blazer button, popular in the latter half of the 18th century (Noël Hume 1969, 90). Copper alloy mount 03E0394:09, from the same context, would have been attached to a large box, chest or item of furniture, and is also post-medieval. The structural iron link 03E0394:08 and nails 03E0394:17-19 also fit comfortably within this period.

*Catalogue of Metal finds***03E0394:05**

Nail. Iron. Badly corroded and encrusted. No details visible. L 68mm; D 12mm. Surface find.

03E0394:06

Ferrule? Copper Alloy. Rectangular, slightly tapering with hollow D-shaped section containing wood fragments. Three raised bands north of centre - two narrow outer bands and a broad inner band. Rivet hole at the back of the wider end. Edges of narrower end slightly turned inwards. L 26mm; W 24mm; T 12mm. Within the cobbles. It is not clear what its exact use was.



Plate 33: Copper alloy ferule (03E0394:06), front view, scale 1 cm



Plate 34: Copper alloy ferule (03E0394:06), rear view, scale 1 cm



Plate 35: Copper alloy ferule with internal wood fragment (03E0394:06), scale 1 cm



Figure xi: Illustration of copper alloy ferule (03E0394:06)

03E0394:08

Link. Iron. Flattened oval, broken at one curve. Originally round section, now fractured. Post-medieval. L 116mm; W 40mm; T 8mm. Context (414), cobbled surface.

03E0394:09

Mount. Copper Alloy. Circular terminal with off-centre perforation, remnants of the main body of mount roughly broken off. Flat rectangular section. No decoration. Post-medieval. L 33mm; W 28mm; T 1mm. Context (414), cobbled surface.

03E0394:16

Object. Iron. Amorphous, badly corroded. No details visible. L 12mm; W 12mm; T 5mm. Context (414), cobbled surface.

03E0394:17

Nail shaft. Iron. Badly corroded and encrusted. L 60mm; D 17mm. Context (414), cobbled surface.

03E0394:18

Nail shaft. Iron. Badly corroded and encrusted. L 72mm; D 12mm. Context (414). Cobbled surface.

03E0394:19

Nail. Iron. Square head, square shaft tapering to point. Badly corroded. L 88mm; D 14mm. Context (414). Cobbled surface.

03E0394:20

Button. Copper Alloy. Flat plain disc with raised loop-foot on rear. Loop missing. Mid to late 18th century. L 23mm; W 19mm; T 1mm; foot 4mm. Context (414). Cobbled surface.

References:

Noël Hume, I. 1969. *A Guide to Artifacts of Colonial America*. Philadelphia.

Appendix 9 Radiocarbon Date

Site 15: 03E0394	Lab code UBA – 13904	Context (410) Sample 1: <i>Fraxinus excelsior</i> (ash)	Radiocarbon Age BP 5116 +/- 29	Calibration data set: intcal. 09.14c # Reimer et al 2009
		% area enclosed	cal. BC ranges	Relative area under probability distribution
		68.3 (1 sigma)	cal. BC 2286–2204	1.000
		95.4 (2 sigma)	cal. BC 2341–2192 2179–2142	0.894 0.106

Graham Hull TVAS
TVAS (Ireland) Ltd
Ahish
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Crusheen, Co. Clare
Ireland
VAT No. IE6360113C



¹⁴CHRONO Centre
Queens University Belfast
42 Fitzwilliam Street
Belfast BT9 6AX
Northern Ireland

Radiocarbon Date Certificate

Laboratory Identification: UBA-13904
Date of Measurement: 2010-08-26
Site: Site 15
Sample ID: 1
Material Dated: charcoal
Pretreatment: AAA
Submitted by: Graham Hull TVAS

¹⁴C Date: 3807±27

AMS δ¹³C: -26.8

Information about radiocarbon calibration

RADIOCARBON CALIBRATION PROGRAM*

CALIB REV6.0.0

Copyright 1986-2010 M Stuiver and PJ Reimer

*To be used in conjunction with:

Stuiver, M., and Reimer, P.J., 1993, Radiocarbon, 35, 215-230.

Annotated results (text) - -

Export file - c14res.csv

11

UBA-13891

Radiocarbon Age BP 3120 +/- 30

Calibration data set: intcal09.14c

% area enclosed cal AD age ranges

68.3 (1 sigma) cal BC 1433- 1383

1333- 1324

95.4 (2 sigma) cal BC 1452- 1312

Reimer et al. 2009
relative area under
probability distribution

0.910

0.090

1.000

5

UBA-13892

Radiocarbon Age BP 5049 +/- 31

Calibration data set: intcal09.14c

% area enclosed cal AD age ranges

68.3 (1 sigma) cal BC 3941- 3857

3817- 3794

95.4 (2 sigma) cal BC 3953- 3774

Reimer et al. 2009
relative area under
probability distribution

0.787

0.213

1.000

15

UBA-13893

Radiocarbon Age BP 5116 +/- 29

Calibration data set: intcal09.14c

% area enclosed cal AD age ranges

68.3 (1 sigma) cal BC 3967- 3940

3858- 3815

95.4 (2 sigma) cal BC 3976- 3910

3878- 3803

Reimer et al. 2009
relative area under
probability distribution

0.478

0.522

0.467

0.533

7

UBA-13894

Radiocarbon Age BP 3860 +/- 39

Calibration data set: intcal09.14c

% area enclosed cal AD age ranges

68.3 (1 sigma) cal BC 2457- 2418

2407- 2375

2367- 2362

2351- 2285

2247- 2235

95.4 (2 sigma) cal BC 2464- 2270

2259- 2206

Reimer et al. 2009
relative area under
probability distribution

0.225

0.212

0.032

0.477

0.054

0.841

0.159

19

UBA-13896

Radiocarbon Age BP 812 +/- 28

Calibration data set: intcal09.14c

% area enclosed cal AD age ranges

68.3 (1 sigma) cal AD 1215- 1259

95.4 (2 sigma) cal AD 1176- 1269

Reimer et al. 2009
relative area under
probability distribution

1.000

1.000

22

UBA-13897

Radiocarbon Age BP 792 +/- 28

Calibration data set: intcal09.14c

% area enclosed cal AD age ranges

68.3 (1 sigma) cal AD 1224- 1261

95.4 (2 sigma) cal AD 1190- 1195

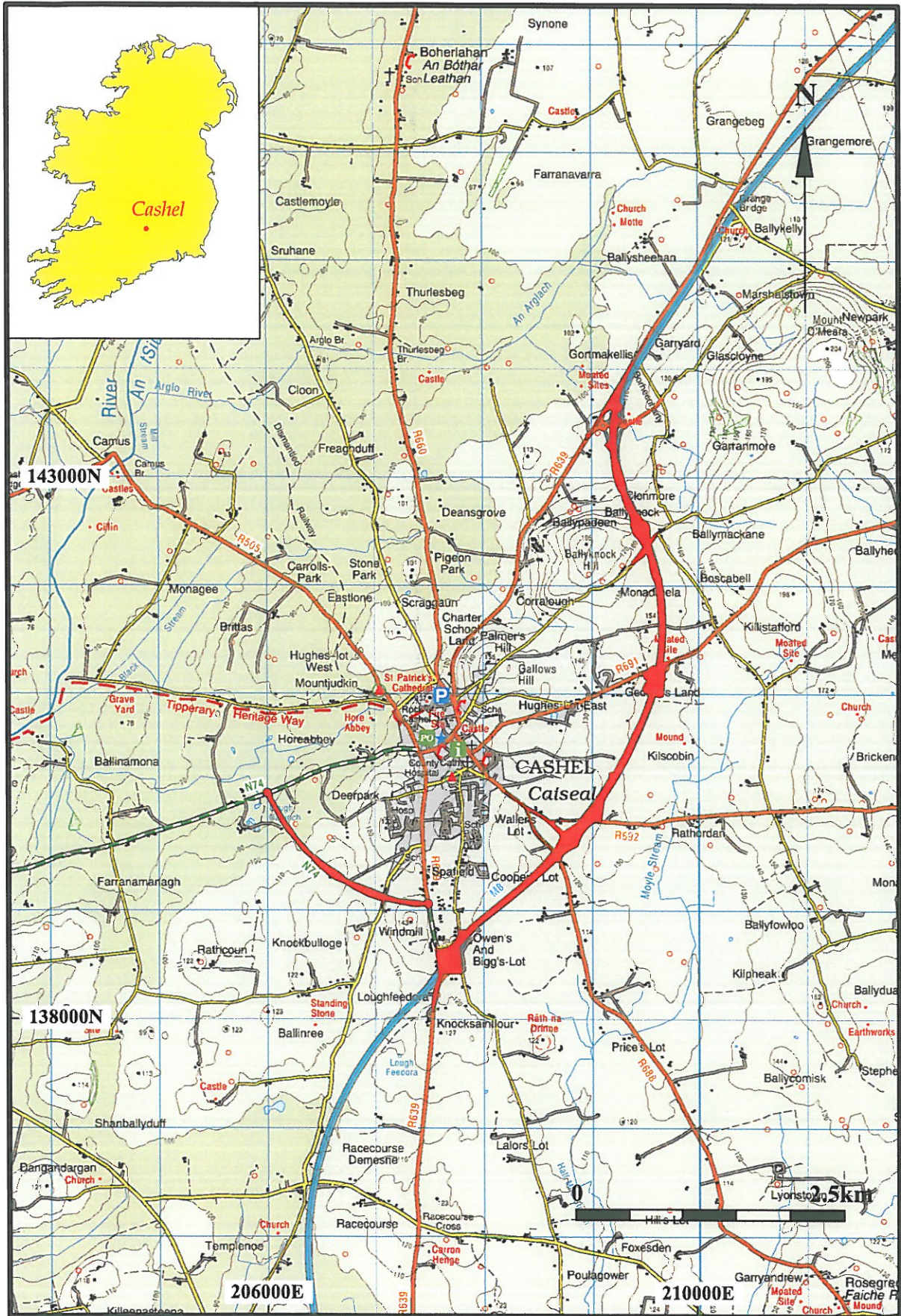
1207- 1278

Reimer et al. 2009
relative area under
probability distribution

1.000

0.009

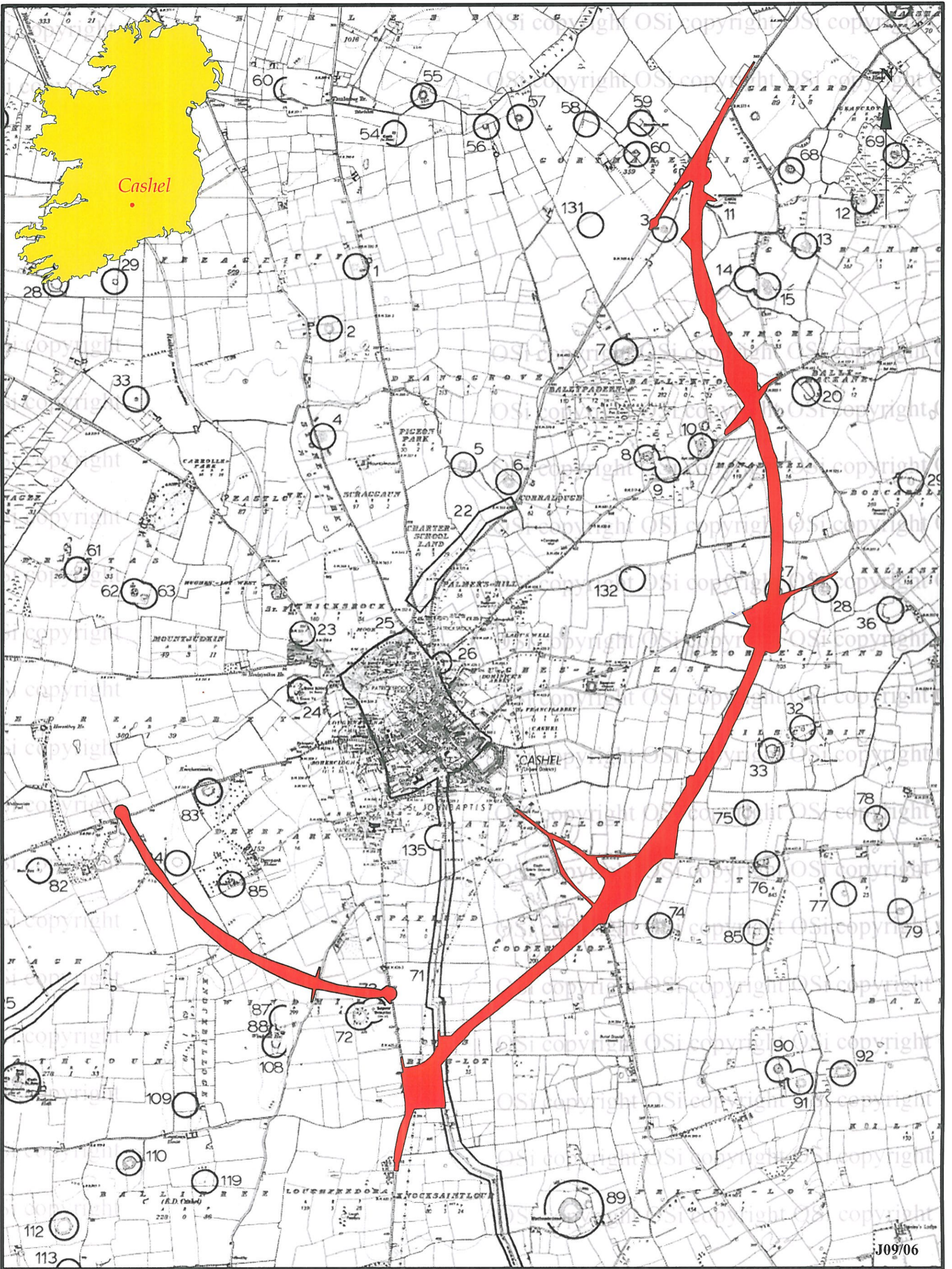
0.991



**N8 Cashel Bypass & N74 Link Road,
Co. Tipperary**

Figure 1: Location of N8 Scheme
 Scale 1:50 000
 Based on Ordnance Survey Ireland Discovery Series 2nd Edition 2001-3, 1:50000.
 Reproduced at 1:50,000, Copyright OSI & Govt. of Ireland, OSI Licence No. AR00494 10

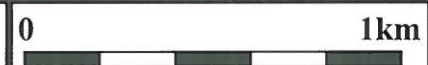


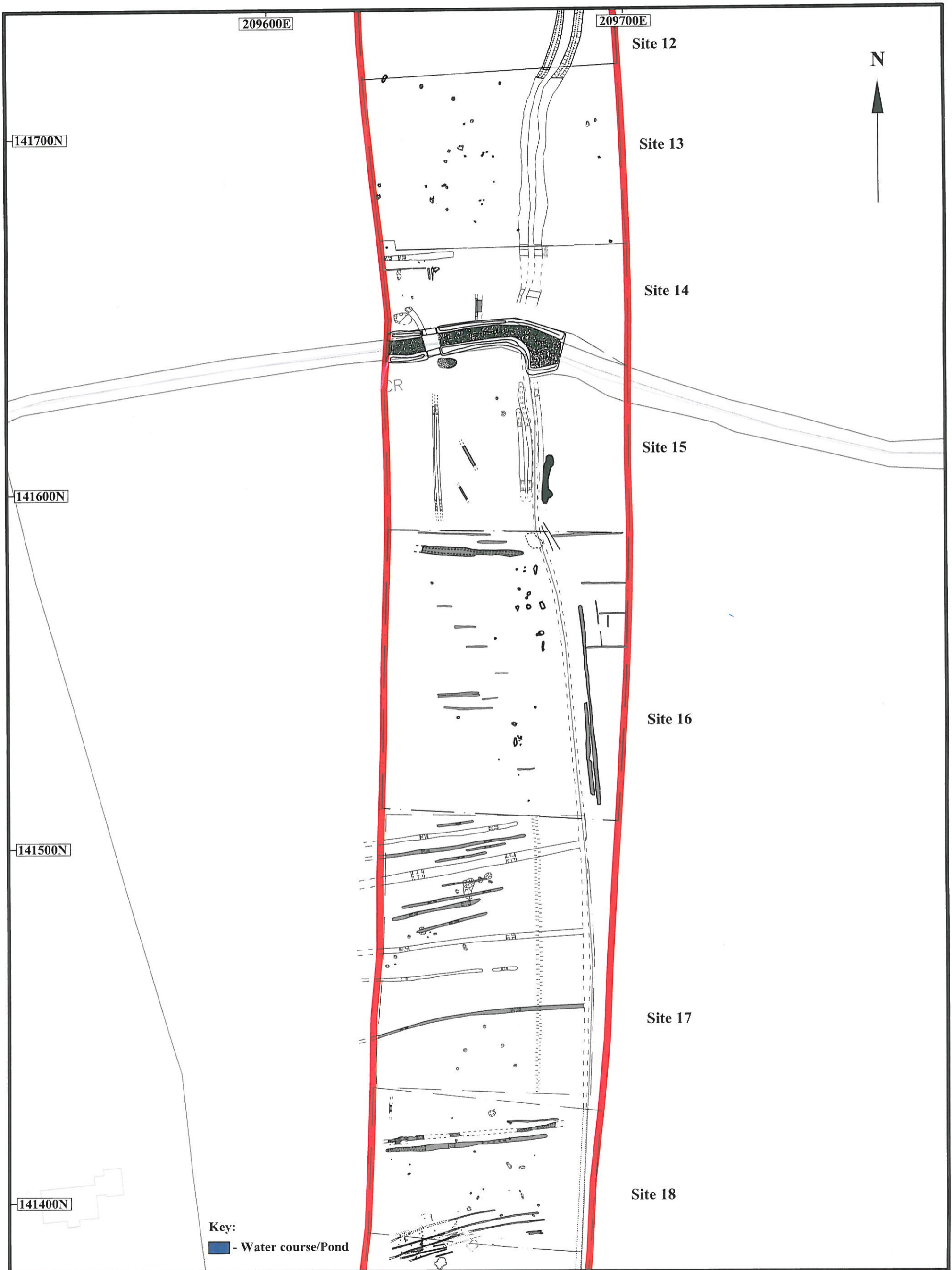


N8 Cashes Bypass & N74 Link Road, Co. Tipperary

Based on RMP Map (1998) (SR) - sheet 52, 53, 60, 61, 68, 69.

Figure 2: Scheme Location & RMP Details
Scale 1:20 000





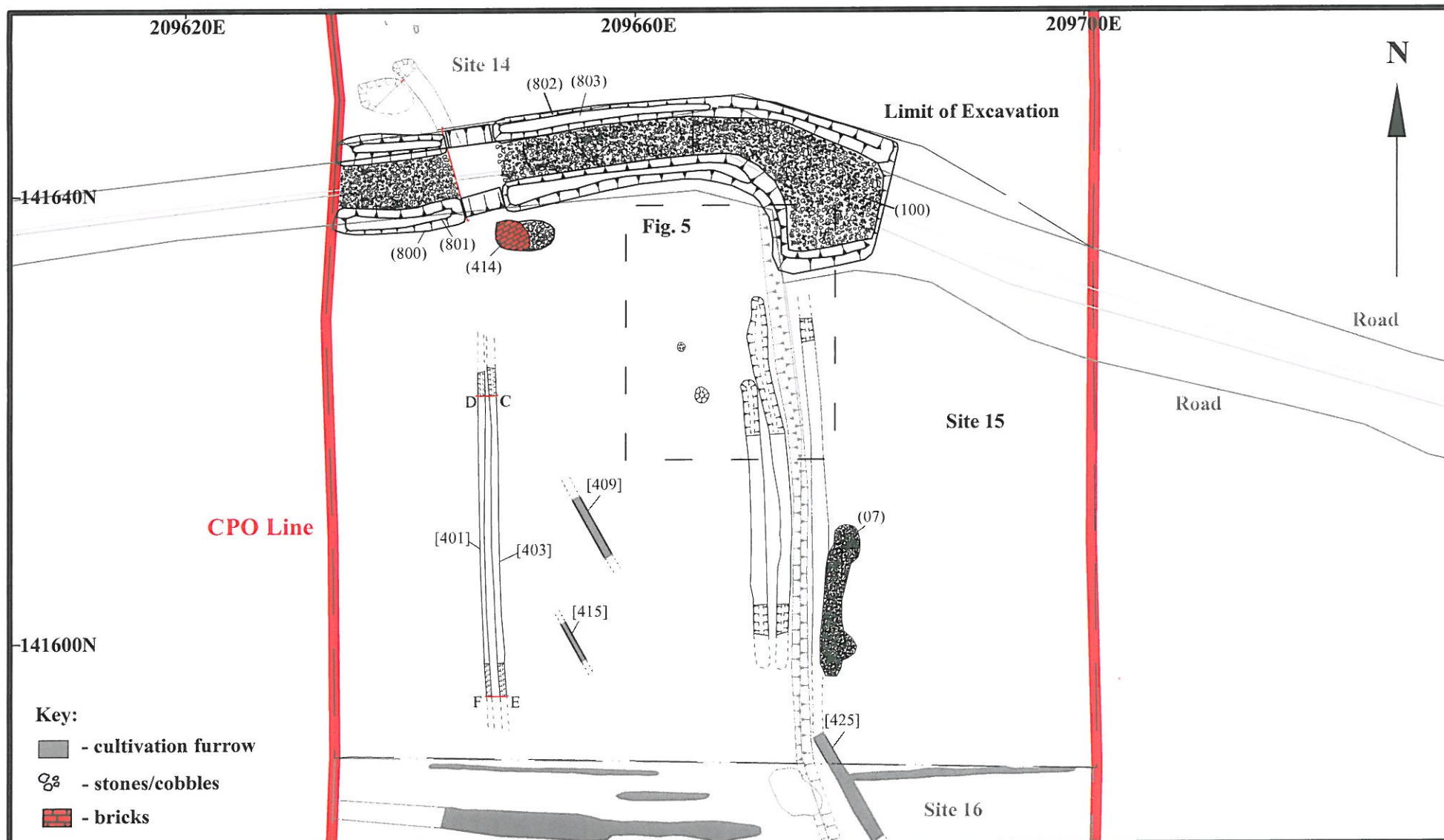
N8 Cashel Bypass & N74 Link Road, Co. Tipperary

Figure 3: Location of Sites 13-18

Scale 1:1000
 Based on Ordnance Survey 1st Edition, Co. Tipperary, Sheet 61, 6"
 Surveyed 1840-41. Copyright OSI & Govt. of Ireland, OSI Licence: AR0049410



T V A S
 I R E L A N D
 LTD

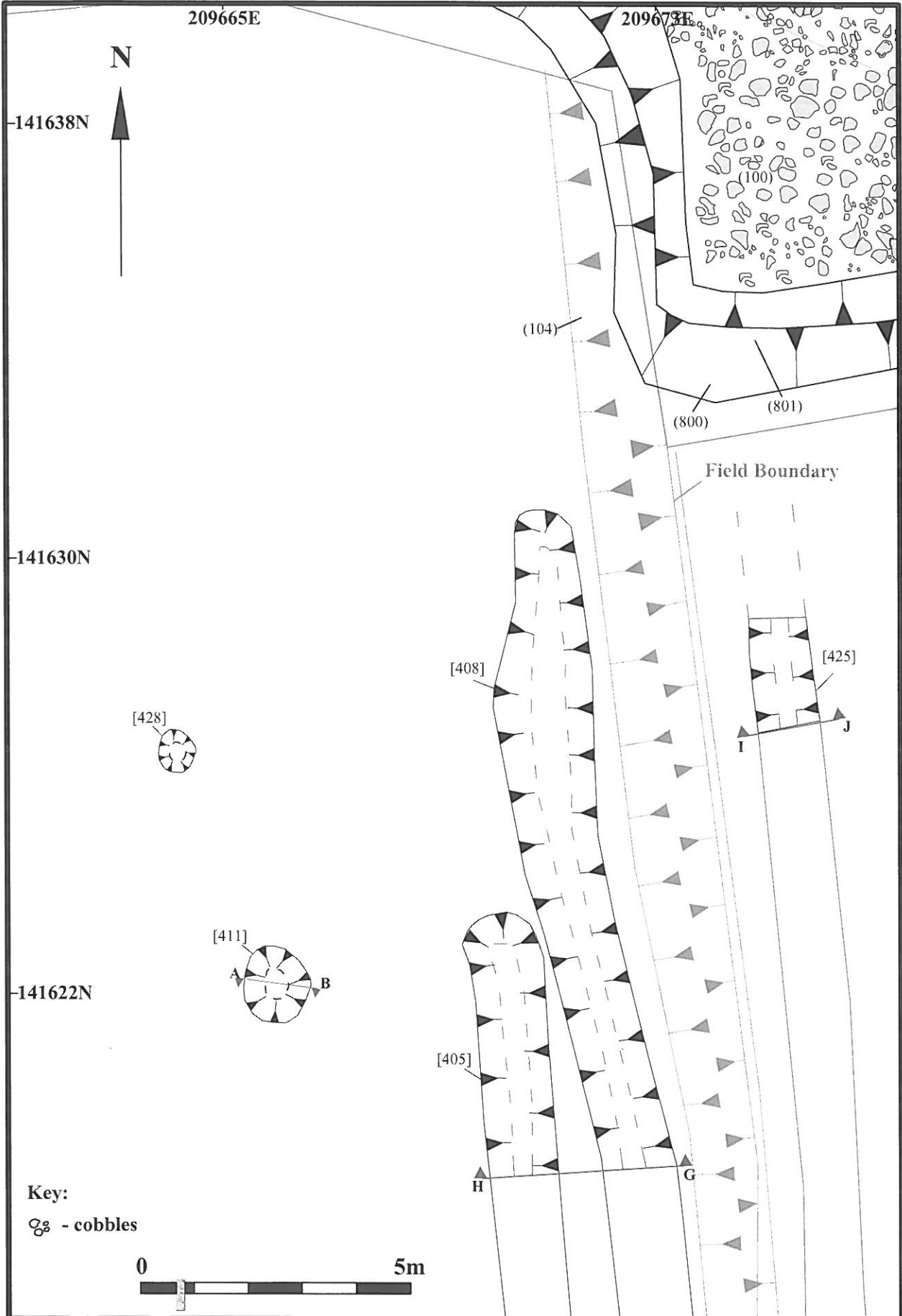


N8 Cashel Bypass & N74 Link Road, Co. Tipperary

Boscabell/Monadreeela, Site 15 03E0394

Figure 4: Post-excavation plan of Site 15

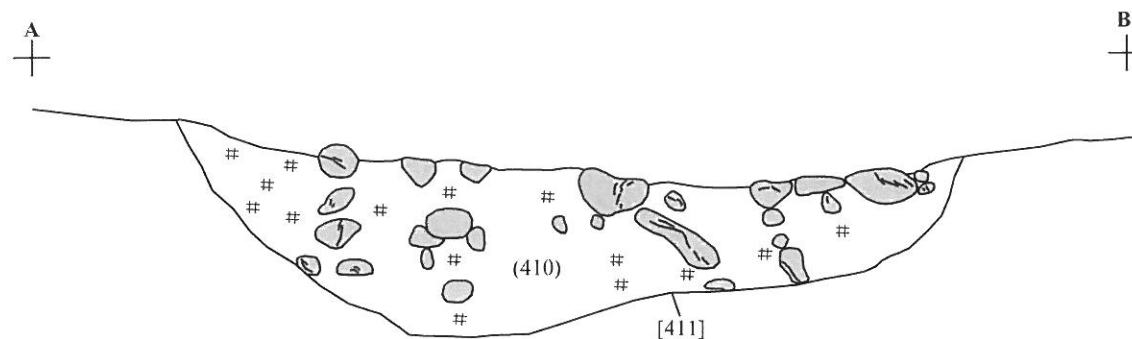
Scale 1:500



N8 Cashel Bypass & N74 Link Road,
Co. Tipperary
Boscabell/Monadreea, Site 15 03E0394

Figure 5: Post-excavation plan of Site 15
field boundary

Scale 1:100



Key:

- charcoal

○ - stone

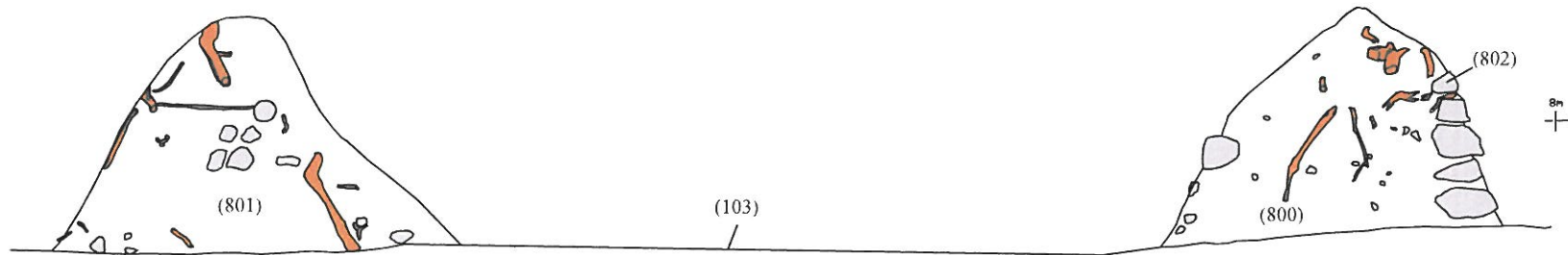


N8 Cashel Bypass & N74 Link Road, Co. Tipperary

Boscabell/Monadreela, Site 15 03E0394

Figure 6: South facing section of pit [411]

Scale 1:100



Key:

■ - root

○ - stone



N8 Cashel Bypass & N74 Link Road, Co. Tipperary

Boscabell/Monadreela, Site 15 03E0394

Figure 7: Section through Croke's Lane, Site 15

Scale 1:40

T V A S
I R E L A N D
L T D



Key:

■ - root/tree

○ - stone



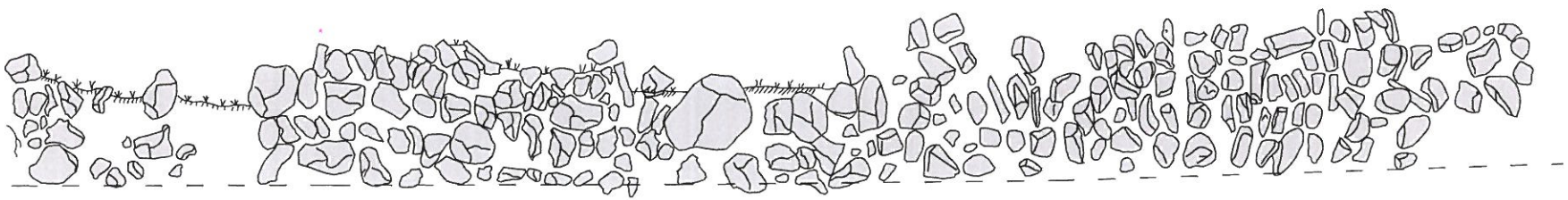
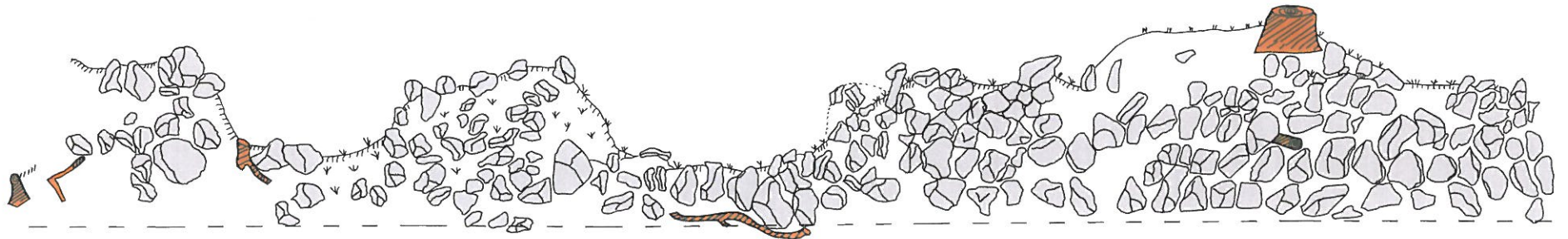
N8 Cashel Bypass & N74 Link Road, Co. Tipperary

Boscabell/Monadreele, Site 15 03E0394

Figure 8: North facing section through southern boundary wall of Bohereen, Site 15

Scale 1:40

T V A S
I R E L A N D
L T D



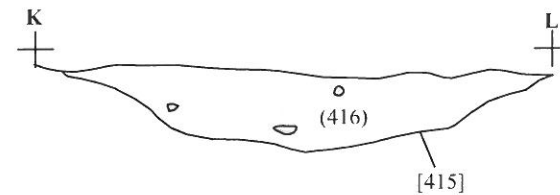
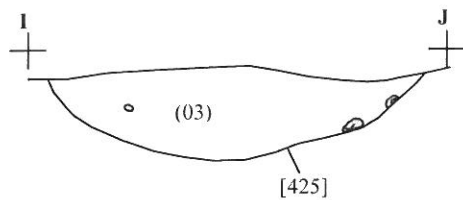
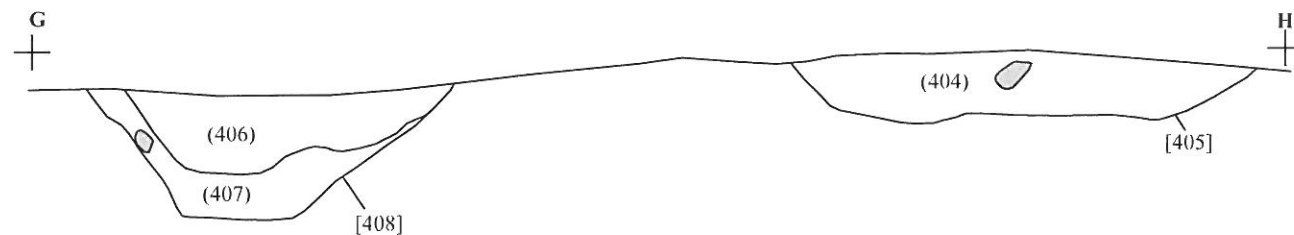
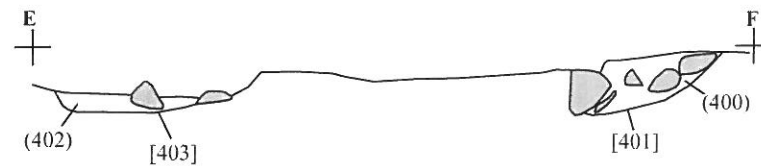
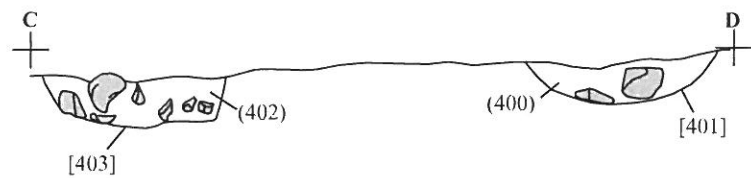
Key:
 ■ - root/tree
 ○ - stone

N8 Cashel Bypass & N74 Link Road, Co. Tipperary
 Boscabell/Monadreele, Site 15 03E0394

Figure 9: North facing elevation stone-faced bank (800),
 Site 15
 Scale 1:25



T V A S
 I R E L A N D
 L T D



Key:

○ - stone



N8 Cashel Bypass & N74 Link Road, Co. Tipperary

Boscabell/Monadreela, Site 15 03E0394

Figure 10: Sections of features on Site 15

Scale 1:20