

Centre for Archaeological Fieldwork
School of Archaeology and Palaeoecology

Queen's University Belfast



Data Structure Report: No. 25.

Excavation at Tamlaght, Co. Armagh 2004
AE/03/45

On behalf of



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1 Summary

1.1 Background

1.1.1 A small scale excavation was undertaken at the site of a Late Bronze Age hoard at Tamlaght, Co. Armagh, from Friday 27th February to Tuesday 2nd March 2004. The hoard consisted of a Class 3 sword, a plain and an undecorated copper alloy sheet vessel of Continental origin and a copper alloy ring. The hoard had been discovered, and lifted, by a metal detectorist on Thursday 19th February 2004. The discovery was promptly reported to Armagh County Museum.

1.1.2 The hoard consisted of four separate copper alloy artefacts: a Class 3 sword; a Fuchsstadt-Type vessel; a Jenišovice-Type vessel; and a ring. The finder reported that the sword was lying near horizontal and aligned approximately NNW to SSE, with its tip to the NNW. The two vessels were positioned immediately to the SSE of the sword's hilt, with the Jenišovice-Type vessel placed inside the other. Fuchsstadt-Type and Jenišovice-Type vessels are both Continental types, which have previously not been recognised in either Ireland or Britain. Typological study of the hoard suggests that it dates to the Roscommon phase of the Irish Late Bronze Age (c.1150 – c.1000 BC).

1.1.3 Excavation of the hoard site was considered desirable because the hoard may have only been partially lifted, and excavation was required to protect it from further disturbance. Furthermore, as the hoard is potential Treasure, excavation was considered necessary to facilitate completion of a full report for the coroner. The archaeological excavation was directed, on behalf of the Environment and Heritage Service: Built Heritage who funded the investigations, by John Ó Néill and Philip Macdonald for the Centre for Archaeological Fieldwork in the School of Archaeology and Palaeoecology, Queen's University Belfast.

1.2 Excavation

1.2.1 The rectangular excavation trench was centred upon the area disturbed by the metal detectorist and extended for a distance of 2.4 metres by 1.95 metres. Initially, the backfill of the hole dug by the detectorist was re-excavated, confirming the accuracy of their account of the discovery. Examination of the undisturbed peaty subsoil underlying that part of the trench containing the sword revealed traces of a black organic surface which was thought to possibly represent the remains of a scabbard or a sheath. This was lifted as a block and, following investigative conservation, analysis suggested that the black organic surface was possibly compressed organic matter.

1.2.2 Following investigation of the hole dug by the detectorist, the rectangular-shaped trench was excavated. Underlying a humic cultivation soil, which contained three sherds of eighteenth or nineteenth century pottery, was the peaty subsoil within which the hoard had been deposited. No evidence for a cut, or any other type of feature, that could be associated with the hoard was observed. The peaty subsoil overlay the natural yellow boulder clay, which had a relatively flat surface throughout most of the trench but rose steeply towards the southern end of the excavation. This suggests that the hoard was possibly deposited into the peaty subsoil from an immediately adjacent area of higher, and presumably drier, ground.

1.3 *Treasure*

1.3.1 Following the revision of the Treasure Act 1996 and the extension of the definition of Treasure to include all prehistoric base-metal objects from the same find, the Tamlaght hoard qualifies as Treasure. Excavation demonstrated that the component parts of the hoard were carefully deposited as a single group and therefore should be considered to be 'from the same find'. The definition of Treasure also includes associated finds which are defined as any object, whatever it is made of, found in the same place as (or had previously been together with) another object that is Treasure. If the black organic surface excavated as a block is the remains of a scabbard then it would also qualify as part of the Treasure because of its association with the prehistoric base-metal objects.

1.4 *Discussion*

1.4.1 The hoard is located towards the western edge of the Navan Complex. The date of the Tamlaght hoard suggests that it is broadly contemporary with the nearby sites of Haughey's Fort and the King's Stables. Previously the eleventh to twelfth century BC phase of activity in the Navan Complex has been perceived as one of ritual activity and deposition in sacred spaces formalised by artificial enclosures. The discovery of the Tamlaght hoard suggests that votive deposition was also being undertaken in informal, natural locations during this period.

1.4.2 In addition to the two vessels in the hoard, two other possible Late Bronze Age Continental imports are known from the Navan Complex. They are a possible Jenišovice-Type vessel handle and a disc-headed pin of Sunflower type, both from Haughey's Fort. Eogan has suggested that the Irish disc-headed pins, which date to the Dowris metalwork phase, were derived from similar examples from the western Baltic region. The identification of the western Baltic region as an area which had contacts with Ireland in the Late Bronze Age highlights a potential source for the two Continental vessels in the Tamlaght hoard.

1.4.3 Prior to the discovery of the Tamlaght hoard, the earliest contacts with the western Baltic region were dated to the Dowris metalwork phase. The discovery of the Tamlaght hoard partly dispels previous suggestions of a hiatus in external contacts during the Roscommon metalwork phase. It also presents a horizon of limited imports, possibly derived from the Baltic region, which prefigure the wider range of imported items dating to the subsequent Dowris phase. Eogan's suggestion that the northeast of Ireland may have been an area that initially received western Baltic types as the primary form of disc-headed pins and 'sleeve fasteners' are more numerous in that area is strengthened by the recovery of the Tamlaght hoard and the identification of a possible Jenišovice vessel handle from Haughey's Fort.

1.5 Recommendations

1.5.1 The excavation of the Tamlaght hoard justifies full and detailed publication. The hoard's importance lies in both its unique association of a Class 3 sword with relatively closely dated Continental artefact types, and its potential for informing current interpretations of the adjacent, and broadly contemporary, sites of Haughey's Fort and the King's Stables. It is proposed that publication should be at two levels: a short article suitable for inclusion in *Archaeology Ireland*; and a detailed academic report suitable for inclusion in a peer-reviewed journal.

1.5.2 In order to prepare the two reports for publication, it is recommended that: detailed illustrations of the hoard's constituent parts are prepared; further study of the possible scabbard is undertaken; a pollen core is taken adjacent to the hoard site; and four AMS radiocarbon dates are taken. It is proposed that this work is completed by September 2004, with a view to the preparation and submission of the article and report during October 2004.

2 Introduction

2.1 General

2.1.1 Archaeological excavation at the site of a Late Bronze Age hoard discovered by a metal detectorist at Tamlaght, Co. Armagh took place between Friday 27th February and Tuesday 2nd March 2004 (Licence No. AE/04/33). The excavation was undertaken, on behalf of the Environment and Heritage Service: Built Heritage who funded the investigations, by John Ó Néill and Philip Macdonald for the Centre for Archaeological Fieldwork in the School of Archaeology and Palaeoecology, Queen's University Belfast.

2.2 Background

2.2.1 The hoard was discovered, and lifted, by a metal detectorist (Sean McGirr) on Thursday 19th February 2004 and was reported to Greer Ramsey, Armagh County Museum the following day. The hoard consisted of a Class 3 sword, a plain and an undecorated copper alloy sheet vessel of Continental origin and a copper alloy ring. It was recovered from a small trapezoidal-shaped field in a short valley formed by two north-south aligned drumlin ridges (Grid Reference H 8293 4486; Figure One). The field is bounded on the east by a northwards flowing stream, on the north and south by silted up flax dams, and on the west by an overgrown hedge (Figure Two). Although improved by cultivation and drainage the find spot remains a boggy area and probably formed part of an inter-drumlin bog in antiquity. The site is located c.0.8 kilometres to the southwest of Haughey's Fort. Following site visits by staff from the Department of Archaeology and Ethnography, Ulster Museum, the Environment and Heritage Service: Built Heritage and the Centre for Archaeological Fieldwork, Queen's University Belfast, it was agreed that a small scale excavation of the site was desirable. As the hoard may have only been partially lifted, excavation was required to protect it from further disturbance. Furthermore, as the hoard is potential Treasure, excavation was considered necessary to facilitate completion of a full report for the coroner by Declan Hurl (Environment and Heritage Service: Built Heritage).

2.3 Geological Background

2.3.1 Tamlaght lies within the drumlin belt, which extends from the uplands of south and east Armagh to the south of Lough Neagh. Underlying the glacial till of the drumlin landscape, the geology of the area consists of the Carboniferous Limestones of the late Viséan Armagh Group which are made up, almost exclusively, of marine shallow water limestones with palaeokarst surfaces (Mitchell 2004, 90). The development of these rocks was affected by oscillating sea levels, exposure and pedogenesis, which resulted in the

formation of solution features, such as swallow holes and dolines, which were filled by reddish brown clay palaeosoils (Mitchell 2004, 114).

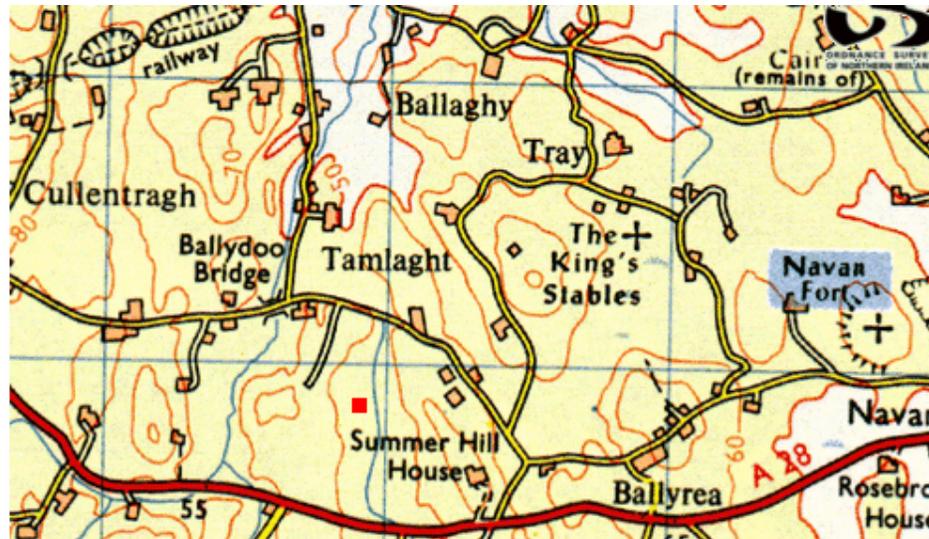


Figure One: Location map of Tamlaght hoard (find spot marked by ■)

2.4 Archaeological Background

2.4.1 The following is a brief archaeological background to the area in which the Tamlaght hoard was recovered. The site of the hoard is located within an archaeologically rich landscape that contains sites ranging in date from the Neolithic to the Post-Medieval period. Details of the sites and monuments within 1000 metres of the 2004 excavation have been tabulated (Table One). In addition to the tabulated sites, it has been suggested that the Armagh – Killylea road, which passes c.340 metres to the north of the hoard site, may be of significant antiquity as it appears on an early seventeenth century map (Warner 1986, 7, no.8).

2.4.2 In addition to the archaeological sites located within its immediate environs, the hoard is situated just beyond the western edge of the Navan Complex. In the archaeological literature, the concept of a Navan ‘Complex’ or ‘ritual landscape’ is based upon: the close proximity of several prehistoric monuments, mostly located between the enclosures of Haughey’s Fort and Navan Fort; the identification of Navan Fort with storied Emain Macha; and the analogy between Emain Macha and other ‘royal sites’ such as Ráth na Ríogh at Tara and Dún Ailinne.



SLOPE PROFILE

Figure Two: Detailed location map and slope profile

Description	SMR No.	Grid Reference	References
Early Medieval enclosure site: Ballydoo	ARM 011:025	H82464524	Hartwell 1987, 10, no.20, fig.1; Lynn 2003, 95-96
Large multivallate hilltop enclosure: Haughey's Fort	ARM 012:013	H83514529	Mallory 1991; Mallory 1995; Mallory, Moore and Canning 1996; Lynn 2003, 65-70
Earthwork – Artificial pool: The King's Stables	ARM 012:014	H83874546	Lynn 1977; Warner 1986, 6, no.5; Lynn 2003, 51-54
Platform rath	ARM 012:019	H82714416	Hartwell 1987, 11, no.58
Graveyard?: Tamlachta Bo or Tamlaghboe (unlocated)	ARM 012:082	H8245	Hamlin 1989
Double-ditched linear feature	ARM 012:102	H83934477 – H84104527	Hartwell 1987, 10, no.30; Hartwell 1991, 6-7, 8, figs.2-3, nos.NGRS 30, 77-80; Lynn 2003, 93-94
Six ring ditches: aerial photograph	ARM 012:094	H838458	Hartwell 1991, 7, 8, nos.81-86, fig.4
Ring ditch: aerial photograph	-	H83664452	Hartwell 1991, 8, no.87
Ring ditch: aerial photograph	-	H83144453	Hartwell 1991, 8, no.88
Ring ditch: aerial photograph	-	H83124454	Hartwell 1991, 8, no.89
Two circular vegetation marks in drained lake: aerial photograph	-	H822455	Hartwell 1987, 10, no.34
Circular vegetation mark: aerial photograph	-	H828448	Hartwell 1987, 11, no.67
Circular enclosure: aerial photograph	-	H827440	Hartwell 1987, 11, no.57
Concentric rings: aerial photographs	-	H836458	Hartwell 1987, 11, no.12
Raised circular area: aerial photograph	-	H830454	Hartwell 1987, 11, no.66
Circular enclosure: aerial photograph	-	H832449	Hartwell 1987, 11, no.69
Semi-circular vegetation mark: aerial photograph	-	H839447	Hartwell 1987, 10, no.31

Table One: Archaeological sites (of all periods) within 1000 metres of the hoard site

2.4.3 The idea of a 'ritual landscape' in the Navan area was developed by Dudley Waterman following the excavation of the King's Stables in 1975 (Lynn 1997b, 216; Lynn 2003, 65), which, combined with the campaign against quarrying at Navan, led to the foundation of The Navan Research Group in 1986. It has been argued, by analogy with other late prehistoric 'royal sites', that the principal monuments in the Navan area were best regarded as part of a wider archaeological landscape, rather than individual sites (Warner 1994, 42). The Navan Complex has also been considered an archaeological manifestation of Emain Macha, the capital of the Ulaid in early Irish literary and pseudo-historical sources (Mallory 1987; Mallory 1995, 73).

- 2.4.4 The term 'complex' implies that there may have been significant relationships between the various sites and stray finds in the Navan area, and that the position and function of one site possibly influences the position and function of another site, and that the construction of one ritual monument encouraged use of the area for later ones (Lynn, Flanagan and Waterman 1997, 3). Excavation has produced evidence of the past either being integrated or re-enacted at later sites in the Navan Complex. For example, the deposition of an earlier prehistoric cup-and-ring marked stone in a Late Bronze Age context at Haughey's Fort, the use of a hengiform enclosure to enclose the Iron Age site at Navan Fort, and it is possible that the construction of the 40 metre structure at Navan was partly an attempt to architecturally mimic a Neolithic passage tomb (Mallory and Lynn 2002, 540). The significance of the relationships between monuments and finds of different date in the Navan area is an important interpretive issue. It is unlikely that the archaeological evidence represents long-term continuity of ritual practice and religious belief in the area. Environmental evidence suggests there were periods when the clearance of the area was not maintained (for example, between the occupation of Haughey's Fort and Navan Fort cf. Mallory 1995, 78-79) and Mallory and Lynn (2002, 540) prefer to see the phenomenon of the Navan Complex as evidence of formal recreations of earlier monuments where earlier architectural targets were reinvented to serve later ideological needs.
- 2.4.5 In spatial terms, Warner has defined the Navan Complex as 'a sort of natural amphitheatre about a mile across with the Navan enclosure near its centre' which was bound by 'a ring of hills above 200 feet in absolute height' and which included 'the townlands of Navan, Drumcoote (part), Tyross (part), Tullyargle (part), Tullyworgle (part), Ballybrolly, Tirgarriff, Tray, Creeveroe, Ballyrea (part), Annaghboy, Tullylost, Ballyrath (part), [and] Ballycrummy (part)' (Warner 1986, 5). Subsequently, the character of the definition changed to a more arbitrary demarcation to an area defined by 'the eastings ... H830 to H858 and the northings H442 to H463' (Warner 1994, 39, fig.1). The location of the Tamlaght hoard falls c.70 metres to the west of this area.
- 2.4.6 Closely defining ancient 'ritual' landscapes is a problematic exercise and a precise demarcation of the Navan Complex would probably not reflect any ancient reality. Furthermore, that part of the surrounding landscape which was considered significant would have probably changed considerably through time, both as the main monumental foci of the area shifted and during the extended periods of apparent inactivity suggested by the environmental evidence. No specific definition of the Navan Complex is offered here, although the area previously considered by Warner (1994, 39, fig.1) has been slightly extended in our analysis (Tables Two and Three).

2.4.7 The later prehistoric archaeology of this larger area has been tabulated. The sites fall into three broad categories: archaeological sites recognisable, or at least once recognised, on the ground (Table Two); sites known from only aerial photographs (Table Three); and finds of individual artefacts (Warner 1986; Warner 1994). Without evaluation by excavation, the identification of sites through aerial photography is problematic. A number of solution holes, formed within the underlying limestone, are present in the Navan area, and Warner has suggested that, until evidence to the contrary is available, it should be assumed that all hollows within the Navan Complex have a geological origin (Warner 1994, 43; see Mitchell 2004, 90, 114 for the possible origin of these features). It is possible that a significant number of the circular features identified in Hartwell's aerial photographic surveys (Hartwell 1987; Hartwell 1991; see Table Three), especially those located in the valley bottoms formed between adjacent drumlins where the masking effect of the overlying glacial deposits is minimised, may be swallow holes or ancient dolines. Those sites which are broadly contemporary with the Tamlaght hoard are Haughey's Fort and the King's Stables. Both of these sites lies within the Navan Complex, as recognised in earlier work, and within a 1000 metre radius of the find spot of the hoard.

Description	SMR No.	Grid Reference	Selected Bibliographical References
Navan Fort	ARM 012:015	H848452	Warner 1986, 5-6, nos.1-3; Lynn 1997a; Lynn 2000; Mallory 2000; Lynn 2002; Lynn 2003
Loughnashade	ARM 012:034	H852454	Warner 1986, 6, no.4
Stone: 'The Bull's Track'	ARM 012:071	H843450	Warner 1986, 6, no.7
Passage Tomb?: Ballybroly – 'The Druid's Ring' (now destroyed)	ARM 012:007	H845462	Warner 1986, 7, no.9
Passage Tomb?: Ballybroly (now destroyed)	ARM 012:008	H846461	Warner 1986, 7, no.10; Hartwell 1987, 10, no.10
Double-ditched linear feature	ARM 012:102	H83934477 – H84104527	Hartwell 1987, 10, no.30; Hartwell 1991, 6-7, 8, figs.2-3, nos.NGRS 30, 77-80; Mallory and Lynn 2002, 536-537; Lynn 2003, 93-94
Natural mound?: Tigarriff mound	ARM 012:084	H84374555	Lynn and McDowell 1987, 22-24, pl.1
Standing stone: Legarhill pillar	ARM: 012:074	H86024504	Lynn and McDowell 1987, 24-27, pl.2

Table Two: Prehistoric sites within the Navan landscape, other than those listed in Table One (revised from Warner 1986; Warner 1994)

Description	SMR No.	Grid Reference	Selected Bibliographical References
Small circle in corner of sub-circular enclosure	-	H840448	Hartwell 1987, 10, no.32
Low mound	-	H854449	Hartwell 1987, 10, no.19
Semi-circular vegetation mark	-	H852445	Hartwell 1987, 11, no.73
Sub-circular area in drained lake bed	-	H855444	Hartwell 1987, 11, no.74
Circular bank and ditch in drained lake bed	-	H856444	Hartwell 1987, 11, no.75
Sub-circular enclosure	-	H858454	Hartwell 1987, 10, no.27
Circular area in lake bed	-	H840462	Hartwell 1987, 11, no.52

Table Three: Potential prehistoric sites within the Navan landscape known from aerial photography, other than those listed in Table One (revised from Hartwell 1987; Hartwell 1991)

2.5 Reason for excavation and objectives

2.5.1 The excavation at the site of the Tamlaght hoard had two specific aims: firstly, to recover any undisturbed elements of the hoard, and secondly, to evaluate its context of deposition. The principal objective of the excavation was to provide Declan Hurl (Environment and Heritage Service: Built Heritage) with the information necessary to compile a full report for the coroner concerning the hoard's status as potential Treasure.

2.6 Archiving

2.6.1 A copy of this report has been deposited with the Environment and Heritage Service: Built Heritage. Both the elements of the hoard lifted by Sean McGirr and those recovered during the course of the excavation (Small Find Nos.1001-1005, 1013-1017) are currently held in the Department of Archaeology and Ethnography, Ulster Museum. The site records, and those finds recovered during the course of the excavation which are not associated with the Late Bronze Age hoard (Small Find Nos.1006-1012), are temporarily archived with the School of Archaeology and Palaeoecology, Queen's University Belfast.

2.7 Credits and acknowledgements

2.7.1 The excavation was directed by John Ó Néill and Philip Macdonald. For their assistance during the course of the excavation and the preparation of this report, the authors are grateful to: Ian Armit (Queen's University Belfast), John Davison (Queen's University Belfast), Colm Donnelly (Queen's University Belfast), Stephen Hoper (Queen's University Belfast), Declan Hurl (Environment and Heritage Service: Built Heritage), Eimear Nelis

(Queen's University Belfast), Gill Plunkett (Queen's University Belfast) and Siobhan Stevenson (Belfast City Council). The illustrations were prepared by Ruth Logue of the Centre for Archaeological Fieldwork, Queen's University Belfast.

- 2.7.2 The authors are especially grateful to both the finder, Sean McGirr, for his assistance during the course of the excavation, and the landowner, Martha George, for giving her permission to excavate at Tamlaght. The description of the artefacts in the hoard (see Section 4) is largely derived from the unpublished report prepared on the assemblage by Richard Warner (Ulster Museum).

3 Excavation

3.1 Methodology

3.1.1 The excavation consisted of a rectangular trench centred upon the area disturbed by the metal detectorist during his lifting of the hoard. The excavation trench extended for a distance of 2.4 metres (NNW-SSE) by 1.95 metres (WSW-ENE). For the purposes of creating a convenient site grid, a site north (equivalent to true NNW) was established. To avoid confusion all references to cardinal directions within this report have been corrected.

3.1.2 Excavation was undertaken by hand and the context record for the site was created using the standard context recording method. A photographic record was maintained at all stages of the excavation. Following excavation of the archaeologically significant deposits, the trench was planned (scale 1:10) and a section (scale 1:10) was prepared of the ENE-facing side of the trench (for details of site photography see Appendix Three and for field illustrations see Appendix Four). In addition to the photography and illustration, the principal site records consisted of a supervisor's notebook, which contained a register of small finds and samples (Appendices Five and Six). Following the completion of the site recording, the excavation trench was manually backfilled. The unique site code used to identify the records generated during the excavation is TA 04.

3.2 Account of the excavations

3.2.1 It is intended that the Harris matrix for the site (see Appendix Two) is referred to whilst reading the following account of the stratigraphic sequence of the excavation.

3.2.2 Initially, the backfill (Context No.102) of the hole (Context No.103) dug by the detectorist was re-excavated. The finder's account of the discovery suggests that the sword was lying near horizontal and aligned approximately NNW to SSE, with its tip to the NNW. The two vessels were positioned immediately to the SSE of the sword's hilt, with the decorated vessel placed inside the larger vessel. Excavation confirmed the accuracy of the finder's account. The hole excavated by the detectorist was 1.10-1.15 metres long (NNW-SSE), 0.30-0.41 metres wide (WSW-ENE) and had a maximum depth of 0.32 metres. It was near rectangular in shape, but at its SSE end the cut formed a slightly deeper, polygonal hollow presumably to facilitate the removal of the vessels. The backfill (Context No.102) was largely restricted to the southern end of the cut. The disturbed turfs at the northern end of the trench had been redeposited directly on to the undisturbed peaty subsoil (Context No.104) upon which the sword had been resting. A fragment of copper alloy sheet (Small Find No.1005), which represents a fragment of one of the hoard's vessels, was recovered during the excavation of the backfill (Context No.102). All of the backfill was excavated as

a sample (Sample No.15) with a view to recovering other fragments of the hoard through its floatation. Three fragments of the sword's hilt (Small Find Nos.1001-1002 and 1014) and three sheet fragments derived from one of the vessels (Small Find Nos.1003-1004 and 1015) were recovered during the processing of the sample. Examination of the undisturbed peaty subsoil (Context No.104) underlying that part of the trench containing the sword revealed traces of a black organic surface which was thought to possibly represent the remains of a scabbard or a sheath (Small Find No.1013) (Plate One). The possible scabbard or sheath was subsequently lifted as a block with a view to its excavation in laboratory conditions (Plate Two). Following investigative conservation of the block by Malcolm Fry (Environment and Heritage Service Built Heritage), analysis suggested that the black organic surface was possibly not an artefact, but rather organic matter which had become compressed by the weight of the sword following its deposition (R.Warner pers.comm.).

- 3.2.3 Following investigation of the hole dug by the detectorist, a rectangular-shaped trench was opened up around the find spot (dimensions 2.40 metres by 1.95 metres, longest sides aligned NNW-SSE). The uppermost deposit was a humic cultivation soil (Context No.101) c.0.2 metres deep, which contained three sherds of eighteenth or nineteenth century pottery (Small Find Nos.1009-1011). At the southern end of the trench the cultivation activity which this deposit represents had truncated (Context No.106) the surface of the natural yellow boulder clay (Context No.105). Stratigraphically, underlying the cultivation soil (Context No.101) was a peaty subsoil (Context No.104) within which the hoard had been deposited. At the point where the hoard was deposited, the peaty subsoil was 0.24 metres deep. There was a depth of c.0.10 metres of peaty subsoil below the level at which the hoard had been deposited. No evidence for a cut, or any other type of feature, that could be associated with the hoard was observed during the excavation of the peaty subsoil (Context No.104). Processing of samples taken from the peaty subsoil (Context No.104) produced several small copper alloy sheet fragments which were derived from one of the hoard's vessels (Small Find Nos.1016-1017). The peaty subsoil overlay the natural yellow boulder clay (Context No.105), which had a relatively flat surface throughout most of the trench but rose steeply towards the southern end of the trench to the level at which it had been truncated by cultivation (Figure Three). This suggests that the hoard was deposited into the peaty subsoil from an immediately adjacent area of higher, and presumably drier, ground. Two conjoined, irregular-shaped linear discontinuities (Context No.107) set across the rise in the surface of the yellow boulder clay have been identified as the possible tracks of tree roots. The hoard was located immediately adjacent to these features suggesting that, if they were contemporary, the position of the possible tree may have been significant in selecting the location of the hoard's deposition.

3.3 *Artefactual assemblage*

- 3.3.1 In addition to the Late Bronze Age metalwork hoard (Small Find Nos.1001-1005, 1013-1017), only a small number of finds, all from the cultivation soil (Context No.101), were recovered during the excavation (Small Find Nos.1006-1012). The finds included three sherds of pottery (Small Find Nos.1009-1011), three apparently unworked flints (Small Find Nos.1006-1008) and a fragment of coal (Small Find No.1012). The three pottery sherds include an example of black ware (Small Find No.1009) and two cream wares (Small Find Nos.1010-1011) of eighteenth or nineteenth century date. The three flints are all either thermally damaged or thermally shattered fragments. They show no evidence of having been worked and are probably derived from local boulder clay deposits (E.Nelis pers.comm.).

4 Description of the objects in the hoard
(summarised by the authors from Warner 2004)

At the request of the Ulster Museum, the following section of the report has not been reproduced.

4.1 [REDACTED]

4.1.1 [REDACTED]

- (i) [REDACTED]
- (ii) [REDACTED]
- (iii) [REDACTED]
- (iv) [REDACTED]

4.1.2 [REDACTED]

4.1.3 [REDACTED]

4.1.4 [REDACTED]

[Redacted]

4.2

[Redacted]

4.2.1

[Redacted]

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[Redacted]
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[Redacted] [Plate Four].

4.2.2

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4.2.3

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[Redacted] [Plates Six and Seven].

4.2.4

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[Redacted]
[Redacted] [Plate Seven].

5 Treasure

- 5.1 Following the revision of the Treasure Act 1996 and the extension of the definition of Treasure to include all prehistoric base-metal objects from the same find, the Tamlaght hoard qualifies as Treasure. Excavation has demonstrated that the component parts of the hoard, that is the Class 3 sword (i), the Fuchsstadt (ii) and Jenišovice (iii) vessels, and the copper alloy ring (iv) were carefully deposited as a single group and therefore should be considered to be 'from the same find'. The definition of Treasure also includes associated finds which are defined as any object, whatever it is made of, found in the same place as (or had previously been together with) another object that is Treasure. If the possible scabbard (Small Find No.1013) is an artefact then it would also qualify as part of the Treasure because of its association with the prehistoric base-metal objects; if, however, it has been correctly identified as organic matter which was compressed by the weight of the sword (R.Warner pers.comm.) then it would not qualify as Treasure. The uncertainty over this identification underlines the importance of undertaking further study of the possible scabbard.

6 Discussion

6.1 The hoard

Class 3 sword

- 6.1.1 The sword is an example of Eogan's Class 3, a type which is characterised by flanged tangs with a straight-ended terminal, relatively broad butts joined to the blade with a distinctive concave ricasso, and pronounced leaf-shaped blades with pointed-oval to flat cross-sections (Eogan 1965, 10, 32, fig.2). Although identified here as a Class 3 sword, it is noted that Warner is to propose that the sword is an example of a hitherto unrecognised sub-type of Eogan's Class 2 and Class 3 swords, whose distribution is centred around Lough Neagh (R.Warner pers.comm.). Eogan catalogued only twenty Class 3 swords and provenances are rare. However, the distribution of those whose find spot is known extends across the whole of Ireland. One other Class 3 sword is known from Co. Armagh, from Tynan, 10 km to the west of Tamlaght (Eogan 1965, 32, no.44, fig.8). None of the swords catalogued by Eogan provide a close parallel for the example from Tamlaght, which has a relatively narrow blade and is unique in having an arrangement of three rivet holes in the tang and three rivet holes on either wing of its butt. Although a number of fragments of the sword's tang and butt were recovered, both by the finder and during the processing of soil samples taken during the subsequent excavation (Small Find Nos.1001 and 1002), none of the sword's nine rivets were recovered, suggesting that its handle was dismantled prior to deposition.
- 6.1.2 The only other examples of associated Class 3 swords are from the Youghal hoard, Co. Cork, where two Class 3 swords were found with two plain leaf-shaped spearheads that cannot be closely dated (Armstrong 1921-24, fig.6). Due to the lack of associated material, the only date that could be suggested for the Class 3 swords was that provided by comparison with finds from Britain and European mainland. Typologically, the closest British parallel to the Class 3 swords are the Wilburton-Type variants (Eogan 1965, 19; Colquhoun and Burgess 1988, 40-53), which are in turn comparable to Continental Lokras- and Forel-Types (e.g. Schauer 1971). Where these are found in association with other objects it is generally in large hoards, such as those found at Wilburton, Isleham and Blackmoor (e.g. various listings in Colquhoun and Burgess 1988, 40-53). Current dating of these phases puts Wilburton and Hallstatt B1 in the mid twelfth to eleventh century BC (Needham 1996, 134-136; Needham *et al.* 1997, 90-93; Harding 2000, 15-16) and suggests that Class 3 swords probably relate to the broadly contemporary Irish Roscommon metalwork phase.

Fuchsstadt-Type vessel

- 6.1.3 The undecorated vessel is an example of a Fuchsstadt-Type vessel, originally defined by Sprockhoff (1930, 67). The type has most recently been defined as copper alloy sheet vessels with rounded bellies, curved or straight lower sections, rounded off shoulders, funnel-shaped necks and out-turned rims. The body of Fuchsstadt vessels are typically undecorated and possess a foot-ring. They usually have band-shaped handles which widen at both ends and extend over to the inside of the rim. The handles are normally attached to both the body and the neck by two rivets (Gedl 2001, 16). This distinguishes the group from an earlier, Friedrichsruhe-Type, which has only a single rivet at either end of the handle (e.g. Sprockhoff 1930, 51).
- 6.1.4 Fuchsstadt-Type vessels have been identified in many of the areas of central Europe covered by the *Gefäße* volumes of the *Prähistorische Bronzefunde* series (e.g. Patay 1990, 57-58; Prüssing 1991, 22-24; Jacob 1995, 23-32; Gedl 2001, 16-17) where they are given a Hallstatt A2/B1 date. In Bohemia Fuchsstadt-Type vessels are also recorded as Třtěno-Type (Kytlicová 1991, 43-44). Earlier distribution maps of Fuchsstadt-type vessels also include examples from Denmark and France (Sprockhoff 1930, taf.19), and Norway and Romania (Childe 1948, 195, fig.8). The evidence from these publications has been collated to form a provisional distribution map for the type (Figure Four).

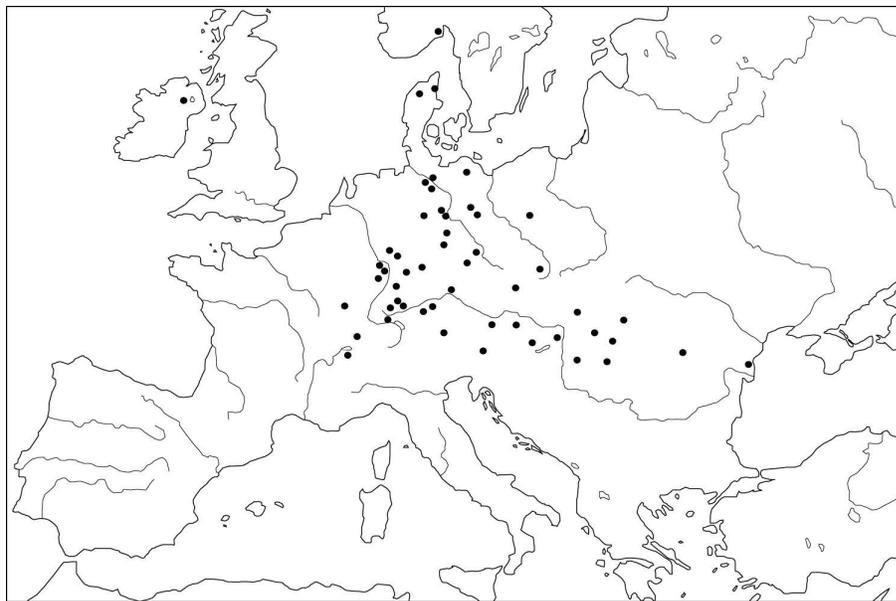


Figure Four: Distribution of Fuchsstadt-Type vessels, based on the earlier distributions of Sprockhoff (1930, Tf. 19) and Thrane (1975, 137), and modified to include the additional examples cited in the *Prähistorische Bronzefunde* series (e.g. Patay 1990; Novotná 1991; Prüssing 1991; Kytlicová 1991; Nekvasil and Podborský 1991; Jacob 1995; Gedl 2001). The outliers in Romania cited by Childe (1948, 190) are retained.

- 6.1.5 Thrane (1975, 136-137) divided the Fuchsstadt-Type into four variants (labelled 1 to 4) using vessel form as the main criteria to distinguish his sub-types. His Variant 1 has a more globular form (similar in profile to his Osternienburg-Dresden Type), Variant 2 has a carinated shoulder and convex side, Variant 3 has a convex shoulder and out-turned rim and Variant 4 a high shoulder (although this is not clear from Thrane's text, it is clarified later by Jacob cf. 1995, 24). Jacob (1995) discussed and modified Thrane's classification, restricting discussion of the Fuchsstadt-Type to those examples with a foot-ring and a handle that widens at both ends where it fastened by two conical rivets. Jacob's four variants are '*Eine bauchige Bronzetasche mit verbreiterten Henkelenden*' or bronze vessels with a globular body and wide-ended handle, '*Bronzetasche mit Standring und verbreiterten Henkelenden*' or bronze vessels with a foot-ring and wide-ended handle, '*Bronzetasche mit Standring, verbreiterten Henkelenden und hohem Gefäßkörper*' or bronze vessels with a foot-ring, wide-ended handle and high body, and, '*Bronzetasche mit verbreiterten Henkelenden*' or bronze vessels with a wide-ended handle (Jacob 1995, 25-30). Paradoxically, Jacob's last group (*Bronzetasche mit verbreiterten Henkelenden*) do not have a pronounced foot-ring. Similarly, some of the vessels included in her catalogue (Jacob 1995, nos.25 (Sengkofen), 26 (Altensittenbach) and 28A (Haunstetten)) are more likely to be of Jenišovice-Type, and the Altensittenbach vessel was previously classed as such (e.g. Sprockhoff 1930, taf.17; Childe 1948, 194; Thrane 1966, 206).
- 6.1.6 The distribution of Thrane's variants is, to some extent, geographic. His Variant 1 is found in western Germany and Denmark, Variant 2 is concentrated further east, Variant 3 is found in middle Germany, the Rhine-Main and Switzerland, and Variant 4 is found in Slovakia, the Czech Republic, Poland and Russia (Thrane 1975). The distribution of Jacob's variants is not as homogenous. Her *Eine bauchige Bronzetasche mit verbreiterten Henkelenden* are found in the Carpathians, Slovakia, the Czech Republic and the Main, the *Bronzetasche mit Standring und verbreiterten Henkelenden* are found in Switzerland, Tirol, middle Germany, Denmark and France, the *Bronzetasche mit Standring, verbreiterten Henkelenden und hohem Gefäßkörper* are found in the Carpathian Basin and Austria and the *Bronzetasche mit verbreiterten Henkelenden* are found in the Carpathians, Austria and Germany (Jacob 1995). Jacob also discusses a miscellaneous group including fragmentary vessels and those without handles (1995, 32). The Tamlaght vessel appears to be of Thrane's Fuchsstadt-Type Variant 1 and fits with Jacob's miscellaneous group.
- 6.1.7 None of the previous sub-divisions of the Fuchsstadt-Type vessels specifically covers handle-less examples. Only three vessels without handles have been considered examples of the Fuchsstadt-Type. Those from the Stockheim hoard (Jacob 1995, No.30) and a burial mound at Hundersingen (Jacob 1995, No.32) are both fragments. The only other complete example was recovered from a grave within a stone setting at Burladingen

in Baden-Württemberg (Jacob 1995, No.31). While the three examples quoted above were all recovered from sites in southern Germany, there is no comprehensive corpus of Fuchsstadt-Type vessels from areas such as eastern Germany, France and Switzerland where some examples of the type have been previously noted (e.g. Sprockhoff 1930, Tf. 19; Childe 1948, fig.8; Thrane 1975, fig.81). A fragment of a handle-less copper alloy sheet vessel in a hoard from Tårup, Denmark, appears to be earlier in date and is too incomplete for a definitive statement as to its morphology (Thrane 1965, 160). Prior to full publication of the Fuchsstadt-Type vessels from these areas, no definitive statement can be made about the distribution of handle-less examples.

Jenišovice-Type vessel

- 6.1.8 The decorated vessel is an example of a Jenišovice-Type vessel. Study of this fragmented vessel has been enhanced by the preservation of its impression in the peat inside of the Fuchsstadt vessel into which it was placed prior to deposition. This impression was recorded by photography and laser tomography (undertaken by Kestrel-3D Ltd, Northern Ireland Technology Centre, Queen's University Belfast) prior to conservation and suggests that the Jenišovice vessel was probably complete when placed inside the Fuchsstadt vessel (R.Warner pers.comm.).
- 6.1.9 Gedl has recently defined the Jenišovice-Type as vessels with a double-conical body and a high shoulder beneath an everted neck (2001, 17). Most examples of the type are decorated with alternating rows of bosses and points, with horizontal running ribs and/or borders near the base, which is characterized by a depression and a foot-ring. The handles are occasionally decorated with longitudinal lines, and are fastened by two rivets at each end (Gedl 2001, 17). The type was recognised by Sprockhoff and named the Kirkendrup-Type after a Danish example (1930, 57), the term Jenišovice was subsequently coined by Childe who commented that Sprockhoff's type was '...unhappily named after a single northern outlier of a distinctly Danubian group...' (1948, 181). The term Jenišovice/Kirkendrup-Type is still occasionally used (e.g. Nekvasil and Podborský 1991, 3).
- 6.1.10 As with the Fuchsstadt-Type, the Jenišovice-Type vessel has been identified in those parts of central Europe covered by the *Gefäße* volumes of the *Prähistorische Bronzefunde* series (e.g. Patay 1990, 59-64; Novotná 1991, 26-38; Kytlicová 1991, 44-55; Prüssing 1991, 24-26; Nekvasil and Podborský 1991, 3-7; Gedl 2001, 17-19) where they are given a Hallstatt B1 date. Earlier distribution maps of the Jenišovice/Kirkendrup-Type also include finds in Denmark, France and Switzerland (Sprockhoff 1930, taf.17), Romania (Nestor 1935) and Italy (Childe 1948, fig.8). As with the Fuchsstadt-Type, the evidence from these sources has been collated to form a provisional distribution map for the type (Figure Five).

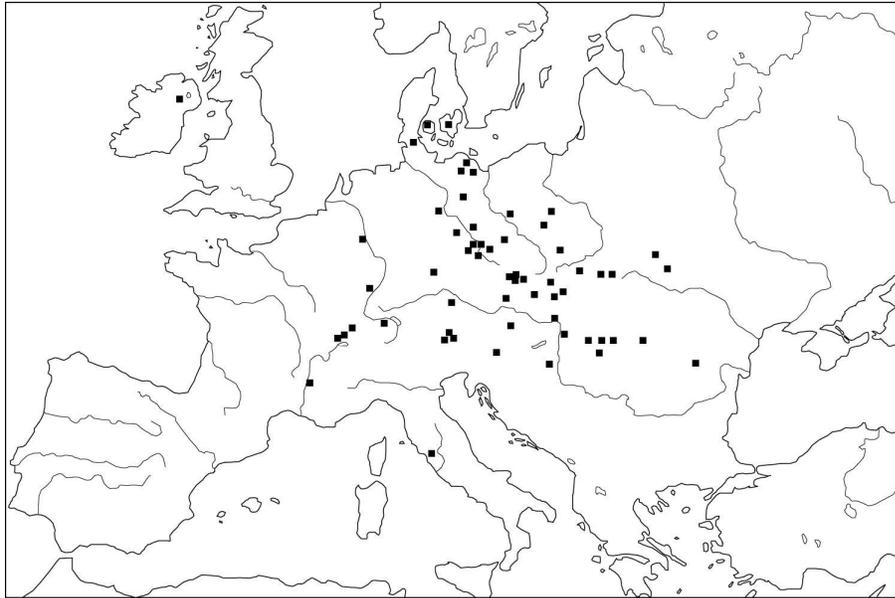


Figure Five: Distribution of Jenišovice-Type vessels, based on the earlier distributions of Sprockhoff (1930, Tf. 17) and Thrane (1975, 137), and modified to include the additional examples cited in the *Prähistorische Bronzefunde* series (e.g. Patay 1990; Novotná 1991; Prüssing 1991; Kytlicová 1991; Nekvasil and Podborský 1991; Gedl 2001). The outliers in Romania and Italy cited by Childe (1948, 190) are retained, as are the Jenišovice-Type vessels included by Jacob (1995), although they are not classed as such.

6.1.11 A number of variants of the Jenišovice-Type have been described. Thrane initially subdivided the type into two groups based upon vessel profile, which he labelled A and B (1966, 169). The main differences between the two types are that the shoulder of Profile A is perpendicular with a straight side to the body, while the shoulder of Profile B is beveled with a convex side and horizontal grooves around the base. The ratio of height to diameter also differs from 1:2 (Profile A) to 1:2.5-3 (Profile B). Thrane subsequently sub-divided his Profile A group into three variants to arrive at a four part classification: (1) Profile A, one band of decoration and flat-based foot-ring; (2) Profile A, two bands of decoration and flat-based foot-ring; (3) Profile A, V-shaped based foot-ring; (4) Profile B (Thrane 1975, 138).

6.1.12 Other classifications schemes have also been proposed. The Hungarian examples are grouped under four headings: 'decorated', 'handle-less', 'undecorated' and a 'Nádudvar Variant' which covers two smaller undecorated vessels (Patay 1990, 59-62). The Bohemian examples are grouped into 'decorated', 'undecorated' and a subsidiary group 'Nebenform' containing a single example of a high-bodied vessel without a foot-ring from Jenišovice itself (Kytlicová 1991, 44-46). Novotná discusses the vessels from Slovakia as 'decorated' and 'undecorated' with a third group 'Variant: Sîneorgiu de Pădure' (1991, 36). This last group includes two vessels that have decoration other than bands of bosses or

punched lines. Elsewhere vessels of this type are either discussed separately, such as Biala (Gedl 2001, 20) or with the main group of decorated vessels, such as Velem (Patay 1990, 61) and one of the vessels from Jenišovice itself (Kytlicová 1991, 46: nr. 26). A review of these recent schemes suggests that the Jenišovice-Type can be divided into two groups: 'decorated' and 'undecorated'. The decorated vessels can be further sub-divided into: vessels with handles, including those from Altensittenbach and Haunstetten (nrs. 26 and 28A in Jacob 1995); vessels without handles; Novotná's Variant: Sîneorgiu de Pădure including the examples from Biala, Velem, Jenišovice (Kytlicová 1991, nr. 26), and a further example from Greng in Switzerland (Thrane 1975, 80); and, Kytlicová's *Nebenform*. The undecorated vessels can be subdivided to include Patay's Nádudvar Variant.

- 6.1.13 The Jenišovice-Type vessel from Tamlaght should be considered as similar to Thrane's Variant 3, due to the V-shaped foot-ring, line of bosses around neck and two lines of bosses around the body. Thrane lists similar vessels from Dahmen and Kl. Luckow, Hermsdorf (Seiffenau), Jenišovice, Biskupice, Biernaccice and Øgemosen 1. Of the examples mapped by Thrane (1965, 171) this group of vessels all lie to the north of the Carpathians on the northern European plain.

Copper alloy ring

- 6.1.14 The function of the ring is uncertain, however, the large differential wear facet on the inside of the ring is consistent with its use for suspension. It is uncertain whether it was originally associated with the sword, the Fuchsstadt-Type or the Jenišovice-Type vessels.

6.2 Circumstances of deposition

- 6.2.1 Excavation suggested that the hoard was both deliberately and carefully deposited. The sword was lying in a near horizontal position when it was recovered, suggesting that it may have been laid onto the surface of the ancient bog. The smaller of the two vessels was placed into the larger vessel and then they were also carefully deposited in a position aligned with the orientation of the sword. It is probable that the sword's handle was dismantled prior to its deposition as none of its nine rivets were recovered despite a comprehensive sampling strategy. It is not certain whether the handle of the Jenišovice-Type vessel was still attached at the time of deposition. Although the handle of the sword was fragmented and its blade slightly bent it is uncertain whether this damage occurred at the point of deposition or during subsequent cultivation of the find spot. The lack of fresh breaks across the sword's handle suggests this damage did not occur during the discovery and lifting of the hoard. The impression of the Jenišovice-Type vessel preserved in peat lining the Fuchsstadt-Type vessel, suggests that it was not fragmented at the time of deposition (R.Warner pers.comm.). The damage to the Jenišovice-Type vessel probably occurred during subsequent cultivation of the find spot.

6.2.2 Topographically the hoard was located on the margins of an inter-drumlin bog. Excavation suggested that it may have been deposited into the bog from an adjacent area of drier high ground, although it was not clear whether this was a small area of raised ground within the bog or the edge of the drumlin's slope. The hoard was also located immediately adjacent to two conjoined features (Context No.107) which have been identified as possible tree root tracks. Stratigraphically, it is not possible to demonstrate that these features were contemporary with the deposition of the hoard. However, if they were, then the position of the possible tree may have been significant in selecting the location of the hoard's deposition. Given the small size of the trench, however, little interpretive weight can be placed on the apparent coincidence of the hoard's location and the possible tree root tracks.

6.3 *Chronology*

6.3.1 The three datable elements of the hoard, that is the Class 3 sword (i) and the Fuchsstadt-Type (ii) and Jenišovice-Type (iii) vessels, suggest that the hoard dates to the Roscommon phase of the Irish Late Bronze Age (c.1150 – c.1000 BC). A review of the dating evidence for each of these artefacts (see above), indicates no reason to suggest that they might have significantly different dates from each other. The most reliable dating is that for the Fuchsstadt (ii) and Jenišovice (iii) vessels, which confirms the slightly more speculative date for the Class 3 swords, which was current prior to the discovery of the Tamlaght hoard. Interestingly, the Roscommon phase date for the hoard is the same as that of the adjacent Late Bronze Age sites within the Navan Complex of Haughey's Fort and the King's Stables.

6.4 *Tamlaght Hoard in Context*

6.4.1 As noted above, the date of the Tamlaght hoard suggests that it is contemporary with the construction and occupation of Haughey's Fort and the King's Stables. Haughey's Fort is a trivallate hillfort whose elliptical shape has a maximum diameter of c.340 metres (for details of recent excavations at the site cf. Mallory 1991; Mallory 1995; Mallory, Moore and Canning 1996). A programme of high precision radiocarbon dating of samples taken from the site suggests that occupation began c.1100 BC and the site was probably abandoned within a century (Mallory 1995, 85).

6.4.2 It is possible that a sheet copper alloy fragment recovered from Feature 277, one of a series of deep pits in the interior of Haughey's Fort (i.e. Mallory 1991, 21, fig.16.5; Mallory 1995, 81, pl.22), is part of a handle from a Jenišovice-Type vessel (R.Warner pers.comm.). These pits have been interpreted as possibly being settings for a double timber-ring

structure which was subsequently dismantled. It is suggested that once the posts were removed from the pits they were filled with occupational debris from the site. Charcoal from one of the adjacent pits produced a radiocarbon date, calibrated at 95.4% probability, of 1260 to 910 cal BC (Mallory 1995, 78; Lab. No. UB-3386). This date would be consistent with the Continental dating evidence for the Jenišovice-Type. Mallory has argued that the double-ringed timber structures at Haughey's Fort, combined with the absence of any evidence for domestic structures, suggests that the site was primarily a focus of ritual activity (1995, 84). In addition to the possible Jenišovice-Type handle, material recovered from excavations at the site included a cup-and-ring marked stone that was probably votively deposited at the site (Aitchison 1998; Corlett 2000; Lynn 2003, 69, fig.42).

- 6.4.3 The King's Stables is an artificial pool, approximately 25 metres in diameter, located on the northeastern foot of the drumlin upon which Haughey's Fort was built upon. The composition of recovered artefacts, which included mould fragments for swords with leaf-shaped blades, a large amount of animal bone and the facial part of a possibly redeposited human cranium, led the excavator to conclude that the site was a focus for ritual deposition and activity (Lynn 1977, 54-56). Charcoal from the old ground surface sealed by the site's enclosing bank produced a radiocarbon date calibrated at 95.4% probability of 1130 BC to 790 BC (Lynn 1977, 53, Lab. No. UB-2123), whilst two radiocarbon dates were derived from twigs recovered from basal layers of the pools, which calibrated at 95.4% probability range in date from 1320 BC to 1010 BC (Lynn 1977, 53, Lab. No. UB-2157) and 900 BC to 410 BC (Lynn 1977, 53, Lab. No. UB-2124). This series of slightly ambiguous dates is conventionally interpreted, when combined with the artefactual evidence, as indicating that activity took place at the site c.1000 BC (Lynn 2003, 54).
- 6.4.4 The only other possible contemporary monument in the vicinity of the Tamlaght hoard is the apparently interrupted, double linear ditch feature, extending over a distance of c.1.7 kilometres and originally identified by aerial photography (Hartwell 1991, 6-7, 8, figs.2-3, nos.NGRS 30, 77-80). A number of sherds of Late Bronze Age pottery were recovered from the basal fill of the western ditch of this feature during limited excavations undertaken by Malachy Conway in 1995 (Mallory and Lynn 2002, 536-537). Unfortunately, the pottery is not closely dated and it cannot be suggested with any confidence that the monument is contemporary with Haughey's Fort, the King's Stables and the Tamlaght hoard.
- 6.4.5 Mallory has argued that as the dates for Haughey's Fort and the King's Stables are broadly identical, it is probable that the two sites were contemporary and also related in social terms (1995, 84). That there is a possible entrance through the middle ditch of Haughey's Fort aligned with the King's Stables (Mallory 1995, 84) adds weight to Mallory's interpretation. Given the contemporaneity and close proximity of the Tamlaght hoard to both Haughey's Fort and the King's Stables, it is likely that members of the same community

who constructed both sites, were probably also responsible for the deposition of the hoard. Previously the eleventh to twelfth century BC phase of activity in the Navan area has been perceived as one of ritual activity and votive deposition in sacred spaces formalised by artificial enclosures. The discovery of the Tamlaght hoard suggests that votive deposition was also being undertaken in informal, natural locations at this time, and that a wider range of ritual activity than has hitherto been recognised was taking place.

- 6.4.6 A number of stray finds known from the Navan area, and published in the existing schedules of finds (Warner 1986; Warner 1994), have been dated to the Late Bronze Age. The validity of some of the 'Navan' provenances of these stray finds, especially those recovered during the nineteenth and early twentieth century, is questionable. Cormac Bourke has highlighted an example of forged antiquities being given a false 'Navan' provenance during the nineteenth century (cf. Anon. 1990, 45) and, the possibility that some of the artefacts listed in the schedules of stray finds from the Navan Complex have been given a false provenance to aid their sale cannot be discounted (for doubts about the validity of both 'Navan Rath' and 'near Armagh' provenances cf. Collins 1959, 51; Eogan 2000, 21).
- 6.4.7 Antiquities previously included in the schedule of stray finds from the Navan area which have been rejected include the contents of the Craig Collection (i.e. Warner 1986, nos.2-3, 5-6, 9-12 and 27-28). This collection, which was partly acquired by Armagh Museum in 1939, is said to have consisted of 37 artefacts which were found together near Navan Fort, just west of Armagh (Paterson and Davies 1940, 70, fn.1). Given the wide date range of the extant material from this collection, that it came from a single source must be doubted. Eogan has previously expressed doubt over the antiquity of the sunflower pin's stem (1974, 111) and Ramsey excluded the side-looped spearhead from the collection in his analysis of Middle Bronze Age metalwork (1989), suggesting that they both had doubts about the integrity of the collection. If details of the collection's association are demonstrably incorrect, then little, if no, faith can be placed in its reputed provenance (indeed Ramsey has explicitly rejected it cf. 1989, 171).
- 6.4.8 Those stray finds of definite or possible Late Bronze Age date which can be provenanced to the Navan area with some degree of certainty have been tabulated (Table Four).

Description	Accession No.	Grid Reference	Selected Bibliographical References
Late Bronze Age			
Copper alloy socketed axe (Class 11D). Part of the Read Collection reportedly 'found in, or near, Navan Fort'.	CM 1922.1289A	-	Warner 1986, 7, no.13; Eogan 2000, 140-141, no.1331, pl.74
Possibly Late Bronze Age			
Amber bead. From 'Navan Fort'	NMI 1906:131	-	Warner 1986, 8, no.35
Gold bracelet? Decorated. Found 'near Crieve-row' about 1770.	Lost	-	Stuart 1819, 512, pl.no.2; Warner 1986, 8, no.36
Late Bronze Age or Early Iron Age			
Three fragments of coarse pottery. Found immediately outside Navan enclosure on the east.	UM	-	Warner 1986, 7, no.16

Table Four: Finds of definite or possible Late Bronze Age date from within the Navan landscape (after Warner 1986; Warner 1994) (UM = Ulster Museum; NMI = National Museum of Ireland; CM = Cambridge University Museum of Archaeology and Anthropology)

6.5 Other possible examples of exotic metalwork in the Navan Complex

6.5.1 Apart from the possible Jenišovice-Type vessel handle from Haughey's Fort, the only other possible example of exotic Late Bronze Age metalwork in the area is the disc-headed pin of Sunflower type from Haughey's Fort. This pin was recovered from an upper fill (layer C) of what is possibly either one of the terminals of the inner ditch or one of a series of pits marking the inner perimeter of the site (Mallory, Moore and Canning 1996, 12, fig.13; Mallory and Lynn 2002, 535). Due to the absence of insular prototypes, Eogan considered that the Irish disc-headed pins were derived from similar examples from the western Baltic or southern Scandinavian region where they are a common Period V type (1974, 93-96). The associated examples of disc-headed pins in Ireland date to the Dowris metalwork phase (Eogan 1974, 95-97), which is broadly consistent with the North European Period V, suggesting that, even if it is an early imported example of the type, it is probably later in date than the Tamlaght hoard, despite the hoard's general contemporaneity with the date for Haughey's Fort. Given the good condition of the pin from Haughey's Fort, it is unlikely to have been residually deposited in what is presumably a relatively late upper ditch fill. Consequently, its probable later date should be considered consistent with its context of deposition.

6.5.2 It has been suggested that the disc-headed pin from Haughey's Fort was imported from the western Baltic region (R.Warner pers.comm.). Even if the pin is not an import, Eogan's identification of the western Baltic region as an area which had contacts with Ireland in the

Late Bronze Age does highlight a potential source for the Fuchsstadt-Type vessel and Jenišovice-Type vessel in the Tamlaght hoard.

- 6.5.3 The importance of contacts between Ireland and north-west Germany and southern Scandinavia in the Late Bronze Age, as largely demonstrated by the evidence for the importation of amber and metalwork types, has been emphasised by Eogan (1994, 95-96; 1995), although the significance of these contacts has been questioned by some (e.g. Butler 1963, 228-229; Savory 1971, 258; Thrane 1995). Eogan identified evidence for external contacts in both the Bishopsland and Dowris phases, but considered there was a near hiatus in such contacts during the intermediate Roscommon phase (Eogan 1995, 130-133). Prior to the discoveries outlined in the present study, the earliest contacts with southern Scandinavia were dated to the Dowris Phase and consisted of imported amber, disc-headed pins with both straight and bent stems, 'dress fasteners', annular bracelets, horns, and possibly gold vessels and boxes, the Latoon disc, gorgets, 'sleeve fasteners' and U-notched shields (Eogan 1995, 133). In addition, Eogan speculated that it was possible that some wide spread European decorative features found on Irish objects, such as concentric circles and conical projections, had their background in the Nordic region. The evidence from the Tamlaght hoard, combined with the possible Jenišovice vessel handle from Haughey's Fort, goes some way towards dispelling Eogan's suggestion of a hiatus in external contacts during the Roscommon phase. It also presents a horizon of limited imports, possibly derived from the Baltic region, which prefigure the wider range of imported items dated to the subsequent Dowris phase.
- 6.5.4 There are no known examples of Fuchsstadt-Type or Jenišovice-Type vessels from Britain. A small number of cast copper alloy bowls, of broadly similar date, have been identified in Scotland (Coles 1959-60) and at Welby in England (Powell 1950), although these are unrelated to the sheet copper alloy vessels. An account in the *Aberdeen Journal* for the 29th March 1843 does refer to the finding of "... two bronze vessels, capable of holding about two-thirds of a pint, of neat workmanship, cast in rather an elegant shape, and with a handle on one side ..." at the Hill of Knockie, Glentanner (Anon.1942-43, 189). These were recovered from beneath a cairn along with copper alloy spearheads, axeheads, bracelets and rings. While the size and morphology (single handles) suggests a similarity with Fuchsstadt-Type or Jenišovice-Type vessels, as does the apparent association with a Late Bronze Age hoard, the current whereabouts of these items is not known. Some general occurrences of Nordic material in Scotland in the Late Bronze Age are given in Coles (1959-60).
- 6.5.5 It is easier to identify evidence for long-term contacts in prehistory than it is to interpret their nature and cause. It is not certain whether the exotic items in the Tamlaght hoard are the product of the movement of people, trade or commercial contacts, spread of ritual

practices, or gift exchange. However, the number of exotic items dating to the Roscommon and Dowris phases of the Late Bronze Age are so slight that it is not likely that they represent the product of intensive trading or exchange across the North Sea. As the relevant Scandinavian types do not occur in Britain, a system of direct exchange routes probably existed (Eogan 1995, 134), despite the difficulties inherent in direct crossings of the North Sea during the Bronze Age (Thrane 1995, 149). Eogan's suggestion that the northeast of Ireland may have been an area that initially received south Scandinavian types as the primary form of disc-headed pins and 'sleeve fasteners' are more numerous in that area (Eogan 1995, 134) is strengthened by the recovery of the Tamlaght hoard and the identification of a possible Jenišovice vessel handle from Haughey's Fort.

7 Recommendations for further work

7.1 *Introductory Comments*

7.1.1 The discovery, and subsequent excavation, of the Tamlaght hoard justifies full and detailed publication. The hoard's importance lies in both its unique association of a Class 3 sword with relatively closely dated Continental artefact types, and its potential for informing current interpretations of the adjacent, and broadly contemporary, sites of Haughey's Fort and the King's Stables. It is proposed that publication should be at two levels. Firstly, a short article suitable for inclusion in *Archaeology Ireland* should be prepared. As well as outlining the character of the hoard and the circumstances of its discovery and investigation, it is intended that this popular account will also include a section on the recently revised definition of Treasure in Northern Ireland. The popular account will be jointly authored by Declan Hurl, Philip Macdonald, John Ó Néill and Richard Warner. It is anticipated that full academic publication will be in a peer-reviewed journal such as the *Journal of Irish Archaeology* or the *Proceedings of the Prehistoric Society* and will be jointly authored by Philip Macdonald, John Ó Néill and Richard Warner.

7.1.2 As Richard Warner will be involved in the full academic publication of the hoard, the following recommendations for further work have been compiled with his co-operation and at his request.

7.1.3 In order to prepare the two reports for publication, it is recommended that: detailed illustrations of the hoard's constituent parts are prepared; further study of the possible scabbard (JON and PM); a pollen core is taken adjacent to the hoard site (RW); and four AMS radiocarbon dates are taken (RW). A time-table for the completion of this work has been proposed (Table Five).

7.2 *Programme of illustration work of the hoard's constituent parts [to be completed by September 2004]*

7.2.1 Illustrations will need to be prepared of the Class 3 sword, Fuchsstadt-Type vessel, Jenišovice-Type vessel and the ring. For the sake of consistency, these illustrations should be prepared in the style used in the *Prähistorische Bronzefunde* series at a scale of 2:5. As these artefacts are currently being held by the Ulster Museum, access to the artefacts and suitable space in which to prepare the illustrations will be provided by the Museum. Illustration of the hoard cannot be undertaken until the conservation process is completed (R.Warner pers.comm.). The conservation programme is due to finish by mid-summer 2004 (R.Warner pers.comm.).

7.3 *Further study of the possible scabbard or sheath (Small Find No.1013) [to be completed by September 2004]*

7.3.1 In order to correctly inform the coroner of the composition of the hoard, and by extension the extent of the Treasure, it is necessary to undertake further study of the possible scabbard or sheath. To confirm whether or not the black organic surface is an artefact, it needs to be studied by someone suitably qualified to recognise ancient leather. Microscopic examination would establish whether the possible scabbard had a cellular structure (suggesting it was made from wood or bark) or whether hair follicles were present (suggesting it was made from leather). If microscopic examination was inconclusive, a simple protein test, such as a Biuret Test, would establish whether the sample was derived from animal or plant material.

7.4 *Pollen core adjacent to the hoard site [to be completed by September 2004]*

7.4.1 Analysis of a pollen core adjacent to the hoard site may provide evidence for constructing an environmental context for the hoard's deposition. It is possible that a charcoal-rich horizon within the pollen core would indicate the level at which Haughey's Fort was occupied. The results of such an analysis may be of limited value; excavation and the condition of the hoard suggest that cultivation was undertaken to a depth below that of the deposition of the hoard.

7.5 *Programme of four AMS radiocarbon dates*

7.5.1 It is proposed that two AMS dates, derived from the peat recovered from the inside of the Fuchsstadt-Type vessel, and two AMS dates, derived from peat underlying the position of the hoard, are undertaken. These dates would form two 'before' and two 'after' dates for the hoard's deposition. The proposed AMS dating programme would compliment the typological dating of the hoard.

Tasks	June – September 2004	October 2004
Preparation of illustrations		
Further study of possible scabbard		
Analysis of pollen core		
AMS radiocarbon dating		
Preparation of popular account		
Preparation of full academic report		

Table Five: Proposed time-table for completion of the proposed programmes of post-excavation and publication (areas shaded grey show period during which work is to be undertaken and completed)

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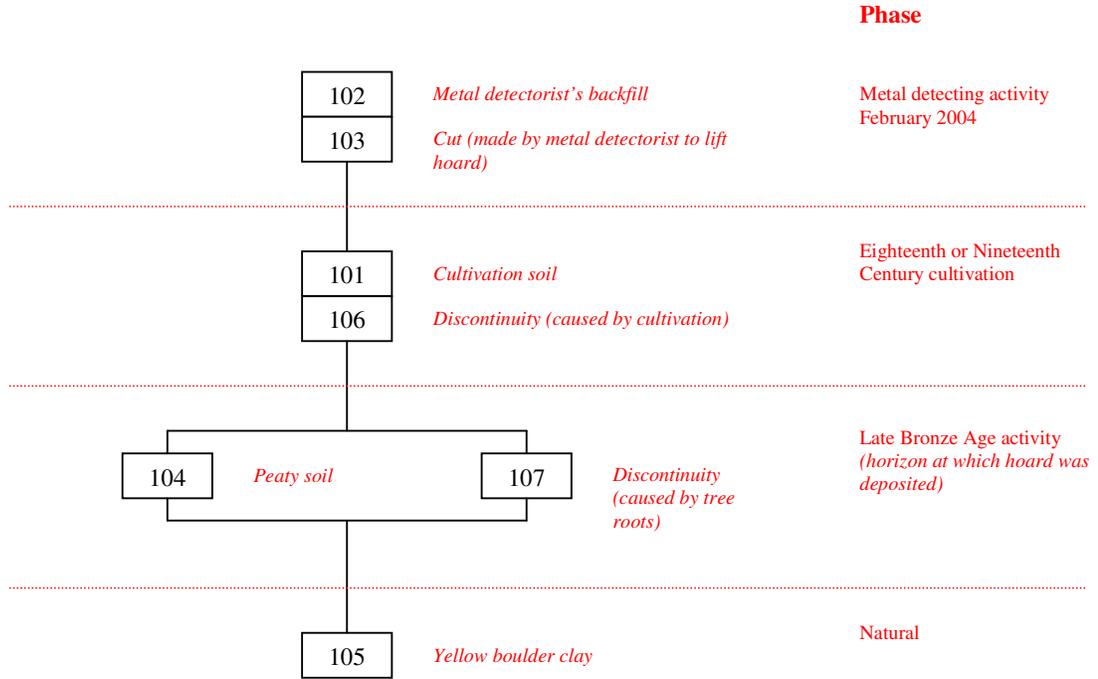
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Appendix One: Context List

Context No. Description

101	Cultivation Soil
102	Metal detectorist's backfill
103	Cut (made by metal detectorist to lift hoard)
104	Peaty soil
105	Yellow boulder clay
106	Discontinuity (caused by cultivation)
107	Discontinuity (caused by tree roots)

Appendix Two: Harris Matrix



Appendix Three: Photographic Record

35mm Colour Slide

Film One: Sensia Fujichrome 200.

1st March 2004

- 1 Exposed surface of yellow boulder clay (105), following removal of peaty soil (104) (except for block containing the possible scabbard (Small Find No.1013)), looking south.
- 2 Exposed surface of yellow boulder clay (105), following removal of peaty soil (104) (except for block containing the possible scabbard (Small Find No.1013)), looking south.
- 3 Site recording in progress, looking northeast.
- 4 Exposed surface of yellow boulder clay (105), following removal of peaty soil (104) (except for block containing the possible scabbard (Small Find No.1013)), looking north.
- 5 Exposed surface of yellow boulder clay (105), following removal of peaty soil (104) (except for block containing the possible scabbard (Small Find No.1013)), looking north.
- 6 Exposed surface of yellow boulder clay (105), following removal of peaty soil (104) (except for block containing the possible scabbard (Small Find No.1013)), looking west.
- 7 Exposed surface of yellow boulder clay (105), following removal of peaty soil (104) (except for block containing the possible scabbard (Small Find No.1013)), looking west.
- 8 Possible scabbard (Small Find No.1013) exposed in block of peaty soil (104), looking south.
- 9 Possible scabbard (Small Find No.1013) exposed in block of peaty soil (104), looking south.

Digital Images

(taken by CAF [DSCN5573-5610] and Richard Warner, Ulster Museum [DSCN0028-0045])

27th February 2004

- | | |
|----------|---|
| DSCN5573 | Partially excavated cut made by metal detectorist (103), looking east. |
| DSCN5574 | Excavation of cut made by metal detectorist (103) in progress, looking northeast. |
| DSCN5575 | Excavation of cut made by metal detectorist (103) in progress, looking southeast. |
| DSCN5576 | Partially excavated cut made by metal detectorist (103), looking east. |
| DSCN5577 | Partially excavated cut made by metal detectorist (103), looking north. |
| DSCN0028 | Cut made by metal detectorist (103), following excavation, looking east. |
| DSCN0029 | Cut made by metal detectorist (103), following excavation, looking east. |
| DSCN0030 | Cut made by metal detectorist (103), following excavation, looking east. |

1st March 2004

- DSCN0032 General shot of site from adjacent field, looking east.
- DSCN5578 Excavation following removal of cultivation soil (101), looking southwest.
- DSCN5579 Excavation following removal of cultivation soil (101), looking northeast.
- DSCN5580 Excavation of peaty soil in progress, looking southeast.
- DSCN5581 Excavation of peaty soil in progress, looking south.
- DSCN5582 Excavation of peaty soil in progress, looking north.
- DSCN0033 Exposed surface of yellow boulder clay (105), following removal of peaty soil (104) (except for block containing the possible scabbard (Small Find No.1013)), looking west.
- DSCN0034 Exposed surface of yellow boulder clay (105), following removal of peaty soil (104) (except for block containing the possible scabbard (Small Find No.1013)), looking south.
- DSCN0035 Exposed surface of yellow boulder clay (105), following removal of peaty soil (104) (except for block containing the possible scabbard (Small Find No.1013)), looking southwest.
- DSCN5583 Exposed surface of yellow boulder clay (105), following removal of peaty soil (104) (except for block containing the possible scabbard (Small Find No.1013)), looking south.
- DSCN5584 Exposed surface of yellow boulder clay (105), following removal of peaty soil (104) (except for block containing the possible scabbard (Small Find No.1013)), looking south.
- DSCN5585 Exposed surface of yellow boulder clay (105), following removal of peaty soil (104) (except for block containing the possible scabbard (Small Find No.1013)), looking north.
- DSCN5586 Exposed surface of yellow boulder clay (105), following removal of peaty soil (104) (except for block containing the possible scabbard (Small Find No.1013)), looking north.
- DSCN5587 Exposed surface of yellow boulder clay (105), following removal of peaty soil (104) (except for block containing the possible scabbard (Small Find No.1013)), looking north.
- DSCN5588 General shot of site recording in progress, looking northeast.
- DSCN5589 General shot of site recording in progress, looking north.
- DSCN5590 Exposed surface of yellow boulder clay (105), following removal of peaty soil (104) (except for block containing the possible scabbard (Small Find No.1013)), looking northwest.
- DSCN5591 General shot of site recording in progress, looking east.

- DSCN5592 Exposed surface of yellow boulder clay (105), following removal of peaty soil (104) (except for block containing the possible scabbard (Small Find No.1013)), looking east.
- DSCN0036 Possible scabbard (Small Find No.1013) exposed in block of peaty soil (104), looking west.
- DSCN0037 Possible scabbard (Small Find No.1013) exposed in block of peaty soil (104), looking west.
- DSCN0038 Possible scabbard (Small Find No.1013) exposed in block of peaty soil (104), looking west.
- DSCN0039 Detail of possible scabbard (Small Find No.1013) exposed in block of peaty soil (104), looking west.
- DSCN0040 Detail of possible scabbard (Small Find No.1013) exposed in block of peaty soil (104), looking west.
- DSCN0041 Detail of possible scabbard (Small Find No.1013) exposed in block of peaty soil (104), looking west.
- DSCN5593 Possible scabbard (Small Find No.1013) exposed in block of peaty soil (104), looking north.
- DSCN5594 Possible scabbard (Small Find No.1013) exposed in block of peaty soil (104), looking east.
- DSCN5595 Possible scabbard (Small Find No.1013) exposed in block of peaty soil (104), looking east.
- DSCN5596 Possible scabbard (Small Find No.1013) exposed in block of peaty soil (104), looking northeast.

2nd March 2004

- DSCN5597 Block of peaty soil (104), including possible scabbard (Small Find No.1013), looking west.
- DSCN5598 Block of peaty soil (104), including possible scabbard (Small Find No.1013), looking south.
- DSCN5599 Block of peaty soil (104), including possible scabbard (Small Find No.1013), looking south.
- DSCN5600 Block of peaty soil (104), including possible scabbard (Small Find No.1013), looking west.
- DSCN5601 Block of peaty soil (104), including possible scabbard (Small Find No.1013), looking west.
- DSCN5602 Block of peaty soil (104), including possible scabbard (Small Find No.1013), looking west.
- DSCN0042 Construction of box around lifted block of peaty soil (104), including possible scabbard (Small Find No.1013), looking northeast.

- DSCN0043 Construction of box around lifted block of peaty soil (104), including possible scabbard (Small Find No.1013), looking east.
- DSCN0044 Construction of box around lifted block of peaty soil (104), including possible scabbard (Small Find No.1013), looking east.
- DSCN0045 Construction of box around lifted block of peaty soil (104), including possible scabbard (Small Find No.1013), looking west.
- DSCN5603 Construction of box around lifted block of peaty soil (104), including possible scabbard (Small Find No.1013), looking south.
- DSCN5604 Construction of box around lifted block of peaty soil (104), including possible scabbard (Small Find No.1013), looking south.
- DSCN5605 Construction of box around lifted block of peaty soil (104), including possible scabbard (Small Find No.1013), looking south.
- DSCN5606 Construction of box around lifted block of peaty soil (104), including possible scabbard (Small Find No.1013), looking south.
- DSCN5607 Trampled yellow boulder clay surface (105) following removal of block of peaty soil (104), looking south.
- DSCN5608 Trampled yellow boulder clay surface (105) following removal of block of peaty soil (104), looking south.
- DSCN5609 Construction of box around lifted block of peaty soil (104), including possible scabbard (Small Find No.1013), looking south.
- DSCN5610 Construction of box around lifted block of peaty soil (104), including possible scabbard (Small Find No.1013), looking south.

Appendix Four: Field Drawing Register

Drawing No.	Scale	Type	Description
1	1:100	Plan	Site survey
2	1:1000	Plan	Site survey and slope profile
3	1:10	Plan	Plan of trench following removal of peaty soil (Context No.104)
4	1:10	Section	East-facing section of trench

Appendix Five: Small Finds Register

Small Find No.	Description	Comments	Context No.
1001	Copper alloy sword fragment*	Recovered during processing of sample No.15. Held by the Ulster Museum.	102
1002	Copper alloy sword fragment*	Recovered during processing of sample No.15. Held by the Ulster Museum.	102
1003	Copper alloy vessel fragment*	Recovered during processing of sample No.15. Held by the Ulster Museum.	102
1004	Copper alloy vessel fragment*	Recovered during processing of sample No.15. Held by the Ulster Museum.	102
1005	Copper alloy vessel fragment*	Held by the Ulster Museum.	102
1006	Flint (thermal shatter)		101
1007	Flint (thermal shatter)		101
1008	Flint (thermal damage)		101
1009	Pot sherd		101
1010	Pot sherd		101
1011	Pot sherd		101
1012	Coal	Two fragments (modern break)	101
1013	Possible organic scabbard*	Lifted as a block. Held by the Ulster Museum.	104
1014	Copper alloy sword fragment*	Recovered during processing of sample No.15. Held by the Ulster Museum.	102
1015	Copper alloy vessel fragments*	Recovered during processing of sample No.15. Held by the Ulster Museum.	102
1016	Copper alloy vessel fragment*	Recovered during processing of sample No.5. Held by the Ulster Museum.	104
1017	Copper alloy vessel fragments*	Recovered during processing of sample No.5. Held by the Ulster Museum.	104

* = Items which are associated with the Late Bronze Age hoard and, therefore, should be considered to be part of the potential Treasure.

Appendix Six: Samples Register

Sample No.	Context No.	Comments	No. of bags	Purpose	Processed ?
1	102	From northern end of detectorists trench	1	Artefact recovery	Yes
2	104	Area immediately to the east of the vessels	1	Artefact recovery	Yes
3	104	Area immediately to the west of the vessels	1	Artefact recovery	Yes
4	104	Area immediately below the vessels	1	Artefact recovery	Yes
5	104	Area immediately below the vessels	1	Artefact recovery	Yes
6	104	From immediate vicinity of vessels	1	Artefact recovery	Yes
7	104	From immediate vicinity of vessels	1	Artefact recovery	Yes
8	104	From immediate vicinity of vessels	1	Artefact recovery	Yes
9	104	From immediate vicinity of vessels	1	Artefact recovery	Yes
10	104	From immediate vicinity of vessels	1	Artefact recovery	Yes
11	104	From immediate vicinity of vessels	1	Artefact recovery	Yes
12	104	From immediate vicinity of vessels	1	Artefact recovery	Yes
13	104	From immediate vicinity of vessels	1	Artefact recovery	Yes
14	104	From immediate vicinity of vessels	1	Artefact recovery	Yes
15	102	-	1	Artefact recovery	Yes
16	104	From area immediately to the east of the vessels	1	Artefact recovery	Yes



Plate One: Possible remains of an organic scabbard or sheath (Small Find No.1013) within the undisturbed peaty subsoil (Context No.104).



Plate Two: Excavation and lifting of the possible scabbard or sheath (Small Find No.1013) as a block in progress.



Plate Three: Exposed surface of yellow marl / boulder clay (Context No.105), following removal of peaty soil (Context No.104) except for block containing the possible scabbard (Small Find No.1013), looking south.

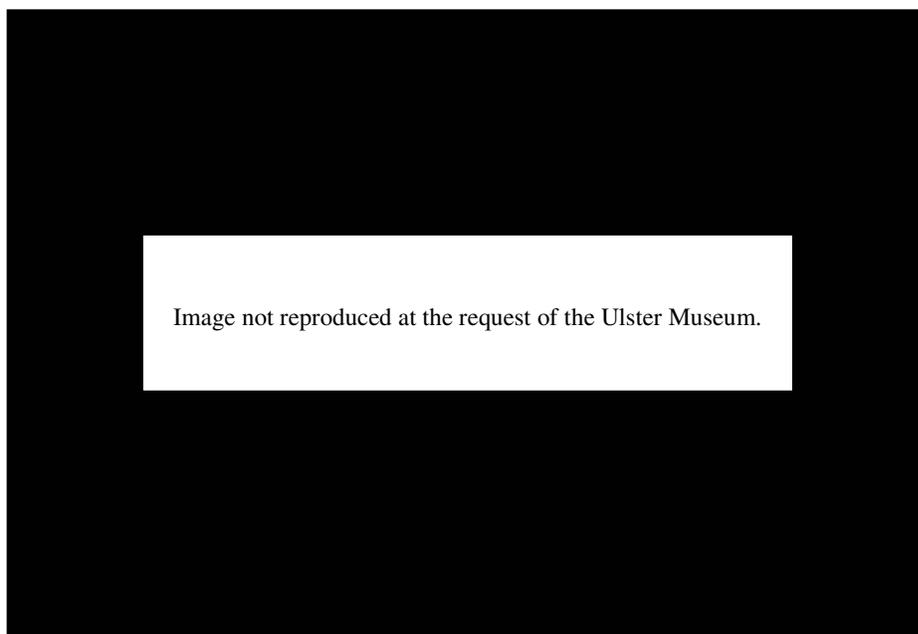


Plate Four: Copper alloy sword (Eogan's Class 3) (*Ulster Museum*).

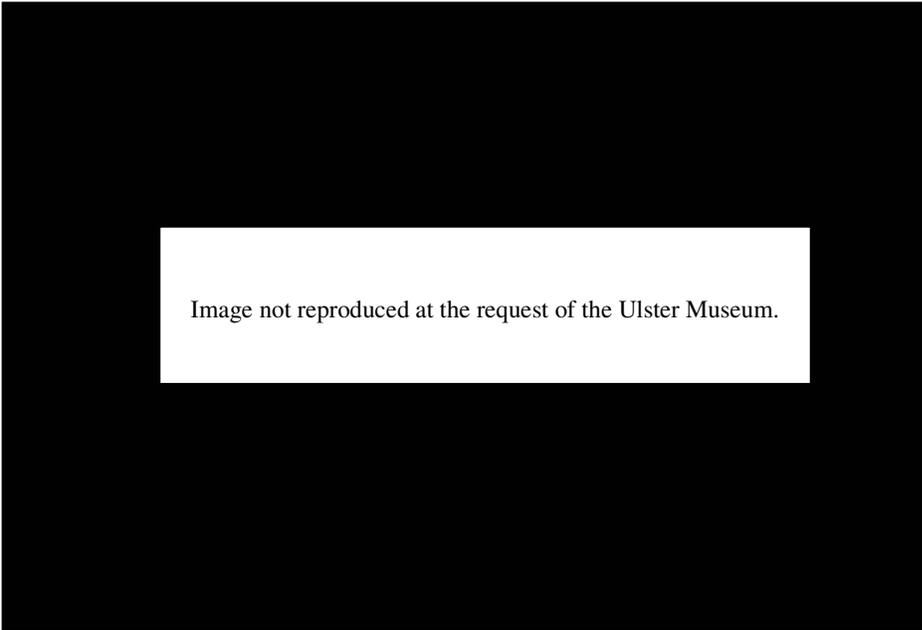


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Plate Five: Detail of the Fuchsstadt-type vessel (*Ulster Museum*).

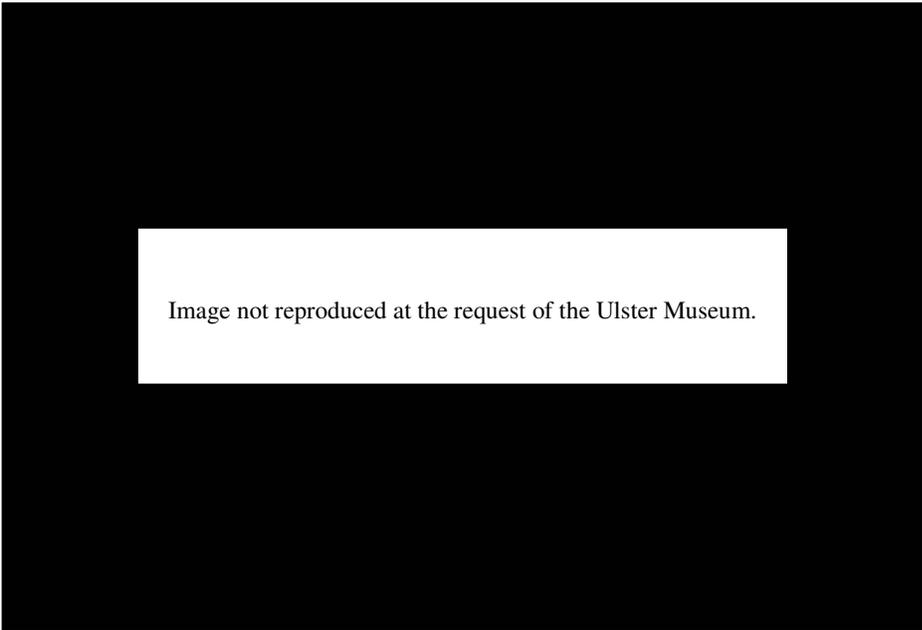


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Plate Six: Fragment of the rim of the Jenišovice vessel (*Ulster Museum*).

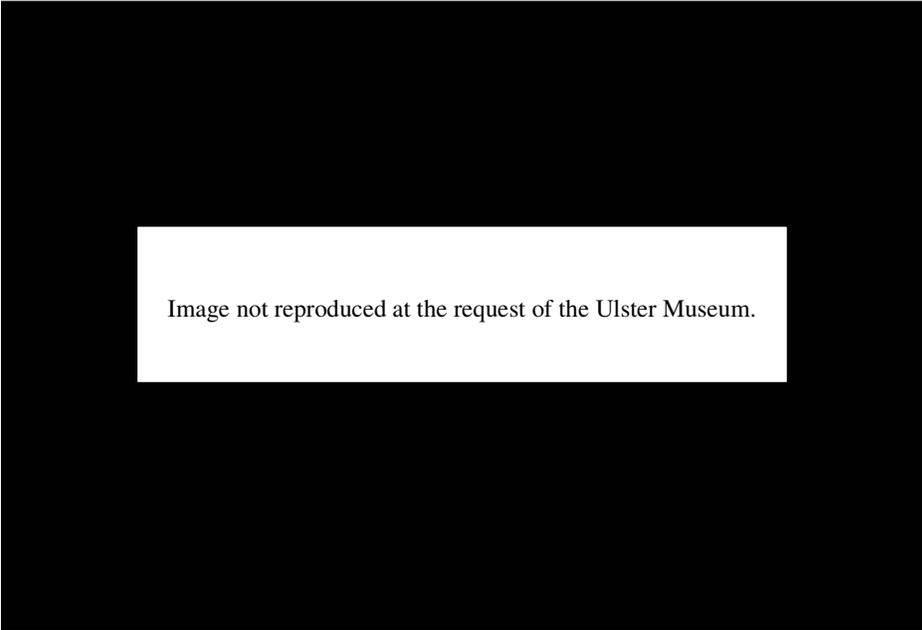


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Plate Seven: Copper alloy ring (left) and copper alloy sheet handle of the Jenišovice vessel (right)
(*Ulster Museum*).