The Bronze Swords of Ireland

Colquhoun, Ian

THE BRONZE SWORDS OF IRELAND

IAN COLQUHOUN

A thesis presented posthumously for the degree of
Doctor of Philosophy
Department of Archaeology
University of Durham
England
June 2015

THE BRONZE SWORDS OF IRELAND

IAN COLQUHOUN

ABSTRACT

The leaf shaped bronze sword is one of the most distinctive and evocative weapons of prehistory. The type appears throughout Western Europe in the final centuries of the second millennium BC only to disappear as an artefact type with the widespread introduction of iron weapons hundreds of years later. The widespread distribution of the bronze sword points to the increasingly martial nature of Late Bronze Age society, a feature echoed in Ireland by the appearance of defensive landscape features.

The expansion and development of Irish archaeology in the last fifteen years has rather left metalwork and swords, in particular, behind, as the main focus has moved away from artefacts towards settlement. It is only in recent years that interest has revived in the Bronze Age and bronze metalwork. Over six hundred swords have been recovered from Ireland, the vast majority being nineteenth century finds. Most belong to the equivalent of the Ewart Park type in Britain – but there are significant numbers of early flange hilted weapons and of the late Gundlingen type.

This thesis represents the first major study of the development and context of the Irish swords since George Eogan's work (Eogan 1964). It examines, in addition to those weapons listed in Eogan's catalogue, all of the more recent discoveries, and takes as the central theme the biography or life cycle of a sword, from manufacture through to use and deposition, with the emphasis on the latter. The thesis represents a companion to the comprehensive analysis and catalogue of Bronze Age swords in Britain, co-authored by myself and Colin Burgess (Colquhoun and Burgess 1988).

Following the death of Ian Colquhoun on 7th June 2013, the thesis was compiled, formatted and submitted posthumously by his supervisors – Dr Benjamin Roberts and Dr Tom Moore.

Statement of Copyright

The Bronze Swords of Ireland
Ian Colquhoun

Posthumous PhD Thesis Submission Statement

Dr Benjamin Roberts
Dr Tom Moore

Introduction

The thesis by Ian Colquhoun entitled 'The Bronze Age Swords of Ireland' is submitted posthumously here by his supervisors Dr. Benjamin Roberts and Dr. Tom Moore. Ian had started his PhD as a part-time student in October 2007. Due to treatment for the sudden onset of cancer in September 2010, he was granted three periods of concessions from his PhD: October 1st 2010- March 1st 2011; March 2nd 2011 – 30th September 2011; and March 22nd - August 2012. His revised submission date would have been October 2016. Despite his illness, Ian continued to work hard on his thesis and data collection, only ceasing work working on it shortly before his passing on June 7th 2013. Following the careful consultation of the Durham University guidelines regarding posthumous PhD submissions and awards and a review of the substantial progress on his PhD made by Ian Colquhoun, the decision was taken by the supervisors and his wife, Carol Colquhoun, to prepare the PhD for posthumous submission.

Preparations for Submission

In line with the Durham University guidelines on the posthumous submission of PhD theses, no additional text, tables, figures or references were added.

The first task undertaken for submission was to compile and organise the text and bibliography. The Title and Table of Contents were taken from the existing PhD thesis text and – following the completion of the PhD thesis submission - page numbers were added. The thesis structure, chapter titles and planned word counts for each chapter had already been outlined in a Thesis progress report dated to 29th February 2012 and the Report for Postgraduate review dated 3rd May 2013. The available text was organised according to this report with the proposed word counts

enabling an assessment on thesis progress to be made (see below). The text for the Abstract, Chapters 1 and 3 was taken from a PhD Thesis outline by Ian Colquhoun dated 8th February 2009. Chapters 4, 5 and 6 had been either completed, or in the case of Chapter 6, was very close to completion. No additional text was added. The bibliography was originally in three parts following Chapters 4, 5 and 6. For the thesis submission, these were amalgamated into a single bibliography. No additional references were added. The font and text size were standardised and page numbers added.

The second task undertaken to prepare for submission was to digitise the substantial catalogue of Bronze Age swords from Ireland that now forms Appendices A-C. The data for the PhD thesis comprises the master spreadsheet (Appendix A), the catalogue of drawn swords (Appendix B) and the catalogue of sword moulds (Appendix C). The first part of the catalogue (Appendix A) is an excel spreadsheet which records the following information: provenance (where known), county (where known), Museum number, collection, Eogan Catalogue number (following Eogan (1965), the last major work on Bronze Age swords in Ireland), Eogan Class, Type (Ian Colquhoun's scheme), status, length, maximum blade width, shoulder width, weight, patina, hilt arrangement, condition, find circumstances, associations, bibliography and research notes. Nothing was added to Appendix A.

The second part of the catalogue (Appendix B) comprises highly detailed 1:1 scale drawings of each sword recorded during his extensive visits to museum collections in Ireland and Britain. These were to be inked later for publication. Digital photos were also taken of each sword though these were not intended for final thesis submission. In total, there were 612 detailed pencil drawings of 584 swords and sword fragments had been prepared by Ian Colquhoun. In addition there are several photocopied drawings (nos. 151, 616, 617, 618) of four swords which were used in the catalogue. The 1:1 scale of the pencil drawings meant that the vast majority could not be scanned in their entirety but could only be scanned in halves, or occasionally thirds. These scans then had to be digitally re-united to form the complete image. This painstaking yet invaluable work was undertaken during November-December 2013 by Dr. Alejandra Gutiérrez, at the behest of the Head of Department, Professor Christopher Gerrard. Each image was subsequently re-sized, numbered and assembled into a

coherent catalogue by Dr. Benjamin Roberts. The numbering system employed to order the sword images is the same numbering system employed by Ian Colquhoun in the master spreadsheet comprising all the details that he had compiled on each sword that forms Appendix A. Each sword drawing had been labelled with an individual museum accession number which could also be found on the master spreadsheet enabling the numbering of sword images to be cross-checked. No additional drawings/images were subsequently added to Appendix B. The third part of the catalogue (Appendix C) comprised the sword moulds. This was added unmodified.

The third task undertaken for submission was to select the supporting material. There are two highly relevant publications by Ian Colquhoun that are submitted together with the PhD thesis. The first is 'The Swords of Britain' – a comprehensive investigation and catalogue of Bronze Age swords in Britain by Ian Colquhoun and Colin Burgess (Colquhoun and Burgess 1988). The second is a book chapter deriving from the PhD thesis by Ian Colquhoun taken from conference proceedings entitled 'Bronze Age Warfare: Manufacture and Use of Weaponry' (Colquhoun 2011 – see Appendix D).

Thesis Progress

As the supervisors of Ian Colquhoun, we propose that the main objectives set out below (and in Chapter 1) of this PhD thesis have been achieved by the submitted text in Chapters 4, 5, 7, 8 and Appendices A-C The supporting publications (Colquhoun and Burgess 1988 – copies available to examiners; Colquhoun 2011 – see Appendix D) demonstrate that many of the gaps in the submitted text had already been published elsewhere by Ian Colquhoun.

1 To establish a biography of the Irish sword (see Chapters 4, 5, 6 and 7)

2 To evaluate how swords started their life cycle (see Chapter 4)

3 To examine the different uses of the sword (see Chapters 5 and 7)

4 To assess the death of the sword, paying particular attention to deposition and location (see Chapter 6)

Data Gathering

At the core of the PhD thesis is the detailed first-hand examination, recording and collection of data relating to each on 719 Bronze Age swords known to have been found in Ireland (see Appendices A-C). This is substantially higher than the Bronze Age sword corpus from Ireland assembled by George Eogan of 623 swords (Eogan 1965). The evidence compiled in Appendices A-C demonstrates that 584 swords have been personally examined, photographed, drawn and fully recorded by Ian Colquhoun during an extensive programme of museum visits throughout Ireland, Britain, Berlin and Copenhagen from May 2009. Financial assistance for these visits was received from the Rosemary Cramp Fund and the Prehistoric Society John Coles Award. This represents over 85% of the total corpus and, given the occasional failure by museum curators to locate listed swords in museum collections (e.g. four registered swords were unable to be located in Cork Museum alone), this percentage should be slightly higher. In addition, he noted in his Report for Postgraduate Review dated 3rd May 2013, that he had access to good drawings or photographs of an additional 50 swords. The swords which had yet to be recorded are primarily in the collections of museums in southern England (Ashmolean, Pitt Rivers, Farnham, Bristol, Devizes, Salisbury, Plymouth and Newcastle), several in Ireland which were not located/available on earlier visits (e.g. Ulster Museum and National Museum of Ireland), and several in private collections.

Writing

The writing for the PhD thesis had been done one chapter at a time with the priority given to the core chapters analysing the data. The total number of words written by Ian Colquhoun encompassing the abstract and chapters but excluding the table of contents and bibliography is 26555. However, when combined with relevant text published elsewhere by Ian relating to Chapter 2 (c. 4500 words) and Chapter 7 (c. 25-30,000 words whose content would make a major contribution to the missing c. 7000 words), the written submission is c. 36-37000 words. The bibliography is

incomplete, yet at c. 130 references still fairly extensive, and encompassing virtually all the references directly relating to Bronze Age swords in Ireland. The PhD thesis 'The Bronze Swords of Ireland' was intended to be complimentary to the comprehensive monograph 'The Swords of Britain' of which Ian Colquhoun was the lead author earlier in his career (Colquhoun and Burgess 1988).

Chapter 1 (Introduction) comprises sub-sections of 'Aims and Objectives' and 'Reasons for the Study'. The former had already been written in summary of c. 300 words by Ian Colquhoun in the Thesis outline document and is reproduced in the submission.

Chapter 2 (History of Research) comprises the text of c. 250 words within the Thesis summary by Ian Colquhoun which is reproduced in this submission. This needs to be taken together with and the more uptodate and extensive section on 'Previous Research and Typology' of c. 1000 words within a chapter entitled 'Irish Swords: Use and Abuse' published by Ian Colquhoun in 2011 (Colquhoun 2011 – see Appendix D). Finally, within Coluqhoun and Burgess (1988) is an extensively referenced and concisely written chapter of over 3500 words entitled 'History of Research' which actually covers past research on Bronze Age swords in both Britain and Ireland (Colquhoun and Burgess 1988, 5-10). It can be therefore demonstrated that the vast majority of Chapter 2 had already been written and published elsewhere.

Chapter 3 (Methodology) had also been outlined in the thesis summary document and totals c. 500 words.

Chapters 4, 5 and 6 encompassing the major stages in the biography of a sword (Birth, Life and Death) have been either completed, or in the case of Chapter 6, was very close to completion. The text from these three chapters totals over 25,000 words and is highly polished and closely referenced. Extensive use is made of examples drawn from the data in Appendices A-C. However, there is only limited use made of figures and tables and there are none of the intended maps as the data gathering was not complete. Discussions between Ian Colquhoun and Dr Tom Moore led to the agreement that a proposed additional chapter (Warfare in Late Bronze Age Ireland) would be incorporated into Chapter 5.

Chapter 7 analysing the typology of the Bronze Age swords in Ireland is only partially complete with over 3000 words of the 10,000 planned words. However, the vast majority of the typological scheme to be used in the thesis is clearly evident. Whilst the Type column of the master spreadsheet (Appendix A) has only been filled in for Gundlingen swords, the vast majority of drawings of the recorded swords had been placed into envelopes labelled with a Type in what Ian had indicated in supervisions was an ongoing classification process (and is therefore not reproduced for this submission). As the Bronze Age sword types and typological schemes in Ireland are closely paralleled in Britain, the majority of the relevant research had already been conducted and published in Colquhoun and Burgess (1988). The internal structure for Chapter 8 with sub-sections on Type, Origins, Dating and Distribution mirrors the earlier publication on Swords of Britain (Colquhoun and Burgess 1988, 11-121). These sections on the Type, Origins, Dating and Distribution alone within this monograph, excluding the catalogue, comprise c. 25-30,000 words. Ian had also conducted a recent concise review of the typology which highlighted minor revisions to the typological scheme published by Eogan (1965) as well as Colquhoun and Burgess (1988) (Colquhoun 2011, 107-110 – see Appendix D). Hence, whilst certain sword types have already been relatively well covered and others either partially covered or not yet present in the submitted text, it can be demonstrated that much of Chapter 8 had already been published elsewhere by Ian Colquhoun.

Chapter 8 (Discussion) and Chapter 9 (Conclusions) had yet to be written.

Conference Papers, Publications and Tutoring

Ian Colquhoun presented papers relating to his PhD at: the Bronze Age Studies Group (Bavaria, May 2009); Warfare in Bronze Age Europe conference (Vienna, November 2009); Theoretical Archaeology Group (Durham, December 2009). He also presented a conference paper analysing the depositional contexts of Bronze Age swords in Northumberland to the Bronze Age Studies Group (Wessex, May 2010). He published one paper relating to his PhD (Colquhoun 2011) in addition to a publication on prehistoric flint at Sandy Bay, Northumberland (Colquhoun 2010) and completing and submitting one paper on the Northumberland swords which is currently in press

and will be published in *Northern Archaeology* –the journal of the Northumberland Archaeology Group and of which he was the editor. Earlier in his archaeological career, Ian was the lead author on the definitive monograph on Bronze Age swords (Colquhoun and Burgess 1988) and several key articles on Late Bronze Age metalwork in Britain (see below).

Full Bibliography of Ian Colquhoun

Colquhoun, I. (1978). Bronze Age Metalwork in Somerset: A Catalogue of Stray Finds. *Proceedings of the Somersetshire Archaeological and Natural History Society* **122**: 83 -101.

Colquhoun, I. (1979). The Late Bronze Age Hoard from Blackmoor, Hampshire. In Bronze Age Hoards: some finds old and new (British Archaeological Reports 67). Burgess, C. & Coombs, D. Oxford: Archaeopress. 99-116.

Colquhoun, I. (1981). A Late Bronze Age Tanged Razor from Carlisle Museum and Class IV Razors from Britain. *Northern Archaeology* **2**: 11–14.

Colquhoun, I. (2010). Flints from Sandy Bay, Northumberland. *Northern Archaeology* **21**: 31-38.

Colquhoun, I. (2011). Irish Swords: Use and Abuse. In Bronze Age Warfare: Manufacture and Use of Weaponry (British Archaeological Reports International Series 2255). Uckelmann, M. & Mödlinger, M. Oxford: Archaeopress**.** 107-116.

Colquhoun, I. and C. B. Burgess (1988). The Swords of Britain. Prähistorische Bronzefunde IV, 5. Munich, C.H. Beck.

Colquhoun, I. (in press, 2015) Swords and the landscape in Late Bronze Age Northumberland. *Northern Archaeology*

Ian was also a first year tutor for Discovering World Prehistory at Durham University and a lecturer in Adult Education at the University of Sunderland Centre for Lifelong Learning.

PhD Criteria

The current PhD criteria are:

"Candidates are required to demonstrate the ability to conduct original investigations, to test or explore ideas / hypotheses (whether their own or those of others), and to understand the relationship of the theme of their investigations to a wider field of knowledge. The thesis should include an original and significant contribution to knowledge, for example through the discovery of new knowledge, the connection of previously unrelated facts, the development of new theory, or a new analysis of older views. It should also include substantial matter worthy of publication, though it need not be submitted in a form suitable for publication"

As the supervisors of Ian Colquhoun, we are confident that his thesis not only meets the criteria above but is also over 75% complete when the data recording and collection and the submitted and previously published texts are taken into consideration. It already represents an original and significant contribution to knowledge that goes far beyond the limited catalogue of the last major publication in the field (Eogan 1965) in terms of data quality, range of analysis and interpretative depth. The innovative use of theory and method of object biographies in the PhD thesis has already served to highlight previously unappreciated or unknown patterns and insights into the production, use and deposition of swords in Bronze Age Ireland.

Substantial progress has already been made to record the remaining c. 15% of Bronze Age swords from Ireland. In addition, funding and support for the final publication as a monograph has started to be donated from Bronze Age scholars from across Europe. Our contention - as well as the contention of major senior scholars in Ireland, Britain and continental Europe - is that the finished thesis would have made a major contribution to knowledge. As has been noted by many of our Bronze Age colleagues, whilst we were the supervisors for Ian Colquhoun's PhD on Bronze Age swords, the majority of what we, and virtually all other British scholars, knew about the subject was derived from Ian's earlier research (Colquhoun and Burgess 1988).

TABLE OF CONTENTS

List of Figures

List of Tables

1. INTRODUCTION

1.1 AIMS AND OBJECTIVES

The leaf shaped bronze sword is one of the most distinctive and evocative weapons of prehistory. The type appears throughout Western Europe in the final centuries of the second millennium BC only to disappear as an artefact type with the widespread introduction of iron weapons hundreds of years later. The widespread distribution of the bronze sword points to the increasingly martial nature of Late Bronze Age society, a feature echoed in Ireland by the appearance of defensive landscape features.

The expansion and development of Irish archaeology in the last fifteen years has rather left metalwork and swords, in particular, behind, as the main focus has moved away from artefacts towards settlement. It is only in recent years that interest has revived in the Bronze Age and bronze metalwork. Over six hundred swords have been recovered from Ireland, the vast majority being nineteenth century finds. Most belong to the equivalent of the Ewart Park type in Britain – but there are significant numbers of early flange hilted weapons and of the late Gundlingen type.

This will be the first major study of the development and context of the Irish swords since George Eogan's work of the 1960s. It will examine, in addition to those weapons listed in Eogan's catalogue, all of the more recent discoveries, and will take as its central theme the biography or life cycle of a sword, from manufacture through to use and deposition, with the emphasis on the latter. My *Prahistorische Bronzefunde* volume on the British swords, co- authored with Colin Burgess, provides a useful compass for arranging this analysis.

The main objectives of the research are:

1 To establish a biography of the Irish sword

2 To evaluate how swords started their life cycle

3 To examine the different uses of the sword

4 To assess the death of the sword, paying particular attention to deposition and location

1.2 Reasons for this Study

2. HISTORY OF RESEARCH

The Irish swords attracted attention from the early years of antiquarian research. *Archaeologia* for 1775 contained the drawings and descriptions of two fine Gundlingen type swords from the Bog of Cullie, Co Tipperary. W R Wilde's Catalogue of the Antiquities in the Museum of the Royal Irish Academy, published in 1861, included a chapter on swords, which he acutely recognised as being prehistoric in date. John Evans' seminal 1881 volume on the *Ancient Bronze Implements, Weapons and Ornaments in Great Britain and Ireland* included many fine engravings and brought together the work of nineteenth century antiquaries.

Twentieth century studies concentrated on development in Britain and Europe until the publication in 1965 of George Eogan's doctoral thesis as the National Museum of Ireland's *Catalogue of Irish Bronze Swords.* Since then study of the Irish material has concentrated on aspects of use and, more recently, disposal. Sue Bridgford looked at wear analysis and concluded that swords were actually used and not just for display. Katherina Becker studied swords as a component part of hoard deposition. Barry Molloy continues his experimental work to show how weapons were used in practice. Swords from Irish rivers have been examined by Lorraine Burke and the manufacture of bronzes as a group was studied by Sean O Faolain in a recent *BAR* volume. John Waddell's comprehensive study *The Prehistory of Ireland* examined swords and he commented that they required further study in the light of recent research.

3. METHODOLOGY

The aim of the data collection is to produce an up to date electronic catalogue of all known Irish swords including their provenance, find details where known, measurements and bibliography.

The basis for the catalogue is George Eogan's *Catalogue of Irish Bronze Swords*, published in Dublin in 1965. The information from this catalogue is currently being transferred to the computer catalogue. More recent published finds are also being added. Museum catalogues will be examined for other unpublished swords discovered since the 1960s. Bibliographical references are retained in Endnote and cross reference with the catalogue.

The catalogue records the following information: provenance (where known), county (where known), Museum number, collection, Eogan Catalogue number, Eogan Class, Type (my sorting), status, length, maximum blade width, shoulder width, weight, patina, hilt arrangement, condition, find circumstances, associations, bibliography, and research notes.

The catalogue uses Open Office which is similar to and compatible with Microsoft Access.

I intend to redraw all the complete swords or significant fragments which I am able to locate and where they are accessible. This will involve an initial pencil outline drawing, then shading in the details of the hilt, a section of the blade, and the tip. Measurements will be made using a tape and vernier caliper, and weights taken using electronic scales. Associations will not be drawn. All swords drawn will also be digitally photographed.

I also have access to drawings of Irish swords made by Colin Burgess in the 1960s to use where the original swords are not accessible. Final drawings will be pen with stipple shading.

These will be recorded as digital photographs. With the exception of swords from excavated sites, it is unlikely that I will be able to locate an exact provenance for more than a handful of swords, so I am interested in the position of findspots within the wider landscape and the potential proximity to other archaeological sites and features. The Ordnance Survey of Ireland Discovery Series at a scale of 1:50,000 will provide the basis for site location. Google Earth will also be used where appropriate.

The following methodology will therefore be used:

1 The creation of an electronic catalogue to hold all the necessary data relating to each sword and sword mould in relation to find circumstances and individual characteristics.
2 The recording, drawing and photographing of swords either recently discovered or requiring further examination.
3 A study of the current state of knowledge of the manufacturing process and a comparative analysis of the data.
4 The assessment of published data on sword composition to establish use.
5 An evaluation of experimental work.
6 Examination of the reasons for death.
7 An analysis of the locations of death
8 The creation of a bibliography using Endnote.
9 An investigation of how the history of research has affected our current knowledge on swords

4. THE BIRTH OF THE SWORD

4.1 INTRODUCTION

This chapter provides a perspective on the current evidence for bronze sword production during the Late Bronze Age in Ireland. It views the manufacture of a sword as the birth of an artefact which develops a life and status of its own within a society conscious of the importance of prestige, power and display. Weapons played a central role in this scenario (Waddell 2000, 225). The chapter is divided into three parts. The first examines the extraction of the raw materials from which bronze is made, mainly copper and tin. Secondly, the process of producing the bronze to make the swords will be studied. Finally, the evidence for the status in society of those people who had a role in the birth, however small – the miners and smiths – will be reviewed. All radiocarbon dates given in the text are calibrated.

The birth of such a prestigious weapon as a sword is considered here to be a process that was not just technological but involved also an input of a more spiritual and probably prescriptive nature. Anthropological studies have repeatedly stressed the rituals that surrounded the processes of extraction, processing and manufacture, and the rules and taboos concerning gender or status that allowed or forbid the involvement of groups or individuals. In this context the birth is in itself a process that imbues people with distinctive roles, each playing a part in the magical transformation of base material into a weapon which is destined to have a life of its own. A successful birth is likely to have needed the beneficial intervention of gods, spirits, ancestors or living individuals. It would have depended on the correct procedure being adopted for each stage of the manufacturing process. Historical records of ceremonies practised in early twentieth century Africa by groups of social complexity akin to that of late prehistoric Ireland may provide some potential parallels. One example is Katanga in the Congo, where, in 1910, the Belgian Catholic missionary Monsignor de Hemptinne witnessed the whole procedure from mining to casting copper ingots overseen by a *maitre sorcier* who made sure that all the requisite procedure was undertaken correctly (Herbert 1984, 34). A failure to undertake the process properly could have serious consequences.

In practical terms the manufacture of swords in bronze was a lengthy, complex, time consuming and skilled process. The procedure involved the extraction of ores and minerals, washing and crushing the ore, the transportation of copper and tin over long distances, melting, casting using high temperatures, and finishing the product. There was also an element of recycling, as used bronzes were broken up and transported where necessary (although there is limited evidence for the use of founders' hoards in Ireland compared to Britain), to be remelted and formed into new weapons or tools. In this context the death of one artefact lead to the birth of another, a factor which we must consider would not have escaped the minds of prehistoric people

4.2 METAL EXTRACTION AND PROCESSING

Bronze is an alloy of around 90 to 95 per cent copper and 5 to 12 per cent tin. Copper, therefore, is the main constituent. The first steps in the birth of the sword were the extraction from the earth of the raw material from which the sword was cast, the copper and tin. In order to fully appreciate the potential importance of the bronze sword to Late Bronze Age society, we need to explore the archaeological evidence for mining and processing. This will be examined under five headings. Firstly, the copper and tin resources available to Irish metalworkers. Secondly, the archaeological research on prehistoric mining in Ireland will be explored and compared with evidence from elsewhere in Europe. Thirdly, processing and smelting of ores will be examined. The final section deals with the amalgamation of the two metals, copper and tin, to produce bronze in the melting process, and also takes into account the role of recycling using artefacts.

4.2.1 Copper and tin resources

The sources for copper bearing ores in Europe have been the subject of detailed investigation over the last few decades. While there are large and well investigated deposits in central Europe, Ireland and Britain too have known substantial natural

resources (Harding 2000, 198; fig 6.1: Ottaway and Roberts 2009, 200 fig 4.8a). In Ireland there are, or were, deposits along most of the Irish coast, with particular concentrations in Wicklow, Waterford, west Cork, Kerry, and western Galway (Jackson 1978, Map 1: Ó Faolain 2004, fig.6.1). Inland there are concentrations to the west of Lough Neagh and the lower reaches of the Shannon. Two large areas stand out as being copper-free; inland Cork and the counties of the Midland plain. There are no secondary sources of copper, such as alluvial stream deposits; all the above sources are bedrock deposits which would have initially been noticed as surface outcrops (O'Brien 1996, 11). Once fully exploited, these would have been followed to ore bearing veins requiring more labour intensive extraction, normally underground. Copper ores are therefore often found near to native copper deposits.

The second main component of bronze was tin. This was a rarer commodity. The main source has been and still is the mineral cassiterite which can be mined as a vein deposit or recovered through panning from the alluvial beds of streams as pebbles, weathered from vein cassiterite (Meredith 1998, 23). This mineral occurs with granite, the rock which underpins the geology of the western seaboard of Europe. The primary source, therefore, for the whole of western Europe in prehistory is believed to have been the panning of stream tin from the vein deposits in Cornwall and the west of Devon, although there is no archaeological evidence for prehistoric workings. There is, however, one recorded instance of tin slag from Cornwall, from an Early/Middle Bronze Age burial at Caerloggas (Tylecote 1987, 307-9) which at least suggests local smelting, presumably from locally mined tin. Other known major sources of cassiterite are in Brittany and the Iberian peninsula (Meredith 1998, 29, fig 5.1: Kristiansen 1998, 30, fig.11), though, once again, there is no archaeological evidence for prehistoric exploitation in either area.

4.2.2 Mining

While copper bearing ores are therefore widespread over much of Ireland, the majority of the archaeological evidence for exploitation of the ores comes from O'Brien's work in the South West. At Mount Gabriel in west Cork radiocarbon dates from wood and charcoal recovered from the workings suggest that the main period of

exploitation was between 1700 and 1500 BC (O'Brien 1996, 37). Any evidence for the other resources (especially the eastern deposits) being worked in antiquity is based on nineteenth century accounts of what were called by contemporary miners 'old men's workings' (O'Brien 1996, 9). These were old workings of indeterminate date, in practice belonging to a period beyond living memory at the time using what were considered to be primitive methods. There is therefore nothing to show they were worked specifically in prehistory.

There is an absence of evidence for copper mining during the Late Bronze Age either in Britain or Ireland. Even the extensive and well explored workings at the Great Orme in North Wales have provided few dates later than the eleventh century BC (O'Brien 1996) and most cluster around the fourteenth century BC (Lewis 1998, 49; Chapman 2006). These Early and Middle Bronze Age dates are notable because most of the bronze metalwork from Ireland – and indeed Western Europe – can be dated to the Late Bronze Age. It has been argued that one difficulty with recognising later prehistoric workings is that they have continued in use and were worked out in later historical periods, leaving no archaeological trace (O'Brien 1996, 57). This does not, however, explain why the earlier workings should survive unscathed. However, there is evidence for mining throughout the entire Bronze Age from central Europe, such as a number of known sites in the Mitterburg area of the South Tyrol (Harding 2000, 211). It is possible that central European sources supplied the British Isles through trading networks built up over hundreds of years, perhaps as a result of an exchange process involved in the supply of tin from south west England. This interpretation is strengthened by the results from metal analyses, which suggest that the main source of copper for Ireland and Britain in the Late Bronze Age was central Europe, whether in its pure form or already alloyed with tin as recycled bronze (Harding 2000, 189, 204; Bradley 2007, 224). Thus Late Bronze Age swords made in Ireland may have been cast from a mix of British tin and central European copper.

Regarding the deposits of cassiterite (tin oxide) in Ireland, these are located in the Wicklow Mountains, the Mourne Mountains, and Galway Bay. However, tin occurs in all these places only as traces and until recently it was believed that these sources were unlikely to have been worked in the Bronze Age (Penhallurick 1986, 111). Jackson (1979, Map 1) has also mapped the tin sources in Ireland and is also of the

opinion that the majority of the sites would have been too difficult to exploit successfully. Some controversy surrounds the possibility of tin having been streamed from cassiterite in the Gold Mines River at Ballinvally in County Wicklow (Waddell 2000, 140: Harding 2000, 200). The cassiterite occurs here alongside gold in the alluvial sands and gravels. Jackson thinks it improbable that gold panners would have been unaware of the abraded crystals of cassiterite which reportedly can be found alongside the gold in the river beds, and that they would therefore have gathered the tin. When the gold resources here were exploited using stream panning methods during the 1930s as part of a state sponsored unemployment relief programme, cassiterite was, by volume, found to be as common as the recovered gold (Jackson 1978, 123). Budd, however, has also examined the potential for this tin source and has argued that, firstly, the quantities of cassiterite were not as substantial as Jackson suggested and, secondly, that their exploitation would not have been practicable in prehistory because the tin mineralisation is not derived from the same source as the gold and the two would not necessarily be present together (Budd et al 1994). That Ireland is a major source of Middle and Late Bronze Age goldwork is undisputed (Cahill 1995: Waddell 2000, 243). What is less clear is where the gold came from, as there is no evidence for prehistoric exploitation at the Gold Mines River (Penhallurick 1986, 113-4).

Recent research published in *Archaeology Ireland* has suggested that the western valleys of the Mourne Mountains in County Down were the major source for Early Bronze Age gold in Ireland (Warner, Chapman, Cahill and Moles 2009: 2010). This is because analysis of the composition of gold from this area matched the proportion of silver and copper present in Early Bronze Age gold ornaments. In addition tin is minutely but measurably present in a large number of Irish lunulae (averaging around 0.04%). However, because of the way the gold collects in the Mournes, it is more likely to have been 'mined' from fluvial deposits than panned from the streams and rivers. The authors discovered that cassiterite can collect with the gold in these deposits. Collecting minerals in this fashion is known as streaming. Whether the miners were originally looking for tin or gold is unknown, but the authors believe that the Mournes may have been a significant source of tin in the Early Bronze Age at least, and it is possible that the area remained a source into later prehistory.

Wherever the copper and tin came from, the initial step in getting it out of the mineralised rock was the same. This was removed from the underground faces by 'fire setting', a system of using fires set against the faces causing them to weaken. Water could then be used to hasten the fracturing effect. O'Brien (1996, 22) has calculated that the prehistoric operations at the copper mines at Mount Gabriel in Kerry would have consumed large amounts of timber in fire setting alone, making a steady supply of timber a prerequisite for successful extraction. In fact, large amounts of timber would have been needed throughout the entire procedure of mining, processing, smelting and casting.

4.2.3 Crushing and smelting

Once the mineralised rock or 'gangue' had been freed, the next step in producing metal suitable for casting is converting the gangue into a concentrated ore suitable for smelting. In the Bronze Age this was done by crushing the extracted rock using stone hammers and anvil slabs, and then selecting the visibly mineralised rocks. Thousands of stone hammers have been found at the Great Orme and at Mount Gabriel, normally in mounds outside the mine entrances (O'Brien 1996,40) clearly indicating that this work was done on site. By themselves these stone hammers are impossible to date and are evidence only of 'primitive' mining using methods which, it has been suggested, continued into late Mediaeval times (Briggs 1988, 327). An alternative modern process of ore extraction involves floating the gangue in chemicals or water, and it is possible this method was also used in prehistory, though it is difficult to show archaeologically that this was practised. Such 'washing' sites have been the subject of recent studies on the Great Orme where there are a number of wells suitable for this activity within a three kilometre radius of the mines (Chapman 2006). Eogan (1993, 92) has suggested that at Mount Gabriel a post hole structure with a wooden trough within Mine 3/4 may represent washing activity.

Processed ore contains minerals and impurities which are not needed or are considered undesirable in the production of copper. Smelting is the process whereby

the concentrated ore produced by crushing is reduced to a state suitable for a smith to use to cast artefacts. The process involves the use of a large quantity of charcoal, perhaps a ratio of 15: 1 charcoal to ore or even higher, to concentrate the metal in one place by removing the unwanted material within the ore. This is done by placing the ore in a crucible within a furnace and firing the furnace with charcoal to a temperature of 1083 degrees Celsius (Harding 2000, 216). The waste is allowed to run off producing slag. Copper is then concentrated at the bottom of the crucible in the shape of a bun ingot. Copper sulphide ores, such as those from south west Ireland, may also have required roasting to remove the sulphur and convert the ores into copper oxide (Ottaway and Roberts 2009, 206).

There is no evidence for Bronze Age smelting in Ireland, yet it is an essential part of the process of manufacture. Slag is inevitably produced at some stage during the ore to metal process, is virtually indestructible, yet is curiously almost entirely absent from prehistoric contexts throughout Ireland and Britain (Craddock 1986; O'Brien 1996, 31; Harding 2000, 216). In Britain the only slag of possible prehistoric date comes from a site excavated in the 1990s at Pentwrwyn on the Great Orme in North Wales (Roberts 2002, 31: Chapman 2006) where over a hundred small copper rich fragments were found, although unfortunately most of these are more likely to relate to later Mediaeval activity. The furnace itself has been dated to 1580 BC from charcoal fragments. The working area was a small platform at the foot of a cliff over a kilometre away from any known mining site. This paucity of slag can be contrasted with the situation elsewhere in Europe. In the Mitterberg area of the Austrian Alps prehistoric slagheaps have been recognised since the nineteenth century (Herdits 2007) while Late Bronze Age settlements in southern Germany regularly produce evidence of slag in their vicinity as well as crucibles (Harding 2000, 216). This dilemma has been discussed by Timberlake (2003, 106: 2007, 34). He suggests, amongst other possibilities, that the small amounts of slag may have been finely crushed to release small quantities of copper and that the ore XXXX. An alternative explanation has been put forward by Meredith (1998, 19) who has pointed out that any very rich ore will produce almost no slag. It is possible that properly sorted Irish ores in prehistory may well have been very rich, thus producing little or no slag.

A third possibility exists, however. Smelting away from the mining sites could account for this curious absence of slag from the vicinity of the mines. The large amounts of charcoal needed in the smelting process would require large quantities of available timber. Lewis (1996) has argued that on the Great Orme it may have been more feasible to transport the ore to a location where wood was readily available than to transport charcoal fuel for smelting to the mine site, although there is no archaeological evidence for this. It has already been mentioned in connection with fire setting as part of the mining process that access to suitable supplies of timber may have been a problem on many of the Irish sites.

4.2.4 Melting and recycling

Melting involves the heating of copper and tin, or previously cast bronze, in a crucible. This produces a liquid alloy suitable for casting. The archaeological record in Ireland clearly shows that the alloying of copper with tin to produce bronze swords took place at locations well away from the known mining, processing and smelting sites. This means that the copper and tin had to be transported and presumably traded over large distances. Smelting produced bun or cake shaped ingots as the copper collected at the bottom of the crucible (Rowlands 1976, 7). These turn up occasionally in Late Bronze Age hoards, although many could equally be recycled bronze, such as the example in the recently discovered hoard from Berwick upon Tweed in northern England (Needham, Varndell and Worrell 2007). A plano-convex ingot in the hoard from Cooga, Co. Sligo is very close in size and shape to the base of a reconstructed crucible from Rathgall (Ó Faolain 2004, 23, pl 3.1). Two solid undecorated rings of pure tin together with bronze rings were found in the hoard from Rathinaun, Co. Sligo (Eogan 1983, 151). These may have served as tin ingots similar to the bronze or copper *ösenringe* common in central and northern Europe (Harding 2000, 218).

The evidence for recycling of used artefacts to provide bronze is difficult to identify in the Irish archaeological record. Waddell (2000, 201) has discussed the Roscommon Hoard, a large collection of scrap bronze pieces including at least one fragment of a sword blade. Robert Day, a Cork collector, was offered the hoard, allegedly

numbering 200 pieces, in 1870, but found the asking price for the entire assemblage too steep and bought only a selection. Where it came from in county Roscommon is unknown. Few other hoards appear to fit into this 'scrap' category. One example which includes a sword fragment is from Dreenan, Co.Fermanagh (Eogan 1983, no.76: Ó Faolain 2004, fig. 2b). This lack of evidence for recycling of used weapons and artefacts is remarkable given that 'scrap' or founders' hoards can be found throughout Britain, though especially in the south, and are common on the Continent.

4.2.5 The Silent Miner

The long time span over which copper was exploited and the destruction of prehistoric workings by subsequent operations makes any analysis of how Bronze Age mining operated difficult. Both the population and the amount of copper and bronze in circulation must have varied throughout the Late Bronze Age. The number of people involved in metalworking would equally have fluctuated. The lack of radiocarbon dates and the difficulty of gauging the scale of mining operations at any particular period makes any estimate of the number of people involved at any one time impossible. It has been suggested that most of the mines in Ireland were small scale kin-based ventures located close to parent settlements and worked seasonally (O'Brien 2007, 29); this would have been mining at a local, domestic level (Briggs 1988, 331). In this scenario farming took priority and the mining work would have been based around slack times in the agricultural year. Mines would have varied in size and complexity, with many being little more than surface workings (O'Brien 1996, 56).

Prehistoric mining involved adults (and probably children) working underground in tunnels and passages which were difficult to access and potentially dangerous. This very inaccessibility was in itself perhaps a necessary start to the birth, an inherent feature of the necessarily protracted process of manufacture. Bradley's description of the 'axe factory' sites at Great Langdale as places apart from the 'sphere of everyday activity' (Bradley 2000, 85) would have been equally applicable to Bronze Age mines. Ores came from the underworld, a place at the interface of life and death where most people, then as now, would have felt uncomfortable, if not afraid. This

fascination with locations at the limits of human can be traced from the Neolithic through to the Iron Age. In the Late Bronze Age echoes of this fascination with the underworld can be seen in the cave sites throughout Europe where bronzes as well as human remains were deposited in their hundreds, such as the Heathery Burn Cave in Co. Durham (Harding 2007).

4.3 SWORD PRODUCTION

Up to this point we have discussed the extraction of minerals and techniques of production of metal common to all types of bronze metalwork. The next stage was the process of birth, the translation of the raw material into a sword, in itself an object of power and prestige. Most evidence for sword production comes from northern and eastern Ireland, though it is of course possible that manufacture took place throughout the whole country, as bronzes can be cast anywhere. The limiting factors are expertise in the casting process, a ready supply of fuel and the wealth or power needed to be able to control or trade in the metal supplies**.** Casting at high status sites such as Dun Aonghasa suggests that a further point was the status required to be involved in the organisation or patronage of bronze weapon production, as opposed to tool or ornament manufacture.

4.3.1 Casting

Bronze can be cast into artefacts using a variety of processes involving moulds. These were normally made out of stone, clay or even bronze. The basic principle is that molten bronze is poured into the mould, the exact process depending on the product being manufactured. Experimental work, especially with swords, has provided much information and has been discussed in detail elsewhere (Ó Faolain 2004). The length and shape of swords makes the casting process particularly awkward. Clay mould fragments for different bronze types including swords have been found in various locations throughout Ireland and form the most common type of mould (Appendix C). Stone moulds for swords are known from the continent, but none for Ireland. The only example mentioned in the literature, provenanced merely as ‘Ireland’, has been

discussed by Eogan (1983, 189) and would have cast a blade with an ogival cross section more appropriate to a dirk than a sword.

Clay moulds were made in two pieces (called valves) normally comprised of two layers. The inner layer was made of fine clay into which a pattern was pressed while it was still soft. The outer layer was composed of a coarser grade of clay. To align the two halves corresponding depressions or projections were made on each valve. Further projections were left where holes were needed, for example the rivet holes on sword hilts. Once the two valves were fitted together the whole mould was baked, leaving a gate or funnel at one end to facilitate pouring in the molten metal. Sword moulds also needed a strengthening rod to stop the mould from breaking along the length. At Dun Aonghasa the clay used for the sword moulds appeared to be from a different source than the pottery from the site (Ó Faolain 2004, 36) suggesting deliberate selection of different clay for different uses, whether for practical or symbolic reasons. Quartz temper had also been added, presumably to increase the heat resistance of the mould material. Careful selection of suitable clay was equally evident amongst the mould debris from a bronze working site at Dainton, Devon, where clay had been brought from outside the immediate locality as that found locally was too fine to have withstood the casting process (Needham, 1980, 194). The selection of carefully chosen clays and tempers in domestic pottery manufacture is well attested in Ireland at sites such as Lough Gur, Co. Limerick (Waddell 2000, 210). Lime in the clay, for instance, makes for a poor casting (Dutch caster, per comm.)

4.3.2 Sword Mould Deposition

Deposition of complete swords will be discussed elsewhere, but here it is worthwhile considering more closely the deposition of moulds and mould fragments, as they represent the medium through which bronze smiths were able to practise their expertise and, as outlined below, may have had an intrinsic value. Once clay moulds had been used to make bronzes they could not, unlike bronze or stone, be effectively reused in bronze manufacture or recycled (Bridgford 1997, 101: Neil Burridge, pers. comm.). Swords are by far the commonest of the identifiable clay mould fragments for weapons found in Ireland, accounting for 75% (Ó Faolain 2004, Table 5.1). What,

then, is the significance about where the clay mould fragments listed in Appendix C were discovered? There are four obvious possibilities, all of which are of potential interest as they shed some light on the importance of the process of sword manufacture and the materials used. These possibilities are discussed below and put into diagrammatical form in Table 1:

A They are the *in situ* remains of weapon production, the debris of manufacture.

B They are the remnants of weapon production, intentionally deposited at the place of manufacture.

C They have been deliberately collected at the place of manufacture and dumped elsewhere as industrial refuse.

D They have been deliberately collected at the place of manufacture and intentionally deposited elsewhere to fulfil a function beyond that of the debris of production.

	Intentional Deposition	Unintentional Deposition
Place of Manufacture	B	A
Other than place of manufacture	D	C

Table 1: Deposition of Bronze moulds

The term 'place of manufacture' requires some clarification. Here it is taken to mean within the immediate area of production, that is within the building or structure within which the process took place. I hesitate to use the phrase 'workshop' for two reasons. Firstly, this implies a building used primarily for making artefacts in the modern sense, and this may not have been the case, as the building may have had other functions at other times, including habitation. A weekend spent at a bronze sword festival in September 2009 involved the casting of swords inside a replica prehistoric roundhouse. The 'industrial' activity took place comfortably around the ever present central hearth and the immediate environs of the house leaving no permanent evidence. It was also evident that there would have been no great disruption to the everyday activity of domestic life

Secondly, the whole process may have taken place outdoors, away from any building, perhaps at a location used only temporarily or intermittently. One such example is the use of older funerary sites such as the burial mound at Old Connaught, or the sand dunes at Whitepark Bay.

The first possibility listed above is that mould fragments are the *in situ* remains of weapon production, the debris of manufacture. Of the sites listed in Appendix C, most appear to have had a connection with manufacture. Rathgall has been interpreted as a 'major workshop' (Waddell 2000, 273) as hundreds of mould fragments, as well as lumps of waste bronze, gold artefacts and a couple of ingots all came from a black occupation layer within a large roundhouse. This material can therefore be realistically interpreted as the remnants of production within what seems to have been a site of high status, to judge from the other finds such as gold, glass beads and amber. Dun Aonghasa, in a commanding position on a high sea cliff, has also been interpreted as a high status site (Waddell 2000, 221). This site dominates the sea approaches the western sea approaches to the Aran Isles and affords extensive views along the west coast of Ireland (O'Sullivan and Breen 2007, 83).The sword mould, moulds for other bronzes, and crucible fragments all indicate that at least part of the fort was being used for manufacturing weapons and ornaments, namely bronze swords, spearheads, sunflower pins and bracelets (Ó Faolain 2004, 57). The clay mould material here can therefore be interpreted as debris. The moulds from Lough Eskragh and Bohevny suggest that one function at least of crannogs was for the production of bronze weapons, though, as lake levels have fluctuated since the Bronze Age, the presence of moulds may equally indicate lakeside manufacture in the vicinity of the crannogs (Dixon 2004, 25). The moulds from White Park Bay on the north coast of Ulster show that bronze manufacture was taking place amongst the extensive sand dunes, either in a building or outdoors.

The second possibility suggested is that the mould fragments are the remnants of weapon production, intentionally deposited at the place of manufacture. Intentional in this context means moulds which appear to have been placed in a location at the place of manufacture for a reason and not just left as casual debris. It is difficult to see how any of the Irish moulds listed here could be fitted into this category. For instance, the

material quoted above from Rathgall, Lough Eskragh and Bohevny appears as debris rather than being deliberately or carefully buried or placed.

The third suggestion is that the mould fragments were deliberately collected at the place of manufacture and dumped elsewhere as unwanted industrial refuse. This option therefore deals with the deposition of moulds away from the site of production. Dumping, for example, could account for some of the material discovered from the periphery of crannogs such as Lough Eskragh, although this could also be the result of lakeside manufacture. Recent studies have examined the concept of refuse in the late prehistoric context in some detail and questioned whether people in prehistory viewed used material such as clay mould fragments simply as waste in the modern sense (Hill 1995). Here it is worth considering the 'midden' sites which have been recognised in southern England, such as Potterne (Lawson 2000) and East Chisenbury (McOmish 1996) in Wiltshire. These date to the Late Bronze Age/ Iron Age transition.

Metalwork and fragments of clay moulds and crucibles not directly connected with production have been recovered from what is in essence a huge accumulation of used organic and inorganic material which seems to have been the focus of collective activity from the beginning of the Late Bronze Age to the early Iron Age. These were probably sites for regular communal feasting on a large scale. The amount of material accumulated would have been sufficient to make these sites a landscape feature in themselves. Curiously the bronzes found in the fill are tools rather than weapons. This may suggest a dichotomy between sites chosen for tool and weapon production.

The final option is that the mould fragments were deliberately collected at the place of manufacture and intentionally deposited elsewhere to fulfil a function beyond that of the debris of production. It is surely significant that the man-made pool at the King's Stables, where mould fragments were discovered in 1975, is part of the Navan complex (Lynn 1977, 50-2, 56; Cooney and Grogan 1995, 170). Cooney and Grogan (1999, 196) have visualised the King's Stables as a place of formal deposition for Haughey's Fort while a similar pool at Loughnashade may have played the same role for nearby Emain Macha. Elsewhere, it is possible that the mould fragments from Old Connaught – in an embanked mound, possibly a burial site – may also suggest deliberate deposition away from the site of production rather than production *in situ*.

There is evidence from southern England to suggest that mould fragments were still of intrinsic evidence after they had played their role in the formation of a weapon. Sword moulds discovered at Springfield Lyons, Essex (Buckley and Hedges 1987) appear to have been carefully and intentionally deposited in the ditch terminals immediately to the north of both western and eastern entrances. Bradley (2007, 209) has recently suggested that such ringworks, which are increasingly being recognised in southern and eastern Britain, played a role in weapon manufacturing. Similar ringworks to Springfield Lyons, such as Navan itself, exist in Ireland in some numbers. The evidence for production within the Navan complex comes from the mould fragments deposited within the ritual pool at the King's Stables as discussed above, which, it is suggested, is likely to be near to the place of manufacture.

4.3.3 The Elusive Smith

Any reconstruction of how smiths operated in prehistoric Ireland is based on what we can deduce from known production sites and an appreciation of bronze working in historical and ethnographic contexts. To this end the Bronze Age smith is an elusive character. The situation regarding his or her position in society must have been, as Waddell (2002, 202) noted, a complex one, steeped in custom, tradition and taboos. Smiths may have held high status, perhaps according to what they made or their level of skill. The existence of sword and predominantly weapon moulds in the apparently high status sites at Rathgall and Dun Aonghasa may indicate, for example, that the production of weapons only took place at such important places under the control of local chiefs. By the same token the existence of moulds and tools – and no weapons - at the 'midden' site at Potterne in Wiltshire (Lawson 2000) may indicate that domestic tools were made by a different, perhaps lower caste of smiths, or that they were considered very much as within the domestic domain of the community. It is worth pointing out, however, that the complexity of casting in itself would not appear to be greatly different whether a socketed axe, a chisel, or a sword was being made, so perhaps therefore the actual location of production for any particular artefact is of major symbolic importance. This may be why we have no weapons from the southern

English midden sites. Needham (2007) has recently discussed what he calls the *life assemblage* - the full gamut of metal material in active use in a given space and time – which is not echoed in the archaeological record as this is more weighted towards prestige objects and hoard depositional episodes. It may well be that the life assemblage exists as a concept from birth, that is that the separation of different artefacts, essentially martial or domestic, existed from the very start of their lives. They were made in places specific to their type.

The ethnographic account quoted in the introduction concerned the rituals surrounding the casting of copper ingots in the Congo of the early twentieth century. These involved a master of ceremonies whose task was to make sure that the procedure necessary for successful casting was undertaken correctly. This should remind us of the responsibilities, other than technical competence, that go with being a master metalworker. Things were doubtless no different in prehistoric Europe. Barber (2003, 133) in a discussion of metalworking practices, has pointed out that, 'no distinction is evident in the ethnographic record between technology and ritual (or 'magic')'. Briard (1976, 189) quotes one of the rock carvings at Val Camonica in the Italian Alps showing a smith at work wearing what appears to be a strange feathered headdress. Whatever the practicalities of the casting process, magic and correct procedure had an important role to play in the birth of a sword. An area of investigation for the future is the recognition of symbolism at the actual place of production. In some African societies the various parts of iron smelting furnaces are replete with sexual symbolism connected to fertility (Schmidt 1998, 143-159) and production is highly ritualised. This involves, amongst other acts, the placement of various artefacts or tokens of a symbolic nature with the furnace in order to ensure its fertility.

In addition to status, the role of gender in metalworking has also been recently examined. Sørensen (1997, 49) has questioned the view of metalworking as both exclusively male and solitary, and considers that it is better seen as a group activity. Many sites in northern and western Europe have produced mould and crucible fragments suggesting that this activity took place as part of the normal life of the settlement, in areas that were also used for other purposes (Harding 2000, 238**)**. Mould manufacture, like pottery making, may have been gender specific, though it is

likely to have involved a number of people. The clay, for example, may have come from more than one source for different parts of the mould.

Rowlands (1971) has discussed the variety of different roles and practices smiths undertake or have undertaken and which are documented in the anthropological literature. The vast majority, however skilful or specialised, work within their communities as members of these communities, not as outsiders. Interestingly, he also found that the method by which the smiths obtained the raw material, especially second hand metal, varied enormously. In some societies it was the responsibility of the customer to provide the scrap for recycling, making the collection of the bronze the responsibility of a non-specialist who would play no other part in the production of the required artefact.

There is another reason to view casting as a group activity. In a society where death was common, the various skills and knowledge of procedure could not be allowed to die with individuals. Writing in the first half of the twentieth century, Childe (1940) envisaged bronze smiths travelling the countryside, either alone or in groups, making goods as required by the local market. In his interpretation of the past one lone Irish smith, driven by necessity or enterprise, set up his workshop at Jarlshof in Shetland. This lone smith would have needed a handful of apprentices to make sure the techniques were passed on, and most of the apprentices were destined to die in early adulthood, if not before. It is surely more feasible to suggest that only the acceptance of bronze working as a group activity, where many were competent if not skilled, would have allowed the knowledge of techniques to survive, as they unquestionably did, from generation to generation. Herbert (1984, 47), discussing the ethnographic data for Africa, has pointed out that there are only isolated examples of itinerant smiths. The majority of coppersmiths were an integral part of a settled community, initiated into their craft as a hereditary specialisation.

Budd and Taylor (1995) argued that the role of magic was paramount in the world of the metalworker whose place in society was driven as much by a social as a technological role. They stressed the importance of communal activity of a social or ritual nature being an integral part of the metallurgical process, and downplayed Childe's view of the prehistoric metalworker as a technologist driven by a more

rational concept of experimentation and improvement. The making of swords and other weapons involves far more than just casting. Finishing and polishing and sharpening may be labour intensive but they are also social activities involving many hours around the fire or sitting outside in the sun of an Irish summer being involved in repetitive activity with others. Such group activity in the finishing/polishing of artefacts had been going on for thousands of years, such as the final polishing of Irish axes (Cooney and Mandal 1998).

Another issue concerning the location of production is the importance of a ready supply of fuel, both timber and charcoal, for the casting furnace. The supply of timber has already been mentioned in connection with mining. Aside from fuel, wood was also needed in both quantity and quality for building houses (Pope 2008) and boats (Gifford and Gifford 2004), so sources must have been carefully managed. Such responsibility can perhaps best be seen as being rooted in the tribe or family. Put simply, it would not have been possible to cast successfully without good supplies of fuel. While this was low level production when compared with later centuries, it is worth pointing out the massive quantities of timber required for industrial production in historical times before the widespread use of coal. Whole forests in Highland Scotland were destroyed to feed the hungry seventeenth and eighteenth century iron furnaces (Millman 1975, 87).

4.4 CONCLUSIONS

The number of swords found in Ireland show that the country was, notably in the Late Bronze Age, a user of high quality weaponry. Where did the raw material to make these weapons come from? There are big gaps in our knowledge about mining in this period, as the archaeological evidence relates almost entirely to the Early Bronze Age. This chapter has explored the archaeological evidence for the mining of copper and tin in Ireland. We have seen that, although there are known copper deposits throughout much of Ireland, the evidence for prehistoric exploitation is restricted to the ore bearing veins of the south west during the Early Bronze Age. These appear to have been exploited on a relatively small scale, and the work of mining is most likely

to have been seasonal and family based. Copper for the swords of the Late Bronze Age would have come either from the major deposits of central Europe, or from recycled bronze artefacts. As far as tin is concerned, it is possible that this was panned in the Wicklow Mountains where there are limited deposits, though it is more likely that the tin mines across the Irish Sea in Cornwall and Devon provided all that was needed.

There is, however, evidence to show that swords were being made in Ireland. Fragments of clay moulds for making swords have been found at sites which are clearly of high status, such as The King's Stables, Co. Armagh, Rathgall in Co. Wicklow or Dun Aonghasa in Co. Galway. This suggests that sword manufacture was under the patronage or control of a warrior aristocracy who had access to metal supplies. In northern Europe a large number of Danish sites have produced mould and crucible fragments together with bronze waste. Levy (1991) has suggested that some Urnfield settlements specialised in bronze manufacture which was then distributed to 'user' sites. Fortified sites in this model played a role as distribution and recycling centres, and it is possible that high status Irish forts and other sites such as crannogs played a similar role. Given the evidence for production at these sites it is possible that they fulfilled a dual role as both production and distribution sites for prestige metalwork. This will be discussed further in the chapter on *'The Life of the Sword.'*

It is suggested therefore that the whole process of sword manufacture, from the mining of the ore to the breaking of the clay mould, should be seen as an activity involving a large number of players, some highly skilled, some learning, and others competent at ancillary tasks. Smiths could not have operated without the assistance of others involved in tasks as complex as mould manufacture or as mundane as wood collection to manipulation of the bellows. The smith would have had overall control of an operation that could have, at least temporarily, involved many people with individual and perhaps well-defined tasks at various levels of complexity. Experimental work has improved our knowledge of casting, and there is evidence suggesting careful choice in the materials used for moulds.

We do not know, therefore, how the making of a sword from copper and tin to the final weapon was organised but, from modern ethnographic parallels, it is likely that this was an activity bound in ritual with a notable community involvement. Such

ethnographic parallels can be helpful in suggesting a model for the role of the master smith, but we should be careful in not allowing preconceptions regarding status or gender to colour our interpretation of what evidence there is. I would suggest, however, that we should consider any model to be based on shared skills and small scale production in multiple locations. The birth of a sword, the prized possession of a warrior, needed many to assist in the process.

5. THE LIFE OF THE SWORD

5.1 INTRODUCTION

The sight of Late Bronze Age warriors fully equipped for conflict, holding their swords and shields aloft, the bronze glistening in the sunlight, must have been terrifying to an enemy. It has to be realised that a sword, like any deadly weapon, is designed, ultimately, to put an opponent out of action by slaughter. It is a weapon of death, and death at close quarters. Yet a sword is more than just a technically efficient killing tool. In her study of edge damage on Irish swords Bridgford (1997a, 95) put it succinctly: *'a sword may simultaneously be, or have the potential to be, a beautiful object, an efficient killing tool, a symbol of power and wealth, an implied or actual threat, a sacrifice, a gift, a reward, a pledge of loyalty and/or an embodiment of the idea of conflict'.* It is an apt question to ask of each Irish sword – what was it used for over its life? Any individual sword would have fulfilled all or some of the roles outlined above. Some may have been used only to impress and were then placed in the ground or a wet place, perhaps when their owner died or was killed. Others may have been passed down over generations and used regularly. Some may have been used to kill; others, equally worn and handled, may have seen only practice combat.

Each particular weapon would gain its own history, its own account of manufacture, use and deposition – of its birth, its life and its death. Each carries the individual marks of the parts it played within the lives and the deaths of people and communities in a distant Ireland of the Late Bronze Age where lives were always uncertain and often short. Each would have been recognised by its maker and the owner, or owners, who may have carried it around with them every waking hour, and guarded it jealously during their sleeping hours.

This chapter is divided into two sections. Firstly, I will look at the beginning of the life of a sword. By this is meant what happened to the sword after it left its maker as a newly cast blade and tang and before it found its owner – or at least its first owner - as a finished weapon. Secondly, the archaeological evidence for the actual use of the

sword as a weapon will be examined. This will include the results of innovative experimental work carried out by various scholars throughout Europe over the last few decades on how the sword may have been used, what style of combat was likely, and what the damage visible on the swords might indicate in terms of usage. Throughout the chapter the evidence for the sword as an instrument of prestige by virtue of its very existence will be analysed. A word of warning though; the different roles given here to the sword cross, or more accurately criss-cross, the categories of functionality, ceremony, 'ritual', and symbolism. Brück (1999) has pointed out the dichotomy between how prehistoric societies are likely to have viewed their behaviour and how we perceive and compartmentalise it from a post enlightenment viewpoint. The boundaries between the different roles which we can perceive rationally may not have existed at all in the Bronze Age mindset.

I have also used 'he' throughout when referring to warriors, for my own convenience. We have nothing in Ireland which ties the use of bronze weaponry in the Late Bronze Age specifically to either gender, as we have no burial associations with weapons. In Europe there is at least some help with gender identification; for example, rock art panels from this period in Scandinavia regularly show sexually aroused male warriors (Osgood at al. 2000, figure 2.14). The Urnfield graves of Late Bronze Age Central and Northern Europe have as yet produced no definitive female warriors, though the general transition from inhumation to cremation in the later second millennium BC has not helped with identification (Harding 2000, 99-100).

5.2 STARTING LIFE

In the previous chapter the places where evidence exists for swords being made in Ireland were identified and discussed. What follows next is a consideration of what happened to these same weapons after the clay mould had been taken apart and the contents revealed, but before they reached the places where they were actually used. This was in a real sense the start of their lives.

5.2.1 The Role of Islands

We have seen in the previous chapter that the evidence from sword mould distribution suggests that swords in Ireland were being made at places that today appear remote or liminal. Such places could be islands, coastal locations or places within easy reach of the shoreline. Even where swords and other bronzes have been made inland, there seems to be a preference for the use of crannogs or what may have been islands within a wetter hinterland. The place where the sword was made seems therefore to have been important. Islands and coastal sites play another role as well, in the dissemination of the finished weapons to their owners. I repeat here from the previous chapter the reasons for the importance of coastal islands, reasons which may be seen as equally appropriate for their role as a conduit for the successful transfer of the sword to its owner:

1 Good communication routes by water for raw products
2 Good communication routes by water for finished products
3 Potential of close control by an elite
4 Liminal places difficult to reach
5 Liminal places with a cosmological element
6 Traditional foci of communication and trade
7 Belief in islands as appropriate places to cast bronzes
8 Belief in islands as auspicious places to cast bronzes

The role of islands within the wider community of the second millennium BC with an intimate knowledge of the tides and currents of open and coastal waters has been discussed by Needham (2009, 22-25) in relation to the cross Channel connections between southern England and northern France. Needham's concept of a *maritory* – a seafaring community with common values – views islands and promontories as a land-bound extension of a sea centred community rather than as a geographical boundary for a land centred society. This is important when we consider where swords went after they were made, as their transportation would have taken place within the rules and *mores* of a wider maritime community.

5.2.2 Sea Trade

One noteworthy example of a sword type which may have been transported over long sea crossings is the Ballintober type – Eogan's Class 1 – which has a distribution split largely between the North of Ireland and the Thames Valley, although there are a number from south west England and south Wales, suggesting that the connection with the North of Ireland lay through the Bristol Channel (Hodges 1956; Colquhoun and Burgess 1988, 21). This must indicate close links at the beginning of the Late Bronze Age, and perhaps some centralisation of production either in Ulster or southern England. These swords were clearly influenced by continental imports such as the Rosnoën type, of which there are a scattering from Britain but none from Ireland (Colquhoun and Burgess 1988, 13-16).

Unlike stone axes, where petrological analysis can provide a provenance for the starting point of their life journey, there is no way of discovering where individual bronzes were cast. While we may have similar swords from the valleys of the Thames and the Bann, we do not know whether they were made in one, both or neither location. As it is impossible to know where any individual sword was made, it is impossible to know whether it has been traded or carried over any distance. The similarities of design and distribution mentioned above, however, clearly point strongly towards this being the case in practice.

Long distance movement of quantities of Ballintober type swords mean that cargoes of finished bronzes would have been carried across the Irish Sea, and, although we have no such cargoes from Ireland, two hoards found by divers near ports on the coast of southern England have been interpreted as cargoes lost in transit. The Dover 'Langdon Bay' hoard (Colquhoun and Burgess 1988, pls 137 and 138) consisted of fragments of over 40 individual swords, while a hoard found off the Devon coast at Salcombe (Colquhoun and Burgess, pl 137) comprised three rod tanged swords Since the latter was published further underwater excavations in 2005 produced more sword fragments from the sea bed (Parham et al. 2006) and, in 2009, in the same area, divers recovered a Ewart Park type sword amongst a large quantity of copper and tin ingots (Yates 2010). The distribution pattern of associated copper and tin ingots on the sea bed on the most recent find left the excavators in no doubt that this cargo had been

lost as the result of a single catastrophic incident. In total three separate wreck sites have been identified.

While there was no sign of any boat at Dover or Salcombe, prehistoric craft capable of carrying cargoes of bronzes across open seas have been found in Britain, though not as yet in Ireland. By the Middle Bronze Age sophisticated sewn plank vessels such as that discovered in what was in prehistoric times the estuary of the River Dour, beneath modern Dover, would have been capable of making the channel crossing in as little as five hours, given favourable conditions (Van de Noort 2009, 166). That such journeys were regularly made should not surprise us; after all, early Neolithic farmers must have brought cereal seeds and sheep by sea two millennia previously. The concept of close connections between prehistoric communities across the English Channel was recognised long ago as there are so many similarities in bronze metalwork throughout the Bronze Age (Butler 1963: Burgess 1968). More recent excavation work has shown up consistent similarities in ceramics, house design and land allotment (Needham 2009, 20).

The idea of an Irish Sea province encompassing the western seaboard of Britain and the east of Ireland is a similar concept and clear links across the water can be recognised from the Neolithic onwards. A common seafaring community engaged in trade and encompassing the east coast of Ireland, and the west coast of Scotland, England and Wales, would fit Needham's miratory model mentioned above. In an earlier article, Needham (2008, 313) suggested and listed the possible elemental motives for exchange beyond the kin group in prehistory. In addition to the more prosaic and functional reasons, he points out the cosmological view, the idea that travel to places outside the immediate world was considered of value in itself. Helms (1998), in a study of the travels of Ulysses, has suggested that such journeys were a way not only of reaching out into the world beyond, but also of allowing high ranking members of society to prove their mettle by bringing back something of value from the world beyond. Being involved in bringing a cargo of high value weaponry safely across hostile and unpredictable waters may have been a worthwhile achievement for any aspiring young leader.

Close links between Britain and Ireland can be recognised throughout the Late Bronze Age. Eogan's Class 4 swords bear such close comparison with Ewart Park swords that the standardisation of sword types throughout Britain and Ireland during the latter part of the Late Bronze Age is quite astonishing. These Class 4 type swords constitute the vast majority of weapons available for study. The basic hilt features, the blade shape and the cross section vary mainly in detail or length. Irish examples tend to be shorter, but this appears to be a regional variation on features common throughout the British Isles. The implication here is of a commonality of basic design that extends throughout Britain and Ireland, and, judging by the finds of Ewart Park/Class 4 type swords in France and the Low Countries, onto the Atlantic and North Sea coasts of the Continent (Burgess 1968).

Of relevance here is a study of South Welsh socketed axes by Stuart Needham (1981), where he showed that the distribution of the moulds for these axes was largely in southern England. These axes have a distinctive three ribbed pattern on the face. The distribution of the finished product however is mainly north of the Bristol Channel in South Wales. These artefacts, like earlier stone axes, appeared to have had a value away from their area of production, and to have been traded or at least transported across the Bristol Channel. It is therefore possible to show that the finished axes were intended for use in an area away from the zone of production. The implication is that this may have been a common feature of the Late Bronze Age metalworking community, that bronzes such as swords, may have been made in one place with the prime intention of use well away from the area of production, perhaps with the sea/water crossing being of importance as an event which helped towards the successful future of the sword.

The few finds of prehistoric cargoes that we have from western Europe are open to alternative interpretations. In 1923 a large hoard of bronzes was found in Huelva on the Atlantic coast of southern Spain (Almagro 1940) This included many swords with features similar to carp's tongue swords from the French Atlantic seaboard, and has been considered as shipwrecked cargo. The location of the find, in a focal point within a river estuary, has led to the suggestion that the deposition was a deliberate act and thus that the motive for it being there was votive or ritual rather than accidental (Ruiz-Gálvez Priego 1995; Brandherm 2007).

I therefore suggest that a sword made at a distant liminal or even magical location and then brought over long distances, preferably by sea, would have had an attraction of its own by virtue of its origin. Before it was used as a weapon it would have had a story attached. The pulling power of the exotic resonates throughout prehistory. The best known example of this are the well made and finished stone axes of the Neolithic made at places such as the Langdale Pikes in the English Lake District or Tievebullagh in Ulster and then transported over long distances throughout the British Isles (Bradley 2007, 133). Jade axes were even more treasured, and recent work has shown that those from western Europe originate from high up in the Alps of northern Italy (Pétrequin et al. 2006) Their very desirability seems to have been measured by how far they had come and how inaccessible their provenance was. It seems feasible to suggest that an individual sword made at a remote and distant island from across stormy waters would have had a similar cachet.

5.2.3 The Final Touches

Bronze sword blanks had to be finished to a state where they could be useful as weapons, presumably with the help of craftsmen versed in other skills. Swords fresh from the mould needed to be ground and polished, and the edges sharpened. This can be imagined as an activity needing direction rather than a great level of skill, and may have involved children or apprentices using abrasive stones. The attachment of hilt plates would have involved more skill. These, most likely made of antler, bone, or hardwood, were riveted to either side of the hilt, and may have been inlaid with other materials to produce patterns designed to impress. Few organic hilts have survived. Two bog finds come from Ireland: the sword in Figure 1 from Muckno, Co. Monaghan with its bone grip, was illustrated by Evans (1881, figs 358 and 359; Eogan 1965, no.29). The other sword is shown in Figure 2 and is from Mullylagan, Co.Armagh (Evans 1881, fig.361; Eogan 1965, no.91; Waddell 2000, 237 fig 100). The hilt grip on this sword is bulky with rivets attaching it to the sword longer than any others; because of this it seems more likely that this was a nineteenth century addition to the weapon (Figure 1).

Given the proportion of swords from bogs – around 25% of the total – it seems strange that we have so few organic hilts from find circumstances which would have favoured their survival. It is possible that the hilt plates, rivets and pommels were removed, perhaps to be attached to a new or different weapon. In this case, they may have been considered as being as equally valuable, or even more valuable than the swords themselves, either because of the material from which they were made or their associations with individuals or groups of individuals. Conversely, it may have been thought that they did not have the same magical significance that the bronze of the sword possessed when offered to the earth. In either case they were treated differently from the metallic sword blade.

Figure 1: Sword Hilt from Muckno, Co.Monaghan

Figure 2: Sword hilt from Mullylagan, Co.Armagh

From a later period, but of note here as it may indicate the survival of an ancient tradition, is the recently discovered seventh century AD Anglo Saxon hoard from Staffordshire. This was composed not of swords but sword fittings (Leahy 2009). These had been methodically removed from iron and steel swords and were probably war booty, captured perhaps from Northumbrian armies, and then buried near Tamworth at the heart of the Mercian kingdom. Accounts in Anglo Saxon literature such as Beowulf (Heaney 1999) stress the importance of collecting and burying retrieved booty as a signal of victory. Some of the fragments are inscribed, indicating that the attached sword had been personalised before it had been taken apart by the victors.

A number of horn or bone hilts are also known from Middle Bronze Age Irish dirks and rapiers, such as Shower, Co. Tipperary (Burgess and Gerloff 1981 no 116) or Glack, Co. Donegal (Burgess and Gerloff 1981 no.204). The preservation of organic material attached to bronze is obviously dependant on the soil conditions within which the weapon was buried. Both the Irish examples have come from bogs in circumstances which would appear to have favoured the survival of organic plates. No wooden hilt plates are known for any Irish swords or apparently, rapiers. This may be because of the perceived value of the hilt plates as suggested above. In this case wood may have been considered as a more utilitarian material unsuitable for a hilt designed to display the wealth or status of the owner. Another reason may be that, in practice, most woods, especially softwoods, would be difficult to fashion into the curved shape of swords shoulders because this would involve working across the grain, creating a danger of splitting. Some hardwoods would be more suitable; apple or box, for example, can more easily be carved into delicate shapes, though not as easily as bone or horn.

No swords with cast bronze hilts have been found in Ireland, although there are some rapiers, for example from Beleek in County Fermanagh (Burgess and Gerloff 1981 no. 706), so this clearly indicates that the technique of hollow casting was used or at least known about in Ireland. These hilts were not solid but cast hollow, apparently as an addition rather than an integral part of the original casting. The technique can be clearly seen where the tang is visible, such as a sword from Yorkshire illustrated in Colquhoun and Burgess (1988, no.593). There are more swords with cast hilts in

Britain, from early examples such as the Ambleside hoard (Colquhoun and Burgess 1988, nos. 17 -19) to later northern British swords with heavy Ewart Park type blades (Colquhoun and Burgess nos. 593-595; 599-600). While continental *Vollgriffschwerter* (such as examples which can be seen in Harding 2000, 276 fig. 8.2) normally have ornate, decorated hilts, later British examples are characterised by plain hilts and mushroom like pommels (Colquhoun and Burgess 1988, nos. 593 to 602). The presence of a splayed terminal in itself suggests the attachment of a pommel. One Scottish sword with an organic hilt from Aird on the Isle of Lewis clearly has the top of the wooden hilt plates shaped to take a pommel (Colquhoun and Burgess 1988, no.587). It seems therefore highly likely that organic (bone or wood) pommels of a similar style would have been fitted to all swords in Britain and Ireland.

All hilt plates were attached to the metal hilts by bronze rivets, circular in cross section. These vary in size, generally decreasing in diameter over time from as much as 4mm on Eogan Class 1 swords to around 2 mm on Eogan Class 5 and 6 swords. The latter are normally described as pin rivets (Figure 3) and sometimes have decorative dished heads. Most rivets are slightly dished where they would have been gently hammered to hold the hilt plates in position. The size of rivets is obviously related to the size of the holes in the hilt. Smaller holes would generally improve the inherent strength of the hilt, so it is feasible to see this development as a technological advance.

Figure 3: Pin rivets on a sword from near Athlone, Co. Westmeath

It is possible to visualise a finished Irish sword of the Late Bronze Age, the recently acquired proud possession of a veteran, or perhaps aspiring, warrior. The new weapon would have had a sharp, polished blade, a carved organic grip riveted to the cast hilt, and a mushroom shaped pommel. It is quite possible that the hilt may have been inlaid, coloured or otherwise decorated to show the status or taste of the owner. The rivets would have been made into a decorative feature, perhaps again highly polished or just kept bright by constant handling.

5.3 THE SWORD AS WEAPON

In this section the archaeological and experimental evidence for the use of swords as weapons, both in Ireland and elsewhere, will be analysed. There are two main areas of research to be considered here. The first is the evidence we have for the status and nature of warfare in Irish Late Bronze Age society; that is, what people fought about and over. The second is how the sword was actually used as a weapon. The latter needs to be thought about in two ways – how the sword was actually held and managed, and how a warrior would use it with the other weaponry available in the prehistoric arsenal.

5.3.1 The Nature of Warfare and Conflict in Late Bronze Age Ireland

What should we understand by the terms ‘warfare’ and ‘conflict’ when applied to the Late Bronze Age? I use the word warfare to describe a group action with some socially cohesive direction; what Ferguson (1984, 5) defined as ‘organised, purposeful group action, involving the actual or potential application of lethal force’. Conflict is best seen as a less fluid concept and, while still involving violence or the threat of violence, is not organised. Put into this context, warfare is organised conflict, normally on a large scale. I will argue that weaponry in the Late Bronze Age was used more for conflict than warfare.

The very fact that we have a number of substantial artefacts specifically designed as weapons indicates that conflict was present and the damage to these weapons suggest they played a role in conflict whether implied or real. Keeley (1996, 65) in a study of

war before civilisation has suggested that the most common form of conflict in what he terms 'primitive warfare' (a loaded term in itself) were raids or ambushes. Such a raid, and its tragic repercussions, form the basis of the Tain (Kinsella 1969) the Irish epic tale involving the search for and capture of a famous Bull from Ulster. This was not written down until the twelfth century AD, though the lack of any Christian or classical references suggests it belongs to what was then a distant pre-Christian past, whether Iron Age or even possibly Late Bronze Age.

Both the Irish tales and classical Greek sources make much of the set piece duel between chosen champions as a normal part of in place of inter-tribal relationships and conflict. There are also other aspects of what we might call directed violence – revenge killings, hostage killings and so forth. I suggest, therefore, that when we consider swords being used we should imagine either individual combat, with pre defined rules, or spontaneous use as part of a surprise attack (or defence), or small scale battles (a lot of shouting and build up, but very little action) or brutal execution. What we should not be thinking about are large battles with massed ranks of swordsmen tasked as part of a wider scheme with a purpose. We should not, therefore, be thinking of battlefields but of scenes of conflict. This is more like Newcastle City Centre on a Friday night with numerous fights born of petty vendettas and jealousies than the Battle of the Somme. Osgood and Monks (2000, 8) summarise it usefully: *'In many instances warfare could be argued to be a part of everyday life, a form of social interaction just like trade and exchange, marriage and feasting.'*

While Bronze Age specialists have had no issues with the idea of organised warfare in that period, archaeologists more used to the study of the Early Iron Age of Britain and Ireland have retreated somewhat in recent years from the idea of conflict as a driving force in society. In its place has been put forward the concept of a largely peaceful, egalitarian, agricultural population (Hill 1995). This is tied in with the view of hill forts as being more about prestige and symbolism than defence. However, hill forts as we generally view them have their origins clearly in the Late Bronze Age, clearly seen in Ireland at such sites as Haughey's Fort (Waddell 2000, 215-218). Their development has been discussed elsewhere; here, it is necessary to point out that the concept of a 'bloodless' Early Iron Age has been challenged (James 2007).

5.3.2 Using the Bronze Age Sword

Middle Bronze Age rapiers generally have a narrow, tapered and pointed blade well suited to thrusting, rather like an elongated dagger. Thus they are clearly intended to be stabbing weapons, designed to incapacitate an opponent primarily by the use of the point. The grip or handle is riveted to the blade itself rather than a tang, leaving the grip more susceptible to breakage if the rapier is used as a slashing weapon, as a slashing or cutting action would have the effect of putting stress on the handle. The distribution of the weight in both rapiers and daggers is biased towards the hilt. Burgess and Gerloff (1981, 113) believed that the demise of daggers and rapiers was one of the casualties of the changing fashions and technical innovations of the Penard Period at the start of the Late Bronze Age in Britain.

By contrast with rapiers, Late Bronze Age swords from the Ballintober type (Eogan Class 1) onwards have wider blades with a hilt integral to the blade casting. These Irish Ballintober (Eogan Class 1) swords are leaf shaped, with the widest part of the blade just over a third of the way between the point and the hilt. These blades are potentially dual purpose, in that they can be used for thrusting and cutting or slashing. However, in my experience, as slashing weapons they feel remarkably clumsy when compared with the more common and later swords of Eogan's Class 4. These latter weapons have the balance (though not necessarily the weight) concentrated at the widest point of the blade, allowing the swordsman to make a cleanly balanced sweep.

There are, then, two main actions involved in using a sword as an offensive weapon. The first is the thrust, using the point of the weapon to puncture the opponent's flesh or armour. The second is the slash, using the edge of the weapon to slice through the opponent's body. The length, shape and weighting of the blade is therefore of fundamental importance in providing the swordsman with a weapon of the required characteristics. Unlike some more recent types of steel swords, prehistoric weapons were two edged, allowing the swordsman to make use of either side of the blade. Most swords however are not exactly symmetrical, and the unequal wear visible on parts of the edges of some swords suggests personal preference in the use of any weapon**.**

Molloy's experimental work has suggested that the main value of the slashing action of the swordsman is when he draws back the weapon towards him through the flesh of his victim. As he does so the curve of the leaf shaped blade cuts deeper causing maximum laceration (Molloy 2007, 107). The pommel, and any attachment loop, would stop his hand from losing the grip of the sword. The length of the sword has a bearing on how well this could be done, and how adroitly the sword could be handled. The longer the sword, the greater its reach and the arc of the cut; the downside of length is that the weapon becomes more unwieldy to handle.

Some commentators have stressed that the move from rapier to sword and subsequent changes in the size, shape and weight distribution of the blade throughout the Late Bronze Age should not be considered as a straightforward typological progression towards improvement in design and function. To Clements (1997, 176) *'each sword and manner of use was particular to the conditions it was devised for and to the user's own preferences'.* Molloy (2007, 104) sees sword development in terms of local responses to introduced weapons, and does not view the introduction of the leaf shaped sword as a revolutionary act *per se.* This contrasts dramatically with the view of archaeologists from previous generations, who viewed the sword as dramatic evidence for the introduction of assertive new peoples or radical technological change. R. Macalister, for example, wrote in the first part of the twentieth century of the 'Sword People' with their 'invincible energy' invading Ireland (Macalister 1928, 73); he used the bronze sword to define the aggression and *Leitmotif* of a complete tranche of Irish prehistory.

Lastly, I have assumed throughout that swords were primarily weapons and that the majority were used as such, if only for short periods. The converse view is that they were intended primarily to indicate status and prestige. Bridgford's examination of the edge damage clearly visible on a sizeable proportion of Irish swords concluded *'It is clear that almost all the swords were of a suitable design and adequately manufactured to be useful as weapons and, from the damage exhibited, that a large proportion were physically used, most probably in combat.'* (Bridgford 1997, 113).

5.3.3 Getting a grip

How were the swords held? One feature that immediately differentiates these Late Bronze Age weapons from swords of the Iron Age and later is the lack of a wrist guard protecting the user's hand from slipping down onto the blade. This seems odd as we are so used to seeing this feature on modern weapons. It does however carry on from what we see on Middle Bronze Age rapiers in Ireland and Europe with their sloping shoulders. The idea of a wrist guard was certainly known elsewhere in the Bronze Age. Mycenean Bronze Age swords show a development from Types A to C , all of which have upward sloping shoulders providing protection to the hand, to the sloping shoulders of later types apparently influenced by Naue II swords (Wardle 1997, Figure 22: Molloy 2008). Naue II is a widespread type which was introduced to the Aegean from Europe in the closing centuries of the second millennium BC (Osgood and Monks 2000, 125) and appears to have almost superseded local development of weapon types.

The reason for the narrow, rounded shoulders is tied in with the method of holding the sword. The most comfortable way, in my experience, is by gripping the hilt with three fingers, and placing the forefinger and thumb on, or across, the ricasso notches at the top of the blade. This grip, with the thumb across the ricasso, is illustrated on a replica sword in my possession (Figure 4). This practice steadies the blade, much as a traditional method when using a wood saw is to place the forefinger over the blade, in order to steady the cut. It also allows the swordsman a long, flexible reach, as it takes account of the flexibility of the wrist. Conversely, having a wrist guard in place puts the grip more at right angles to the line of the blade and lessens the reach and stabbing capabilities of the weapon. Kristiansen (2002) has suggested a slightly different grip, with the thumb and forefinger meeting over the shoulders rather than the ricasso. I find this grip uncomfortable and inflexible, largely because of the presence of the pommel which restricts the movement of my wrist. It seems reasonable to assume that the hands of men in the Bronze Age, used to heavy physical work, would be no smaller than my own and probably were larger. I would count my hand size as average.

Figure 4: Suggested sword grip

Kristiansen (2002) also found that when he attached a leather strap to the hilt, this provided a more secure grip and he was able to create a greater force in slashing movements. These loops would also keep the sword securely in the user's possession, rather like that on a 'traditional' police truncheon used in Britain until the 1990s. My own experience in the Police service is that such loops are valuable features either to stop an assailant knocking it out of the hand or to stop it being simply dropped during movement. The type of grip used is illustrated on a truncheon (Figure 5) and a replica sword (Figure 6). The pommel on the Bronze Age sword would have served to keep this loop in place; what started as a small practical feature on daggers may thus have grown into a decorative (and unnecessarily large) feature on swords.

Figure 5: Police truncheon grip with attached leather loop

Figure 6: Sword grip with attachment loop and thumb on ricasso

Irish swords vary greatly in length, from under 450 mm to over 700mm. A significant number are noticeably shorter than those from Britain. A longer sword is not always an advantage over a shorter one. The short sword or *gladius* was the sword of choice for Roman soldiers and gladiators for much of the Empire. What determines the most

effective and useful length for a sword? Coulston (2007, 42) has argued that the gladus was more compact and less reliant on momentum than a longer version. A longer sword, the Spatha, became more popular during the later empire with cavalry and charioteers.

5.3.4 The Complete Fighting Man.

Swords were not the only weapons available to Late Bronze Age warriors. Images carved on the stone Stelae of southern Europe consistently show the warrior's equipment to comprise of sword, spearhead and shield (Harding 2000, 286, fig. 8.4). In addition many also show bows and arrows, armour, what appear to be chariots, and mirrors. We have swords, spearheads, and wooden and leather shields from Ireland (Waddell 2000, 241, fig.103). Such organic shields may have had an offensive as well as a defensive role. Roman soldiers were trained to thrust the shield forward horizontally at face level in order to catch the opponent off balance. This would then allow the assailant to land the killing blow, provided he could reach the victim. The downside is that he would be undefended himself. The length of the sword compared to the size of the shield would therefore be of some importance. Whether bronze shields, made from sheet bronze, were used in conflict situations has been discussed most recently by Osgood (1998, 8-11). Coles (1962, 185) believed they were designed primarily as ritual or votive objects, an opinion echoed by Bridgford (1997, 113). It seems unlikely that the sheet bronze used would have survived many blows from a bronze sword or spearhead.

Modern police public order training is of interest here as the shields used are designed primarily to deflect blows and missiles and are thus defensive. I have undertaken such training and it is probably closer to the reality of Bronze Age warfare than modern military training which is concerned primarily with the use of and threat from firearms. Training and tactics are subject to national guidance (ACPO 2010). Police shields fall roughly in to three types. The first two are rectangular shields used mainly in conjunction with other shields in much the same way as the Roman Army would form and link shields for defence. The second, and of relevance here, is a smaller, lighter, round plastic shield, similar in size to those made of wooden and leather of

Late Bronze Age date. These are used by officers who need to be more mobile, mainly supervisors and 'snatch' teams designed to move forward of the other officers, arrest troublemakers and then return to safety behind the large shields. In order for the shield to be used as a defence the officer has to be aware of where the danger is and move quickly to deflect it. The trade off is that of weight and manoeuvrability against more complete protection. Use of a sword in connection with a small shield would be much the same, in that the protection offered is minimal and so the shield would need to be used with great skill *in conjunction with the sword* to be effective.

Spears were a well attested part of the armoury of the Late Bronze Age warrior. There are many hundreds of spearheads from Late Bronze Age Ireland. They are also known from throughout western Europe where their use in warfare has been well documented. Spearheads have been found embedded in human skeletons. At Over Vindinge in Denmark, a man in his 50s was found with a bronze spearhead embedded in his pubis. New bone had grown around the spearhead, so this was an injury he had survived (Bennike 1985; Osgood 2000, 21). At West Littleton Down, Tormarton, Gloucestershire, two skeletons were found and excavated in 1968 in advance of a gas pipeline. One had the fragments of two spearheads embedded in the spinal cord and pelvis, while the other had a hole in the pelvis apparently caused by a spearhead. These two young men, aged around nineteen, had been placed without apparent ceremony in a ditch or pit; two further bodies were found in a subsequent excavation in 1999 (Knight, Brown and Grinsell 1972: Osgood 2000, 21- 22). An earlier find from Dorchester on Thames is that of a human skeleton where the pelvis had been pierced by a triangular bladed spearhead which had broken off *in situ.* Such was the force of the blow that tip had bent (Osgood 1998, 21). It is quite possible that spearheads were intended to break off within the body of the victim, and likely therefore that the wooden spear shafts were designed to snap following impact.

Fighting with a sword *and* spearhead would appear to be difficult, or at the least impractical. Spears can be thrown or used at close quarters, and would have been more expendable than swords, so it is most likely they too were used with a shield, while perhaps the sword stayed sheathed until closer combat became necessary. Later Irish sources called the warrior the *gaisced,* a compound of the Irish word for spear *gae* and shield *sciath,* suggesting that, by the end of the first millennium AD at any

rate, spear and shield was the recognised basic outfit of the fighting man (Mallory and McNeill 1995, 156).

Up until now the implication has been that the warrior fought on foot, although chariots have been mentioned in connection with their appearance on the stelae of southern Europe. Did Late Bronze Age warriors use horses? Evidence from Ireland regarding the use of two wheeled carts or chariots in conflict is sadly lacking (Waddell 2000, 275). Neither is there any evidence to connect the use of swords with horse riding. It is likely that the origins of combat warfare on horseback go back to the ninth century BC in eastern Anatolia and northern Iran and that the riding of horses did not become a significant feature of warfare in mainland Europe until, at the earliest, the eighth century BC (Drews 2004, 147). Such a date would put us right at the end of the Late Bronze Age in Ireland. The earliest definitive evidence for the use of horses to pull transport belongs to the 'harness hoards' with identifiable horse bits which are an Iron Age feature (Cooney and Grogan 1999, 196).

Our twenty first century romantic view of real and fictional warriors of the past invariably places them on horseback. There are three advantages to warriors on horseback; firstly they are very mobile, secondly they are impressive, and thirdly galloping horses are frightening. From my own experience, having taken part in riot training with horses, the power of a horse charge is impressive. I have moved out of the way (very quickly) to allow horses through. Yet the power of a horse charge is quickly spent. Once through they have nowhere to go. A failed charge is wasted energy. Fighting from a horse has the advantage of momentum and little else. An injured horse and dismounted rider is an easy target. We should not consider that warriors on horseback are superior to those on foot. They just look better.

5.3.5 Comfort and Style

It is likely that a warrior wore his sword throughout the day and night as a symbol of prestige and to stop it being taken from him. It would therefore have to be carried in a reasonably comfortable manner yet still be easily accessible and, perhaps most importantly, visible. Irish bronze chapes, which would have been attached to the base of scabbards, were catalogued by George Eogan (1965) in the Sword Catalogue.

These scabbards have not survived in Ireland as they would have been made of leather or even wood. They would most likely have been attached to a waist belt or worn suspended from a loop around the shoulders. Wooden scabbards of Middle Bronze Age date are known from Danish barrow burials (Figure 7).

Figure 7: Middle Bronze Age wooden sword scabbard from a barrow at Støre Køngehoj, Jutland, Denmark (National Museum of Denmark)

5.3.6 Just being a Bronze Age swordsman

Putting flesh onto the bare bones of our Late Bronze Age Irish sword carrier is tricky indeed. Was he part of a warrior aristocracy, or perhaps a member of an entourage of adolescent 'hangers on', or possibly a hard working farmer destined to take up arms only at the times of year when agriculture made fewer demands? Garcia (2009) has suggested that access to swords in Late Bronze Age Iberia was restricted to a select few and that war as an activity was 'frequent and highly valued'. There are perhaps four times as many swords from Ireland than Spain and Portugal; these have been recently catalogued by Brandherm (2007). Does this mean there were more warriors in Ireland than Spain or Portugal, or that swords were carried by a different group within society, perhaps of lower status? Or is the distribution and the numbers known to us merely a reflection of the circumstances of recovery of these weapons thousands of years after they finished their lives?

Excavations at Flag Fen in Cambridgeshire over three decades have produced numerous bronzes, including swords, from the periphery of what seems to be an unexceptional Late Bronze Age settlement. Asked by a reporter in the early days about the value of a bronze sword, Pryor equated it to an anti-aircraft missile. Because of the quantity of bronzes he has unearthed within a limited area, he now reckons

'most tribal warriors could have possessed a bronze sword and spear' (Pryor 2003, 287). This could put our warrior as the prehistoric equivalent of the Kalashnikov toting gunman of contemporary central Asia or Africa. At the end of 2009 the price of a Chinese made Kalashnikov in Afghanistan was as little as $150, perhaps three months salary for an Afghan (Hodges 2009). The price goes up and down depending on demand and availability; perhaps something similar was happening in Late Bronze Age Ireland with the bronze sword as the Kalashnikov of its day.

5.4 CONCLUSIONS

A sword pulled out of the mould is little more than a rough, ragged blank, ready to be polished and sharpened, ready for the hilt plates to be added, ready for the whole to be personalised and therefore belong to an individual. Such a journey to reach that person may have involved sea or land crossings. This journey may in itself become an auspicious part of the life of the sword and involved a wider community of seafarers, based on coastal areas and islands. It could equally have encompassed a journey made by a member of an elite anxious to prove his worth. Whatever the history of any particular weapon, it is likely that the journey it made was of importance to its story.

The possession of a bronze sword must have acted as a visible and recognised symbol of status in Late Bronze Age Ireland. That status would have been obvious wherever the swordsman travelled, as the sword, or at least the hilt or the scabbard, would be on constant display. Its owner would be practised in its use, yet, to avoid damage, would use it sparingly. It may also have indicated what tribe or family the owner belonged to. Together with his sword its owner would also have a spear with spearhead and a round shield made of wood or leather. Together these formed the accoutrements of a warrior, though whether this was a full or part time occupation is impossible to tell. We have no evidence that swordsmen fought on horseback in the Late Bronze Age of Ireland.

To the modern eye Irish Bronze Age swords, with their short hilts and rounded shoulders, look strange. Once fitted with hilt plates and a bone grip, the easiest way to hold these swords is with the thumb and forefinger over the shoulders, their tips

resting either side of the blade in the *ricasso*, the notch at the top of the blade. This gives the swordsman an effective stabbing as well as a slashing weapon. It is possible that a strap, secured by the pommel, would have helped with the security of the grip. The design of these weapons persisted in western Europe over five centuries, so we can assume that, in practised hands, they were efficient and desirable weapons.

6. THE DEATH OF THE SWORD

'The River Galliv (Galway) was dried up for a period of a natural day; all the articles that had been lost in it from remotest times, as well as its fish, were collected by the inhabitants of the fortress, and by the people of the country in general.'

Annals of the Four Masters for 1178 (O'Donovan and Ryan 2011)

6.1 INTRODUCTION

At some stage the life of a Bronze Age sword came to an end. It was no longer used for its primary purpose, as a weapon. For many, perhaps most swords, this meant what we might, through twenty first century eyes, view as a symbolic burial. For others, it meant being broken and the base material from which it was made, the bronze, being recycled and cast into new weapons and tools. Throughout the Late Bronze Age vast numbers of bronzes, including swords, were 'buried' - placed or deposited into the rivers, lakes, bogs and soils of Ireland. There they remained until chance or deliberate search led to their recovery and transfer to places above ground into a radically changed world oblivious of the original reasons for their burial. Some ended up as curios in local farmhouse kitchens, or passed into the hands of local dealers in antiquities, or were melted down; others found their way into the hands of antiquarians and collectors, their provenances forgotten or imagined

It is fortunate for archaeologists that bronze survives remarkably well when placed in the ground. Had all the swords been melted down and recycled, then we would not have the range of artefact types that covers the whole of the Late Bronze Age. We have the practice of sword 'burial' to thank for this recovery of the hundreds of known swords from Ireland. What we are unable to tell is what proportion of all the swords made during this period were buried, and what proportion recycled. How many of those deposited in the ground have been recovered (and lost to knowledge through not being recorded) and how many have yet to be recovered must remain a totally unknown quantity.

There is no known and reliable direct association of bronze swords with human burial in Ireland. The tradition of burying weapons with individuals as grave goods in marked or unmarked graves did not extend to Ireland. Instead there was a different tradition, which stretches back into prehistory, of placing complete or broken weapons and artefacts into significant locations within the prehistoric landscape. This meant they were placed either in wet places or in the soil, often beneath or alongside stones. Such a deposition may have been intended as temporary or permanent. The reasons for believing this to have been the case are discussed below.

The condition of the sword at the time of deposition appears to have been of importance to those people involved in the process of the 'death'. By this I mean whether the sword was complete or fragmentary, and whether it had been damaged in any way. The extent of damage is significant; in particular, whether it was such as to put the weapon beyond use in the form in which it was made, i.e. as a sword. The evidence for this, the process, and the potential reasons and implications are discussed below.

6.2 DEATH AND THE LANDSCAPE

This section is focussed on the sword as an artefact placed into the landscape. There is another way at looking at this, and that is trying to envisage the landscape as the living backdrop to the many human stories and tragedies which took place during the Late Bronze Age, which must have been the catalyst for the deposition of these weapons. This section will therefore also include recent work using modern technology such as GIS in an attempt to visualise the prehistoric landscape of Ireland, particularly in relation to rivers, bogs and waterways. Since the publication of Eogan's Catalogue of *Irish Bronze Swords* in 1965, and especially over the last two decades, there has been increased interest in the way people viewed the landscape in the Bronze Age. This is particularly so in relation to the choice of places for the deposition of particular types of artefact.

6.2.1 The Landscape of Ireland

Ireland is a wet country. More than any other part of Europe, it is water which defines and explains the landscape. The prevailing westerly winds bring precipitation throughout the year, but its position at the apex of the Gulf Stream means that almost all falls as rain, and snow is rare. The driest parts are in the east, especially around Dublin, making the east coast the part of the island most suitable for modern cereal cultivation. Upland areas lie mainly around the coast; the mountains of Kerry and Cork in the south, the Wicklow Mountains in the east, and the Mournes and the Sperrins in the north. To the west the hills of Connemara and Donegal catch the Atlantic rain. The rivers draining the vast areas of raised bog in the Irish midlands (the peat commercially used as fuel), reach the open sea only with difficulty. The Shannon flows slowly, widening into loughs as it picks up numerous smaller rivers. In the north, rivers from the drumlin belt such as the Blackwater and the upper Bann flow into Lough Neagh, or westwards to the Atlantic, like the Erne. South of the Shannon catchment area, shorter rivers such as the Barrow and the Liffey circumvent coastal hills to drain into the sea. Thus the centre of the country acts like a huge basin, and water escapes only slowly.

6.2.2 Depositional Evidence

This section will examine the evidence available relating to the circumstances surrounding the discovery or recovery of bronze swords in Ireland. This comes from information recorded concerning the recovery of swords and catalogued by Eogan in two publications (Eogan 1965; 1983) and through this research.

Each sword, as we have seen, had its own lifecycle, and consequently death, to be recovered or retrieved many years later. In common with other bronzes swords were placed beneath the surface, out of sight or perhaps visible in shallow water. In terms of recovery, out of the 700 swords in this catalogue, only a few were found under modern excavation conditions. These are discussed below. The vast majority of swords have either a vague provenance or none at all, a problem which also extends to

other types of bronzes such as socketed axes (Eogan 2000, 90). It is impossible to establish the veracity of the information provided with every weapon. It is probable, however, that any sword with a river provenance is reliable in that it is most likely to have come from the named river though its exact findspot is not discernable. Non river finds, generally, cause more problems; sword E623, for instance, said to have been found at 'Tara', is likely to be an invented provenance designed to appeal to a interested Victorian antiquarian. Contextual information is, therefore, sadly lacking for the majority of swords.

To summarise, there are two distinct sources of recovery:

River finds, either through chance, as the result of systematic dredging or, in more recent times, scuba diving.

Agricultural finds, normally through peat cutting or drainage work.

In addition, a further category which can include either of the above covers archaeological involvement:

Finds subject to excavation. This covers swords found during planned excavations, and chance finds where the find site has been excavated within a short while of discovery.

6.2.2.1 River finds

These form the single major category of sword finds. **Total figure yet to be identified, but O'Carroll (1986) gives the figure as 37% of all contexted swords**. The majority have been discovered as a result of river dredging.

The history of dredging in Ireland has been examined in some detail by
Lorraine Bourke (2001) and can be summarised here insofar as it relates to sword discovery. From the nineteenth century onwards rivers were dredged to improve

navigation, involving the deepening of often narrow channels and the removal of shallow fording places and small islands. This necessitated the mechanical removal of vast quantities of river silt and the transportation of this material to other locations, normally on the river banks. Work started in earnest in 1831 as a result of the establishment of the Irish Board of Works, a body intended to improve the navigation of Irish rivers and expand the use of steam boats for trade on inland waterways. In addition to the navigation benefits almost a quarter of a million acres of land were exposed to flooding and controlling the flow of water was seen as both an essential safeguard and commercial sense for the expansion of agriculture. In addition, drainage schemes provided employment for the destitute during the disastrous famine of the 1840s.

While many rivers were subject to dredging operations during the first half of the nineteenth century, the main effort was focused on the Shannon. In 1843 the Shannon Commissioners – a separate body from the Board of Works - concentrated work on the shallowest of all the fording points on the river at Keelogue, Co.Galway. Over two metres of alluvial material and the glacial clay beneath was removed, the latter by blasting with gunpowder. Four swords in the NMI from the Wilde collection are recorded as having been discovered during this operation (E177, E178, E179, E510).

The lower Bann is the only river to flow out of Lough Neagh. Between Toome and Coleraine it flows northwards from lough to sea, draining much of modern Ulster. Between 1847 and 1861 the McMahon scheme attempted to control the level of Lough Neagh to alleviate regular flooding and to improve navigation of the river. Natural barriers to the flow were removed or lowered at Toome, Portglenone, Lough Beg, Portna and the Cutts, just south of Coleraine. Further dredging operations, instigated to complete the nineteenth century work, took place between 1930 and 1942. Bourke (2001, 23) lists 114 Bronze Age artefacts from the lower Bann. There are around 40 swords recorded as having been recovered from the lower Bann. This is around 12% of the total figure of swords from Ireland with a named provenance (named provenances total around 370, or about 55% of the total number of swords in this catalogue).

Following independence in 1922 dredging activity intensified not only in the Shannon but also in a number of smaller rivers in the fledgling Irish Free State. The years 1930 to 1934 saw work concentrated at Killaloe, Co. Clare, historically an important crossing place of the river where Brian Boru was to build his palce in the tenth century AD. Over 300,000 tons of material was removed from the river bed and dumped in Lough Derg. Some years previously Adolf Mahr had been appointed as Keeper of Irish Antiquities at the National Museum in Dublin (see History of Research). He took a close interest in the work at Killaloe and saw to it that arrangements had been made for workmen to be adequately remunerated for handing their finds to the museum. Two swords (E113 and E539) come from Killaloe during this period.

Mahr also maintained close contacts with the engineers working on the River Barrow, which rises in the Slieve Bloom mountains in Co.Laois and finds its way to the sea at on the south coast. Above Athy, Co. Kildare, the river flows slowly through a wide plain prone to seasonal flooding. Comprehensive dredging in the river and some of its tributaries took place between 1926 and 1934, when 42 bronze artefacts were retrieved, of which six were swords now in the National Museum (E8, E28, E196, E97, E189 and E493) These34 can be added to the two discovered during nineteenth century dredging, one in Dublin (E27) and one in the British Museum (E95).

The Bann Dumps at Kilrea are made of material from the 1930s dredging discussed above. This had subsequently been planted with conifers. Systematic investigation of this riverine spoil by a team from the Ulster Museum in the 1990s produced the lower portion of a Late Bronze Age sword (E942) (Bourke 1994: Bourke 2001, 18). This involved the use of metal detectors and some mechanised stripping of the material. Organised scuba diving at places little touched by dredging has produced some worthwhile finds. Four swords from the Shannon – three complete and one fragmentary – are now in the National Museum, nos. E903, E905, **and two as yet undrawn.** These were all found during the 1980s.

Eogan (1983) mentions one, possibly two hoards as having come from rivers, though neither contains a sword. Two spearheads from Belturbet, Co. Cavan (Eogan 1983, 62, Hoard no. 49) may possibly have come from a river, while a bracelet hoard from

New Ross, Co. Waterford (Eogan 1983, 164, Hoard no.145) is stated to have been found 'in the bed of a small river'.

6.2.2.2 Agricultural finds

This category consists of swords recovered through a number of activities relating to agriculture such as drainage or land improvement. It also includes finds made during turf cutting. The cutting of peat for fuel is common across much of Ireland, especially in the west and the Midlands, where it takes now place on a commercialised mechanised basis. It is not always possible in the literature to separate turf cutting from other farming activities such as drainage or land improvement. The reclamation of bogs or boggy land for grassland has been a constant aim of improving landlords and tenant farmers for over two hundred years, and many find circumstances simply state that the sword was found 'in a bog'. Taking the two categories together, 36 swords out of 370 belong to this category…about 10% plus of provenanced finds.

While it has always been possible for local collectors or museums to keep a watchful eye over planned river dredging in a search for swords and other objects of interest, it has been far more difficult to do so for the chance finds from everyday agricultural activity. Consequently, although swords in this category are more likely to have been retrieved from the actual places where the swords were placed in prehistory than is the case with rivers finds (see below), the actual details of recovery may be open to misinterpretation.

6.2.2.3 Finds subject to excavation

Of the 700 plus swords from Ireland only a handful have been recovered under conditions where an archaeologist has had some involvement in the process, often belatedly. At first glance this is surprising considering the amount of excavation that has taken place in the 1990s and the first few years of this century; even more so when the nature of much excavation in the Republic has been to examine huge swathes of landscape in advance of road development. The solution to this conundrum

must lie in the observation that swords were placed in rivers and wet places on the edges of settlement, or specific places away from habitation, the very places that roads and development tend to avoid. They were not placed amongst houses nor randomly in the landscape. Consequently the majority of swords in this category are chance finds subject to excavation after recovery.

In February 2004 a Wilburton type sword (no. 961) was recovered as part of a hoard by a metal detectorist at Tamlaght, Co Armagh. The associations consisted of a plain copper alloy sheet vessel of Jenisovice type, and of central European origin; decorated vessel fragments of Fuchsstadt type, and a copper alloy ring. The discovery was promptly reported to the Armagh County Museum. The site was revisited and the find spot examined by archaeologists from the Ulster Museum very shortly after discovery (Warner 2006; MacDonald and Ó Néill 2009). The landscape here is typical of the terrain around the city of Armagh, consisting of drumlins interspersed with boggy areas many of which have been drained in modern times. Excavation revealed traces of a possible scabbard or sheath beneath the sword, which had been set to rest almost horizontally and lying NNW/SSE. The Tamlaght hoard appears to have been carefully and deliberately placed on the edge of an inter-drumlin bog. In the Late Bronze Age the peat underlying the hoard would have been around 0.1m deep with sedges growing here on top of the peat. The excavators were of the opinion that the objects had been gently pushed into the wet ground from the adjoining dry land. They would then objects would have been immediately taken up when placed in position and quickly vanished from sight. It is possible that a tree root marked the spot.

Tamlaght is only a kilometre away from Navan Fort, the capital of late prehistoric Ulster, which lies within what has been interpreted as a ritual landscape consisting of hill forts such as Navan itself and Haughey's Fort, and wet places such as Loughnashade and the King's Stables (Waddell 2000, 333). The bowl and vessel, imports from Europe, fit in well with the interpretation of Navan as a seat of regional power during the Late Bronze Age with an aristocratic elite able to take advantage of trade links stretching deep into continental Europe**.**

Further south at the excavated late prehistoric hill fort complex at Rathgall in Co. Wicklow a sword fragment (not yet drawn) was recovered from a pit together with a

small bronze spearhead and a small socketed chisel (Raftery 1973; Becker 2010). The pit lay inside a ring ditch enclosure to the south east of the main enclosure. Within the same ring ditch were three separate cremations set apart from the pit. This is the only confirmed sword or sword fragment with any degree of association with a burial in Ireland. An area to the immediate north of the ring ditch produced evidence for bronze manufacture including fragments of clay sword moulds.

A crannog settlement at Knocknalappa, Co.Clare, was excavated by Joseph Raftery during the 1930s and 1940s (Raftery 1942) and a sword fragment found on the foreshore (no.114). A larger sword (not yet drawn) was found in similar circumstances at Island McHugh, Co.Tyrone, in 1985 (Simpson 1986). This sword was discovered during assessment of this expanded natural island for further excavation following a lowering of the water level in the lake

In 1949 three swords were discovered at Ballycroghan, near Bangor, Co. Down (nos E141, E142, and E143), while a field was being ploughed at double depth (Eogan 1983, hoard no.71). Some days later the site was visited and examined by E.M Jope who was of the opinion that the field was a previously drained marsh and that, taking into account the amount of worked wood found, the site had been a crannog (Jope 1953). An early seventeenth century Clandeboye estate map showed that, prior to land improvement, the area had been marshy. Subsequent excavation by Hodges (1955) produced no structural evidence for a crannog but instead structures which were interpreted as ‘cooking places’ or burnt mounds. This is interesting as a close connection between burnt mounds and metalworking has been noted in the English Fenlands (Yates and Bradley 2010, 412).

6.2.2.4 Documented associated finds

There are a number of swords found in association with other bronzes in circumstances which have been reliably documented. Eogan (1983) lists 161 hoards most of which have only scant details of discovery. Associated finds of interest are outlined below.

At Boolybrien in Co.Clare a sword tang (no.E112) was discovered in a bog, lying on a gravel layer, and associated with a bronze horn containing socketed axes, rings, a sunflower pin, and what has been described as a chain. Another bog find, two swords with complete blades but damaged hilts (nos E134 and E135) were found some 46 cm below the surface at Carran in Co. Donegal. The Dreenan or Boa Island Hoard, from Co. Fermanagh, was discovered in 1875 during the removal of a large rock in the course of agricultural operations. A damaged and previously repaired sword hilt (no.152) fragment was found with spearheads and socketed axes.

A hilt and upper blade fragment from Park in Co. Meath (E928) was found as part of a hoard in 1974 and published by Eogan (1983,113). The other bronze artefacts recovered were a small chisel, a hollow ring and a sunflower pin. In order to remove a glacial erratic on low lying farmland a mechanical excavator was used to dig a hole along one side of the stone. The scooped material included the hoard. It is quite possible therefore that the hoard had been placed in a pit alongside the erratic which could have acted as a marker. At Cooga in Co.Sligo a sword fragment (E595), two socketed axes and what had been described as a piece of bronze cake were found 'under a rock' on the edge of a cutaway bog during drain making in 1941.

At Blackhills in Co.Laois (E593) a sword was uncovered in 1961 together with a spearhead and socketed axe. All three artefacts were said to have been 'neatly' laid out side by side in a north east/south west orientation in a garden 36 cm below the surface (Eogan 1983, hoard no.95). There is no information about the location or condition of the garden.

The large assemblage of bronzes from Dowris in Co.Offaly was found in the early 1820s and has been discussed by Eogan (1983, Hoard no.119) and Herity (1971). It consists of 185 known artefacts, and was probably even larger. Five are swords. The rest of the material varies from spearheads and socketed axes to ball shaped objects identified as crotals and even a halberd. The earliest references suggest that the hoard was found in a bog but nothing else is known.

A similar problem surrounds the ‘hoard’ from the Bog of Cullen in Co. Tipperary (Eogan 1983, Hoard no.135). A large quantity of Bronze Age material is said to have been recovered from the 1750s onwards, including four swords now lost but which survive in published illustrations. These however are a small proportion of the ‘two hundred’ swords claimed to have been recovered here throughout the eighteenth and nineteenth centuries. It is of course possible, indeed likely, that many unprovenanced swords in modern collections come from this source.

More recent finds from metal detector users are conspicuous by their absence. The Portable Antiquities Scheme does not, unfortunately, extend to either jurisdiction in Ireland and, as metal detecting for archaeological material without a licence is, in both countries, effectively outside the law, finders of prehistoric artefacts have not been encouraged to come forward. In addition, in the Republic, archaeological finds are the property of the state, while in Northern Ireland, finders have to report ‘accidental’ finds to the relevant authorities within fourteen days or risk prosecution.

6.3 DISCUSSION

6.3.1 When and where?

Swords from dredging activity or spoil searching can only be classed as single finds, though they may originally have been deposited in association with other weapons, metal or organic artefacts, or even human bones. As they have been recovered from material removed from the river the exact find spot can never be located. Even if this were possible, the river currents mean that any artefact may have been carried a considerable distance. River currents may also have the effect of grading artefacts and depositing all those of a particular size in the same place, leading to an apparent concentration of artefacts that would be wholly false (Edgeworth 2011, 63). For example, the movement of artefacts with the current may have been stopped by barriers of harder material interrupting the river flow. Such barriers regularly form shallow crossing places, and this could be one reason why so many bronzes ended up at known fords.

This causes a problem, in that, even where we have well documented evidence of a river find, the sword may not have been in the same place as it was 'buried', and there is no way of telling whether it had been deposited singly or with other weapons or bronzes. Where we have reliable evidence of a sword being recovered from a bog or farmland, then, in Ireland at least, the sword is always in association with either another weapon or what appears to be a restricted range of artefacts. These include sunflower pins, spearheads, rings and socketed axes. These have been interpreted as male artefacts.

Turning to bog finds, Becker (2008) has pointed out that many Irish Bronze Age artefacts were buried in such a manner that it would be possible to recover them. In order to do so it is essential that the find spot is marked, either by placing it alongside a natural feature or adding a marker of some sort to the landscape. The point here is that within society somebody, or perhaps a restricted circle of people, knew where artefacts were buried. Placing an object in a bog leaves no unintentional surface traces so such a 'burial' could be discreet (Becker, pers. comm). Conversely, the landscape could also be part of the pageant of display. As such, objects did not always need to be hidden; in second century BC Denmark the Gundestrup Cauldron appears to have been placed on the surface of a dry bog which only later became waterlogged (Kaul 1995). Further, as Becker (2008, 13) has pointed out in relation to bogs, these were not inaccessible empty spaces, but places with a varying landscape both on the ground and in the memories of local people. Such a concept is equally true of mountainous or craggy landscapes, where bronzes can be found deposited beneath rocks or in crevices. It is spectacularly true of streams and rivers, which, as we have seen, define the landscape of Ireland more than anything else.

Becker's work follows on from Needham (2001) who suggested that bronzes may have been placed in the ground without any specific intention, or that the final fate of any bronze may differ from that originally intended. The shallow deposition or marking of position in the landscape allows for a potential change in the life path (a 'rebirth' perhaps) of a sword, for example, as it could be easily retrieved, or it could be left in the ground or water. Thus a sword could be 'buried, or removed from circulation', and then re-used, perhaps on a number of occasions, according to the prevailing circumstances. In this instance the burial does not therefore signify a

permanent ‘death’ as the sword has not been put beyond further use. ‘Death’ could be temporary.

Returning to Irish bogs, the concept that access to such a landscape is important can be illustrated by discoveries made during excavation on the trackways and structures associated with the bog at Edercloon, Co. Longford. Here it was found that tracks ran not across the bog complex but instead seemed to converge at points within the bog where there may have been crossroads or even platforms. At regular intervals along the trackways wooden objects were found suggesting deliberate deposition. To the excavators;

‘This suggests that the function of these sites was to facilitate movement within rather than across the wetlands, possibly for people coming from several directions to shared spaces.’ (McDermott and Moore 2010)

The idea of shared spaces in the bog as man made features connected with deposition is worth exploring. The evidence from Flag Fen (Pryor 2005) Bradley Fen (Pryor 2005) and Must Farm (Knight 2009) is that wooden platforms were made in wetland on the edges of settlements, and in wetland between settlements which would not otherwise have been accessible. These sites lie within a kilometre or so of each other in the Cambridgeshire Fenland, which in the Late Bronze Age consisted of a series of islands separated by water channels and open water. Yates and Bradley (2010, 413), in a study of the same fenlands, suggest that the association of metalwork with causeways may be a widespread pattern throughout the fenland areas of eastern England.

The placing of swords on the edge of settlements in Cambridgeshire can be mirrored in Ireland by the recovery of swords from crannog sites at Knocknalappa, Co.Clare (E114), Island McHugh, Co.Tyrone (not yet drawn), and possibly Ballycroghan in Co. Down (E141, E142 and E143). Here we are again dealing with wet margins on the *edge* of settlement areas being considered as appropriate places for the deliberate deposition of swords. Similarly, the hoard from Tamlaght, Co.Armagh, was found within two metres of the original edge of a shallow bog (Warner 2006, 22) apparently away from any settlement. This deposition of bronzes away from settlements must

account for the fact that there is no record of a sword or sword fragment being found on any of the rescue excavations which have taken place in recent years, despite a number of Late Bronze Age settlement and burial sites being discovered.

The association with water appears to be of general importance. Again, it is worth looking at recent work on the English fenlands by Yates and Bradley (2010). This is a useful study area as it has proved possible to equate many find spots of individual bronzes with prehistoric watercourses. As in Ireland, complete swords seem to be associated with river channels. Sword fragments occur as single finds on dry land, while hoards, especially those of weapons, have been found in bogs or still waters away from the main river channels.

There is another factor that appears to operate in deposition use, in that different zones of the landscape were considered appropriate for different bronzes. In a study of deposition in the river systems of the southern Netherlands throughout prehistory Fontijn (2002, 271) concluded that meanings were attached to both places and wider zones of landscape. In a study of the weapons hoards in Northumberland, Colquhoun (forthcoming) reached similar conclusions. The latter study considered a whole swathe of land in central and mid Northumberland where hoards consisting only of weapons and what can be classed as warrior accoutrements (swords, spearheads and rings) have been found. Outside this zone only three swords have been found, one in the upper Tyne valley and two from the Tyne at Newcastle (Colquhoun and Burgess 1988, nos. 548, 715 and 716). The latter are both Gundlingen C swords and can be confidently placed at the very end of the Later Bronze Age, perhaps when deposition patterns were changing. The distribution of other bronzes, and notably socketed axes, is markedly different, being coastal and in the Tyne valley (Schmidt and Burgess). The inference is that it was not considered appropriate to place bronzes in the ground in certain areas. This is not to suggest that such zones and traditions did not alter. If this view of deposition is correct, it follows that the bronzes we have are those which were not retrieved, either intentionally or because the incentive or need to retrieve them was not there. In short, circumstances had changed. We do not have all the earlier deposited swords and bronzes because many had been returned into circulation; we only have those which were left for whatever reason. We have, in effect, evidence for the final chapter of deposition, which is why we have so many

late Dowris swords in Ireland and late Ewart Park swords in Britain, and why our metalwork record is weighted towards the end of the Late Bronze Age.

Were Irish swords placed into fast flowing main courses or slow meandering backwaters? The evidence suggests that bronzes of any sort were placed in shallow water, whatever the flow. There is, however, an issue to consider here. What did the Bann and the Shannon, the Blackwater and the Barrow look like in prehistory? There is a tendency to view the courses of all pre-industrial rivers as natural waterways, largely unaffected by the actions of the local inhabitants. Recent analysis by Edgeworth (2011) has shown that the picture throughout Western Europe is more complicated. While agricultural activity and deforestation has long been accepted as an important factor in the increase in the amount of soil being carried downstream, it is equally likely that small scale damming and minor river diversions had profound impacts on both the rate and course of river flow throughout prehistory. In addition the placing of timber bridges, weirs, fishtraps and so on would have had an impact, and we have evidence for such structures in Ireland throughout prehistory as far back as the Mesolithic (McQuade and O'Donnell 2007). This suggests that many rivers may have been more subject to change than previously thought.

An important concentration of swords can be seen at Toome on the borders of Co. Antrim and Co. Derry, where Lough Neagh flows into the lower Bann. The programme of dredging which led to so many finds of different periods is discussed above. Dredging was done largely to alleviate the problems of widespread flooding, and involved deepening the main channels of what had been a widely meandering river. One archaeological approach is to examine the distribution of artefacts and compare this with GIS models of the former riverine landscape based on information from a number of sources including LIDAR. This work is part of an ongoing project at the University of Coleraine (McNeary 2010) and it is hoped that the results may be useful for this study of Irish swords.

6.3.2 Why?

Cooney and Grogan (1999, 161) have stressed that deposition was not a random activity and that it must not be viewed separately from other aspects of the archaeological record. It was a deliberate structured activity within Late Bronze Age society and as such took many forms. The rationale behind the placing of weapons into rivers or the ground has been discussed by Bruck (1999). Deposition to the twenty first century mind appears to be a process devoid of any rationality; in the context of production and reuse it removes an article of bronze from circulation, and does not seem to make economic sense. Looking at this activity from a functionalist viewpoint is upsetting. In discussing the deliberate placing of artefacts such as broken querns or animal skeletons within ditches on Middle Bronze Age house sites, Bruck (1999, 337) makes the point that, by jettisoning the concept of ritual that archaeologists have been so used to applying to actions that appear totally irrational, or nonsensical;

'archaeologists become free to explore the possibility that even those activities so often labelled as 'functional' or 'practical' (for example, past subsistence practices) are likely to have been based on a logic for action and a model of the world very different to our own.'

Such a view allows us to place the deposition of bronze metalwork firmly into the sphere of an assumed logic rather than of ritual (by ritual I mean a sacrifice or offering). This theme of a different worldview in the Late Bronze Age has also been investigated by Matthews (2008). He looked at the Danish material and the associations of bronzes with organic materials. Whereas in most conditions these fail to survive, there are some Danish examples such as the hoard from Budense, Zealand, where bronze ornaments have been found in direct association with wood, stones and domesticated animal remains. The hoard is a collection of different materials where each material appears to have had a function, the meaning of which made sense to those people who were involved in its deposition. Rather than being an offering, therefore, the placing of a sword into the ground may signify a direct connection with an earthly event. This may of course be the death of its owner, or it could be the death

of an enemy. It may mark a transitional period in the life of an individual or the changing circumstances of a community.

6.3.3 Bronzes and Bones

There is no dependable record of any Irish sword being found directly with a burial as part of a burial deposit. But were swords placed into rivers with dead bodies as part of the act or ritual of burial? This possibility has been discussed in the past as some nineteenth century articles suggest that some Thames bronzes were found alongside human skulls (Bradley 1988) though not complete bodies. More recently, Mark Knights' work at Must Farm in the Cambridgeshire Fens has led to the suggestion that swords and spears were being placed into the rivers along with corpses. While the metalwork would sink, the corpses would be carried away by the river flow (Symonds 2012, 19). While this is an attractive idea, it is difficult to consider as a regular process which would apply to all sword deposition. In Ireland especially, in places such as bogs where the soil conditions are favourable to preservation, some survival of human remains could be expected in such circumstances.

There are however some recorded associations of human remains with deposition connected with bronzes and bronze working. Placement of skulls in a wetland context in Late Bronze Age Ireland has been discussed by Cooney and Grogan (1999, 146). There is an association of a bronze dagger lodged in a skull from Drunman More Lake, Co. Armagh (Waddell 1984) which may have been part of a complete inhumation. Human skulls were also found associated with the lakeside settlement at Ballinderry, Co.Offaly (Hencken 1942, 17) and a partial skull at the King's Stables in Co.Armagh, which also produced part of a clay mould for a sword. Here, and in the Thames cases discussed above, it may be that the association is not directly with the bronzes but more with the sense of place, in that locations may be considered suitable for the placement of human skulls in much the same way as they were considered suitable for bronzes. Any deposition of skulls, therefore, may not have been contemporary.

6.3.4 Death by breakage

The deliberate breakage of objects prior to deposition has a background extending through the Neolithic into the Mesolithic. For example, stone axes were deliberately damaged and placed in apparently significant locations such as within the 'temple' complex at the Ness of Brodgar in Orkney (ref). Breaking or damaging bronze swords prior to deposition is a common feature throughout Atlantic Europe. The extent and nature of the damage to individual swords is noted in the catalogue. In a previous chapter on the *Life of the Sword* damage caused during use of the weapon was discussed. In practice, this is indicated largely by a number of small nicks along sword edges where the edge has been in contact with another hard object when used with some force. In addition broken hilts, many subsequently repaired, are likely to have been the result of force.

It is however apparent in some swords that the extent of damage sustained is greater than that to be expected during what we may interpret as intended use, either as part of warfare or as part of practice. This means such damage has been done deliberately with the intention of putting the sword beyond further use as a weapon in the form in which it was made. Such damage takes the form of bending the blade and inflicting large notches along the edges, often both together. This can be clearly see on a number of Irish swords such as one example from Knockadoo in Co. Roscommon found in association with a less damaged sword. (E249 and E250). Similar practice throughout western Europe has been investigated by Quilliec (2008). She came to the conclusion that such damage could only be inflicted by a bronze 'craftsmen', that is somebody skilled in working with metals. This puts a bronzesmith at the centre not only of the birth of the sword but also its ultimate death.

6.3.5 Conclusions: Toward a model of Sword Deposition in Ireland

The above discussion has shown that while we have a large number of swords from Ireland, we have preciously little evidence regarding the circumstances in which the majority were found, and, therefore, the circumstances in which they were deposited. Where we do have good, or at the least, reliable, evidence, then there are a number of

common features. These can be compared with the published literature concerning bronze deposition generally in Ireland, Britain and Europe.

The **first feature** is that where we have evidence regarding discovery, swords are generally found in association (although not necessarily close association) with either other swords or a limited range of bronzes. Finding a sword in complete isolation is rare.

The **second** feature is that generally **complete or near complete?** swords were carefully deposited, and normally not at any great depth.

The **third** feature is that some swords were damaged beyond repair, and some were not.

These features will be considered separately below.

The **first feature** is that where we have evidence regarding discovery, swords are generally found in association with either other swords or a limited range of bronzes. We can therefore deduce from this, as a working hypothesis, that it may have not been considered the norm to deposit swords in isolation from other swords or bronzes. This suggestion, as a general feature of western European Late Bronze Age practice, is supported by evidence from excavations outside Ireland.

The **second** feature is that generally **complete or near complete?** swords were carefully deposited, and normally not at any great depth. This is important. It signifies that deposition did not necessarily take the weapon beyond recovery. Some deposits, notably those in shallow water, may have been visible to all. This concept, of careful deposition in water, can equally be applied to the flowing water of river edges or fording places and the still water of such places as bogs, ponds and lakes. Others deposits, marked by stones such as the Park Hoard (Eogan 1983, no.114), may not have been visible but the location may have been known by many and may have had an importance it itself separate from its status as a burial place. That is, the location of itself may be important to people with an intimate knowledge of the landscape. This

suggests that the swords may, in effect, not have been hidden from view or local knowledge.

The **third** feature is that some swords were damaged beyond repair, and some were not. This is in addition to the edge damage visible on weapons which can be taken as part of the 'life' use of a weapon. This damage can be shown in most cases to have been intentional, especially where the sword has been bent. Matthews. 'killing' of the sword takes the weapon beyond recovery from its initial form. While the sword had died, the killing may have been visible to all and it may have been the display of the damaged swords or the knowledge of display that was important.

Swords belong in the Late Bronze Age landscape. There is a proper place for them there, on the edge of land in shallow water, or near water, away from settlement, together with other swords or other bronzes. Carefully laid, grips removed, their placement maintains the order of things.

7. GENEALOGY

7.1 INTRODUCTION

The metalwork phases of the Irish Middle and Late Bronze Ages currently in use were named by Eogan (1964) after some of the major hoards found in Ireland. The three periods which span sword use are Bishopsland, Roscommon and Dowris. The Bishopsland phase has its roots in the Middle Bronze Age and Eogan clearly established its close connections with the 'Ornament Horizon' phase of southern Britain (Smith 1959). He dated it between 1200 and 900 BC. The Roscommon phase followed, spanning the ninth and eighth centuries. Eogan started the final phase of the Bronze Age, the Dowris Phase, in the eighth century and continued it well into the second half of the first millennium, commenting that dating for the end of the period was 'murky' (Eogan 1964, 321). The vast majority of Irish swords can be dated to the Dowris phase.

Dating will be discussed below in relation to each separate type. Here it is worthwhile having an overview, especially in relation to the work in recent decades on radiocarbon dating of close associations with bronze artefacts and subsequent revisions by various scholars which will be discussed below. To summarise, the Bishopsland Phase, contemporary with Penard in Britain, can now be dated to between 1300 and 1150 BC, with the development of the first swords of Ballintober type around 1200 BC. The Roscommon Phase can now be started around 1150 BC, with the first Wilburton influenced metalwork found its way to Ireland in the following century. The first half of Dowris at least can be seen as contemporary with the Ewart Park Phase in Britain, starting around 1000 BC with the introduction of Blackmoor horizon swords which were to have a significant influence on the development of specific Irish sword types. In the half century since Eogan's article was published dating of the period has moved on apace, and it is now difficult to envisage a major time lapse between Ireland and its European neighbours. When the Dowris Phase ended is still perplexing. Eogan stretched it well into the Iron Age, though, as we shall see below, it is more likely to have finished within a century of the end of the Llyn Fawr period in Britain, dated now around 700 BC.

The table opposite shows the Irish periods and the proposed alignment with recent British and continental dating, following on from the work of Needham (1997), Gerloff (2007; 2010) and Matthews (2011).

7.2 TYPE BALLINTOBER

This is the earliest type of leaf shaped sword found in Ireland. The hilt is simple and unflanged, either rectangular or tongue shaped. The rivets for the grip were attached to the hilt either through rivet holes, normally four arranged in pairs, one above each other. Some swords have side notches instead. The shoulders are wide and markedly pointed; beneath there is normally a distinctive and blunted ricasso, sometimes with a notch where it joins the top of the blade edge. Some well preserved swords such as nos. have ricasso bevelling extending to the shoulder points. The blade itself is always leaf shaped, though the length varies considerably from to. The blade cross section is normally lozenge shaped, though a small number of swords have a more flattened midrib with wide bevels (Chelsea variant). On the better preserved swords the edge is always clearly bevelled. Eogan (1965) classified Ballintober swords as his Class I.

7.2.1 Distribution

The Irish swords were mapped by Hodges (1956) and the more recent discoveries in this catalogue do not change the essential distribution. Only one sword, a Chelsea variant, has been found south of the Liffey at Passlands (Monasteravin), Co.Kildare, with the majority coming from the Ulster rivers. They thus have an essentially northern distribution.

The British distribution of Type Ballintober and the Chelsea and Irish variants shows a clear concentration in the Thames Valley, with a scattering of swords from either side of the Bristol Channel both in England and south Wales. An even thinner scatter extends across central England (Burgess 1969; Colquhoun and Burgess 1988; Matthews 2011). Only one sword has been found in Scotland, from the North Rhinns of Galloway in the south west, within sight of the Cliffs of the Antrim Coast (Cowie and O'Connor 2007). There are nineteen swords from France, where they have been

found mainly in valleys of the Seine and the Loire with a couple of examples from eastern France (Gomez 1987, fig 1).

7.2.2 Origins

Ballintober swords were defined as a type by Hodges (1956) who identified that similar weapons to his Irish examples had been found both in France and southern Britain. Typologically they show a mixed ancestry from three sources; late rapiers, other early tang hilted swords, and early flange hilted swords. In effect they are a progression from rapiers already being produced in Ireland being influenced by imported sword types. The leaf shaped blade of Ballintober swords is a new, introduced, development which defines them as weapons with a slashing capability.

The detailed development and chronology of Ballintober swords has been the subject of much debate since Trump (1962, 93) recognised their ancestry amongst the myriad of late rapier types in the Seine valley and suggested that they developed there. Amongst these rapier types was the Rosnoen sword, named after examples from the hoard published by Briard (1965). These tang hilted swords have blades with tapered sides and a mid section that is flat or slightly rounded, defined by deep bevels. There are a handful of Rosnoen swords from Britain with a surprisingly wide distribution (Colquhoun and Burgess 1988) as well as other related early sword types. There are however none from Ireland which pre-date the Ballintober type.

Colquhoun and Burgess also noted an Irish variant, differentiating them by the more widely splayed shoulders. It is also noteworthy that Ballintober swords from Ireland generally have a more developed ricasso with a distinctive notch at the top of the blade edge. On the British swords the edge ends abruptly well below the ricasso, in the manner of Rosnően swords. The French swords show the same features as the British, suggesting that the Irish swords are furthest away from the Rosnöen progenitors. It seems therefore that the presence of Ballintober swords in Ireland is due initially to trade links with the Thames area through the Bristol Channel. These swords were then taken up with enthusiasm, with Irish bronzesmiths soon developing their own versions. The widely splayed shoulders of Type Cutts dirks, many with wide blades (Burgess and Gerloff 1981, pls 100 and 101 in particular), must have

influenced the development of Ballintober swords by Irish bronzesmiths. There is an alleged association of the sword from Strabane, Co.Tyrone (E12) with 'gold objects' and 'ring money', all of which has been lost and no drawings exist.

In view of this, we (Colquhoun and Burgess 1988, 21) suggested that the impetus for the development of the Ballintober type took place in England following the importation of these Rosnoen as well as rod-tanged swords from across the English Channel. There have been no new finds since to suggest that this view should be altered.

Two of the Irish swords E8 and E10 have flattened blade sections comparable with the English Chelsea variant, but exhibit the standard Irish wide shoulders. This was a period of experimentation where we should expect variety. The flattened blade section is a feature of Cutts dirks, from where it was probably derived.

7.2.3 Dating

There is a general paucity of early swords from Ireland, and no associated finds with Ballintober swords, so we must look elsewhere for dating associations. In Britain where there are three swords with associated finds. The Penard hoard from south Wales has three fragmentary swords associated with a spearhead, a socketed axe and an arrowhead. Two hilt and upper blade fragments are clearly Type Ballintober, while a slender blade in two pieces is of Type Rosnöen. The socketed axe is an early type datable to BzD/Ha1. At Thorpe Hall in Essex there is an association with a rapier and palstave (Smith 1959), while at Worth in Devon a sword that looks little more than a developed rapier with poorly defined shoulders was found with two pegged spearheads.

Associations in France

The dating of the Rosnoen Hoard in Brittany is Bronze Final 1, which correlates with BzD/HaA1 in central Europe and Burgess's Penard Period in Britain. The lozenge shaped cross section of Ballintober swords can be traced to the influence of early flange hilted swords, notably Type Hemigkofen, as can the waisted leaf shaped blade.

So we have a marriage of two types of early sword, with a Rosnoen hilt and early flange hilted blade. Hemigkofen swords are discussed further below, but we need to note that their earliest appearance in Europe is most likely to have been in BzD/HaA1, perhaps shortly after Rosnoen Swords (Burgess and Colquhoun 1988, 27). Matthews (2009, 89) has argued for a later date to allow for the influence of Hemigkofen swords on Ballintober development in Ireland, especially in relation to the prominent use of the ricasso in Ireland when compared with Ballintober swords from Braiain. This would put most of the Irish swords in HaA2, late Penard in British terms. In her recent analysis of British dating compared to the rest of Europe, Gerloff also argued that the development of Ballintober swords in Ireland dates to HaA2.

To cross the Irish Sea once again, Eogan's Bishopland phase can be equated with the Penard phase, though Gerloff would extend it to overlap with early Wilburton, HaA2 in continental terms.

Thirty years ago it seemed plausible to argue that the earliest flange hilted swords were too late to have influenced the development of Ballintober swords in England (Burgess and Colquhoun 1988, 21). However I would now turn this on its head and agree with more recent commentators that, given the apparent influence of early flange hilted swords on the development of the Ballintober type in Ireland, it seems reasonable to place them towards the end of the Bishopsland Phase in Ireland, and contemporary with late Penard in Britain. In absolute terms this would put the development somewhere between 1200 and 1100 BC. There are comparatively few early flange hilted and Wilburton swords from Iraeland, which has led to the suggestion that Ballintober swords had a long currency compared to their use elsewhere, into the Roscommon phase (Matthews 2011)

7.3 EARLY FLANGE HILTED SWORDS

These are the swords of Eogan's Class Two. They are what we would immediately recognise as the progenitors of developed Late Bronze Age swords, with long, wide leaf shaped blades. The hilt always has flanges on either side of a thin tang, the shoulders are wide and U shaped, and there is always a ricasso with a distinctive notch where the ricasso meets the blade edge. The blade or hilt are sometimes

decorated. The blade is always leaf shaped, while the section is always lozenge shaped, sometimes with a prominent midrib.

The Irish swords of this type are a mixed lot, and it is convenient to deal with them together

7.3.1 Distribution

The distribution of the swords is essentially northern, with a scattering through Counties Kildare, Westmeath, Clare and Monaghan north to Fermanagh and east to the River Bann.

7.3.2 Origins

Burgess and Colquhoun (1988) divided the British early flange hilted swords into types Reutlingen, Hemigkofen, Erbenheim, Clewer, Limehouse, Taplow, Mortlake and Teddington. This reflects the fact that there are over 80 swords which fit into this category, compared with 12 (??) from Ireland. There are a number of factors which are common to all types, such as wide U shaped shoulders and a lozenge sectioned blade. The origins clearly lie on the Continent of Europe where there are examples…. Following on from the links with Britain apparent with the Ballintober series, it seems reasonable to suggest that these swords reached Ireland through the link with the Thames Valley

The Irish swords can be classified AT LEAST into two of these types, Type Clewer for nos. E26 and E29 and Type Limehouse for nos. E24, E28, E31 and 930.

7.3.3 Dating

These swords lie at the head of development of flange hilted swords and indicate a high degree of experimentation both in form and use over a relatively short period. Their overlap with the more common Ballintober swords has been discussed above, so it follows that the dating, at least of some of the sword types, must be comparable, i.e. the end of the Bishopsland Phase and into Roscommon. In absolute terms this

should put us in the twelfth century BC. Generally, we are looking at a late BzD/HaA1 background through to HaA2. Early Wilburton swords were being developed in Britain by 1100 BC.

7.4 TYPE TAMLAGHT (WILBURTON)

This type is named after the sword found in a hoard at Tamlaght near Navan in Co. Armagh, in 2004. The most obvious characteristic features of Type Tamlaght are the wide splayed shoulders, either straight or very slightly U shaped or convex, and a long, prominent, curved ricasso. Occasionally slight ricasso bevelling is present. The hilt terminal is generally fan shaped, while the hilt itself is straight sided or tapering, normally narrower at the terminal end. There may be either slots or large rivet holes (two or three) on the hilt, and normally large rivet holes on the shoulders, either two or three on each side. Hilts are always flanged.

The blade is always a wide and prominent leaf shape with a comparatively wide waist, sometimes almost balloon shaped. Blade cross section is either a flattened lozenge or elliptical.

7.4.1 Origins

Eogan placed swords with characteristics similar to the British Wilburton Type into his Class 3, which comprised twenty swords, most of which can be classified as Type Tamlaght. Warner, in his discussion of the eponymous hoard found in 2004, identified the sword as a transitional type between classes 2 and 3,that is between early flange hilted and the Wilburton Type. A closer examination of the sword suggests it would fit comfortably into the Wilburton family, specifically Type G (Colquhoun and Burgess 1988). This would put this particular sword towards the end of the Wilburton development in Ireland. Links with N England (Wallington - Burgess 1971)

There is no confirmed Saint Nazaire sword from Ireland so development was presumably through Britain.

7.4.2 Distribution

Compared to the essentially northern distribution of Type Ballintober, Tamlaght swords come from a wider area, with a number of swords originating from the Midlands and south.

7.4.3 Dating

The sword from Tamlaght, Co.Armagh, was found in association with a small Fuchstadt bowl and a cup of Jenišovice type (Warner 2006), both imports from central Europe. Fuchsstadt bowls are generally dated to Hallstatt A2/B1, while Jenišovice cups can be placed in Hallstatt B1. Such a date fits well into a middle Wilburton horizon in the eleventh century BC**.**

7.5 IRISH EWART PARK SERIES

The vast majority of finds of bronze swords from the Late Bronze Age throughout Britain and Ireland have similarities which clearly link them together. Eighty years ago J.D. Cowen introduced a neat and workable definition of this type of sword most common in the latter part of the Bronze Age, which he named after the three weapons from the Ewart Park Hoard in Northumberland. This definition has stood the test of time well and the use of Ewart Park or simply 'Ewart' to define this type of weapon has become ubiquitous not only in Britain but also among scholars from western Europe. Eogan followed Cowen's definition to define his Class IV sword in Ireland; elsewhere the sobriquet has sufficed.

The standardisation of the blade and hilt shape makes meaningful classification difficult. It is straightforward to recognise weapons at either end of the dating spectrum. The development of Ewart Park swords from Wilburton swords, whether in Britain or Ireland, is demonstratable. Features derived from Wilburton are;

Hilt slots
Convex shoulders
Curved ricasso

Graceful leaf shaped blade

Classifying the British series for PBF in the late seventies led to myself and Colin Burgess dividing the material into four steps based on regional divisions. In essence the steps followed the same basic observations of hilt and blade features that are used here, except that I have divided the Irish Ewart Park series into three sub types. Type A comprises those weapons at the head of the series. Associations in Ireland are generally few and of limited use. The best example of a collection of weapons of this type is from Blackmoor in southern England (Colquhoun 1979). Consequently Irish Ewart Park A swords belong to what would be the Blackmoor Horizon in the development of the British series. Irish Ewart Park B swords are a clear development from the Tamlaght type, Wilburton in Britain, with wide, graceful blades and curved ricassi. Irish Ewart Park C swords share two features which may well be insular, namely a ricasso notch and a slightly foreshortened blade, wide beneath the ricasso.

A study such as this of the bronze swords of Ireland is a good place to question whether Cowen's definition is still valid eighty years later. Brown (1982) urged caution about the relative dates of Eilburton and Ewart Park swords and suggested that an overlap could and should be envisaged.

7.5.1 Irish Ewart Park A (Blackmoor Horizon)

These features are slender hilts, often tapering towards the terminal, splayed, narrow straight or slightly convex shoulders and a short, curved ricasso. The blade is always leaf shaped, and tapers to a distinct point. Length between

As these are small swords there is normally only one rivet hole on each shoulder, and two on the hilt. Ricasso bevelling standard.

7.5.1.1 Origins

Surprisingly there is one hoard from southern England with swords where the hilts can be compared with these Irish weapons, and that is the Blackmoor Hoard from Hampshire (Colquhoun 1978), though the ricassi are longer.

7.5.1.2 Dating

Associations…..Blackmoor Horizon/ early Ewart Park.

7.5.2 Irish Ewart Park B

Large, grace and wide leaf shaped blade of proportionate shape and ending in a slender point.
Deep and curved ricasso, normally long and merging into the blade bevel
Blade bevel ends at base of ricasso
Straight or gently curved wide shoulders
Rivet holes normally large
Hilt sides normally gently bulging in lower third.

7.5.3 Irish Ewart Park C

Leaf shaped blade of variable length and width. The blade is often wide below the ricasso and the lower third foreshortened.
Straight or slightly curved ricasso, notably shallow and vertical when compared with series A.
Ricassi often notched where they touch the shoulders.
Blade edge chamfers extend into ricasso edges.
Straight or gently convex shoulders.

8. DISCUSSION

9. CONCLUSIONS

10. BIBLIOGRAPHY

ACPO (2010). ACPO Manual of Guidance on Public Order Standards.

Almagro Basch, M. (1940). “El hallazgo de la Ría de Huelva y el final de la Edad del Bronce en el Occidente del Europa”. Ampurias **2**, 85-143.

Barber, M. (2003). Bronze and the Bronze Age. Stroud, Tempus.

Becker, K. (2010). "Rathgall, Co.Wicklow." (Heritage Guide no.51).

Becker, K. (2008). "Left but not Lost." Archaeology Ireland **22**(1): 12-15.

Bennike, P. (1985). Palaeopathology of Danish Skeletons: a comparative study of Demography, Disease and Injury. Copenhagen, Akademisk Forlag.

Bourke, L. (2001). Crossing the Rubicon. Bronze Age Metalwork from Irish Rivers. Galway, National University of Ireland.

Bradley, R. (2000). An Archaeology of Natural Places. London, Routledge.

Bradley, R. (2007). The Prehistory of Britain and Ireland. Cambridge, Cambridge University Press.

Bradley, R. and K. Gordon (1988). "Human skulls from the River Thames; their dating and significance." Antiquity **62**: 503-509.

Brandherm, D. (2007). Las Espadas del Bronce Final en la Peninsula Iberica y Baleares. Stuttgart, Franz Steiner.

Briard, J. (1976). The Bronze Age in Barbarian Europe. London, Book Club Associates.

Bridgford, S. (1997a). An edgewise look at Irish bronze swords. Material Harm: Archaeological Studies of War and Violence. J. Carmen. Glasgow, Cruithne.

Bridgford, S. (1997b). "The first weapons devised only for war." British Archaeology **22**:

Briggs, C. S. (1988). "Copper Mining at Mount Gabriel, Co. Cork - Bronze Age bonanza or post-famine fiasco?" Proceedings of the Prehistoric Society **49**: 317-34.

Brück, J. (1995). "A place for the dead: the role of human remains in the Late Bronze Age." Proceedings of the Prehistoric Society **61**: 245-277.

Brück, J. (1999). "Ritual and Rationality: some problems of interpretation in European Archaeology." European Journal of Archaeology **2**(3): 313-44.

Buckley, D. and J. Hedges (1987). The Bronze Age and Saxon settlements at Springfield Lyons, Essex: Interim Report. Chelmsford, Essex County Council Archaeology Section.

Budd, P. (1993). Recasting the Bronze Age. New Scientist 23 October 1993**:** 33-37.

Budd, P., D. Gale, et al. (1994). "Tin sources for prehistoric bronze production in Ireland." Antiquity **68**: 518-24.

Burgess, C. B. (1968). "The later Bronze Age in the British Isles and North western France " Archaeological Journal **125**: 1-45.

Burgess, C. B. and S. Gerloff (1981). The Dirks and Rapiers of Great Britain and Ireland. Munich, C. H. Beck

Butler, J. J. (1963). "Bronze Age Connections across the North Sea." Palaeohistoria **9**.

Cahill, M. (1995). Later Bronze Age Goldwork from Ireland - Form, Function and Formality. Ireland in the Bronze Age. J. Waddell and E. Shee Twohig**:** 63 -72.

Chapman, D. (2006). "Pentyrwyn Bronze Age Metalworking Site, Great Orme." from http://www.ancient-arts.org/Pentrwyn%20Bronze%20Age%20Metalworking%20Site.ht.

Childe, V. G. (1940). Prehistoric Communities of the British Isles. London, Chambers.

Clements, J. (2007). The myth of thrusting *versus* cutting with swords. The Cutting Edge: Studies in Ancient and Mediaeval Combat. B. Molloy. Stroud, Tempus**:** 168-176.

Coles, J. M. (1962). "European Bronze Age Shields." Proceedings of the Prehistoric Society **28**: 156 -190.

Colquhoun, I. A. and C. B. Burgess (1988). The Swords of Britain. Prähistorische Bronzefunde IV, 5. Munich, C.H. Beck.

Colquhoun, I. A. (2011). Irish Swords: use and abuse. Bronze Age Warfare: Manufacture and Use of Weaponry. M. Uckelmann and M. Mödlinger. Oxford: 107-116.

Collins, A. (1970). Bronze Age Moulds in Ulster. Ulster Journal of Archaeology **33**: 23-36.

Cooney, G. and E. Grogan (1999). Irish Prehistory: A Social Perspective. Bray, Wordwell.

Coulston, J. C. N. (2007). By the sword united: Roman fighting styles on the battlefield and in the arena. The Cutting Edge: Studies in Ancient and Mediaeval Combat. B. Molloy. Stroud, Tempus**:** 34-51.

Craddock, P. T. (1986). Bronze Age metallurgy in Britain. Current Archaeology. **99:** 106-109.

Dixon, N. (2004). The Crannogs of Scotland. Stroud, Tempus.

Drews, R. (2004). Early riders: the Beginnings of Mounted Warfare in Asia and Europe London, Routledge.

Edgeworth, M. (2011). Fluid Pasts: Archaeology of Flow. London, Bristol Classical Press.

Eogan, G. (1965). Catalogue of Irish Bronze Swords. Dublin, The Stationery Office.

Eogan, G. (1983). Hoards of the Irish Later Bronze Age. Dublin, University College, Dublin.

Eogan, G. (2000). The socketed bronze axes in Ireland. Stuttgart, Steiner.

Evans, J. (1881). The Ancient Bronze Implements, Weapons, and Ornaments of Great Britain and Ireland. London, Longmans, Green & Co.

Ferguson, R. B. (1984). Warfare, Culture and Environment. Orlando, Academic Press.

Fontijn, D. (2002). "Sacrificial Landscapes. Cultural Biographies of Persons, Objects and 'Natural' Places in the Bronze Age of the Southern Netherlands, c.2300 - 600 BC." Analecta Praehistorica Leidensia **33/34**: 1-392.

Garcia, F. J. G. (2009). "Between Warriors and Champions: Warfare and Social Change in the Later Prehistory of the North Western Iberian Peninsula." Oxford Journal of Archaeology **28**: 59-76.

Gifford, E. and J. Gifford (2004). "Ferriby ship experiment." Current Archaeology **191**: 498-509.

Harding, A. F. (2000). European Societies in the Bronze Age. Cambridge, Cambridge University Press.

Harding, A.F. (2007). Heathery Burn: the nature and importance of its deposits Beyond Stonehenge: Essays on the Bronze Age in Honour of Colin Burgess. C. Burgess, P. Topping and F. Lynch. Oxford, Oxbow**:** 186-189.

Heaney, S. (1999). Beowulf: A New Translation. London, Faber and Faber.

Helms, M. W. (2009). The master(y) of hard materials: Thoughts on technology, materiality and ideology occasioned by the Dover boat. Bronze Age Connections: Cultural Contact in Prehistoric Europe. P. Clark. Oxford, Oxbow: 149-158.

Hencken, H. O. N. (1942). "Ballinderry Crannog no.2." Proceedings of the Royal Irish Academy **47C**: 1-76.

Herbert, E. W. (1984). Red Gold of Africa. Copper in Precolonial History and Culture. Wisconsin, University of Wisconsin Press.

Hill, J. D. (1995). "Weaving the strands of a new Iron Age." British Archaeology **17**: 8-9.

Hill, J. D. (1995). Ritual and Rubbish in the Iron Age of Wessex. Oxford, British Archaeological Reports.

Hodges, H. W. M. (1955). "The Excavation of a Group of Cooking-Places at Ballycroghan, Co. Down." Ulster Journal of Archaeology **18**: 17-28

Hodges, H. W. M. (1956). "Studies in the Late Bronze Age in Ireland: 2. The Typology and Distribution of Bronze Implements." Ulster Journal of Archaeology **19**: 29-56.

Hodges, M. (2009). AK47 - The Story of the People's Gun. London, Sceptre.

Jackson, J. (1991). Metallic ores in Irish Prehistory: Copper and Tin. The Origins of Metallurgy in Atlantic Europe. M. Ryan. Dublin**:** 107-125.

James, S. (2007). A bloodless past: the pacification of Early Iron Age Britain. The Earlier Iron Age in Britain and the near Continent. C. Haselgrove and R. Pope. Oxford, Oxbow**:** 160-173.

Jope, E. M. (1953). "Three Late Bronze Age Swords from Ballycroghan near Bangor." Ulster Journal of Archaeology **16**: 37-40.

Kaul, F. (1991). Thracian tales on the Gundestrup Cauldron. Amsterdam, Najade Press.

Keeley, L. H. (1996). War before Civilisation. New York, Oxford.

Kinsella, T. (1969). The Tain. Oxford, Oxford University Press.

Knight, M. (2009). "Excavating a Bronze Age Timber Platform at Must Farm, Whittlesay, near Peterborough." PAST The Newsletter of the Prehistoric Society **63**: 1-4.

Knight, R. W., C. Browne, et al. (1972). "Prehistoric Skeletons from Tormarton." Transactions of the Bristol and Gloucestershire Archaeological Society **91**: 14 - 17.

Kristiansen, K. (1998). Europe before history. Cambridge, Cambridge University Press.

Kristiansen, K. (2002). "The tale of the sword - swords and swordfighters in Bronze Age Europe." Oxford Journal of Archaeology **21 (4)**: 319-32.

Lawson, A. (2000). Potterne 1982-5: Animal Husbandry in Later Prehistoric Wessex Salisbury, Trust for Wessex Archaeology.

Leahy, K. (2009). "Trophies of Kings." Current Archaeology **236**: 12-21.

Levy, J. E. (1991). "Metalworking technology and craft specialisation in Bronze Age Denmark." Archaeomaterials **5**: 55-74.

Lewis, A. (1996). Prehistoric Mining at the Great Orme. Agricultural and Forest Sciences. Bangor, Wales. **MPhil**.

Lewis, A. (1998). The Bronze Age Mines of the Great Orme and other sites in the British Isles and Ireland. L'Atelier du bronzier en Europe du XX au VIII siecle avant notre ere. Actes du colloque international Bronze '96, Neuchatel et Dijon. Tome II: Du minerai, du metal a l'objet. . C. Mordant, M. Pernot and V. Rychner. Paris. CTHS: 45-58.

Liversage, G. D. (1968). "Excavations at Dalkey Island, Co. Dublin, 1956-1959." Proceedings of the Royal Irish Academy **60C**: 53-233.

Lynn, C. J. (1977). "Trial Excavations at the King's Stables, Tray Townland, Co.Armagh." Ulster Journal of Archaeology **40**: 42-57.

Lynn, C. J. (2008). "Navan Fort-legendary capital of prehistoric Ulster." Archaeology Ireland (Heritage Guide no.40).

McQuade, M. and L. O'Donnell (2007). "Late Mesolithic fish traps from the Liffey estuary, Dublin, Ireland." Antiquity **81**(313): 569-584

McOmish, D. (1996). "East Chisenbury: Ritual and rubbish at the British Bronze Age - Iron Age transition." Antiquity **70**: 68-76.

Macalister, R. A. S. (1928). The Archaeology of Ireland. Dublin.

MacDonald, P. and J. Ó Néill (2009). Investigation of the find-spot of the Tamlaght hoard, Co. Armagh. Relics of Old Decency: archaeological studies in later prehistory. G. Cooney, K. Becker, J. Coles, M. Ryan and S. Sievers. Dublin, Wordwell**:** 167-179.

Mallory, J. P. and T. E. McNeill (1995). The Archaeology of Ulster. Belfast, The Institute of Irish Studies, Queen's University.

Matthews, S. (2008). Other than Bronze: Substances and Incorporation in Danish Bronze Age Hoards. Hoards from the Neolithic to the Metal Ages: Technical and Codified Practices. BAR International Series 1758 C. Hamon and B. Quilliec. Oxford, Archaeopress**:** 103 -120.

Merideth, C. (1998). An Archaeometallurgical Survey for Ancient Tin Mines and Smelting Sites in Spain and Portugal. Oxford, British Archaeological Reports International Series 714.

Millman, R. N. (1975). The Making of the Scottish Landscape. London, Batsford.

Molloy, B. (2004). "Experimental Combat with Bronze Age weapons." Archaeology Ireland **17/4** (66): 32-34.

Molloy, B. (2007). What's the bloody point? Bronze Age swordsmanship in Britain and Ireland. The Cutting Edge: Studies in Ancient and Mediaeval Combat. B. Molloy. Stroud, Tempus: 90-111.

Needham, S. (1980). "An Assemblage of Late Bronze Age Metalworking Debris from Dainton, Devon." Proceedings of the Prehistoric Society **46**: 177-215

Needham, S. (1981). The Bulsford-Helsbury Manufacturing Tradition. The Production of Stogursey Socketed Axes during the Later Bronze Age in Southern Britain. London, British Museum.

Needham, S. (2001). "When expediency breaches ritual intention: the flow of metal between systemic and buried domains." Journal of the Royal Anthropological Institute **7**(2): 275-98.

Needham, S. (2007). Bronze Makes a Bronze Age? Considering the Systemics of Bronze Age Metal Use and the Implications of Selective Deposition. Beyond Stonehenge: Essays on the Bronze Age in Honour of Colin Burgess C. Burgess, P. Topping and F. Lynch. Oxford, Oxbow: 278-87.

Needham, S. (2009). Encompassing the Sea: 'Maritories' and Bronze Age maritime interactions. Bronze Age Connections: Cultural Contact in Prehistoric Europe. P. Clark. Oxford, Oxbow: 12-37.

Needham, S., G. Varndell, et al. (2007). A Late Bronze Age Hoard of Gold and Bronze from near Berwick upon Tweed, Northumberland Beyond Stonehenge: Essays on the Bronze Age in honour of Colin Burgess C. Burgess, P. Topping and F. Lynch. Oxford, Oxbow: 397-402.

O'Brien, W. (1996). Bronze Age Copper Mining in Britain and Ireland. Princes Risborough, Shire Publications.

O'Brien, W. (2007). Miners and Farmers: Local Settlement Contexts for Bronze Age Mining. Beyond Stonehenge: Essays on the Bronze Age in Honour of Colin Burgess. C. Burgess, P. Topping and F. Lynch. Oxford, Oxbow**:** 20-30.

O'Donovan, J. (ed.) (1851). Annals of the Four Masters. Dublin.

Ó Faolain, S. (2004). Bronze Artefact Production in Late Bronze Age Ireland Oxford, British Archaeological Reports (British Series) **382**.

O'Flaherty, R. (2007). The Irish Early Bronze Age halberd: practical experiment and combat possibilities The Cutting Edge: Studies in Ancient and Mediaeval Combat. B. Molloy. Stroud, Tempus**:** 77-89.

Ó Riordain, S. P. (1954). "Lough Gur Excavations: Neolithic and Bronze Age houses on Knockadoon." Proceedings of the Royal Irish Academy **56C**: 297-459.

O'Sullivan, A. and C. Breen (2007). Maritime Ireland: An Archaeology of Coastal Communities. Stroud, Tempus.

Osgood, R. (1998). Warfare in the Late Bronze Age of Northern Europe. Oxford, British Archaeological Reports **694**.

Osgood, R. and S. Monks (2000). Bronze Age Warfare. Stroud, Sutton

Ottaway, B. and B. Roberts (2008). The Emergence of Metalworking. Prehistoric Europe: Theory and Practice. A. Jones. Chichester, Wiley-Blackwell**:** 193-225.

Parham, D., S. Needham, et al. (2006). "Questioning the wrecks of time." British Archaeology **91**: 5-6.

Penhallurick, R. D. (1986). Tin in Antiquity. London, Institute of Metals.

Pétrequin, P., M. Errera, et al. (2006). "The Neolithic Quarries of Mont Viso, Piedmont, Italy: Initial Radiocarbon Dates." European Journal of Archaeology **9**(1): 7-30.

Plunkett, T. (1899). "'Note'." Journal of the Royal Society of Antiquaries of Ireland **28**: 89.

Pope, R. (2008). "Roundhouses: 3,000 years of prehistoric design." Current Archaeology **222**: 14-21.

Pryor, F. (2003). Britain BC. London, Harper Collins.

Pryor, F. (2005). Flag Fen: Life and Death of a Prehistoric Landscape Stroud, The History Press.

Quilliec, B. (2008). Use, Wear and Damage: Treatment of Bronze Swords before Deposition. Hoards from the Neolithic to the Middle Ages: Technical and Codified Practices. BAR International Series 1758. C. Hamon and B. Quilliec. Oxford, Archaeopress**:** 67 - 78.

Raftery, B. (1971). "Rathgall, Co.Wicklow, 1970 Excavations." Antiquity **45**: 296-8.

Raftery, B. (1973). "Rathgall: a Late Bronze Age burial in Ireland." Antiquity **47**: 293 - 295.

Raftery, B. (1976). Rathgall and Irish Hillfort Problems. Hillforts: Later Prehistoric earthworks in Britain and Ireland. D. Harding. London**:** 339-57.

Roberts, E. (2002). "Great Orme: Bronze Age Mining and Smelting Site." Current Archaeology **181**: 29-33.

Rowlands, M. J. (1976). The Organisation of Middle Bronze Age Metalworking. Oxford, British Archaeological Reports **31**.

Ruiz-Gálvez Priego, M. (1995). El hallazgo de los bronces de la Ria de Huelva en su marco paleográfico La ríá de Huelva en el mundo del Bronce Final europeo M. Ruiz-Galvez Priego: 15-20.

Schmidt, P. (1998). Reading Gender in the Ancient Iron Technology of Africa. Gender in African Prehistory S. Kent. Walnut Creek, Sage.

Simpson, D. D. A. (1986). "A Late Bronze Age sword from Island MacHugh, Co.Tyrone." Ulster Journal of Archaeology **49**: 103-104.

Sørenson, M.-L. S. (1996). Women as/and Metalworkers. Women in Industry and Technology. A. Devonshire and B. Wood. London, Museum of London**:** 45-52.

Symonds, M. (2012). "Waterworld: Must Farm's Bronze Age boats." Current Archaeology **263**: 12-19.

Timberlake, S. (2003). Excavations on Copa Hill, Cwmystwyth (1986-1999). Oxford, British Archaeological Reports British Series 348.

Timberlake, S. (2007). The use of experimental archaeology/archaeometallurgy for the understanding and reconstruction of Early Bronze Age mining and smelting technologies. Metals and Mines: Studies in Archaeometallurgy. S. L. Niece, D. Hook and P. Craddock. London, Archetype Publications**:** 27-36.

Van de Noort, R. (2009). Exploring the ritual of travel in prehistoric Europe: The Bronze Age sewn-plank boats in context. Bronze Age connections: Cultural Contact in Prehistoric Europe P. Clark. Oxford, Oxbow: 159-175.

Waddell, J. (2000). The Prehistoric Archaeology of Ireland. Bray, Wordwell.

Wardle, K. A. and D. Wardle (1997). The Mycenean World. London, Bristol Classical Press

Warner, R. (1975). "The Irish bronze-iron transition: a pessimistic view." Irish Archaeological Research Forum **2**: 45-50.

Warner, R., R. Chapman, et al. (2009). "The gold source found at last?" Archaeology Ireland **23**(2): 22-25.

Warner, R., N. Moles, et al. (2010). "The Mournes: a source of early Bronze Age tin and gold." Archaeology Ireland **94** (4): 18-21.

Williams, B. (1978). "Excavations at Lough Eskragh, Co. Tyrone." Ulster Journal of Archaeology **41**: 37-48.

Yates, C. (2010). "Moor Sand: A New Bronze Age shipwreck revealed." Current Archaeology **243**: 12-17.

Yates, D. and R. Bradley (2010). "Still water, hidden depths: the deposition of Bronze Age metalwork in the English Fenland." Antiquity **84**: 405-415.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1	ID	Findplace	County	Museum No.	Collection	Eogan Type	Type	Status	Length	Max. blade width	Shoulder width	Weight	Patina	Hilt	Condition	Find Circumstances	Associations	Bibliography	Research Notes
2	0																		
3	1	River Bann*	Antrim/Derry	UM L.37:1934		1/1	Ballintober	Hilt & upper bl	252	39	47		Dk brown	4 2R	2 pieces	B: From the Bann during 1930s drainage operations		Bourke (2001), no. B90	Round rivets 4mm diameter
4	2	River Bann	Antrim/Derry	UM 105:1951		2/1	Ballintober											Bourke (2001), no. B91	
5	3	Tullydoortans	Tyrone	UM 108:1951		3/1	Ballintober												
6	4	Nr Coleraine*	Derry	NMI W.23		4/1	Ballintober	Ballintober	458	32	48	330	Dk brown	4	3 pieces soldered together	R Bann at 'The Cutts' (E) B: 'C19 drainage operations at the Cutts'		Bourke (2001), no. B89	
7	5	Ling*	Donegal	NMI 1890.1		5/1	Ballintober	Complete	615	37	52	531	Black	6	Good, surface pitted. Edges undamaged				Strong central midrib
8	6	Lough Erne*	Fermanagh	NMI RSAI.155		6/1	Ballintober	Complete	438	38	43	391	Dk brown	4	2 pieces, blade straight	B:C19 dredging	Bourke (2001), no.E47	JRSAI 16 (1883-4), 116	Rivet diam 3mm. Longest 12mm long
9	7	Portora Ford*	Fermanagh	UM A12557		7/1	Ballintober	Complete	520	44	46	602	Dk brown	4	Good, blade worn.	B:From the riverbed prior to building of sluice in 1955. Other artefacts also found	Bourke (2001), no.E48	Hodges (1957), 64; fig 1.1	
10	8	Passlands*	Kildare	NMI 1940:310		8/1	Ballintober	Complete	505	34	53	387	Black, patchy	4	Minor edge damage, both edges.	Label: 'In River Barrow at Passlands, Co Kildare' E: '..during drainage..'			
11	9	Ballintober *	Mayo	NMI 1936:1984		9/1	Ballintober	Complete	505	37	53	459	Black, patchy	4	Ricasso bevelling visible both sides				
12	10	Bohermeen	Meath			10/1	Ballintober											Wood Martin (1886) 171, pl.37: Hodges (1956), 51	
13	11	Walsh Island*	Offaly	NMI 1932:6556		11/1	Ballintober	Complete	435	36	54	370	Dk brown	4	Pitted surface, edges damaged			Report NMI (1931-2), 13: pl 2.3	
14	12	Strabane*	Tyrone	UM 477:1937		12/1	Ballintober	Complete(no tip)	412	28	32	218	Green	4	3 pieces. Corroded edges	Label/E: 'With some fgts of gold & piece of ring money. Strabane 1879'	See find circumstances	Eogan (1983), Hoard no.33	
15	13	Athlone*	Westmeath	NMI W:42		13/1	Ballintober	Complete	493	48	54	522	Black	4	Minor edge damage	B: Recovered from the Shannon at Athlone during C19 dredging operations		Bourke (2001), no. S113	
16	14	R Shannon*		NMI W.68		14/1	Ballintober	Complete	535	37	50	483	Dk brown, patchy	4 1R	2 pieces soldered together	B: Recovered during C19 drainage operations	Bourke (2001), no. S114		Rivet diam 3.2mm
17	15	Ireland*		Armagh PL 136	Beresford	15/1	Ballintober	Complete	486	36		320	Dk Brown	4	Damaged sh. Badly pockmarked surface				
18	16	Ireland*		UM 1911:133A	BNHPS/Deramore	16/1	Ballintober	Complete	477	37				4	Worn bl. 3 gen ocs. badly joined				Sections good EXCEPT point. Upper bl joint not right. Ex Lord Deramore 1900
19	17	Ireland*		NMI W.41		17/1	Ballintober	Complete	479	48	50	565	Black	4	6 pieces soldered together				Edges undamaged. Slight & narrow bevels. Hammering marks on each piece.
20	18	Ireland*		NMI W.43		18/1	Ballintober	Complete	450	43	46	422	Patchy black	4	Cuts at shs are modern			Wilde (1861),443, fig 117	1 nick on blade, otherwise undamaged
21	19	Ireland		NMI W.79		19/1	Ballintober												
22	20	Ireland*		NMI SA.1989:113		20/1	Ballintober	Complete	522	36	51	501	Black	4	Edges undamaged. Bl slightly bent				
23	21	Ireland*		NMAS DM9		21/1	Ballintober	Complete	550	40	50	566	Black	4					One shoulder damaged. Good bevel
24	22	Ireland*		NMAS DM13		22/1	Ballintober	Complete	493	36	52	386	Black	4 (2/)					Pronounced rounded central rib. Some greenish corrosion
25	23	Ireland*		NMAS DM14		23/1	Ballintober	Bl & Shs	451	49	49	490	Black					Bourke (2001), no.B90	
26	24	Toome*	Antrim	NMI W.1		24/1	Limehouse	Black	674	40		677	Black	Sl:4	Bevel & ricasso worn	B: C19 drainage spread over Toome Bar bottom with other artefacts 0.3 to 0.9m under sand	Bourke (2001), no. B92	Bourke (2001), no.B89	Sharp ridge edges
27	25	Cohy*	Clare	NMI 1932:6685		25/1	Wilburton?	Hilt & Sh fgt	207		58		Dk brown			In a bog about two metres below the surface (E) NMI: no info			
28	26	Ballinamallard*	Fermanagh	BM 64.5-3.1		26/1	Erbenheim?	Complete (tang dmg)	545	36	59	550	Dk brown	03:08:00	Hilt flanges rough				
29	27	Athy*	Kildare	NMI P.240		27/1	Wilburton?	Complete	614	45	67	570	Black	3:4 3R	Well cast & good lozenge sect. Edge damage	From R iver Barrow			CBB. Nice big rivets 5 diameter.
30	28	Barrowford*	Kildare	NMI 1996:37		28/1		Blade & shs	532	37	59		Patchy dk brown	?:4	Marked damage to one edge & ricasso	Dredged from R Barrow by OPW, 1930s. Donated by W. Watts, Dept of Botany, TCD			
31	29	Lisletrim*	Monaghan	NMI SA.1913:118	Day	29/2	Erbenheim?	Complete	613	48	58	769	Black	Sl:6 6R	BONE HILT PLATES.	Found in Lisleitrim Bog. (E) Label adds Muckno as townland		Day (1868), 23-4: Day (1905), 80: Sale Catalogue of the Day Collection (1913), lot 310, pl 15: Evans (1881), 295-6: Mahr (1939), pl 6.3: Raftery (1951), fig 174	CBB. Hilt plates are loose & backed with card. W 790s inc hilt plates
32	30	Unp	Roscommon		Private	30/2		Bl fgt											
33	31	Ireland*		NMI W.94	Wilde	31/2	Hemigkofen?	Upper bl & shs	307		61		Black	Sl:6	Bl corroded			Mallett (1855), 323, 325.	1mm width grooves on blade. Hilt outline visible
34	32	Ireland		Ashm 1927:2895		32/2		Upper bl & shs											
35	33	Ireland*		UM 474:1937		33/2		Blade & shs	521	31			Dk brown	?:4	Damaged & corroded. Some bzd				CBB
36	34	Belfast*	Antrim	Camb WR27:619B		34/2		Blade	343	38			Dk khaki		Rough surface & serrated edges				
37	35	Belfast*	Antrim	Camb WR27:619A		35/2		Blade	432	47			Dk khaki			1900' written on blade			
38	36	Tullyballydonnell	Antrim	UM 265:1947		36/2		Blade	248	43			Dk brown		Grooved blade. Pockmarked surface				
39	37	River Bann*	Antrim/Derry	UM L.34:1934		37/2		Blade								B: from the Bann during dredging operations in the 1930s.	Bourke (2001). no. B94		CBB
40	38	Lislea	Antrim/Derry	UM 88:1954		38/2		Blade								B: from the lower Bann, presumably during dredging operations, at Rea's Ford	Bourke (2001). no. B93		
41	39	Donaghmore*	Tyrone	Armagh C 24:1942		39/2		Blade	381	48					Mbw near point Probably fake	Museum cat: 'Collected in neighbourhood of Donaghmore'			
42	40	Ireland		UM 3890 (6:6)		40/2		Blade											
43	41	Ireland*		NMI N1897:49		41/2		Blade	260	41			Matt black						CBB
44	42	Ireland		NMAS DM34		42/2		Blade											
45	43	Carnstroan*	Antrim	NMI SA 1927:929		43/3		Complete	592	43	58	546	Black/brown	Sl:6 1R	Edges damaged	Found during turf cutting at the foot of Sleamish Mountain. It was broken by the finder.(E)		Knowles (1889), 11: Knowles (1903), 182-3 fig 10: Knowles Cat lot 654	
46	44	Tynan	Armagh		Private	44/3													
47	45	Ballinagh*	Cavan	NMI 1939:15		45/3		Complete	534	42	51	467	Black	Sl:4	3 pcs; edges damaged				
48	46	Eonish*	Cavan	NMI 1941:1043		46/3		Complete	593	46	66	654	Black	02:04:00	Undamaged with sharp edges	NMI card: 'Eonish, Kilmore. Loughtee Upper'			
49	47	nr Clogh Oughter Castle*	Cavan	NMI 1937:3646		47/3		Complete	509	41	51	420	Black, patchy	Sl:4	White accretion on hilt. Bl cracked	Label: 'Finder Edward Latimer, Grahard, Cloverhill at Lough Oughter Castle'		Bourke (2001), no.E52	Bourke states this is a 1930s find
50	48	Nooan*	Clare	NMI 1942:70		48/3		Complete 4 pcs	511	39			Dk khaki	Sl:2sl	Laco smooth surface, edges damaged	E: 'Found in a potato garden on th e top of Keentlea, Noaan townland'		Macnamara (1901), 358	
51	49	nr Youghal*	Cork	NMI R 2226		49/3		Bl & shs	529				Green	?:6	Very corroded	Unknown	1 sw (E50) & 2 sph	Armstrong (1924), 143, fig 6.1: Eogan (1983) no 31	
52	50	nr Youghal*	Cork	NMI R 2267		50/3		Bl & shs	516	46	56		Green	?:2	Corroded	Unknown	1 sw (E49) & 2 sph	Armstrong (1924), 143, fig. 6.2: Eogan (1983) no 31	
53	51	Ballyhanna	Donegal	Rossnowlagh D.29		51/3										Discovered in the bed of the River Erne at Cathleen's Falls, near Ballyshannon		Bourke (2001), no.E64	Bourke has Museum in Rossnowlagh Franciscan Friary
54	52	Lough Erne	Fermanagh			52/3										Dredged from Lough Erne in 1887.		McKenna (1897), 112: Bourke (2001), no.E49	
55	53	Maguire's Bridge*	Fermanagh	NMI 1873:1		53/3		Bl & lower hilt	550	38	48		Black	02:02:00	Blade & hilt pitted			Sale Catalogue of the Day Collection (1913), lot 299 pl.15: McKenna (1897), 112	
56	54	Ballintober*	Galway	NMI 1945.63		54/3		Complete	494	46	57	436	Black, cleaned	2(sl?):4	Beautiful. Sig edge damage.				Surface slightly porous
57	55	Castledermot*	Kildare	NMI 1945:304		55/3		Bl & shs	563	50	57		Black	?:6 1R	Slight, narrow bevels. Nice point			Fitzgerald (1902), 265-7	Rivet 3mm diameter
58	56	Lough Gur*	Limerick	NMI 1888:11	NMI 1873:1	56/3		Bl & lower hilt	565	48	54	644	Black	Sl:6	Shiny surface. Replica? see notes. Hilt r			O'Kelly (1945),35	Hilt repair looks like cast in hence this MIGHT be a replica
59	57	Glenish	Antrim		Knowles	57/3												Sale Catalogue of the Knowles Collection (1927), lot 654; pl.4	Eogan drawing based on BA Card Catalogue
60	58	River Shannon*	Westmeath	NMI E92:405	Chapman	58/3		Complete	574	50	57	591	Black	02:06:00	Good hilt repair	Unknown. Notes in Eogan..see comments		Wilde (1861), 442: fig.313: Wood-Martin (1895), fig. 193: Bourke (2001), no.S115	NMI accession since E Catalogue
61	59	Ireland*		Alnwick Castle 391	Walker?	59/3		Complete	560	45	56	572	Dk brown	Sl:6	Tang dam. Hilt good. Bl edge damage & corrosion.				Ver nice hilt with clear shoulders.
62	60	Ireland*		NMAS DM 23		60/3		Hilt & upper bl	269		57		Khaki	3:2 sl	Two pieces. Well made & finished				In two pieces. nice sword; sharply defined edges; flashes evident on hilt
63	61	Ireland?		Oxford PR 2625.1501	Bell?	61/3													
64	62	Ireland?*		BM 66,6-27,114		62/3		Complete	470	33	45	372	Dk brown	Sl:6 3R R0.28 diam	Wavy & corroded blade				
65	63	Ballymena*	Antrim	UM 467:1937	Day	63/4		Complete	568	39	53	700	Dk green	2(+2bl):4(+2bl)	Well cast. Corroded edges, hilt & tang			Sale Catalogue of the Day Collection (1913), lot 309; pl.15	IDENTICAL TO E146 UM 469:1937. Is this the original? Label gives biblio info on Day collection
66	64	Ballymena	Antrim		Day	64/4												Sale Catalogue of the Day Collection (1913), lot 305; pl.15	Eogan drawing based on sale catalogue
67	65	Ballymoney*	Antrim	UM 544:1924	Knowles	65/4		Complete	480	34	46		Brown		Good. Well cast. All one piece.			Sale Catalogue of the Knowles Collection (1924), lot 656	Not removed from case in Ballymena. Sketch & bl/sh measurements mine. L Eogan's.
68	66	Ballymoney	Antrim		Wells, Harrow	66/4													Eogan drawing based on BA Card Catalogue
69	67	Belfast*	Antrim	UM 4023(6.7)		67/4		Shs & bl in 3 pieces	493	39	48					About 3.7m below the surface of Antrim Rd, Belfast, while excavating for a new water supply			
70	68	Clogh*	Antrim	BM WG.1233	Greenwell	68/4		Complete	592	39	47	492	Brown, patchy	3:$	Well cast. Some bzd				
71	69	Crosskeys	Antrim		Knowles	69/4												Sale Catalogue of the Knowles Collection (1924), lot 657	Eogan drawing based on BA Card Catalogue

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
72	70	Cushendall	Antrim		Knowles	70/4												Sale Catalogue of the Knowles Collection (1924), lot 657	Eogan drawing based on BA Card Catalogue
73	71	Stranocum*	Antrim	BM WG1232	Greenwell	71/4		Complete	508	39	49		Dk brown	2 (1 large):2(+4bl)	Good condition	Label reads 'Stranocum 1770.2322'			
74	72	Lisburn*	Antrim	UM 188:1913	Dav	72/4		Hilt & blade	468	27	34		Dk brown	02:02:00	Worn blade.			Sale Catalogue of the Day Collection (1913), lot 308: pl.15	
75	73	River Lagan*	Antrim/Down	UM 3822(6.2)	Grainger	73/4		Blade	537	38			Dk brown/black			E: In the bed of the R Lagan below the 1st lock. Mus:..at ford..below first lock			
76	74	Toome*	Antrim	NMI 1935:867		74/4		Hilt & 2/3 blade	424	45	51		Dk brown	02:02:00	Broken hilt. Some bzd				
77	75	Toome*	Antrim	NMI 1903:14		75/4		Complete	525	44	47	785	Black, patchy	2:2 4R	2 pcs. Patchy white accretion	In a bog at Toome. Reported to have been in a wooden sheath that was broken up by the turf diggers when found.			Pronounced central midrib. Heavy rivets 4.2mm diameter
78	76	Toome*	Antrim	NMI W.10		76/4		Bl & lower hilt	515	45	55		Dk hkaki	?:6	Good casting. Grip outline visible	B: In the River Bann at Toome Bar C19 find.		Bourke (2001), no. B96	
79	77	Toome*	Antrim	NMI W.4		77/4		Complete	607	42	59	605	Black, patchy	02:02:00	Blade & ricasso worn - no bevel	E: 'In the River Bann at Toome Bar'. B: With other artefacts on the hard bottom...	See Bourke refs. No hard evidence for assocs	Bourke (2001), no. B95	
80	78	nr Toome*	Antrim	UM L4:1932		78/4		Complete	633		48	786	Dk brown	03:06:00	Nicely cast. Modern milling on midrib	B: Dredging operations in the 1930s, approx 274m below Toome		Lawlor (1932), 209; pl 6.1: Bourke (2001), no. B97	Slight hilt strengthening ribs. Some edge damage. Hilt outline. Heavy sword
81	79	Toome*	Antrim	UM 464:1937		79/4		Comolete	560	39	50	530	Shinv dk brown/black,	2:2 4R	Too quality casting. Hilt outline visible	Label: 'Toome 1913 no.290'			Odd stepped hilt section. Rivets 4.5 mm diam. Point slightly CT shape?
82	80	nr Toome*	Antrim	UM 212: 1955		80/4		Bl & shs	185		50		Dk brown		Corroded surface	Labell:' Brought up during dredging between Toome weir and railway bridge 1846.'		Bourke (2001), no. B98	
83	81	Somerset*	Antrim/Derry	UM L.25: 1936		81/4		Bl & shs	481				Dk brown, patchy	?:2 (+4bl?)	Very corroded blade	E: 'In the River Bann at Somerset'		Bourke (2001), no. B101	
84	82	River Bann*	Antrim/Derry	Queen's Univ Belfast		82/4		Complete	457	34	42	378	Black	02:02:00	Blade bent. Nice edge bevelling			Bourke (2001), no.B106	
85	83	River Bann*	Antrim/Derry	UM L.35:1934		83/4		Complete	468	32	45	412	Dk brown	02:02:00	Hilt & tang repair. Corroded blade.				
86	84	River Bann*	Antrim/Derry	UM L.36:1934		84/4		Complete in 2 pcs	550	38	45	622	Dk brown	2(+1)2	Minor edge damage both edges	B:From the R Bann, presumably thro' dredging		Bourke (2001), no.B103	Hilt & sh holes look iffy. Copy of a genuine sword? Deeply dished hilt flanges odd.
87	85	River Bann	Antrim/Derry	UM 103:1951		85/4										B:From lower Bann		Bourke (2001), no.B104	
88	86	River Bann*	Antrim/Derry	UM 107:1951		86/4		Complete	602	35	52	508	Dk brown	03:04:00	Both edges damaged & worn	B:Recovered from the Bann		Bourke (2001), no.B105	
89	87	River Bann	Antrim/Derry	Pitt Rivers, Farnham		87/4												Bourke (2001), no.B107	
90	88	Unp	Antrim	NMAS DM.42		88/4													
91	89	Unp	Antrim	NMAS DM.43		89/4													
92	90	Ballymacanab*	Armagh	NMI W54		90/4		Complete	475	33	42	386	Black	2:2 (+2bl)	Bl joint modern ? Sig edge damage				Area rubbed down alongside blade join
93	91	Mullyleggan*	Armagh	NMI 1959:172		91/4		Complete	507	31		483	Black	Organic	See notes			Evans (1881), 296, figs 361-2: Graves (1873), 257: JRSAI 91(1961), 83-4: figs.17 & 18	Bone hilt plates in situ. Too big & R too long. Shape wrong. Why?
94	92	Tynan	Armagh		Private	92/4										In the bed of the lake in the grounds of Tynan Abbey.		Weatherup (1982), 62	
95	93	Unp*	Armagh	Armagh C 176:1935	Tenison?	93/4		Comolete?	446	30	51		Dk brown	03:02:00	3 pieces, modern join. Pre tang repair			Weatherup (1982), 62	Damage to up bl edges & wide fls entire bl. Bk sw found & repaired in modern times?
96	94	Unp*	Armagh	Armagh C 177:1935		94/4		See notes	561	42	53		Dk brown	02:02:00	2 pieces. No mid section.				Bl looks genuine. Hilt & up bl rough cast & look fake. Modern join
97	95	Carlow*	Carlow	BM 47,1-13,1		95/4		Hilt, Sh &upper bl	200		44		Dk brown	2:4 4R	Patchy bzd	E: 'According to the Museum Register this sword was "found with many others in the River Barrow near Carlow"	Said to have been found with many swords		
98	96	Ballon Hill*	Carlow	NMI SA.1928:454		96/4		Bl & shs	376	33	48		Dk brown		2 pieces-damaged edges	On or near Ballon Hill (E) NMI label:'Ballon Hill 26.2.28. Col F Beauchamp-Lecky'		Mahr (1930), 74	
99	97	Graigue*	Carlow	NMI 1930:519		97/4		Blade	247	31					Corroded & twisted	Dredged from the River Barrow (NMI carD index)			
100	98	Ardlow*	Cavan	NMI 1930:127		98/4		Complete	587		32		Patchy black	?:4	Shs damaged. Modern hilt. Worn blade	E: 'In a field beside Cuilcagh Lough' See also research notes	Other swords?	Eogan (1983) Hoard no 47	E (1983): 'Found about 1880 in a field bordering a bog beside Cuilcagh lake'
101	99	Ballyconnell*	Cavan	NMI 1929:1520		99/4		Bl, shs & lower hilt	493	26			Black	02:02:00	In 2 pieces				Very worn blade: 2 pieces don't quite join together. Shs damaged
102	100	nr Clogh Oughter Castle*	Cavan	NMI 1937:3650		100/4		Comolete	465	31	41	443	Black	2:2(+2bl)	Minor edge damage	During the River Erne Drainage Scheme. B: 1930s drainage		Bourke (2001), no. E53	
103	101	nr Clogh Oughter Castle*	Cavan	NMI 1933:587		101/4		Complete (no tip)	514	39	52	595	Black, patchy	3:2 (+2bl) 1R	Beautiful clean & bright blade	Near the ruins of Clogh Oughter Castle		Report NMI 1932-3, 14: Pl.3.1	Beautifully finished ricassi. Rivet diam 4mm. Pronounced bevel edges. Minor edge damage
104	102	Crossdoney*	Cavan	NMI 1933:5074		102/4		Bl & shs	545	37			Black		Very worn			Report NMI 1932-3, 14; Pl.3.4	
105	103	Kildallan*	Cavan	NMI R1570		103/4		Complete	607	43	51		Dk brown	2 (+1bl):2 (+2bl)	Shiny surface, corrosion on hilt			Wilde (1864), 329	
106	104	Kilmore Bog*	Cavan	NMI R1688		104/4		Blade	296	43			Black		Twisted	About 4m deep in Kilmore Bog			Label 'from D. Malcomson of Cavan. Presented 30/11/1863'. Castlerahan on mus label
107	105	Lisaderg	Cavan	NMI P1955:2		105/4		Blade											
108	106	Slanore*	Cavan	NMI 1936:1971		106/4		Complete	483	34	42	396	Patchv dk brown	2 (+1bl):2	Hilt repair. Corr surface. Nice HaC point	E: In the River Erne B: Dredged from L Oughter between tids of Derries Upper&Slanore		Bourke (2001), no.E50	
109	107	Snakeel*	Cavan	BM 49.3-1.46		107/4		Comolete	581	38	47	582	Patchv dk brown	2: 2 1R 5 diam	Dished hilt edges. Well cast	B:..between tls of Snakeel and Eonish, in sand at lake edge when flood receeded after drainage		Bourke (2001), no.E54	
110	108	Trinity Island*	Cavan	NMI 1937:2852		108/4		Blade	334	32			Green & brown patches		Bent	NMI label: 'Abbey, Trinity Island, Co. Cavan' B: 1930s dredging L Oughter nr T		Bourke (2001), no.E51	
111	109	nr Thornhill, Killina	Cavan	Ashm 1927:2888		109/4													
112	110	Unp*	Cavan	NMI W.44		110/4		Complete	482	39	45		Black	02:04:00	Bl cleaned. Edges sharp (see r notes)				
113	111	Umley*	Cavan	NMI 1963:29		111/4		Bl & shs	537	40	50		Green	?:2	Both edges damaged	In a ditch near Cavan town. Umley, Loughtee Upper (NMI card & Raftery 1970)		Raftery (1970)	
114	112	Boolybrien*	Clare	NMI 1931:235		112/4		Tang	69				Khaki	2:?	Hollow at base; broken cast on	E:In 1930 in a bog. From a mud level that contained tree stumps, below peat & above gravel	Horn 2 x SA, 5 X rings, sunflower pin, chain	Report NMI 1930-1, p6:2. Eogan (1983) Hoard no.55	
115	113	Killaloe*	Clare	NMI 1934:72		113/4		Comolete	49	35	42	510	Khaki	01:04:00		On the bed of the River Shannon about 50m downstream of the Canal Head at Killaloe		Bourke (2001), no. S126	B adds find date as 1934 (17.1.34 written on blade)
116	114	Knocknalappa*	Clare	NMI 1936:1974		114/4		Comolete	409	28	24	234	Green, blotchy	02:02:00	Join/crack nr tip. Crack on hilt	On the foreshore of Knocknalappa Crannog		Childe (1940), fig 76.1: Mahr (1937), fig 25.1: Raftery (1942),62; fig 3.2; Brindley & Lanting 2001, 156	Brindley and Lanting have C14 date from burnt matter on pot 1007 to 835 cal BC
117	115	Carriganine*	Cork	NMI 1934:11121		115/4		Complete	639	45	52	766	Green	3:4(+2bl)					
118	116	nr Cork*	Cork	BM 49,3-1,46		116/4		Bl & lower hilt	580	34			Dk brown	?:4	Sh damaged. Cleaned at blade join				
119	117	nr Cork*	Cork	NMI W28		117/4		Complete (2 pcs)	477	32	44		Dk brown	02:02:00	Bl corroded & worn. No bevel visible				Good hilt repair. Ricassi worn. Rivet is square.
120	118	Kinsale*	Cork	NMI E92:409		118/4		Blade fgt	141				Green	?	Rough eroded shs and upper blade.				
121	119	Meadstown*	Cork	UM 465:1937	Day	119/4		Bl & shs	473	36	49		Green bl/dk brown hilt	?:6 5R	Corroded bl & accretion on hilt	Label: 'Meadstone, Cappigaline'		Sale Catalogue of the Day Collection (1913), lot 306	Round rivets 3mm diam.
122	120	Toreen More West*	Cork	NMI 1932:4		120/4		Bl & shs	494	35			Dk brown		Badly corroded	E:'Within what may be the remains of a stone circle' NMI:nowt		Report NMI 1931-2, 13: pl 2.5	
123	121	Unp	Cork		Day	121/4												Sale Catalogue of the Day Collection (1913), lot 303: pl14	
124	122	Unp	Cork		Derby (Neligan)	122/4												Nicholson (1980), no.72	Destroted during WW2: previously in Liverpool Mus (E). In Nicholson's cat so does it still exist?
125	123	Agivey*	Derry	NMI E92:403	Chapman(?)	123/4		Bl & lower hilt	526	39	49		Dk brown	?	Hilt repair obliterates details	NMI label: 'Agivey Ford, Aghadoey, 1900 -1910'			Some minor corrosion and edge damage
126	124	nr Coleraine*	Derry	UM L15:1939		124/4		Bl & shs 2 pcs	579	44	52		Dk brown	?:6 2R	Worn edges & coroded blade	In the River Bann at 'The Cutts' B has 1930s		Bourke (2001), no. B100	3 x stub rivets 3.2mm diam.
127	125	Campsey Lower	Derry			125/4										Near the mouth of the River Faughan, that is, from one or other of four townlands of which Campsey Lower is the largest (E)			
128	126	nr Portglenone*	Derry	NMI 1929:1534		126/4		Upp bl & shs	234						Shs worn				
129	127	Unp	Derry	Ashm 1927:2893		127/4													
130	128	Unp	Derry		Knowles	128/4												Sale Catalogue of the Knowles Collection (1924), lot 655	E: details and desc from BACC
131	129	Ardara*	Donegal	NMI 1900:45		129/4		Bl & lower hilt	535	45	53		Dk brown	?:6	Edge damage both edges				
132	130	Ards Beg*	Donegal	NMI 1935:430		130/4		Complete	581	39	51	518	Dk brown	02:02:00	Beautifully cast. Minor corrosion on bl	In a bog			
133	131	Buncrana*	Donegal	NMI 1968:230	Ex Salisbury B521	131/4		Complete	537	39	51	607	Black		Good. Edge damage both sides				
134	132	Buncrana*	Donegal	NMI 1968:231	Ex Salisbury B709	132/4		Complete	625	46	53	726	Black, cleaned		Good. Blade nick, modern hilt notches	20 ft below the surface of a bog near Buncrana. June 1873 (label on blade).		Archaeological Journal X, 161	
135	133	Burt Castle*	Donegal	UM 351:1924		133/4		Hilt & upper bl	274		45		Dk brown	3:2 (+2bl)	Worn blade				
136	134	Carran*	Donegal	NMI 1958:71		134/4		Bl & shs & l hilt	565	40		405	Green	Damaged	Corroded	Found in a boo...with another'(NMI record)	No 135 NMI 1958:71	NMI: Arch. Acquistions in the year 1958 JRSAI 90 (1960), 17-18, fig 9	
137	135	Carran*	Donegal	NMI 1958:72		135/4		Bl & shs & l hilt	576	41		435	Bright green	Damaged	Corroded	Found in a boo...with another'(NMI record)	No 134 NMI 1958:72	NMI: Arch. Acquistions in the year 1958 JRSAI 90 (1960), 17-18, fig 9	
138	136	Inishowen*	Donegal	UM 4024 (6.65)	Grainger	136/4		Complete	600	42	51	636	Dk brown	03:04:00	Bl joint looks modern but OK				Good casting. Nice straight hilt edges. Slightly pitted surface
139	137	Lackagh*	Donegal	NMI 1941:331		137/4		Bl & lower hilt	536	39	52		Black	01:02:00	Corroded & hilt repair	Card : 'Found at sandhills at Lackagh, Inishkeel, Boylagh nr Portnoo.'		Morris (1920), 320; fig.8	
140	138	Letterkenny*	Donegal	NMI 1880:25		138/4		Upper bl & shs	127				Dk brown		Very worn & corroded				Not the drawing in E - I seem to have the bit he couldn't find. Cat says 2 pieces?

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
141	139	Moolagh*	Donegal	NMI 1900:46		139/4		Blade	466	34			Dk brown		Edge & shs badly damaged. Corroded	Old label on sw: 'Found in 1892 by James Boyle, a peasant farmer, in a bog near his cottage in Moolagh, Ardara, Co Donegal'			
142	140	Unp*	Donegal	NMI 1968:229	Ex Salisbury B707	140/4		Complete	487	35	50	453	Black	3:4(+2bl)	3pieces soldered together. Blade worn				
143	141	Ballycroghan*	Down	Bangor -		141/4		Complete	629	47	53	804	Khaki	2(+1bl):2(+1bl)	Fine condition.Some small airholes		2 other swords (E142 & E143)	Jope (1953)	
144	142	Ballycroghan*	Down	Bangor -		142/4		Complete	627	40	51	816	Khaki	3bl:6bl	Untrimmed & unfinished casting		2 other swords (E141 & E143)	Jope (1953)	Slightly bent.
145	143	Ballycroghan*	Down	Bangor -		143/4		Bl & hilt (no tang)	623	43	51	682	Khaki	?:4bl	Porous casting. Some bz disease		2 other swords (E141 & E142)	Jope (1953)	
146	144	Banbridge*	Down	BM WG 1230	Greenwell	144/4		Complete		40	49	576	Dk brown, patchy	02:02:00	Modern join? Hilt repair & nicks on edge				Some bz d. Drawn at Downpatrick...BM loan
147	145	Unp		NMI 1876:75		145/4		Bl fgt	340	42			Dk brown		Nice blade in good condition				E has Dromora, Co. Down as n
148	146	Kilcoo*	Down	UM 469:1937		146/4		Bl & shs	540	39			Dk brown	?:4	Worn & modern upper bl mods	E:'Not localised more closely than to the parish of Kilcoo'		IDENTICAL TO E63 (UM 476:1937) Likely to be from the same mould in LBA - see drawing notes	
149	147	nr Strabo*	Down	UM 466:37		147/4		Bl & shs	568	36			Shiny dk brown		Minor edge damage. Modern lacquer?				
150	148	Ketterick Island*	Down	UM 581-1934		148/4		Tang missing	546	37	46	554	Dk brown, patchy	02:02:00	Small edge nicks.Hilt repair? Raised hilt outline	Ketterick Is, Strangford Lough, 1901' written on sword blade			Raised hilt outline of note... also visible on Ballymoney hilt my no. 936. Downpatrick...UM loan.
151	149	Slievenalargy*	Down	NMI 1916:23		149/4		Tip, sh & term incomp.	587	42			Dk khaki	1:6?	Rough surface, corroded				
152	150	Unp*	Down?	UM 1911-39		150/4		Comolete	607	46	52		Dk brown	02:04:00	Well cast. Corroded & rough surface				
153	151	Clontarf	Dublin	Pitt Rivers Farnham1		151/4													
154	152	Boa Island	Fermanagh	Ash 1927:2915		152/4													
155	153	Drumcrample*	Fermanagh	NMI 1878:27		153/4		Bl & lower hilt	578	39	46		Black, green corrosion	?:2	Corroded & hilt repair		2 sws E403 & E404		
156	154	Nr Enniskillen*	Fermanagh	NMD OA VII J50		154/4		Bl in 2 pcs	438	37			Dk brown			I.64' written on sword. Label reads: 'Near Enniskillen 1874'			
157	155	Nr Enniskillen*	Fermanagh	NMI 1900:44		155/4		Complete	640	46	56	868	Patchy black	02:04:00	Good shiny surface. Heavy hilt				
158	156	Nr Enniskillen NOT IN MUSEU	Fermanagh	Lim (City) 126		156/4													
159	157	Lough Erne	Fermanagh			157/4												Bourke (2001), no.E60	E states sw on poirvate possn, on loan to Herts Co Museum. St Albans
160	158	Lough Erne*	Fermanagh	UM 470:1937		158/4		Bl & shs in 4 pcs	492	36			Dk green, shiny	1R	Modern joins, but looks OK.			Bourke (2001), no.E59	
161	159	Lough Erne NOT IN MUSEUM	Fermanagh	Lim (City) 127		159/4												Herbert (1941), 84: Bourke (2001), no.E63	
162	160	Lough Erne*	Fermanagh	Dundalk 1998:985		160/4		Complete (no tang)	542	40	47	692	Dk brown	2:2(+2bl)	Heavy casting. Good wide bevel			Day (1896),55, fig 5: Day (1901), 123: Day Cat (1913), lot 330 pl 15: McKenna (1897), 112: Tempest (1961),218	Also Bourke (2001), no.E62
163	161	Lough Erne	Fermanagh			161/4												Bourke (2001), no.E61	Bourke states sw in private possn on loan to St Albans (Herts Co 'Museumn
164	162	Inishleague Island*	Fermanagh	UM 506:1935		162/4		Bl, shs & hilt	532	38	53		Dk brown	02:02:00	Corroded edges with minor damage	Bib: 'Two swords, found by Mr McGoldrick on the shore of In. Is. in Upper Lough Erne 1933'	Sword, E163	Lowry-Corry et al. (1938), 204: Bourke (2001), no.E55	Painted on bl.'Innisleagues Island, Lisnaskea, Upper Erne, Co. Fermanagh 1933' Purchased
165	163	Inishleague Island*	Fermanagh	UM 505:1935		163/4		Complete	548	35	50	528	Dk brown	02:02:00	Rough blade surface	Bib: 'Two swords, found by Mr McGoldrick on the shore of In. Is. in Upper Lough Erne 1933'	Sword, E162	Lowry-Corry et al. (1938), 204: Bourke (2001), no.E56	Slightly dished hilt flanges. Details painted on sword as E162
166	164	Maguires Bridge*	Fermanagh	NMI 1873:2		164/4		Bl & lower hilt	551	37	50		Dk brown	?:4	Blade polished				
167	165	Portora*	Fermanagh	UM A187:1913		165/4		Complete	444	30	47	428	Dk brown	03:04:00	Good casting. Minor damage both edges	E:'Found in Lough Erne at Portora Ford'		Day (1896), 54-5: Day (1901), 123: Day Cat (1913), lot 301, pl 14: Mckenna (1897), 112, 116: Bourke (2001), no.E57	
168	166	Portora*	Fermanagh	UM 479.1937	Day	166/4		Hilt & upper bl	205		41		Dk brown	02:02:00	Tang repair			Day (1896), 54-5: Sale Cat of the Day Colln (1913), lot 306: Bourke (2001), no.E58	Dished flanges
169	167	Tempo*	Fermanagh	NMI 1912:56		167/4		Complete	621	44	51	595	Black patchy - more on	02:06:00	Beautiful blade. Good hilt repair		1 sw (E168\: 1 bz sph	Coffey (1912), 91-2 fig 3 pls 9:3&4: Coffey (1913), 72 fig 65: Macalister (1921) fig 55; CONT ON NOTES	Clean blade. Flanagan (1970) fig 37: Eogan (1983). 86 no 80.
170	168	Tempo*	Fermanagh	NMI 1912:57		168/4		Complete	648	45	53	834	Black patchy - more on	2(+1bl):2(+2bl)	Minor edge damage. Nice weapon		1 sw (E167); 1 bz sph	Coffey (1912), 91-2 fig 3 pls 9:3&4: Coffey (1913), 72 fig 65: Macalister (1921) fig 55; CONT ON NOTES	Edges sharp. Flanagan (1970) fig 37: Eogan (1983), 86 no 80.
171	169	Clonbrock Demesne	Galway			169/4										E:From the bed of the Clonbrock River (nr Ahascragh). In BACC		JRSAI 16 (1883-4), 19: JGAHS 5 (1907-8), 185	
172	170	Aughnanure	Galway			170/4												JGAHS 6 (1909-10), 51	
173	171	Brooklodge*	Galway	NMI W76		171/4		Bl fgt	98				Dk brown			E:'..with no 172 under 3' of alluvial deposit resting on limestone gravel in drainage..' Killeoran	Blade fgt no 172	Wide Cat. 475	
174	172	Brooklodge*	Galway	NMI W85		172/4		Bl fgt	184	40			Patchy black, cleaned		Edges damaged. Modern hole in bl	E:'..with no 171 under 3' of alluvial deposit resting on limestone gravel in drainage..' Killeoran	Blade fgt no. 171		
175	173	Bullaun*	Galway	NMI 1931:205		173/4		Complete	556	42	49	576	Dk brown, patchy	03:04:00	2 pieces				Pockmarked blade surface, edge damage, stress crack on blade
176	174	Carrowmore*	Galway	NMI P1954:26		174/4		Comolete	510	35	44	428	Black & clean bronze						Slightly dished hilt edges
177	175	Derryodber East*	Galway	NMI P1952.12		175/4		Bl & bottom hilt	532	38	49		Green, see notes			About 1' below the surface of a cut away bog'			NMI label states the interesting accretions are leaves of monocotyledonous. Fgt of ash hilt found nearby
178	176	Inchagoill*	Galway	NMI SA 1899:68		176/4		Complete	615	45	54	983	Dk brown	3:6? 2R	Brownish accretion. IRON SWORD?	E has Inchnagoill on Lough Corrib. NMI just has Lough Corrib.			R 3.2mm diameter. Incredibly thick hilt section. Iron oxide accretion or IRON SWORD?
179	177	Keeloque Ford*	Galway	NMI W18		177/4		Complete	510	39	47	515	Black, patchy	2+1:2		Found in the River Shannon at Keeloge Ford'(E)			Bourke (2001), no. S122
180	178	Keelogue*	Galway	NMI W46		178/4		Comolete	482	37	47	475	Black, patchy	03:04:00	Minor corrosion, blade worn	NMI lbl: 'Fnd in excavating the bed of the river at Keelogue, R. Shannon' B adds in 1843		Bourke (2001), no. S123	
181	179	Keelogue Ford*	Galway	NMI W47	Wilde	179/4		Comolete	507	39	46	507	Black/dark brown	03:02:00	Cast on hilt	Found in the River Shannon at Keeloge Ford' (E) B adds in 1843		Bourke (2001), no. S124	
182	180	Meelick*	Galway	BM 54.7-14.281		180/4		Complete	544	39	45	544	Dk brown, patchy	? (hilt repair)	Cast on hilt			Bourke (2001), no. S125	
183	181	Scregg East*	Galway	NMI 1960:671		181/4		Bl & hilt fgts		30	42		Dk brown	03:02:00	Worn				2 pieces possibly from same weapon. Modern join doesn't look right.
184	182	Bellygar*	Galway	NMI 1903:234		182/4		Complete	466	37	43	438	Cleaned, patchy black	03:02:00	Very worn surface & hilt	Label: 'Bellygar, R.Suck'			Hilt very worn hence no section
185	183	Unp	Galway	Glastonbury	Braxton	183/4													
186	184	Aghadoe*	Kerry	BM Unreg		184/4		Complete	639	44	51	762	Dk brown, patchy		Well cast with smooth surface	IRELAND' and 'Hor Fer IX,7' on blade		Kemble (1863), 162, pl 9,7	
187	185	Aughrim*	Kerry	NMI 1934:5644		185/4		Pt bl missing	0	36	42		Dk brown, patchy	1(2bl):1(2bl)	Piece missing			Report NMI (1933-4), 14; pl 5.5	
188	186	Valencia Island*	Kerry	NMI 1893:40		186/4		Comolete	625	42	49	698	Dk brown, patchy	3:4(+2bl)	Rough surface & sharp edges	Poss c. 1880 'next to the stones'		Delap (1911): Mitchell (1989), 98	Modern solder joint on hilt
189	187	Unp*	Kerry	NMI X2834(see notes)	Wilde?	187/4		Blade	491	41			Black		Blade pitted			Wilde Cat. 465	NMI has X2834. Same sword in E has no 187/ W 73. Hilt modifications prob C19.
190	188	Athy*	Kildare	NMI W7	Wilde	188/4		Bl & sh	500	35			Dk brown		Cut across sh appears modern				
191	189	Barrowford*	Kildare	NMI 1928:699		189/4		Bl & shs	450	33	43		Black, patchy			NMI card: 'Found in June 1928 at Barrowford Island in material dredged from river bed.'			Slot on tang for repair. One squashed rivet in situ - repaired hilt broken?
192	190	Killkea*	Kildare	NMI 1945:305		190/4		Complete(?)	450	34	43	418	Black	01:02:00	2 pieces. Hilt repair. Corroded				Join is modern and upper blade wavy but pieces appear to be from same sword.
193	191	Unp*	Kildare	BM 76, 12-14, 13		191/4		Complete (no tang)	485	34	40	460	Dk khaki	01:04:00	Hilt repair				
194	192	Kildrinagh Ford*	Laois	NMI W5	Wilde	192/4		Complete	599	42	51	607	Black	2(+2bl):2(+4bl)	Tang broken	Label: 'Kildranagh Ford, R.Nore, Borris-in-Ossory'		Wilde (1861), 444-5 and 468; fig 318	Edges undamaged except one small nick
195	193	Kildrinagh Ford*	Laois	NMI W48	Wilde	193/4		Complete	458	33	43	348	Black	03:02:00	Hilt repair	Wilde Cat, 468			
196	194	Kildrinagh Ford*	Laois	NMI W49	Wilde	194/4		Comolete	469	31	42	358	Black	02:02:00	Minor edge damage			Wilde Cat. 468	
197	195	Kildrinagh Ford*	Laois	NMI W50	Wilde	195/4		Complete	490	36	44	505	Black	1/(+1bl):4	Hilt repair. Sig edge damage	C19 label on sword: 'Found in the bed of the Nore under 6' of loose gravel'		Wilde Cat. 468	
198	196	Lea*	Laois	NMI 1930:529		196/4		Complete	487	33	47	437	Dk green	02:02:00	Damaged & repaired			Report NMI (1930-1), 13: pl.2.1	Both edges damaged. Good hilt repair. Good flanged edges.
199	197	O'More's Forest*	Laois	NMI 1916:4		197/4		Hilt & upper bl: Blade		32	46		Black	02:02:00	Fgts prob belong together. Hilt repairs				Looks like two cast on hilt repairs
200	198	Unp*	Laois?	NMI 1936:1647		198/4		Complete	480	38	44	487	Dk brown	3:2 1R	Good				Bl twisted slightly. Some breakage crack. Rivets 30mm diamn
201	199	Ballyduff*	Leitrim	NMI W52		199/4		Complete	463	31	41	416	Black	2:2 (+2bl)	Good hilt repair	E: 'Found in a rock crevice in the Yellow River nr Ballyduff Bridge'		Wilde Cat, 472	NMI has Ballinamore as townland. Slightly flanged hilt edges.
202	200	Cannoboe*	Leitrim	NMI 1959:174		200/4		Complete	440	30	42	251	Black	01:02:00	Good	Found at Will-field Lake, Ballinamore, Co.Leitrim' (label on sword) NMI index has Willowfield Lough, Cannoboe			
203	201	Carrick on Shannon*	Leitrim	NMI W19	Wilde			Complete	519	37	47	511	Black	02:02:00	Clean & sharp blade. Minor damage.	B: ..during C19 dredging operations at Carrick on Shannon		Bourke (2001), no. S117	
204	202	Carrick on Shannon*	Leitrim	NMI 1933:248		202/4		Comolete	519	35	47	500	Black, cleaned		Tip blunted				
205	203	Clooncumber*	Leitrim	NMI W29	Wilde	203/4		Bl & shs	395				Black, patchy						
206	204	Derrintober*	Leitrim	NMI 1937:6		204		Complete	546	39	50	611	Black	3:2 (+2bl)3 in tang	Good. Slight edge damage	B:..during dredging operations in 1937 at Derrintober nr the mouth of Lough Allen			Very heavy, possibly a replica, but edge damage & cross section look genuine

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
204	205	Rathsherry	Antrim	NMI L1936.1	Knowles	205/4										E:Found in Rathsherry Bog by Robert Maxwell 1798 (hidden in the thatch (?) on old label		Sale Catalogue of the Knowles Collection (1924), lot 653: pl.4	
205	206	Unp	Leitrim			206/4												BACC	
206	207	Knocklong	Limerick	PR Oxford 2628:1504		207/4													
210	208	Lough Gur*	Limerick	NMI 1968:232	Ex Salisbury B565	208/4		Complete	435	32	47		Black	02:02:00	Blade corroded, but hilt good	Found at Lough Gur in spring of 1852 (NMI card index)			4 pin rivets in situ. Blade corroded.
211	209	nr Shanagolden*	Limerick	NMI 1929:1715		209/4		Upper bl & shs	211				Black	?:2(+2bl)	Damaged & worn	NMI card: 'Found in a marsh or sandpit with other bronzes but not neccessarily a hoard'			
212	210	R Shannon*	Limerick	NMI W13		210/4		Complete	545	39	50	514	Khaki	3 (+1):4 2R	2 pieces. Good casting. Surface corrosion			Bourke (2001), no. S128	
213	211	Unp*	Limerick	NMI W71		211/4		Bl & lower hilt	498	31			Black, patchy	2:2 (+2bl)	Upper hilt repair looks modern				Cast on repair hides dished flanges
214	212	Nr Ballymahon*	Longford	NMI 1937:2574		212		Complete	522	37	38	526	Dk brown	02:02:00	Hilt repair. Sig edge damage				
215	213	Killashee*	Longford	BM WG 1231		213/4		Complete	521	39	50	566	Black, v. smooth	2(+1bl):2(+2bl)					
216	214	Drogheda*	Louth	BM 55,12-20.20		214/4		Upper hilt & shs	188		47		Dk brown			Label reads: '1844'			
217	215	Ballina	Mayo	PR Farnham		215/4													
218	216	Ballina	Mayo	PR Farnham		216/4													
219	217	Ballina	Mayo	PR Farnham		217/4													
220	218	Ballyarris	Mayo	BACC	White-King	218/4										E:16' deep in bog of Annies with wooden grip which crumbled when touched. 17/6/1890			
221	219	Ballinrobe*	Mayo	NMI 1944:259		219/4		Complete	630	39	49	657	Black	2(+1bl):6	Sl damage along both edges	Clooncormick, Robeen, Kilmaine, Mayo' (NMI card)			Tang repair with holes. Slightly dished hillt flanges
222	220	Clooneberry*	Mayo	NMI 1960:670				Complete	470	29	40	379	Dk brown, green corros	03:02:00	Corroded & worn. Minor edge damage	E: 'Found in the thatch of a house'			1 hole in tang
223	221	Hog Island*	Mayo	NMI 1883:37		221/4		Complete	469	35	44		Black, green corrosion	3:4 (+2bl)	1 damaged sh. sig edge damage	E: 'Found in the wall of an old castle on Hog Island, Lough Mask'			
224	222	Killaha*	Mayo	NMI W51		222/4		Complete	475	38	45	419	Black	03:04:00	Edges damaged				
225	223	Newport*	Mayo	BM 1964.12-6.8		223/4		Bl fgt	84	34			Dk brown				2x SA; sph; 2x s/flower pins; 2x dec pins; 2x fgts ring	Trechmann (1916); Eogan (1983) no.110	
226	224	Foxford*	Mayo	NMI 1939:2		224/4		Complete	461	32	45	426	Black, patchy	2:2 (+2bl)	Blade worn. Bevel only at hilt & tip.	NMI card: 'Possibly from Foxford, Co Mayo'			
227	225	Westport	Mayo	Salford		225/4												Ridgeway(1931), fig.97	
228	226	Unp*	Mayo	NMI W30	Wilde	226/4		Bl & lower hilt	376	26	34		Black	1(+1bl):2	Edges damaged				
229	227	Unp*	Mayo	NMI 1959:625		227/4		Blade & damaged shs	373	29			Black/brown		Some corrosion	Ancient skeyn found in the Co Mayo' (label)			3 pieces: joints soldered together
230	228	Addanstown*	Meath	NMI P1951:121		228/4		Blade	320	36			Black			Found during drainage in gravel at 12" under the bed of the stream' (NMI record card)			
231	229	Ballyhoe*	Meath	NMI 1931:307		229/4		Complete	500	37	50	444	Black	03:04:00	Bl corroded & pitted				Bl corroded but cleaned.
232	230	Taca*	Meath	NMI E92:401	Chapman	230/4		Bl & shs	375	32	43		Green		Worn & corroded				
233	231	Cargaghoe*	Monaghan	NMI 1956:287		231/4		Bl fgt	109	24			Green		BzD on surface	Old label on sword reads 'July 1867'			
234	232	Lisduff*	Monaghan	NMI 1959:173		232/4		Complete	540	45	55	456	Black	02:02:00	Slight edge damage	Found at Lisduff, Tussy Bog, Parish of Aughnamullen, Barony of Cremorne,Co Monaghan, 14 ft from the surface and 2 ft from the clay by Pat McGaghey Aug 1866. 20 shillings (label)		JRSAI 91(1961), 85	Slight ribbing on hilt
235	233	Ballykilleen	Offaly	Camb MC99.186	Murray	233/4		Complete	480	35	50	481.7	Black patina, but the sword has been cleaned.		Surface has been cleaned and there is still some resin adhering. There is a slight patina on the hilt and shoulders where the original handle would have been attached (see photos). The sword is unbent, though very slightly twisted.				The Murray Collection. Catalogue of the Collection of Irish Antiquities formed by the late Thomas R. Murray Esq. J.P. of Edenderry, Kings County. From the 16th Annual Report of the Antiquarian Committee (1901). University of Cambridge: Museum of Archaeology and Anthropology. No rivets. Three holes in the hilt. Three on both shoulders – although one hole has not been drilled/punched through on both sides. From the Catalogue (page 6): "Edenderry: one shorter, wide; flat central band sharply defined by the groove near cutting edge; fish-tail hill-plate deeply flanged, rivet holes nine (10".1). The wooden boss of the hilt-pommel found with this sword is of oval outline and the convex face is decorated with seven lateral flutings (1".3)." The 'flutings' on the 'pommel' appear to be more likely widely-space tree rings rather than deliberate decoration. The 'pommel' is currently glued to the sword. There is a single small (1mm) notch 225mm from the point, and "very" minor battering 100-150mm from the point (it could also be hammering – see photos).
236	234	Cooldoragh*	Offaly	NMI 1933:761		234/4		2X bl fgts					Dk brown		Edges damaged	NMI card: 'Said to have been found in a souterrain'	Full list in Eogan (1983), no. 20 POSS HOARD		Pieces do not fit together. Part of same sword? Probably...patina OK
237	235	Birr*	Offaly	BM 83,2-18,16		235/4		Hilt & 2 bl fgts	0	37	46		Dk brown, bzd on hilt	1 (+1bl):2					Upper bl piece missing. Joins are C19.
238	236	Dowris*	Offaly	BM 54,7-14.282		236/4		Bl & lower hilt	449	33	43		Dk brown, patchy	?:2	Lacquered surface	Full story in Eogan (1983), 117-8	Full list in Eogan (1983), no.119	Full biblio in Eogan (1983)	
239	237	Dowris*	Offaly	BM 54.7-14.283		237/4		Complete, 6 pcs	418	32	44	384	Dk brown, patchy	1 (+2bl):2	Lacquered surface	Full story in Eogan (1983), 117-8	Full list in Eogan (1983), no.119	Full biblio in Eogan (1983)	
240	238	Dowris*	Offaly	BM 54.7-14.284		238/4		Blade & shs. 2pcs	400	32	45		Dk brown, patchy	?:4 (2 are notches)	Lacquered surface. Bl worn	Full story in Eogan (1983), 117-8	Full list in Eogan (1983), no.119	Full biblio in Eogan (1983)	
241	239	Dowris*	Offaly	BM 54,7-14,286		239/4		Bl fgt	283	35			Black, patchy		Bl altered	Full story in Eogan (1983), 117-8	Full list in Eogan (1983), no.119	Full biblio in Eogan (1983)	
242	240	Ballylin*	Offaly	NMI 1935:168		240/4		Bl fgt	272	36			Green						
243	241	Unp*	Offaly	NMI 1962:123		241/4		REPLICA							STRANGE JOIN.			JRSAI 94 (1964), 92-3	TWO IDENTICAL SWORDS, INCLUDING CASTING BLEMISHES. COPIES OF ORIGINAL?
244	242	Unp*	Offaly	NMI 1962:124		242/4		REPLICA							NO JOIN			JRSAI 94 (1964). 92-3	TWO IDENTICAL SWORDS, INCLUDING CASTING BLEMISHES. COPIES OF ORIGINAL?
245	243	Ardoyne*	Roscommon	NMI W58	Wilde	243		Complete	547	32	45	423	Black	1(+1bl):4	Surface pitted & cleaned	Label reads: 'Ardovne Church. Bovle'			
246	244	near Athlone*	Roscommon	BM 63.1-22.116		244/4		Complete (tang dmg)	441	27	40	284	Dk brown	01:02:00	Hilt repair. Bl in 2 pcs	Label reads: 'Roscommon/Westmeath Athlone bog near)			
247	245	nr Boyle	Roscommon	Birmingham 1957A148	Barnett													Watson (1993), no. 132	Needs confirming this is the same sword
248	246	Canbo*	Roscommon	NMI 1934:6048		246/4		Complete	414	26	42	346	Matt black	1(1bl):6	Cast on hilt	NMI card: 'Found at a depth of 69" in a bog at Canbo'		Mahr (1937), 384; fig 4.3: Report NMI (1933-4), 14; pl 5.4	Later holes look drilled; earlier ones do not. Hilt is loose but fits.
249	247	Cloonaddra*	Roscommon	NMI 1931:319		247/4		Complete	441	37	46	494	Black/dk brown, patchy	01:02:00		E:'Found in a bog under 16 spits of turf' NMI:nowt			Strong central midrib at shs. Widest bl section towards tip.
250	248	Kilbride Shoal*	Roscommon	NMI W89		248/4		Complete	491	35	49		Black	3:4(2bl)	2 pieces; bl worn.	NMI label: '..near Shannon River'			
251	249	Knockadoo*	Roscommon	NMI W22	Wilde	249/4		Complete (no tip)	508	31	44	452	Black	2:2(+2bl)	Wide bevels	Unknown - E suggests they may be the remnant of a larger hoard	1 sw (E250\: 2 x bz sohs	Armstrong (1922), 142 fig 4: Eogan (1983) no. 126	See notes in Eogan; the sphs are better preserved & have a much smoother surface.
252	250	Knockadoo*	Roscommon	NMI W86	Wilde	250/4		Complete	490	35	42	482	Black	02:02:00	Edges badly damaged along entire length	Unknown - E suggests they may be the remnant of a larger hoard	1 sw (E249\: 2 x bz sohs	Armstrong (1922), 142 fig 4: Eogan (1983) no. 126	See notes in Eogan; the sphs are better preserved & have a much smoother surface.
253	251	Nadnaveagh*	Roscommon	NMI 1933:6		251/4		Complete	593	37	49	547	Green	02:02:00	Worn blade	NMI card:no details. E: 'found in a bog'			
254	252	Inch Island*	Sligo	NMI E20:581		252/4		Complete	528	36	42	443	Black, patchy	02:02:00	Good. Few small nicks on blade.	Label: East shore		JRSAI 82 (1952), 182 fig 1.	Grip outline very clear
255	**253**	**Fortland**	**Sligo**	**Leeds D1964.0275**		**253/4**		**Bl shs & l hilt**	**501**	**51**	**40**	**674**	**Dk brown**	**1bl:4**	**Pockmarked lacquered surface. Heavy**				**Ver heavy & lacquered but looks genuine.. might be a cast**
256	254	Rathcarrick*	Sligo	NMI 1959:182		254/4		No tang and tip	586	38	46	469	Black	02:02:00	Repair to hilt	George Petrie find, Rathcarrick, Co Sligo' (label) Purchased from the late Henry Naylor, dealer, Lifley St, Dublin' (NMI card index.		JRSAI 91 (1961), 85	
257	255	Clonmel*	Tipperary	BM OA 125		255/4		Complete (no tip)2 pcs	460	35	47	460	Dk brown	02:04:00	Edges worn & dmgd. Hilt o/line vis 1 side	Old label on blade unreadable			
258	256	Clonmel*	Tipperary	NMI 1934:480		256/4		Bl & shs	403	38	47	398	Black, patchy	?:4	Patches of corrosion	NMI label: 'Sword and other (unreadable) found together in a field at Clonure(?)(barely readable)	?	Eogan (1983), 195	No 27 on E's list of 'possible' hoards
259	257	Derryhogan*	Tipperary	NMI 1957:120		257/4		Complete	570	43	49	804	Black	2:4+1 in tang	Edges damaged	Found about 5ft deep in Littleton Bay, during turf cutting with a mechanical digger' NMI record card	No 258		Twisted, bent and scratched on blade. Edges badly damaged
260	258	Derryhogan*	Tipperary	NMI 1957:121		258/4		Bl, shs & l hilt	546	40	48	621	Black, mottled	1(+1bl):2	1 rivet in situ	Found about 5ft deep in Littleton Bay, during turf cutting with a mechanical digger' NMI record card			Good cast on repair. Hilt outline clearly visible..patina blacker towards hilt.
261	259	Latteragh	Tipperary	NMI R2008		259/4										E (1983): 'Found on 15 March 1866 below the surface during the construction of a fence'	2 sws (E260 and E261)	Armstrong (1922), 142 fig 5: Eogan (1983) no. 136	
262	260	Latteragh*	Tipperary	NMI R2009		260/4		Bl & shs	434	38			Green	?:4	Very corroded	E (1983): 'Found on 15 March 1866 below the surface during the construction of a fence'	2 sws (E259 & E261)	Armstrong (1922), 142 fig 5: Eogan (1983) no. 136	Note on label -'R2008 not located 23 Nov 90'
263	261	Latteragh*	Tipperary	NMI R2010		261/4		Bl & shs	449	37	43		Dk brown, patchy	?:2		E (1983): 'Found on 15 March 1866 below the surface during the construction of a fence'	2 sws (E259 & E260)	Armstrong (1922), 142 fig 5: Eogan (1983) no. 136	Bevel very wavy. Note on label -'R2008 not located 23 Nov 90'
264	262	Alamullan*	Tyrone	BM WG1229		262/4		Complete	627	41	49	606	Brown, patchy	3:4 (+2bl)	Good	Label reads 'Alamillan, Strabane'			
265	263	Carnteel*	Tyrone	BM WG1228		263/4		Complete	631	42	52	724	Dk brown, patchy	2:2(+2bl). All lge	Heavy, well cast. Good hilt repr. Hlt o/l vis				
266	264	Cookstown*	Tyrone	BM WG1234		264/4		Complete	452	27	44	320	Black, patchy	01:02:00	Corroded blade				
267	265	near Edernagh*	Tyrone	BM 43,12-26,1		265/4		Bl & l hilt	567	42	51		Dk brown, patchy	?:2 (+4bl)	Dk brown, patchy				Very thick hilt, HaC shape & cross section. Heavy sword
268	266	Fumish*	Fermanagh/Tyrone	UM 852-1926		266		Complete	625	47	51	840	Dk brown	03:04:00	Well made some edge damage	E:'Said to have been found on the plank floor of a crannog'			Dished hilt flanges.Heavy & polished-possibly a copy. Display 'Fivemiletown, Co.Ty

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
266	267	Relagh*	Tyrone	NMI 1938:35		267		Complete	625	44	48	786	Black, patchy	02:04:00	Minor edge damage	E: 'In Relagh bog, possibly with nos 268 and 269'	2 swords, nos 268 and 269.	Eogan (1983), Hoard no. 141	
270	268	Relagh*	Tyrone	NMI 1938:36		268		Complete	619	47	52	825	Black	3:4 (+2bl) 3R	Beautiful blade - only a couple of nicks	E: 'In Relagh bog, possibly with nos 267 and 269'	2 swords, nos 267 and 269	Eogan (1983), Hoard no. 141	
271	269	Relagh*	Tyrone	NMI 1938:37		269/4		Complete	628	44	55	876	Black, patchy	2:2 (+2bl)	V good. Sharp edges. Hilt v rough.	E: 'In Relagh bog, possibly with nos 267 and 268'	2 swords, nos 267 and 268.	Eogan (1983), Hoard no. 141	Blade slightly twisted.
272	270	Knockmaon*	Waterford	NMI P1948:151		270/4		Blade fot	292	36			Black		Corroded surface		1 sph; 2 SA; 2 tanged chisels. 1 SG. 2 SK	Power (1898): Eogan (1983) no.144	
273	271	near Athlone	Westmeath	PR Oxford 1496:2624												E:'Found in the River Shannon'			
274	272	Ballyhealey*	Westmeath	NMI 1938:136				Complete	458	35	44	421	Dk brown	02:02:00	Minor edge damage both edges	Label: 'Ballyhealey or Ballinure… 25.11.38 James Bray' No further details			
275	273	Bishopstown*	Westmeath	UM 472:1937		273		Bl & shs	418	33	48		Brown		Damaged hilt. V corroded blade	E/Label: 'Found in rath at Bishopstown, Co Westmeath'			
276	274	Bracklin*	Westmeath	NMI 1959:31		274/4		Blade	359	39			Black		Scratched				Scratched...Mechanical damage from turf cutter?
277	275	Carrickobreen*	Westmeath	NMI P1948:85		275/4		Bl, shs & lower hilt	436	26			Black	?	3 pieces, joined together. Hilt repair.				Blade wavy and twisted. Cast on hilt repair.
278	276	Bradderstown*	Dublin	NMI R1234		276/4		Bl (no tip) & hilt	594	35	53		Khaki	2:4 IR	3 pieces, broken. Edge damage			E has Craddastown, Co Westmeath as findplace	
279	277	Ladestown*	Westmeath	NMI 1881:181		277/4		Complete	416	33	40	359	Black	02:02:00	Good	NMI label: 'Taken out of Lough Ennell near Ladies (sic) Town, by a farmer spearing eels'			
280	278	Unp*	Westmeath	NMI R2303		278		Complete	470	39	44		Green	3:2(+2bl)	3 pieces soldered together. Tang repair				
281	279	Unp*	Westmeath	NMI R2222		279/4		Bl & lower hilt	578	39	46		Black	?:6	7 pieces, soldered together.				Why is the upper hilt missing?
282	280	Unp*		Alnwick Castle 389	Walker?	280		Complete 3 pcs no tip	542	41	46	550	Dk khaki	2:2(+2bl)	Hilt o/l visible.				Slightly concave hilt flanges
283	281	Unp*		Alnwick Castle 390	Walker?	281		Bl & lower hilt. 2pcs	474	34	46		Dk brown	?:6	Slight hilt o/l. Modern blade join.				
284	282	Unp*		Alnwick Castle 392	Walker?	282		Tang & tip missing	452	25	42		Dk brown	02:02:00	Worn & damaged. Hilt repair.				Bl join looks modern, but hilt casting genuine.
285	283	Unp*		Alnwick Castle 393	Walker?	283		3 pcs, poss 2 swords	495	38	43		Dk brown	2(+1bl):2(+4bl) 2R	Good hilt with stub rivet. See res notes				Lower bl profile wrong. Join modern.Upper bl & hilt OK
286	284	Unp*		Armagh PL 110	Beresford	284		Complete	579	39	23	576	Dk brown/khaki	2(+1bl):1(+5bl)	Twisted tang. Edge damage. Worn bl.				Odd. Hilt blanks indicate non-use, edge damage suggests use. Note edge damage.
287	285	Unp*		Armagh PL 133	Beresford	285		Complete	500	39	47	614	Black	02:02:00	Smooth surface. Possibly a copy.				Possibly a copy as no hilt outline. Heavy for the size.
288	286	Unp*		Armagh PL 138	Beresford	286		Complete	450	38	47	460	Cleaned. Some black p	2(+1bl):2(+2bl)	Fine condition. Tang repair.				
289	287	Unp*		Armagh PL 134	Beresford	287		Complete	597	37	49	610	Khaki: cleaned	02:02:00	Hilt repaired twice. Hilt outline visible.				
290	288	Unp*		Armagh PL 139	Beresford	288		Hilt & upper bl	213		53		Dk brown	2 (+1bl):29=1bl)	Some bz d				Similar in section & condition to E291 & E289. Can only possibly fit E289
291	289	Unp*		Armagh PL 111	Beresford	289		Bl fgt	162	41			Dk brown		Some bz d				Similar in section & condition to E291 & E288. Can only possibly fit E288
292	290	Unp*		Armagh PL 237	Beresford	290		Hilt & Blade	378		49		Dk brown	02:02:00	Partial hilt outline visible. Thick hilt.				Dihed hilt edges.
293	291	Unp*		Armagh PL 112	Beresford	291		Bl fgt	100				Dk brown		Some bz d				Similar in section and condition to E288 & E289, but does not and can not fit.
294	292	Unp* NOT IN MUSEUM		NOT IN ARMAGH PL															
295	293	Unp*		Armagh C 29-1955	Beresford	293		Lower bl fgt	143				Black, patchy					Weatherup (1978), 38	Marcus Gervais Beresford Collin
296	294	Unp*		Armagh C 30-1955	Beresford (M)	242		Hilt & upper bl	241		51		Brown	03:04:00	Edges damaged both sides.			Weatherup (1978), 38	Bought from Mrs Rice of Reading. Note in Cat states ex Marcus Beresford Collin
297	295	Unp*		Armagh C 175-1935		295		Bl fgt	161	26			Brown		Blunt. worn edges			Weatherup (1982), 62	
298	296	Unp*		UM 1510A		296		3 pieces	426	28	48	354	Dark brown	02:02:00	3 pieces which don't fit				Genuine piecs which don't fit! Bevels wider on bottom two sections
299	297	Unp*		UM 1510B		297		Comolete	441	33	45	480	Dk brown	2(+1bl):2(+2bl)	Heavy & crude edges.				Looks OK, but a bit heavy. Ricasso looks a bit iffy. May be a copy
300	298	Unp*		UM 1510C		298		4 pieces	431	33	39		Dk brown		4 pcs . Corroded bl, porous surface				Looks OK as complete sword but joins are modern.
301	299	Unp*		UM 6:64		299		Blade	482	43	49		Dk brown		Good cast. Modern handle				Hilt has been altered to take modern handle
302	300	Unp*	Grainger	UM 3884 (6-9)		300		Blade fgt	392	40			Dk brown		Very worn and damaged				
303	301	Unp*	Grainger	UM 3890 (6-10)		301		Blade fgt	333	30			Dk brown/green		Very worn and damaged				
304	303	Nr the Shannon'*	?	UM 1911-37	BHHPS	303		Comolete	527	29	46	470	Dk brown. almost black	3:4 (+2bl)	Hilt outline on one side only.				Hilt repair? Note strange lobsided hilt section.
305	304	Unp*		UM 1911-38	BNHPS	304		Bl,shs & lower hilt	594	48	46		Dk brown on hilt		Blade partially cleaned.				Nice wide and well marked edge bevels. Thick hilt cross section. Sh repair?
306	305	Unp*		UM 1911:133C	BNHPS/Deramore	305		Hilt & upper blade	209		47		Dk brown	02:02:00	Well cast: good detail. Patchy bzd				
307	306	Unp*		UM 1911:133D	BNHPS/Deramore			Upper bl & shs	263				Dk brown		Shoulder & edge damage. Corroded.				
308	307	Unp*		UM 1911:133B	BNHPS/Deramore	307		Blade & shs	528	38	55		Dk brown	?:4	Corroded surface.				Hilt outline visible
309	308	Unp*		UM 1911:133E	BNHPS/Deramore	308		Sh fgt	106				Dk brown		Corroded & repaired worn fgt				
310	309	Unp*		UM 1911:133F	BNHPS/Deramore	309		Blade fgt	216	33			Black, patchy		Corroded edges				
311	310	Unp*		UM 1911:133G	BNHPS/Deramore	310		Blade fgt	200	34			Dk brown		Badly damaged edges				
312	311	Unp*		UM 1911:166A	BNHPS/Benn	311		Bl & shs. 2 pieces	528	37	47		Dk brown	?:4	Modern soldered join. Worn blade				
313	312	Ireland		UM 1911:166B		312/4													
314	313	Unp*		UM 1911:166C	BNHPS/Benn	313		Bl/sh fgt	375				Khaki		Corroded and rough surface				
315	314	Unp*		UM 1911:166D	BNHPS/Benn	314		Blade & shs	466	37	49		Dk brown	?:2	Worn blade & shs				
316	315	Unp*		UM 1911:166E	BNHPS/Benn	315		Bl & shs. 2 pieces	395	31			Dk green		Corroded surface. cleaned				Remains of solder at join indicates modern join
317	316	Ireland		UM 1911:170		316/4													
318	317	Unp*		UM 102.06E	Clavertv			Hilt & upper bl	276		48		Dk brown	06:05:00	Rough casting but looks gen.				E has acc no UM 102:1906. Renumbered by UM. Originally my no. 945
319	318	Ireland		UM 104:1906		318/4													
320	319	Unp*		UM 476:1937		319		Complete. 2 pieces	595	30	44	442	Dk brown	3:3 (+1bl)	2 pieces. Sig edge damage				Nice sword, well finished. Good example of its type. Dished flanges.
321	320	Unp*		UM 468.1937	Buick	320		Bl,shs & lower hilt	495	34	48		Dk brown	02:02:00	Minor edge damage both edges				Buick Collection no.294' on label
322	321	Ireland*		UM 471:1937A		321		Complete	474	35	43	484	Dk brown	2:2 (+2bl)	Faint hilt o/l visible				
323	322	Unp*		UM 473:1937	Johnston?	322		Bl & shs	484	37	45		Dk brown		Damaged hilt & v worn blade.				
324	323	Unp*		UM 475.1937B	Fetherston	323		Blade	510	40			Dk brown		Modern hilt. Minor edge damage				Looks genuine-shame that the hilt was butchered.
325	324	Unp*		UM 195:1951B		324		Bl fot	284				Dk green		Very corroded edges				
326	325	Unp*		UM 195:1951A		325		Sh fot	92		52		Dk brown	?:4	Hilt repair				
327	326	Ireland*		UM L10:1955B		326		Fot bl & hilt	446	34	49		Dk brown	03:06:00	Edges worn. Dished hilt flanges				
328	327	Ireland*		UM 210:1955				Hilt & upper blade	174		45		Dk brown. cleaned	02:02:00	Modern bl alteration. Casting flanges.				Blade section very flat suggesting copy, but edge & ricasso detail good.
329	328	Ireland		UM 211:1955		328/4													
330	329	Unp		Bristol E175		329/4													
331	330	Unp		Bristol E177		330/4													
332	331	Unp		Bristol 7.863		331/4													
333	332	Ireland*		Camb MC99.187		332/4		Complete, 2 pcs	421	38	37	296	Green, some bzd on hilt	02:02:00	Rough casting. Pronounced midrib				
334	333	Edenderry*	Offaly	Camb MC99.188		333/4		Hilt & upper bl	261	43			Dk brown	03:06:00	Shiny surface, slightly pitted & scratched				Thick hilt section
335	334	Edenderry*	Offaly	Camb MC99.189		334/4		Bl & shs	450	38			Khaki	?:2	Shs & bl corroded & damaged. BzD				
336	335	Edenderry*	Offaly	Camb MC99.190		335/4		Shs &upper bl	121		43		Khaki		Rough surface				
337	336	Edenderry*	Offaly	Camb MC99.191		336/4		Hilt fgt	84		45		Dk khaki	?:2 (+4bl)	Minor corrosion				
338	337	Edenderry*	Offaly	Camb MC99.192		337/4		Bl fot	100	34			Khaki		Rough surface				
339	338	Ireland*		Camb FB239:PB148		338/4		Complete	585	39	48		Dk brown	02:04:00	Some bzd on bl	Ireland 48' written on blade			Heavy hilt
340	339	Ireland*		NMD I.128		339		Complete in 2 pcs	504	35	47	485	Dk brown	2 (+2bl):2	Heavy thick hilt. could be copy.	Mus cat has old no as J1/10495			Heavy, rough hilt. Many small nicks along bl edges. Not happy with hilt.
341	340	Ireland*		NMD OA VII.J4		340		Bl fgt	292	36			Dk brown, patchy		Edges flattened nr top of bl..appears modern.	13036' written on blade. Mus Cat shows acquired in 1853..no other info			
342	341	Ireland*		NMD OA VII 5		341		Bl fgt	173				Dk brown		Edges flattened nr top of bl..appears modern	No acc no in E's Cat.			
343	342	Ireland NOT FOUND @ MUS		Cork L188:60		342/4													
344	343	Ireland NOT FOUND @ MUS		Cork L188:61		343/4													
345	344	Unp*		Cork 1777:1973		344/4		Hilt & upper bl	199		46		Dk khaki	03:02:00	Cast on hilt repair				Old acc no L188:62
346	345	Unp*		Cork 1777:1974		345/4		Bl fgt	255	15			Dk khaki						Old acc no L188:64
347	346	Ireland NOT FOUND @ MUS		Cork L188:65		346/4													
348	347	Ireland NOT FOUND @ MUS		Cork L188:66		347/4													
349	348	Unp*		Cork 1777:1972		348/4		Looser bl & shs	148	44			Khkai	?:2(+2bl)	Pock marked surface				Old acc no L188:71
350	349	Ireland*		Cork L1963:15		349/4		Complete , 2 pcs	475	19	40		Dk khaki, patchy	3:2 (E)	Post 1965 hilt	Ireland' written on bl			Old acc no L188:74
351	350	Ireland*		NMI P245		350/4		Bl & lower hilt	570	40	46		Dk khaki	3:3 (+3bl)	Pitted surface. Casting flaw holes on hilt				
352	351	Ireland*		NMI P246		351/4		Bl & lower hilt	536	33		606	Black	?	No tip & hilt altered				Nice HaC blade, but hilt has been altered..looks like modern alteration
353	352	Ireland*		NMI P247		352/4		Fragmentary	449	24		247	Black	2(+2bl):2(+2bl)	Blade worn: some corrosion				Appears to be 4 pieces soldered together. Blade appears to be from different sword.
354	353	Ireland*		NMI P248		353/4		Poss 2 swords	424	32		309	Black	02:02:00	Dam sh & hilt. 2 pieces. Edge damage				Appears to be bl & hilt from 2 weapons, as they are of diff thicknesses..
355	354	Ireland*		NMI P249		354/4		Bl & shs	332	26	38		Black	?:4	Very worn blade				
356	355	Ireland*		NMI R364		355/4		Bl & hilt fot	179		44		Dk brown	?:2	Pitted bl surface, rough hilt surface				
357	356	Ireland*		NMI R365		356/4		Bl fot	199	39			Dk brown		Edge damage both sides				
358	357	Ireland*		NMI R2221		357/4		Comolete	529	37	45	520	Black, patchy	2:2 (+1bl)	2 pieces. Break in blade looks modern				
359	358	Ireland*		NMI W3	Wilde	358/4		Comolete	629	43	51	678	Dk brown	03:06:00	Good casting in good cond. Edge nicks				Strange break. Worn edge
360	359	Ireland*		NMI W8	Wilde	359		Bl & lower hilt	556	43	50		Black, patchy	?:2	Modern plate joins blade. Edge damage				Modern hole on blade
361	360	Ireland*		NMI W9	Wilde	360/4		Bl & lower hilt	531	38	41		Dk brown	2(+1bl):2	Hilt repair. Rough & pockmarked surface				
362	361	Ireland*		NMI W12	Wilde	361		Comolete	544	39	51	711	Black, green in places	02:02:00	2 blades don't quite fit. Sig edge damage				Possibly pieces from two different swords
363	362	Ireland*		NMI W15	Wilde	362/4		Bl & shs	449	39	49		Dk khaki	?:2					
364	363	Ireland*		NMI W17	Wilde	363/4		Complete	512	42	53	495	Black	2:2(+2bl)	Edge damage				Both edges significantly damaged
365	364	Ireland*		NMI W24	Wilde	364/4		Bl & shs	428	30	45		Black		Very worn			(Wide (1861), 470	
366	365	Ireland*		NMI W25	Wilde	365/4		Bl & lower hilt	442	31		399	Black	01:04:00	Corroded. 2 pieces, modern join				Tip missing

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
367	366	Ireland*		NMI W26		366		Bl/Hilt & upper bl	482	32	40		Dk brown	1(+1bl):2(+2bl)	03:06:00				2 diff weapons? Patina is similar however
368	367	Ireland*		NMI W27	Wilde	367/4		Bl & lower hilt	454	30	43		Black	03:02:00	Hilt repair. Very corroded				
369	368	Ireland*		NMI W53	Wilde	368/4		FAKE	443										
370	369	Ireland		NMI W45	Wilde	369/4												Wilde Cat. 443:Fig 316	
371	370	Ireland*		NMI W57		370/4		Bl & lower hilt	495	36	43	452	Cleaned	02:04:00	Worn. Porous surface				Pockmarked surface
372	371	Ireland*		NMI W60	Wilde	371/4		Bl & lower hilt	434	34	46		Cleaned	02:02:00	Hilt repair. 2 pieces				2 pieces joined poorly together do appear to be from the same sword.
373	372	Ireland*		NMI W74	Wilde	372		Bl fgt	91	33			Black			E has '..mav have been found in Co Cavan'			
374	373	Ireland*		NMI W75	Wilde	373/4		Hilt & bl fgt	188				Dk brown		Genuine hilt repair. Bl cut down	Old label: "Sir B Chapman'			
375	374	Ireland*		NMI W78	Wilde	374/4		Hilt & upper bl	179		46		Dark khaki		Feels heavy. Grip outline visible.				
376	375	Ireland		NMI W81	Wilde	375/4													
377	376	Ireland*		NMI W82	Wilde	376/4		Upper bl & hilt fgt	157										
378	377	Ireland*		NMI W83	Wilde	377/4		Bl fgt	234	27			Dark khaki		Corroded				
379	378	Ireland*		NMI W88	Wilde	378/4		Bl & shs	390				Black	?:2	Very corroded				Soldered together but patina suggests they belong to the same sword
380	379	Ireland*		NMI W91		379/4		Complete	436				Black		Badly corroded				2 pieces soldered together. Hilt repaired.
381	380	Ireland*		NMI W93		380/4		Complete (no tip)	459	36	42	432	Black	02:02:00	Sig edge damage to both edges				Rivet diam 3mm. 2 out of 3 are stub rivets.
382	381	Ireland*		NMI X6		381/4		FAKE											
383	382	Ireland*		NMI SA1913:86	O'Meath Park, Co Lo	382/4		Upper bl & hilt fgt	180		45		Dk brown						
384	383	Ireland*		NMI SA1913:88	O'Meath Park, Co Lo	383/4		Bl fgt	182				Dk brown						
385	384	Ireland		NMI X7		384/4		Upper bl & shs	158		52		Dk brown	02:02:00	Vestigial sh holes vis. Poss a replica				
386	385	Ireland*		NMI 1875:115		385/4		Blade fgt	160	31			Dk khaki		Edge damage both sides				
387	386	Ireland*		NMI 1877:56		386/4		FAKE	580			850							
388	387	Ireland*		NMI 1880:24		387/4		Complete	637	41	48	876	Black	2(+1bl):2(+2bl)	Heavy cast hilt. Worn bl edges.				
389	388	Ireland*		NMI 1882:184		388/4		Bl & lower hilt	452	30	42	406	Black	2(?):2					Significant edge damage
390	389	Ireland*		NMI 1882:185		389/4		Bl fgt	214	33			Black						
391	390	Ireland*		NMI 1882:186		390/4		Bl fgt	82				Black		Corroded edges & bzd				Does not fit 186a (E391)
392	391	Unp*		NMI 1882:186a		391		Bl fgt	75				Black		Corroded edges				
393	392	Ireland*		NMI 1886:87		392/4		Complete	476	33		431	Black	03:02:00	1 sh damaged & sig edge damage				Blade corroded & bevels barely visible. Edge damage extensive
394	393	Ireland*		NMI 1890:34		393/4		Blade fgt	193	43			Dk khaki		Wide blade: some bzd.				
395	394	Ireland*		NMI 1893:2		394/4		Bl & shs	377	32	42		Black	?:4					
396	395	Ireland*		NMI 1896:6		395		Complete (no tip)	495	37	42	525	Black	3:4 1R	2 pieces..modern join	LABEL HAS DOWRIS, CO OFFALY		Is this part of the Downs hoard?	
397	396	Ireland*		NMI 1897:173		396/4		Blade fgt	225	35			Black						Nice HaC point
398	397	Ireland*		NMI 1906:225		397/4		FAKE											
399	398	Ireland*		NMI 1906:226		398/4		Blade fgt	271	34			Dark khaki						
400	399	Ireland*		NMI 1906:227		399/4		Blade fgt	247	29			Khaki						
401	400	Ireland*		NMI 1906:228		400/4		Upper bl & hilt fgt	131		38		Dk brown	?:2	Hilt repair. Large rivet holes				
402	401	Ireland*		NMI 1918:5		401/4		Blade fgt	200	32			Dk brown						
403	402	Ireland*		NMI 1885:115		402/4		Shs & upper bl	142				Khaki		Damaged edges & rough surface				
404	403	Drumcrample*?	Fermanagh	NMI 1947:8		403/4		Comolete	508	39	48	595	Black	02:04:00	Minor edge damage. Good hilt ribs		2 sws E403 & E153		
405	404	Drumcrample*?	Fermanagh	NMI 1947:9		404/4		Comolete	506	32	45	560	Black, patchy	2(+1bl):4	Worn blade. minor edge damage		2 sws E403 & E153		
406	405	Ireland*		NMI 1957:145		405/4		Up bl & shs	207		48		Black	2(?):2					
407	406	Ireland		NMI 1959:169		406/4		Blade	190	34			Black						
408	407	Ireland*		NMI 1959:175	Dr Leeper, Dublin	407/4		Complete, tip broken	470	39	49	521	Black	2(&2bl): 2(&1bl)	Very good, but heavy. Genuine?	This sword was formerly in the collection of Dr Leeper, Dublin' (NMI card index).			Edge damage. Nice blade section. Holes look drilled. On balance..genuine..
409	408	Ireland		NMI 1959:623		408/4		Hilt & upper bl	270		42		Black	2(+1bl):4	Hilt repaired				Hilt repaired..apperas to be reused from other weapon. Edges slightly dished.
410	409	Ireland*		NMI 1959:624		409/4		Part tang & blade		39	46		Black, patchy green		3 pieces, bent, soldered				
411	410	Ireland*		NMI X8		410/4		Bl fgt	131				Dk brown						Gundlingen section and shape
412	411	Ireland*		NMI X9		411/4		Complete	626	47	50	398	Brown	3:6 (+2) 7R	Machined hilt. Poss a replica				
413	412	Doonally	Galway	NMI	Grierson	412/4										Ex Grierson Mus, Thornhill, Dumfriesshire			
414	413	Ireland*		NMI X11		413/4		Complete (no tip)	459	25			Khaki	03:04:00	2 ocs. Modern bl join. Rough surface				
415	414	Ireland*		NMI X12		414/4		Bl & damaged hilt	494	32	41		Dk brown		2 ocs; hilt broken. Cen ridge prominent				
416	415	Ireland*		NMI X13		415/4		Bl (no tip) & lower hilt	436	28	42		Mottled green/brown	1:4 (+2bl)	Bl. 2 ocs. Copy? Hilt repair looks cast on				
417	416	Ireland*		NMI X14		416/4		Bl fgt	96				Dk khaki						
418	417	Ireland*		NMI 1881:183		417		Bl fgt	236	27			Black		Flattened end to blade..C19 mod?				Flattened area looks modern/C19
419	418	Ireland*		NMI X15		418/4		Hilt fgt	29				Brown						
420	419	Ireland*		NMAS DM1	Bell	419/4		Complete	625	41	50	608	Black						Plenty of small nicks along widest part of blade. Hilt a bit rough.
421	420	Ireland*		NMAS DM3	Bell	420/4		Bl & Shs	544			724	Shiny black						Very heavy, very shiny patina, holes neatly drilled, edges rounde...looks like a fake
422	421	Ireland*		NMAS DM4	Bell	421/4		Bl & Shs	557			520	Black		V worn blade. Sword feels heavy				Flattened lozenge. Bevel & midrib faint but still visible.
423	422	Ireland*		NMAS DM5	Bell	422/4		Bl, Shs & broken hilt	576	43	52	630	Black						Good oval section with prominent flanges marked by change in patina. Blanks clear on shoulders
424	423	Ireland*		NMAS DM6	Bell	423/4		Bl & Shs	540	35	50	448	Black						Mottled black patina
425	424	Ireland*		NMAS DM7		424/4		Bl & shs	520	39	50		Black		Some green accretion				
426	425	Ireland*		NMAS DM8	Bell	425/4		Bl & Shs (worn)	548			528	Black						Very flattened cross section
427	426	Ireland*		NMAS DM10	Bell	426/4		Complete	478	36	39	394	Black	2(+1bl):2					
428	427	Ireland*		NMAS DM11	Bell	427/4		Bl & Shs (worn)	469		37	412	Black, some accretion						Flattened lozenge section
429	428	Ireland*		NMAS DM12	Bell	428/4		Complete	535	37	46	466	Black	02:02:00					TT O'Hara 1845' inscribed on blade both sides. 2 good little nicks
430	429	Ireland*		NMAS DM19	Bell?	429/4		Upper bl & shoulders	289		55		Black and brown mottled						Flattened oval with good bevelled edge
431	430	Ireland*		NMAS DM20		430/4		Blade	207	43			Dk brown, mottled						
432	431	Ireland*		NMAS DM21		431/4		Upper bl & shoulder	186		48		Khaki	02:02:00					Hilt slightly skewiff. Slightly dished hilt flanges
433	432	Ireland*		NMAS DM22		432/4		Blade	185	44			Dk brown, smooth						HaC blade
434	433	Ireland*		NMAS DM24	Bell?	433/4		Blade	142				Black						
435	434	Ireland*		NMAS DM25		434/4		Blade	324	32			Dk brown		Worn & slightly pitted. Cleaned.				
436	435	Ireland*		NMAS DM26	Bell?	435/4		Blade	312				Black						Distinctive wide bevel
437	436	Ireland*		NMAS DM28		436/4		Blade fgt	103				Khaki		Smooth surface				
438	437	Ireland*		NMAS DM29		437/4		Blade fgt	233				Khaki		Poor casting, lots of air bubbles				
439	438	Ireland*		NMAS DM31		438/4		Blade fgt	228	29			Khaki		Worn and pitted				
440	439	Ireland*		NMAS DM32		439/4		Upper bl & shs	200		46		Dk brown	2:2 2R	Pitted surface, hilt outline visible				May belong with E440 (DM 33)? Looks good but doesn't actually fit
441	440	Ireland*		NMAS DM33		440/4		Blade	328	29			Dk brown		Pitted surface, some green accretion				
442	441	Ireland		NMAS DK36		441/4													
443	442	Ireland*		NMAS DM	Bell	442/4		Hilt fgt	46				Dk brown	2(+1bl)					
444	443	Ireland		Harvard/NMAS?	Bell	443/4													
445	444	Ireland*		Leeds D1964.0277	Wardell/Holmes	444/4		Hilt& upper bl	178		41		Dk khaki	3:3(+3bl)	Good hilt detail. Overlaroe sh holes.				
446	445	Ireland*		Leeds D1964.0279		445/4		Comolete	484	47	32	470	Dk brown	1/+1bl\:2/+2bl\1R	Hilt repair cast on.				
447	446	Ireland		Leeds		446/4													NOT IN MUSEUM AUG 2012. E GOT DRAWING FROM B ASSOC CARD CAT
448	447	Ireland NOT IN MUSEUM		Lim (Clv) 128		447/4												Herbert (1941). 84	
449	448	Ireland*		BM 63,1-22,117		448/4		Bl & lower hilt. 2pcs	436	36	44		Dk brown	2:2 (+2bl)	Modern blade join				
450	449	Ireland*		BM 78,11-1,202		449/4		Bl & hilt (no tang)	578	45	50	854		03:06:00	V heavy & nicks on edge				May be a copy but looks OK.
451	450	Ireland NOT FOUND AT BM		BM		450/4													Couldn't be traced in Museum Feb 2013
452	451	Ireland*		BM POA 181		451/4		Bl & hilt, no terminal	354	23			Khaki/green	2bl:2	Rough surface. Hilt repair?!				
453	452	Ireland*		Horniman		452/4		Comolete	644	43	52	784	Dk brown. amost black	03:06:00	Bl edges rounded. Some bzd.				V heavy, unusual strengthening ribs, casting flanges on edge. Poss copy
454	453	Ireland		Newbury		453/4												Coohlan (1953). 99	
455	454	Ireland		Newcastle 78		454/4													
456	455	Ireland		Newcastle 79		455/4													
457	456	Ireland		Newcastle 81		456/4													
458	457	Ireland		Newcastle 84		457/4													
459	458	Ireland		Newcastle 86		458/4													
460	459	Ireland		Ashm 1911:604		459/4													
461	460	Ireland		Ashm 1927:2889		460/4													
462	461	Ireland		Ashm 1928:2890		461/4													
463	462	Ireland		Ashm 1927:2894		462/4													
464	463	Ireland		PR Oxford 1491:1500		463/4													
465	464	Ireland		PR Oxford 1502		464/4													
466	465	Ireland		PR Oxford 1505		465/4													
467	466	Ireland		PR Oxford 1506.2618		466/4													
468	467	Ireland		PR Oxford		467/4													
469	468	Ireland		Private		468/4													
470	469	Ireland		Private		469/4													
471	470	Ireland*		NMI E92:404	Chapman?			Complete	469	30	43	447	Dk brown	1:2 3R	Hilt repair . 3 stub rivets. Worn & corroded				Hole plugged in blade looks modern. Sample taken?
472	471	Ireland		BACC		471/4												Knowles Cat, lot 658	
473	472	Ireland		BACC		472/4												Knowles Cat, lot 658	
474	473	Nr Killykeen*	Cavan	NMI 1937:2798		473/4		Bl & lower hilt	486	41	50		Dk brown/red	?:4 (+2bl)	Very corroded, especially blade	B: During dredging operations from the shore of Lough Oughter		Bourke (2001), pp.E65	E has a tang in drawing & description

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
474	474	Lurg*	Fermanagh	NMI 1906:221		474/4		FAKE											
475	475	Cloghan*	Mayo	NMI R1653		475/4		Comp (no tip)	400				Black	St:2	Hilt repaired; minor edge damage	E: 'Found at Cloghan Castle'			
476	476	Leigh*	Tipperary	NMI 1894:12		476		Complete	470	39	46	481	Black/khaki	St:4	Hilt repair. Minor edge damage	NMI card: 'Legh Bog, Two Mile Borris'			Is this an example of an earlier hilt with slot reused on an EP sword?
477	477	Roughan*	Tyrone	Armagh C 66-1935	Robinson?	477		Hilt& u bl/blade	397	33	42		Brown	St:2bl	Modern bl join. Hilt fot unused?			Weatherup (1982), 62	Blackmoor' hilt. Bl & hilt don't fit. Sh rivet holes are bls. Rough cast. hilt fls visible
478	478	Unp* (Co Tyrone)	Tyrone	Alnwick Castle 387	Walker?	478		Comolete	667	49	51	1036	Dk brown. cleaned	2sl:2	A fine sword. Minor edge damage	Label on sw: 'From James Leadram Esq. Found with 4 other swords in a tumulus in Co.Tyrone 1831'	4 other swords? Possiblv E479		Heavy, but genuine. Hilt outline visible. Mus Cat., Irish material from Roger Chambers Walker
480	479	Unp* (Co Tyrone)	Tyrone	Alnwick Castle 388	Walker?	479		Complete (tip missing)	564	32	45	470	Dk brown, cleaned	2sl:4	Hilt repair & tip join.	Poss found with E478	4 other swords? Possibly E479 4 other sword? Poss E479		
481	480	Balteagh*	Derry	BM WG1227		480/4		Complete	629	37	44	516	Dk brown, patchy	03:06:00	Both edges worn & serrated. Sh damagen				
482	481	Limavady	Derry	Ashm 1927:2891		481/4												Evans (1881), 291; Fig 354	
483	482	Unp*		Armagh PL 130	Beresford	282		FAKE?	645	42		670	Green	03:06:00	Worn blade. Slightly kinky blade!				Identical hilt to E560, longer bl. Bl shape & green patina suggest Cen Erpn origin.
484	**483**	**Ireland***		**NMI 1890:32**		**483/4**		**FAKE**											
485	484	Toome Castle*	Antrim	NMI W16	Wilde	484/4C		Bl, shs & lower hilt	506	35	47	601	Dk brown		Worn. Hilt repair			Bourke (2001), no.B108	Nice HaC point. Bevel noticeably narrower one side
486	485	Drumcallaun*	Clare	NMI 1960:562		485/4		Bl & lower hilt	511	37			Dk brown/green	2:4 1R	Corroded & edges damaged	E: 'Found on the shores of Drumcullaun Louah'			
487	486	Clonmeen North*	Laois	NMI P1955:19		486/4		Bl & bottom hilt	463	33	51	469	Black	?:6 4sh rivets & 1 hilt rivet in situ		Clonmeen North, Rathdowney parish			Wide bevels
488	487	Unp	Cavan	BACC	Farnham BACC	487/4													
489	488	Ireland*		NMI P241		488/4		Comolete	549	36	48	706	Dk brown	2(+1bl\:5(+1bl\3R	Good condition, well cast. HaC point				Dished rivets 32 diam. Grip outline visible.
490	489	Ireland*		NMI 1906.220		489/4C		Comolete	585	44	51	669	Black, patchy		Edges damaged				20mm pin rivets. Flanges deeply dished
491	490	Nr Ardara*	Donegal	UM 3885 (6-82)	Grainger	490		Complete	614	40	48	682	Dk brown	03:04:00	Good cast. Some cleaning				Note dished hilt edges. Slight hilt outline visible
492	491	Tipperary	Tipperary	RUSI London 579	BACC	491/4													
493	492	near Athlone*	Roscommon	BM 63,1-22,115		492/4		Complete, 2 pcs	521	32	44		Dk brown	03:06:00	Rough surface				
494	493	Graigue*	Carlow	NMI 1930:518		493/4		44	595	39	55	731	Brown	2:4 4R	2 pieces & corroded	NMI card: 'Dredged from the River Barrow'		Report NMI (1930-1), 13: pl 3,3	Rivets 42mm diam. 2 x 130mm length; 2 x 140mm length.
495	494	Nr Tara*	Meath	NMI 1927:47		494/4		Comolete	506	35		406	Black, patchy	3:6?	Surface corrosion			Mahr (1930), 75: pl 1,7	Modern plaster cast hilt blades added. NMI card; 'ex Naylor, Upper Liffey Street' Dubious provenance.
496	495	Knocknacarrow*	Roscommon	NMI 1941:332		495/4		Comolete	578	42	50	804	Black	02:02:00	2/boss 3 pcs. Edge flanges				V heavy. Edge worn & rubbed down. Holes 2mm diam. Pockmarked blade
497	496	Ireland*		NMI R372		496/4		Comolete	507	32	47		Black	3:4 3R	2 pieces, ancient break. Major edge dam				
498	497	Killala*	Mayo	NMI W87		497/4		FAKE	403										
499	498	Ireland*		NMI 1897:48		498/4		Upper bl & hilt fgt	202			42	Black	2:2 1R 3 diam	Hilt good. Upper bl edges delib damaged	Old label reads; 'Mr Rothwell. Kells 1897'			
500	499	Dowth	Meath	NMI W59		499/4													
501	500	Ireland*		NMI 1881:180		500		Bl & shs	472	33	43		Black		FORGERY/REPLICA See research notes				This is identical to W59. Ricassi odd shape. Blade shape OK, but wear patches not.
502	501	Gortgole*	Antrim	UM L24:1936		501		Bl & shs	524	24	52		Dk brown	?:6	Worn blade & edging	E:'Found in the River Bann'			
503	502	Toome*	Antrim	NMI W37		502/5		Bl & lower hilt	678	32	59		Dk brown	?:2 1R 3 diam	Hilt repair. Small casting flaws on bl.			Wood-Martin (1886), 171: Pl 37,2	
504	503	Toome*	Antrim	NMI W32	Wilde	503/5		Comolete	654	28	54	618	Dark brown	2:4 ALL RIVETS	Hilt & tip repaired	E:'River Bann at Toome Bar'			Blade section worn.
505	504	near Toome	Antrim	Private BACC		504/5													
506	505	River Bann	Antrim/Derry	UM 104:1951		505/5													
507	506	Cutts*	Antrim	NMI W36	Wilde	506/5		Complete	688	31	59	700	Black	2:4 2R	Shs damaged				Nice HaC point; edges undamaged; one sh damaged
508	507	Lough Oughter*	Cavan	NMI W33	Wilde	507/5		Bl & lower hilt	620	28	51		Black, patchy	02:06:00	Worn blade & shs. Accretion on hilt.				
509	508	Groomsport*	Down	NMI 1929:1501		508/5		Bl & shs	605	33	59	581	Dk brown	?:4 2R	Excellent blade	NMI card:'Groomsport, Bangor, Ards Lower'			Beautiful section and edges
510	509	Portora	Fermanagh	Queen's Univ Belfast		509/5													
511	510	Keeloque Ford*	Galway	NMI W31	Wilde	510		Complete	631	29	56	563	Black	2:4 6R	Minor edge dam. Hilt & tang repairs.	E: 'Found in the Shannon at Keeloge Ford'			Square 3mm diameter rivets, most rounded at tops. Good repairs
512	511	Rahin*	Kildare	NMI W20	Wilde	531		Blade	535	25			Black		Shs and hilt damaged	E: '... on hard gravel under alluvium, in cutting a new course for the R Bovne.'			Nice slender HaC blade and tang
513	512	Unp*	Limerick	NMI W38	Wilde	512/5		Comolete	719	33	59		Black	2:4 2 in tang 5R	2 pieces. Shs damaged			Wilde Cat. 445: fig 320	Hilt sep from bl in NMI. Rivets 3 mm diam. Nice hooked ricassi
514	513	Derrycamagh*	Louth	NMI W35	Wilde	513/5		Bl & shs	600	26	57	572	Black						
515	514	Unp*	Mayo	Horniman		514/5		Bl (no tip)& lower hilt	635	28	56		Dk khaki	02:05:00	3 pcs inc hilt repair. Cleaned surface				Edges heavily nicked.
516	515	Cootehill*	Roscommon	NMI W34	Wilde	515/5		Complete	515	26	56	564	Black	2:4 (2 in tang)	Worn edges & bevel	NMI label:'Cootehill Shoal, Boyle Water' (E has R Boyle)			Slight change in patina nr tip; evidence of chape?
517	516	Derrymaguirk*	Roscommon	NMI E20:877		516/5		Bl & hilt. No term.	665	33	60		Dk khaki	03:06:00	Rough surface. Serrated bl edges	E: Found on the shores of Lough Gara			
518	**517**	**Roosky Ford**	**Roscommon/Leitrim**	**Glasgow 1902.73ki**	**Anderson College**	**517/5**		**Missing upper grip and butt**	**647**	**28**	**42**	**489**			**very worn, point bent; dark brown patina. 2 pin rivets in grip, 2x2 in shoulders, left outer rivet missing. Broad midrib tapering below inner shoulder rivets to narrow midrib reaching to lower grip rivet. Oval blade section with much reduced remains of cutting edge.**	**E:From the River Shannon at Roosky Ford**			
519	518	Tumna*	Roscommon	NMI W39	Wilde	518/5		Complete	750	33	56	873	Black, patchy	1:2 (1 in tang)	Minor edge damage..clean blade				Grooves worn. Rivets 3.5 mm diameter. Tang repair
520	519	Cullen	Tipperary			519/5										Full details in Eogan (1983)		Pownall (1775): Wallace (1938)	
521	520	Cullen	Tipperary			520/5										Full details in Eogan (1983)		Pownall (1775): Wallace (1938)	
522	521	near Athlone*	Westmeath/Roscommon	NMI P242		521/5		Comolete	572	34	61	676	Black	3:6+2 on tang 7R	Beautiful weapon & rivets. Bl blemish.				
523	522	near Athlone*	Westmeath	NMI W77	Wilde	522/5		Hilt & upper bl	305		59		Khaki	3(+2):6 6R	Twisted &bl dam..Hilt dam at tang & shs.	E: 'Said to have been found with nos 523, 532 and 534'	4 swords...522,523,524 & 532 (E)	Wilde Cat, 446: Eogan(1983) Hoard no. 124	
524	523	Nr Athlone*	Westmeath	NMI W80	Wilde	523/5		Bl & lower hilt	572	34	54		Black	?:6 4R	Bent blade & hilt broken. Twisted	E: 'Said to have been found with nos 522, 524 & 532'	4 swords...522,523,524 & 532 (E)	Wilde Cat, 446: Eogan(1983) Hoard no. 124	
525	524	Unp*		UM 3890 (6-11)		524		Blade fgt	372	24			Dk brown/green		Worn				Looks like a rapier but just possibly an HaC blade.
526	525	Ireland*		UM 475:1937A				Bl fgt	382	30			Dk brown		Good HaC beading				
527	526	Edenderry*	Offaly	Camb MC99.183		526/5		Bl & shs	624	31	61	684	Green	?:4 4R R 0.28 diam	Feels more like iron in weight				
528	527	Ireland NOT IN MUSEUM		Camb MC99.184		527/5													Acc to Camb on loan to Grange Heritage Centre but this has shut. SEE ENTRY IN E
529	528	Edenderry*	Offaly	Camb MC99.185		528/5		Comolete	611	30	56	534	Black, patchy on blade	2:4 1R 2 small sh bls	Edges sharp but frizzled; poss hilt repair				
530	529	Ireland		Devzes		529/5													
531	530	Ireland*		NMI W2	Wilde			Comolete?	660	38	59	718	Black	2:8 1 in tang 10R	Modern metal hilt repair			Wilde Cat, 445; fig 319: Evans (1881), 295; fig 356: Raftery (1951) fig 209:	Pin rivets 1.8 mm diameter. Unusual combination. White accretion around repair.
532	531	River Shannon*	Limerick	NMI W21	Wilde	531/5		Bl & lower hilt	484	19			Black	?:4 1 stub R	Rough surface on hilt. Edge damage				
533	532	Nr Athlone*	Westmeath	NMI W40	Wilde	532/5		Complete	756	35	60	852	Black	2:4 2 in tang 5R	Edging and bl damaged in central section	E: 'Said to have been found with nos 522, 523 & 524'	4 swords...522,523,524 & 532 (E)	Wilde Cat, 445 fig 321: Raftery (1951) fig 210: Eogan (1983) Hoard no. 124	R 3.2.m diam..all deco heads. Note 1 offset. Edging & bl clean except cracked mid section.
534	533	Ireland*		NMI W55	Wilde	533/5		Bl & shs	583	30	59	667	Black	?:2	Worn blade. Iron oxide type accretion.				Rivet diam 3.6mm. Just possibly an IRON SWORD
535	534	near Athlone*	Westmeath	NMI W84	Wilde	534/5		Bl fgt	256	33			Black						
536	535	Ireland*		NMI 1882:183		535/5		Comolete	636	40	62	802	Black	02:04:00	Shiny blade. Sig edge damage				Dead straight blade
537	536	Ireland*		NMI 1890:35		536/5		Blade fot	220	29			Khaki		Nice HaC point. Narrow bl. delib edge dam				
538	537	Ireland*		NMI SA 1898:112		537/5		Comolete	657	31	63	619	Dk brown	2:4 2R	2 pieces: hilt broken. Blade corroded.				Ricassi worn. Pin rivets 2mm diameter. 11mm & 14mm length.
539	538	Ireland*		NMI 1963:30		538/5		Comolete	588	34	62		Black	2:5 3R 3 diam	Slight deoression on blade. Mend?				Dished flange edges. Raised hilt terminal.
540	539	Killaloe*	Clare	NMI 1934:197		539/5		Comolete	589	34	61	782	Khaki	3+1:2 1R 3D	Shiny surface: hlt outinel vis: hilt repair	E:'Found in the River Shannon near the sites of the old sluice gates at Killaloe'			
541	540	Ireland*		NMAS DM18	Bell	540/5		Complete	700	32	51		Black	1:4 1r					Hilt has repair. Very slight bevelled dish
542	541	Ireland		Hull 53		541/5													
543	542	Ireland*		BM 54.7-14,292		542/5		Complete	584	27	48	496	Dk brown, patchy	2:4 4R R 0.28 diam	Bl surface crack & casting flaw.				
544	543	Ireland		Private		543/5													
545	544	River Bann	Antrim/Down	UM		544/6													
546	545	Inishmore*	Cavan	NMI 1937:3647		545/5		Comolete	456	33	47	445	Black	02:02:00	2 pieces. broken on hilt.	Old label: 'River Erne find Inishmore, Co. Cavan 3.12.37 Pat Jos. Feehan'			Note on label: 'tang cracked not detached in Eogan (1965)'
547	546	Devil's Bit Mountain*	Tipperary	UM 4022	Grainger	546		Hilt & shs / bl fot	157	40	53		Dk brown	2:2 1R	Hilt repair. Edges badly damaged		E: Allegedly found with bz side looped ssh .		2 pieces DO NOT fit but seem to be part of the same sword. Square rivet 25mm diam..
548	547	Anneteer*	Tyrone	UM 42:1936		547		Bl & shs	594	41	58		Dk brown	?:2	Hilt repair. Slightly porous surface.				2mm diam pin rivet. Porous surface.
549	548	Unp*	Grainger	UM 3883 (6-2)		548		Complete	479	40	52	520	Dk brown	1(+1bl\:2	Heavily notched bl edge. Modern join				Heavy hilt. Hilt outline and ricasso look genuine. Good shape hilt & shs
550	549	Ireland*		NMAS A1891:78	ex RSM 1891:78	549/6		Complete	566	36	52	594	Khaki	2:2 1R	Hvly notched upper bl edge. Dam surface				Delib damd & hilt slightly bent. Labe reads April '91 £3 10/- Fenton 11, New Oxford St, London
551	550	Ireland		Halifax 22 (AW78)/ Huddersfield		550/6													
552	551	Ireland?		Ashm 1927:2893A		551/6													
553	552	Ireland*		NMI X16		552		Bl & damaged shs	394	37			Dk brown	?	Grip outline visible				
554	553	Cloelt*	Antrim	Lin/Hunt/HCA 372		553		Complete	536	38	50	592	Green, patchy	04:04:00	Ricassi, serrated both edges				

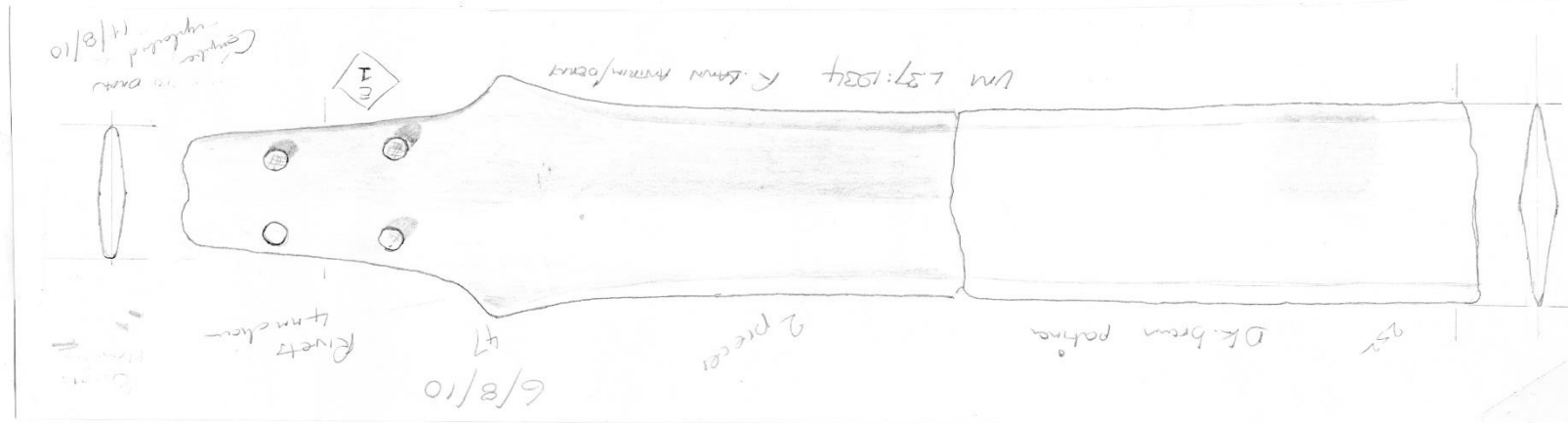
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
555	554	Drumauna*	Cavan	NMI 1960:725		554		Bl (no tip) & I hilt	549	43			Green	03:06:00	Both edges sig damage	E: 'Found in a rabbit burrow'			
556	555	Ards Beg	Donegal	Rossnowlagh D28		555										E:'Found under about 1.20 metres of peat in a bog at Ards Beg, Gortahork'			
557	556	Toome Bar*	Antrim	NMI W11	Wilde	556		Bl & shs	492	46			Dk brown		Surface corroded	B: C19 drainage spread over Toome Bar bottom with other artefacts 0.3 to 0.9m under sand			Nice early lozenge sectioned blade
558	557	Ireland*		NMI W14	Wilde	557		Bl & shs	470	45			Patchy black	?:4	Pockmarked surface				
559	558	Portora*	Fermanagh	NMI 1961.6		558		Blade fot	276	41			Dk brown			B: Recovered from the bed of the Erne during dredging operations about 1860		Bourke (2001), no. E67	Narrow bevels
560	559	Dowris?*	Offaly	BM 83.2-18.41		559		Complete. 2pcs	510	40	50	518	Dk brown, patchy	3:4bl	Modern bl join	Full story in Eogan (1983), 117-8		Full list in Eogan (1983), no. 119	BM has this sword as Unp.....probably a BM mistake
561	560	Unp*		Armagh PL 137	Beresford	560		FAKE. No tang	583	41		592	Dk brown	03:06:00	Worn blade. Shape unconvincing				Identical hilt to E482. Blade is shorter though, and rather clumsy. An obvious copy.
562	561	Unp	Wicklow	Private		561													
563	562	Ireland*		NMI W6		562		Complete	586	37	48	620	Black	03:04:00	Minor edge damage. Sh decoration				Same deco both sides. Looks like a copy but appears genuine. Hilt outline visible
564	563	Lough Corrib	Galway	Private		563													
565	564	Ireland*		NMAS DM30		564		Bl & shs	315				Green, pitted surface	?:2	Very worn. Shs altered & damaged				
566	565	Ballinclemesig NOT@MUS	Kerry	Cork L188:73		565										E:'Found when digging a drain in a bog at Ballinclemesig'		Full list in Eogan (1983), no.119	
567	566	Unp*	Armagh/Monaghan	Armagh C 110:1935	Tenison	566		Complete	590	40			Dk brown	3:?	Damaged shoulder			Weatherup (1982), 62: Bourke (2001), no.B109	Unusual raised cent hilt rib.FAKE, but a good one. Hilt ridges heavy. Identical to E569
568	567	Granard*	Longford	NMI 1959:170		567/4		Complete	542	38	48			03:02:00	Tang damaged	Found at Gruinard J.F 3.6.1864' (label)		JRSAI 91(1961), 84-5	APPEARS TO BE A FAKE..BLADE STRANGE SHAPE AND HILT TOO LONG
569	568	Unp*	Longford	NMI 1959:171		568/4		Complete	398	32		271	Black/green		1 sh damaged	Fine bronze sword Co.Longford 1864' (label)		JRSAI 91(1961), 85; fig 19	Looks genuine but hilt very odd
570	569	Unp*		Armagh PL 131	Beresford	569		Complete (no tang)	590	40	51	608	Dk brown	03:04:00	Bl profile too thin below hilt				Hilt section has raised midrib. Identical to E566 in Armagh C. Looks C Erpn.
571	570	Rathcarrick*	Sligo	NMI 1939:69		570		Complete (no tip)	554	40		847	Black	05:06:00	Blunted & heavy. REPLICA	Nothing on card. See associations.	E: 'Said to have been found in a cairn with two bz axeheads'		REPLICA. Break from original visible in csatina below shoulders.
572	571	Knocktemple*	Wicklow	NMI 1915:11		571		FAKE								E:'Museum register states Knocktemple, Co Wexford..there is no such place..'		Price (1935), 59, fn 63	
573	572	Ireland				572													
574	573	Unp*	Armagh/Monaghan	Armagh C 110:1935	Tenison			COMPLETE FAKE										Weatherup (1982) ,62	
575	574	near Limavady	Derry	UM 737:1954		574												Herbert (1941), 83: O'Kelly (1945), 42	
576	575	Holycross NOT IN MUSEUM	Limerick	Lim(City) 125		575													
577	576	Finnoe*	Tipperary	UM 469:1927		576		FAKE								E:Said to have been found in the parish of Finnoe			
578	577	Fintona*	Tyrone	NMI 1959:181		577/4		Complete	564	53	51					Found at Fintona, Co Tyrone, near Omagh, in bog. A K Young no.11 1848'			FAKE. Holes drilled, odd shape to blade, wide hilt
579	578	Unp*	Tyrone	Armagh C 5:1955	Burges			COMPLETE FAKE										Weatherup (1978), 38	Mus Cat: from Major Burges, Parkanaur, Co Tyrone (large estate)
580	579	Ireland*		Armagh C 6:1955	Burges			COMPLETE FAKE											Mus Cat: from Major Burges, Parkanaur, Co Tyrone (large estate)
581	580	Ireland		Armagh PL		580		FAKE											
582	581	Ireland		UM 105:1906		581													
583	582	Ireland*		UM 1911:167		582		FAKE											
584	583	Unp NOT DRAWN		UM 1910-776		583	FAKE												
585	584	Unp*		UM 4012 (10-2)		584		FAKE. Complete	547										Outline drawing only
586	585	Ireland		UM		585													
587	586	Ireland*		NMI		586		FAKE. Complete	480							E:'According to the Museum Register, this sword was found broken, in a tumulus'			
588	587	Sliabh Dá Chon*		NMI 1883:327		587		FAKE. Complete	580			680				E:'According to the Mus Reg, this sword was found at Sliabh Dá Chon, 'The Dogs'			
589	588	Ireland*		NMI 1883:326		588		FAKE. Complete	574			820							
590	589	Ireland*		NMI W70		589		FAKE. Complete	495										
591	590	Ireland*		NMI W69		590		FAKE. Complete	615										
592	592	Lisachrin*	Derry	NMI 21:10		592		FAKE. Complete								E:16' below surface of Lisachrin Bog near Kilrea...'hardly a genuine Irish prehistoric piece'		Morris (1920), Fig p 321	
593	593	Blackhills*	Laois	NMI 1962:57		593		Complete	430	30	38		Green	2:2 (1 extra)	2 pcs. Edge damage.	E(1983) '26/12/61 in a garden 36cm below the surface naetly laid out side by side in a NE/SW orientation'	E (1983): Plain leaf shaped sph & SA	JRSAI 94 (1964), 92: Eogan (1983)Hoard no .95	Note odd position of rivet. Hilt has evidence of repair on top but tang appears 1 piece
594	594	Ballyroe*	Limerick	NMI 1962:18		594/4		Blade fot	254				Dk brown		Rough surface	E (1983):In topsoil from stone quarry close together	Sph	JRSAI 94 (1964), 92: Eogan (1983)Hoard no .100	
595	595	Cooga*	Sligo	NMI 1942:1873A		595/4		Sh fot	103				Dk brown		Corroded	E(1983): 'Found in 1941 under a rock on the site of a cutaway bog during drain making'	2 xSA.Bz cake	Eogan (1983), Hoard no. 128	Founder's hoard? Studied by Alex Brea, Cork Univ July 2009
596	596	Ireland*		NMI 1959:192	Dr Leeoer, Dublin	596/4		Shs & upper bl					Black		Shs damaaed				
597	597	Unp*	Antrim	NMI 1938:44	Wallace	597		Blade fot	288	38			Black & oreen		Sia edae damaae				
598	598	Unp*	Antrim	NMI 1938:45	Wallace			Comolete	609	47	57	713	Black	3:4 (+2bl)	Clean blade. some edge damage				
599	599	Unp*	Derry?	NMI X17		599/4		Bl & shs REPLICA?	497	39	52		Dk brown	?:2	Dull patina. 3 pcs. Modern breaks on bl	Old labe reads; 'first broken up from old metal and then moulded'.			
600	600	Ireland*		NMI X18		600/4		Blade & lower hilt	493	34	46		Brown	?:2 (+2bl)	Rough surface; possibly a copy				
601	601	Unp*	Tipperary	NMI X19		601/4		Complete (no tip)	538	34	46		Dk brown, mottled	03:06:00	Possibly a replica, but a very good one.	E:'Probably found in the northern part of the county'			
602	602	Caheraderry	Clare	NMI 1929:1407		602/4													
603	603	Broadlea	Donegal	Private (NMI files)		603/4													
604	604	Glenross	Fermanagh	Private		604/4									Hilt outline visible	E:'Found in a cut-away bog about two metres below the present surface'			Dished flanges & HaC bl section.
605	605	Lisaminaun	Galway	Private		605/4										E:'Found in a bog'			
606	606	near Adare*	Limerick	Lm(City) 174		606/4		Upper bl & hilt	292		144		Dk brown	03:04:00	Bl edge damage, otherwise good	E:'Sw formerly preserved at Curragh Chase, Adare, & orob from this locality'			
607	607	Clondalee More*	Meath	NMI 1963:5		607/4		Blade fot	171	40			Dk khaki		Corroded surface	E:'Found in a bog about 10' below the surface'			
608	608	Bunnafinglas*	Mayo	NMI 1963:71		608/4		Comolete	478	33	44	521	Black/brown			Found in bed of R.Mov near the graveyard' (label)			
609	609	Shrule	Mayo	Private		609/4										E:'Found in the Black River, 300 yds from Shrule Bridge, rt hand side'			
610	610	Unp	Cork	PR Oxford 1487		610/4													
611	611	Cullen	Tipperary			611/4										Full details in Eogan (1983)		Pownall (1775): Wallace (1938)	
612	612	Dunloy	Antrim	Ontario 913x11.13	St Columba's Collec	612/4												Pryor (1980), no.150	
613	613	New Ross	Wexford	Ontario 909.68.1		613/4										E/P:Seized in New Ross in the 1798 rebellion, previously fitted with a C18 leather grip			
614	614	Enniskillen	Fermanagh	Ontario 913x11.2	St Columba's Collec	614/4													
615	615	Unp*	Offaly?	NMI 1965:3		615/4		Blade & shs	398	33	41		Black		Straight bl. good condition. slight nicks				
616	616	Ireland?		Ontario 913x11.6	St Columba's Collec	616/4													
617	617	Ireland		Ontario 918.33.96	Sturge	617													
618	618	near Armagh	Armagh	Ontario 913x11.1	St Columba's Collec	618/1	Ballintober												
619	619	Coolcronaun*	Mayo	NMI 1963:70		619		Complete (no tip)	792	41	62	934	Dk brown	1:2 1 in tang		Card: 'Found in bed of R Mov'			Nice bevel edging on blade. Minor cracks in blade.
620	620	Ireland*		NMI X20		620		Blade fot	255	27			Dk khaki		Modified to dagger				
621	621	Ireland*		NMI X21		621/4		FAKE											
622	622	Nr Armagh*	Armagh	NMI 1939:70		622		Complete	597	46	60	742	Bright green	2:2 (1 in tang)	An odd sword: see notes	Nothing on card. 'Armagh' written on sword.	Another sword? (info in E)		See E's notes.. Hilt very wide and thin. Patina unusual. Holes 3mm diameter
623	623	Tara?	Meath	Plymouth 73.24.114		623													
624	624	Rathcarrick	Sligo	Met New York 48.157.2															
625	900	Ireland*		NMAS DM17	Bell			Comolete	551	37	34		Black						
626	901	Cloonmanagh*	Sligo	NMI 1935:21			Ballintober	Comolete	482	37	58		Black			NMI card: 'Owenmore River, between Cloonmanagh and Rathbawn'			
627	902	Ireland*		NMI 1906:218				Bl & shs	630	41	56		Black, patchy	St:4 1R	Good. except for broken hilt				Not in Eogan. Shs & hilt edge notched. 5 lines on blade. nicely flecked above ricasso
628	903	Kilcogan*	Offaly	NMI 1992:60				Blade	345	34			Black			NMI card: 'Vicinity of Kilcogan, Ferbane, Co Offaly'	4 stone axeheads; 1 bz sph; 1 bz pin		Find assocs number 55 to 59 and 61. Circumstances unknown
629	904	Reask*	Galway	NMI 1970:218				Bl & shs	418	33	42		Black	?	Blade good, hilt poor.	NMI index 1969 in Bord Na Mona bog 1/2 mile from Shannon, protruding from drain			Leather laces around hilt. Unknown whether recent or ancient. Good HaC tip.
630	905	Ballyvalley*	Clare	NMI 1989:109				Complete	511	36	46		Black, orange corrosion	3(+1bl):4 1R	Good condition	See research notes		Bourke (2001), no. S127	B has find spot as Cullenagh, Co Tipperary, found by scuba divers
631	906	Longford Pass North*	Tipperary	NMI 1990:25				Comolete	469	34	45	446	Dk brown. green corrosion		Edges clean & sharp: small nicks on bl	Found amongst repair phase timbers of a trackway in Littleton Boo. Leigh		Brindley and Lanting 1998, 65; Brindley 2001. 155	Rivet diam 3.2mm. C14/dendro dates ass small excav & wood. Dendro 912-871 C14 comp
632	907	Lullymore Bog*	Kildare	NMI 1999:58				Blade	325	32			Khaki green		Sia edae damaae	Found in machinery at the Bord Na Mona works at Lullymore			
633	908	Mondrehid*	Laois	NMI 1995:100				Complete (no tip)	524	33	45	527	Black, smooth	2(+1bl):2(+1bl)	Blade worn. Minor edge damage	NMI index:Found in bog			
634	909	Ireland*		NMI 1990:115				Complete	467	38	46	525	Black, brown corrosion	02:02:00	Edges undamaged	NMI index:Found in IAD offices in 1979 in Dr J Raftery's office			
635	910	Macknagh North*	Galway	NMI 1995:94				Complete	597	42	56	788	Black, reddish corrosion	3:6 7R	Sh edges, minor damage, accretion beneath				Bl surface pitted. Rivet diam 3.4mm. Longest is 14.5mm. Well cast hilt; unusual tang

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
636	911	Ireland*		NMI 1997:47				Complete (no tip)	464	38	48	488	Black, green corrosion	02:04:00	Both edges badly damaged				Rivet holes neatly drilled
637	912	Beltra Lough*	Mayo	NMI 1999:22				Bl & shs	416	30			Dk brown, green corrosion		Corroded & bevels faint	NMI index: Found while swimming in lake			
638	913	Barrybeg*	Roscommon	NMI 1982:70				Complete	517	37	43	483	Black, red corrosion	3:2 2R	3 stub rivets. Pink accretion on 1 side	B: Recovered during scuba diving in 1981 at Barrybeg		Bourke (2001), no. S119	Bevel narrows on blade: resharpened? Rivets 3 mm diameter
639	914	River Shannon*		NMI E92:406	Chapman?		Upper bl & shs	Complete	648	30	55	648	Black	2:4 6R	Bl worn & pitted. Ricasso worn.	Old label on sw: '..in the River Shannon when it was run drv..1839 to 1846'			R 3mm diam. Note blanks on shs. Can't find sw in Eogan.
640	915	Kilua Castle*	?	NMI E92:408	Chapman?			Bl fgt	268	29			Black		2 pieces. Modern join.				Can't find in E.
641	916	Mullans North*	Wicklow	NMI 1982:96				Upper bl & shs	237		42		Black		Bl edge damaged	NMI index: 'metal detecting at side of road'			Slightly warped. Edges damaged.
642	917	Cam*	Longford	NMI 1980:117				Bl & shs	492	25	54		Dk brown/clean	?:4	Minor edge damage. No ricasso	NMI index: 'bog. 5 ft deep'			
643	918	Louha*	Tipperary	NMI 2002 C1:534				Hilt fgt	57				Green		Slight midrib still visible				
644	919	Unp*	Wicklow?	NMI E92:407	Chapman?			Complete (no tip)	562	52	40	550	Black/clean blade	2(+1bl):4(+2bl)	No tip & edge damage. Possible copy				Hilt outline visible & tang broken. Could be copy but details say genuine.
645	920	Ballinamore*	Leitrim	NMI 1988:33	Clarke			Bl & lower hilt	437	40	44		Black , green corrosion	?:2 1R	Hilt repair. Corroded	Card: from island on Lough Feenagh. Bought 1988 as part of collin Noel Clarke			1 bent rivet 4mm diam
646	921	Tullowmacjames*	Tipperary	NMI 1986:53				Blade	460	33			Dk brown		Corroded & edge damage	NMI corr M Cahill visited site 1/6/84: 12 to 18 in deep nr poss 2 burnt mounds			
647	922	Carrickboy*	Longford	NMI 1987:78				Blade fgt	139				Black/ dk green		Corroded	Label: 'Metal detector material ex Phil Doyle, Corteen, Longford'			Catalogued with flint & stone axehead but no suggestion of association
648	923	Meelick*	Roscommon	NMI 1985:88				Bl & shs	389		44		Black, patchy	?:2	Corroded. Sig edge damage	NMI index has 'bog, 1m deep' Donation from Sheffield Museum. Found c 1950			
649	924	Mayne*	Westmeath	NMI 2008:20				Bl & shs	353		38		Dk brown	?:2	Green corrosion	NMI index: Found with a metal detector on the banks of the River Inny	?1 spearbutt: 2 sohs		Nr possible wooden trackway. Small 2006 excav prod 1200 to 820 BC C14. See NMI notes
650	925	Lough Erne*	Fermanagh	NMI 2008:86				Complete	601	41	52	505	Black	3:4 (+2bl)	Worn blade	Purchase from McGrath, Aberdeen. No. 88 in 1911 Colln of Dunroven Castle..see paper notes			Card needs to be seen, Not in Eogan. 127 in red paint on blade. 2 holes in bl (modern)
651	926	Kinsale*	Cork	NMI E92:409	Chapman?			Sh fgt	140				Green		Very corroded				
652	927	Inishmore*	Cavan	NMI E28:6	Chapman?			Bl fgt	398	24			Dk brown		Very worn	Label: 'James Kelly at Inishmore opp. Urney graveyard'			
653	928	Park*	Meath	NMI 1974:38				Hilt & upper bl	198		43		Dk brown/green	2(+1bl):2	Hilt repair. Corroded blade	E (1983): 'In a pit alongside a glacial erratic by a bulldozer operative'	1 ring; 1 chisel; 1 sunflower pin	Eogan (1983), Hoard no. 114	Well drawn in Hoards volume
654	929	Ireland*		NMI W.72				Complete?	636	25	37		Black	?	Original blade with modern handle				
655	930	Ballyharney*	Westmeath	NMI 1965:57				Complete	760	43	62	720	Black, patchy	St:6 6R	Blade appears to have been cleaned	3 swords...522. 523 & 524? (E)			
656	931	Aughrim*	Kerry	Berlin V.d.55	Brackstone			Complete	506	35	43	496	Brown	03:04:00	Faint hilt o/l visible. Minor edge damage	Old label reads in English: 'June 1, 1850. Brackstone Coll. no.4387'		Eogan (1965), 181: Gerloff (1981)	Tang damage, otherwise good condition. Accurate drawing in Gerloff 1981
657	932	Lough Leane*	Kerry	Berlin V.d.30a&b				Complete in 2 pcs	502	35	47		Dirty khaki	3:6 (see notes)	Corroded. striations on bl. Hilt repair.	Label reads: 'V-d 30a. Killarnev-See. Gesch Kerrv'		Eogan (1965), 181: Gerloff (1981)	Slightly bent at break. Surface stressed. Notches & repair wire on hilt.Upper holes for repair?
658	933	Cork	Cork	BERLIN? NMD?															
659	934	Killyhomon*	Fermanagh	UM A140.1990				Complete	497	34	44	452	Dk brown	2(+1bl):2(+1bl)	Hilt repair. Cracks on hilt	Minor dredging of the Silees River by Dept. of Agriculture staff in 1990		Bourke (1994), 8.	Drawn at Enniskillen...UM loan
660	935	Enniskillen*	Fermanagh	UM A5.1980				Bl & hilt..no tang	620	42	53		Dk brown, shiny	2(+1bl):4(+2bl)	Shiny blade. Some pitting. Clean edges				Drawn at Enniskillen...UM loan. Slightly bent. Nice edges & well made. Raised hilt outline as no 936
661	936	Ireland*		Ballymoney BHC 1992.15				Hilt & shs	155				Brown, cleaned	03:04:00	Hilt repair. Cracks on hilt			Ramsey and Simpson (1990)	Note raised hilt outline, like E148 UM 581-1934
662	937	Ireland*		Ballymoney BHC 1992.13				Shs & upper bl	156		48		Khaki, cleaned	?:6	Pockmarked surface			Ramsey and Simpson (1990)	Doesn't fit 1992.14, but may belong to same sword as they appear similar
663	938	Ireland*		Ballymoney BHC 1992.14				Bl fgt	302	0			Cleaned		Shiny pockmarked surface			Ramsey and Simpson (1990)	Doesn't fit 1992.13, but may belong to same sword as they appear similar
664	939	Unp*		Armagh C 67-1968	Caledon			Bl fgt	247	51			Dk brown		Some bz d			Weatherup (1975)	Came from Earl of Caledon, Caledon House (Armagh or Tvrone?). Nice genuine bl.
665	940	Unp*		Lim(Hunt) HCA371				3 pieces. 1 missing	632	51	63		Dk khaki	St:2 (+2bl)1R 3.5D	Lacquered surface	Circumstances of acquisition u/k			A Ballintober sword not in E.
666	941	Kilrea*	Derry	UM A6992				Bl fgt	167	37			Dk green		Surface accretion	B: Recovered from spoil dredged from the lower Bann and dumped at Kilrea		Bourke (2001), no.B110	Slight midrib.
667	942	Gortgole*	Antrim	UM A7638				Complete, no tip	532	40	49	628	Green/dk brown	2:2?	Accretion over complete sword	Bourke: from '....excavation of spoil dredged from lower Bann & dumped at Gortgole'		Bourke (2001), no B99	Rivet holes blocked with accretion. Well cast. Twisted
668	943	*		UM A7034				3 pieces. Tip missing	582		55		Green/dk brown	2:4 5R	Some accretion. Worn bl edges				Tapered not leaf shaped bl. Rivets 0.3 mm (not qin). Bevels worn. Tang repair?
669	944	*		UM A7034				Complete	639	50	61	738	Green/dk brown	St:6	Hilt repair. Hilt outline visible				Good casting, pockmarked surface.
670	945	Killaloe*	Clare	NMI 1974:29				Bl, shs & lower hilt	361	35	40		Dk brown	?:2	No tip. Rough surface				
671	946	Unp*		UM 89.1954				Hilt & shs	157		48		Brown	1(+1bl):2 2R	Porous corroded surface				2 stub rivets broken off in situ
672	947	Cloghanmurray*	?	UM A121:1974	Robinson			Bl & shs	423	30	44		Dk brown		Worn bl & shs. Minor edge damage	Label: 'Cloghanmurray. 1799'			
673	948	Coleraine*	Antrim/Derry	UM P200:1965				Complete	480	30	41		Dk brown	02:04:00	Worn bl. Hilt repaired. Xtra sh holes!	Label: 'R. Bann Coleraine' SU4 written on blade			
674	949	*		UM A5:1971				Complete in 2 pcs	504	38	42	486	Dk brown	2:4 2R	Hilt repair. Pieces fit together well				
675	950	*		UM 275:1964				Hilt & upper blade	198		41		Dk brown	03:02:00	Well cast hilt. Bl corroded to khaki				
676	951	*		UM 91:1954A			Ballintober	Shs & upper blade	157				Khaki		Corroded				
677	952	*		UM A124:1974				Hilt & upper blade	268				Dk brown	02:04:00	V worn bl. Reshaped into dagger				
678	953	*		UM 471:1937B	Anderson			Complete	510	37	46	498	Dk brown	02:02:00	Pitted & corroded bl. Roughly cast hilt				
679	954	*		UM 1911:40	BNHPS/Lindsay			Bl, shs & lower hilt	460	32	42		Dk brown	02:02:00	Edge damage both edges.				Slightly dished hilt flanges
680	955	*		UM A126:1974				Blade fgt	406	43			Dk brown		Worn blade				
681	956	*		UM VM125:174	Robinson			Bl fgt	216	32			Dk green		Good bevel detail	Painted on blade:'Robinson Colln Irish'			May be Central Eron? Or an HaC blade?
682	957	*		UM A127:1974	Sanson			Complete 2 pcs	477	34	44		Dk brown	3(+1):5(+1bl)	Modern stopped cut. Good casting.				Minor edge damage both sides
683	958	*		UM A44:1986				Bl & lower hilt. 2 pcs	493		48		Dk green	3:4 2R	Bad modern join. Bl corroded. Hilt repair				Bl looks OK but joined the wrong way around. Old hilt repair.
684	959	*		UM A9:1988				Complete (no tip)	605	28	52	528	Black	02:04:00	Damage on 1 sh. Hilt & sh accretion				Beading detail only at top of bl nr shoulders.
685	960	Clontarf*	Dublin	UM A201:1965				Complete	587	41	53	700	Dk brown	03:06:00	Bl cleaned. Minor edge dam 1 side.				Hilt outline visible both sides but incomplete.
686	961	Tamlaght*	Armagh	UM				Complete. 5 pcs	605	44	53	528	Dk green	03:06:00	Twisted corroded bl. Damaged shs	Bv a metal detectorist in 2004 in a dried out marsh	Bz bowl; bz cup in fgts; small bz ring	Warner (2006)	Hilt in pieces. Ricasso rounded & undamaged
687	962	Toome*	Antrim	UM				Complete (no tang)	672	34	60	702	Brown	03:06:00	Superbly cast with fine ridging				Rivet holes 3.2 mm diam. Beautiful Gundlinnen weapon.
688	963	Unp*		UM A12558				Bl & shs	440	36	56		Dk brown	?:2	Modern wood grip hides hilt. Worn bl.				
689	964	Knock Abbey*	Louth	Dundalk 1995:15	O'Reilly			Complete (no tang)	545	34	61		Dk brown, cleaned	St:4	Light casting. Raised hilt outline.	Label: From Knock Abbey. Given by O'Reilly family, Knock Abbey			Raise hilt outline, central rib & thin shoulder section suggest FAKE.
690	965	Knocknacloy	Tyrone													B:From investigation of spoil dredged from Ulster Blackwater & dumped at Knocknacloy			
691	967	Ireland*		Leeds D1964.0278				Lower hlt, shs & up bl	192		39		Dk brown	3(+1bl):2	Good hilt casting	Old label on bl reads'54'			
692	968	Ireland*		Leeds D1992.0102				Shs & upper bl	280		62		Dk khaki	?:2(+2sl)	Twisted blade. BzD 'flecking' on bl				
693	969	Unp*		NMI W92				Bl & shs	454				Dk brown		Very rough. Modern join. Loz section				
694	970	Derryhogan*	Tipperary	NMI 1965.67:1				Upper bl &hilt fgt	132		50		Khaki	?:2	Rough hilt surface	From turf cutting machine. Depth unknown			
695	971	Derryhogan*	Tipperary	NMI 1965.67:2				Bl fgt	256	32			Dk khaki		Delib bent & edge damage. HaC point	From turf cutting machine. Depth unknown			
696	972	Allenstown Desmesne*	Meath	NMI 1967:217				Blade & lower hilt	523	42	51		Dk khaki	?:2	Heavy hilt. Extensive damage both edges.	Acquired from National Library 22/9/67 where it was rediscovered			
697	973	Lough Gill*	Sligo	NMI 1967:116				Complete	625	27	53		Dk brown	2:6 3R 3 diam	Clean blade, worn edges. Dished hilt edges	NMI index has 'found in lake'			
698	974	Gort*	Galway	NMI 1965:81				Blade	401	27			Dk green		Corroded blade and edges	Label reads:Found at Doon, Gort, Galway. Presented by Mr Matthew Wallace			
699	975	Famley*	Monaghan	NMI 1965.166				FAKE											
700	976	Ballyanaghelint*	Monaghan	NMI 1965.165				Blade fgt	235	32			Khaki		Surface partly cleaned	Acq from Major Stanley @ Carrickmacross			
701	977	Killoon*	Westmeath	NMI 1968:437				Complete. 2 pieces	486	32	42		Brown	3:2 (+2bl)	Edges and suface corroded	NMI index: from the Killoon shore of Lough Derrvaragh			Note tab on terminal
702	978	Castlepollard*	Westmeath	NMI 2010:286				Complete. 2 pieces	549	46	58		Dk khaki	St:4	Widespread accretion; good beneath	NMI index: 'pike fishing near crannog'			Accretion to be removed by NMI Conservation, Collins Barracks
703	979	Rosharry*	Leitrim	NMI L1936.1				Complete	647	48	47		Dk brown	2(+1bl):2(+4bl)	Shiny surface. Sh holes inconsistent				May be replica as blanks look like cast in remnant rivets. Why did E miss this sword?
704	980	Lough Coura* (Anna?)	Offaly	NMI 2004C1:331				Complete	442	34	42		Brown	03:04:00	Concrete accretion 1 side. o/w good	NMI index:has Lough Anna			
705	981	Lough Coura*	Offaly	NMI 2004C1:334				Blade fgt	262	35			Green & dk brown		Rough surface	NMI index: From Lough Coura crannog			
706	982	Aghadowry*	Longford	NMI 1965.69				Bl fgt made into knife	340	29			Dk khaki		Good blade. Modern handle				
707	983	Unp*		NMI E92:408	Chapman			Blade fgt	270	30			Dk brown		Blade in two pieces.				
708	984	Drumany O'Brien*	Leitrim	NMI 2012:38				Hilt fgt	59				Khaki		Shiny surface	23.9.29 (find date) on blade. E (1983):'Found in a quarry on 6/3/28'		Waddell (1978): Eogan (1983) Hoard no.98	
709	985	Drumany O'Brien*	Leitrim	NMI 2012:39				Blade fgt	61				Khaki		Shiny surface	E (1983):'Found in a quarry on 6/3/28'		Waddell (1978): Eogan (1983) Hoard no.98	
710	986	Drumany O'Brien*	Leitrim	NMI 2012:40				Blade fgt	63				Khaki		Shiny surface	E (1983):'Found in a quarry on 6/3/28'		Waddell (1978): Eogan (1983) Hoard no.98	
711	987	Unp*		Lm(Hunt) HCA373				Complete (no tip)	546	43	47		Dk khaki	2(+1bl):4 5R 3.5 D	Rough surface. some bzd.	Circumstances of acquisition u/k			Dished rivet hedas and hilt flanges. Accretion around rivets
712	988	Island McCoo*	Galway	NMI 1995:1582				Complete	518	37	45	350	Brown	2:2 2R	Accretion both sides. off white.	Earlsoark			Accretion nhas corroded rivets which vary from 2 to 3mm diameter
713	989	Rathgall*	Wicklow	NMI E84:7341				Bl fgt	41				Green		Shiny surface				
714	990	Ballyhoe*	Monaghan	NMI 2004C1:77				Bl & damaged hilt	581	34			Dk khaki	1:2 1R 3 diam	Rough surface. 2 pieces.				
715	991	Unp*		NMI W.169				Bl fgt	286	36			Shiny black		Blade modified to later dagger				

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
716	992	Killity*	Offaly	NMI E499:988H				Upper bl & hilt fgt	174				Dk khaki/green mottled	? 2R	Shs damaged. Dished flanges				
717	993	Killity*	Offaly	NMI E499:988Q				Bl fgt	233	32			Khaki		BzD all pieces				
718	994	Killity*	Offaly	NMI E499:988				9 x bl fgts											
719	995	Athlone and Big Meadow	Roscommon	NMI 1987:440															
720	996	Unp* Poss Erpn		Lm/Hunt\ HCA376				Complete	737	34	60	764	Brown	1(+1\:2 1R 4 diam	Green accretion	Circumstances of acquisition u/k			Bl Shape, section (fine ridging) & hilt seem very Eron
721	997	Unp*		Lm/Hunt\ HCA374				Hilt, shs & upper bl	170		41		Dk brown	2(+1\:4 1R 2.8 d	Some surface accretion	Circumstances of acquisition u/k			
722	998	Unp*		Lm/Hunt\ HCA377				Bl fgt	31	36			Brown			Circumstances of acquisition u/k			
723	999	Kilrush*	Limerick	Lm/City\ 1986.175				Complete	482				Smooth dk green	2, poss 4	Edges badly corroded	Circumstances of acquisition u/k; Lim online cat has Kilrush-Clonmacken			Lacquered. Beautiful lozenge cross section.
724	1000	Menlo*	Galway	Galway E269.11				Complete	673	30	56	582	Khaki	2:5 1R 3.5 D	Modern solder on hilt. Poss old join on bl	M:Found 1984 by Mr P Griffin, nr lake S of graveyard, N of castle		Rynne (1984), 5-26, fig.11	Nice HaC sword, good condition. Dished hilt edges
725	1001	Killaloe*	Clare	NMI 1974:30				Complete	600	37	52	552	Khaki	03:04:00	Pitted surface, green bzd. Worn blade				
726	1002	Killkee*	Clare	NMI 1966:104				Complete	55	30	43	402	Khaki	1(+1 bl+1):2	Cleaned, pitted surface, cast on repair				
727	**1003**	**Unp**	**Ireland**	**Burrell 4.2.73**				**Complete apart from left shoulder**	**464**	**30**	**41**	**373**			**Complete except for left shoulder but very worn; brown patina with bronze surface showing through especially on lower blade. Broad flanges on grip, 2 rivet-holes in grip with traces of a central unperforated hole, 2x2 rivet holes of unequal size in shoulders. Broad midrib tapering to point at lower grip rivet-hole. Cutting edges sharp with some notches.**	**Purchased from G F Williams, 22 Heath Gate, London NW11, 26 September 1950 for £25.**			
728	**1004**	**Unp**	**Ireland**	**Glasgow 1902.73kh (Not available April 2014)**	**Anderson College**			**'Leaf-shaped blade, rivets surviving.'**	**600**										
729	**1005**	**Unp**	**Ireland**	**Glasgow 1902.73kl**	**Anderson College**			**Complete except for very tip of blade**	**518**	**33**	**44**	**465**			**surface worn; brown patina. Well-defined flanges from butt to shoulders, distinct ricassi. 3 rivet holes in grip, 2x3 in shoulders; lowest rivet in grip survives complete, lowest left shoulder hole open, other filled by remains of broken rivets. Broad midrib tapering to point immediately below lowest grip rivet. Cutting edges sharp but worn with distinct notches in one edge.**				
730																			
731		**Unp**	**?Ireland**	**GLAHM A.115**				**Complete**	**406**	**28**	**34**	**348**			**Complete, very worn, edges eroded; brown**				
732		**Unp**	**?Ireland**	**Axel Guttman**											**Born & Hansen *Helme und Waffen Alteuropas*, Mainz, 2001, AG 75 & 1021, pp 120-30 & 274-5, Abb. 99 & 156/3**				
733		**Unp**	**?Ireland**	**Axel Guttman**											**Born & Hansen *Helme und Waffen Alteuropas*, Mainz, 2001, AG 75 & 1021, pp 120-30 & 274-5, Abb. 99 & 156/3**				

Bronze Age Swords in Ireland

Catalogue

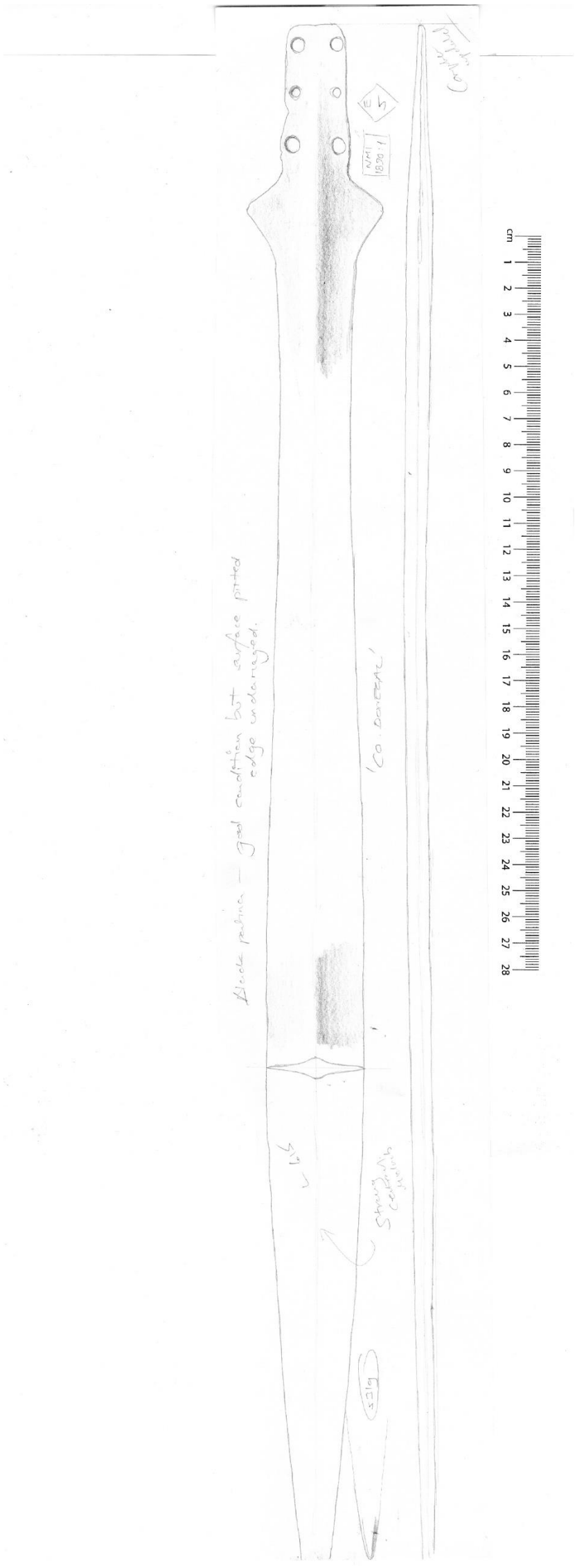


1

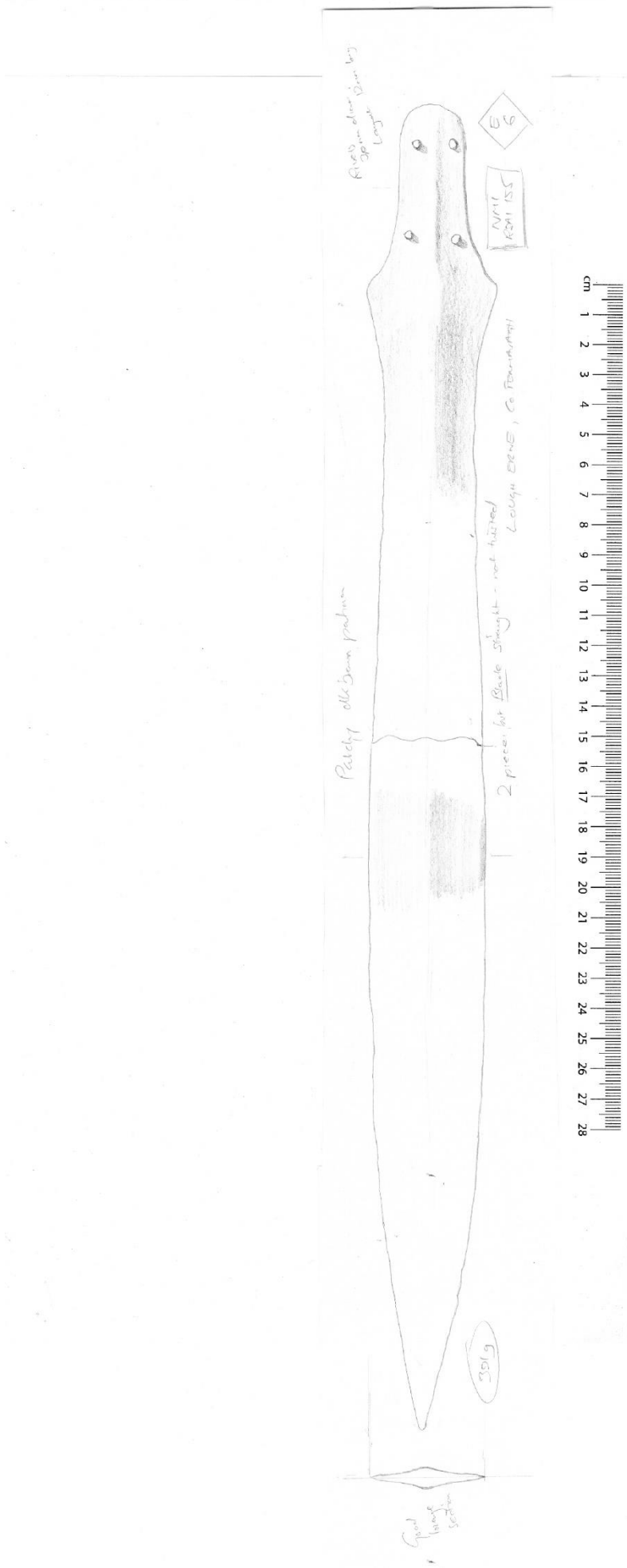
4

E 4
N41
W23
DK brown patina
3 pieces soldered together (modern)
Label - 1/2 down at the Cats, nr. Cabinet
2309
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

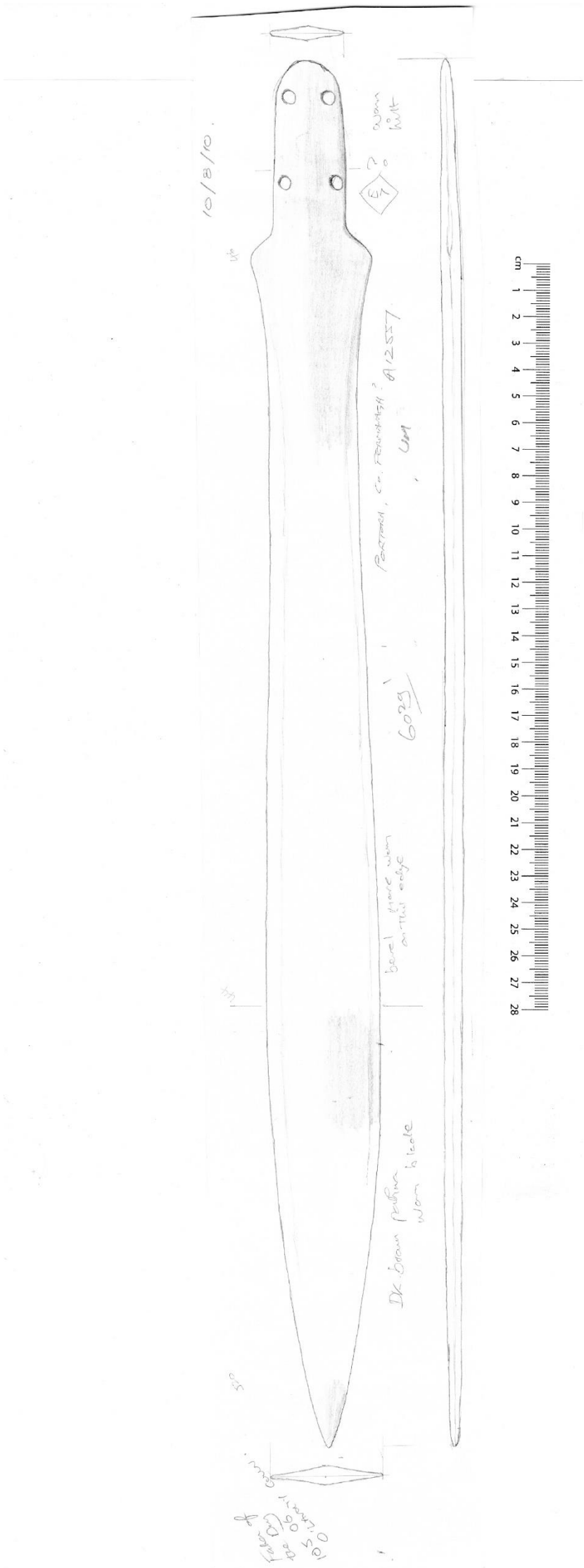
5

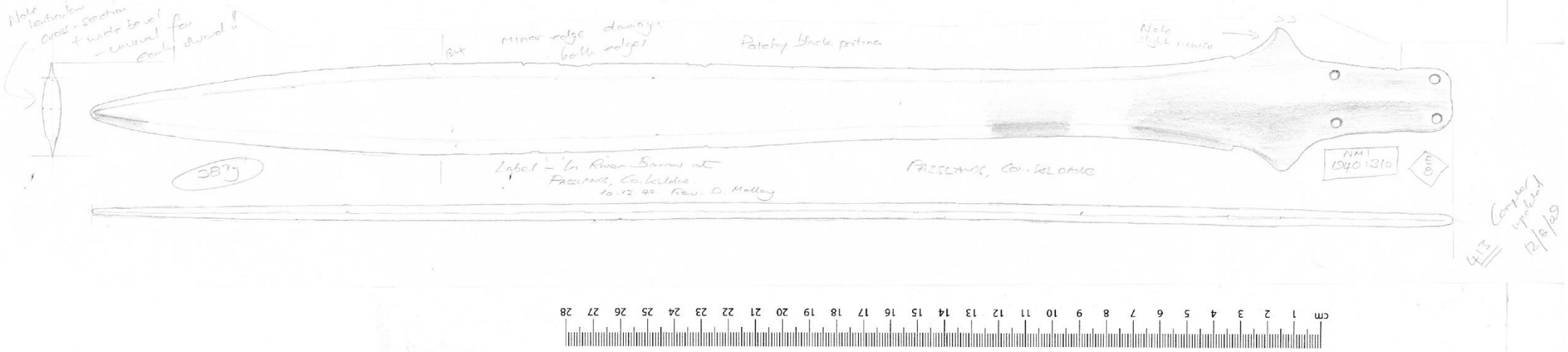


6



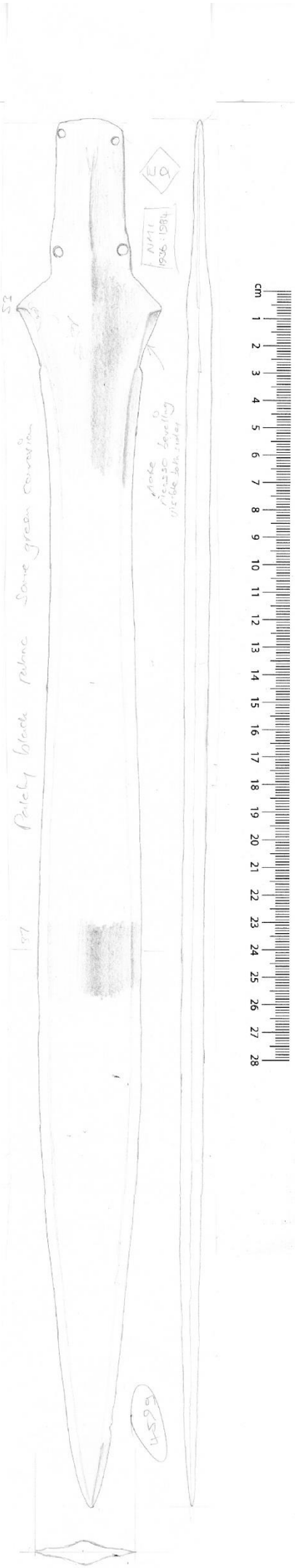
7


10/8/10
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

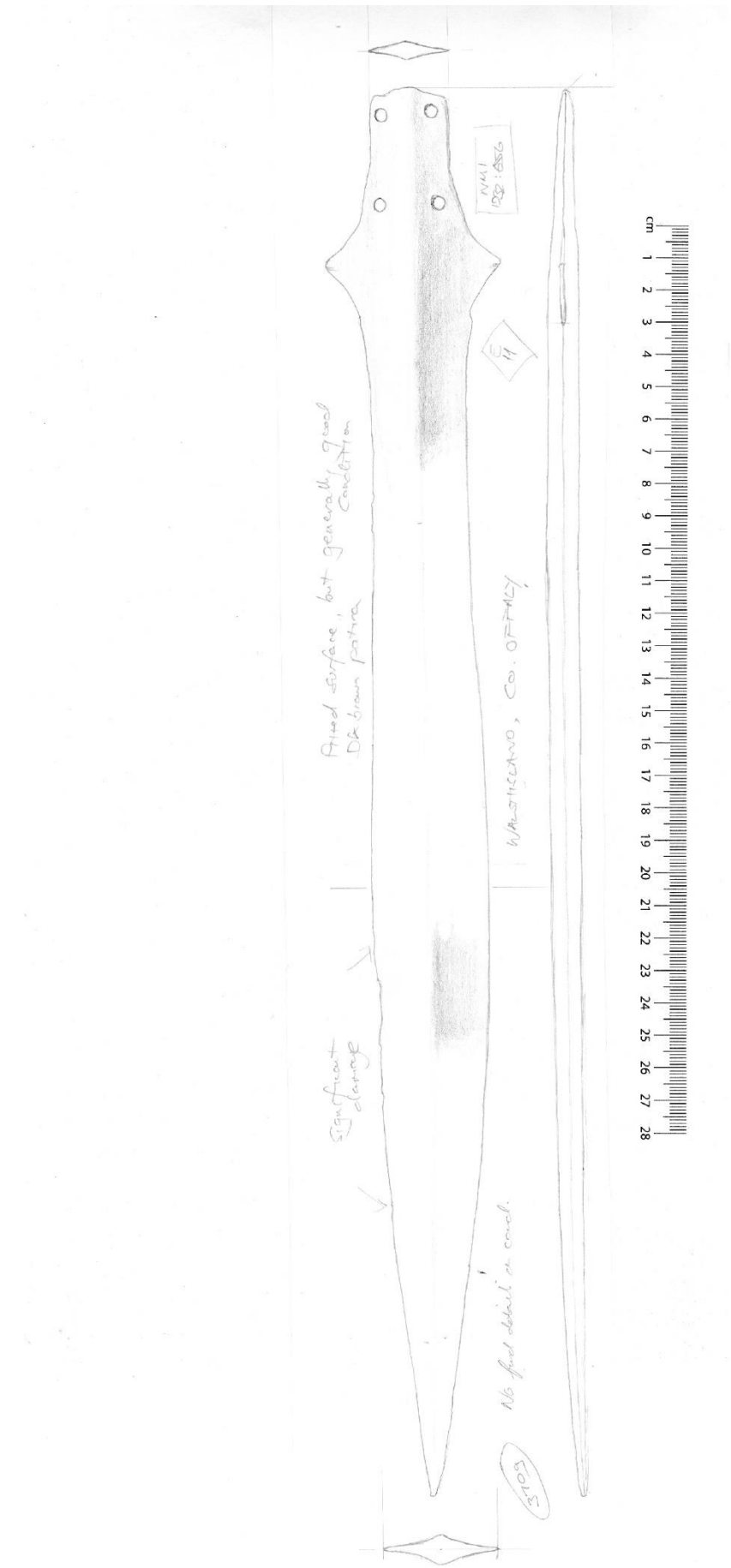

Note lenticular cross-section + wide bevel – unusual for early dugout!
Minor edge damage both edges
Patchy black patina
Note slight recurve
387J
Label – 'In River Barrow at PASSAGE, Co. Waterford 10.12.40 Rev. D. Molloy
PASSAGE, CO. WATERFORD
NMI 1940:310
413
Compiled updated 12/8/09

CM 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

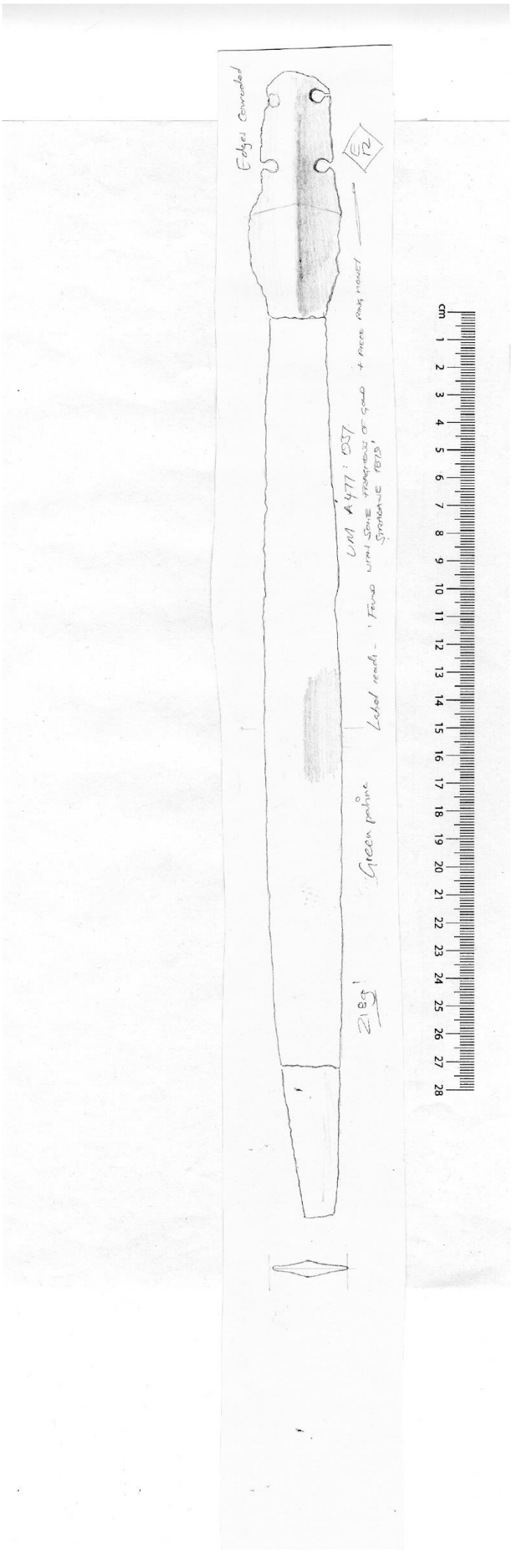
9



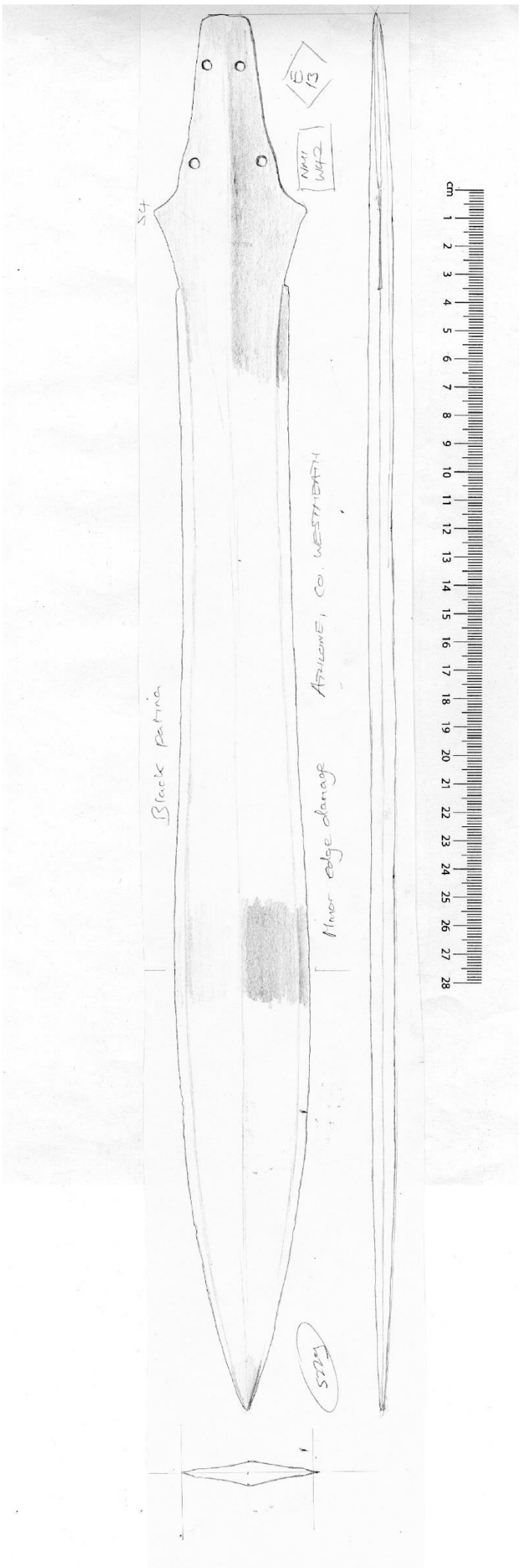
11



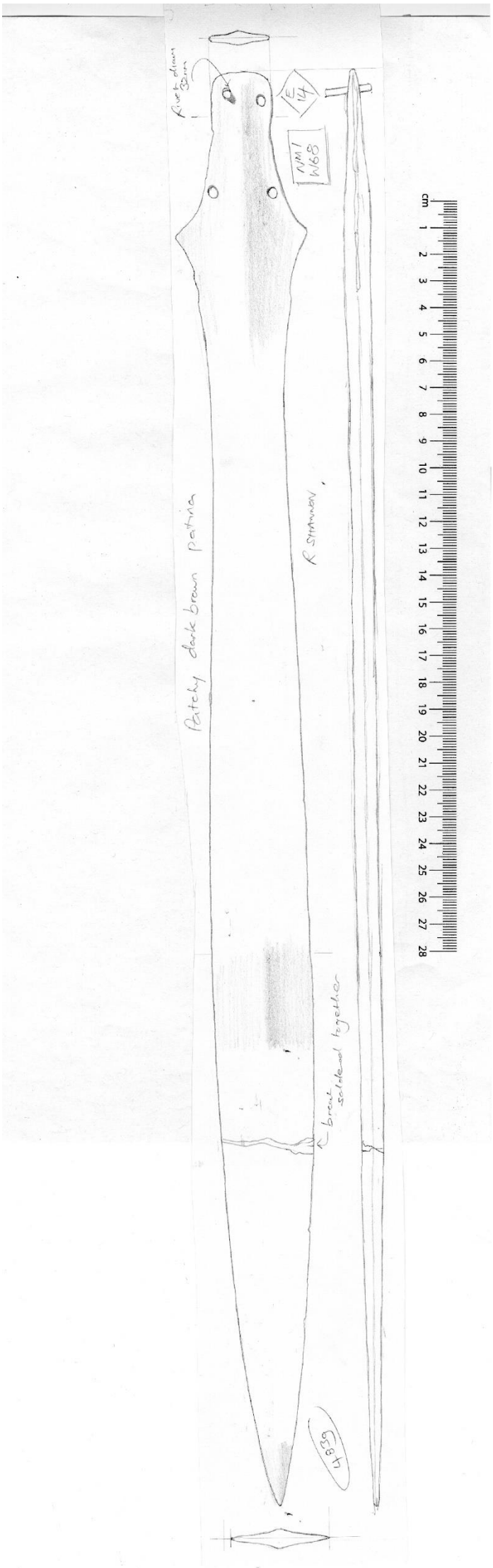
12


Edged Corroded
S2
UM A477 : 037
Label reads - 1 Found with some fragments of gold + piece Ring money
Sprotborough Pots
Green patina
21.8g
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

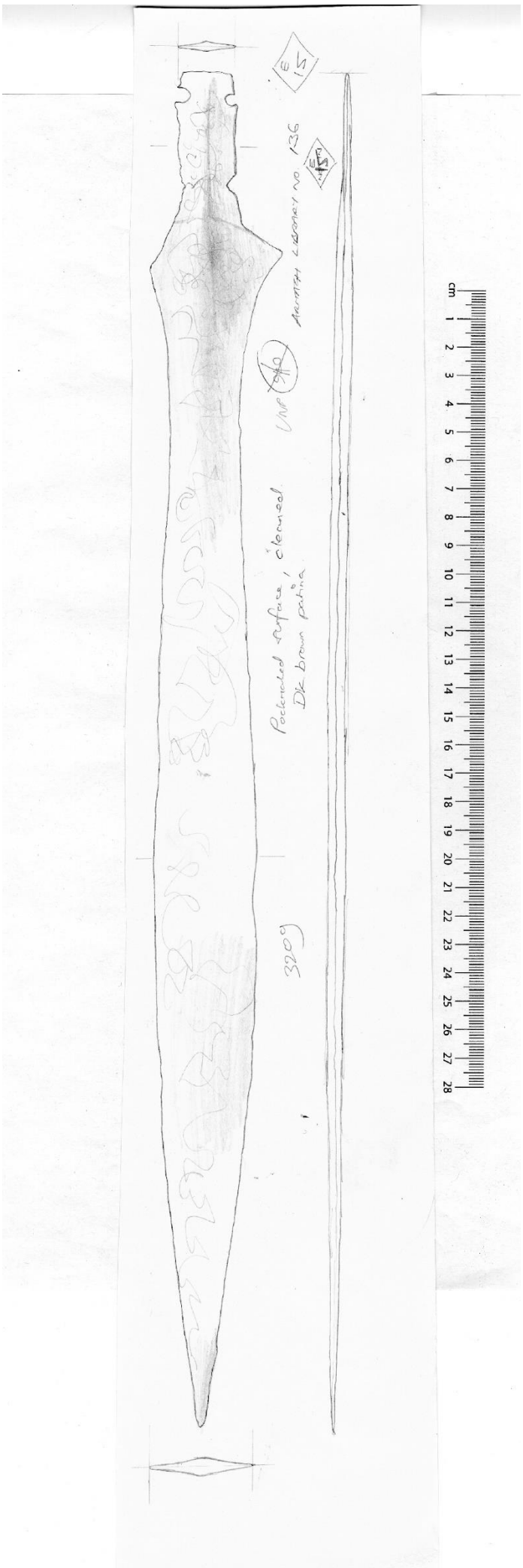
13


E 13
NM1
WH2
Black patina
Minor edge damage
ATHLONE, CO. WESTMEATH
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

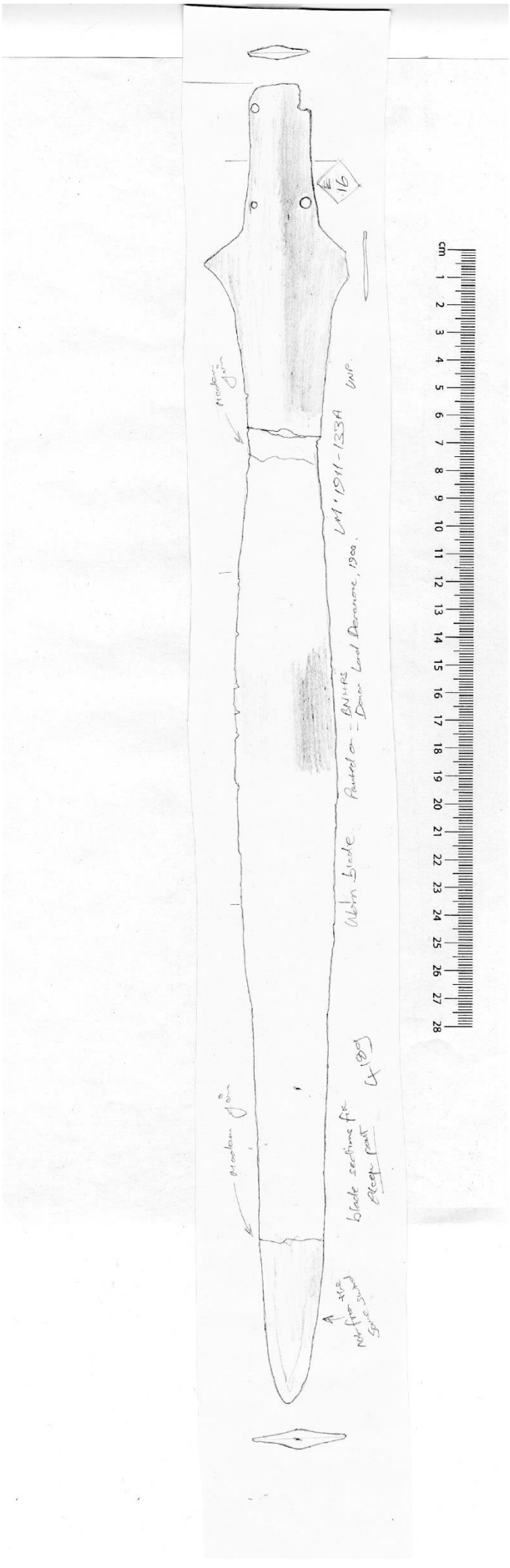
14


Patchy dark brown patina
broad soldered together
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

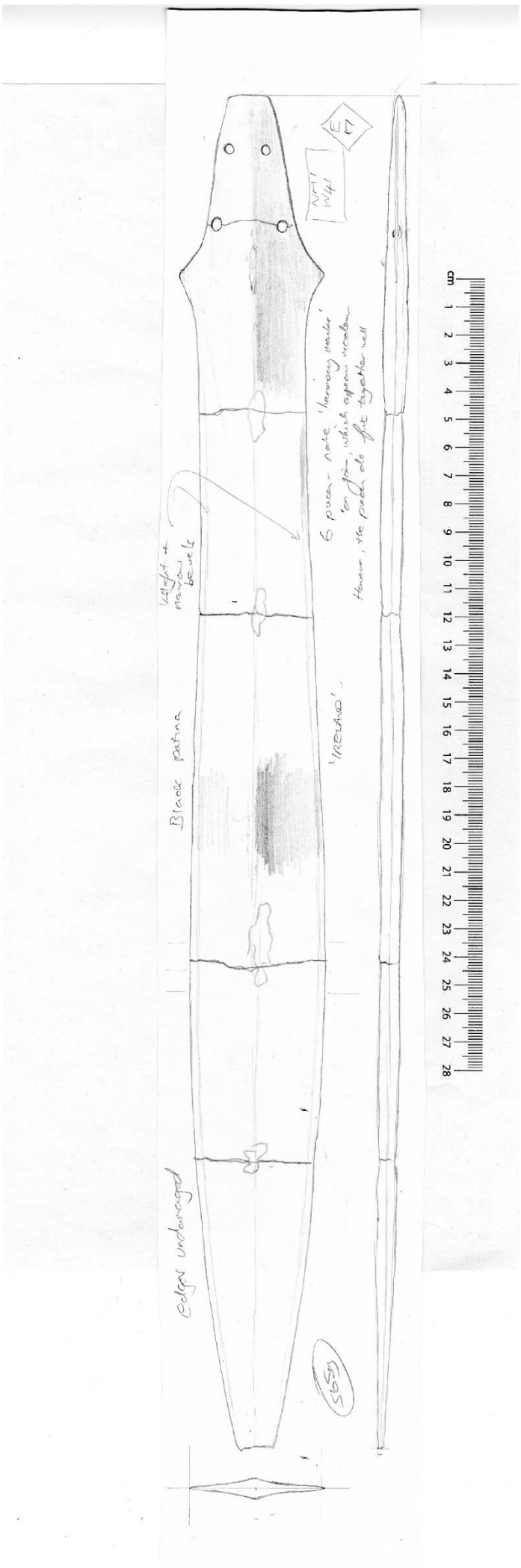
15


E 15
Museum Library No 136
UNF
Patinated surface, etc.
Dk brown patina
320g
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

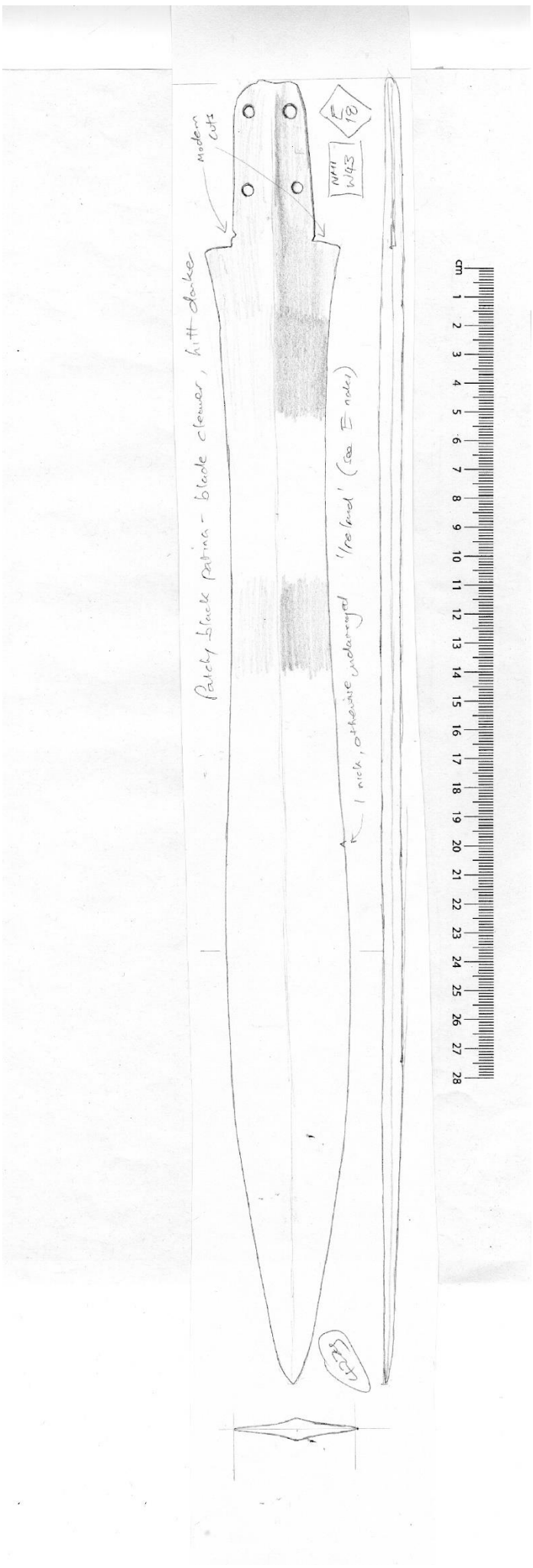
16

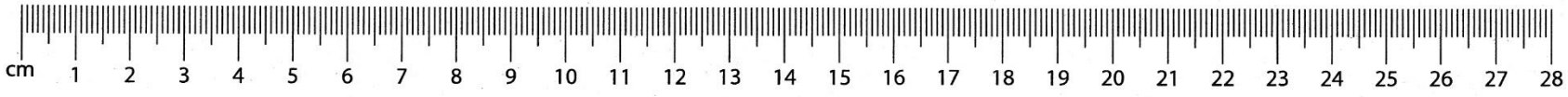

16
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
Modern glue
Modern glue

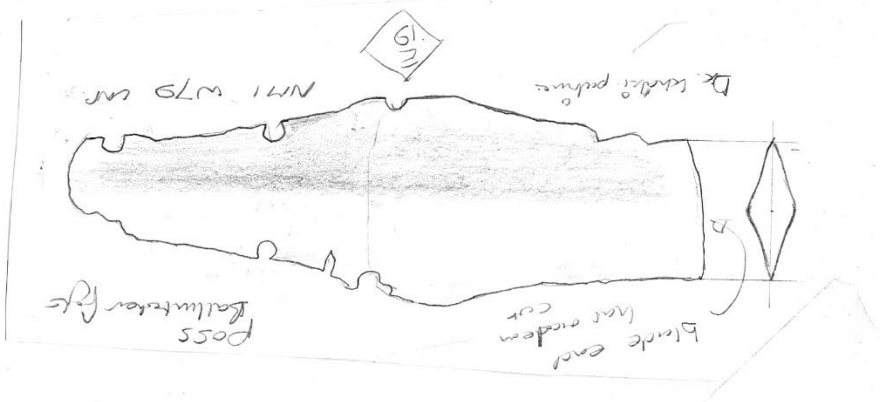
17


6 pieces make 'Harmony mahogany'
Blade patina
'IRELAND'
edges undamaged
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

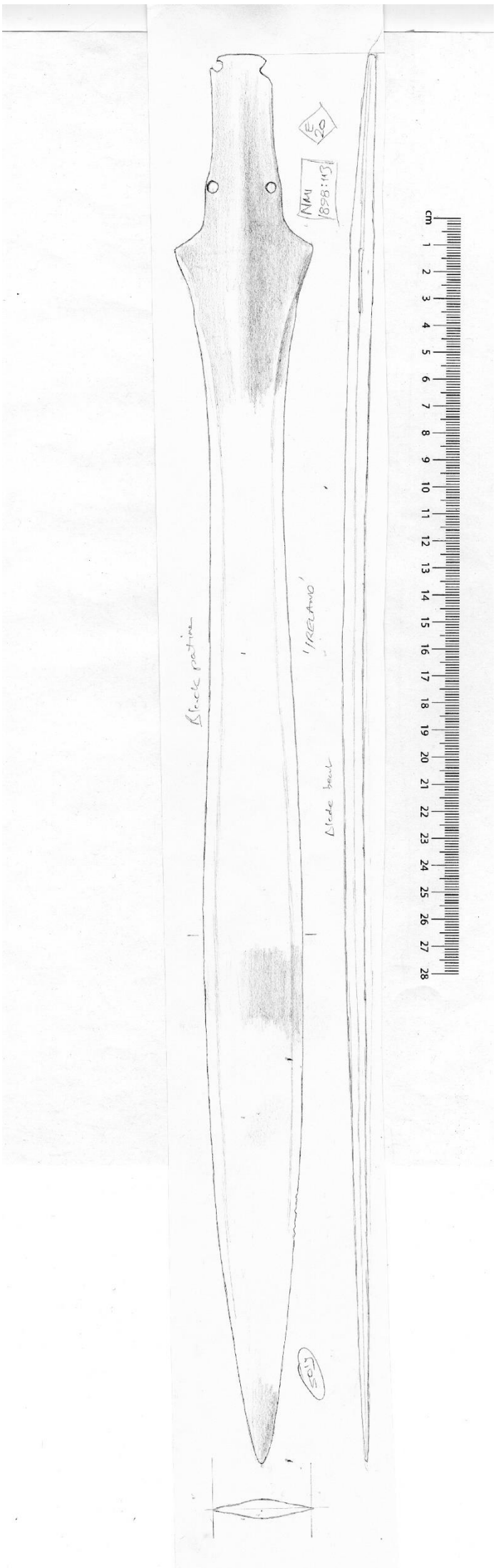
18


modern cut
Patchy black patina - blade cleaner, hilt darker
1 nick, otherwise undamaged
1/re hind (see B notes)
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

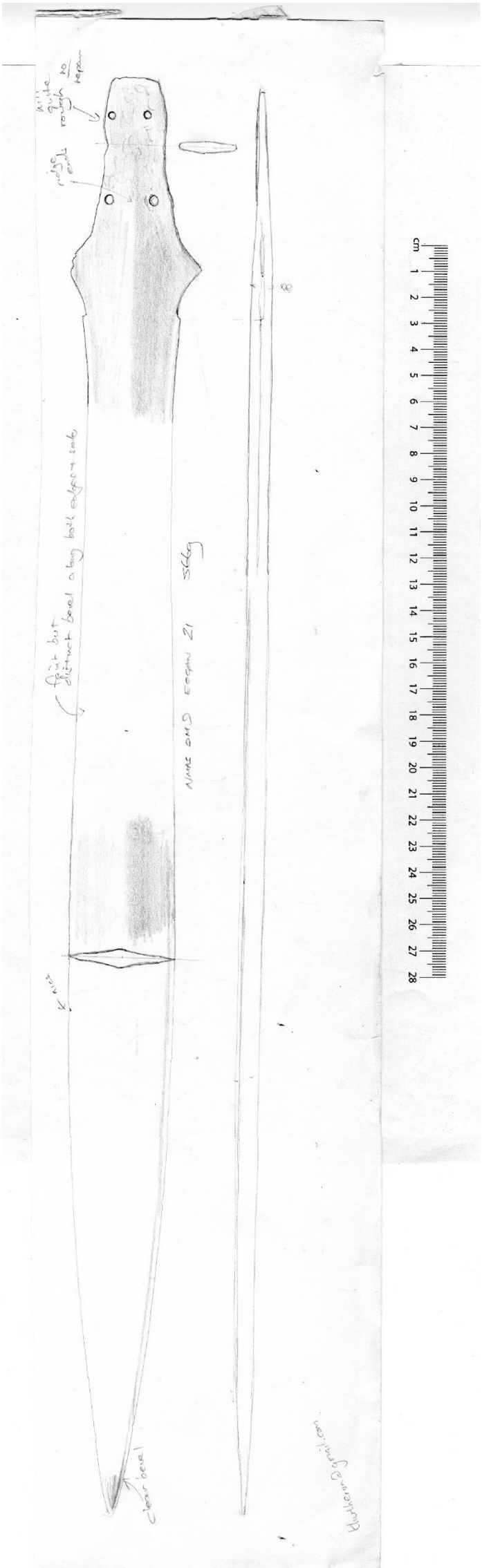

cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28



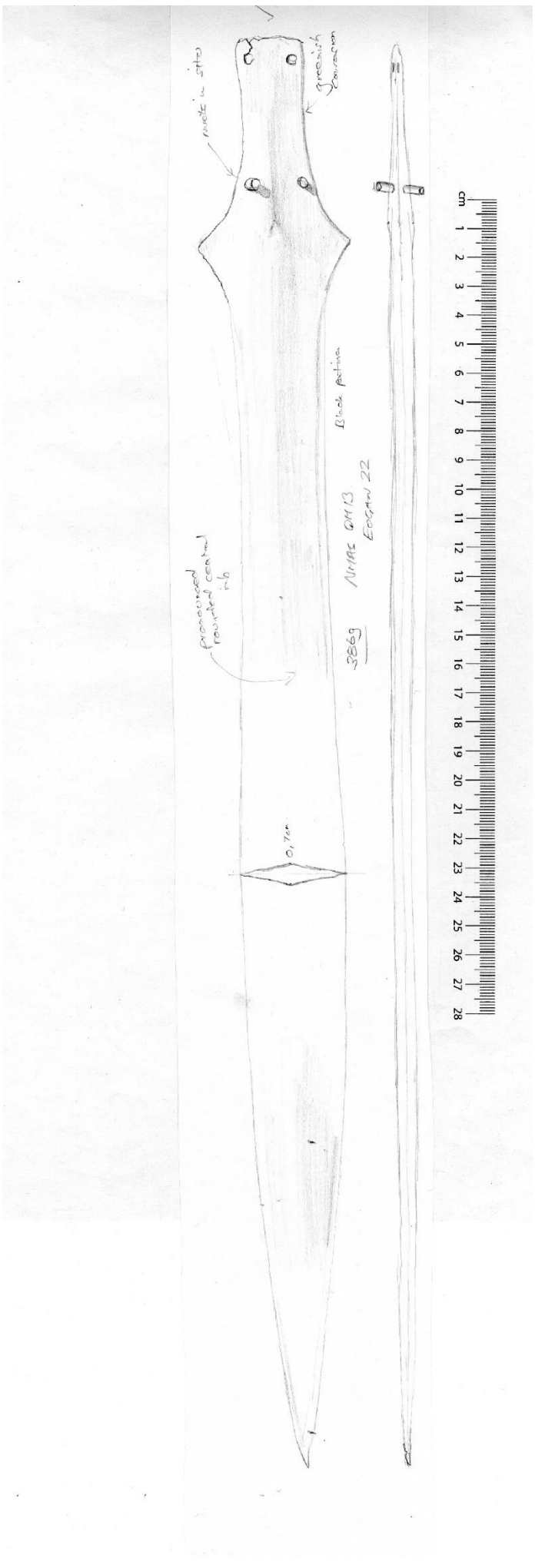
20



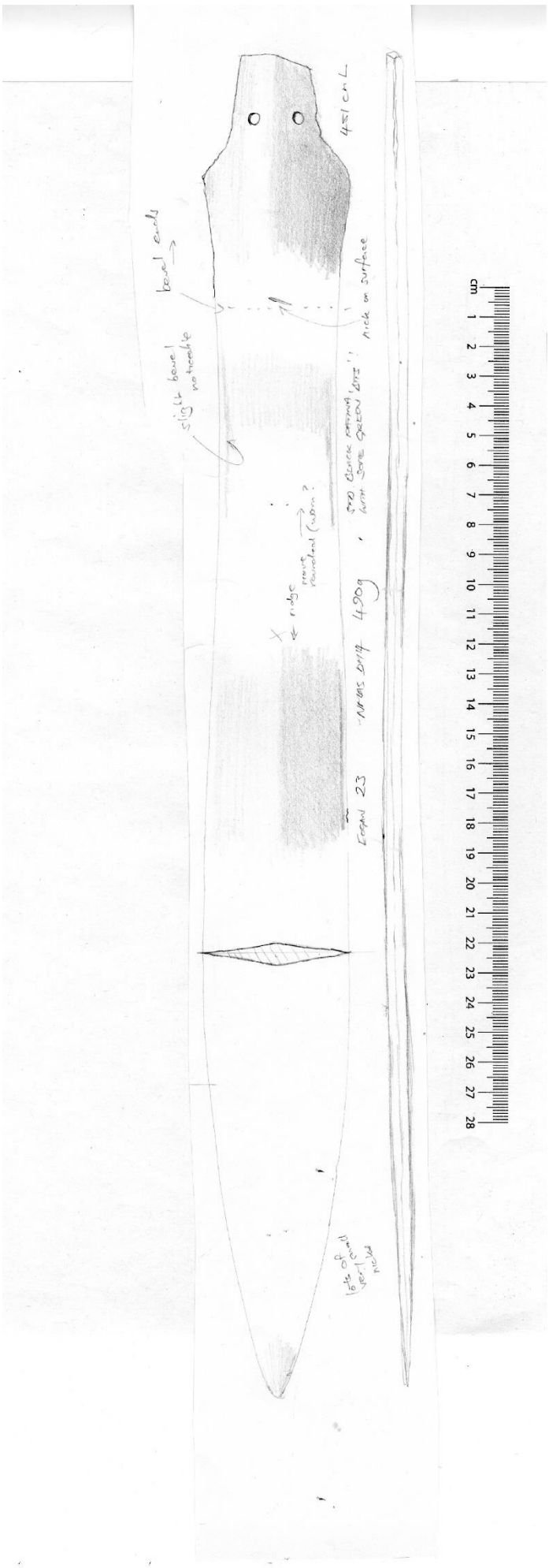
21


cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
clear bevel

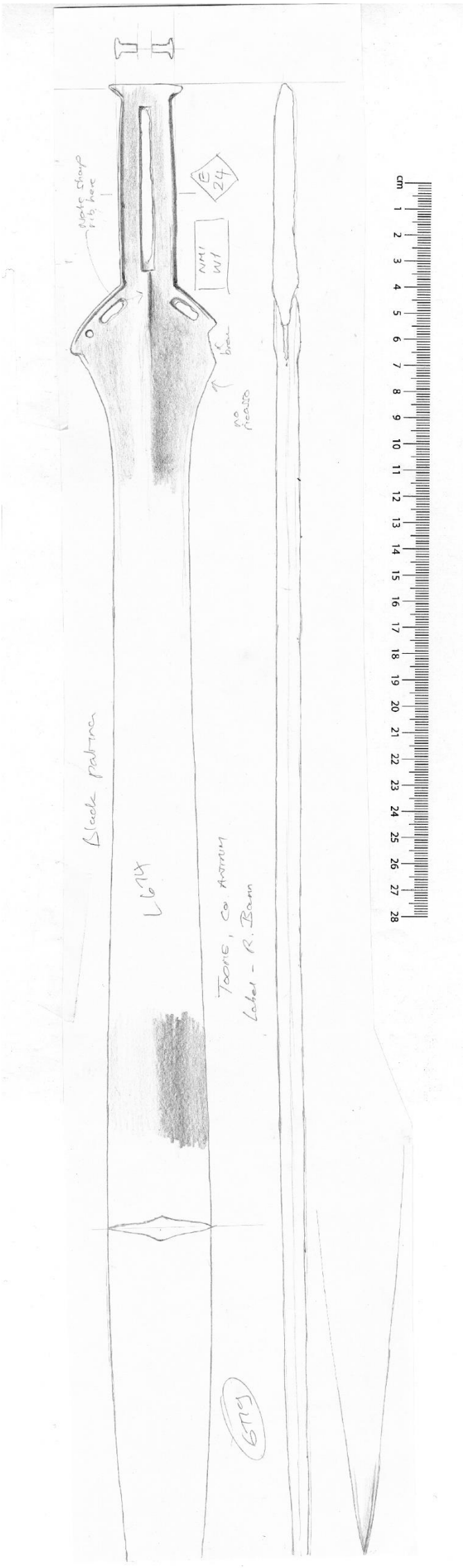
22


Greenish corrosion
made in situ
Blade patina
3869
NHAE QM13
EOGAN 22
Pronounced rounded central rib
0,7cm
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

23


4.51 cm L
bevel ends
slight bevel no needle
nick on surface
ridge
Exped 23
4.90g
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

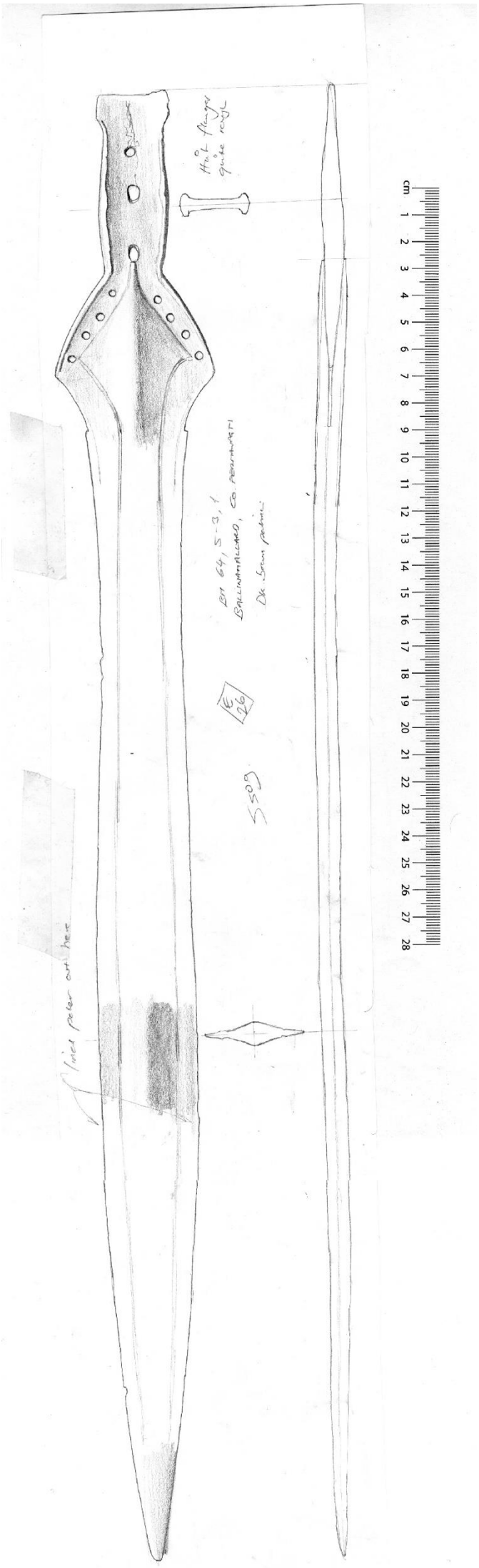
24


Make sharp fits here
E 24
NH WT
Black patina
Tone, Co Antrim
Lohet - R. Bann
cm

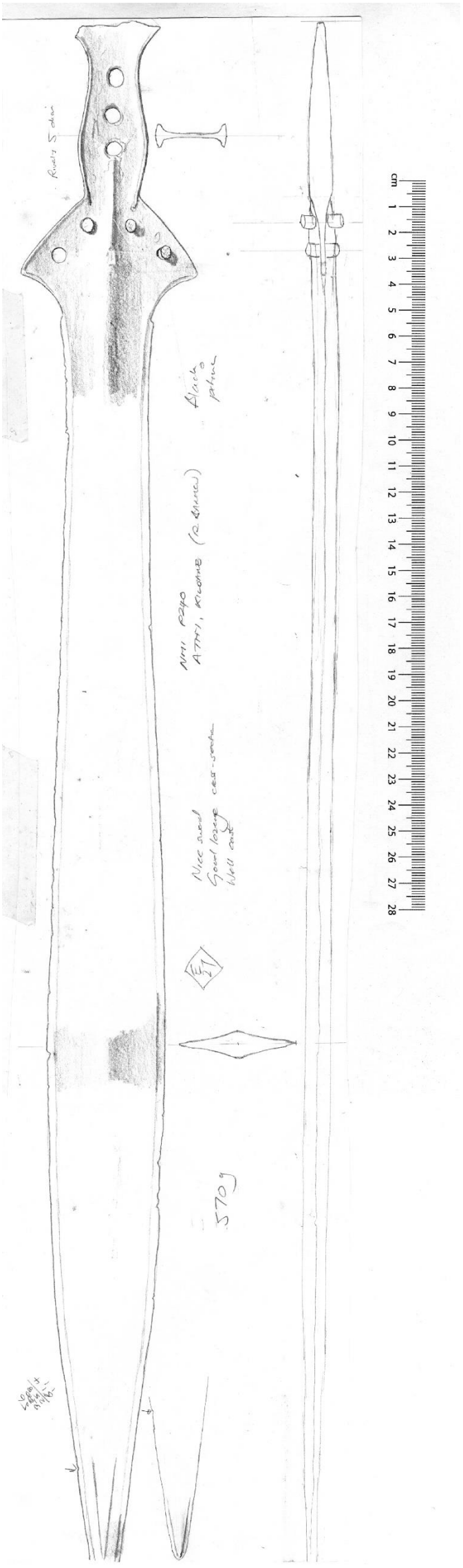
25

NMI
1932 : 6685
E
25
Dk brown patina
County, Co. CLARE
Coral – no further info

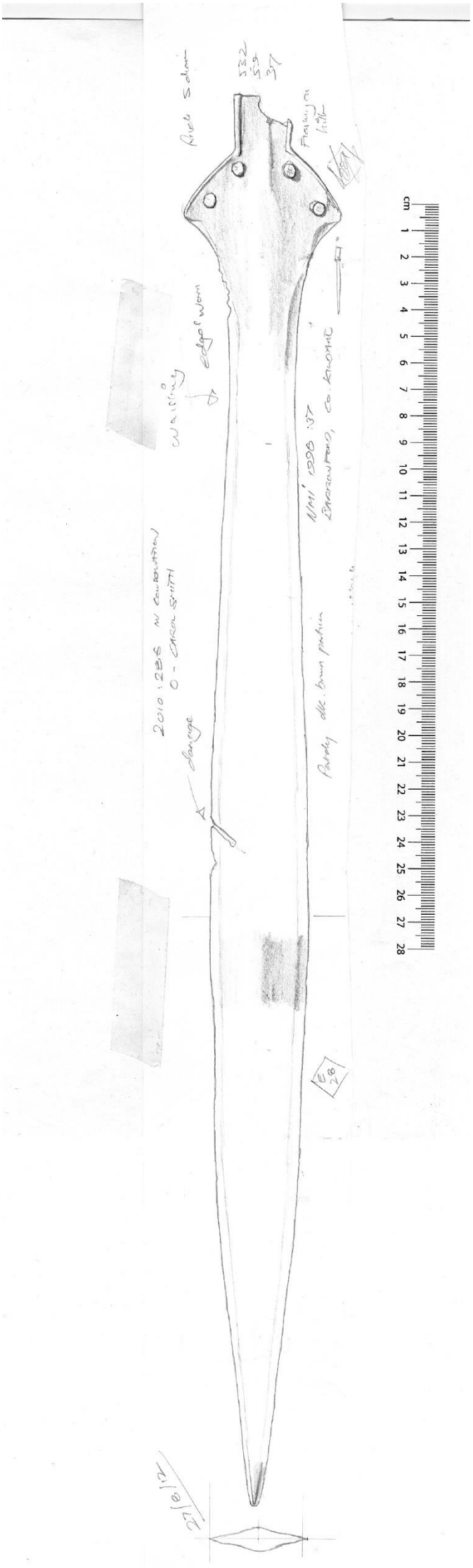
26



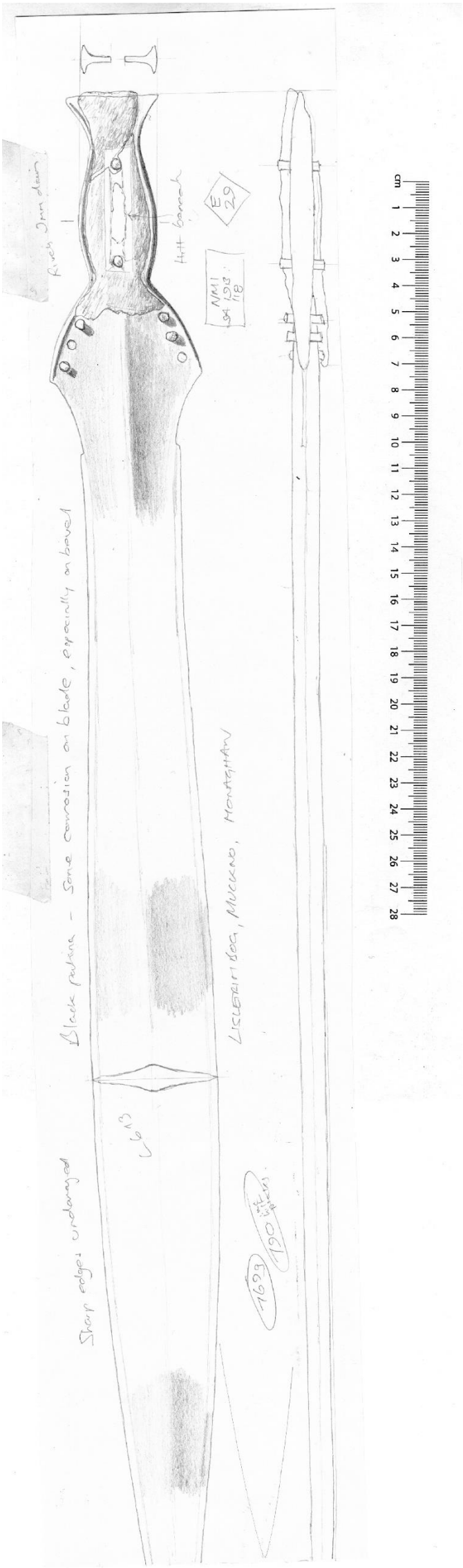
27



28



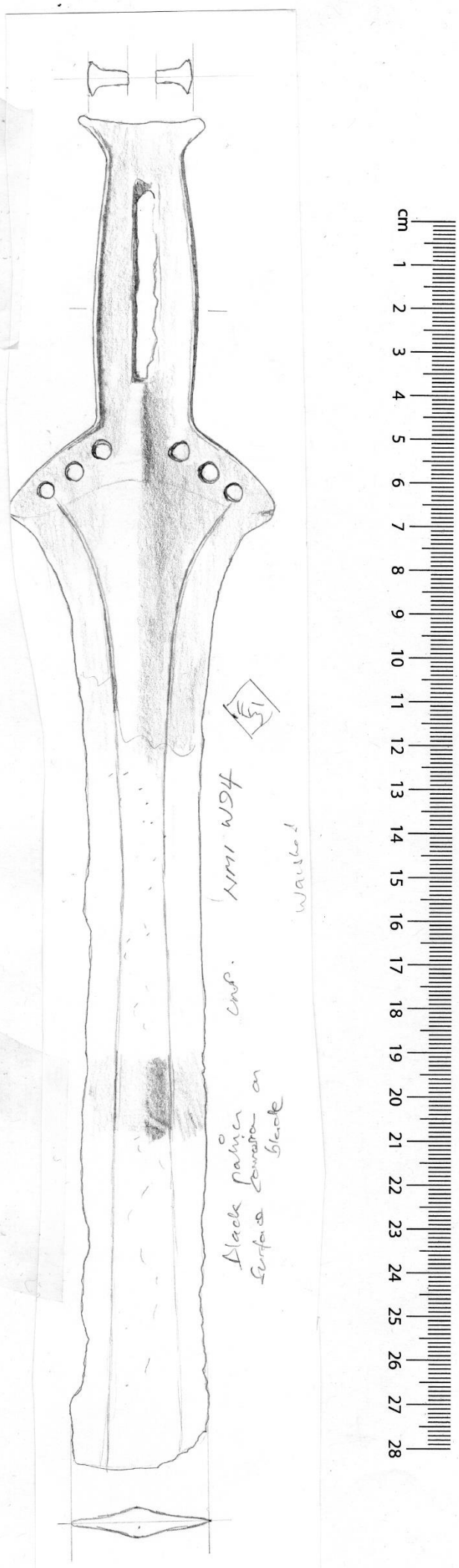
29


Rivets 3mm diam
Hilt bands
E 29
NMI
SA 1928
118
Blade pitting - Some corrosion on blade, especially on bevel
Sharp edges undamaged
Licletieri Soc, Milano, Montgattino
1693
1900
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

31

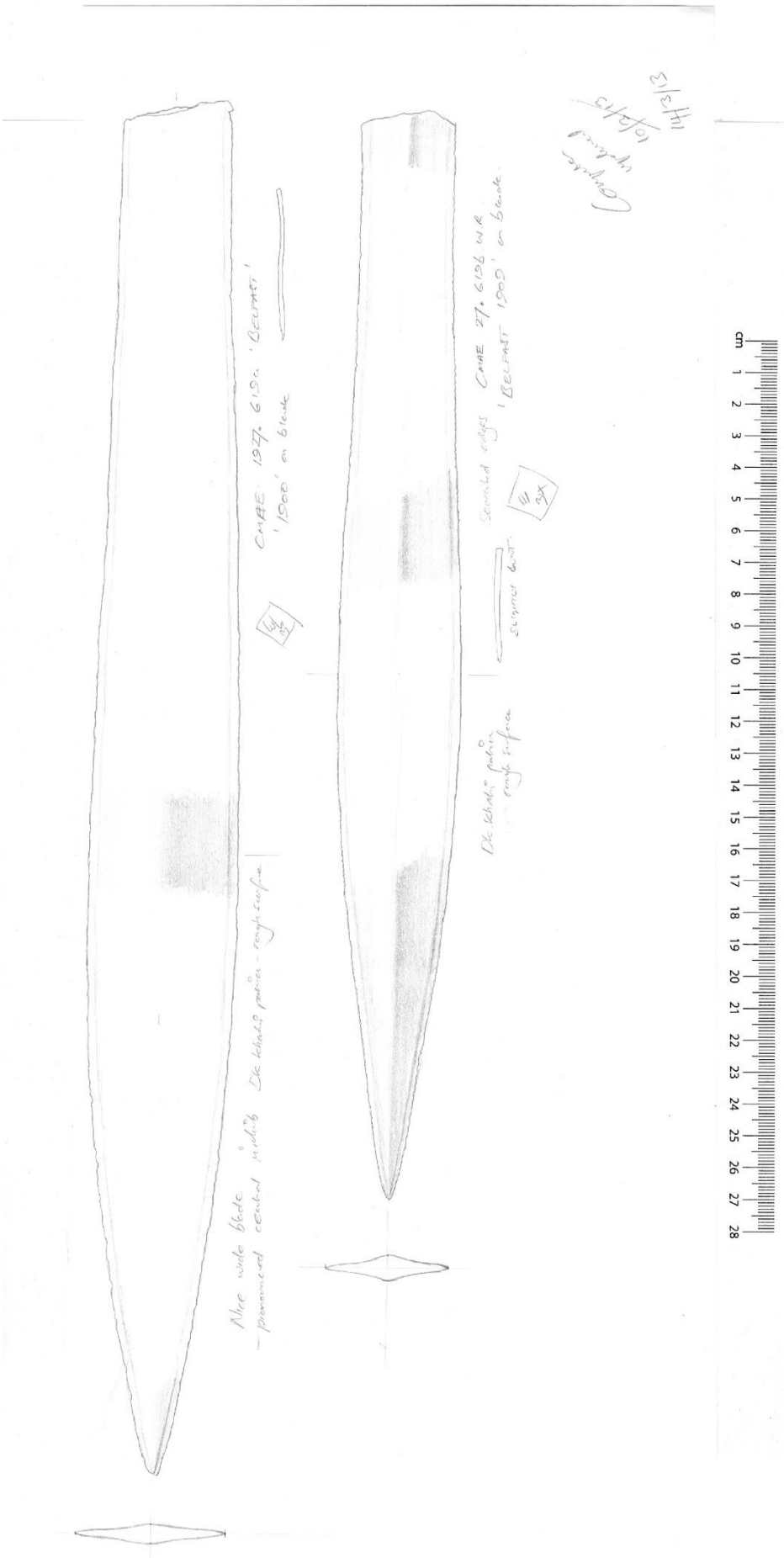
Black painting on hilt + shoulders
E 31
NH1 W94
Groove 1mm width
Blade corroded
Lines broadly as well
'IRELAND'
Good tapering section
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

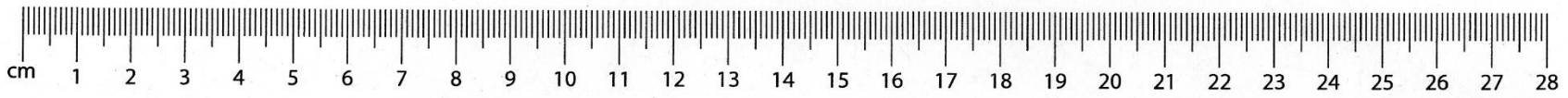
31 (2)

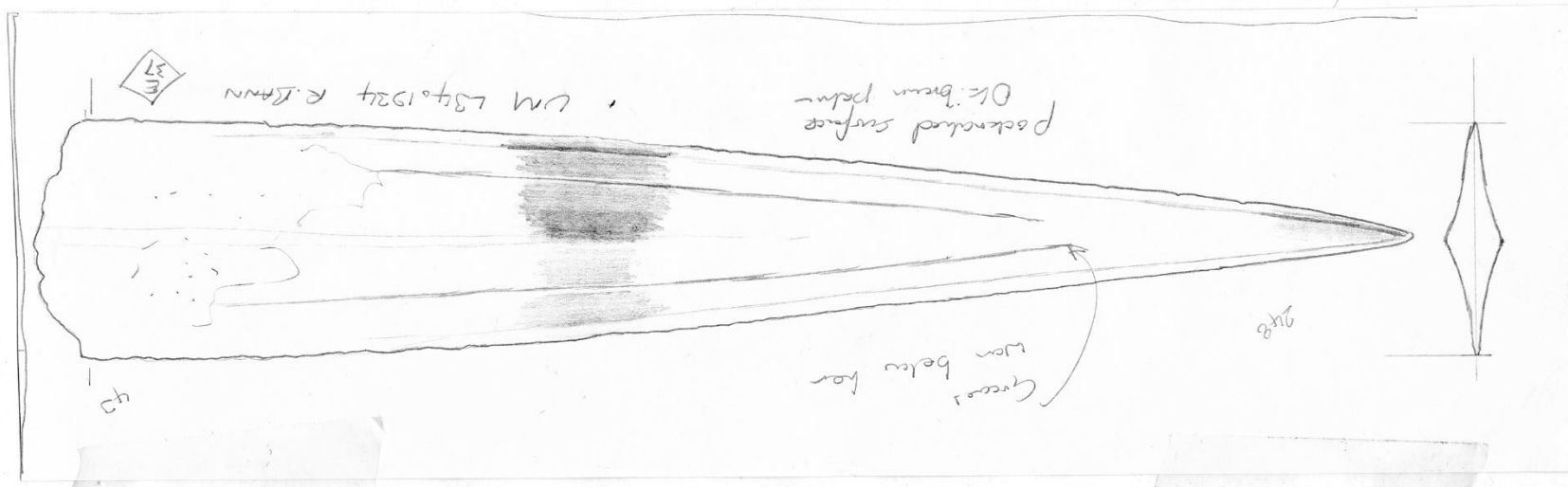


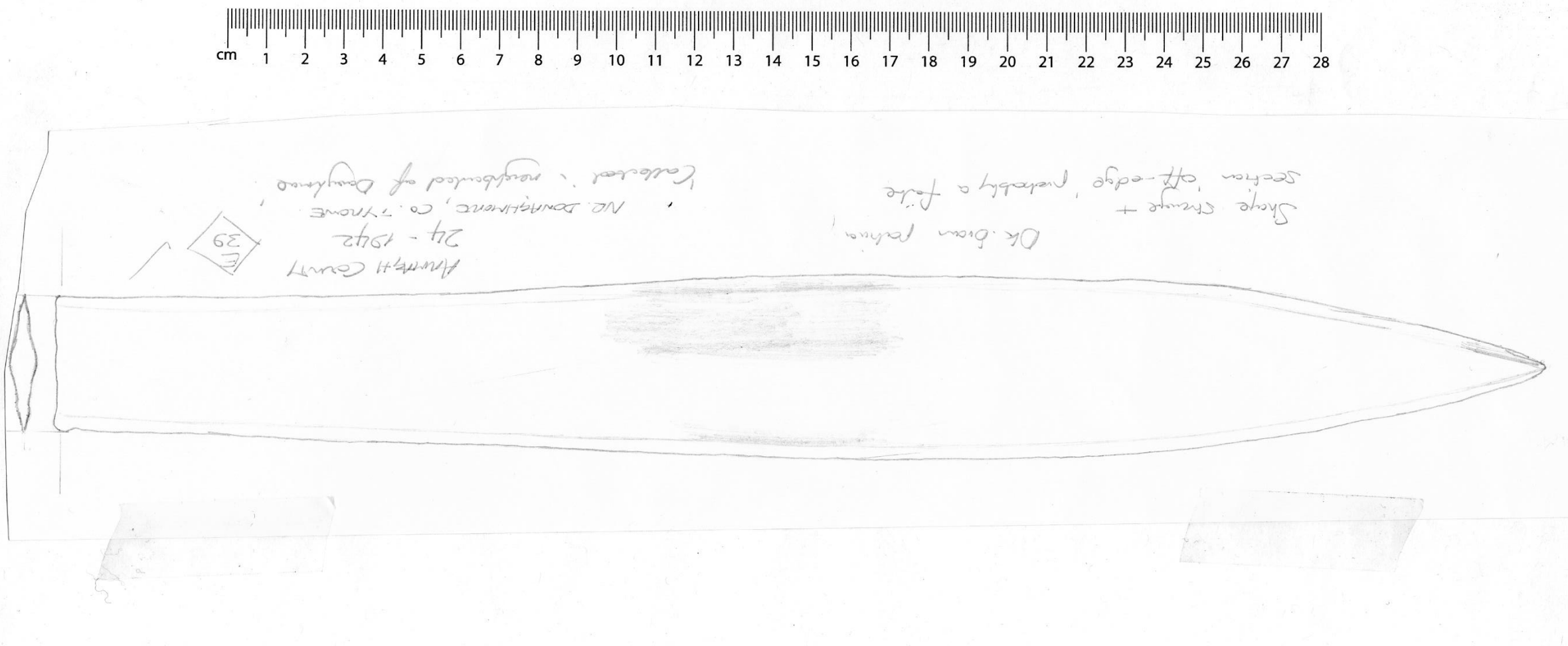
33

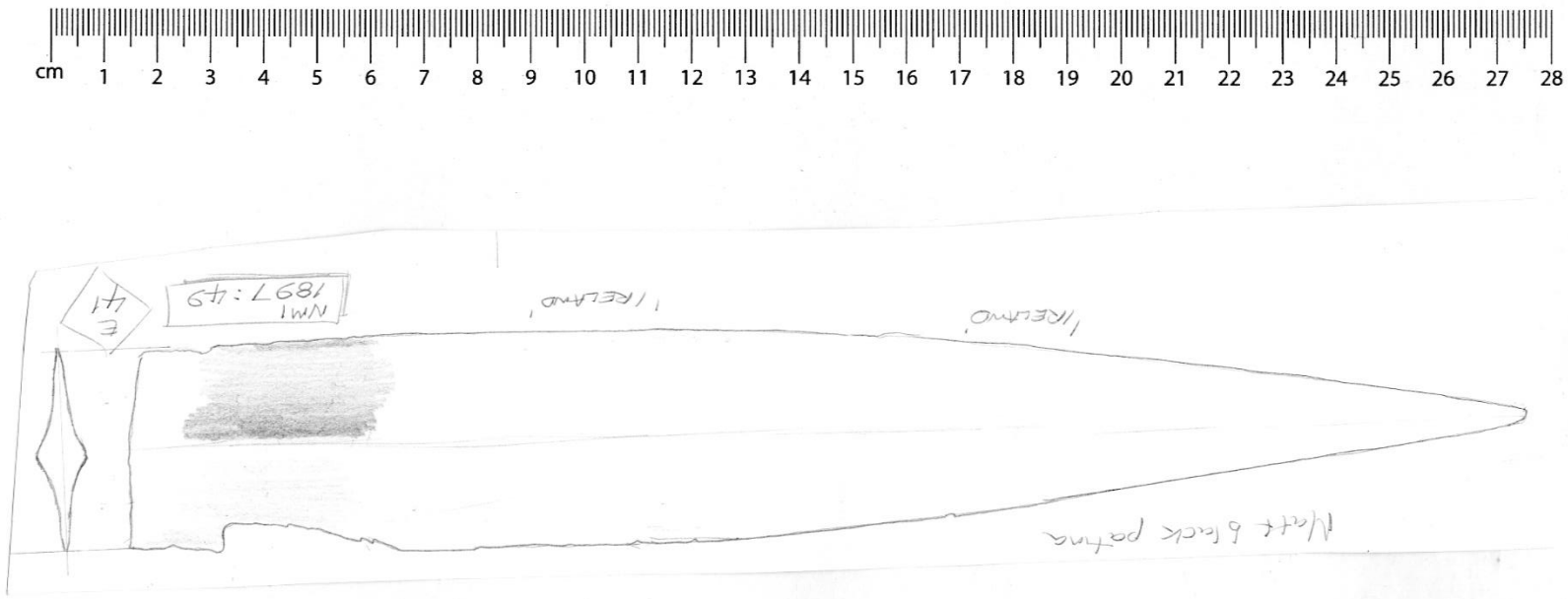
34 and 35


CAMRE 27. 6194 'BELFAST'
'1900' on blade
Nice wide blade - pronounced central midrib
Dk khaki? patina - rough surface
Serrated edge
Slipper bolt
CAMRE 27. 6196 WR
'BELFAST 1900' on blade
Dk khaki? patina - rough surface
cm


cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

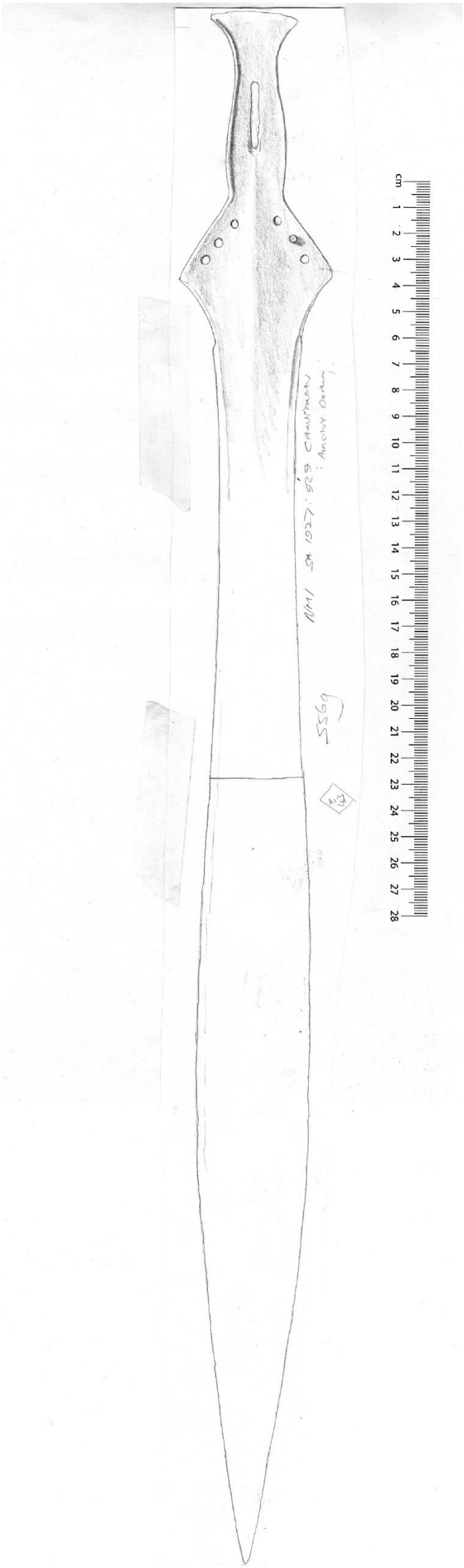



cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
E 39

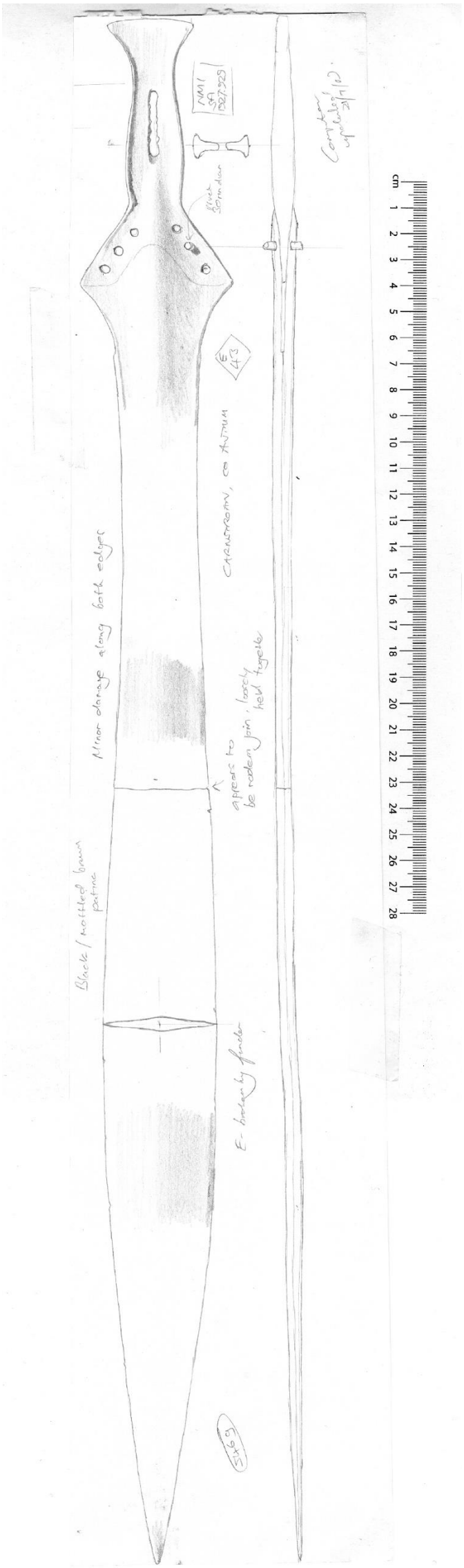

cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
NMI 1897.49
E 41
ICELAND
ICELAND
light & dark patina

41

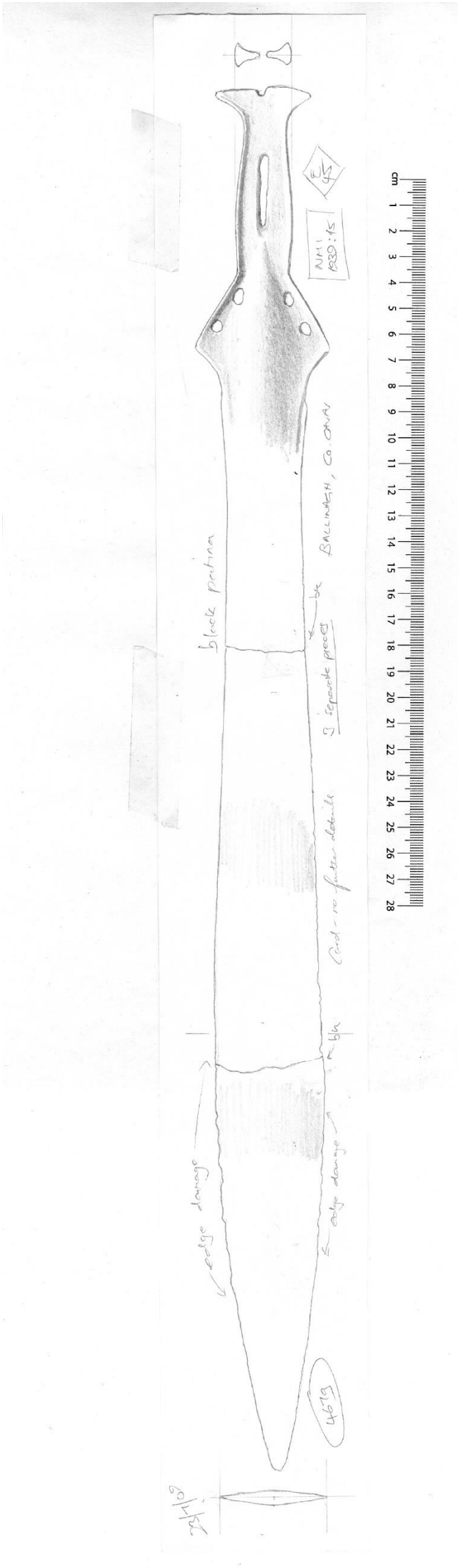
43



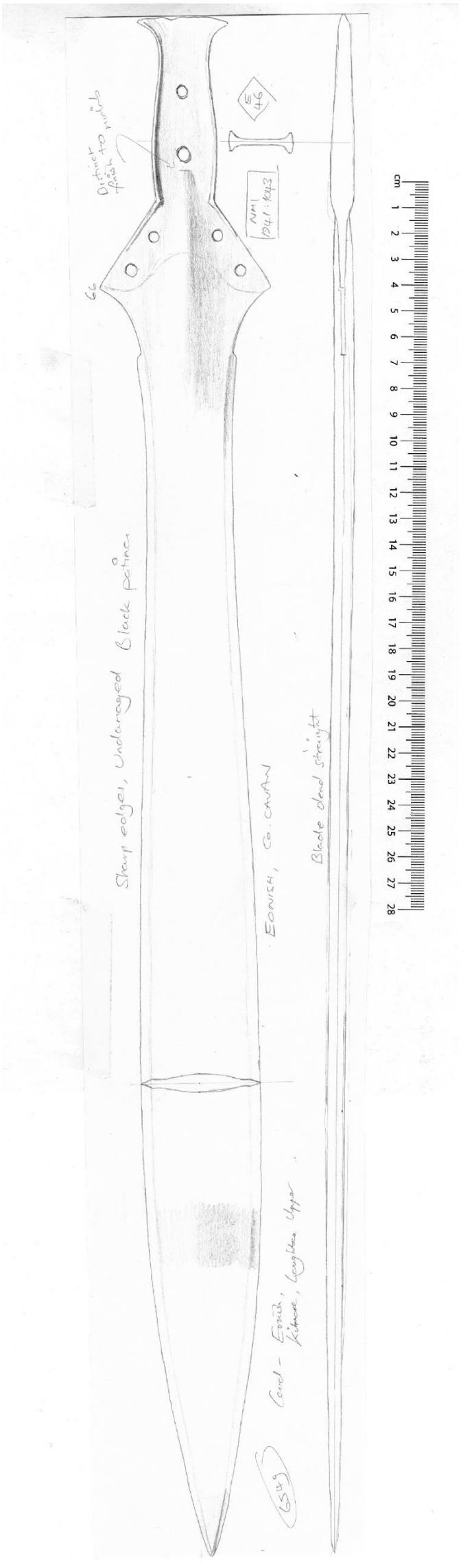
43(2)


Minor damage along both edges
Appears to be modern join, loosely held together
Black / mottled brown patina
cm

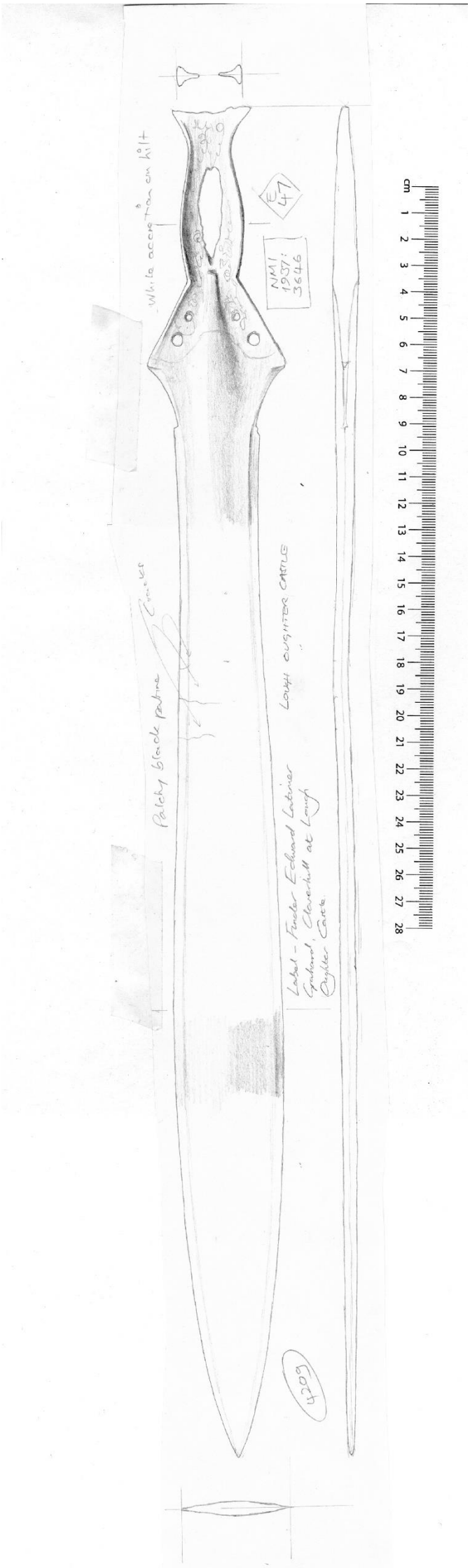
45


cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
Blade portion
2 separate pieces
edge damage
edge damage

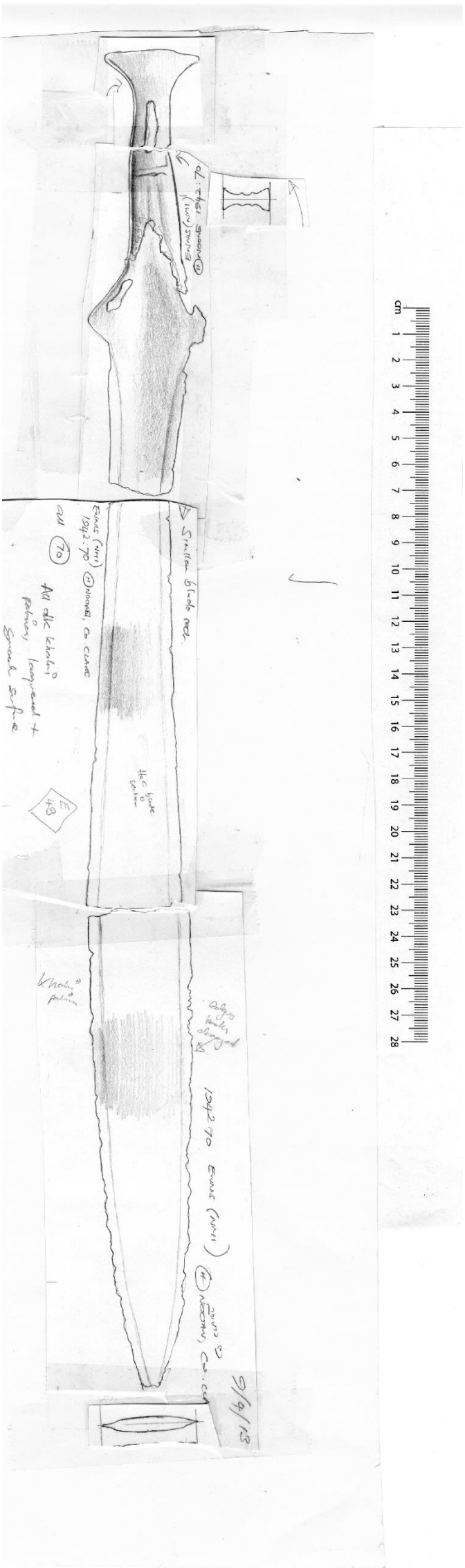
46


Distinct Patch to rump
66
Sharp edges, Undamaged Black patina
NM1
1941:1043
E46
EDINISH, Co. CAVAN
Blade dead straight
Lead - Earth, Kilmore, Longford Upper
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

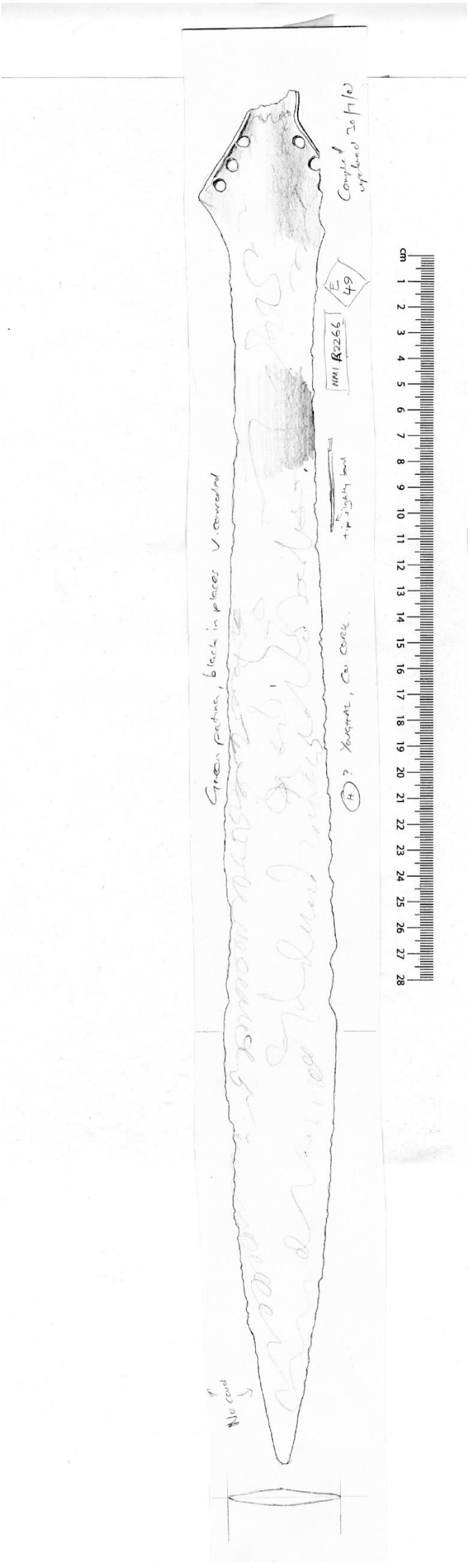
47


NMI 1937: 3646
E 47
Label - Finder Edward Latimer Gabriel, Clonehill at Lough Gur Castle
Lough Gur Limestone Castle
Patchy Blade Patina
4209
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

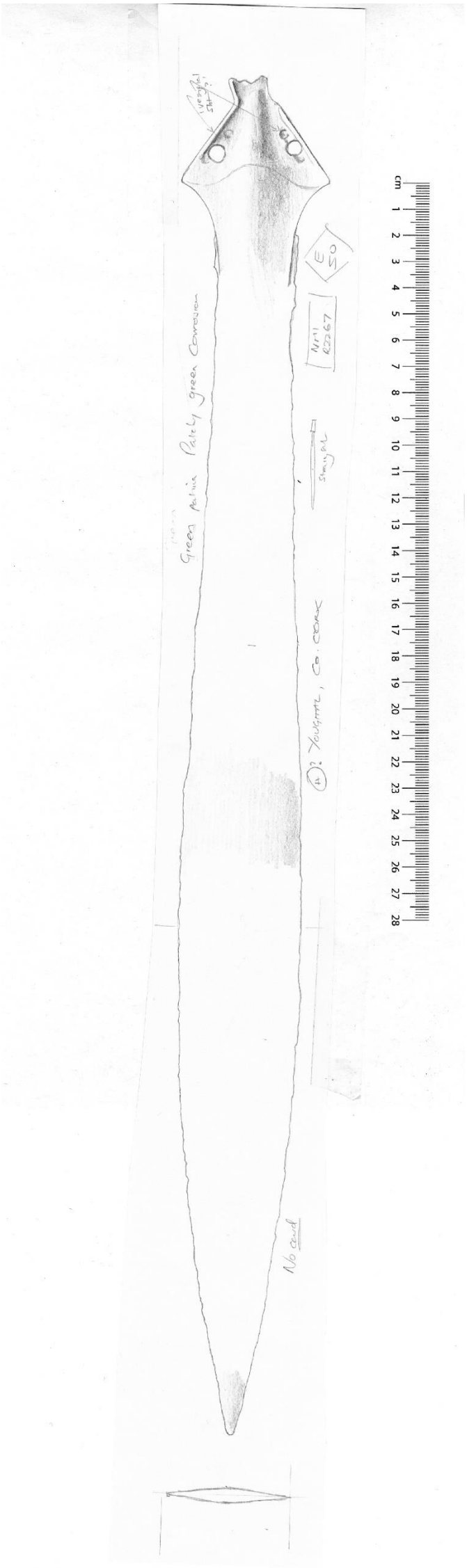
48



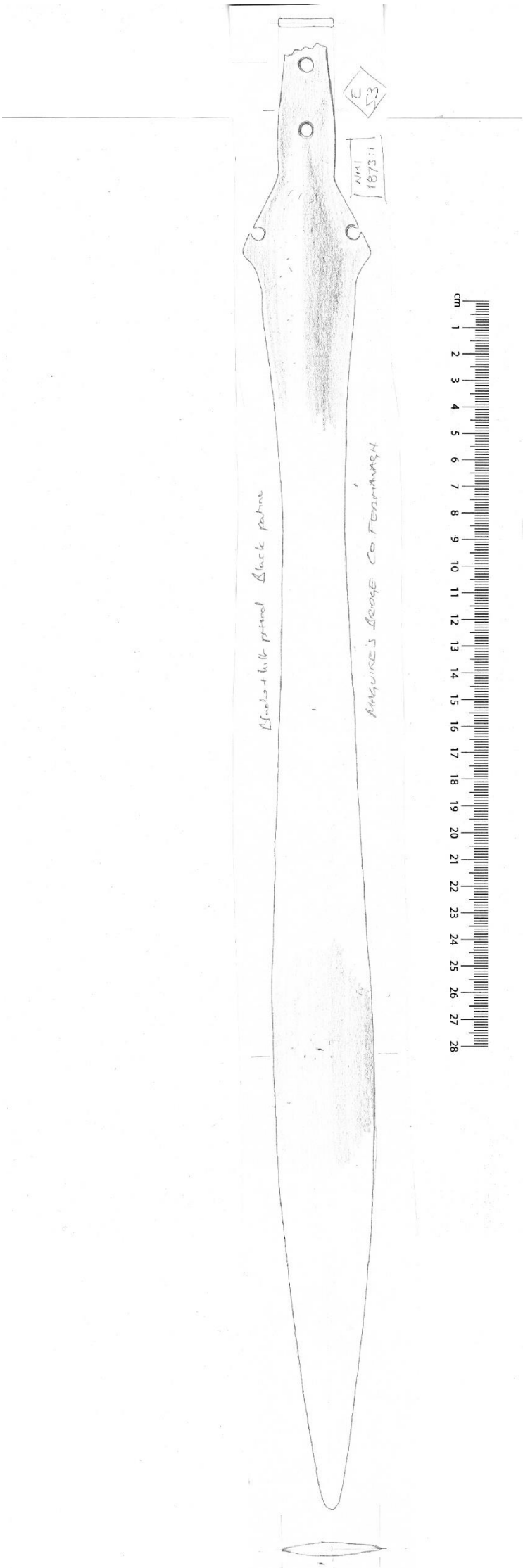
49


Green patina, blade in places V. corroded
NMI R2266
E 49
Complete
Wooden haft 20/11/10
? Youghal, Co Cork
No cord
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

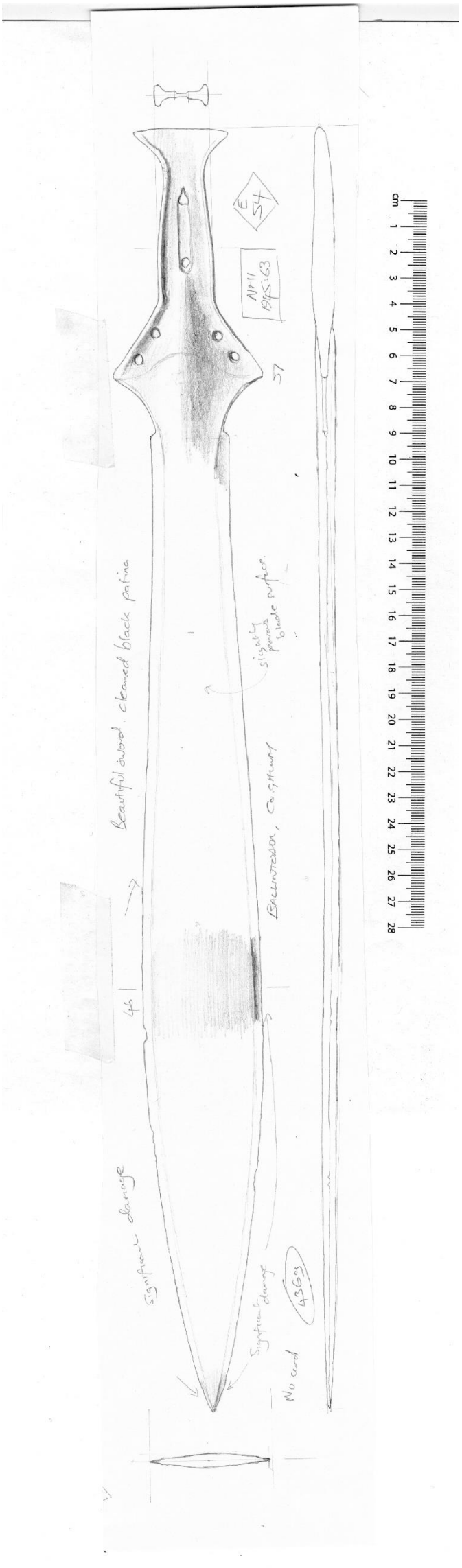
50


Green patina Partly green covering
Nr 11
62267
E
50
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

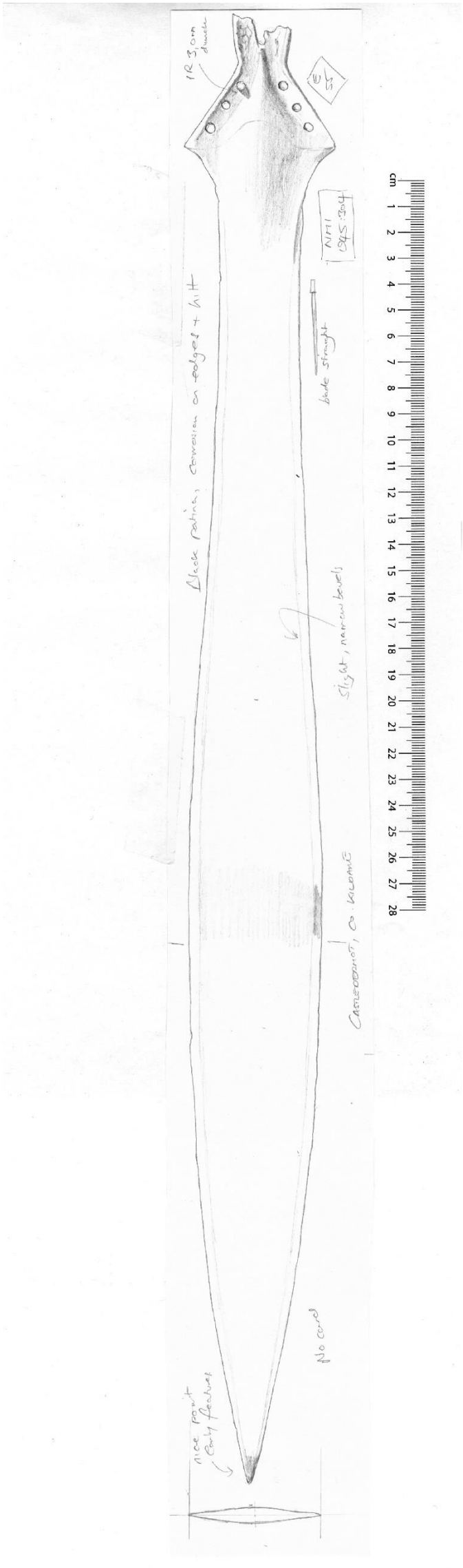
53


E
53
NMI
1873:1
Blacksmith pitted black patina
MAGUIRE'S BRIDGE CO FERMANAGH
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

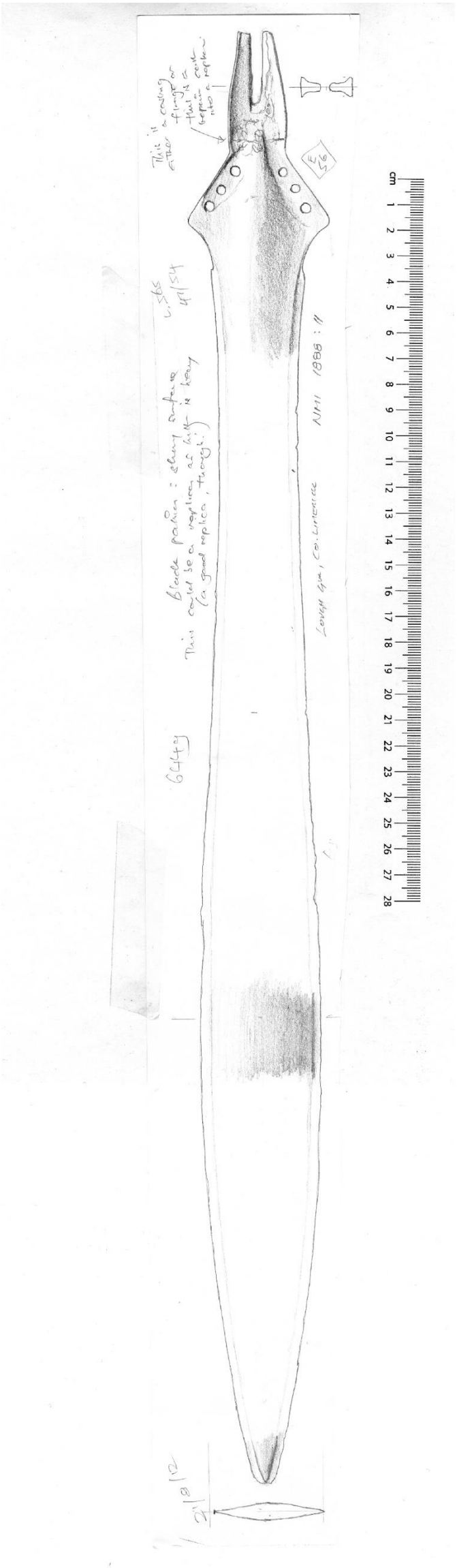
54


E 54
Nº 11
1965-63
37
Beautiful sword, cleaned black patina
slightly pitted blade surface
BALLINTEGGER, Co. Wicklow
46
significant damage
significant damage
No end
4363
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

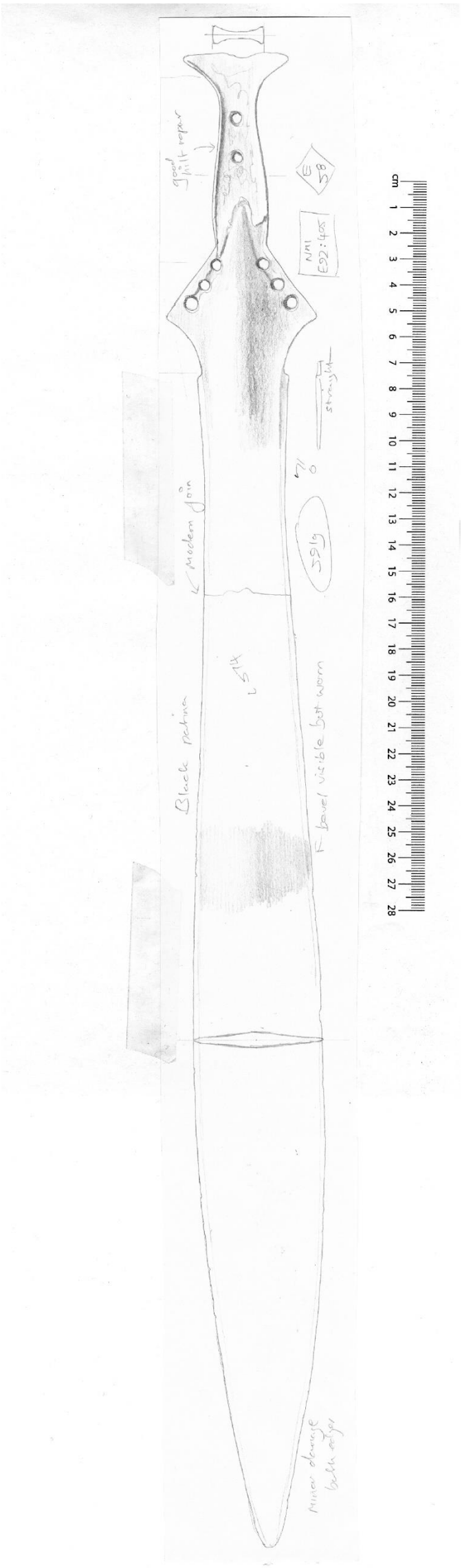
55


Blade patina, corrosion on edges + tip
Slight, narrow bevels
Cattledonot, Co. Kildare
No cord
Nice point
Early Bronze
NMI
1965:304
bevel straight
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

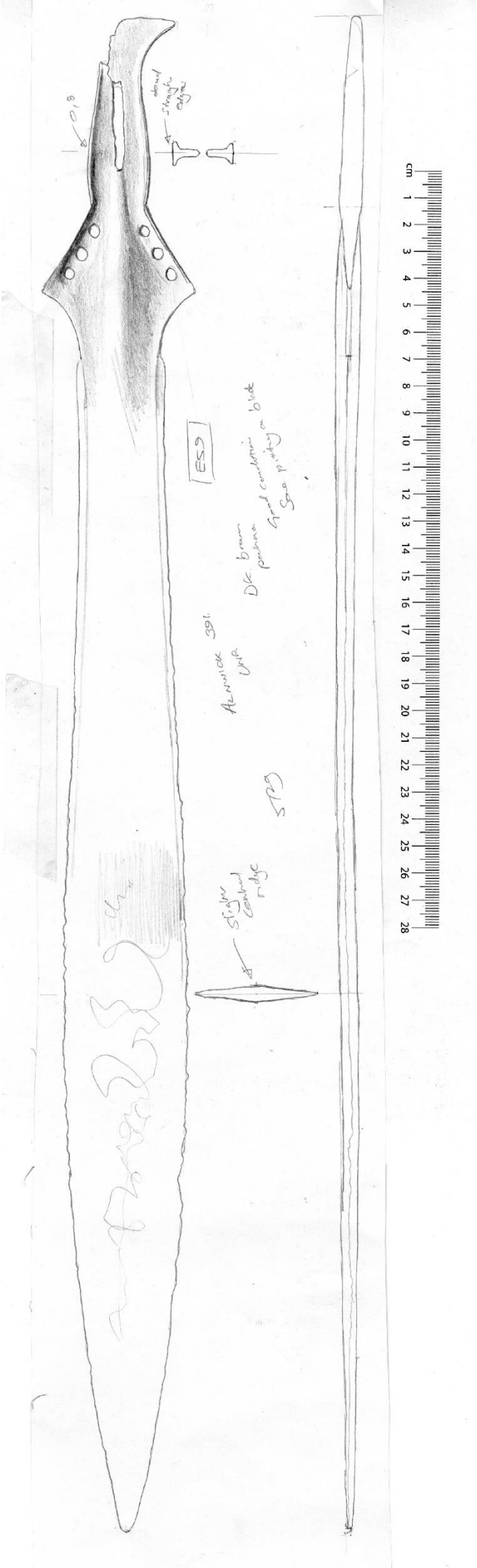
56


Blade portion : glossy surface
This could be a napkin as it is heavy
(or good replica, though!)
6474
NMI 1996 : 11
Lough Gur, Co. Limerick
cm

58

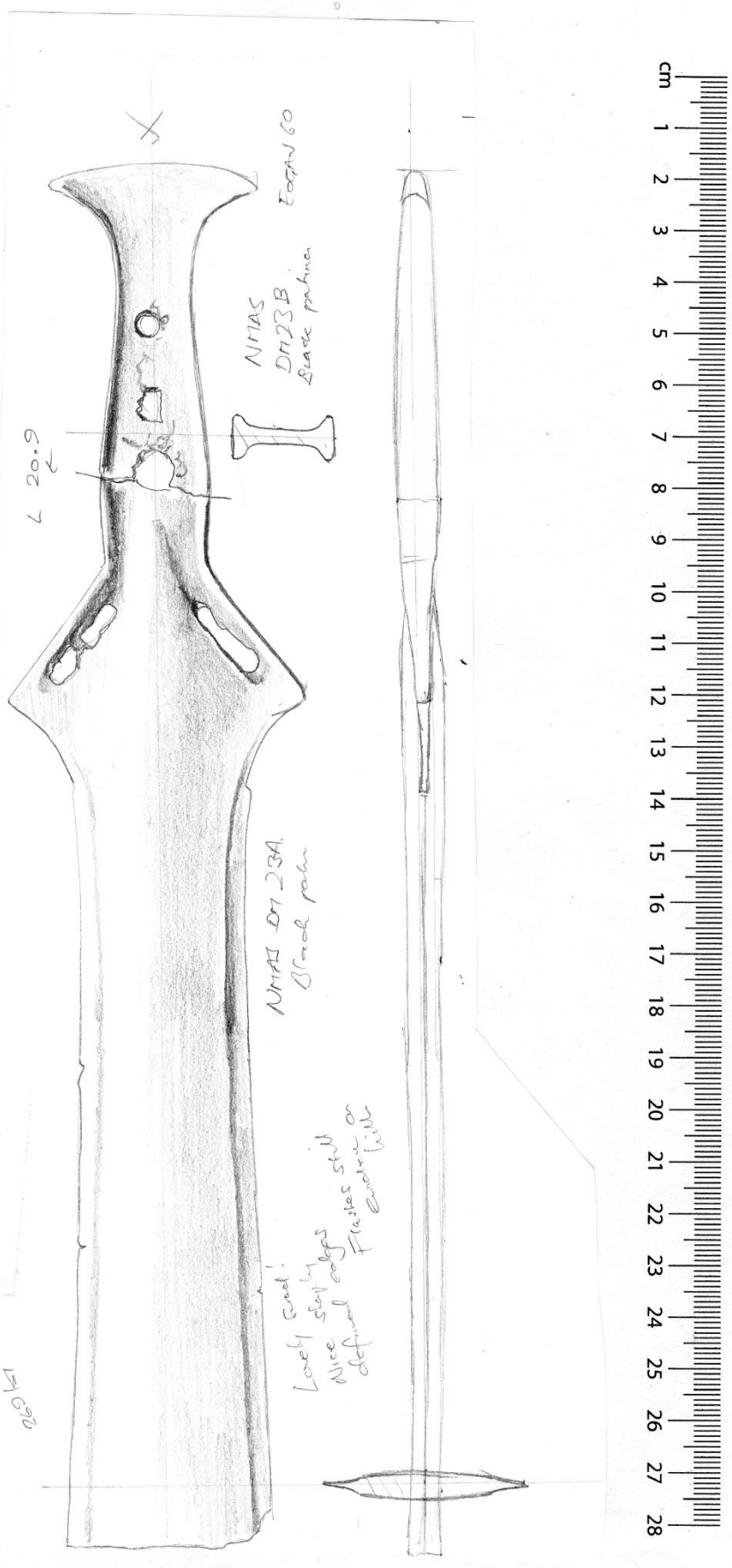

good hilt repair
NMI E92:408
58
modern join
Black patina
Level visible but worn
cm

59

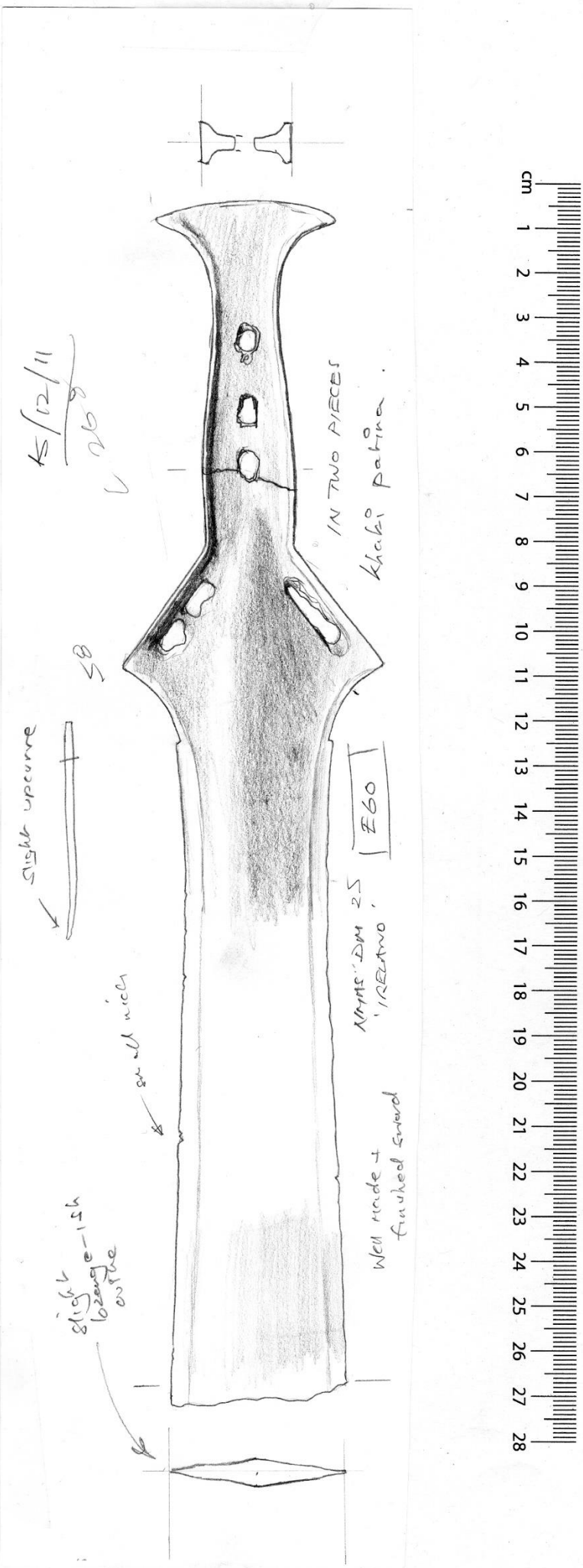


60

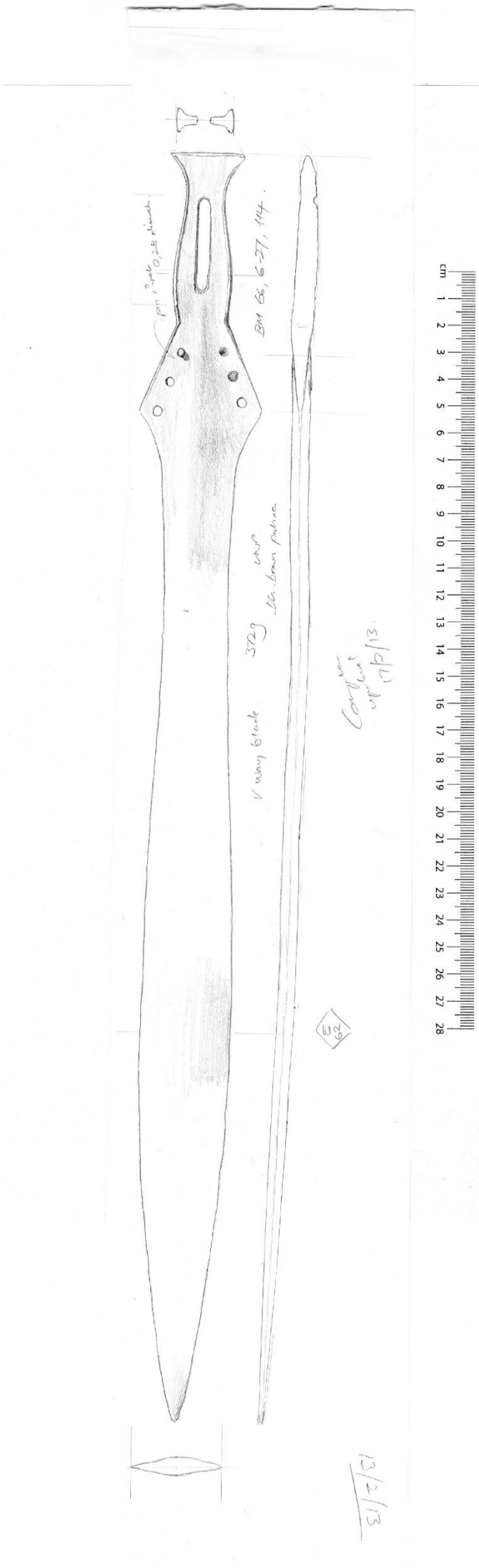
60 (2)


NIMAS
DN23B
Blade making
Evans 60
20.9
NIMAI DN 23A
Good mark
Lovely Good!
Nice shiny edges
Definite edges
Fractures still
Evidence on
blade

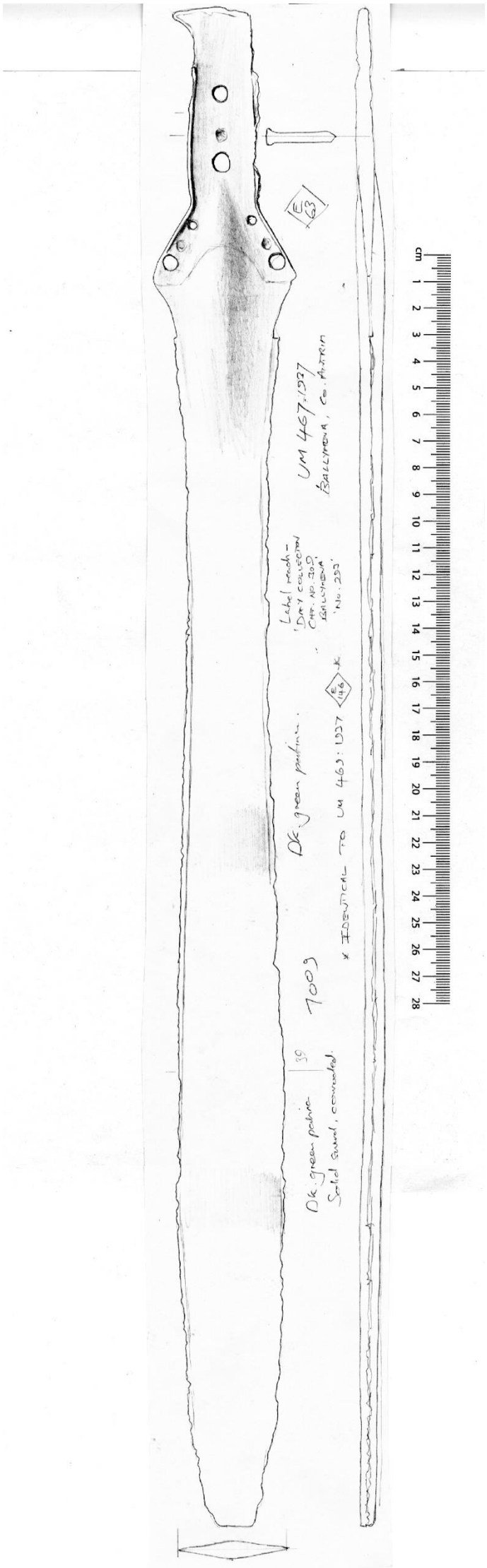
60 (3)



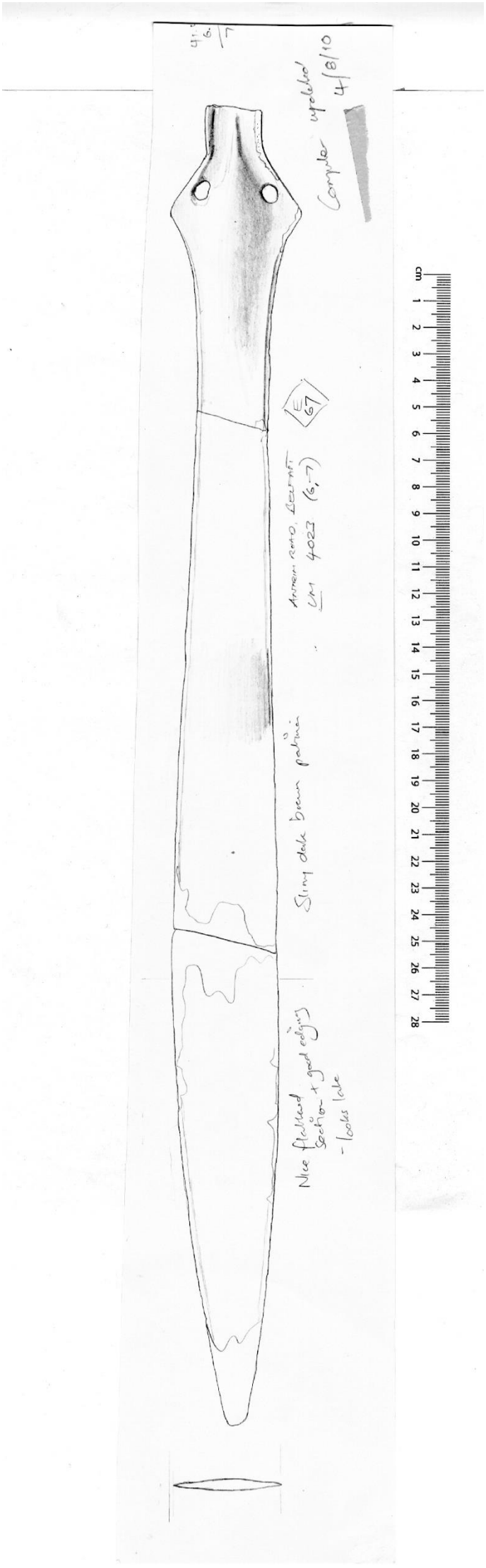
62



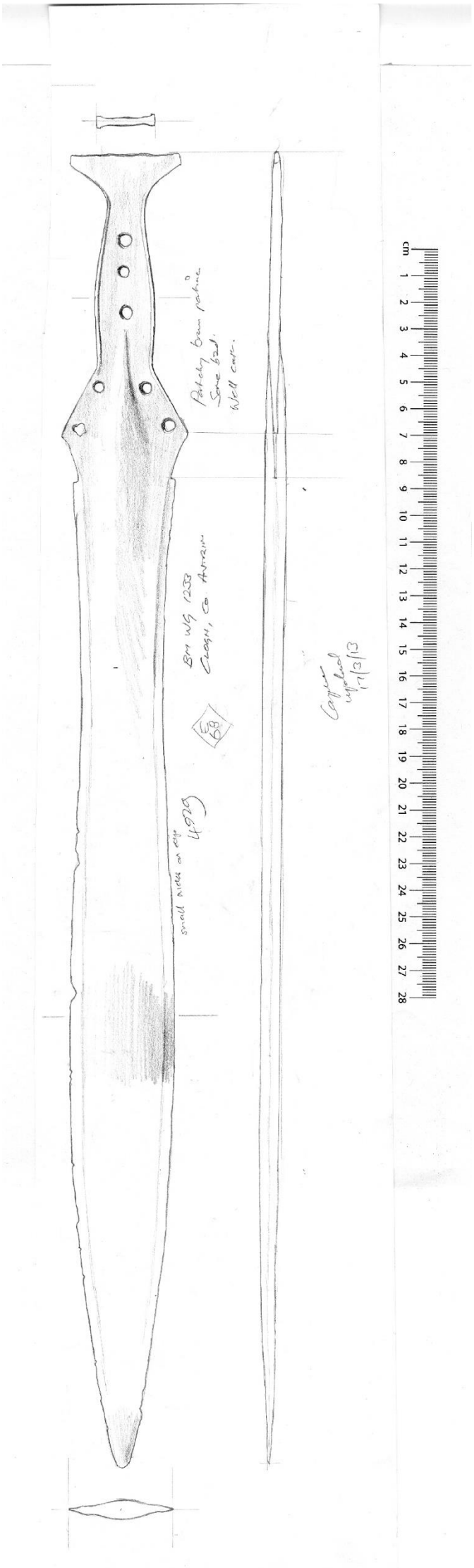
63


E 63
UM 467:1937
BALLYNAHA, Co. MAYO
Label reads -
'DAY COLLECTION
CAT. NO. 395
BALLYNAHA
NO. 293'
Dk green patina.
E 46
* IDENTICAL TO UM 463:1937
Dk green patina
Soiled sand, corroded.
7009
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

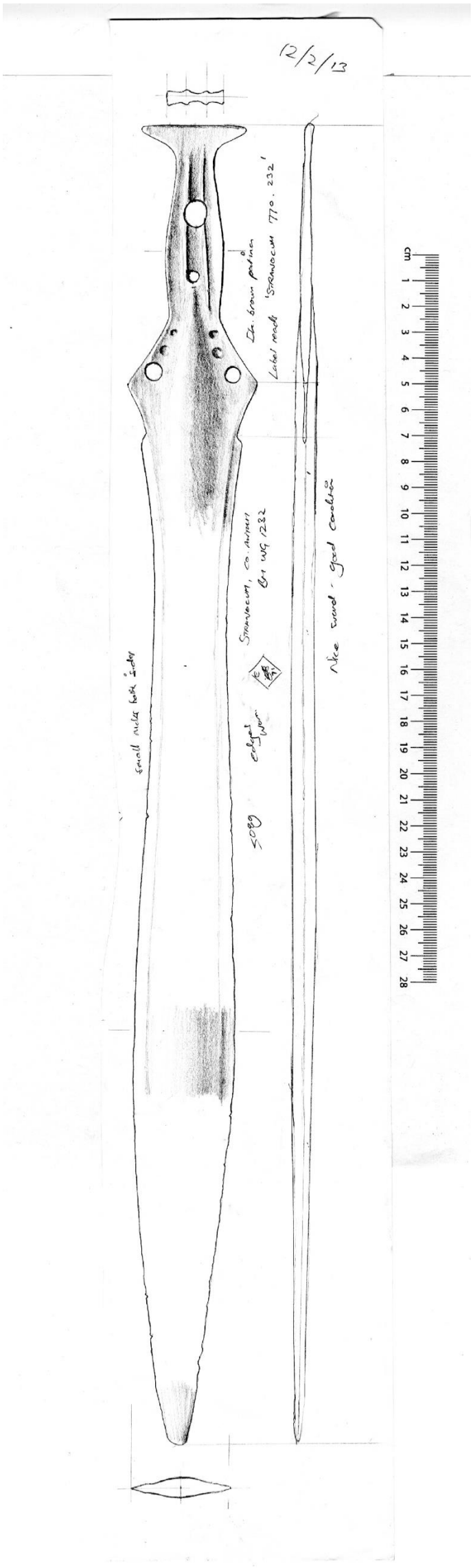
67


Complete upfolded
4/8/10
Antler rand. Lozenge
CM 4022 (6.7)
E 67
Slim dark brown patina
Nice flatHead
Section + good edges
- looks like
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

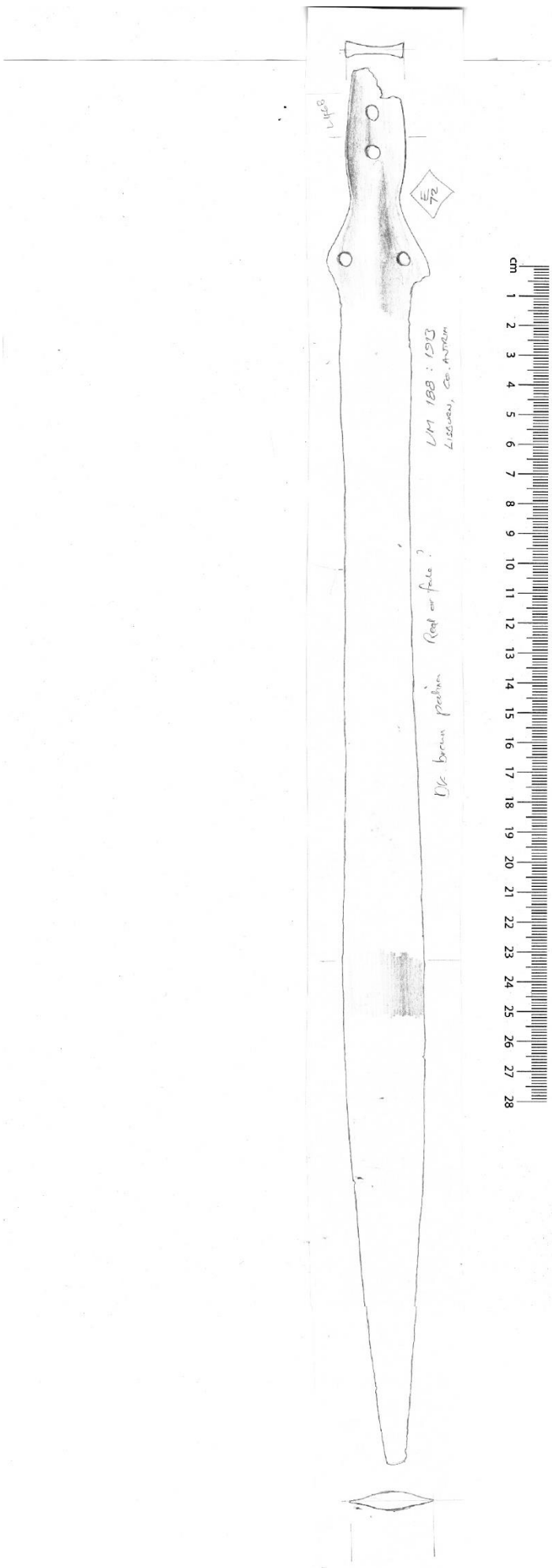
68


Patchy bare patina
Some bad
Well cast.
BM WG 1238
Cregg, Co Armagh
68
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

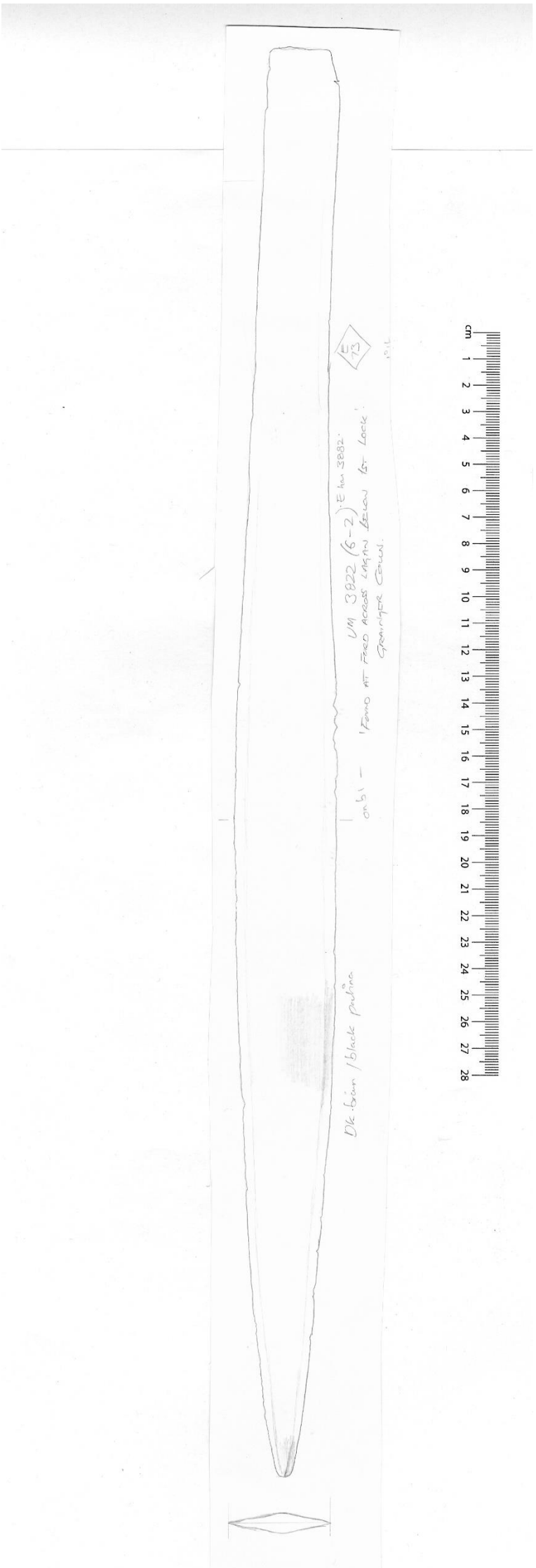
71


12/2/13
Dk. brown patina
Label reads 'Stanlacum 770.232'
Stanlacum, Co. Antrim
Br IVC 1282
Nice sword - good condition
small nicks both sides
≤0.89
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

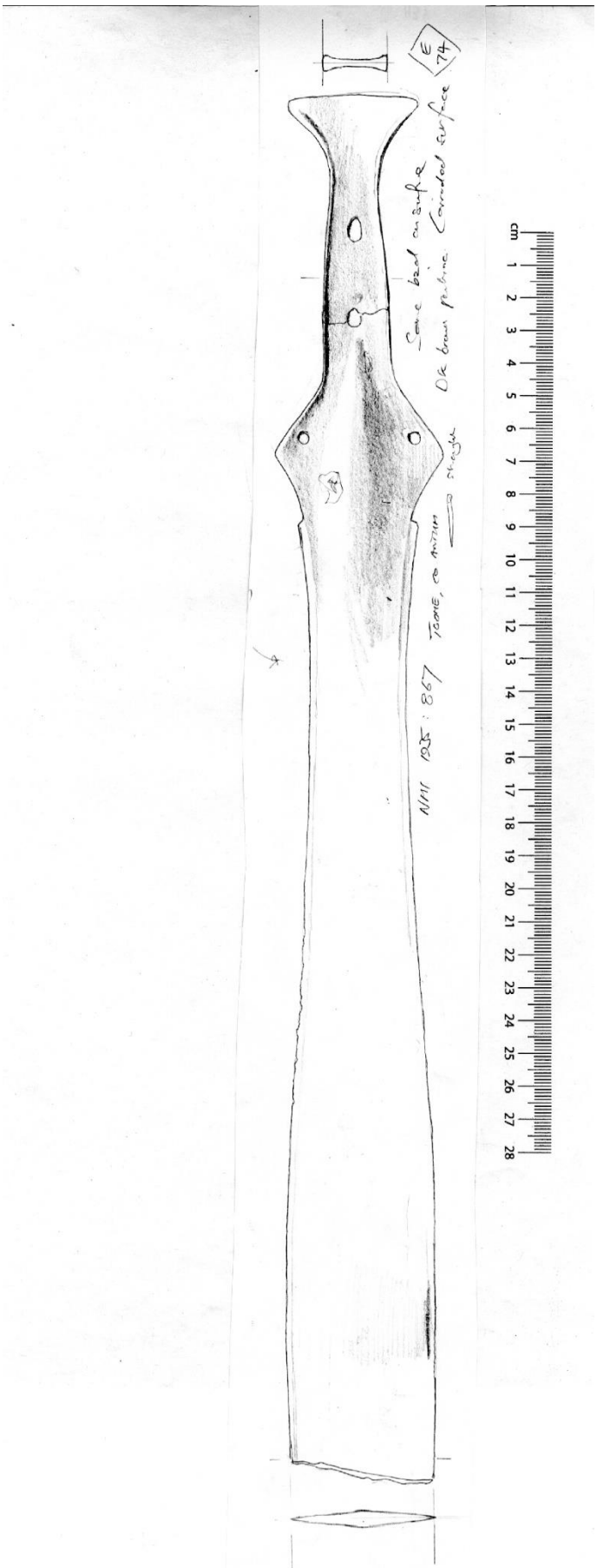
72


E 72
UM 188 : 193
Lisbon, Co. Antrim
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

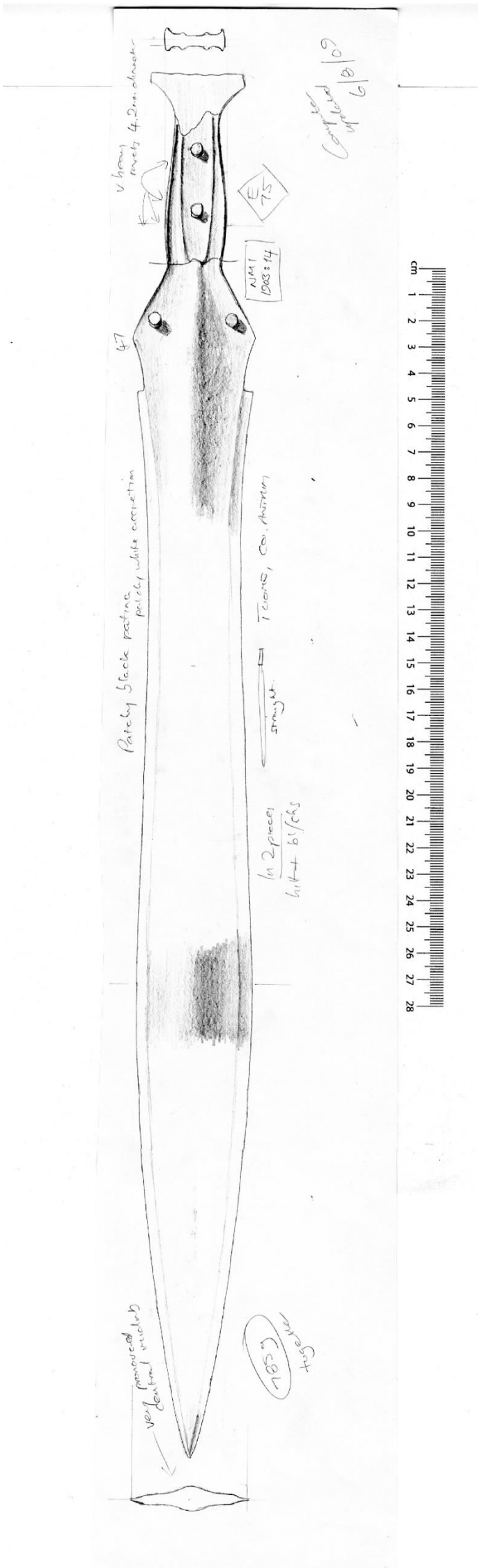
73


UM 3822 (6-2)
Found at Foss Across Lagan Below 1st Lock
Granular Gravel.
Dk. brn / black patina

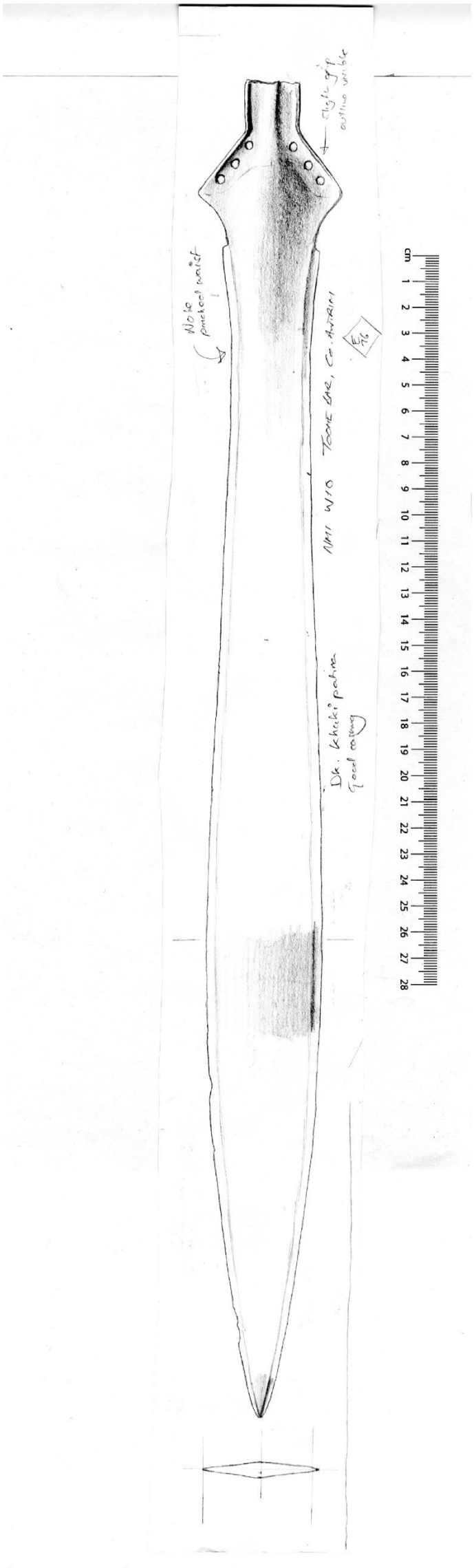
74


E 74
Saw blade on surface
Oil brush painting. Carved surface
NMI 1935 : 867
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

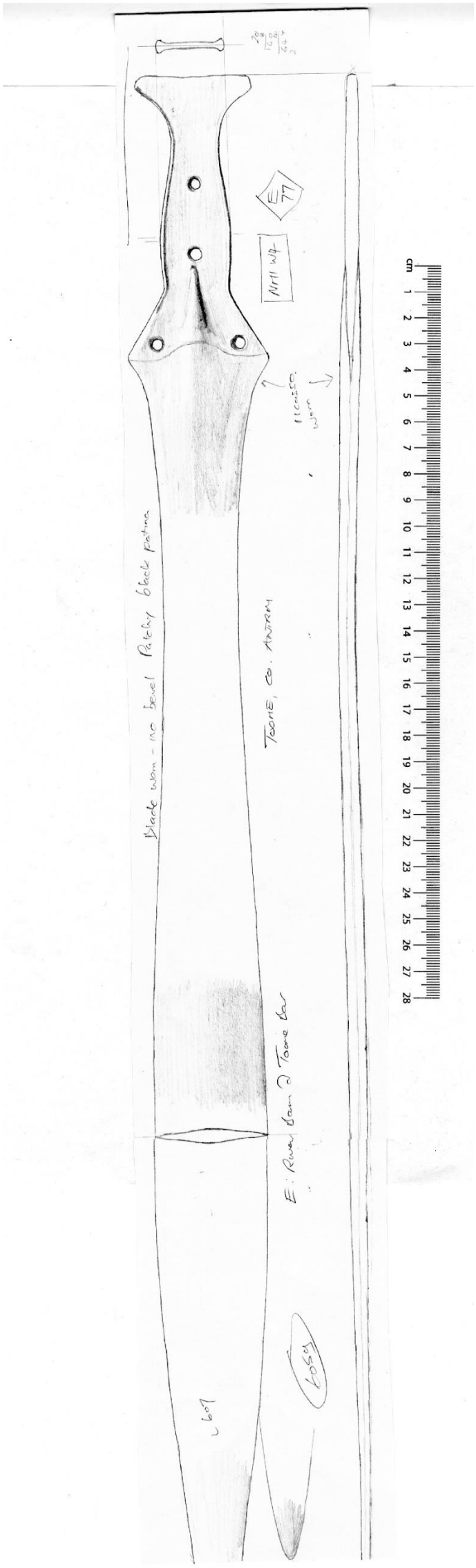
75


Computer uploaded 6/8/09
E 75
NMI 1903:14
47
Patchy black patina, patchy white concretion
T cuts, Co. Antrim
straight
In 2 pieces, hilt + blade
very pronounced central midrib
185 J
tugener
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

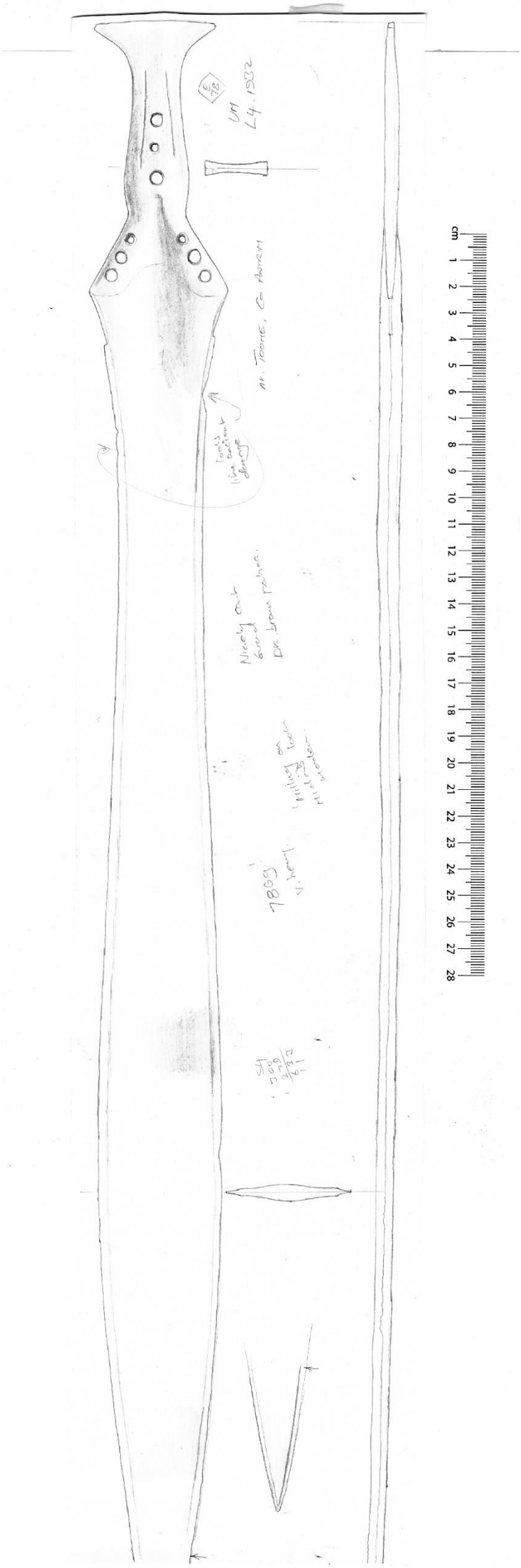
76


Flight grip outline visible
Wide notch end
1911 W/O Tooke Bar, Co. Antrim
E 76
Dk. khaki patina
Coal coating
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

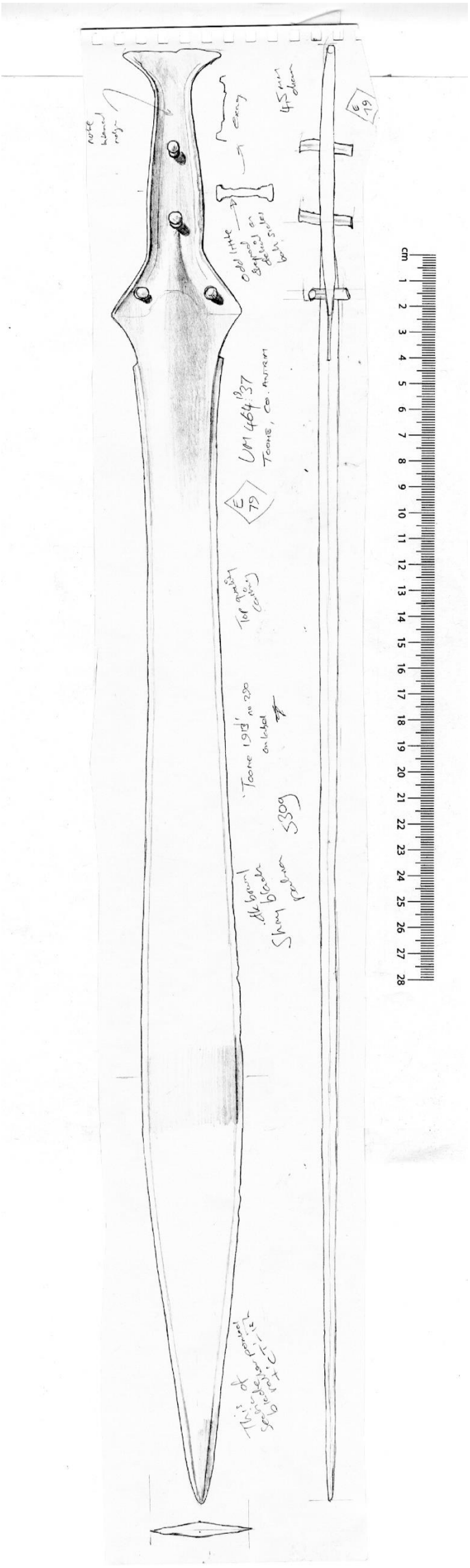
77


E 77
Blade worn - no bevel Paisley black patina
TOONE, Co. ANTRIM
E. River Dam 2 Tone bar
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

78


UM
L4.1932
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

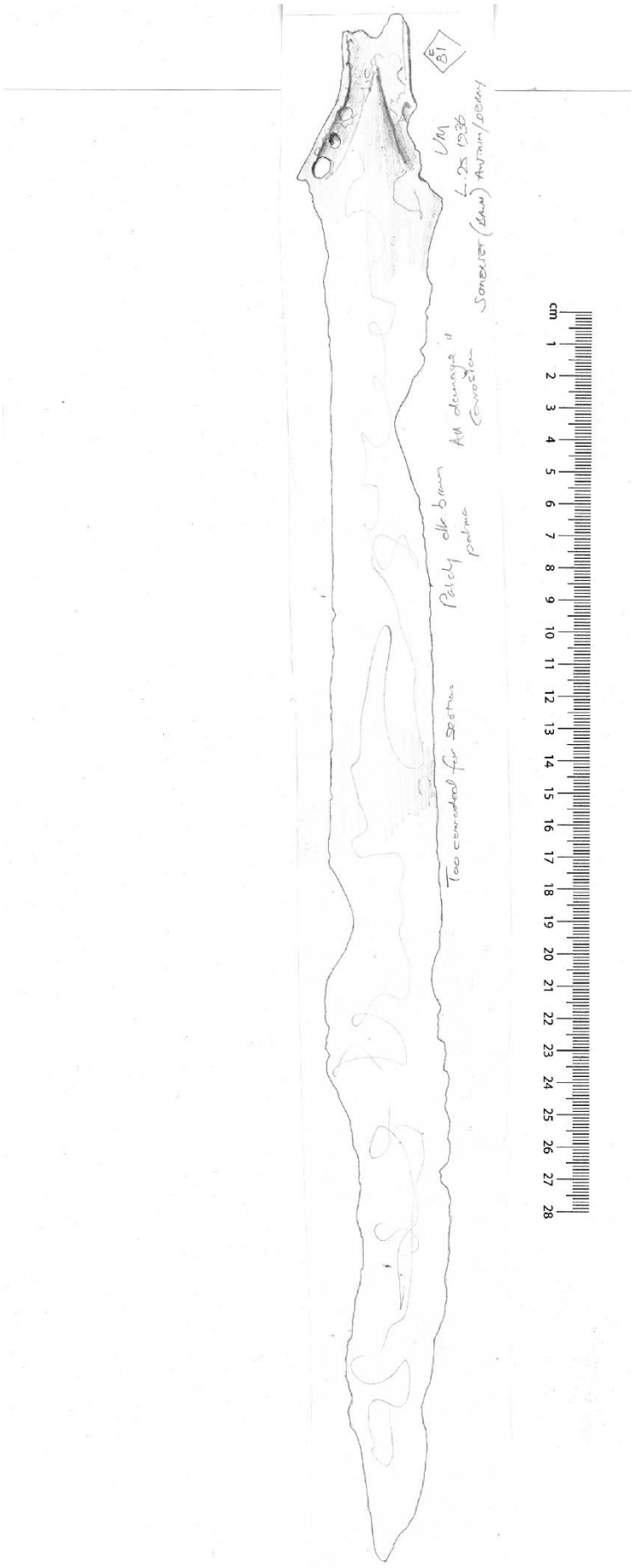
79



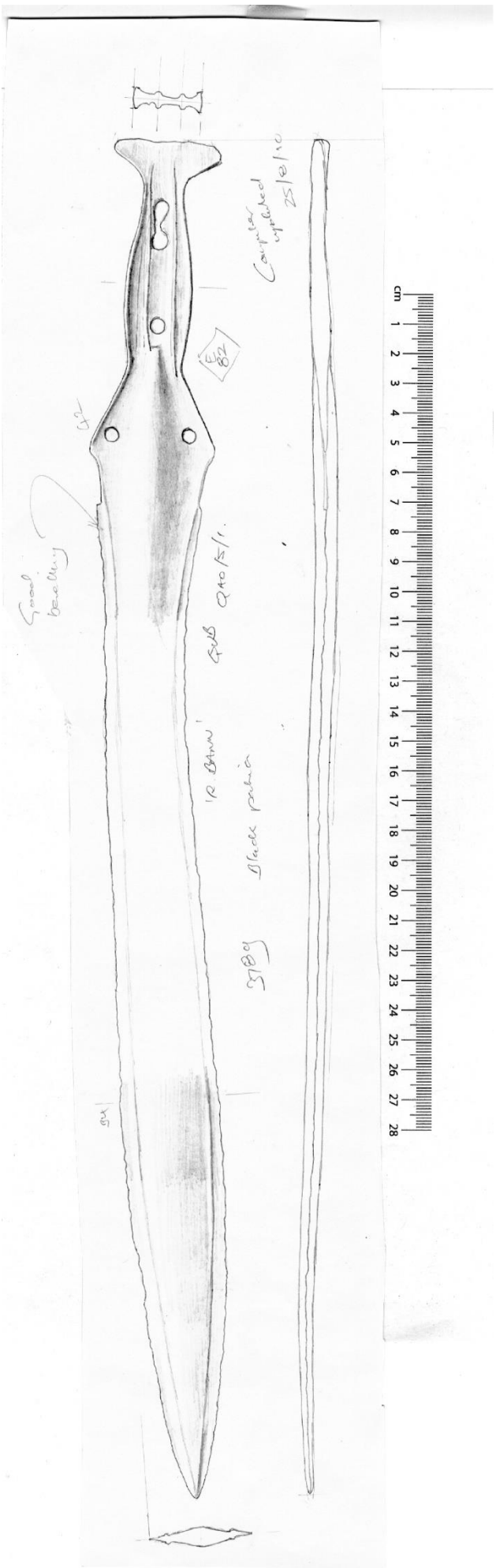
80

4/8/10
E 80
UM 212-1955
Dr. Brown patient
Camden
Label reads - 'Brought up during dredging ... between Tower Wharf and
Railway Bridge 1846 (middle section incomplete).

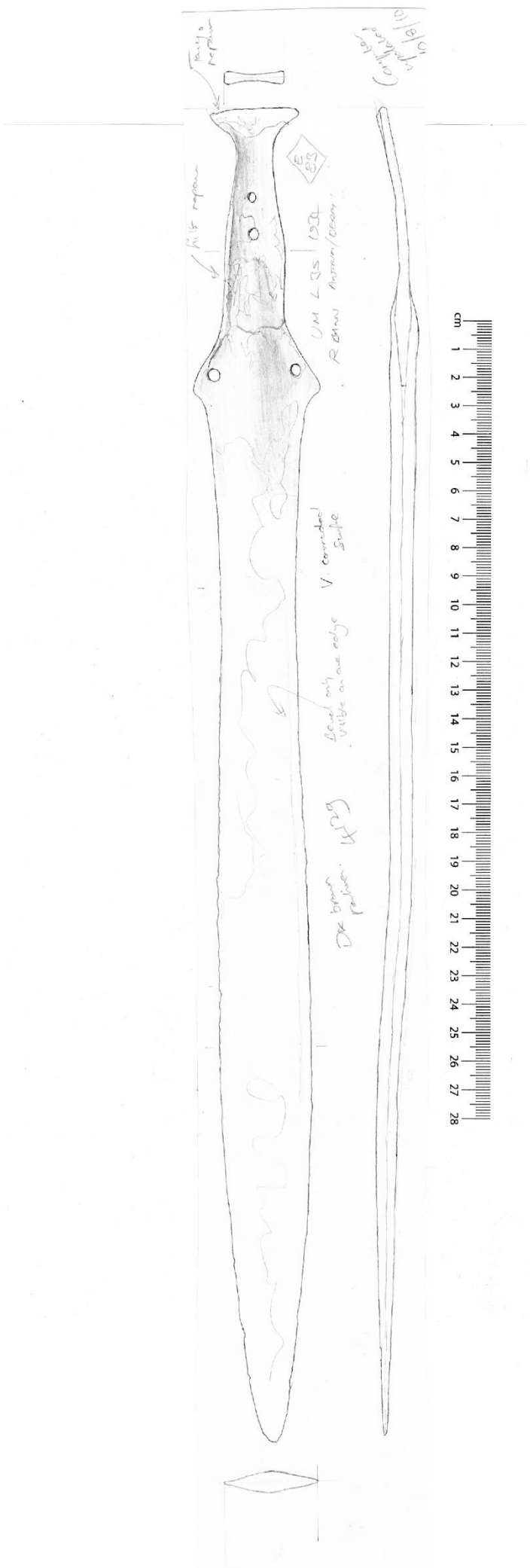
81


81
UM
L. 25 1936
SOMERSET (BAW) ANTIAN/DEVON
AM drawing
Excavation
Patchy dk. brown
patina
Too corroded for section
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

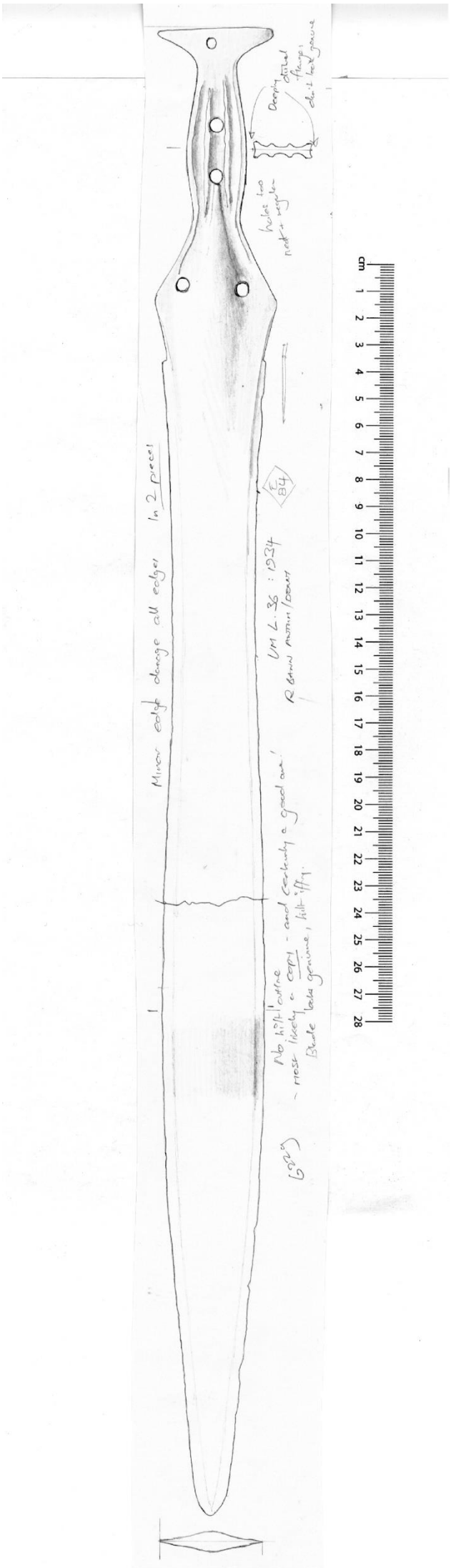
82



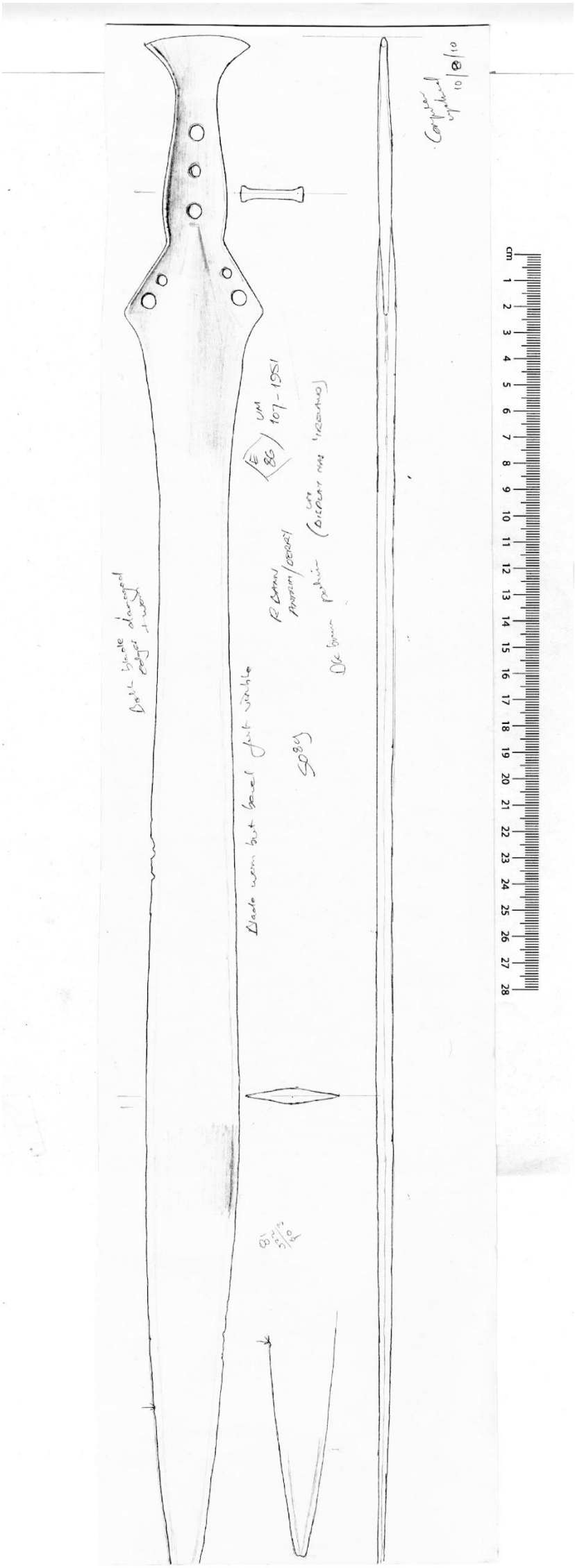
83



84


Minor edge damage all edges in 2 pieces
UM L.36 : 1934
R Bruce Mitford/Dent
Not hilt? cutting
- most likely a copy - and certainly a good one!
Blade looks genuine, hilt stiff?
Halves too
Deeply
Metal
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

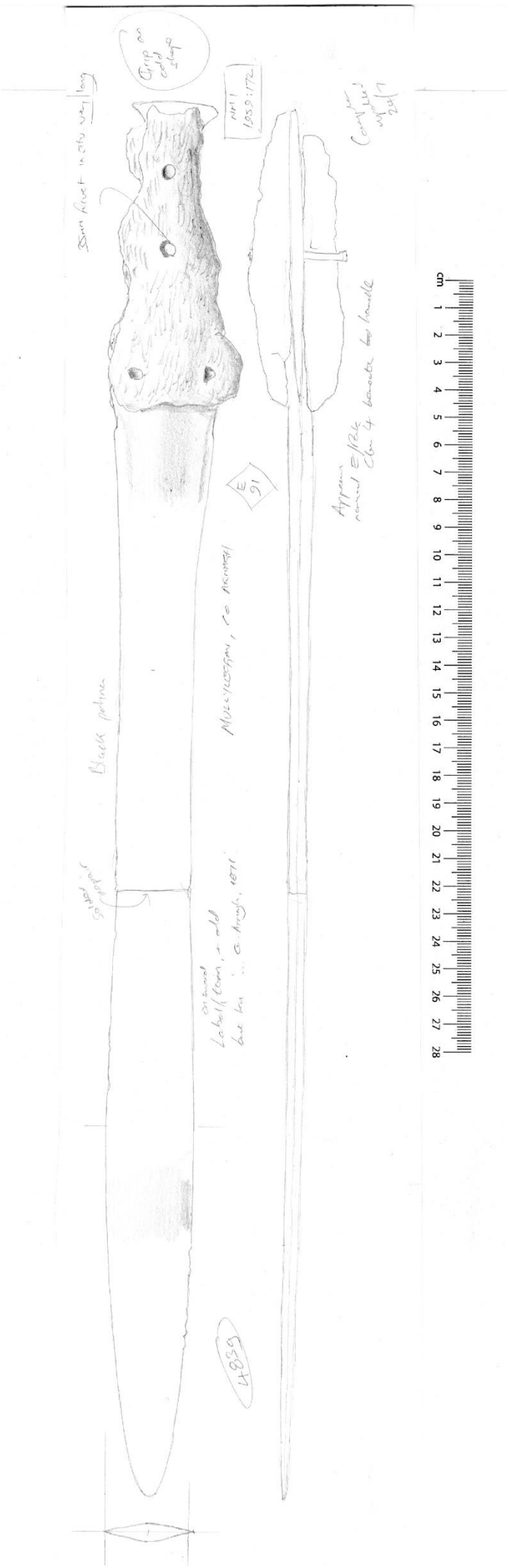
86


Blade worn but broad flat tang
Both blade damaged edges + tang
UM 107-1951
R Lamm
Ashdown/Derby
Old brown patina
(Display rod fitting)
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

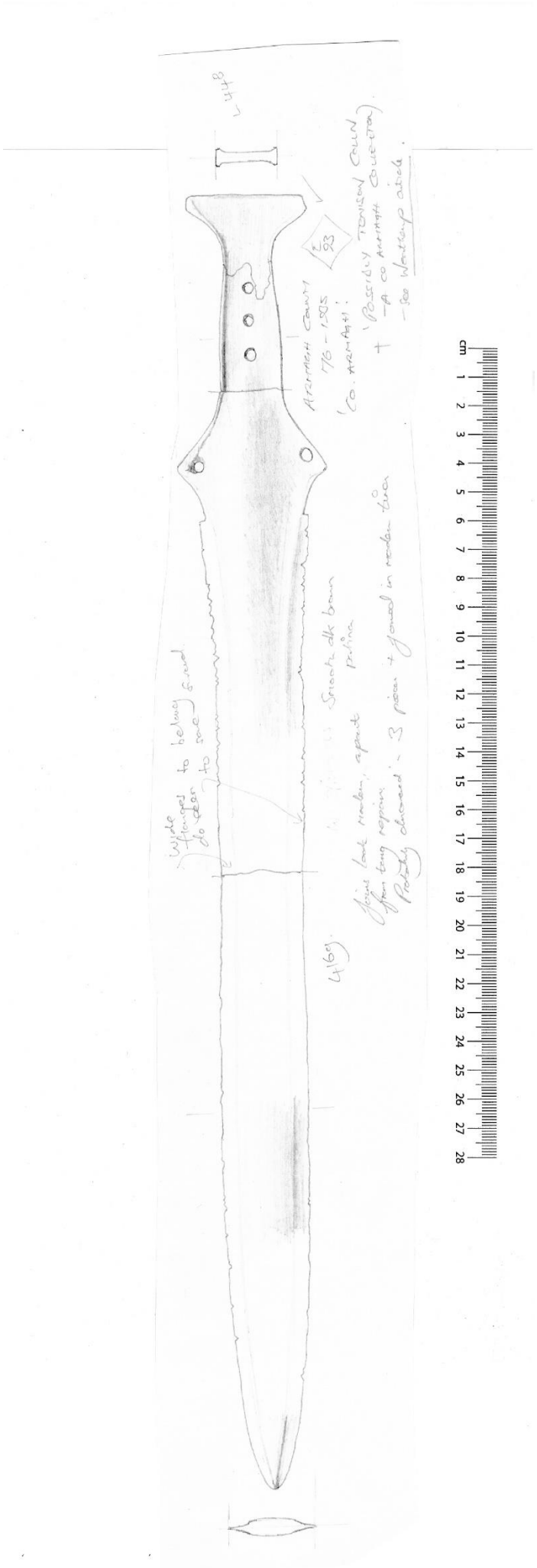
90

E 90
NMI
WS4
Black patina
both edges badly damaged
Ballymacaward, Co. Armagh
cm

91

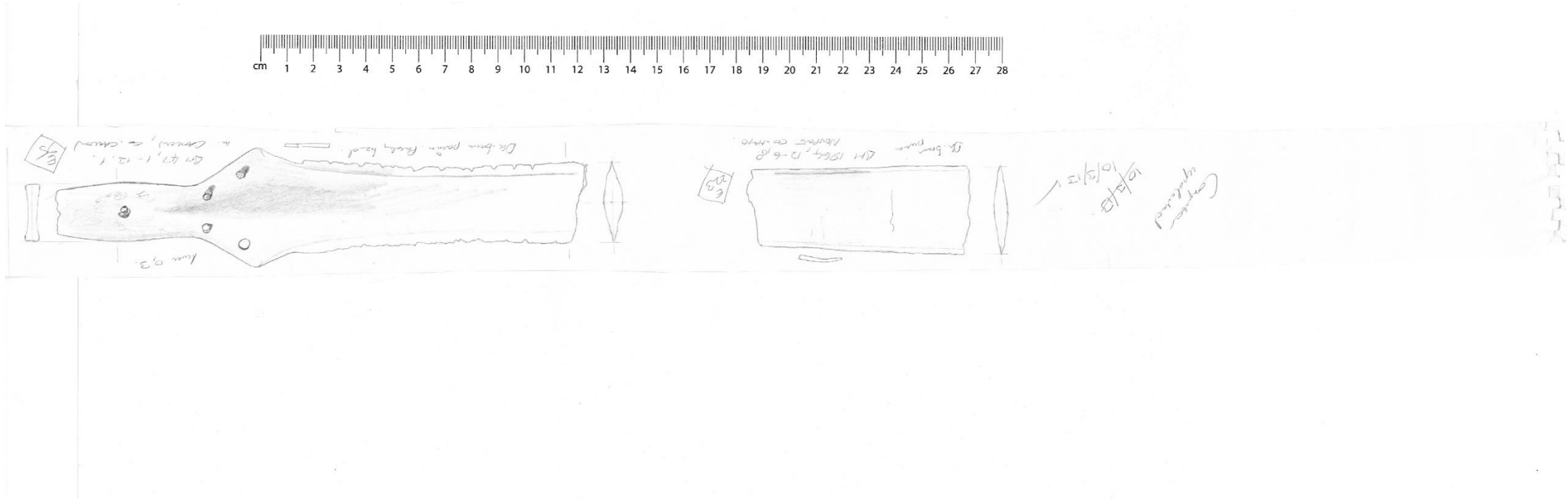


93


L448
Argument Court
176 - 1805
(Co. Armagh)
Possibly found
- A co Armagh collection
- See Wardrop sketch.
Wide
Stamped to below guard
to see
Smooth dk brown
patina
faint look marbling, spaced
from tang region
Possibly obscured - 3 pairs + joined in median line
L416
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

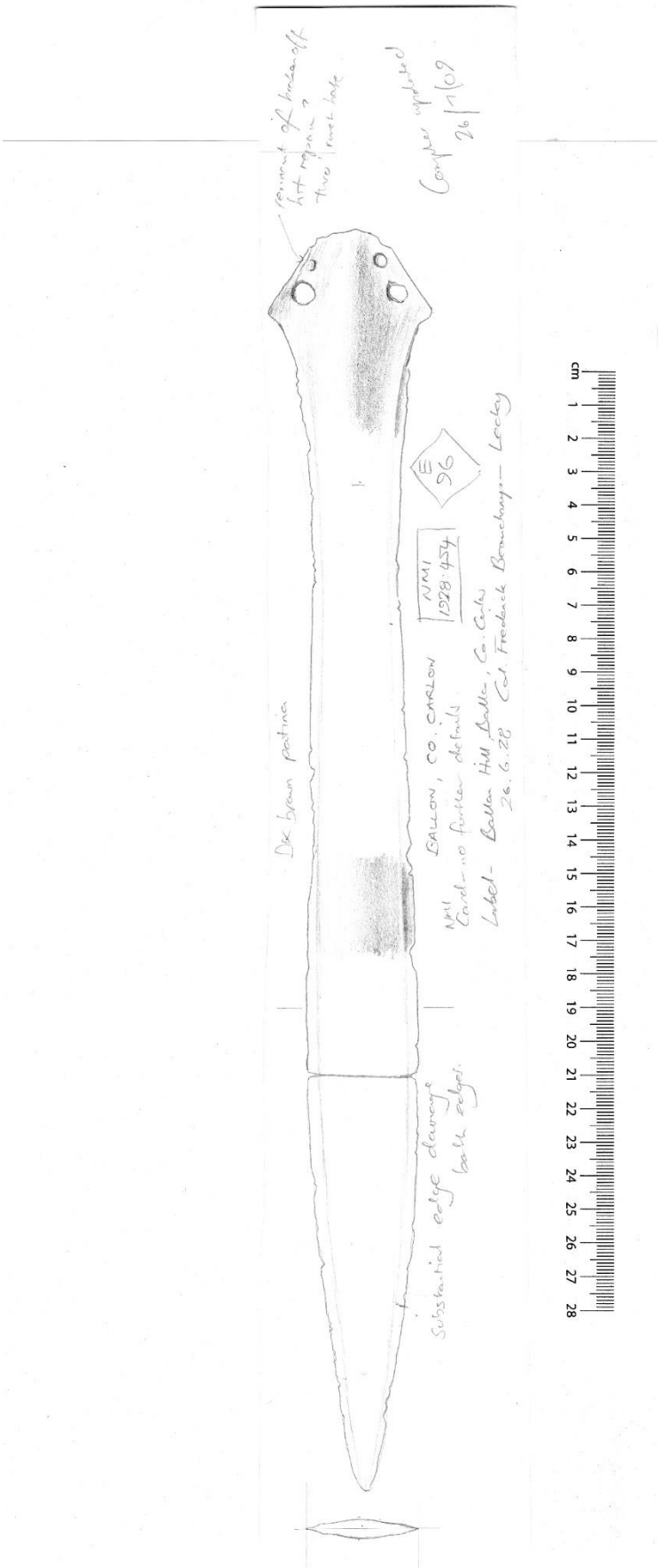
94

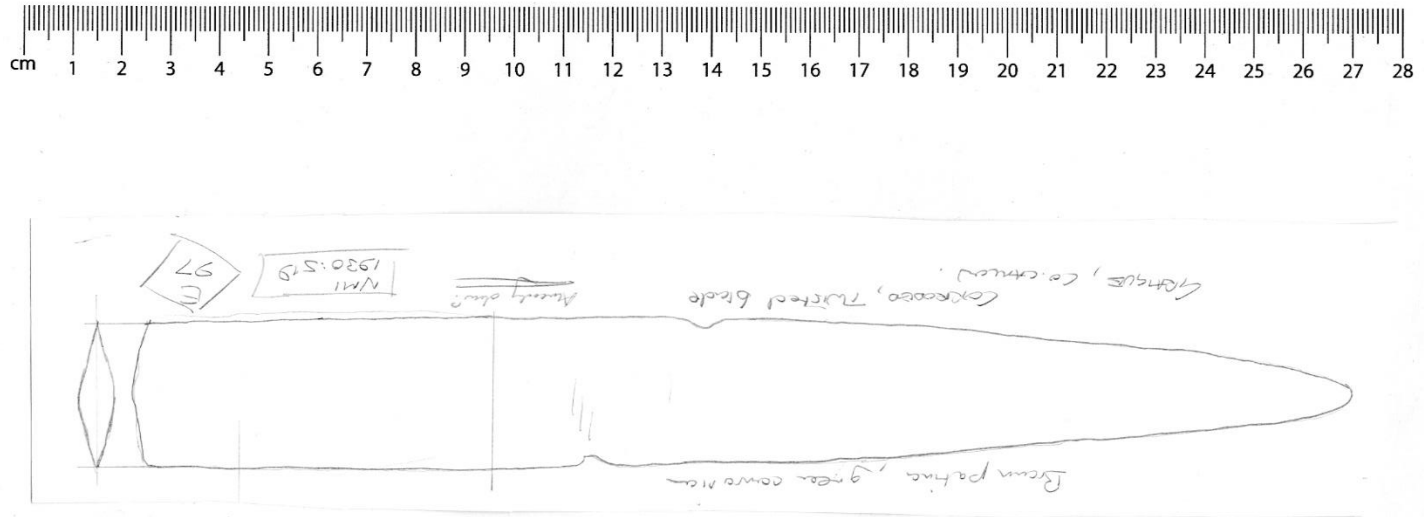
CM 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21
Blade of spear to be genuine
Modern glass
Rough cast
Fake
Armagh County
177 - 1935
Co. Armagh
Dk. brown patina



95
223

96


Fragment of handle? Rt margin + two rivet holes
Complete when found 26/7/09
Dk brown patina
Substantial edge damage both edges
NMI Carl. no further details
CARLOW, CO. CARLOW
NMI 1928:454
Label- Ballon Hill, Ballon, Co. Carlow 26.6.28 Col. Frederick Bouchery — Lecky
96
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28


cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
E 97
NMI 1920.57.9

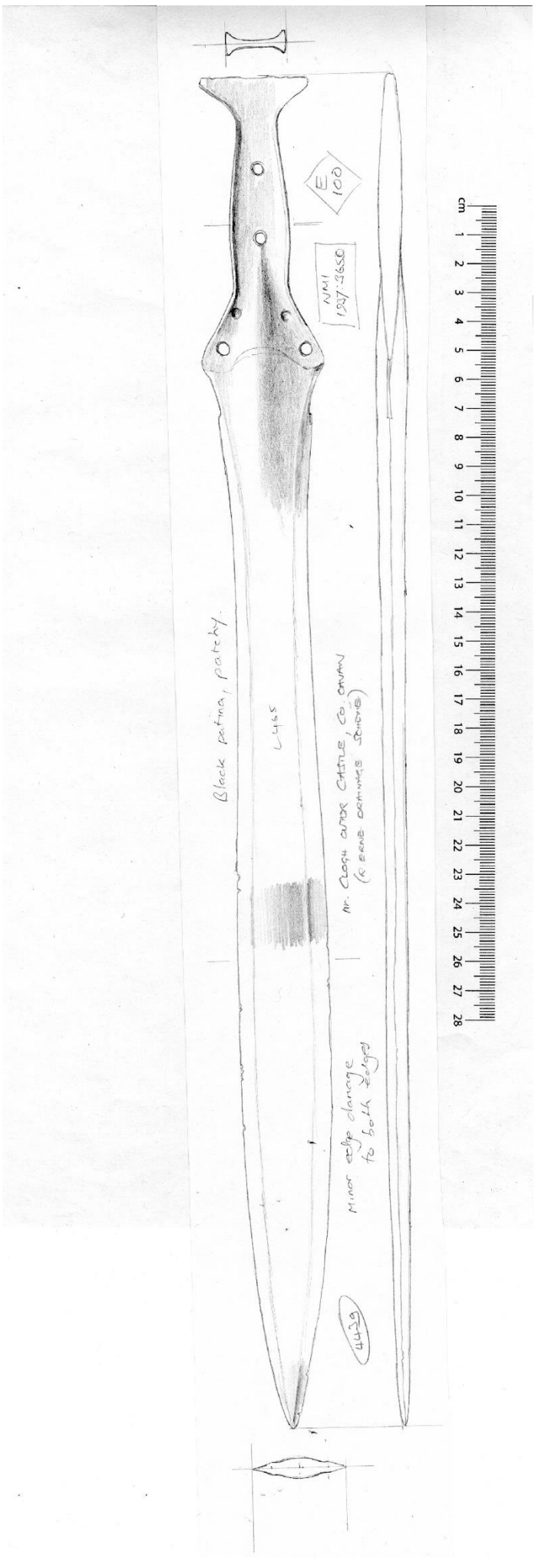
98

Impossible to see hilt details beneath modern bone handle
NMI 1930:127
E98
Worn blade. Patchy black patina
Ardcaw, Co. Cavan
slightly bent
E: 'In a field beside Cudcogh Lough'.
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

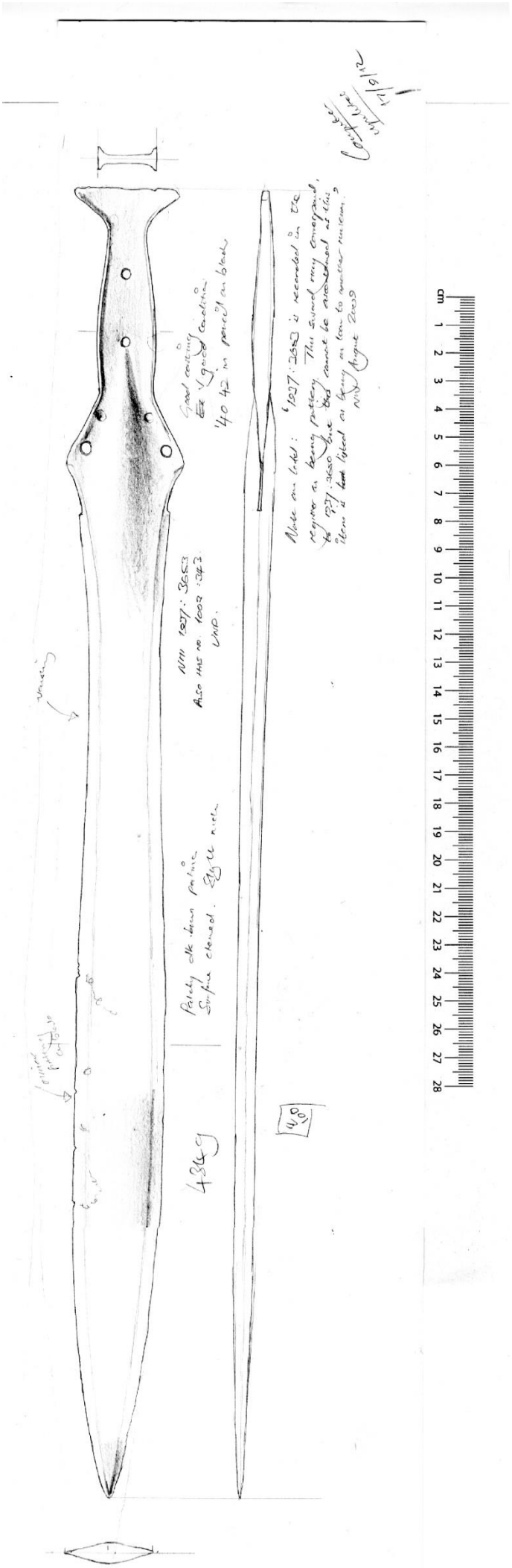
99

Ballycrovane, Co. Cork
E 99
NMI 1999:820
Black patina
V. worn blade
'Ballycrovane'
written on blade
Nicking / use on edge
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

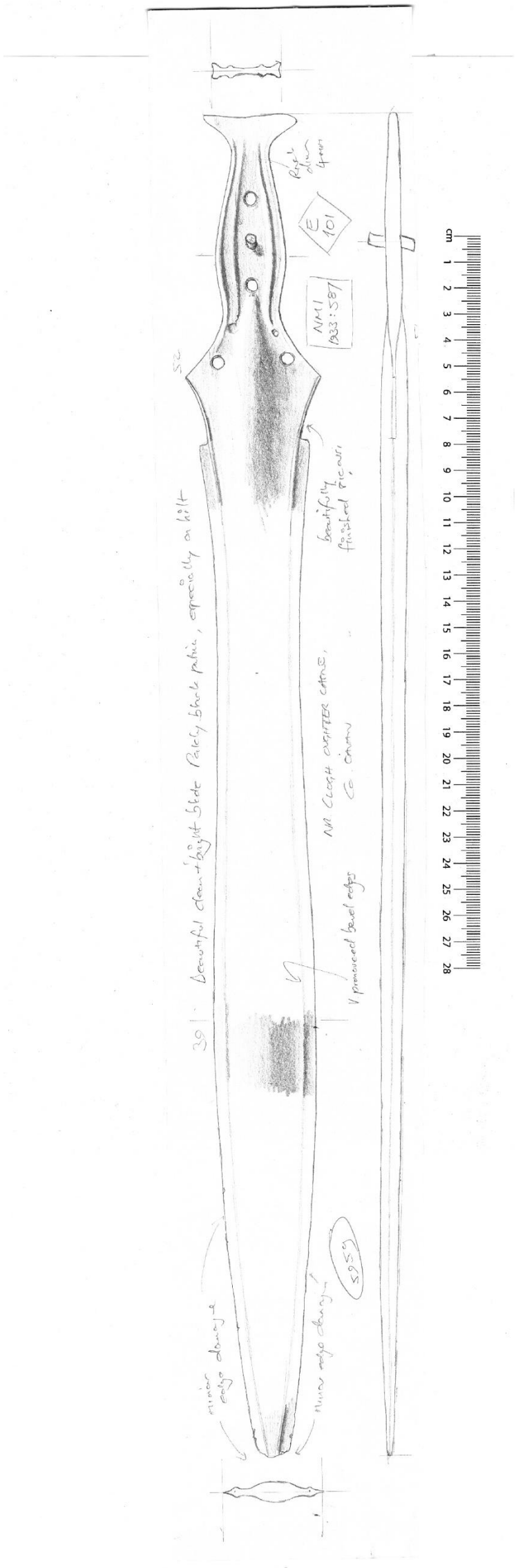
100


E 100
NMI 1987.0650
Black patina, patchy.
L465
Mr. Clogh Gaur Castle, Co. Offaly
(4 bone pommel studs)
Minor edge damage to both edges
4429
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

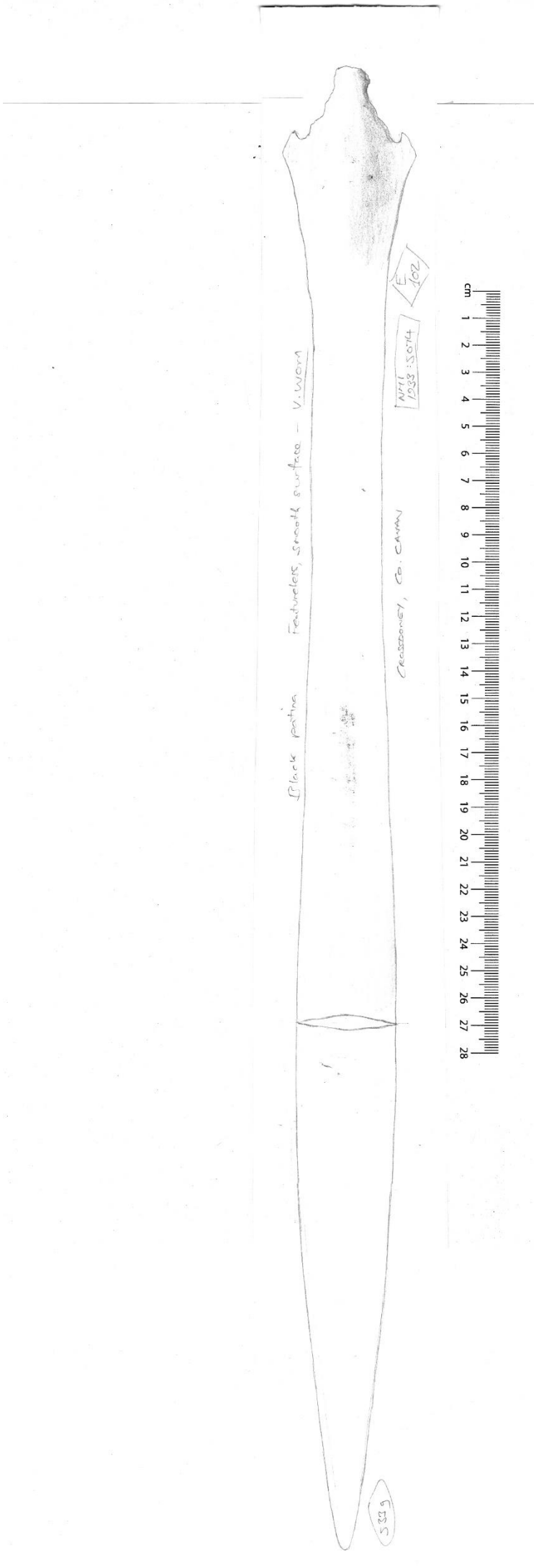
100 (2)



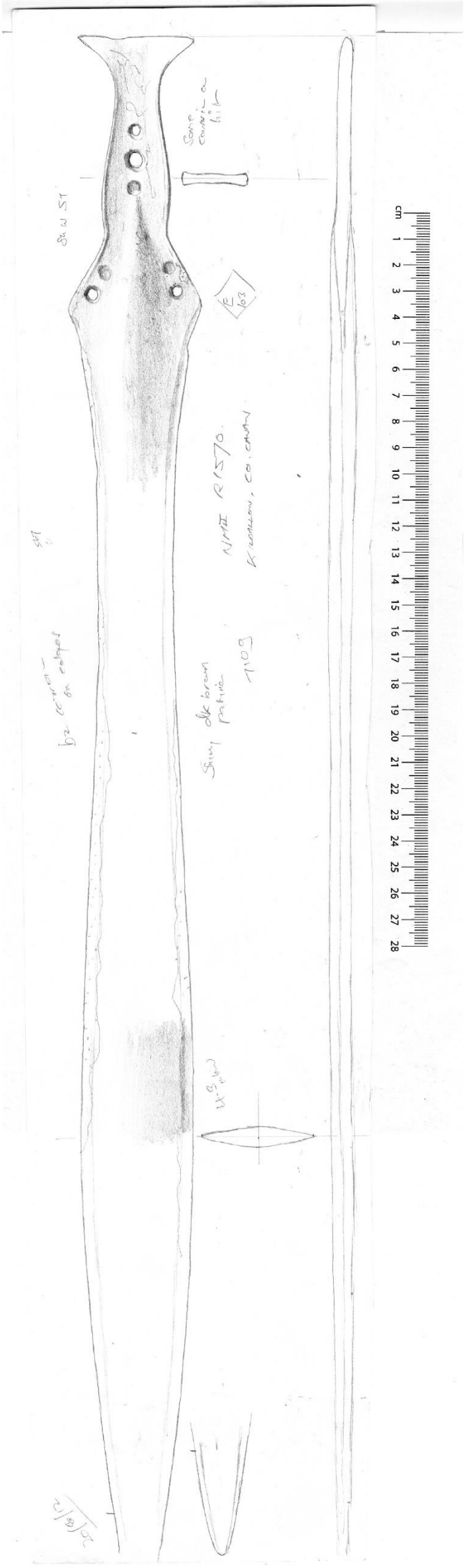
101

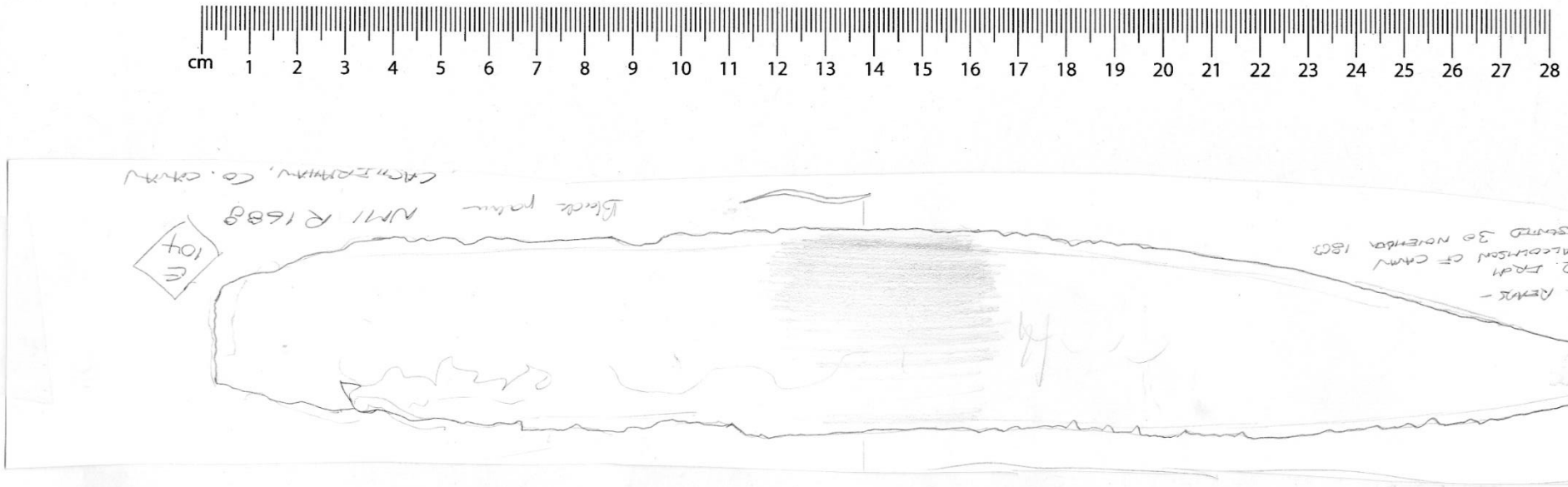

E 101
NMI 1933:587
Beautifully finished Piece,
NM Clough Antiquities Centre, Co. Down
V pronounced bevel edges
minor edge damage
minor edge damage
cm

102


Black patina
Featureless, smooth surface - V. worn
Crossdoney, Co. Cavan
NMI 1933:5074
E 102
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

103





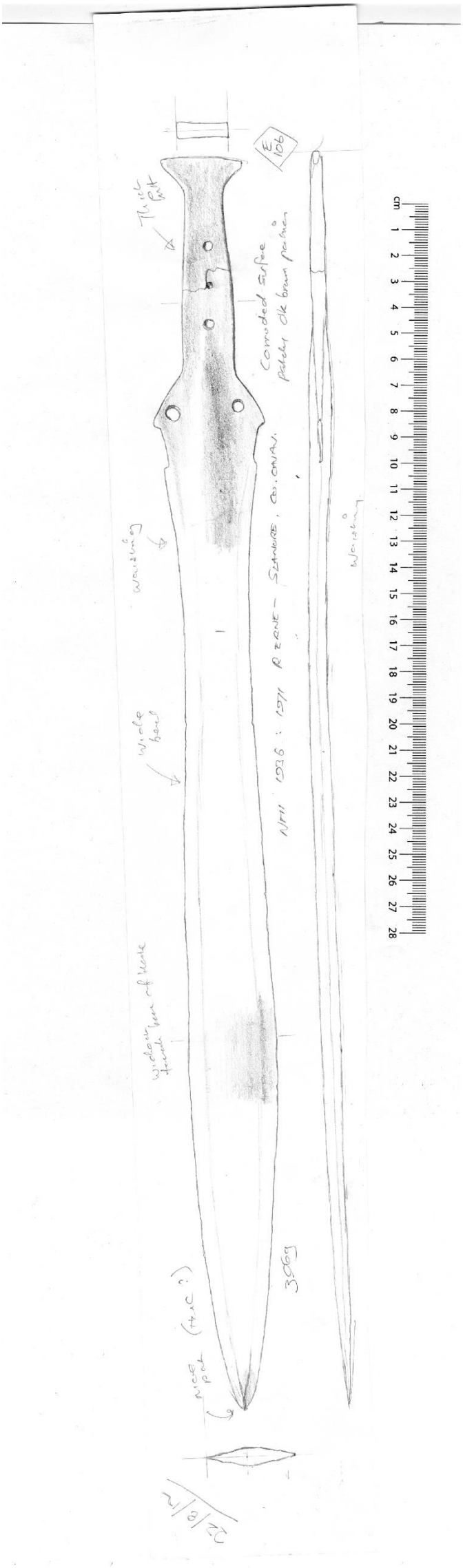
104

105

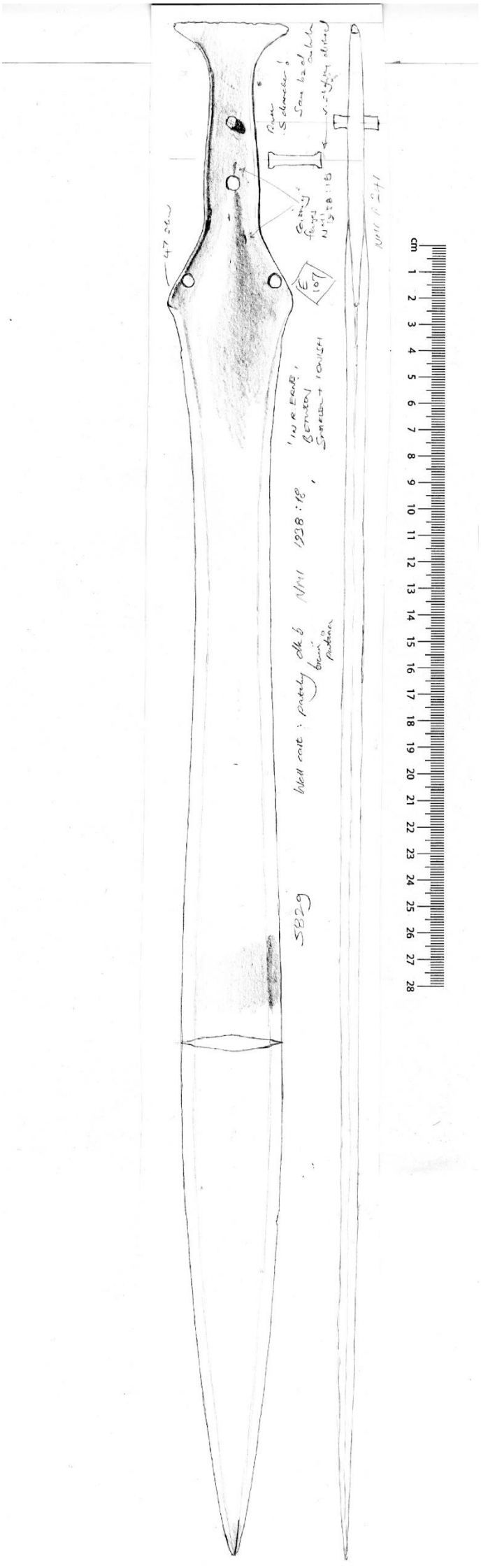

NMI P1955.2
green glaze
E.105
LISBOERG
CO CAVITY
NO OTHER DETAILS


cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

106


E 106
Thick butt
Corroded surface
Patchy dk brown patina
NMI 1936 : 1971 R ERNE – SLANORE, Co. CAVAN.
Waisting
Waisting
Wide bevel
Widest towards base of blade
306g
nice point (H+C ?)
22/8/12
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

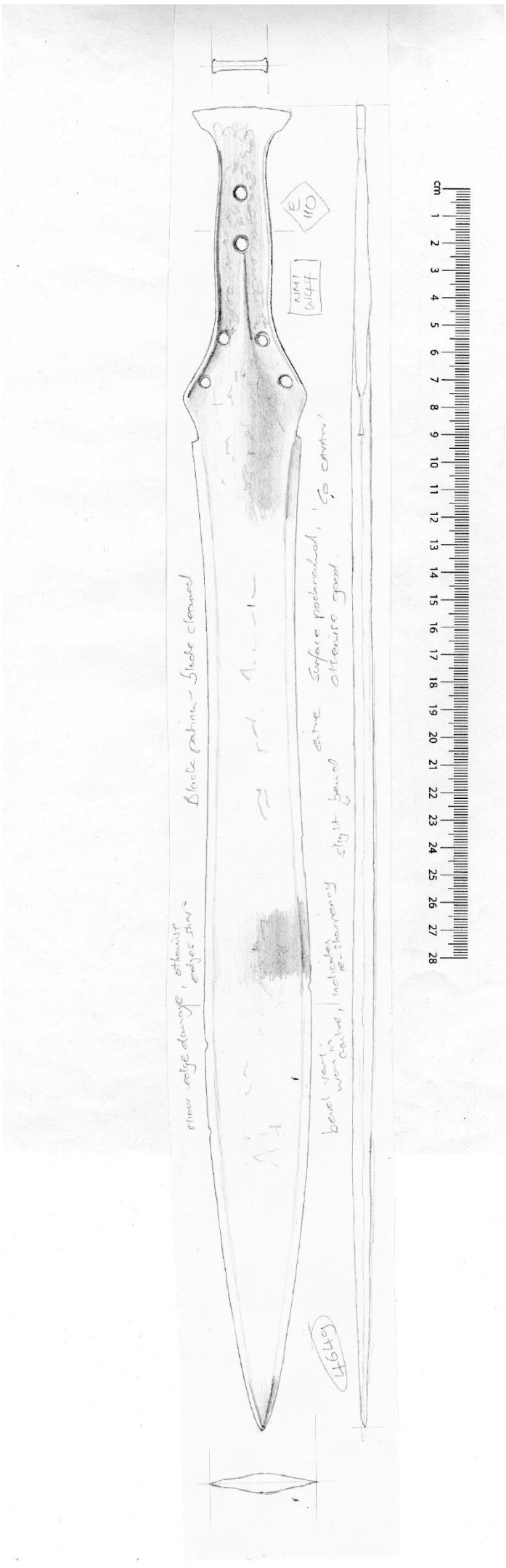
107



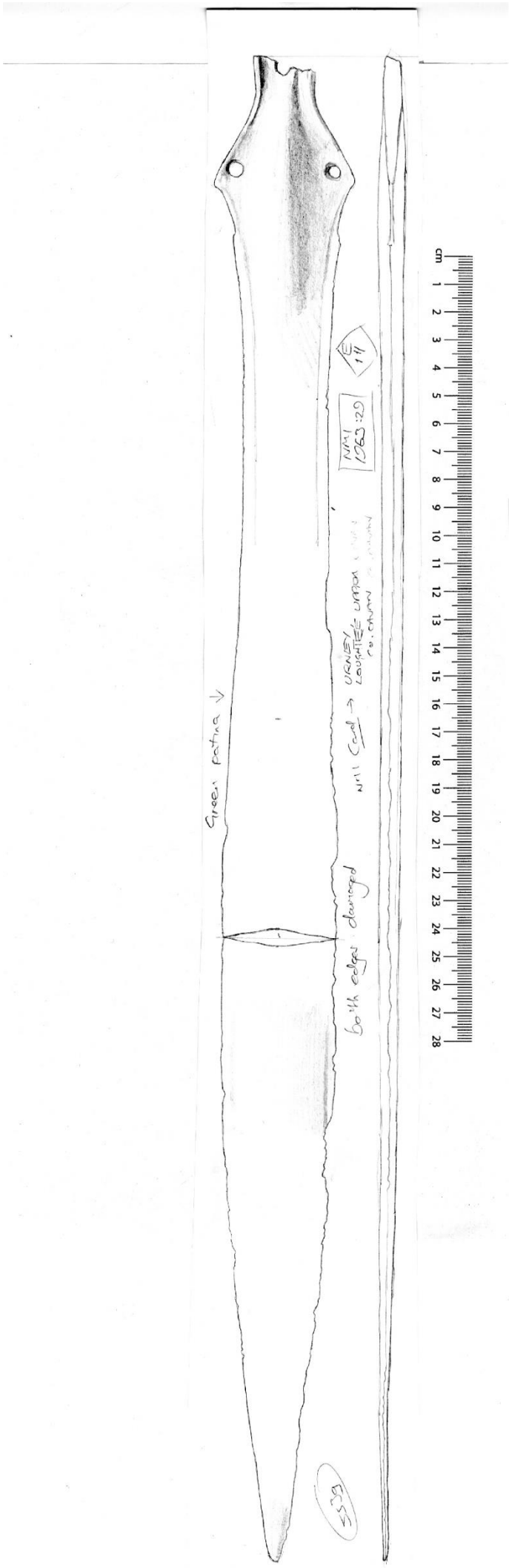
108

Green patina. Dk brown patches.
Label - 'ASSER, TRINITY IS. Co. CORK'
NMI 1937:2852
bent
EE 108
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

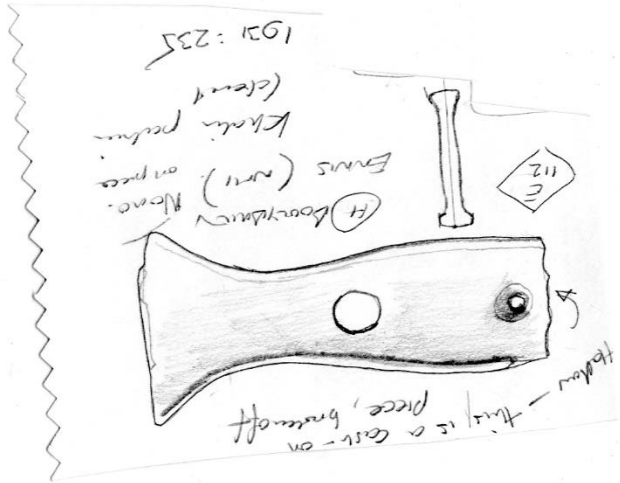
110


E 110
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

111

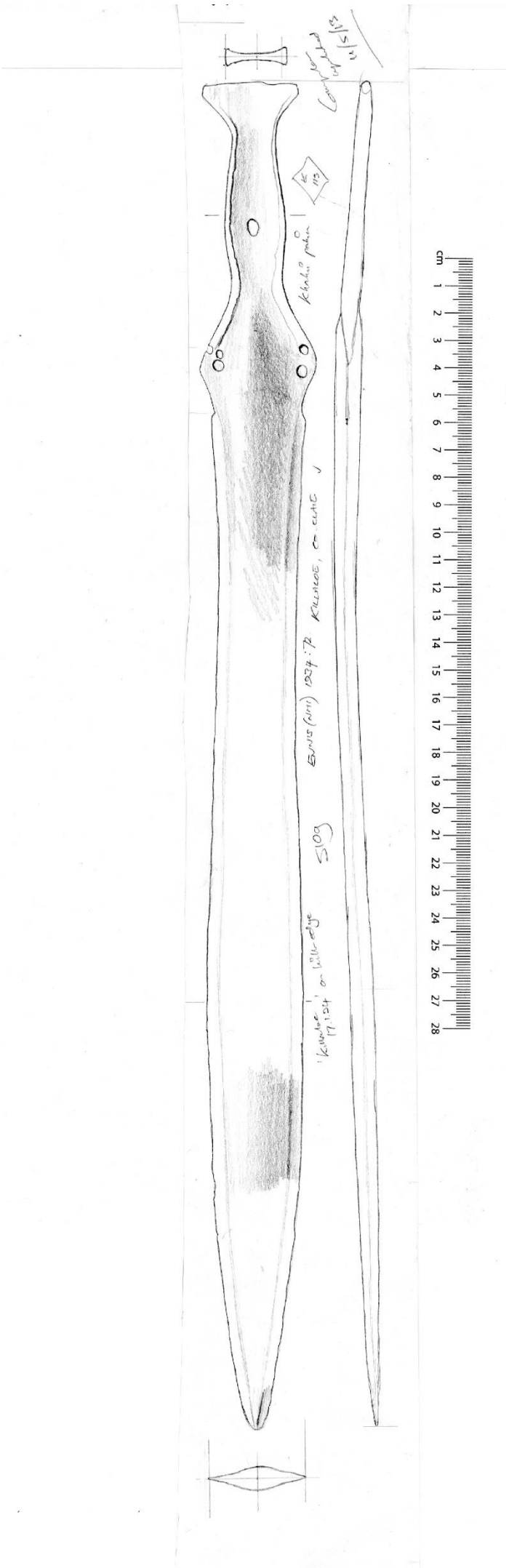

Green patina
both edges damaged
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28


cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

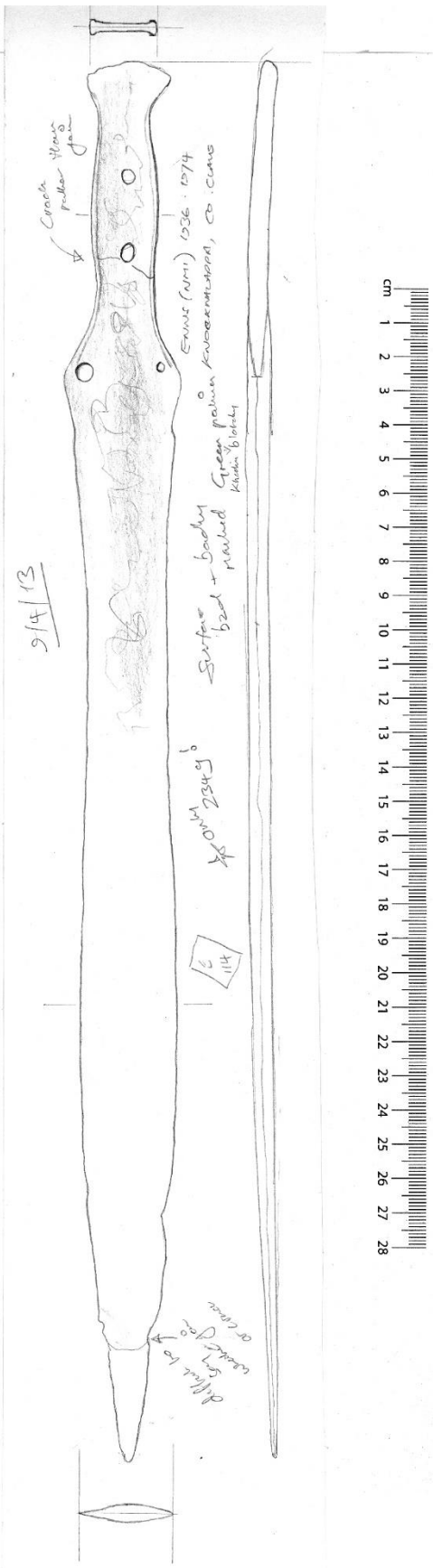

Humerus (arm) bone. Also called the upper arm bone.
Elbow — this is a close-on piece, broken off

112

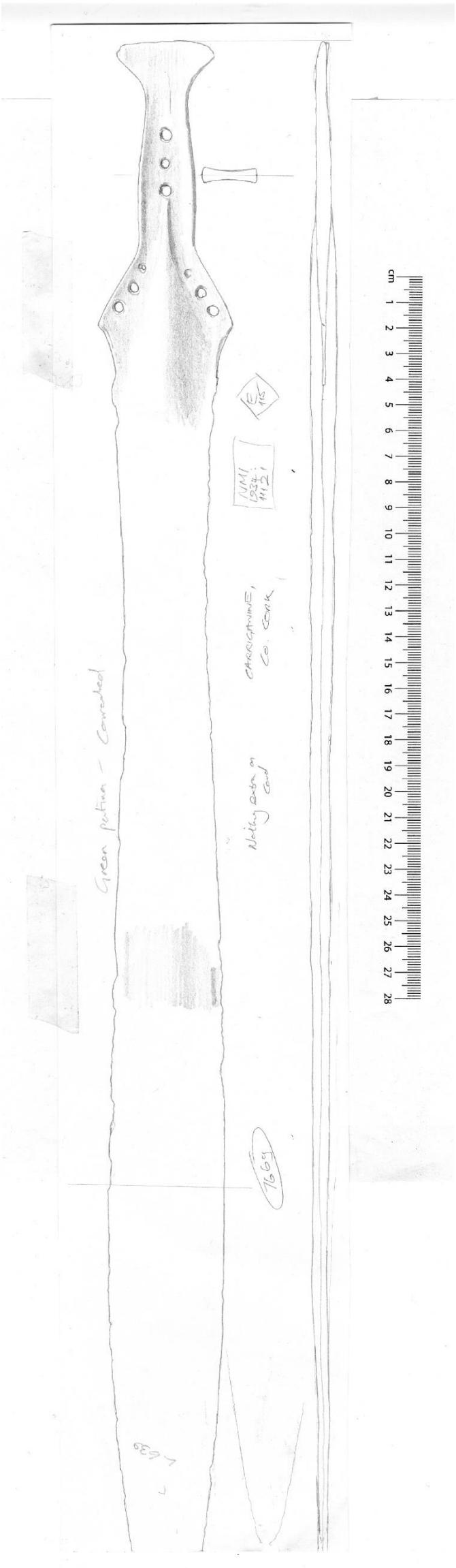
113



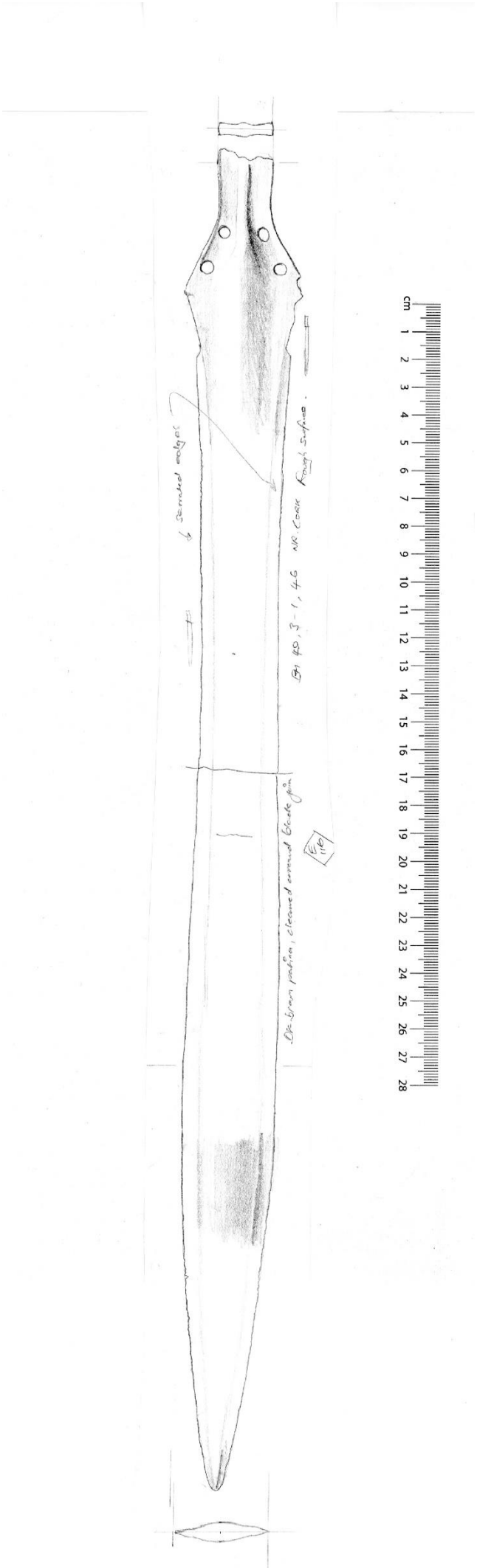
114



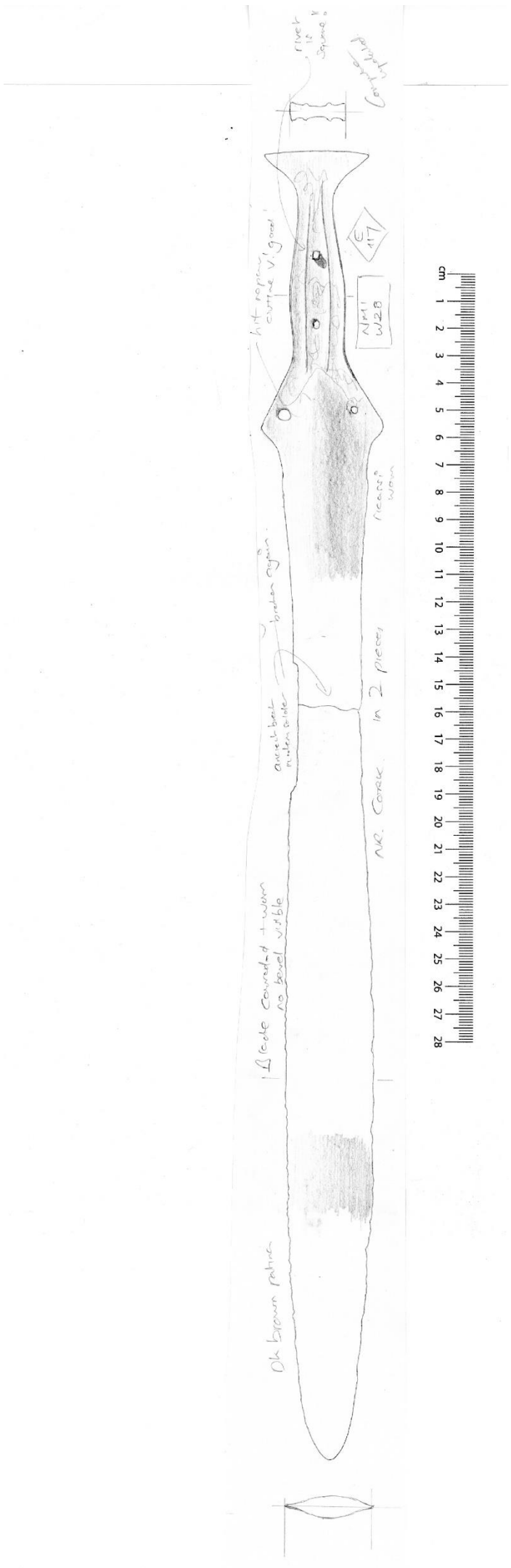
115

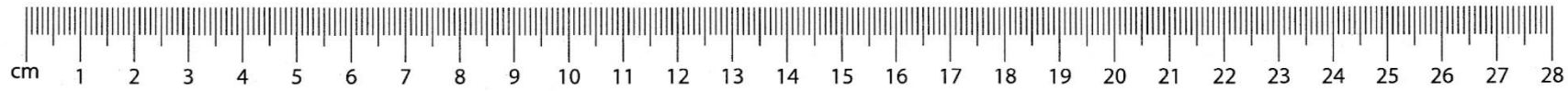

Green patina - Corroded
CARRIGTWOHILL, Co. CORK
Writing extra on card
NMI 1934: 412:1
E 115
1669
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

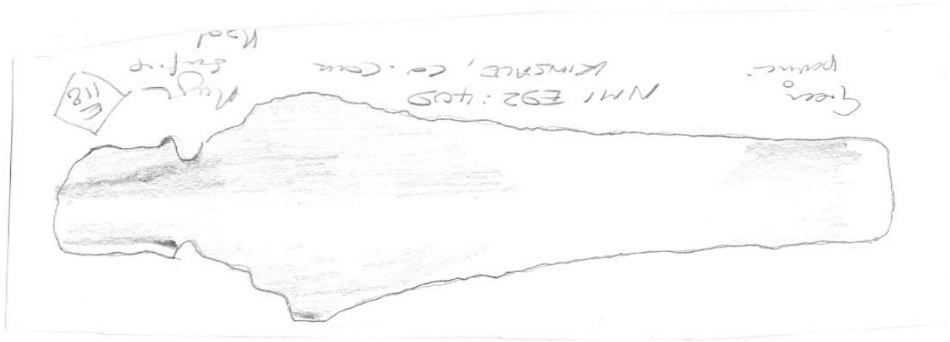
116



117




cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28



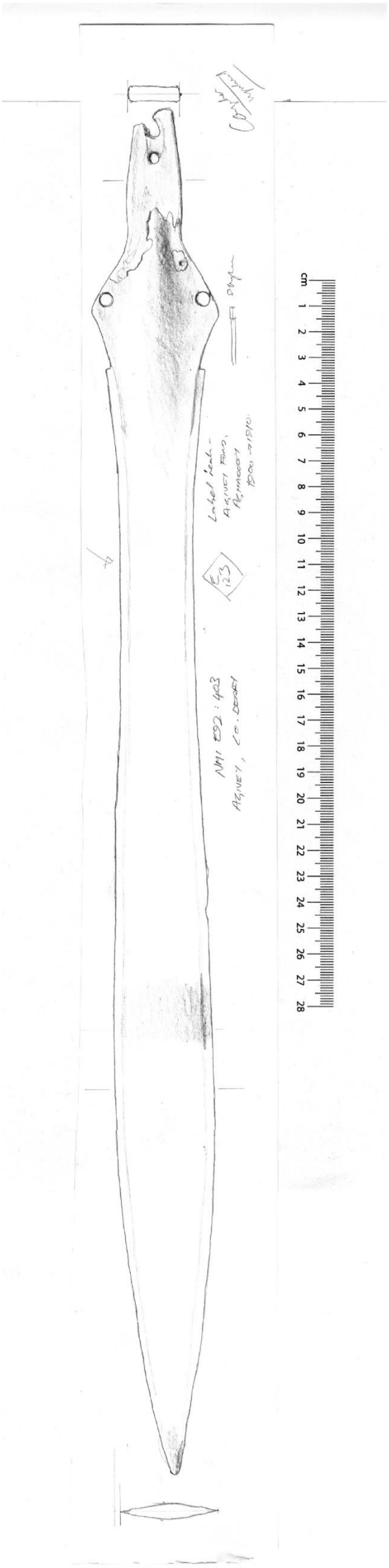
119

round notch 3 mm
broken off neck
Too corroded for blade section
Label read - Dept Collection Cat. No. 366(1)
MEDASTONE CARNIGALINE
MIDDLESTEAN. Co. Durham. (E) UNI 465.1937
Spoon on blade
Pointer
elk bone on left
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

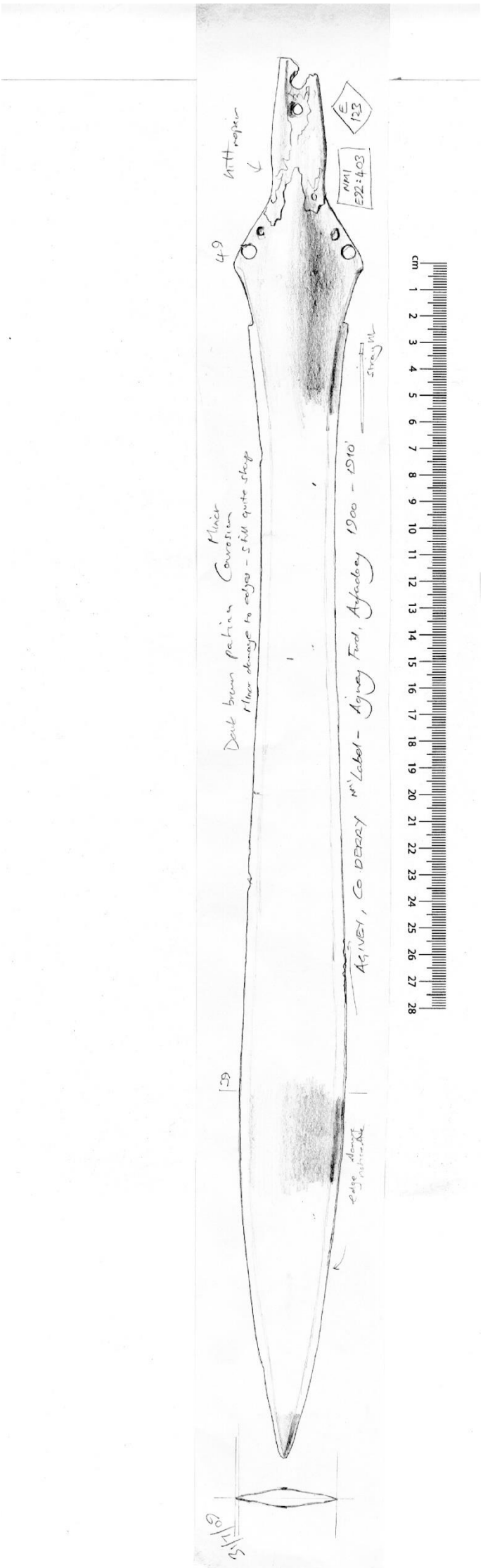
120

Very corroded with dk brown patina beneath — impossible to guage
NMI 1982:4
E20
TOUREEN MORE WEST, Co CORK
NMI 1982:4
E - I found within what may be the remains of a stone circle
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

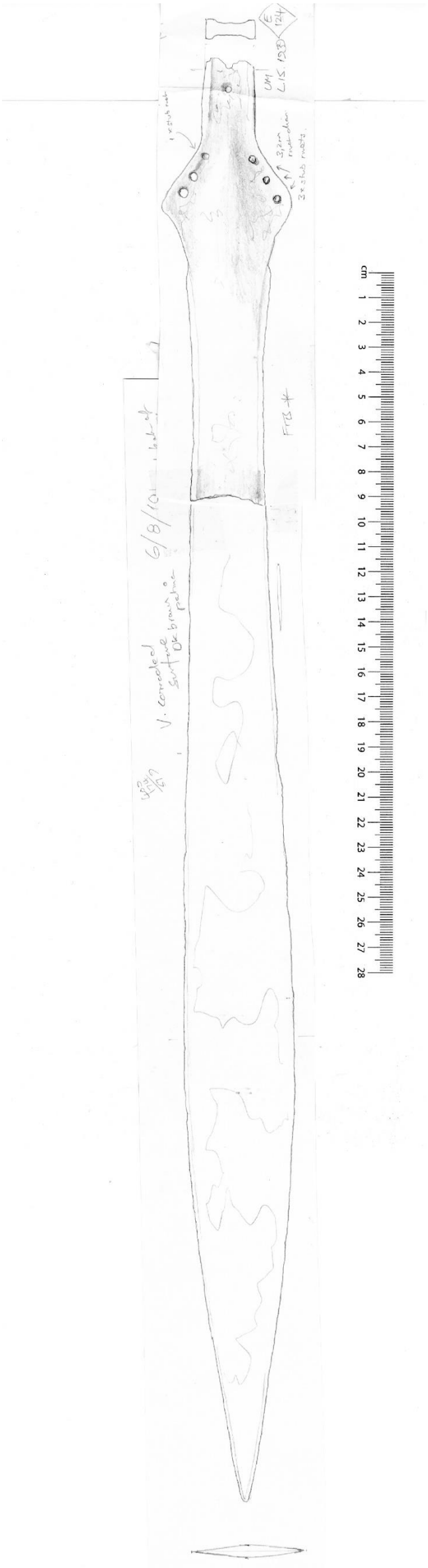
123



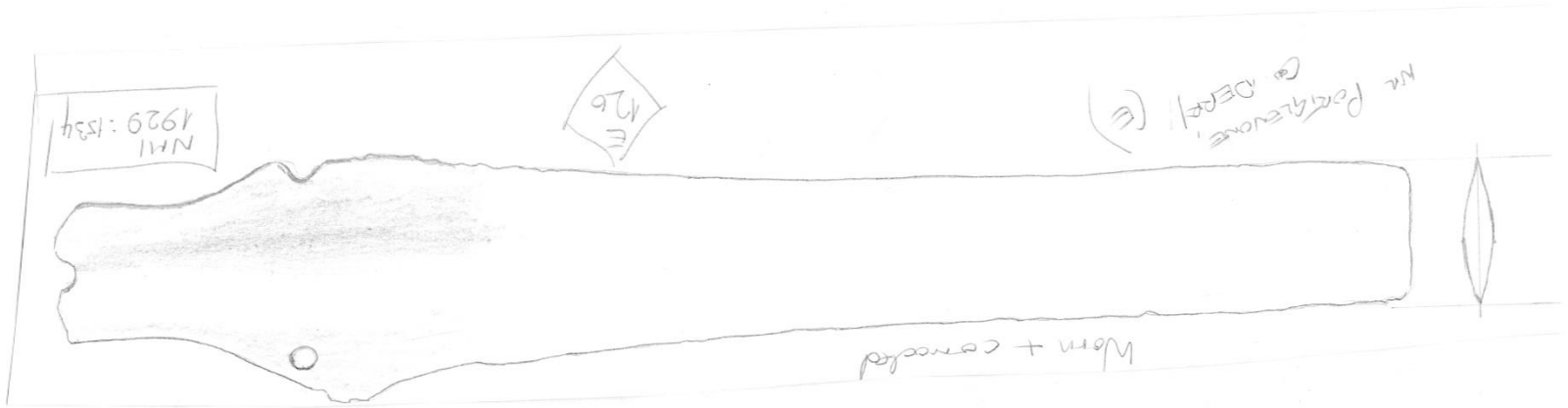
123 (2)


E 123
NMI E22:403
Arthrogram
49
Dark brown patina
Minor corrosion
Minor damage to edges - still quite sharp
Strong Mid
Ag/VBT, Co DERRY
N° Label - Ayrey Fud, Aghadoey
1900 - 1910'
39
Edge damage
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

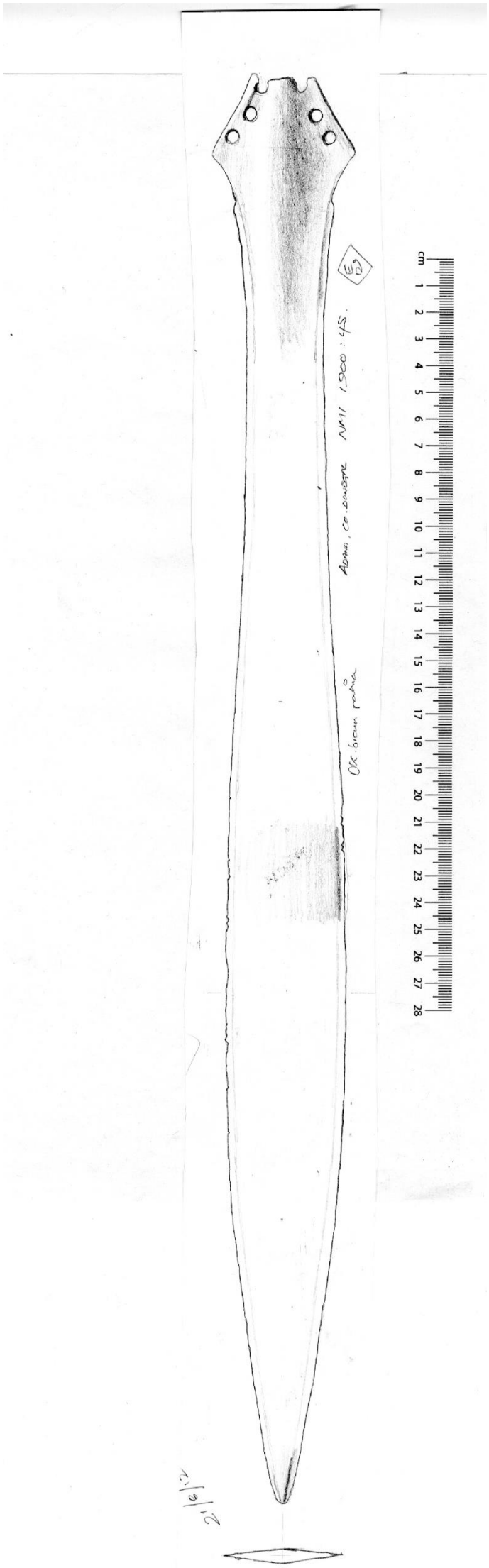
124


E 124
UM L15 1938
3 x stub rivets
3 x stub rivets
FIG 4
6/8/10
V. corroded
Surface
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

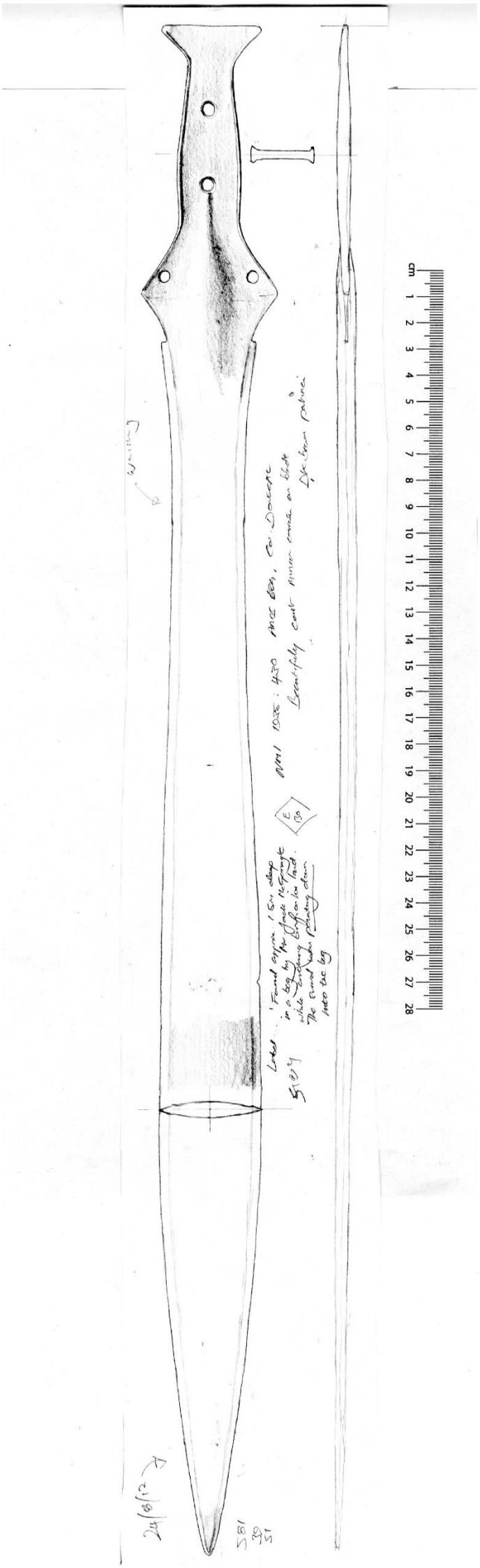

cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28


NMI
1929 : 1534
E
426
Worn + corroded

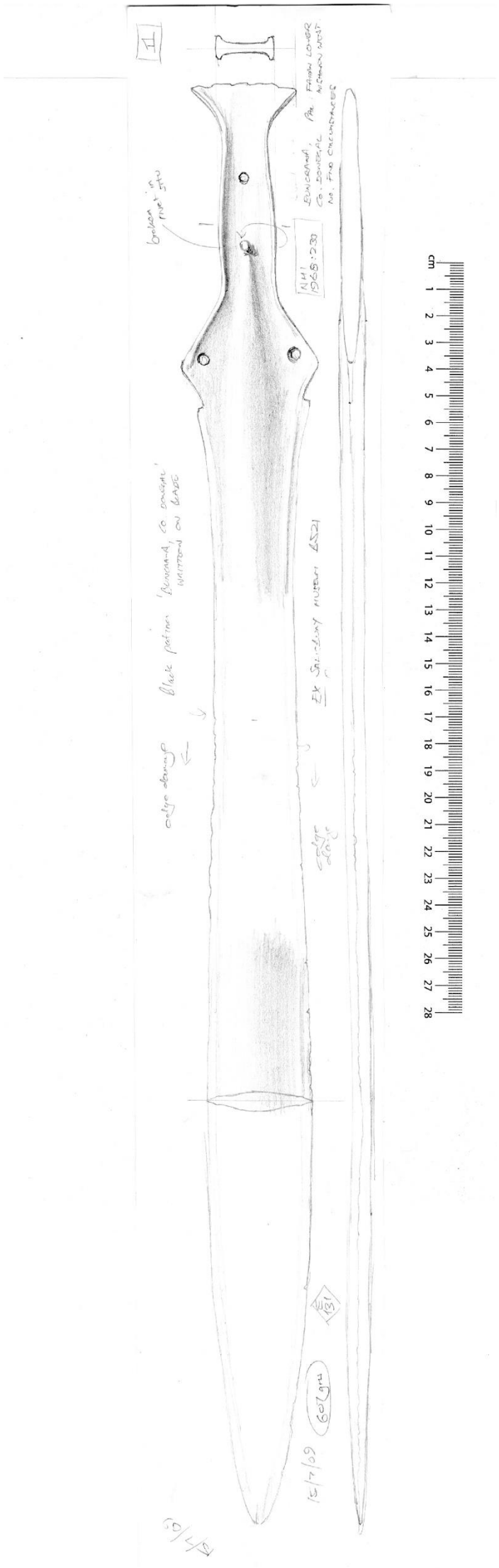
129


Adana, Ceyhan NM II 1.500 : 45.
OK: brown patina
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
21/6/17

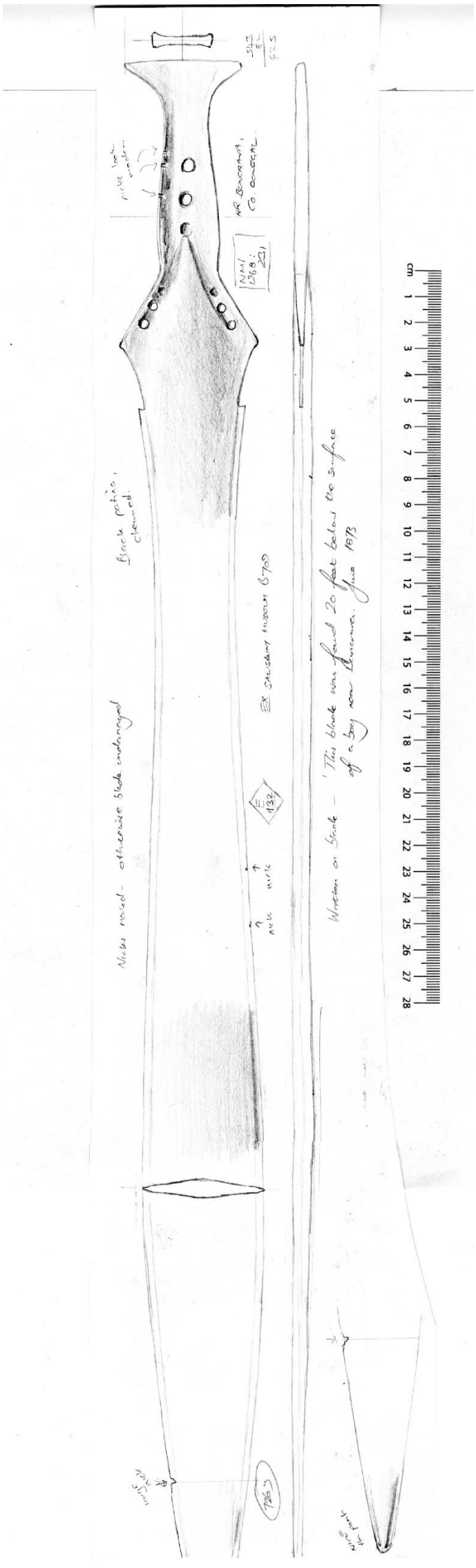
130

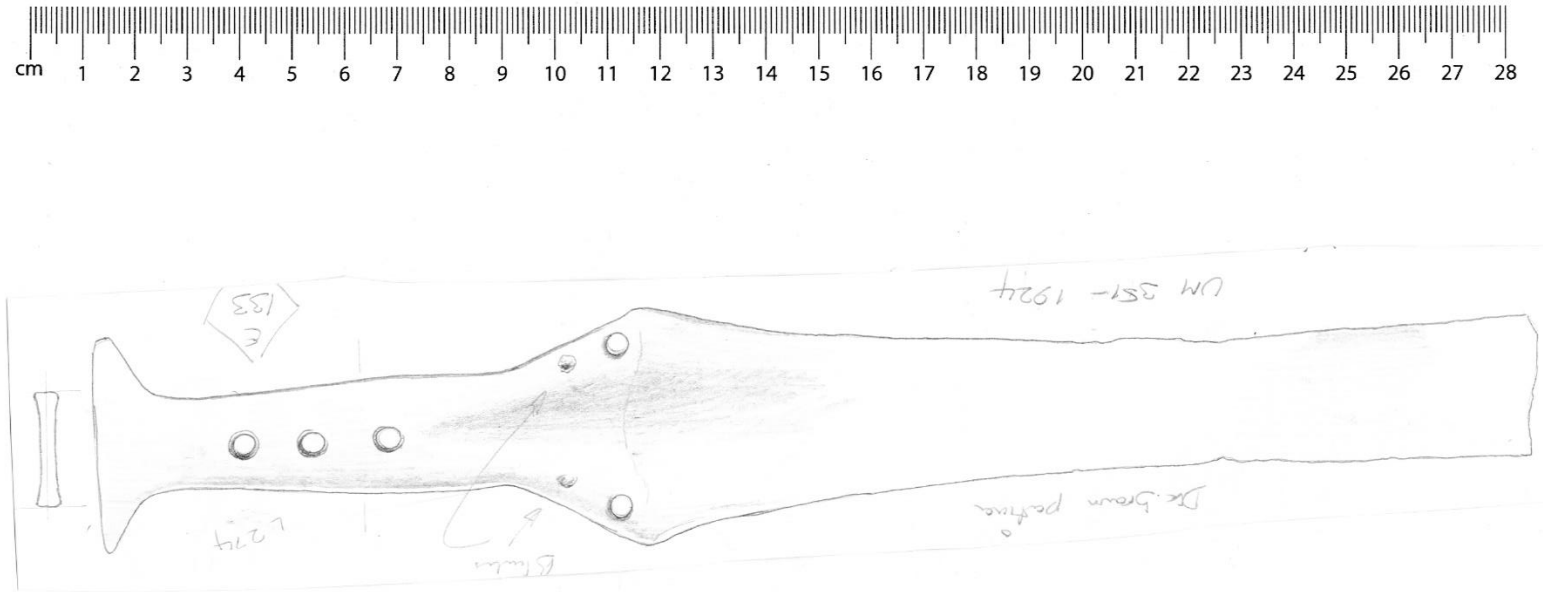


131


11
broken + lost
NMI 965:230
EX SALISBURY MUSEUM 1521
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

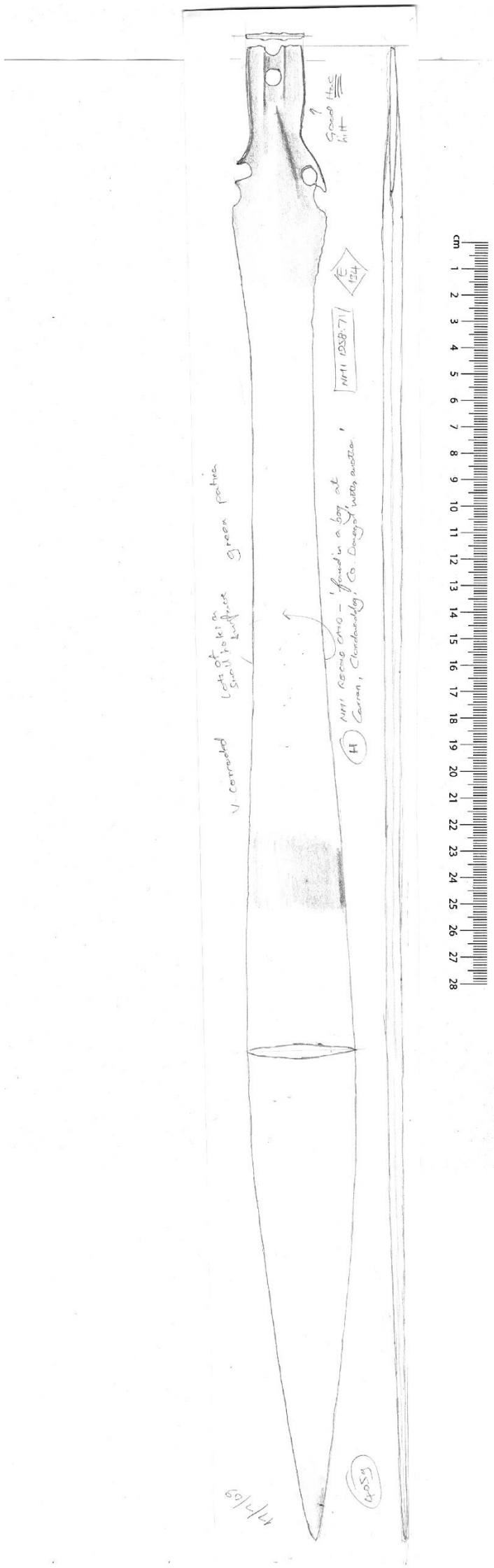
132


Nickel mixed - otherwise blade undamaged
Blade partly cleaned.
Ex Salisbury Museum B703
Wooden on blade - 'This blade was found 20 feet below the surface of a bog near Laverna. June 1873
cm

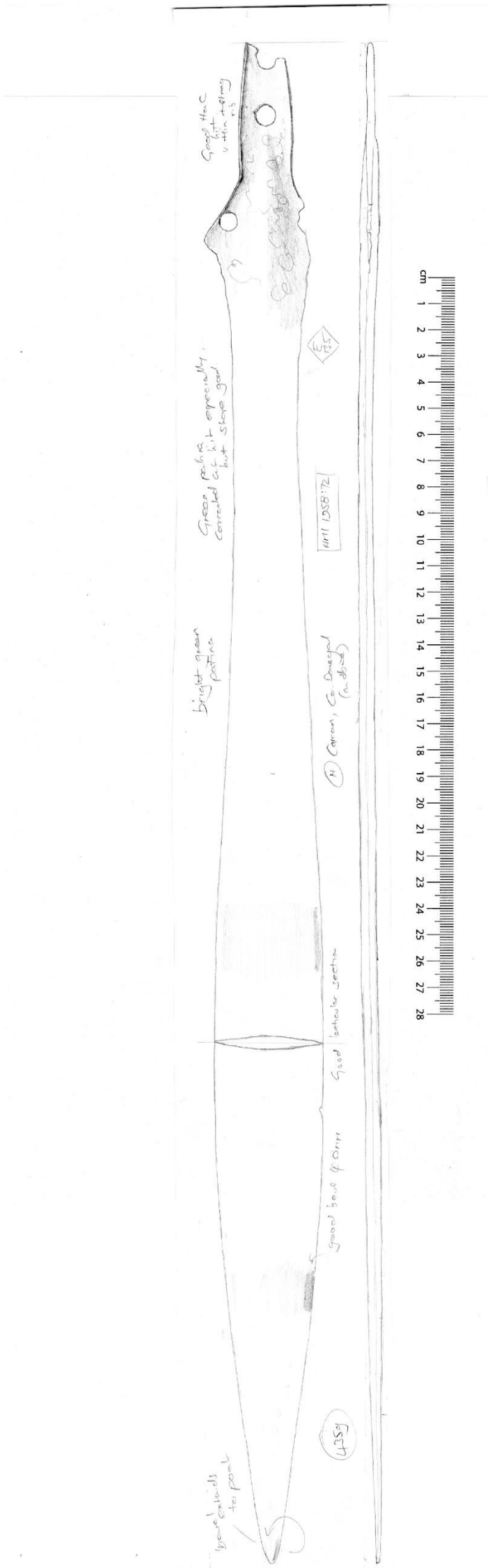


133

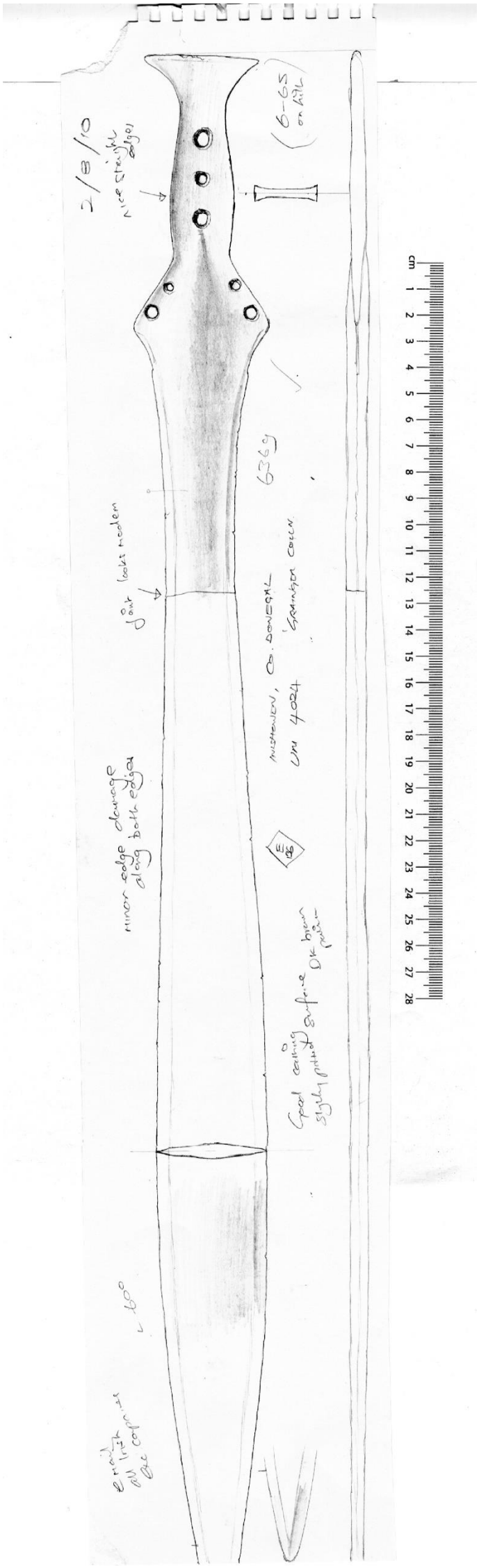
134


Good Hilt
NMI 1958:71
E 174
NMI Racing Gig – 'found in a bog at Carran, Clondevaddog, Co Donegal' with motor
H
Lots of small holes
Green patina
V corroded
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

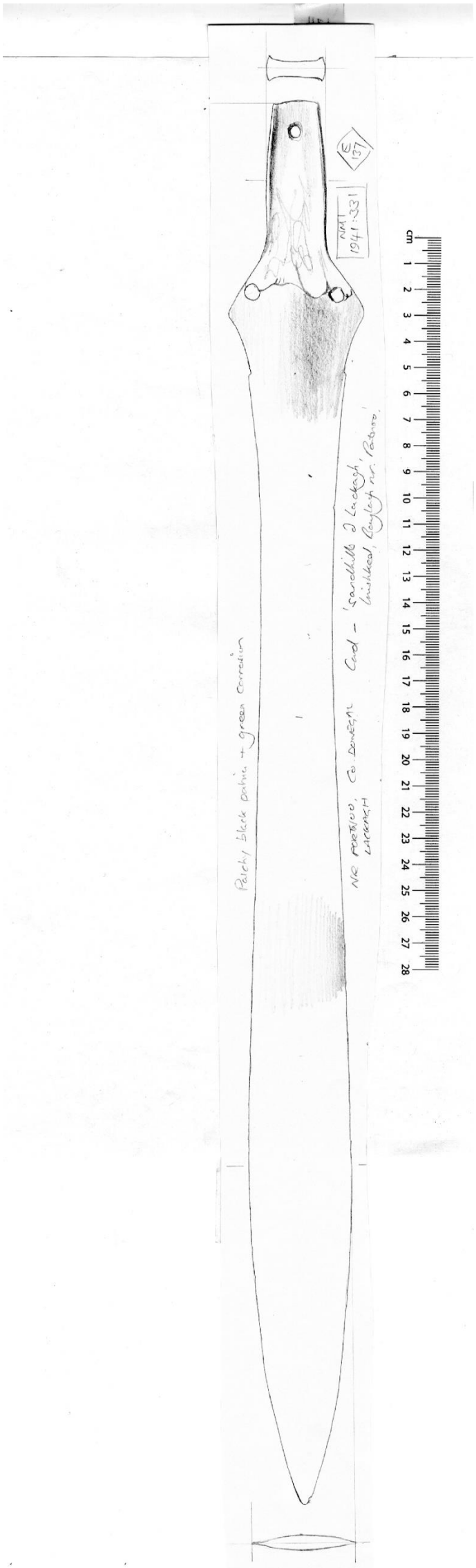
135


Good patina, especially on hilt, somewhat corroded but sharp good
bright green patina
Good
Good bevel to edge
Bone handle to pommel
43sy

136


2/B/10
nice straight edge
6-65 on AHL
door locks modern
minor edge damage along both edges
MISHAWUM, Co. DONEGAL
UM 4024
'SAMARITAN COLLAR'
Good ceiling Slightly patina surface
DK brown patina
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

137

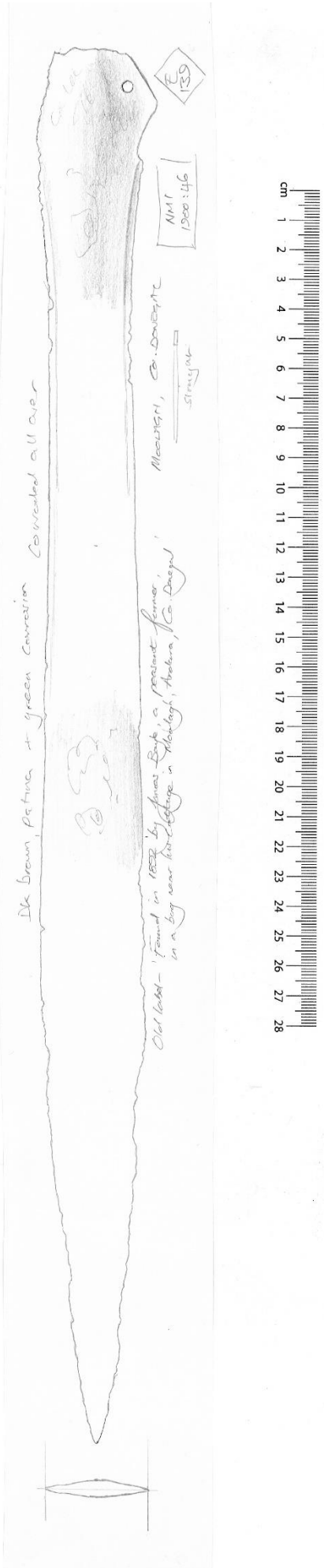

E 137
NMI 1941:331
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

138

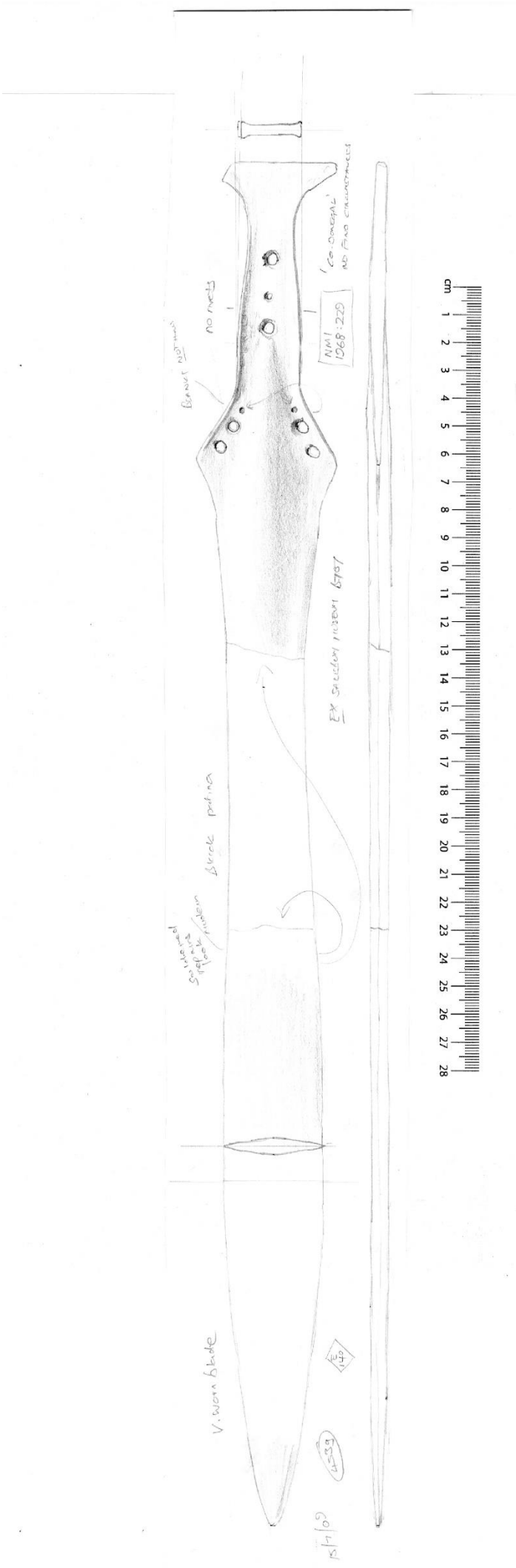
1980.254
NMI 1988:2SA
LETTERKENNY, Co. DONEGAL
Label reads - Sword, bronze (2 fragments). - See E's drawings
E 89
DK brown corrosion

cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

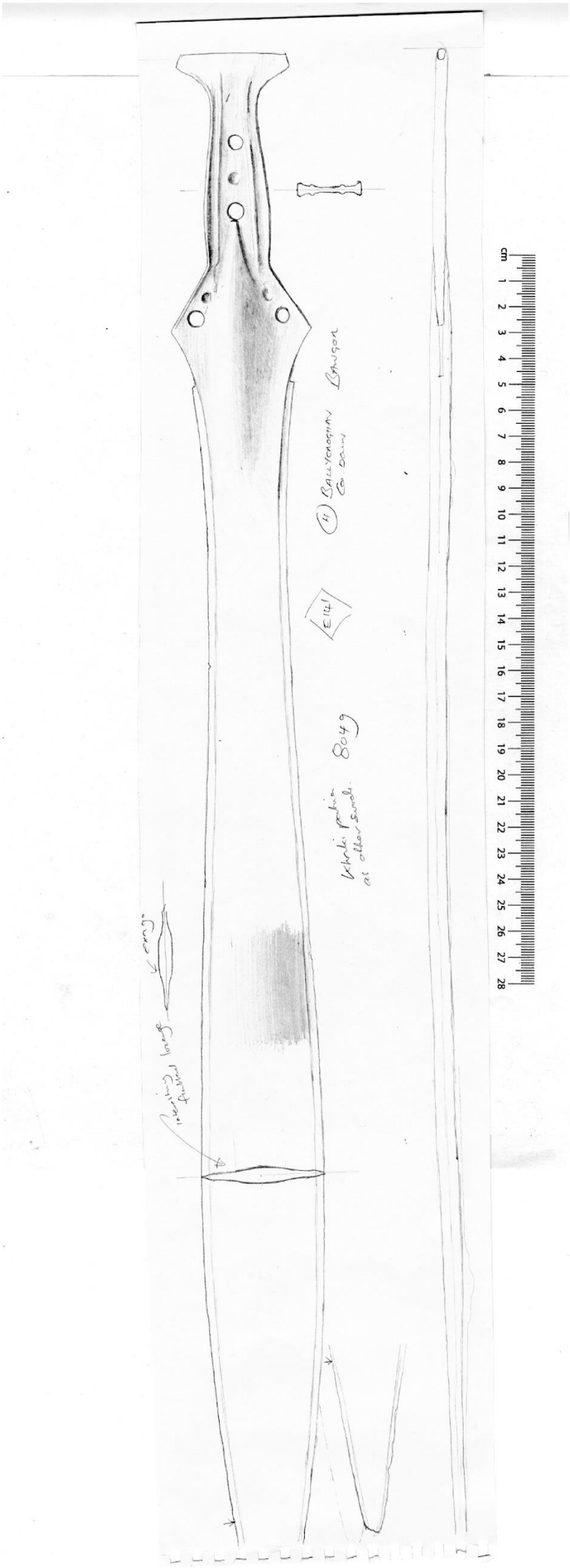
139


Dk brown patina + green corrosion
Old Label - 'found in 1852 by James Boyle, a peasant farmer, in a bog near his cottage in Mosbeg, Arvagh, Co. Cavan'
MacNeill, Co. Donegal
NMI 1900:146
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

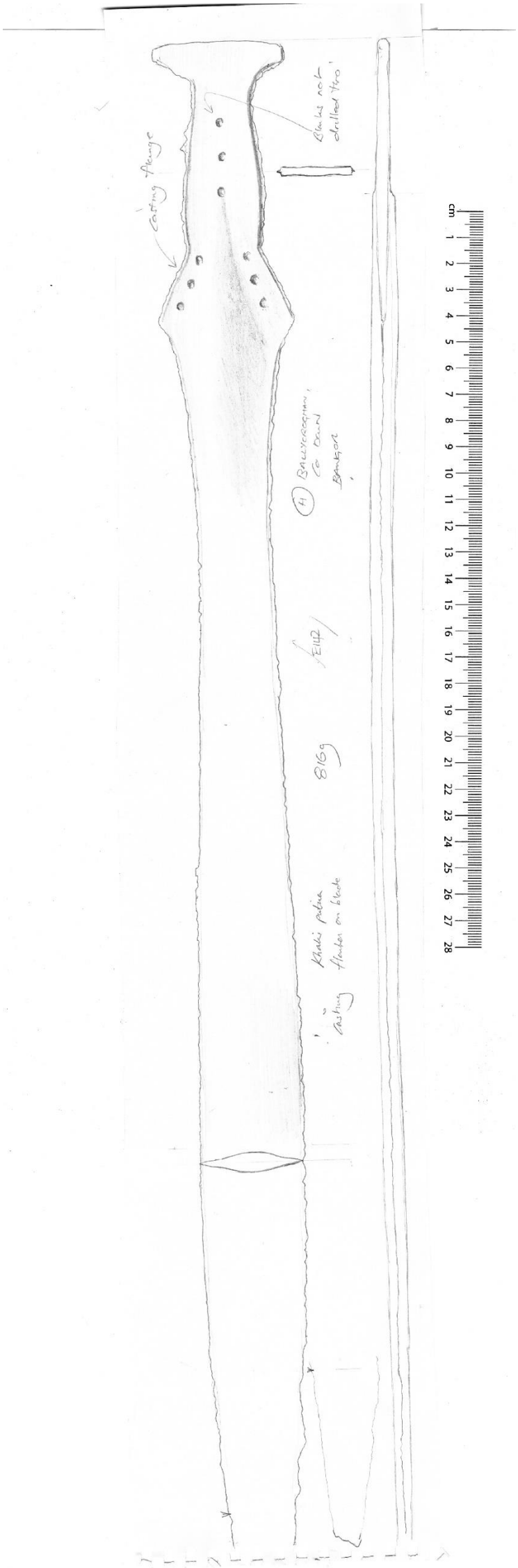
140


NMI 968:220
No rivets
Bevel
Ex Scilly Hebrides Ghost
Shrunk rivets
Splayed and reflexed tang
V. worn blade
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

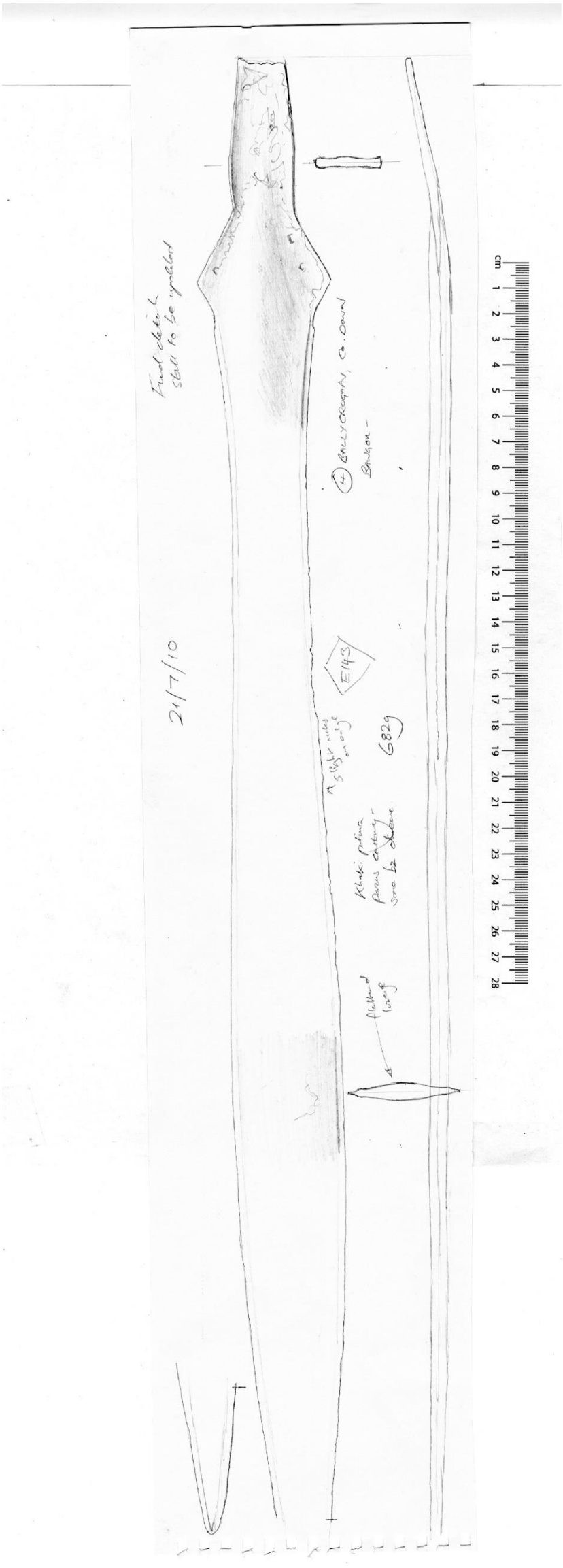
141


cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
E141
8049

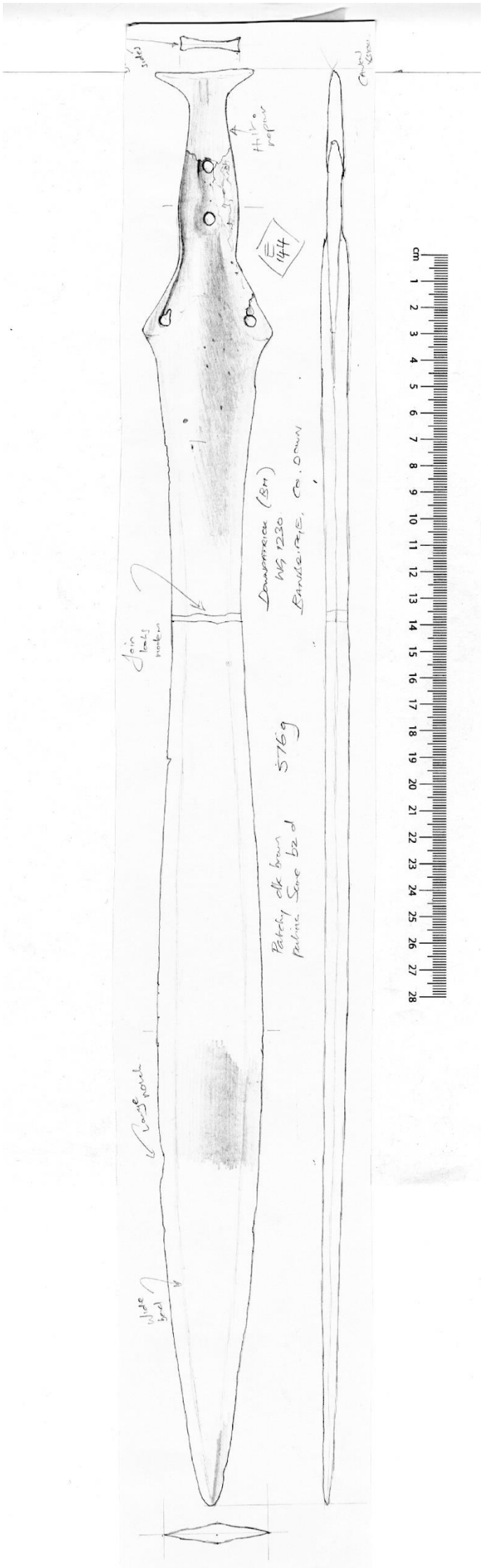
142



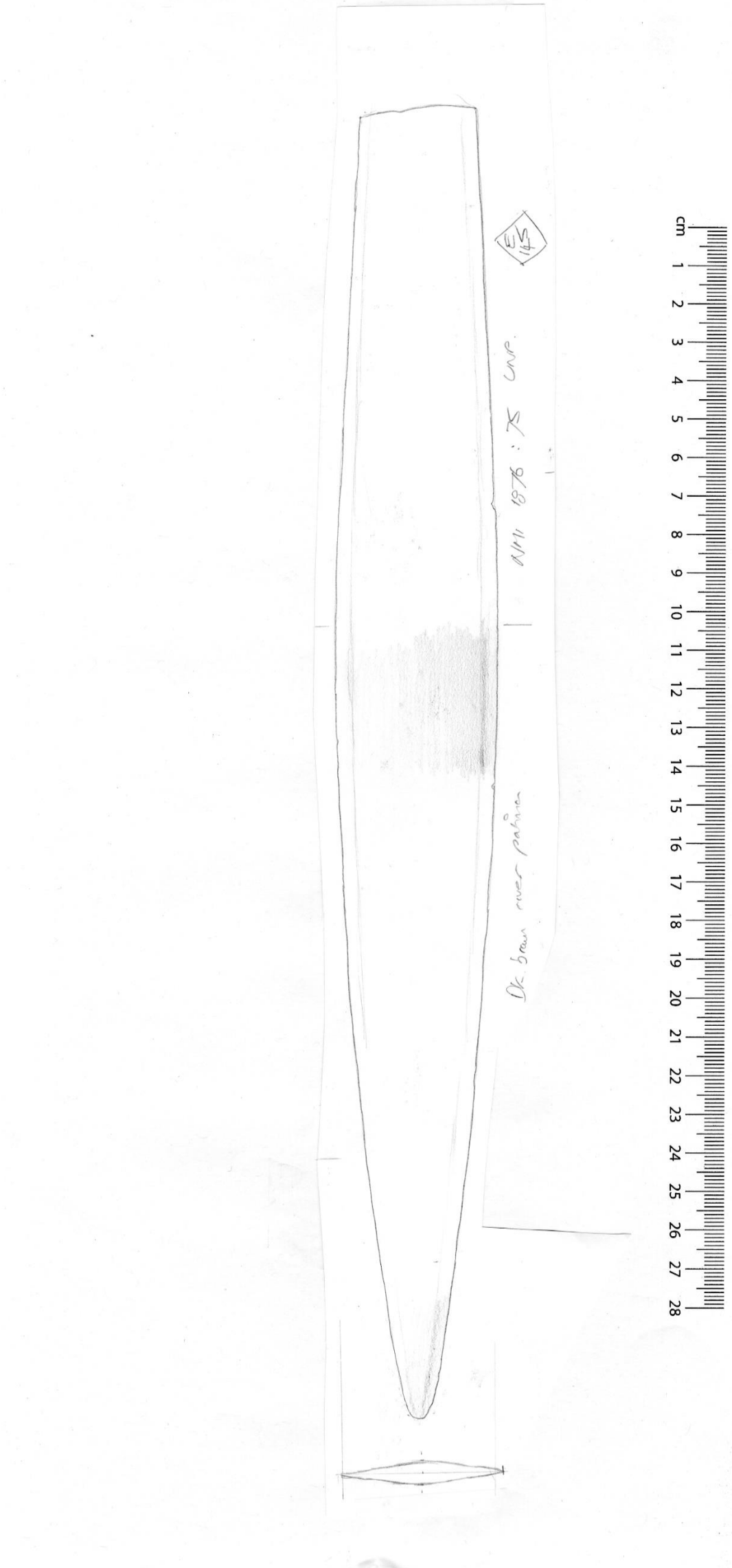
143


Find details
steel to be smoothed
BALLYORGAN, Co. Cavan
21/7/10
E143
682g
Klinki: patina
Parts covering
some bz shadow
Flattened
Loop
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

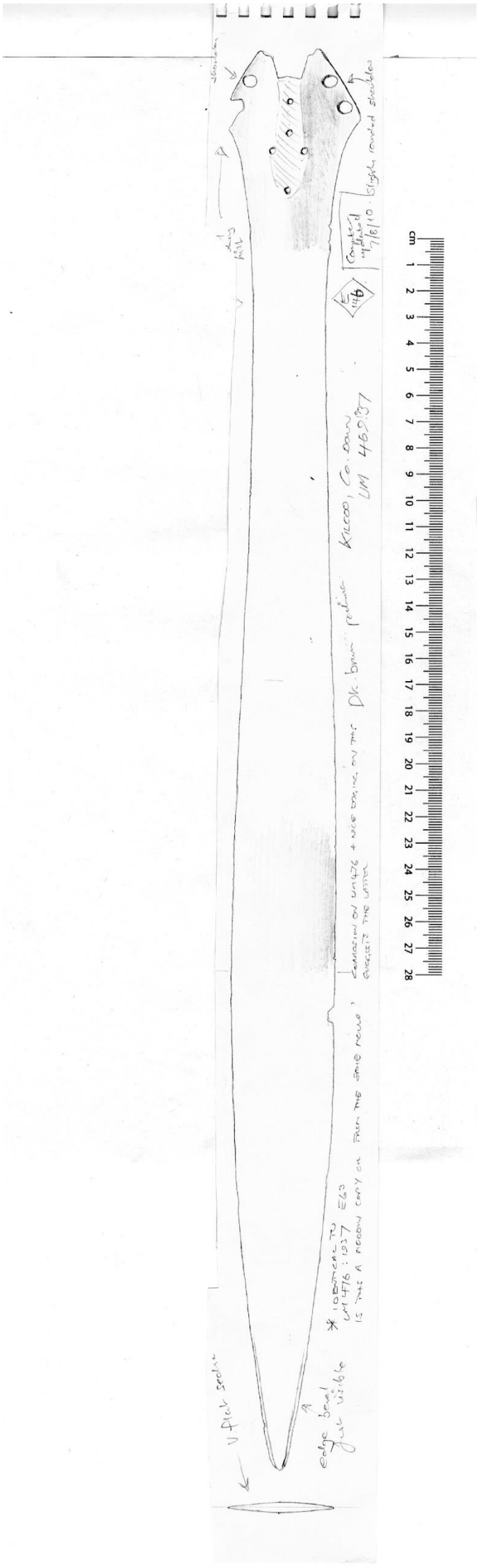
144


Cambridge (BM)
NG 1230
Bandelaire, Co. Down
5769
Patchy dk brown
patina. Some bz d
Main body metal
Loose metal
Wide bed
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

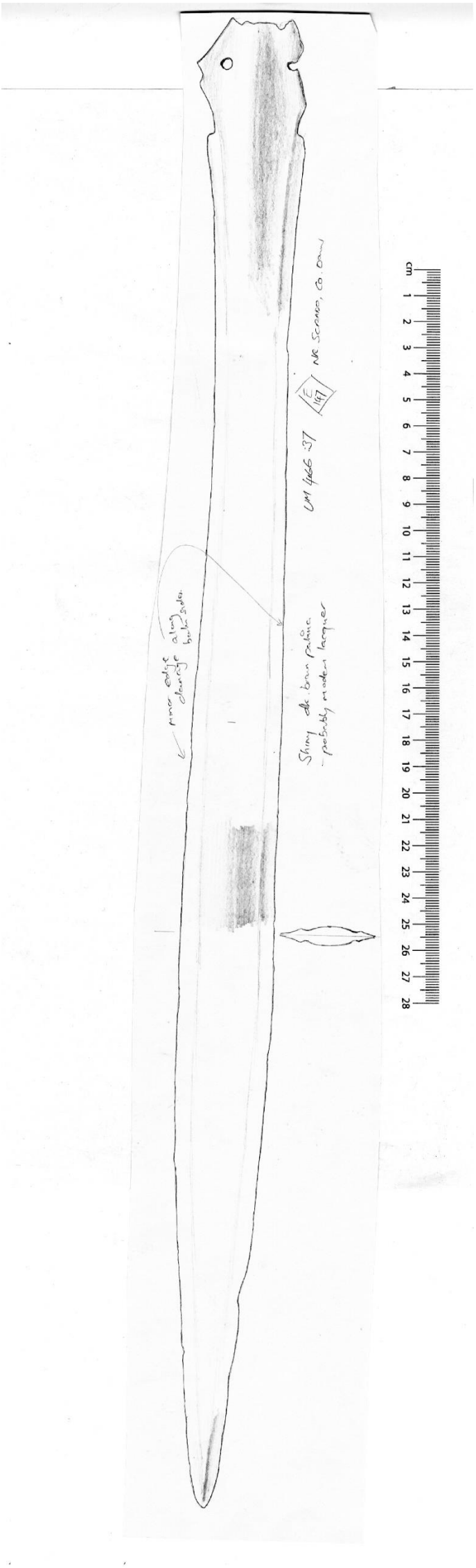
145



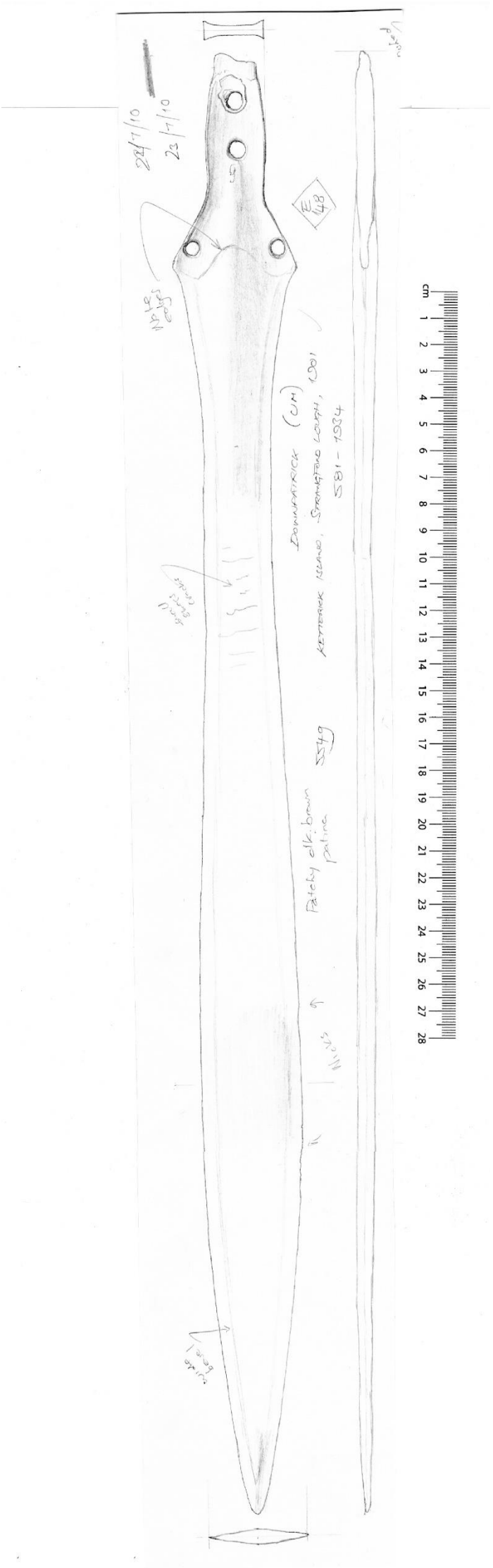
146



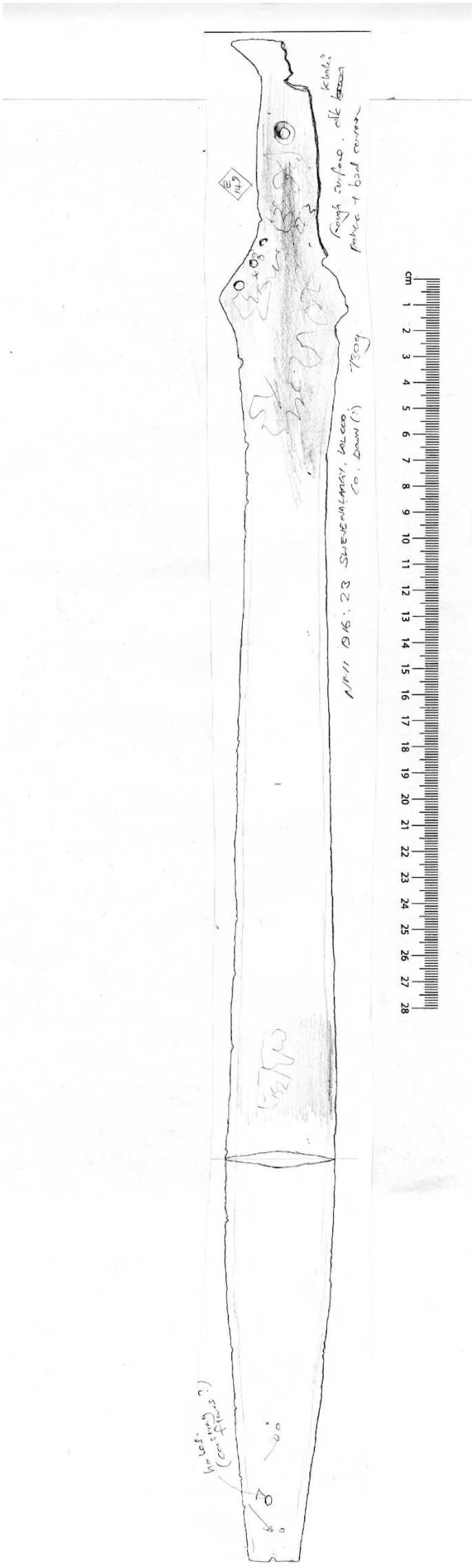
147


NR Scraper, Co. Down
UM 1966.37
E 147
Shiny dk. brown patina - probably modern lacquer
more edge damage along backside
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

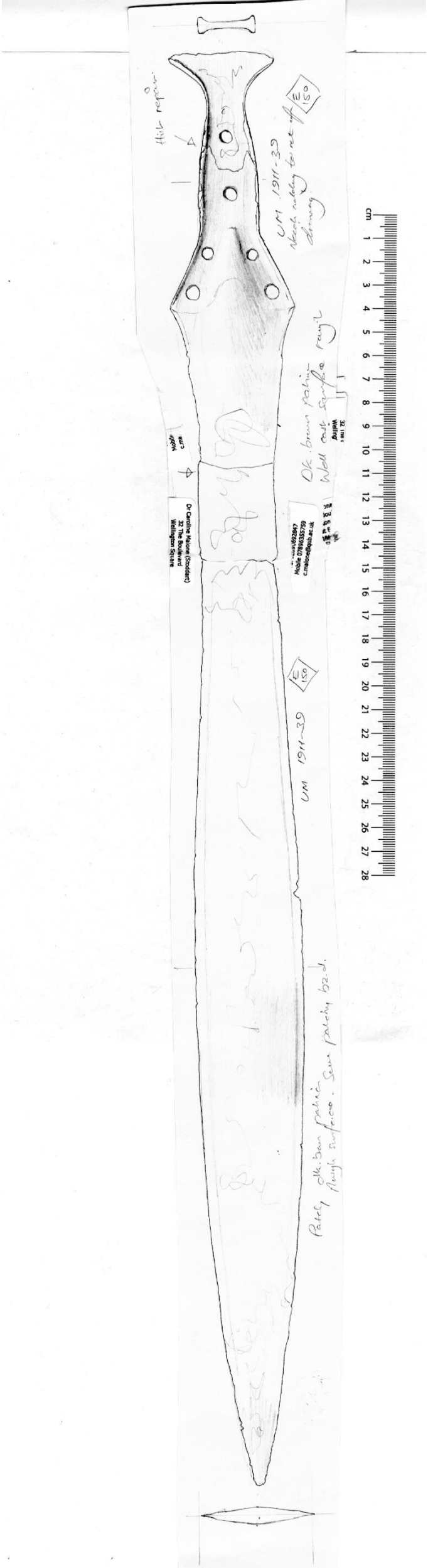
148


22/7/10
23/7/10
EE 148
Dominatrick (UM)
Kenmare Island, Stonestone Lough, 1901
581 - 1934
5549
Patchy elk brown patina
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

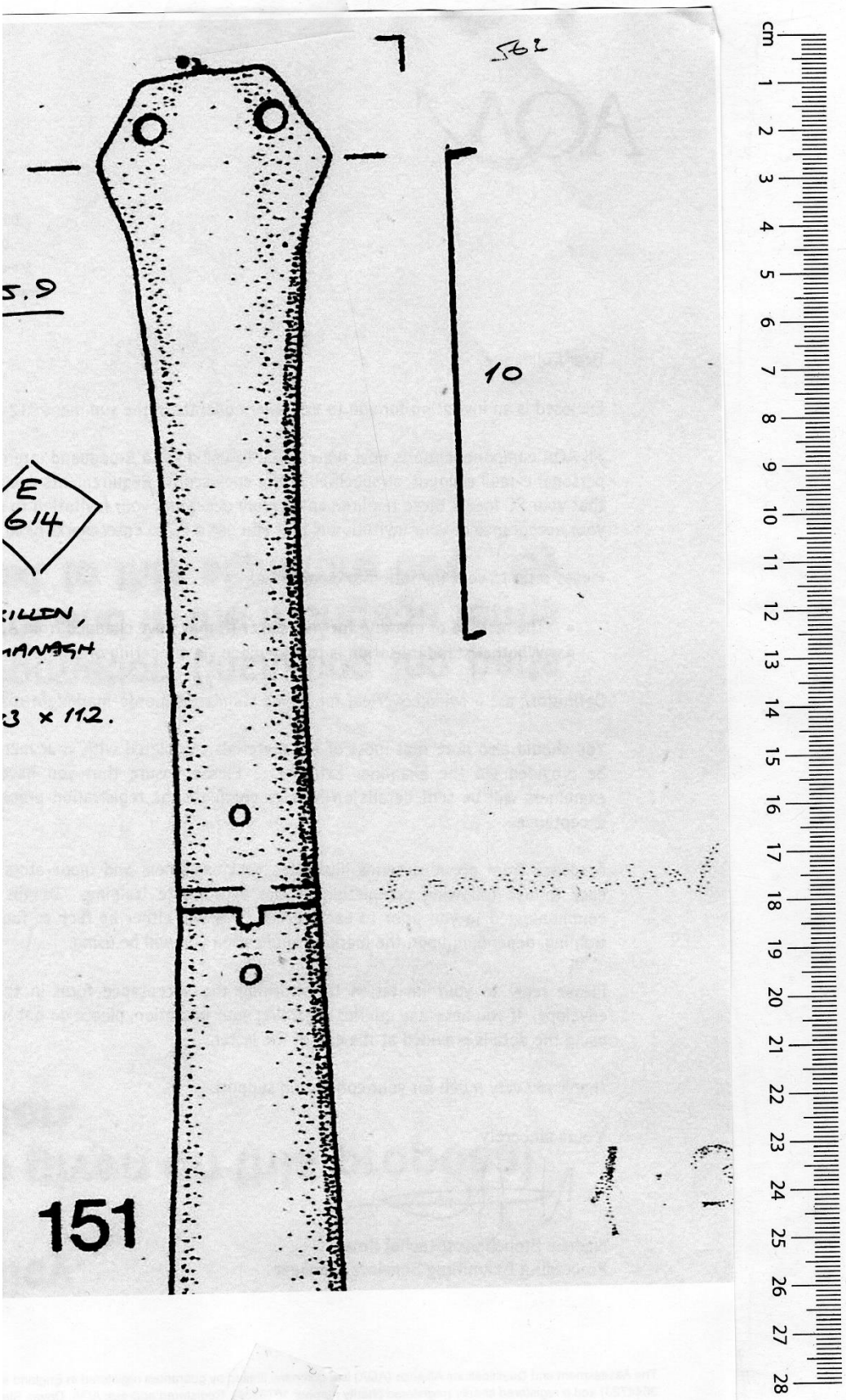
149



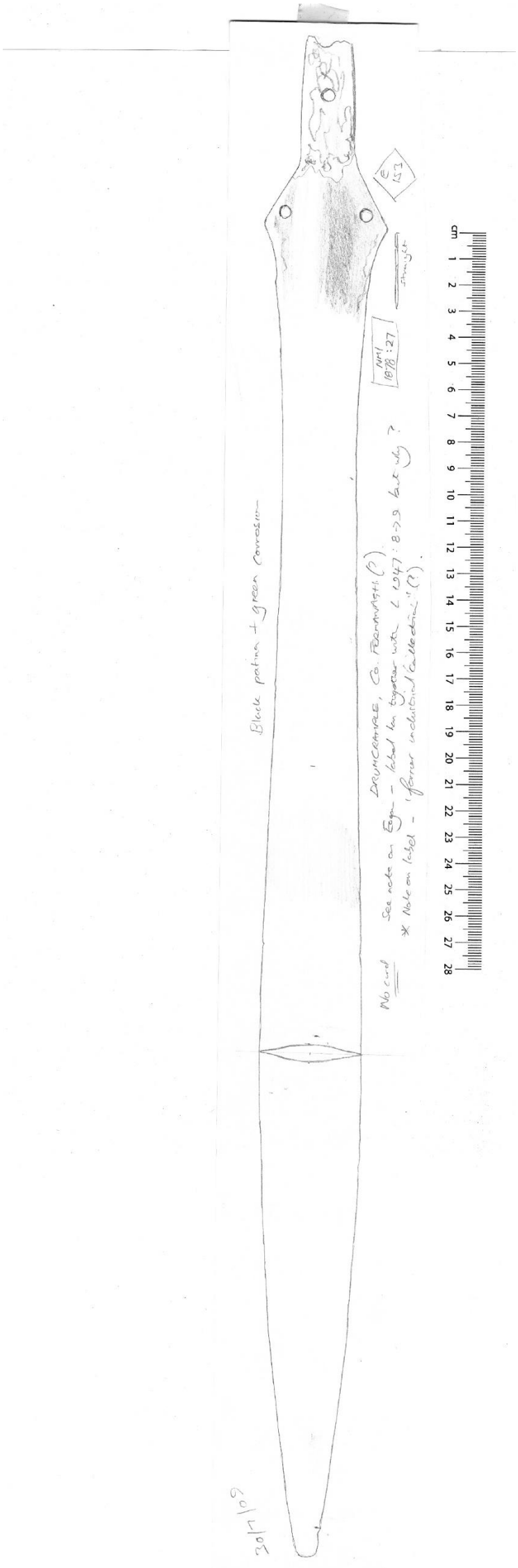
150


Hilt repair
UM 1911-39
Needs rubbing to see drawing
E 150
Dk. brown patina
Well cast surface roughness
Dr Caroline Malone (Stoddart)
32 The Boulevard
Wellington Square
UM 1911-39
E 150
Patchy dk. brown patina
Rough surface. Some pitting but sd.
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

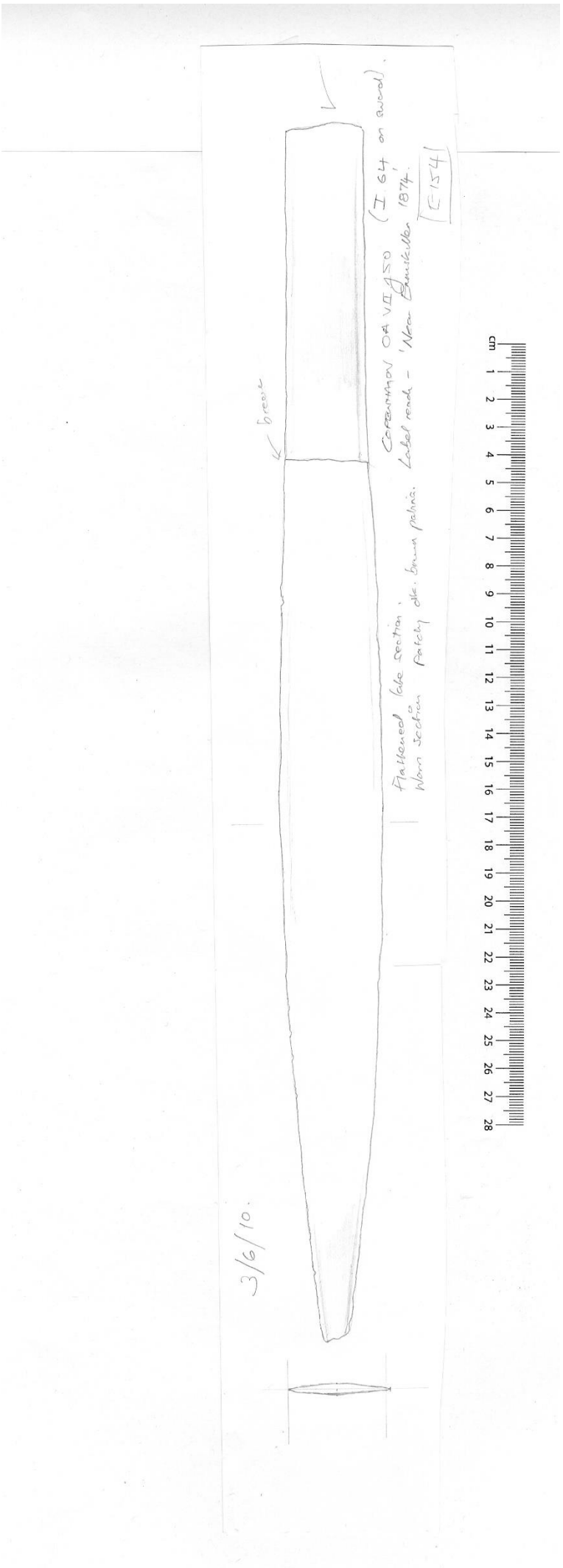
151


5.9
E
614
10
151
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

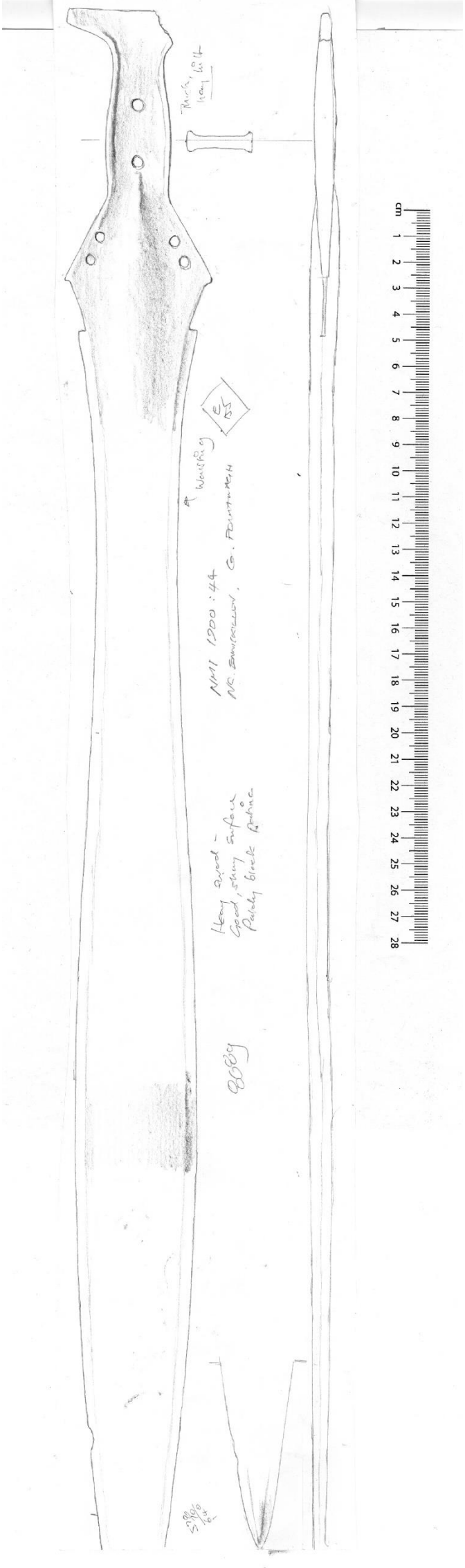
153


E 153
NMI 1878:27
Black patina + green corrosion
DRUMCRAVAR, Co. Roscommon (?)
No end
Sea note on Eqp. - listed ten together with L 1947 : 8->9 but why ?
* Note on label - 'former industrial collection' (?).
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
30/7/09

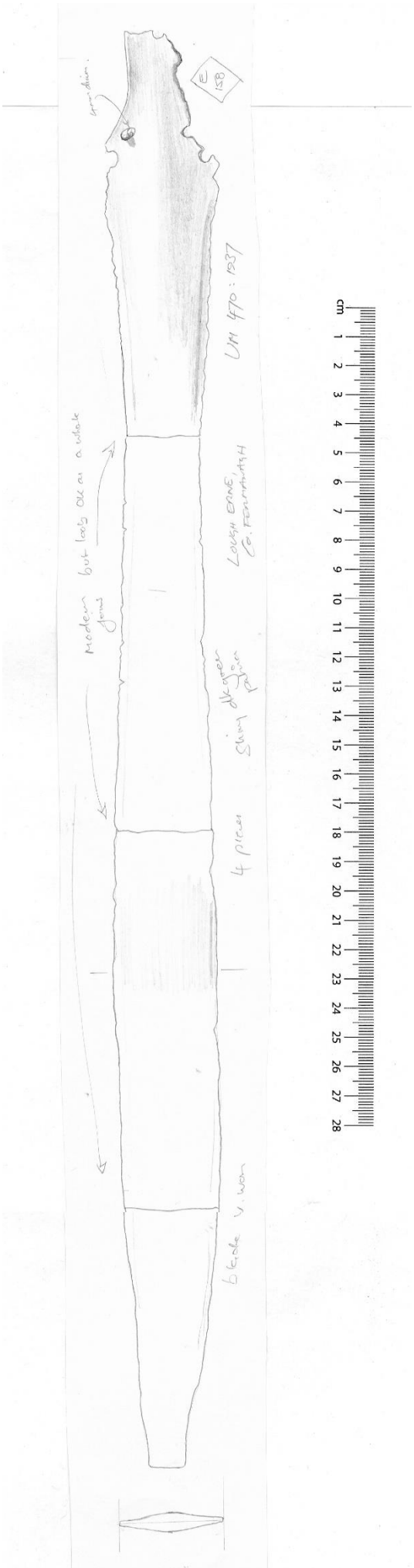
154


Flattened tube section,
Worn section
Patchy dk. brown patina.
Label reads - 'Near Ennistillen 1874.'
E154
3/6/10.
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

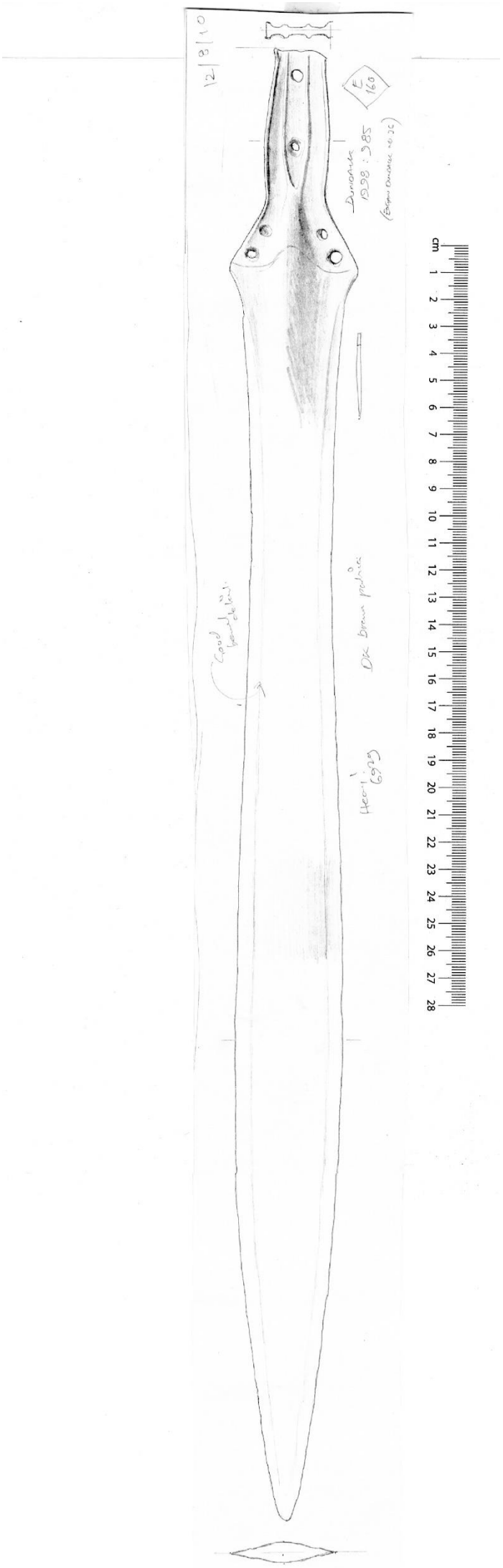
155



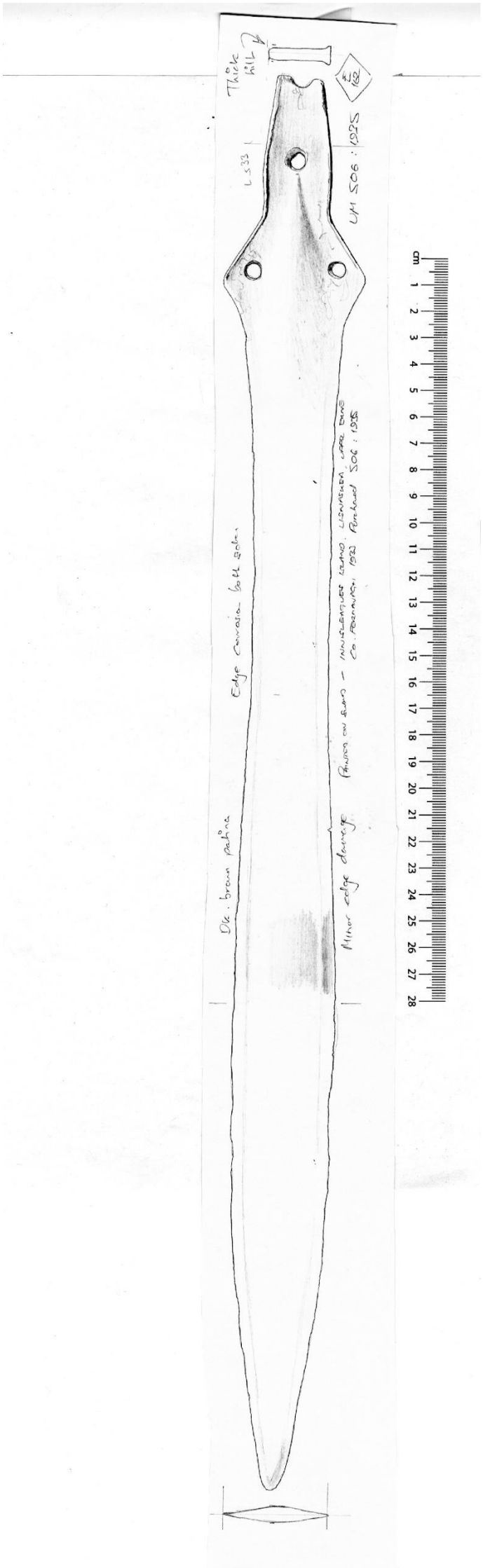
158


E 158
UM 470 : 1937
Lough Erne, Co. Fermanagh
4 pieces
Modern but looks old as a whole
Modern joins
Blade v. worn
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

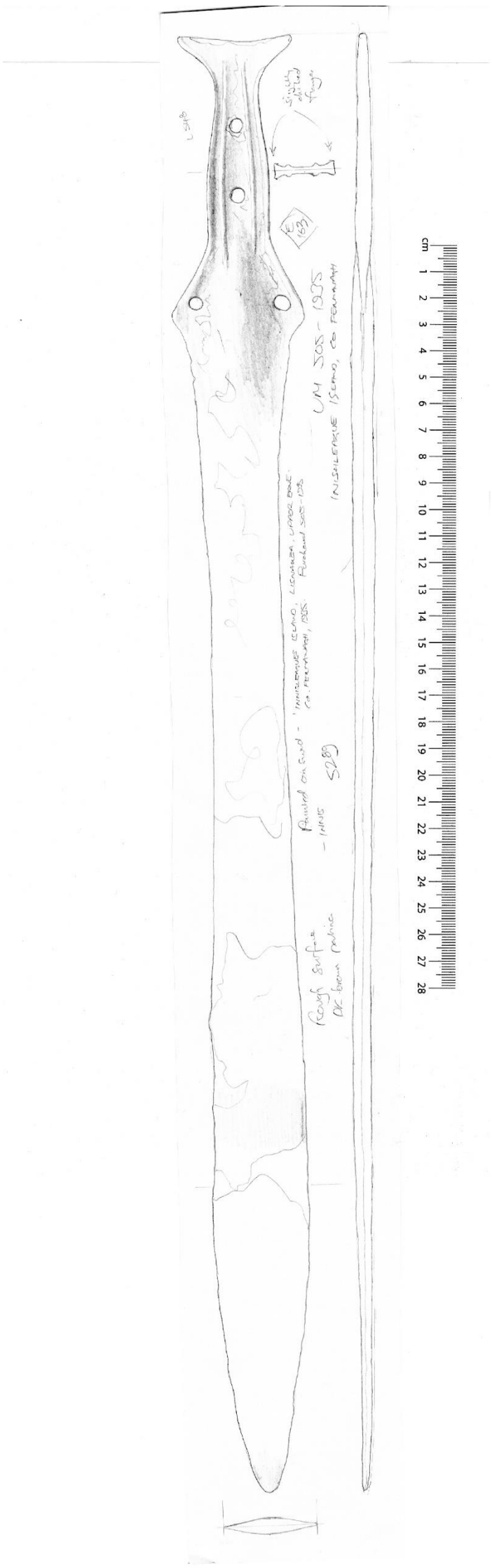
160


12/8/10
E 160
Dunnarie
1938 : 385
(Brown Dunnarie + 10 %)
Good bone tissue
Dk Brown pulpy
Hard (gyp)
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

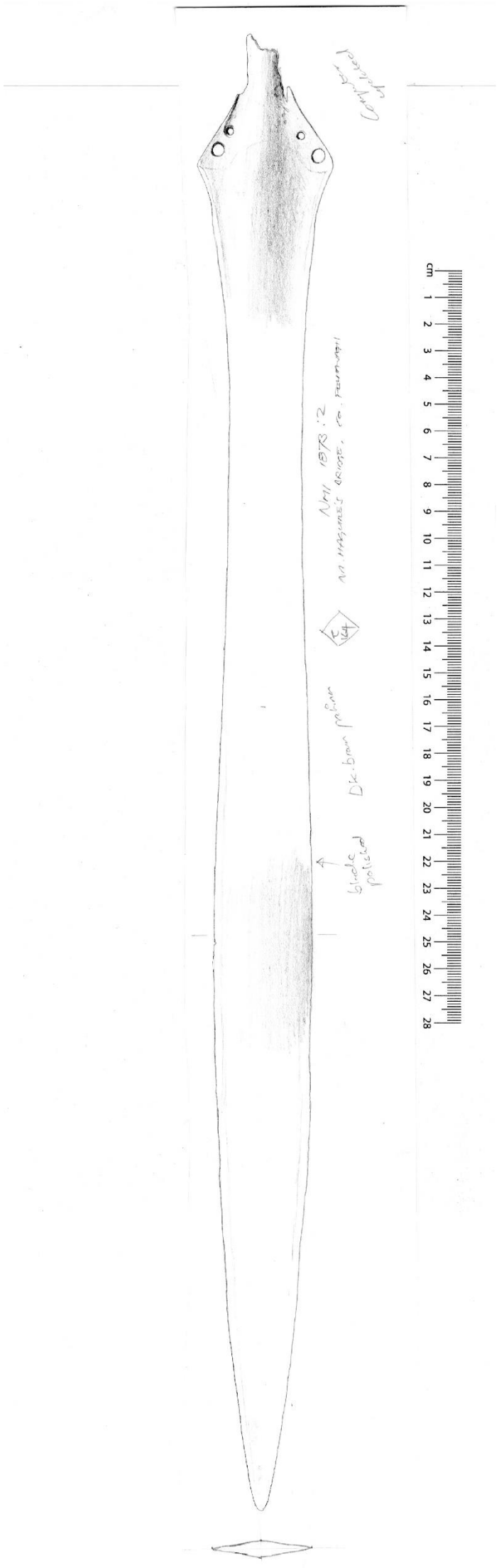
162


Thick hilt
Dk. brown patina
Edge corrosion
Minor edge damage
Pitting on blade
Inhabitants Island, Lisnaskea, Lough Erne
Co. Fermanagh, 1920
Purchased SOC: 1925
L 533
UM SOC: 1925
cm

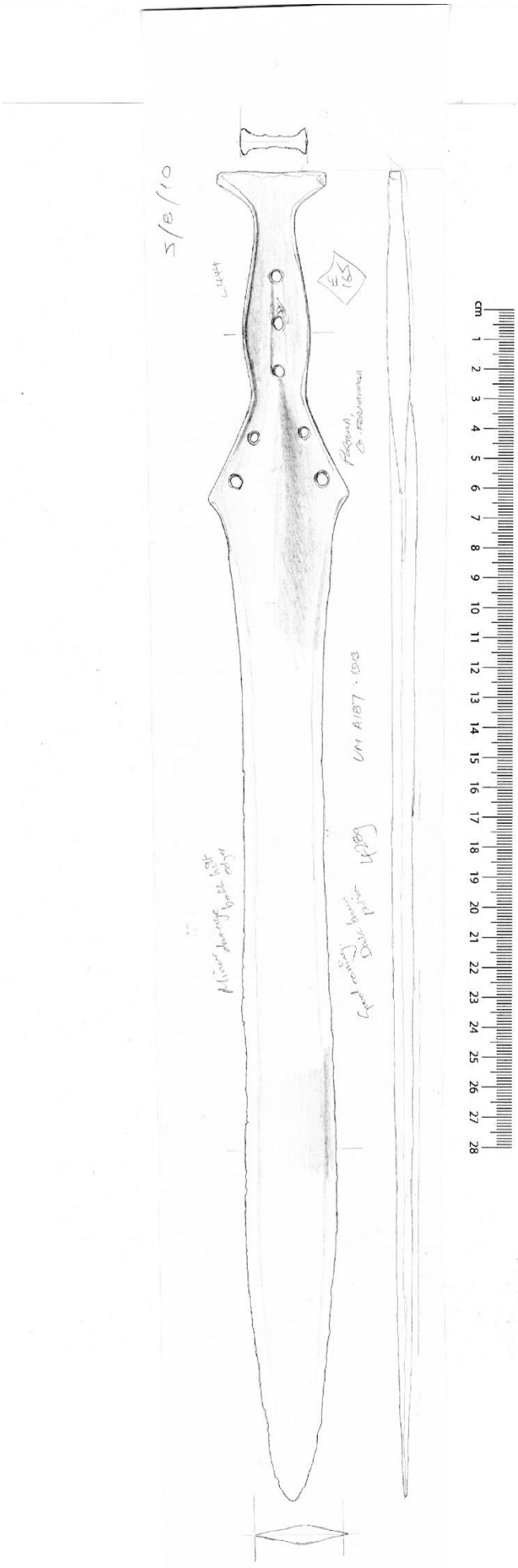
163


E 153
UM 305 - 1935
INISHEARKANE ISLAND, Co FERMANAGH
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

164

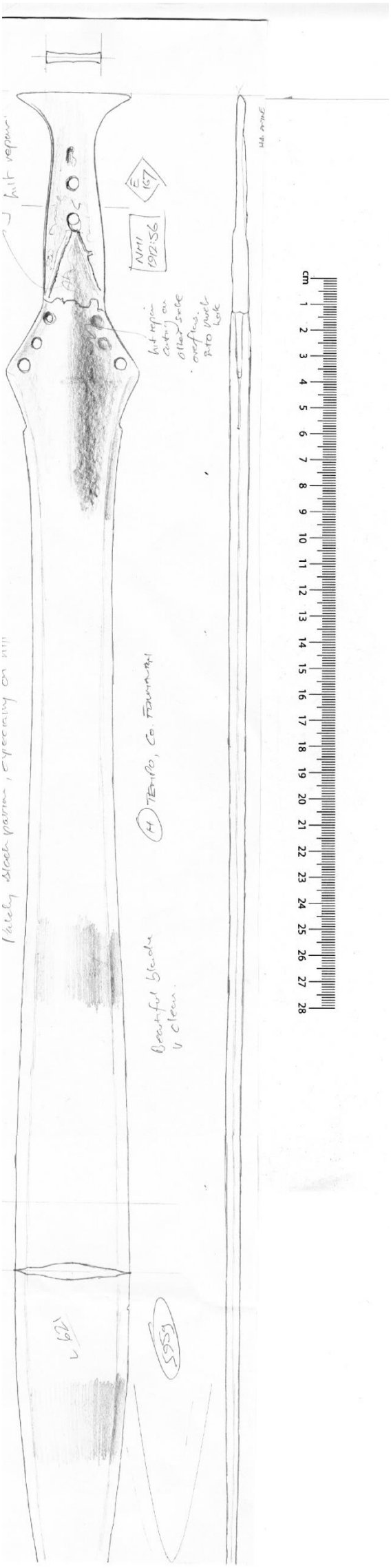


165

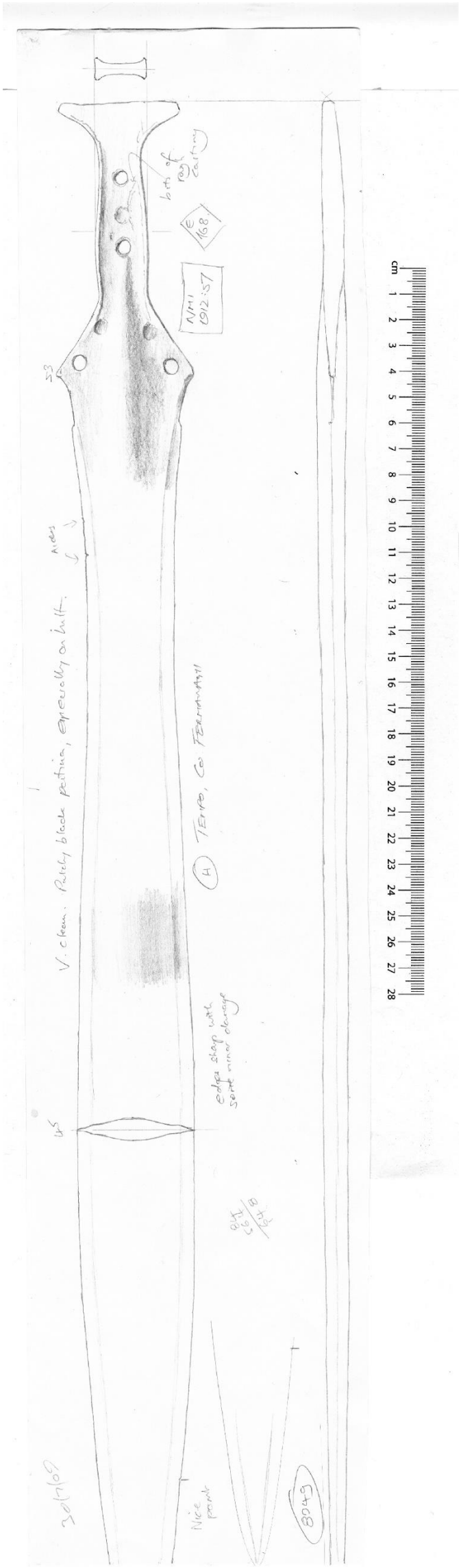


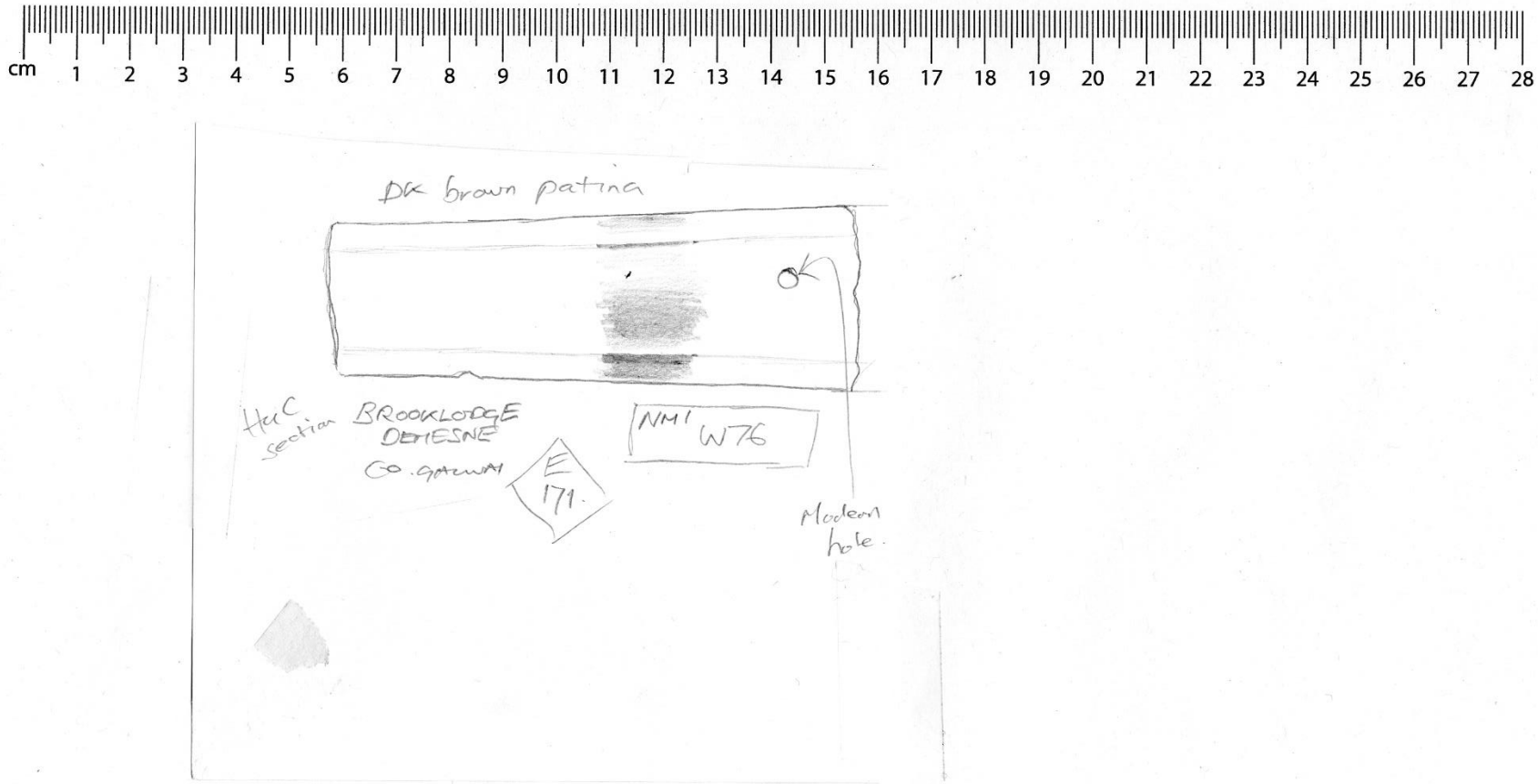
166

167



168


cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
V. clean. Patchy black patina, especially on hilt.
edge sharp with some minor damage
Nice point


cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
Dk brown patina
HuC section
BROOKLODGE DEMESNE
Co. GALWAY
E 171.
NMI W76
Modern hole.

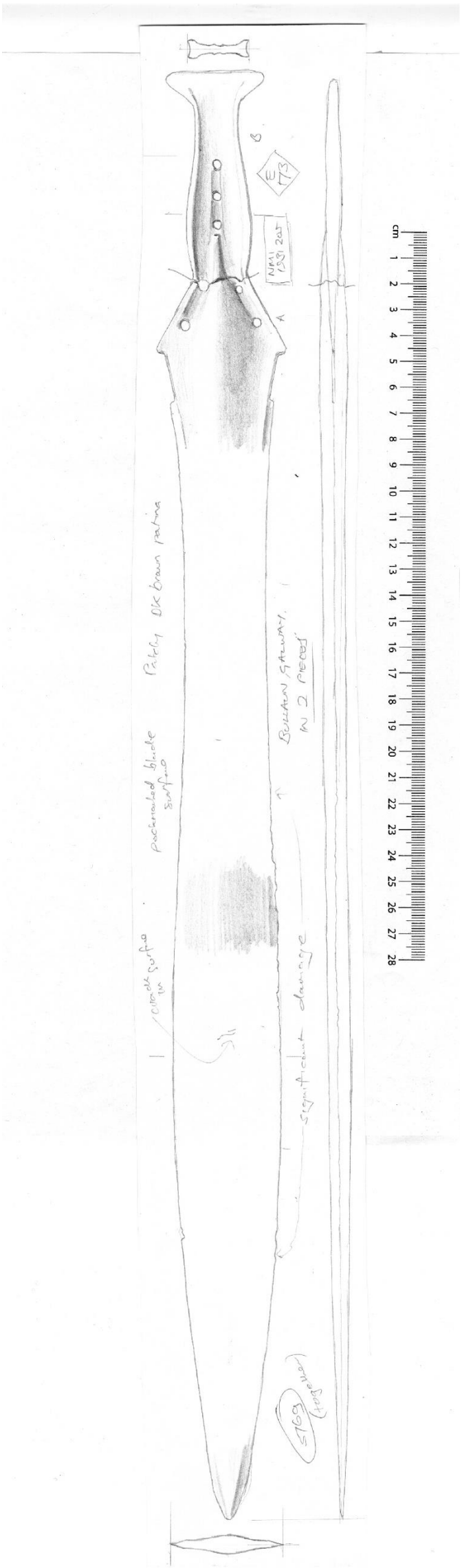
171

172

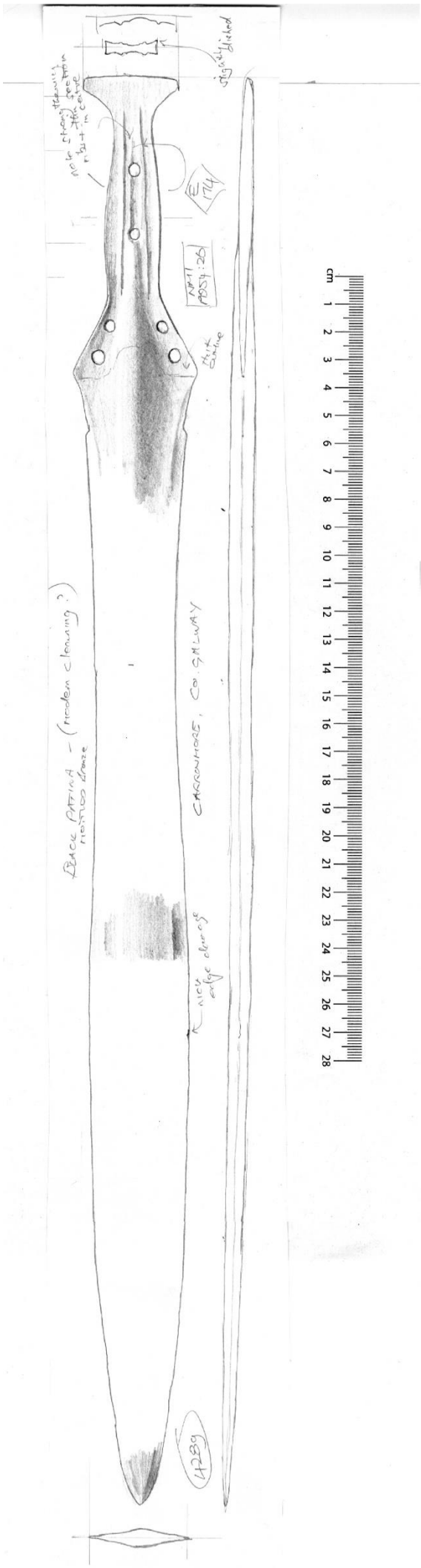
Wooden Haft (drilled)
NMI WBS
Patchy Black patina, cleaned.
E172
BROOKLODGE DEMESNE
KILLERRIG, Co. Galway

cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

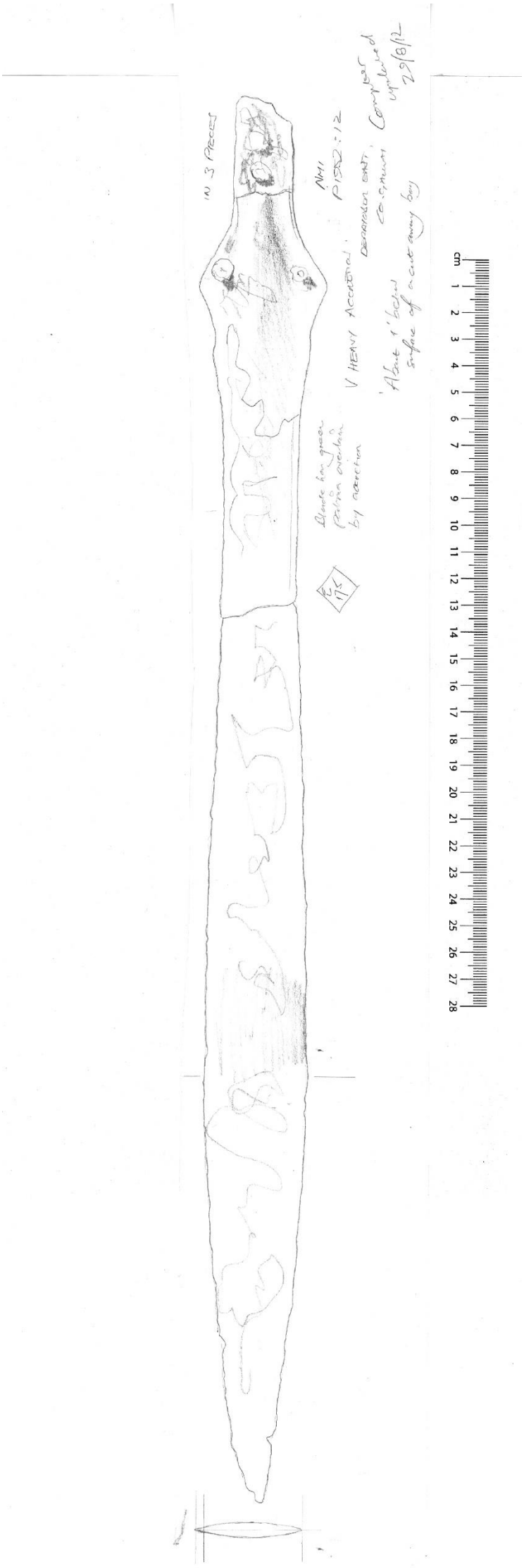
173


E 173
NMI 1993.205
A
B
Patchy OX brown patina
Patchy OX brown patina
Reclaimed blade surface
Reclaimed blade surface
BELLAN, STAUNAY.
IN 2 PIECES
significant damage
significant damage
S169
(Hoard)
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

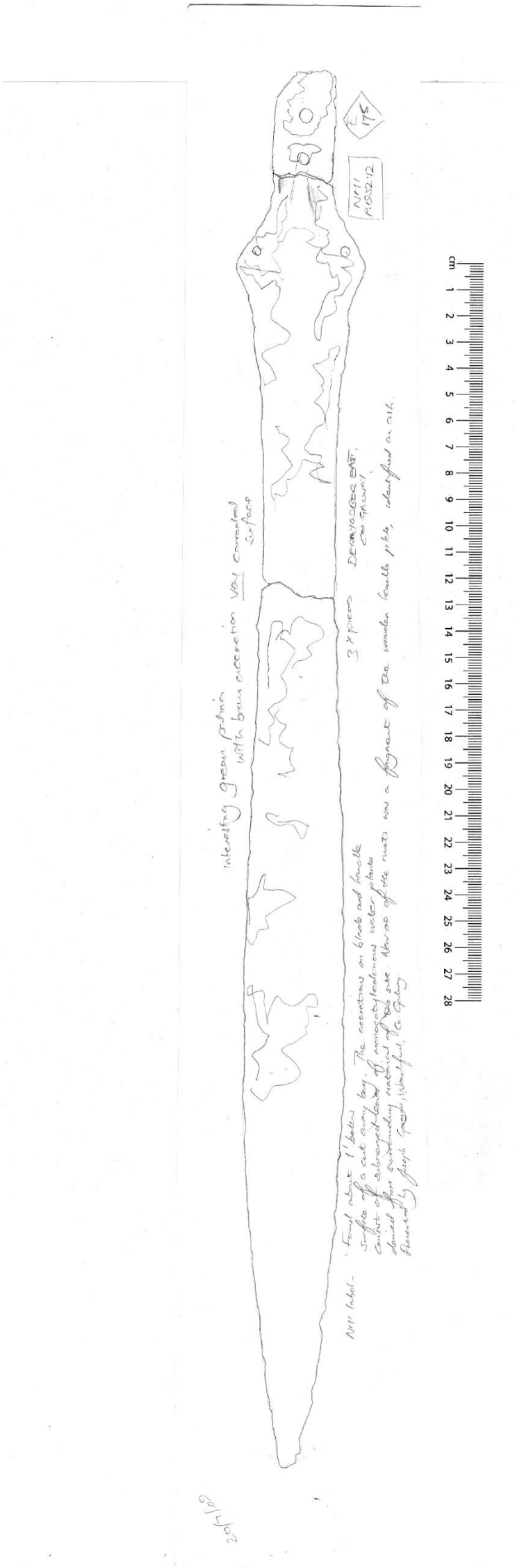
174


BLACK PATINA - (modern cleaning?)
MOTTLED bronze
CARRONTOUGE, CO. GALWAY
NICK edge damage
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

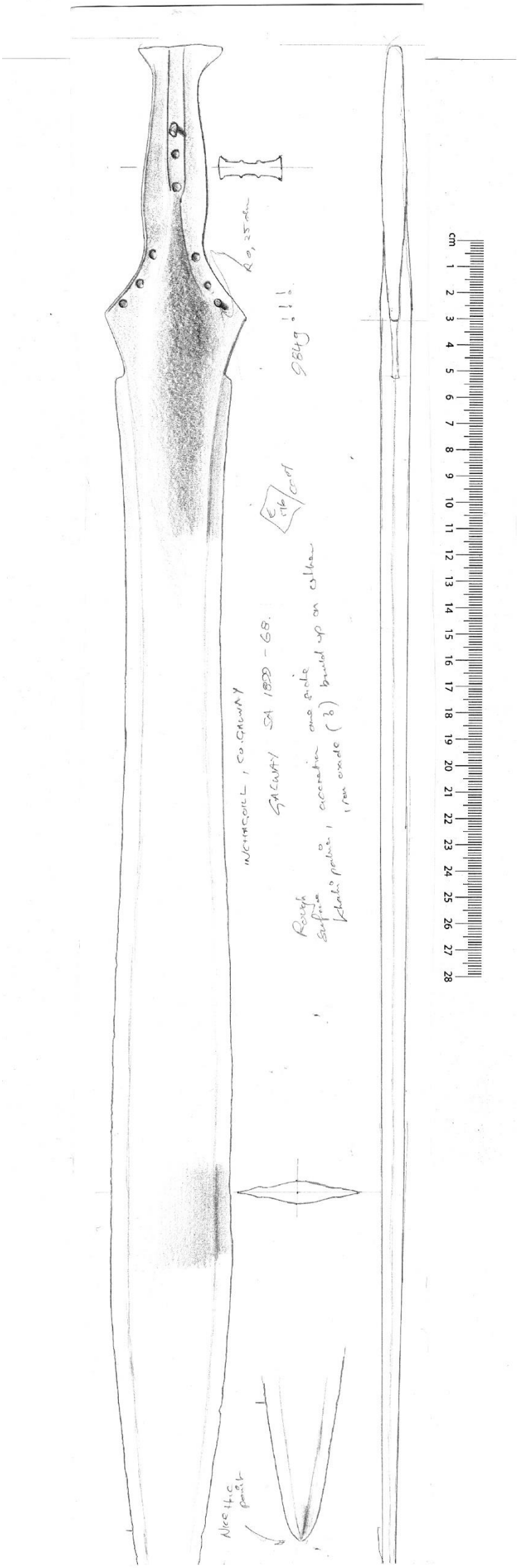
175


IN 3 PIECES
NMI
P1982:112
V HENRY ACCESSION
DECORATION ENT.
Complete
Unpolished
29/8/12
Blade has green patina overlain by corrosion
cm

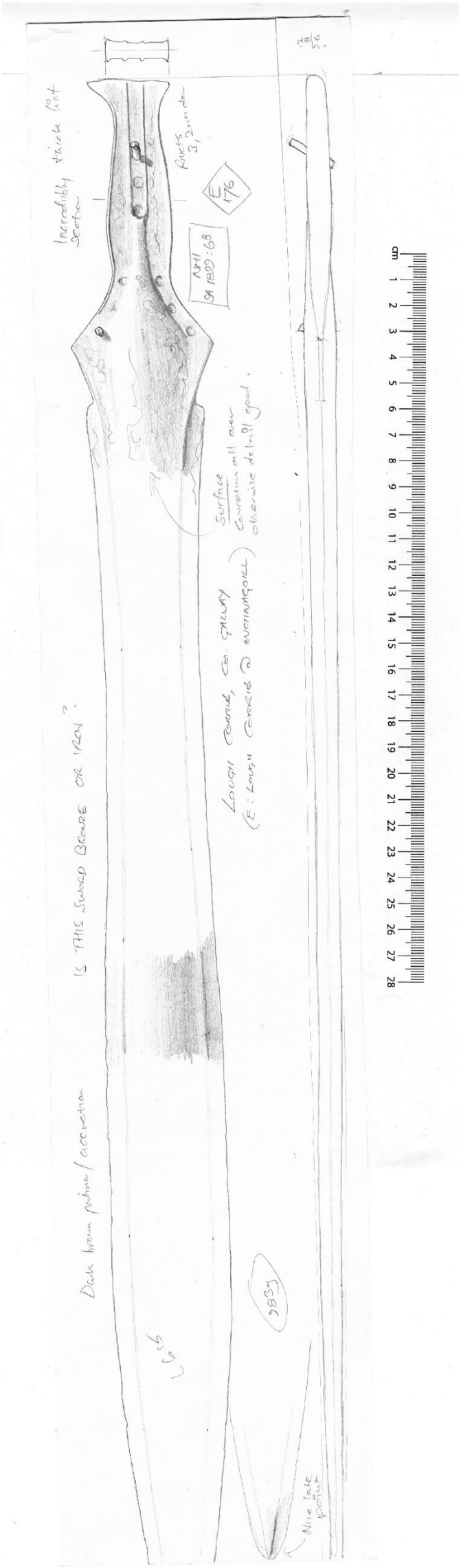
175 (2)


Interesting green patina
with bone accretion
Very corroded
surface
3 x rivets
DERRYOGER EAST,
Co Galway.
NMI
A1552:12
175
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
NMI label - Found about 1' below
surface of a cut away bog. The remains of blade and handle
consist of a damaged blade (lengthways) with parts
of handle still surviving, made of bone. Now on display
Donated by Joseph Gerrish, Wexford, Co Galway
20/7/18

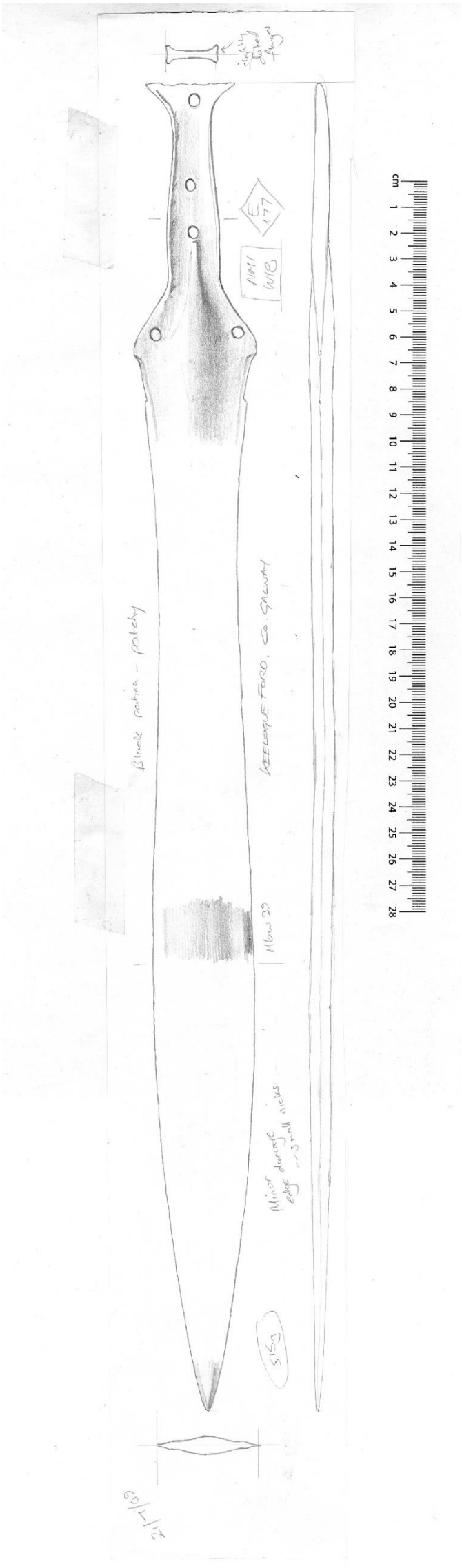
176



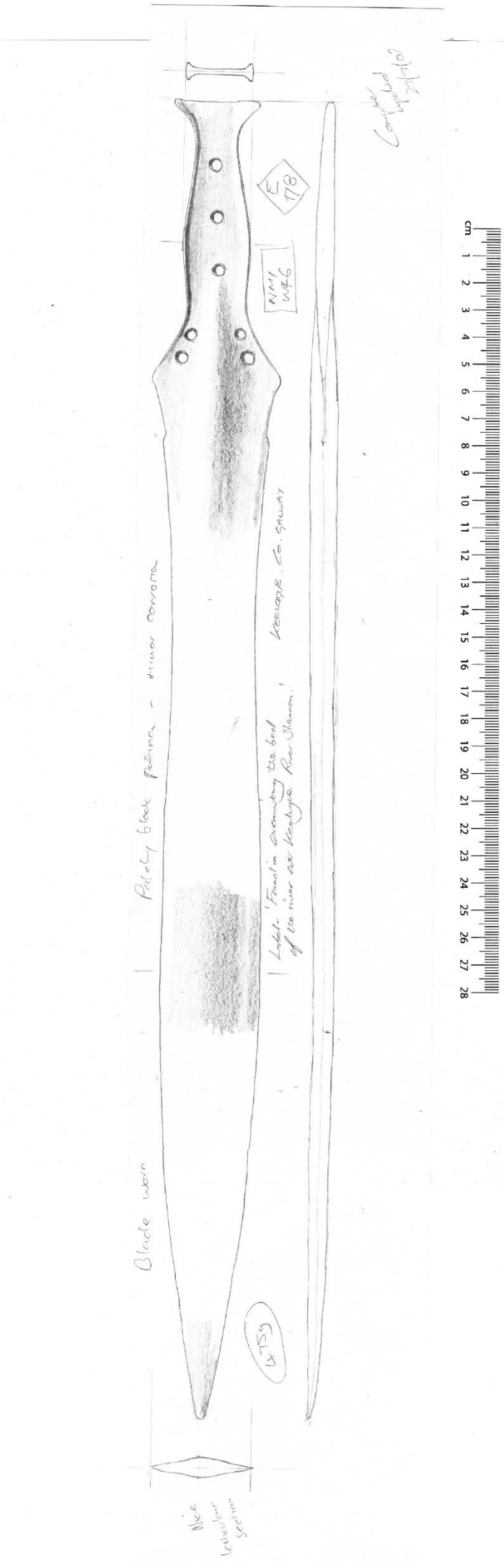
176 (2)


Incredibly thick flat section
Rivets 3, 2 on other
E 176
RIA 1899:68
Surface corrosion all over otherwise detail good.
Louth (Co. Louth) (E: Louth Co. Meath) Drogheda
IS THIS SWORD BRONZE OR IRON?
Dark brown patina / accretion
3833
Nice tang point
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

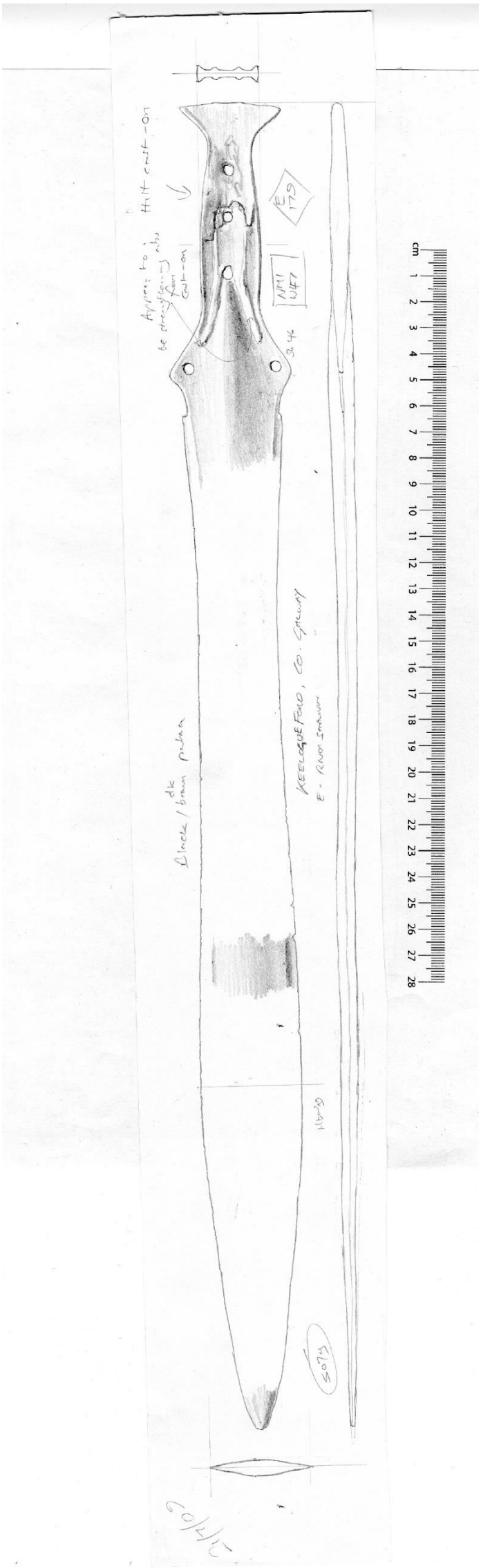
177


E177
NMI
W18
Blade patina - patchy
KILLORGLIN FORD, Co. KERRY
Minor damage
edge - small nicks
12/1/09

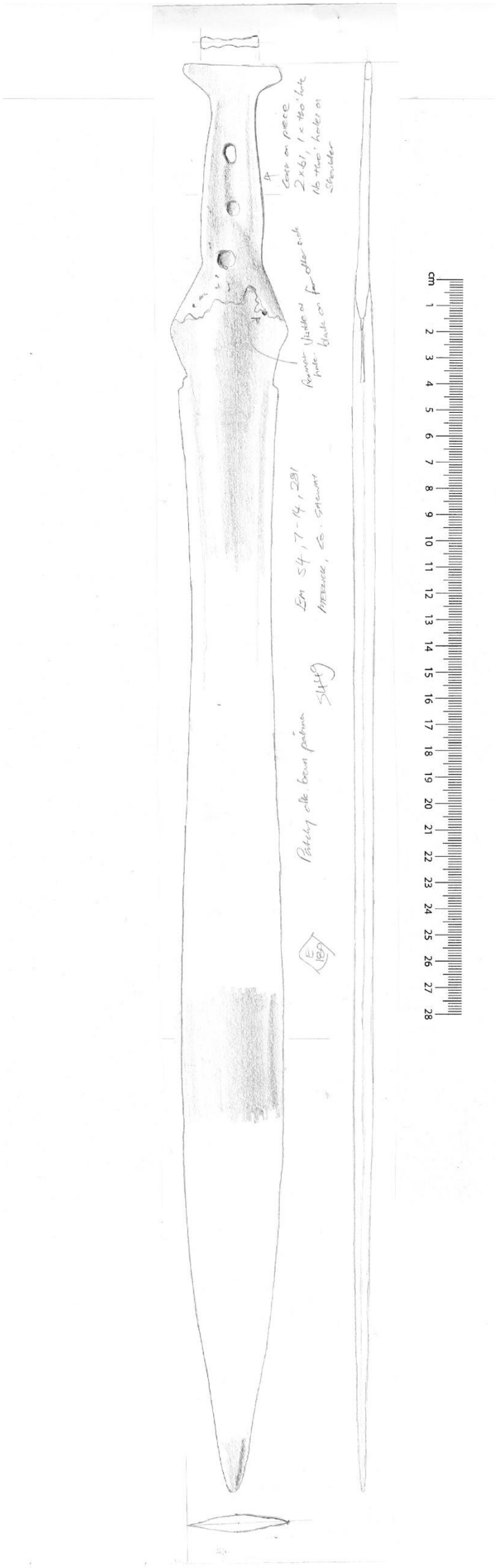
178



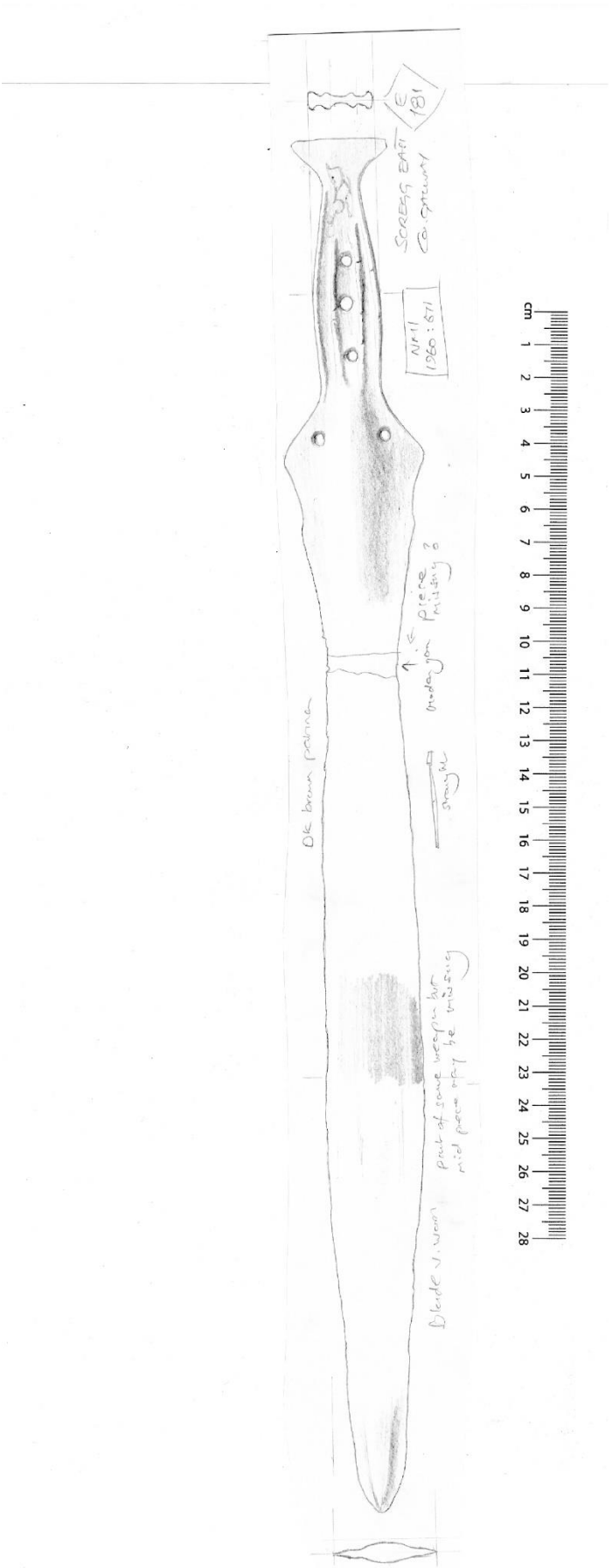
179


E79
KEELOGUE FORD, CO. GALWAY
E - RIVER IMPROVEMENT
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

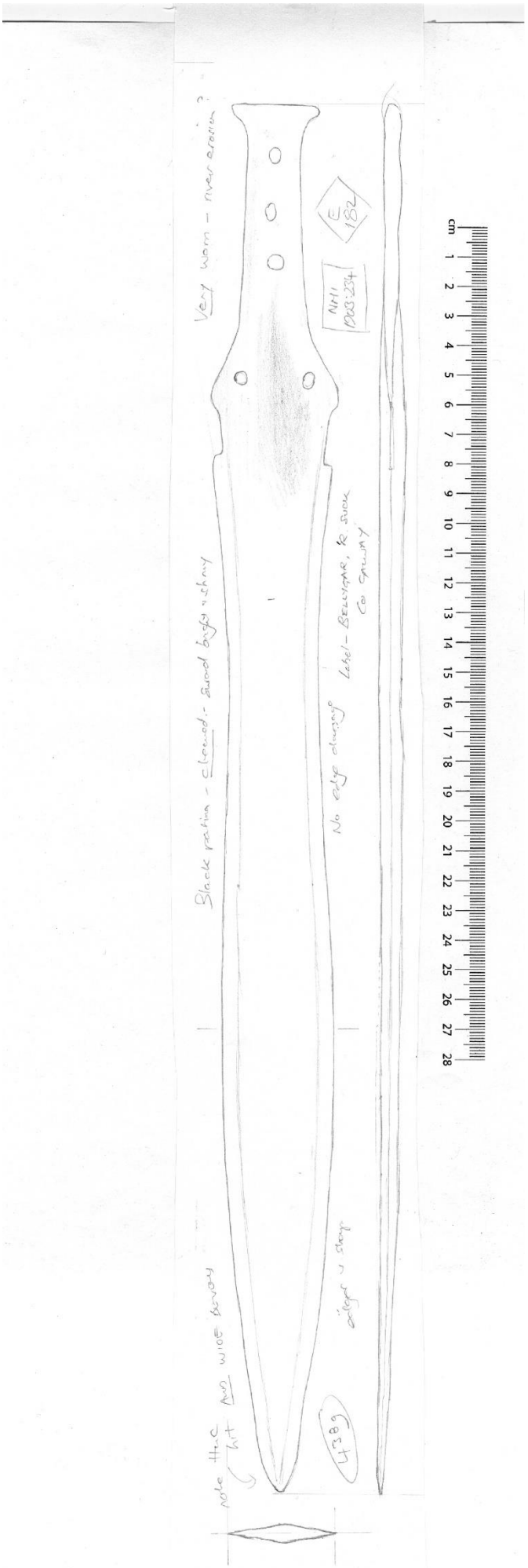
180



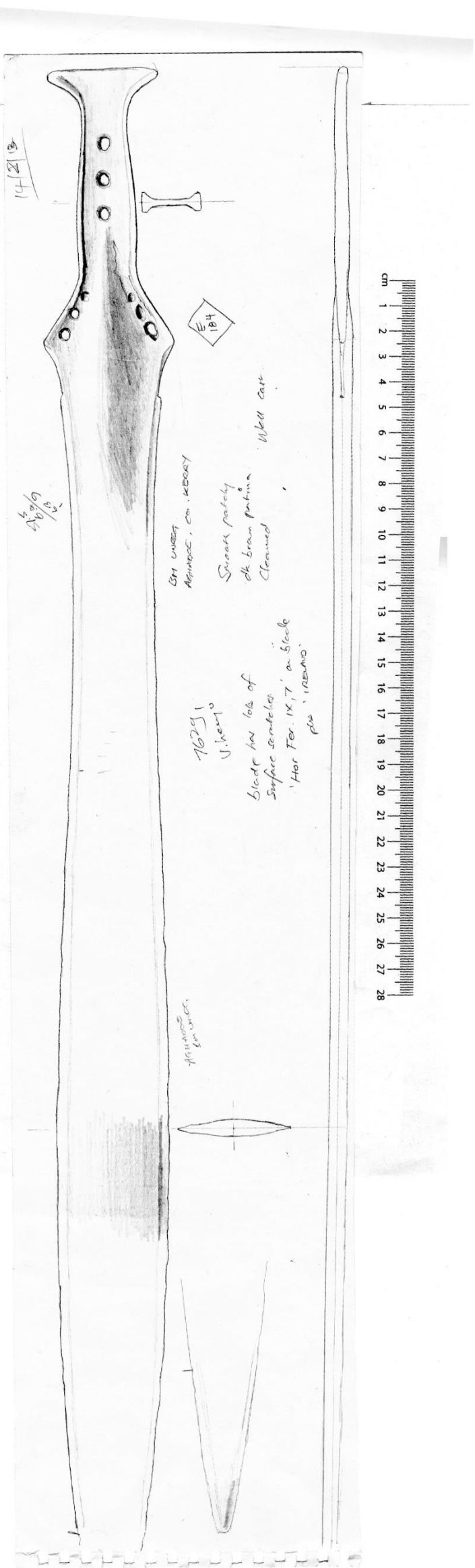
181


E 181
SOBEG EAST
Ca. Gnaeus
NH 11
1960 : 571
1. c. piece
Ok brown patina
Blade V. worn
part of some weapon but
not piece of a knife

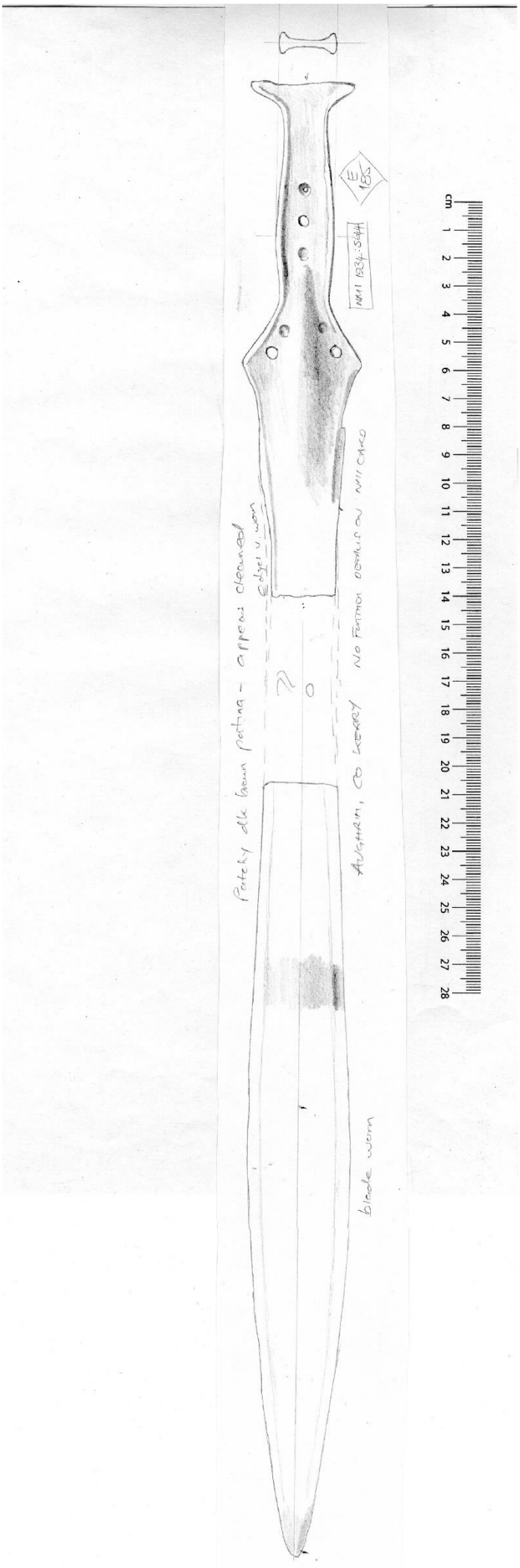
182


Very worn – river erosion?
NH1 1983:234
E 182
Slack patina – cleaned + waxed highly shiny
No edge damage
Label – Bellmore, St Ives Co Cornwall
Note thin wide bevel
4789

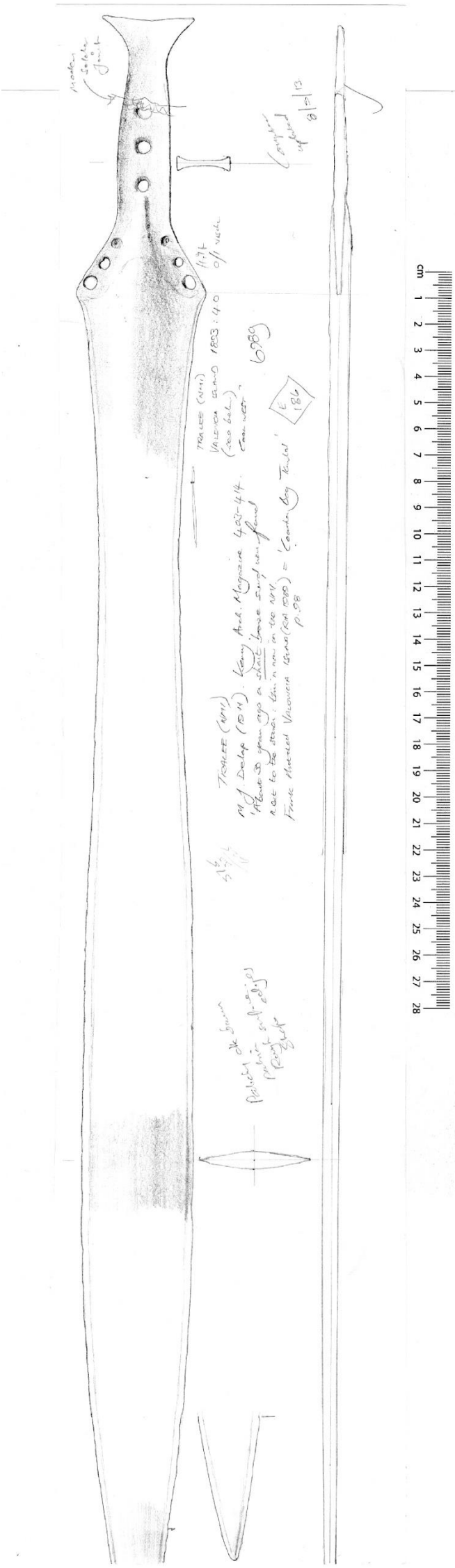
184


14/21/13
E 184
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

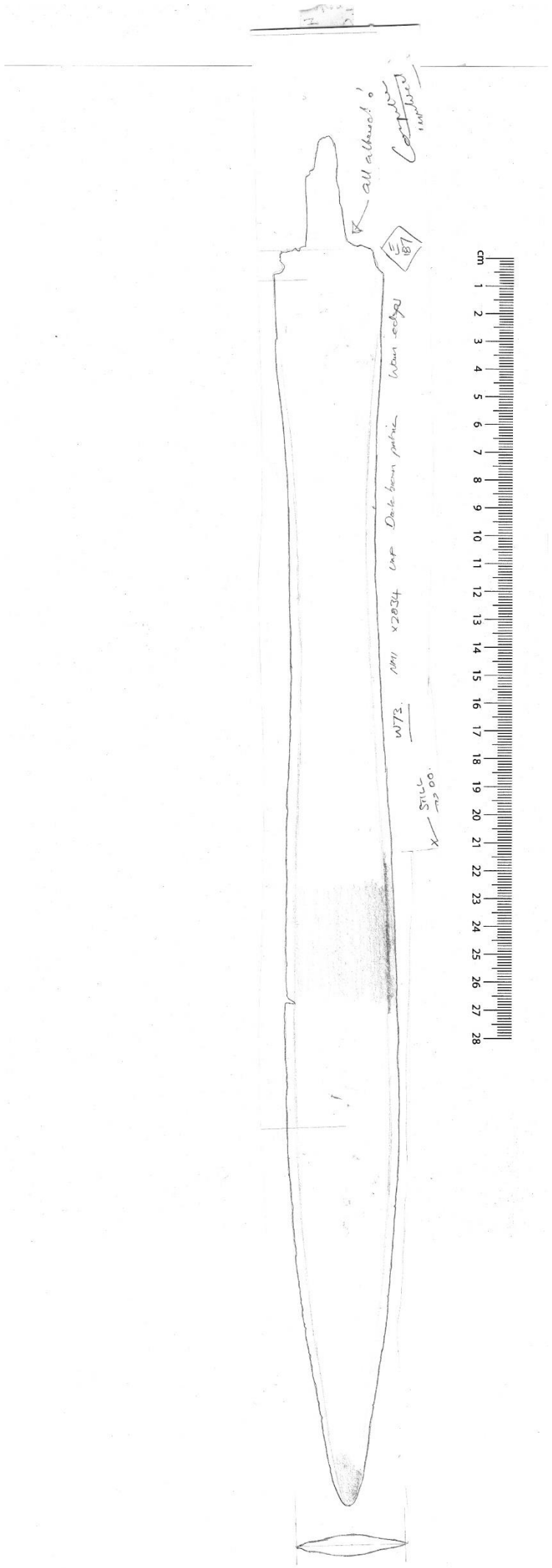
185


E 185
NMI 1934:354
Pottery dk brown pitting - appears cleaned
edge worn
No further details on NMI card
Aughrim, Co Kerry
blade worn
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

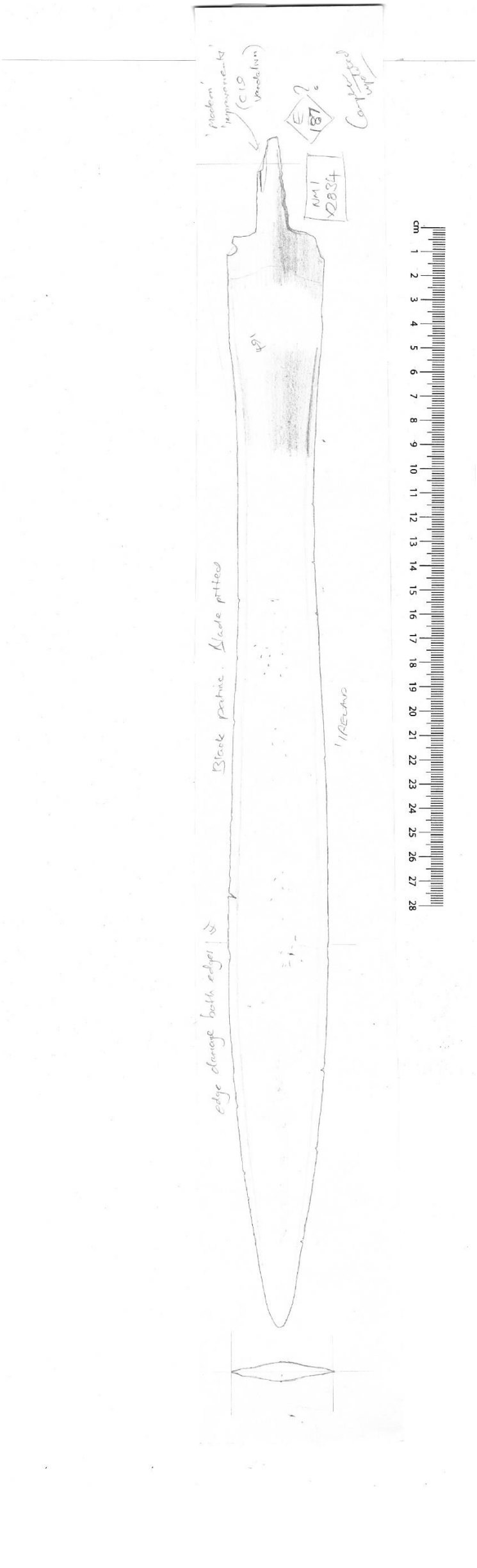
186


TRALEE (NMI)
VALENTIA ISLAND
1893 : 4.0
TRALEE (NMI)
M.J. Delap (1914). Kerry Arch. & Hagiogr. 423-424.
Made of green rock a shale (more study required)
not to be found in the NMI
Finds Material Valentia Island (RIA 1980) = 'Counter Boy Tenlot'
p. 98
E 186
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

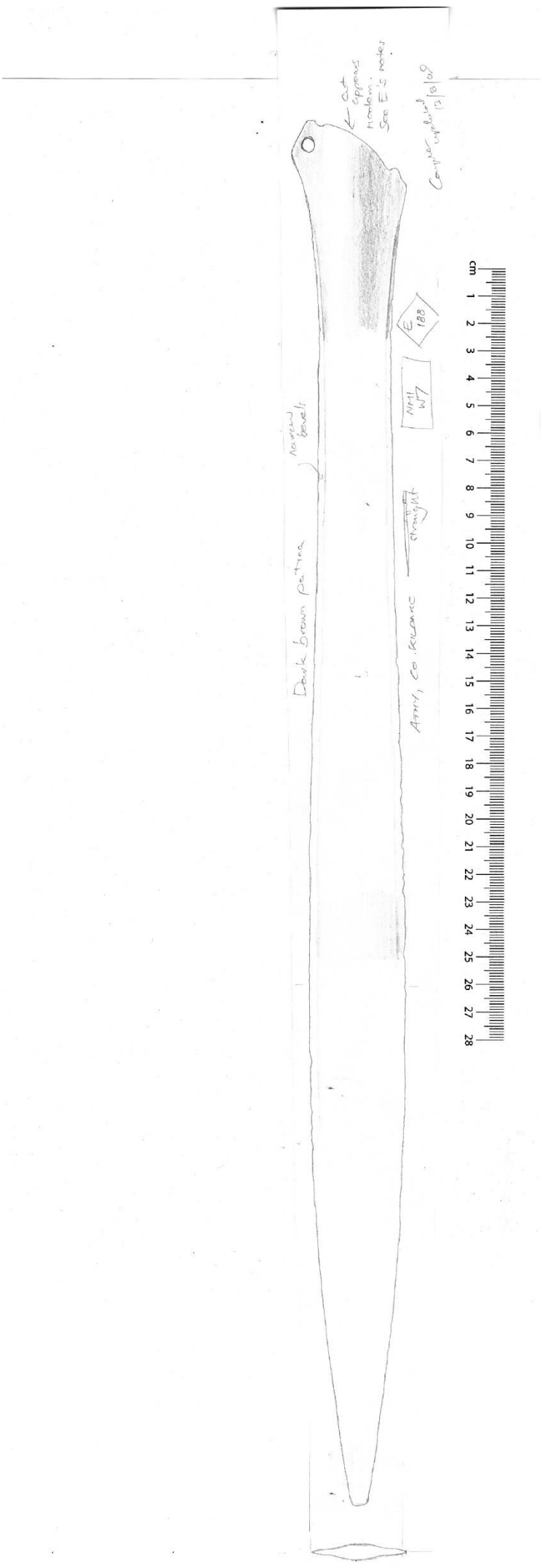
187



187 (2)


'Modern' impression (C19 Vandalism)
187
NMI 12834
Conserved 1987
Black patina. Blade pitted
edge damage both edges
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

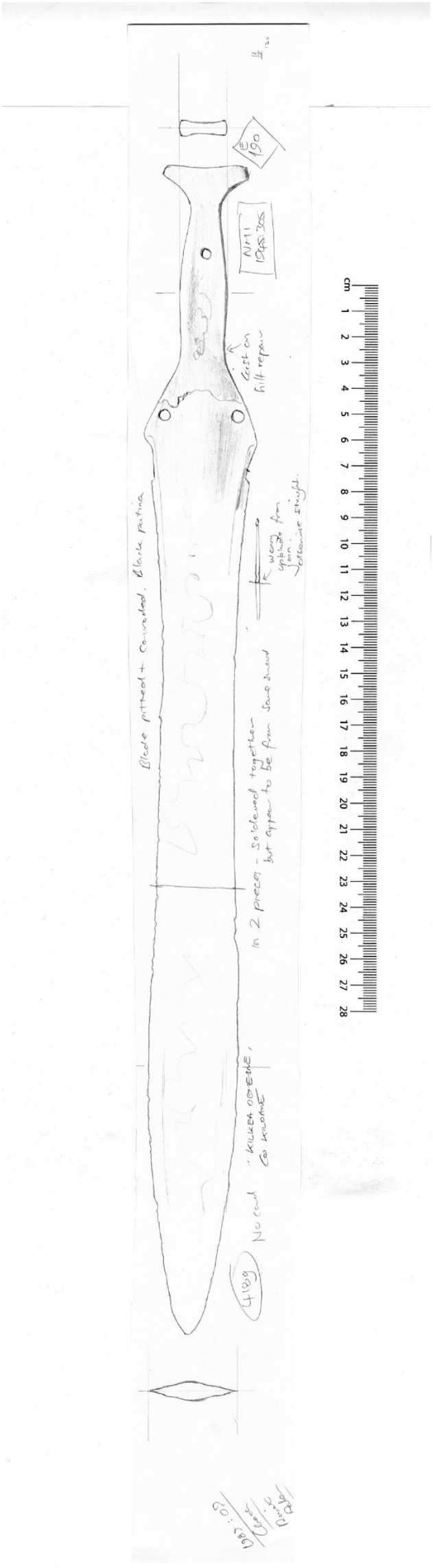
188


Dark brown patina
Army, Co. Kildare
straight
E
188
NMI
W7
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

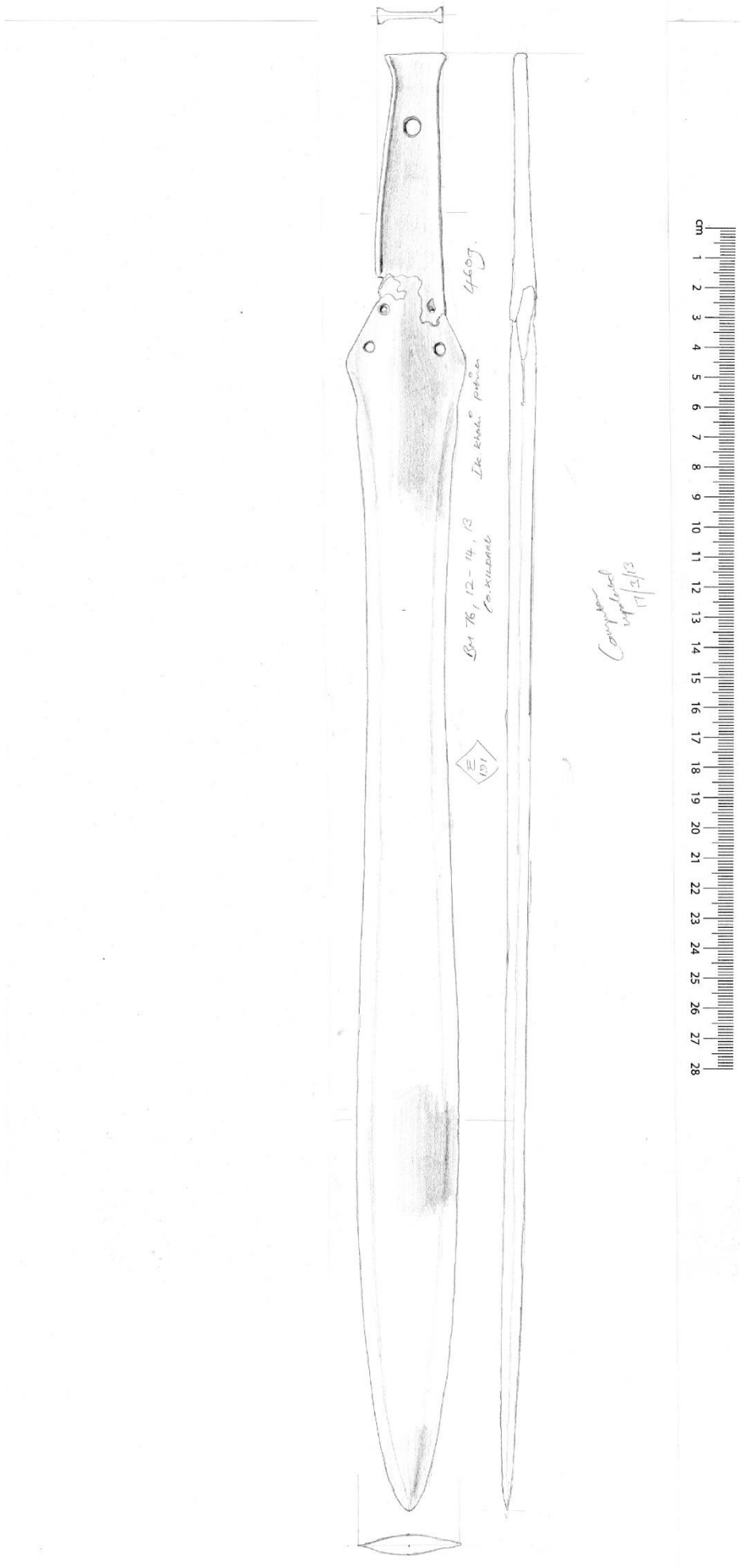
189

3 holes for hilt repair
Grindstone river in situ
Completed 26/7/09
Patchy blank patina
E 189
NMI 1928:699
E - Dredged from R Barrow
Coal index - Found in June 1928 2 Barrowford Island in
Ireland identified from river bed Report. Aug 1928 (Barrow Drainage Bd.)
BALLINTOPLE, Co. KILDARE
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

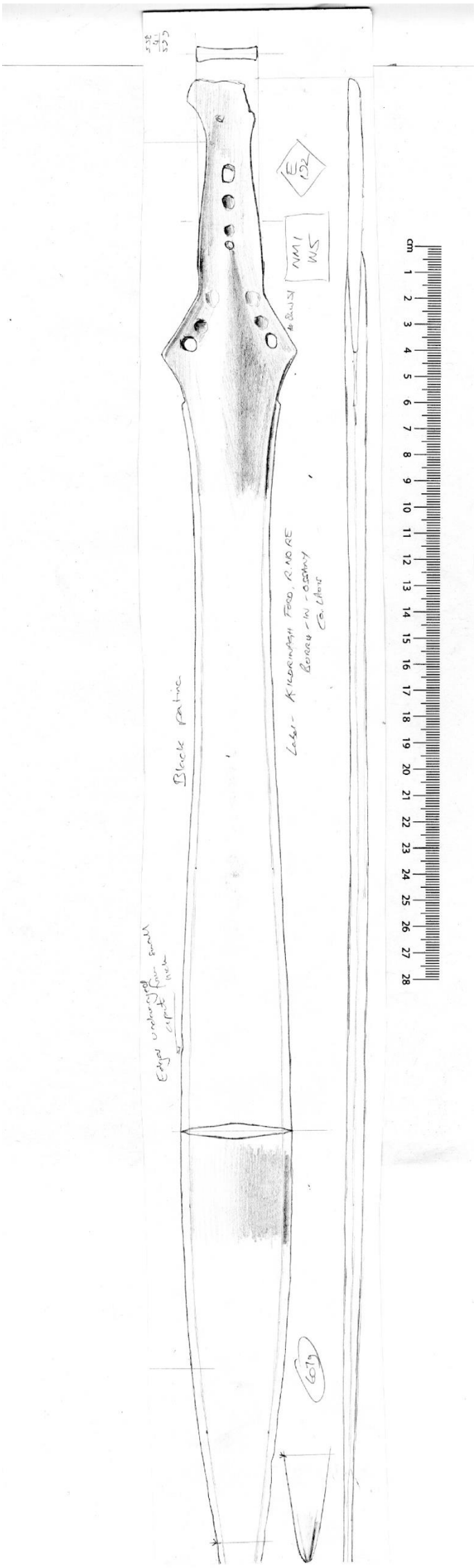
190


190
NM11
1985.305
cut on hilt repair
Blade pitted + corroded. Black patina
In 2 pieces - soldered together but appear to be from same sword
KILLED OCTOBER 20 KILOMETRE
No cord
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

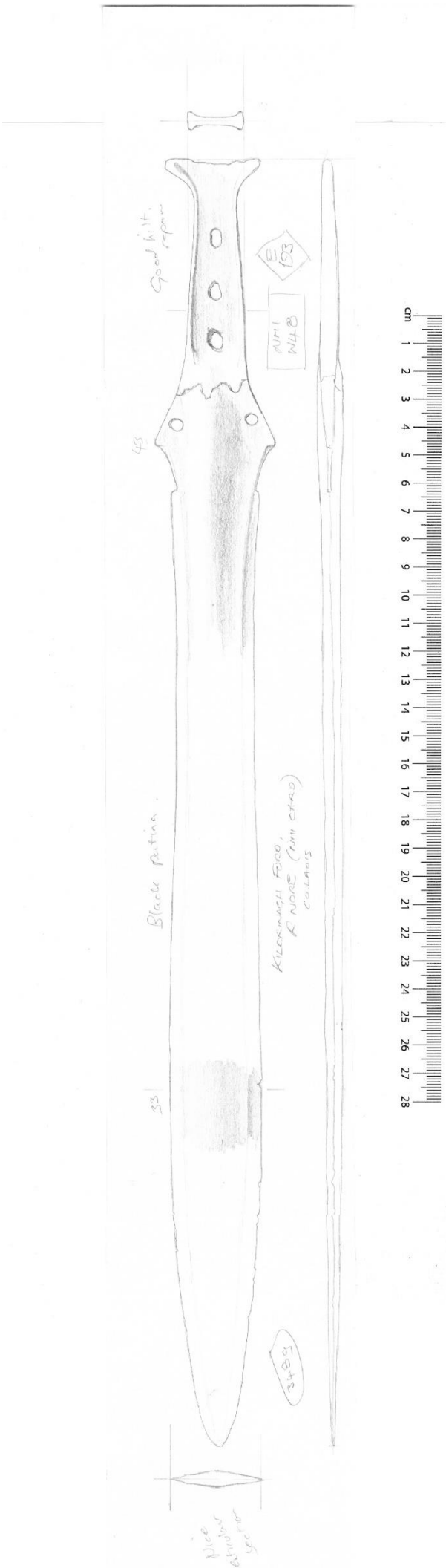
191



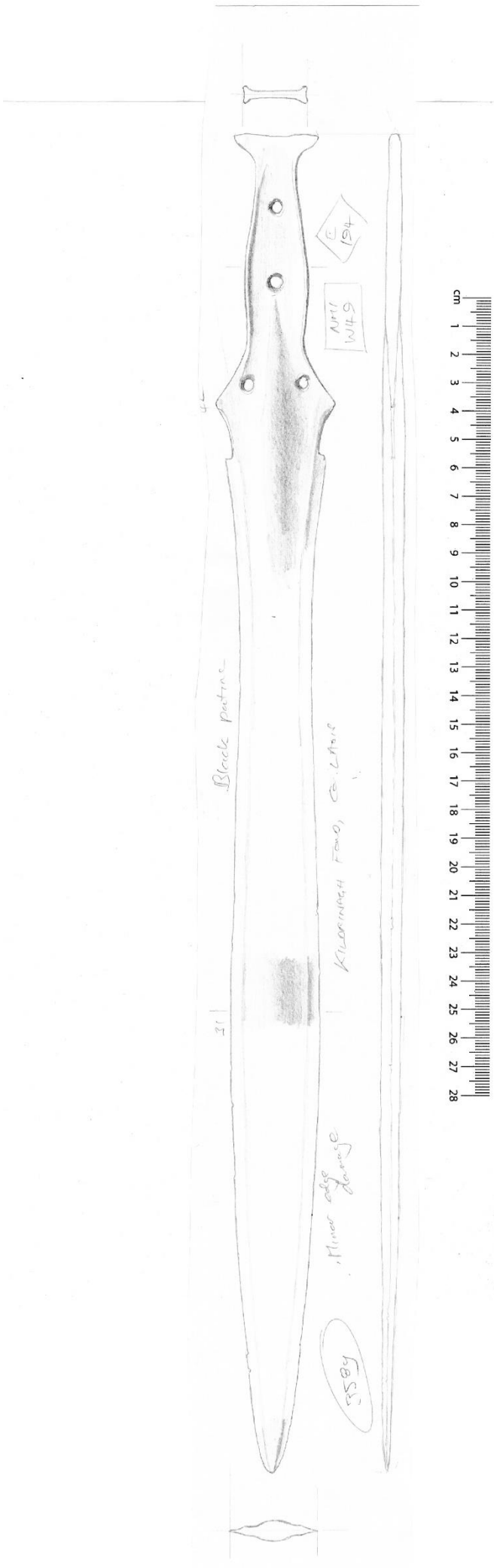
192


E 132
NMI WS
Blade Painting
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

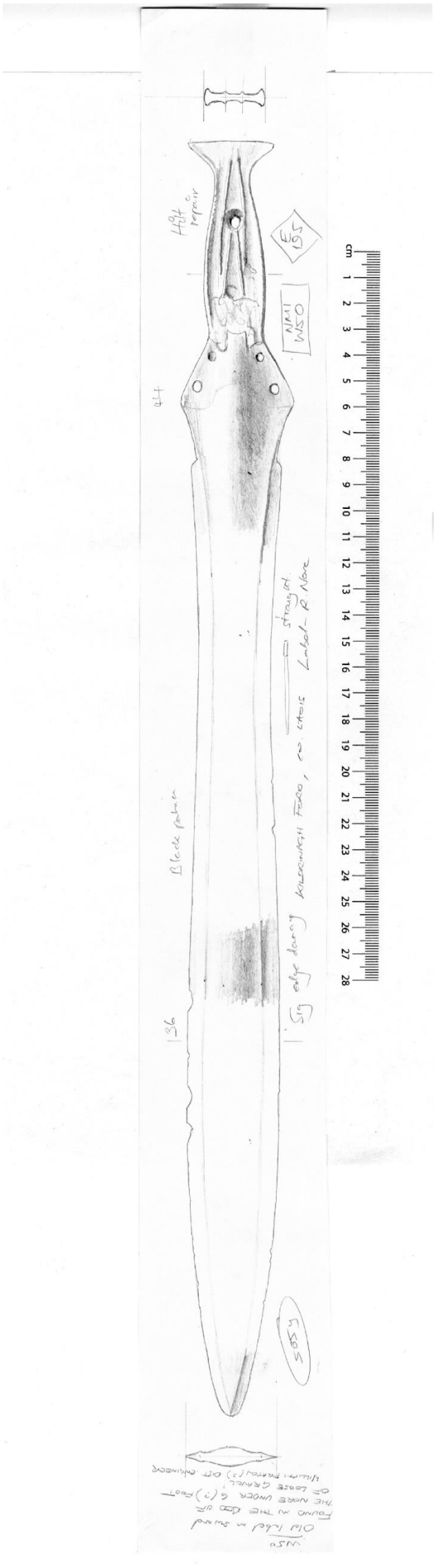
193


Good hilt, repair
Black patina.
KILKENNY FIRD, R NORE (NW CHAD) COLLARS
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

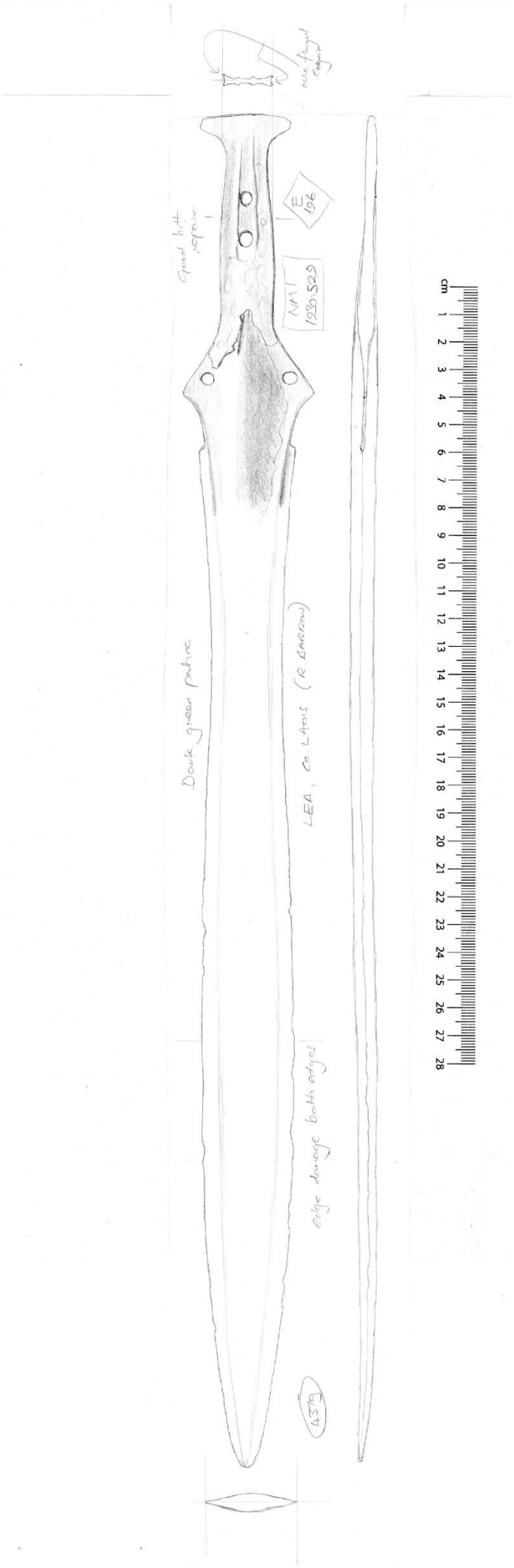
194


E 194
NMI W149
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

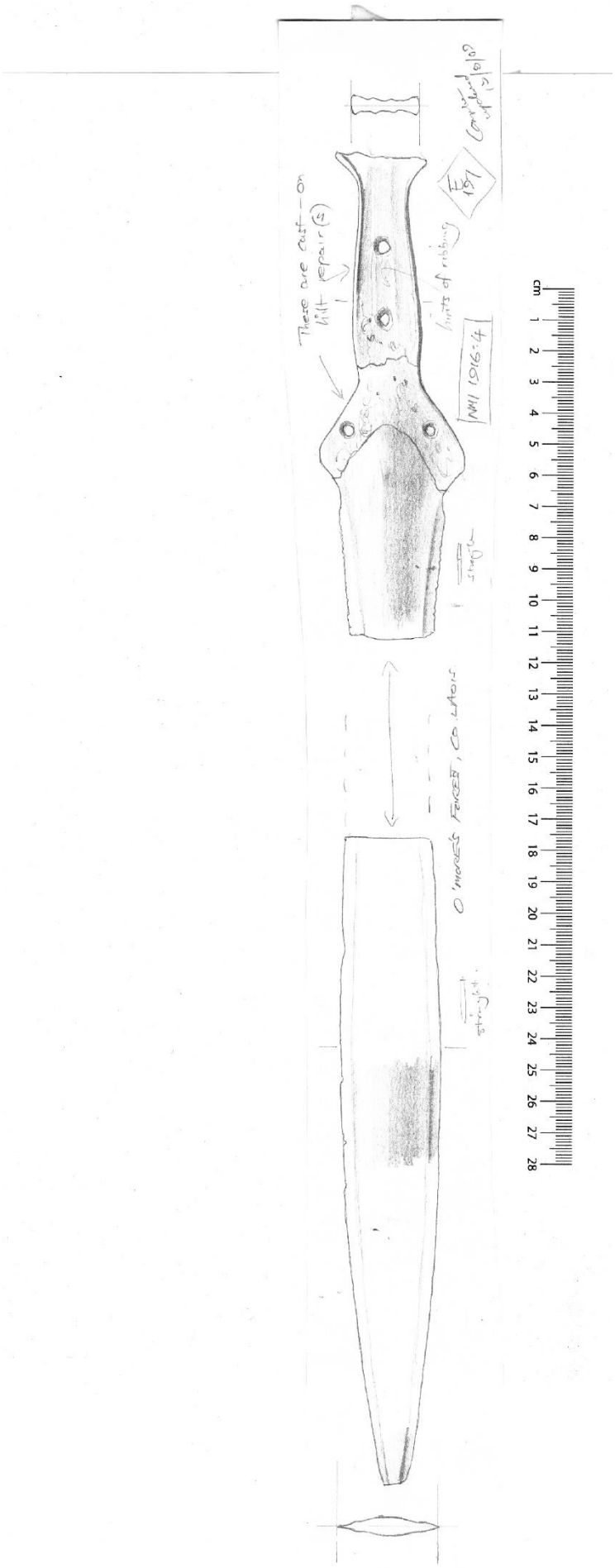
195


cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
EF 195
NMI WSO
Blade narrows
straight
Label - R. Nore
Sig edge damage
KILDONAGH FORD, Co. CAVAN
Found in THE R[illegible] NORE under 6 (?) Feet of GRAVEL
William Fenton (?) Dept. Engineer
Old label on sword
WSO

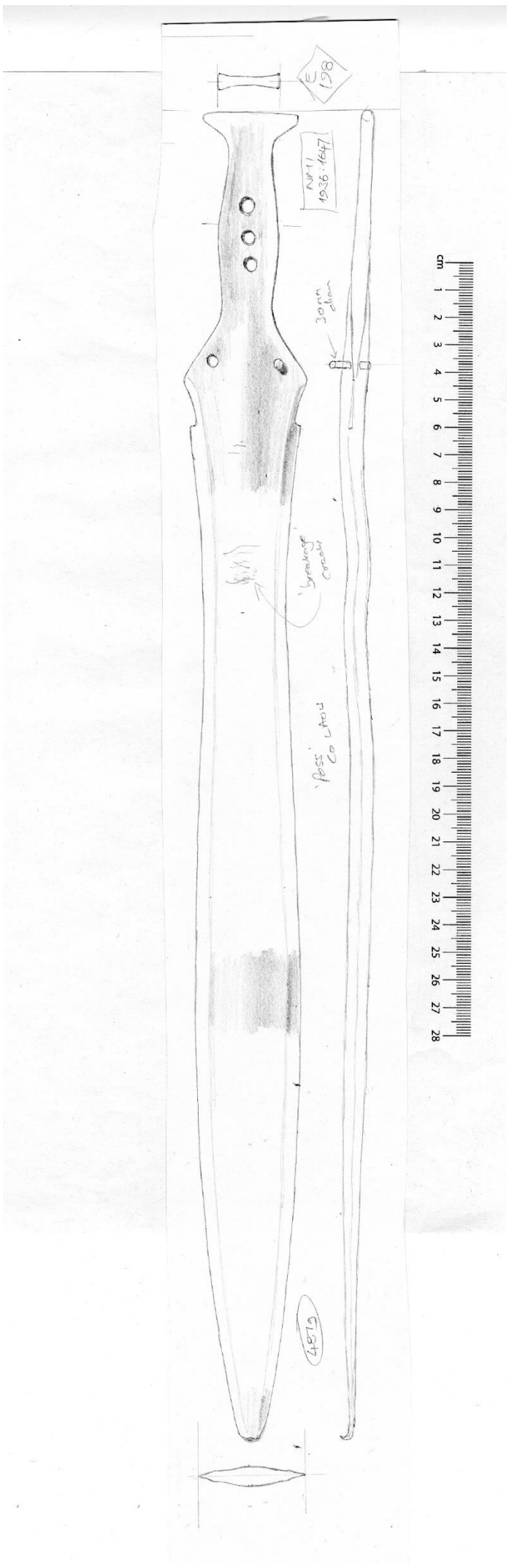
196


E 196
NMI 1980.529
Dark green patina
LEA, Co Laois (R Barrow)
edge damage both edges
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

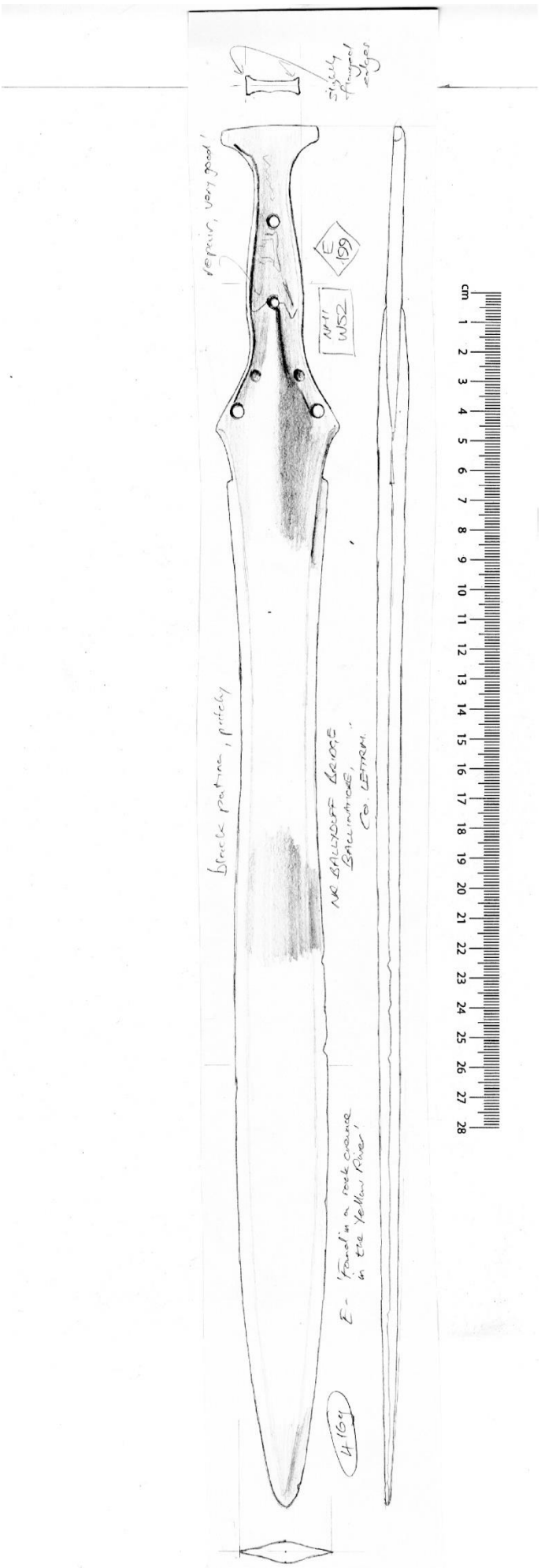
197



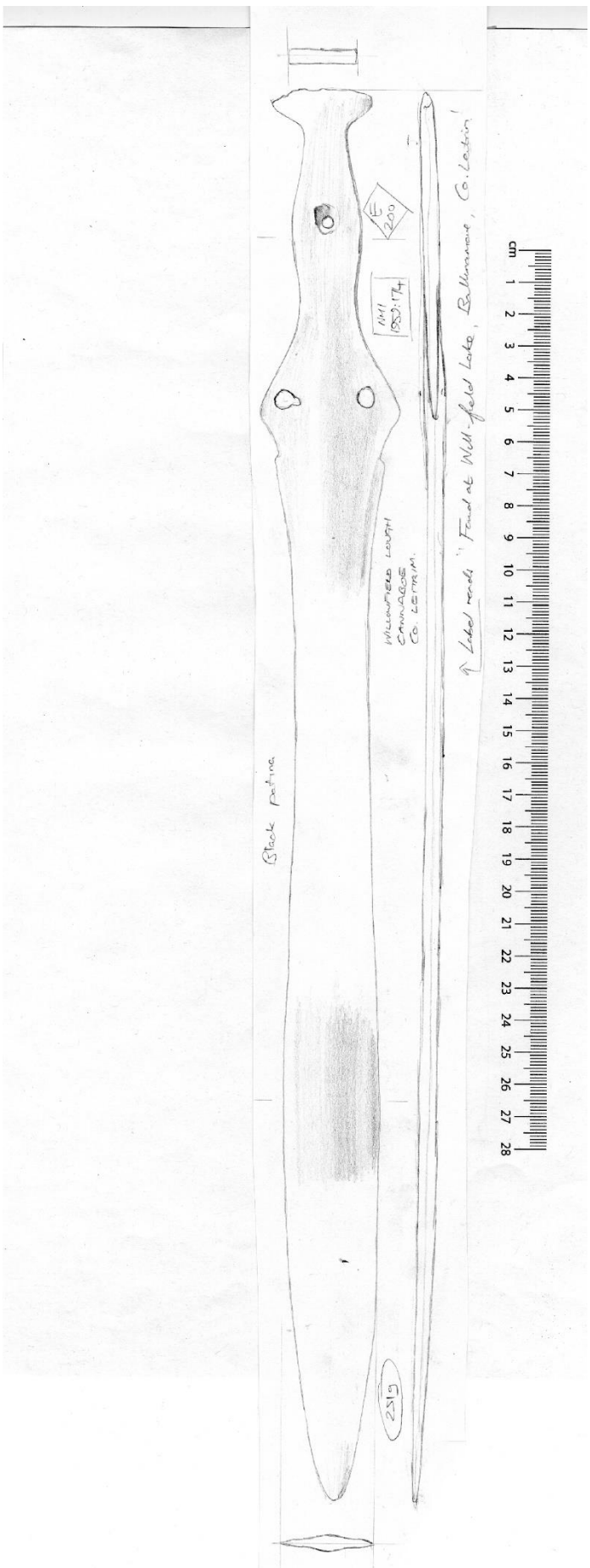
198



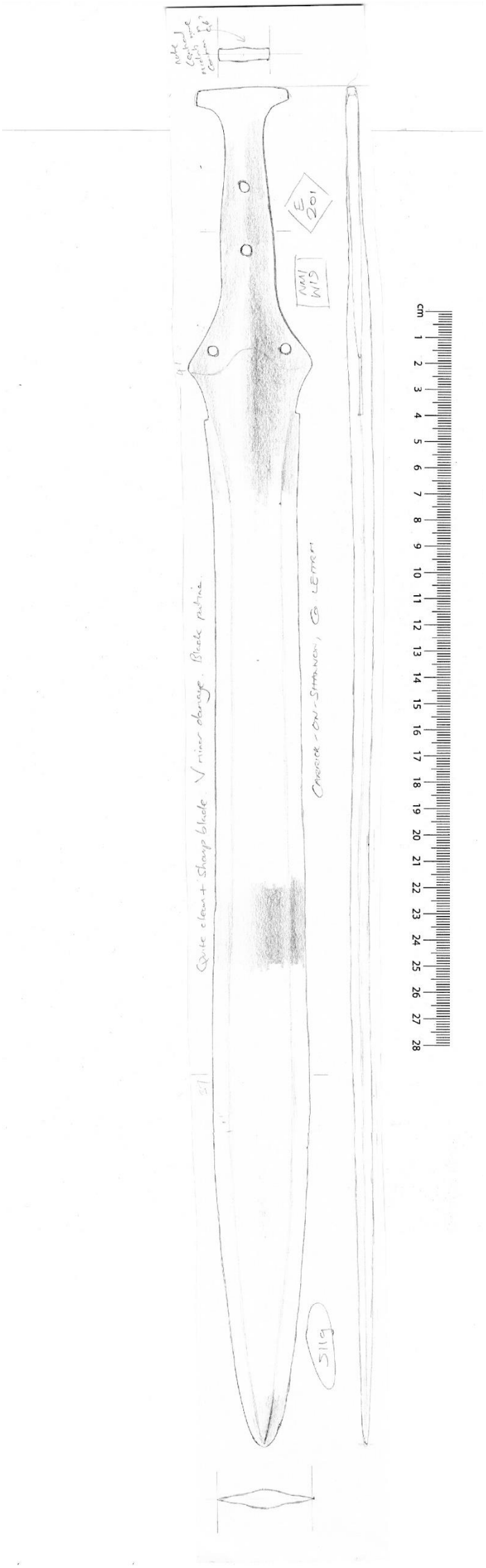
199


Slightly Arrowhead shape
Repair, very good
E 199
NMI WS2
Dark patina, pitted
NO BALLYDOFF GROUPS
SPECIMENS
Co. LEITRIM.
E- 'Found in a rock crevice in the Yellow River'
H 199
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

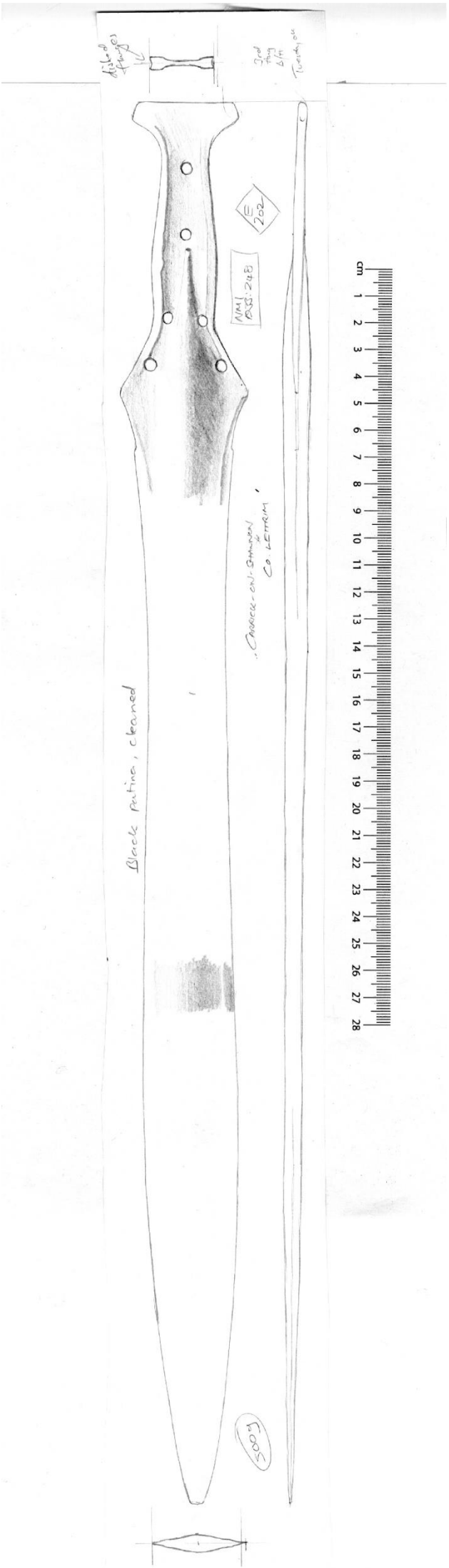
200


E 200
NMI 1959:174
MOUNTED LIGHT CARRIAGE CO. LEITRIM.
Label reads "Found at Mullafield Lake, Ballinamore, Co. Leitrim"
Black patina
251
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

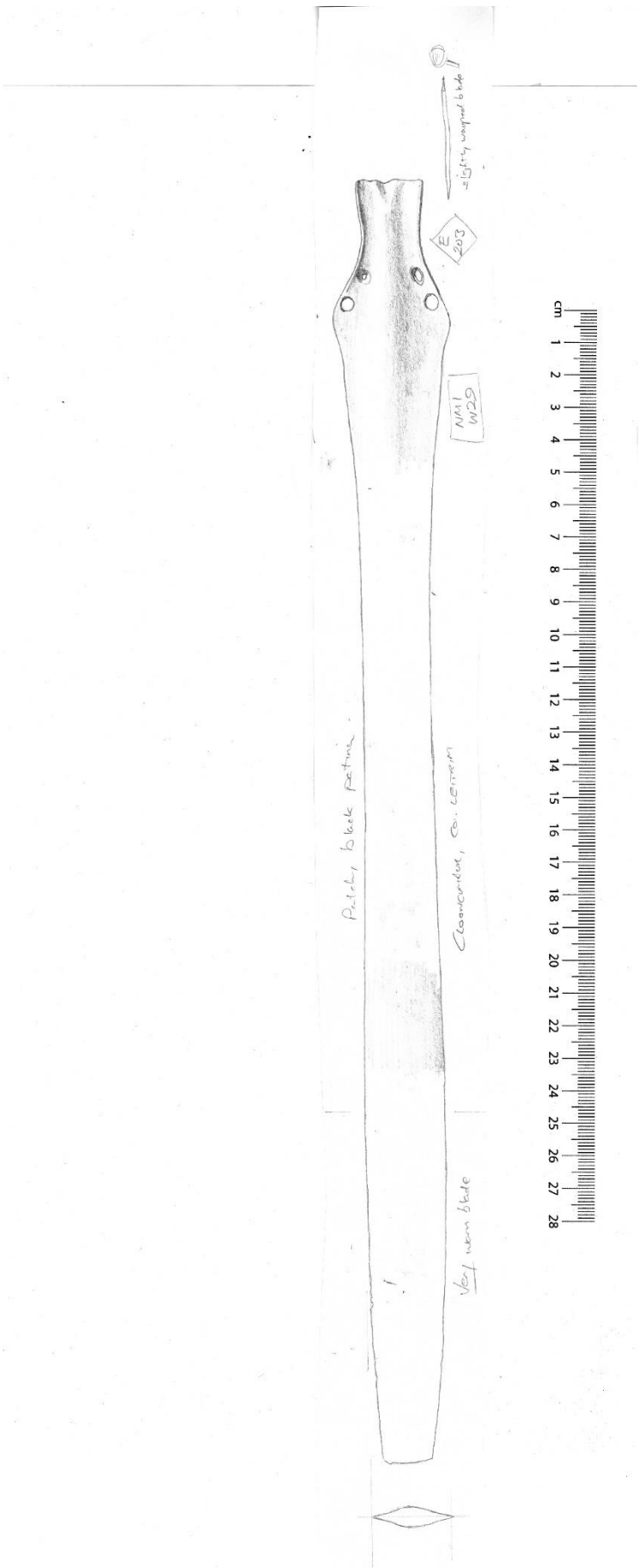
201


E 201
NMI W15
Quite clean + sharp blade. V minor damage. Blade patina.
Cheddar - on - Strawn, © LEMM
5119
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

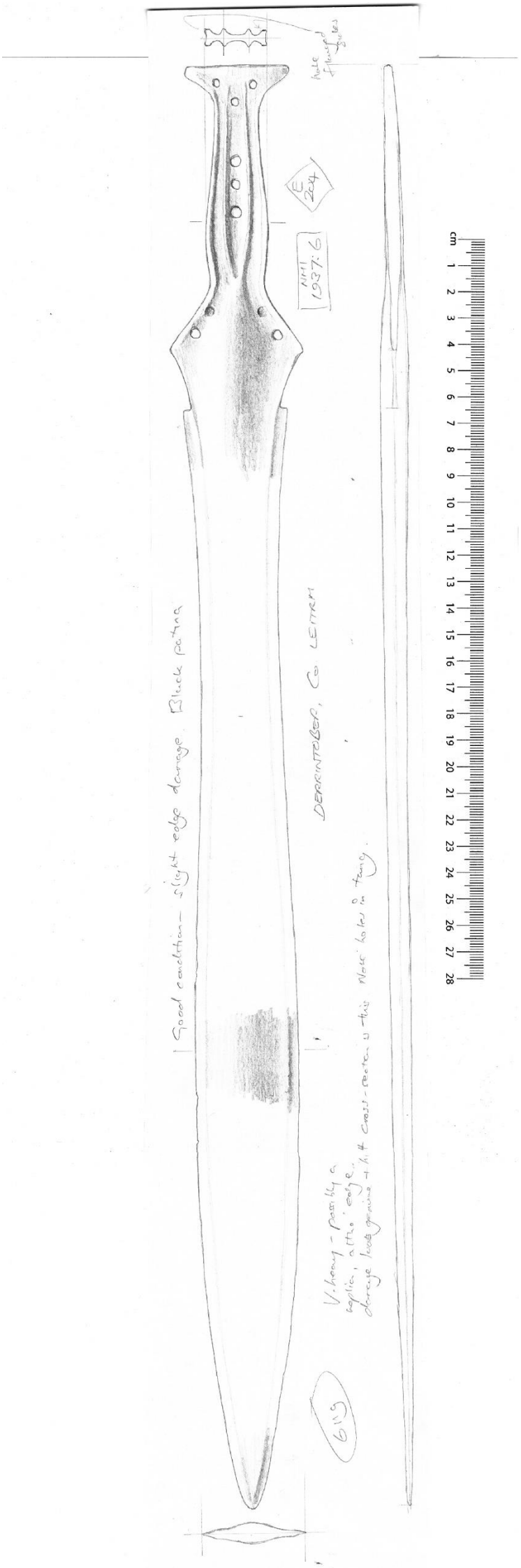
202


E 202
NMI EXC 248
Blade portion, cleaned
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

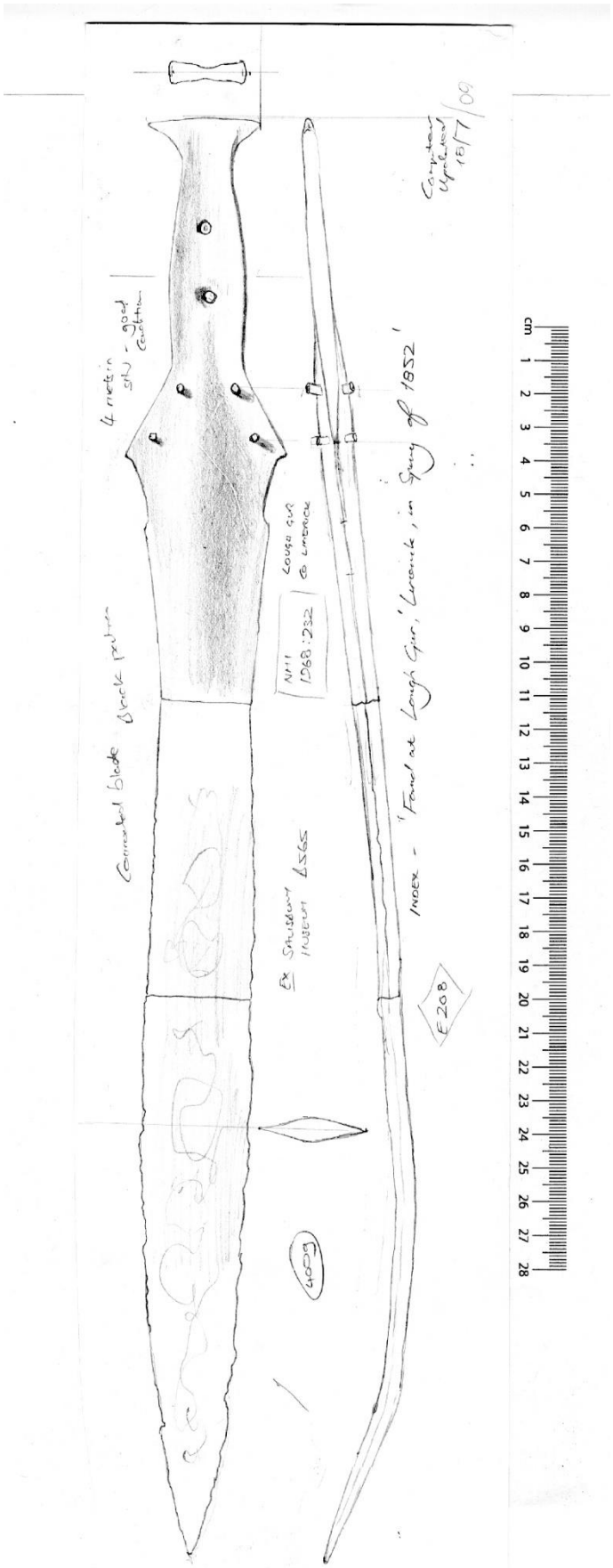
203


slightly warped blade
E 203
NA1 W29
Patch, black resin
Clearwater, Co. Lemam
Very worn blade
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

204


Note flanged guides
E 204
NMI 1937: 6
DERRINTEIGH, Co LEITRIM
Good condition - slight edge damage Black patina
V. heavy - possibly a halberd, early R., damage both sides + tip. Note holes in tang.
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

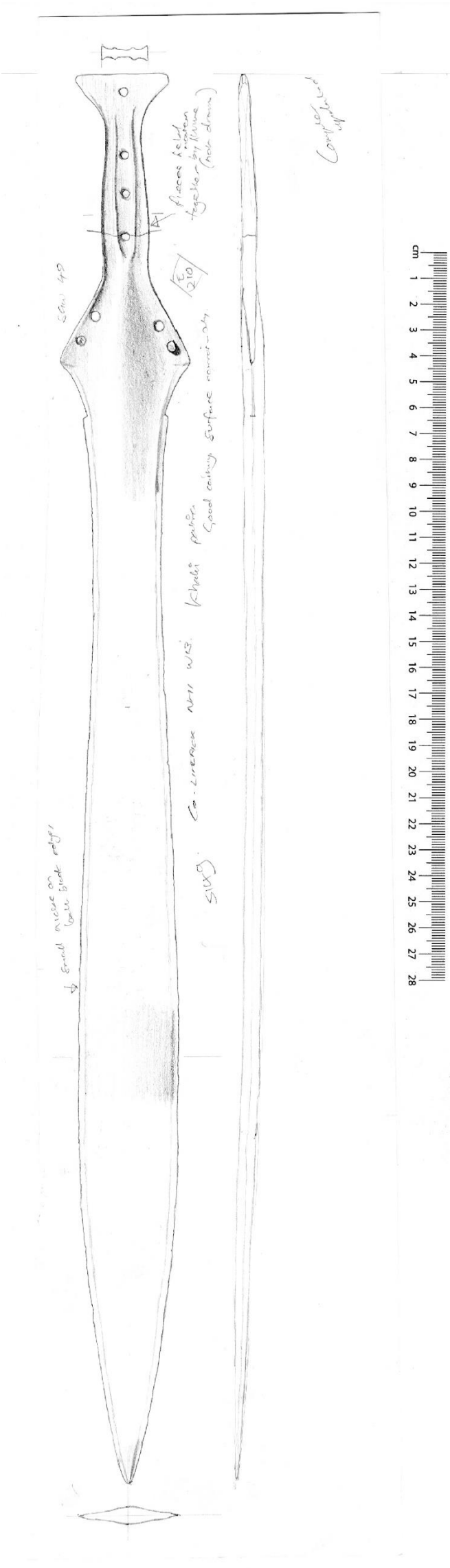
208


Computer Updated 15/7/09
4 metals - good condition
Cannon blade
Blade pattern
NMI 1968:232
Cougil Gap Co Limerick
Ex Smithson Museum
INDEX - 'Found at Lough Gur, Limerick, in Spring of 1952'
E208
4009
cm

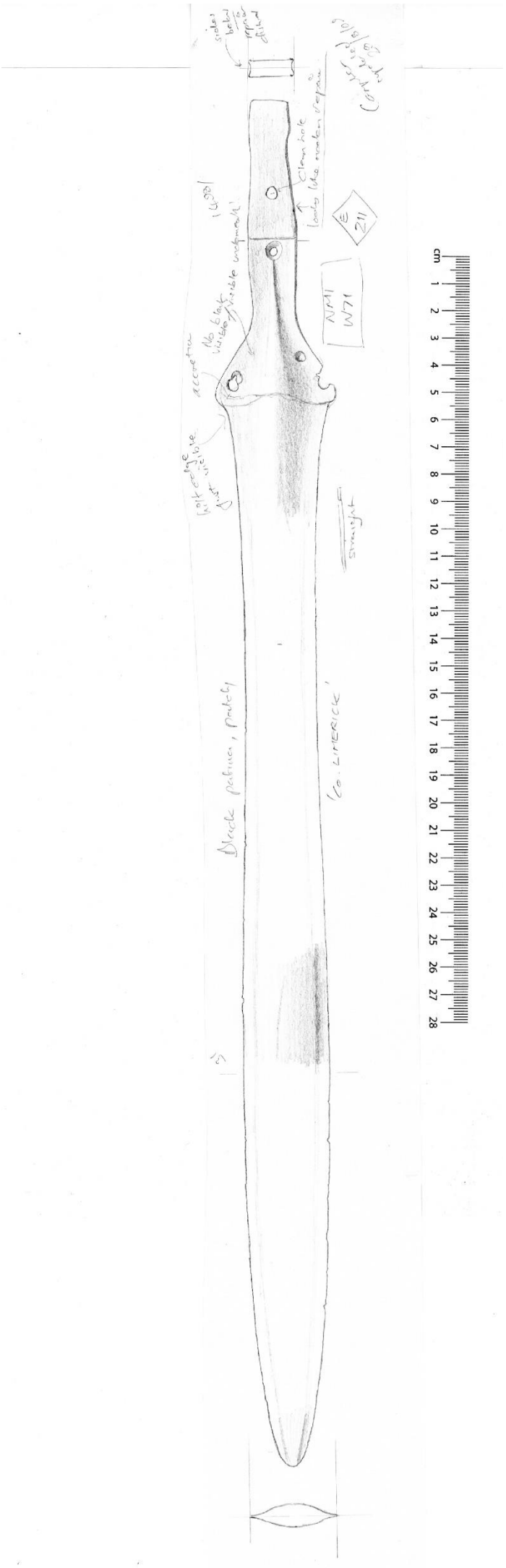
209

E 209
NM1 1929.175
Black patina
NR SHANAGOLDEN, Co. LIMERICK
NM1 CAT — 'Found in a marsh or sandpit
under either bronzes but not necessarily a hoard'

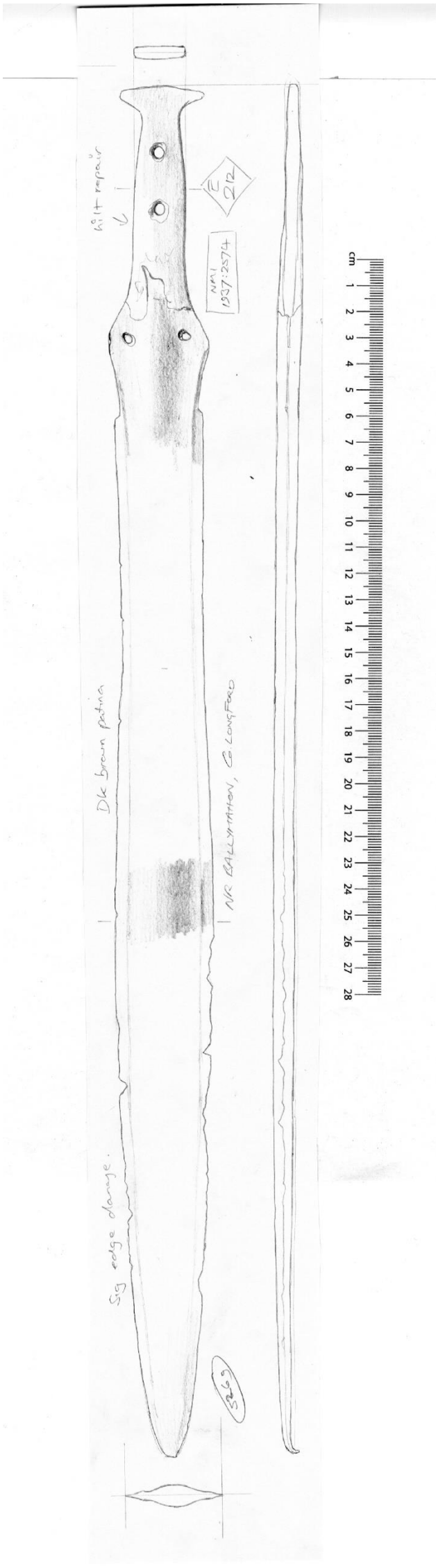
210



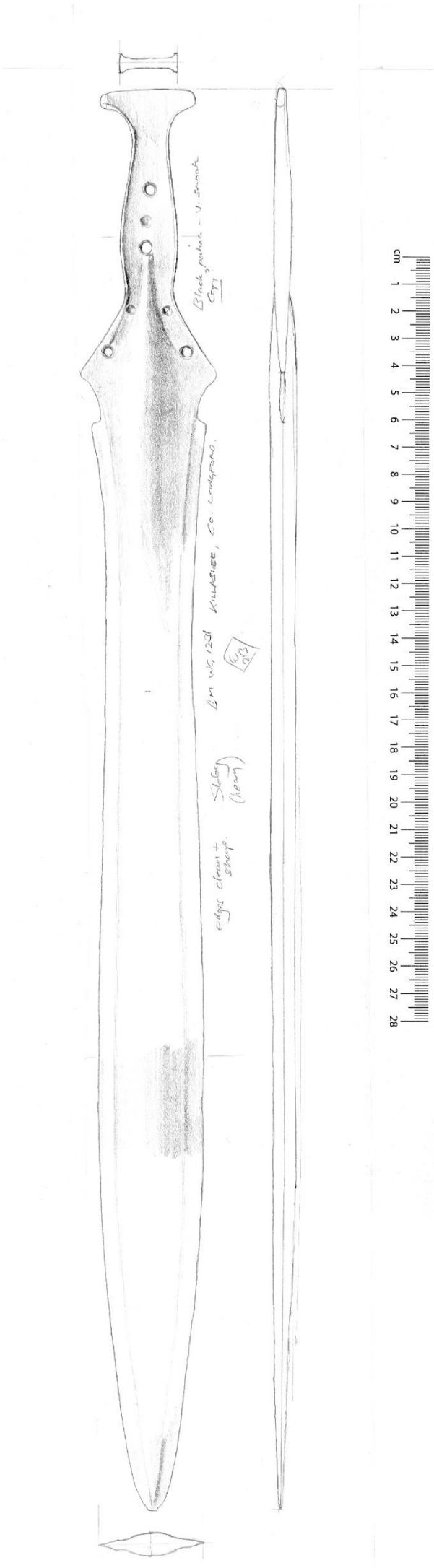
211



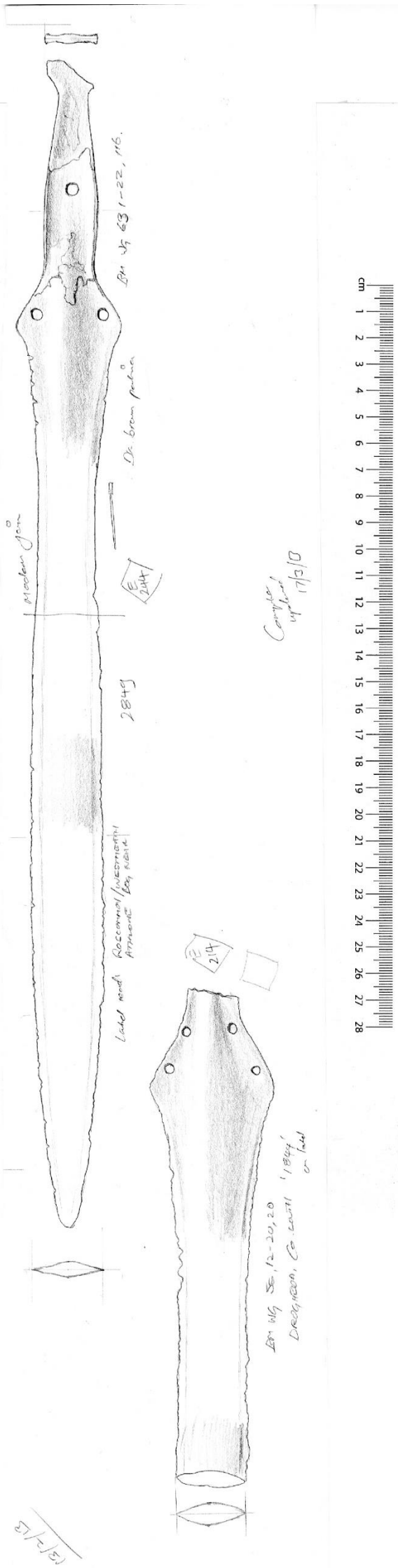
212


Hilt repair
E 212
NMI 1937:2574
Dk brown patina
NR BALLYMAHON, Co LONGFORD
Sig edge damage.
SR69
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

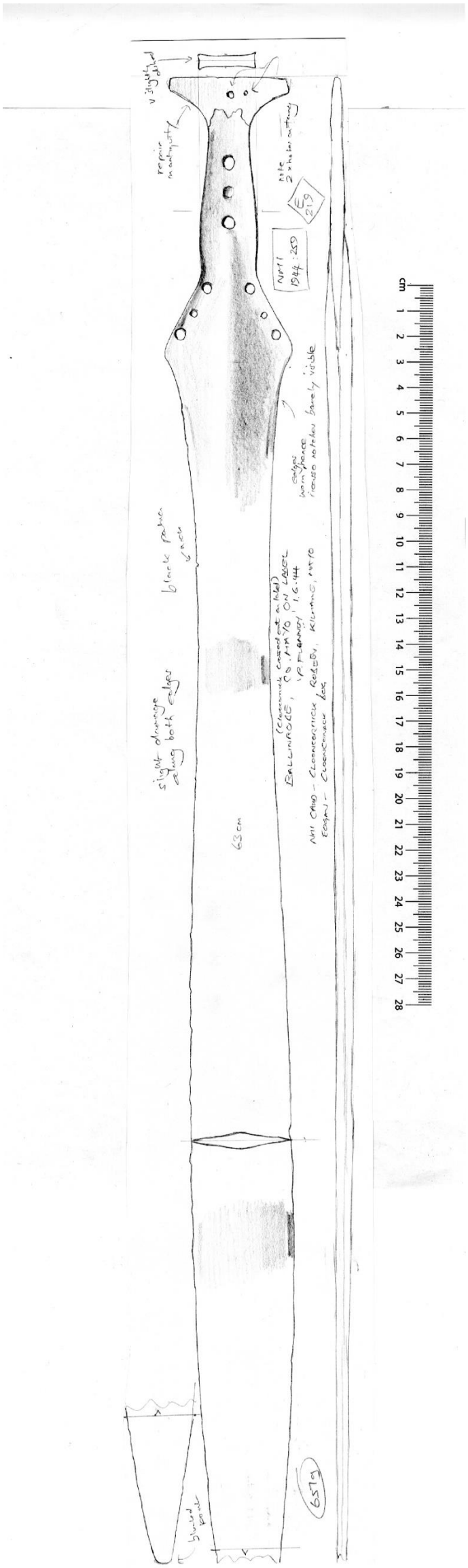
213


Black patina - V. smooth
Copy?
Killashee, Co. Longford.
Slaty (heavy)
edges clean + sharp.
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

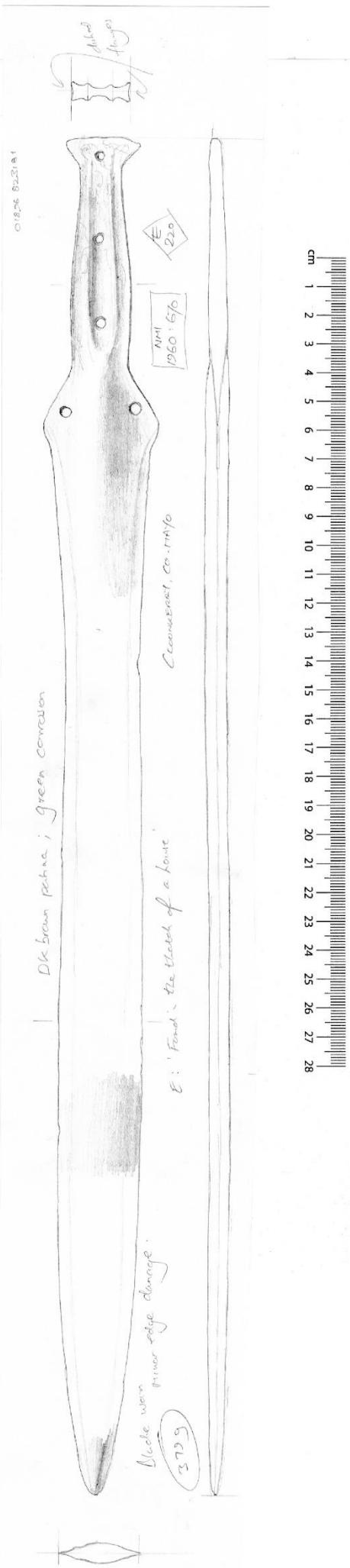
214 and 244



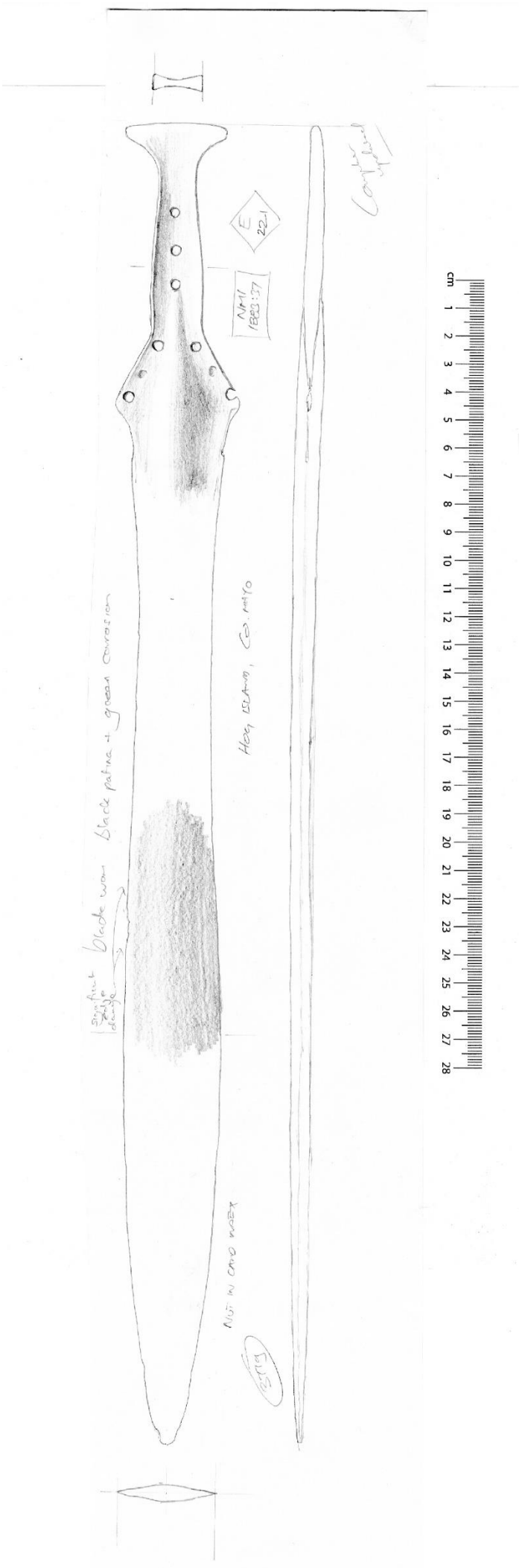
219


63 cm
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

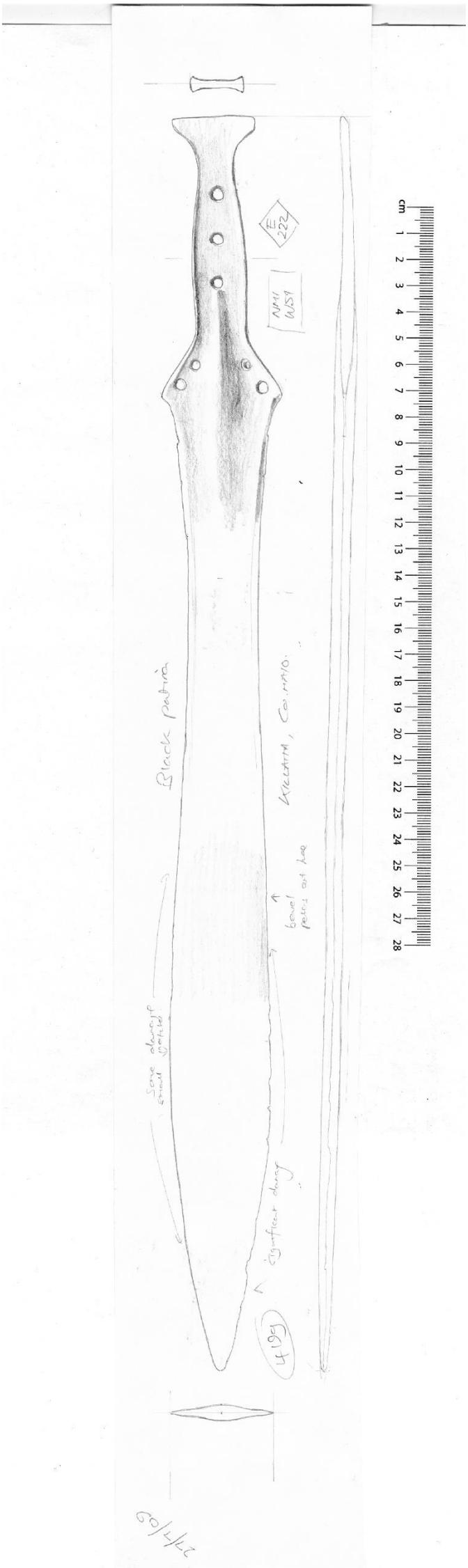
220


E 220
NMI 1950 : 670
Dk brown patina ; green corrosion
Blade worn, minor edge damage
379

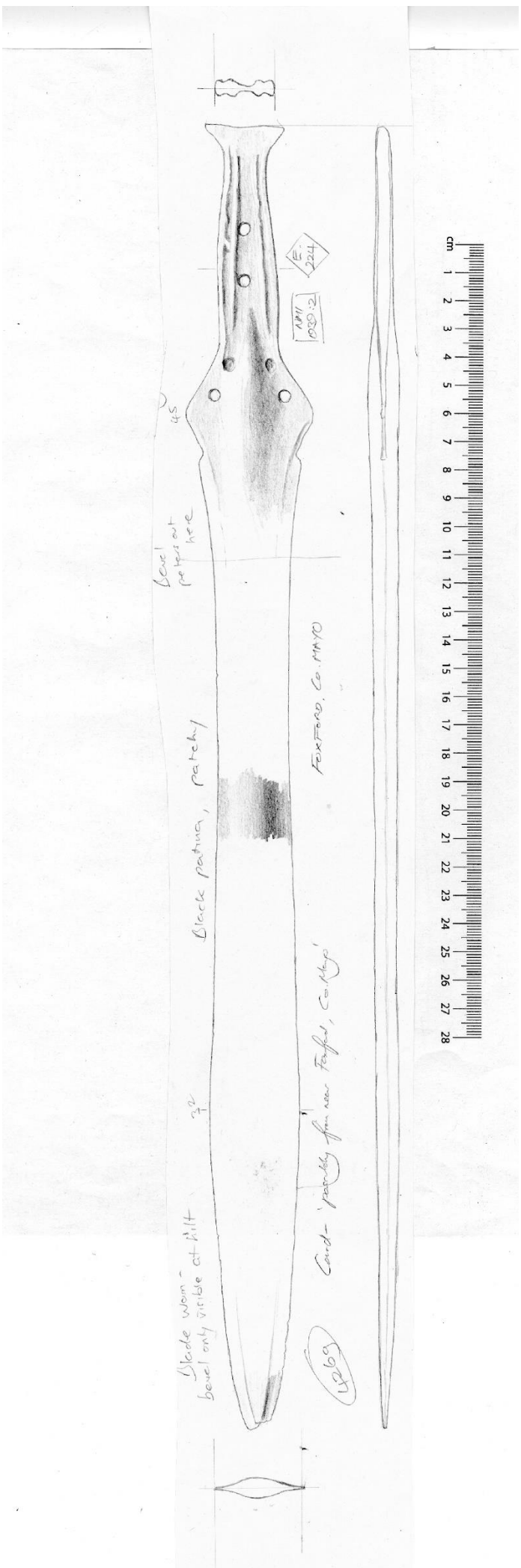
221


E 22-1
NMI 1883:37
Heavy corrosion, Co. Mayo
Blade worn
Slight ridge
Edge
Rust in end mark
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

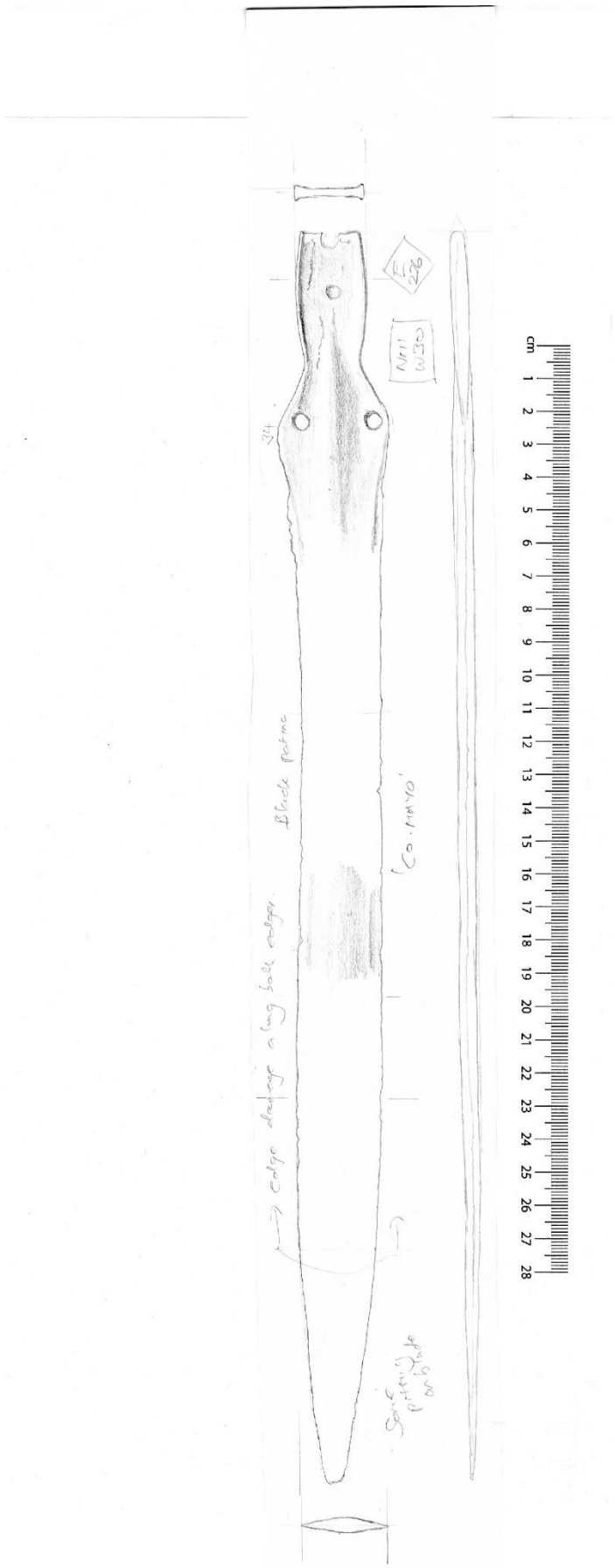
222


E 222
NMI WS9
Black patina
KILLEARN, Co. MEATH.
bevel petina cut back
Some damage & metal pitting
significant damage
4191
27/4/05
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

224

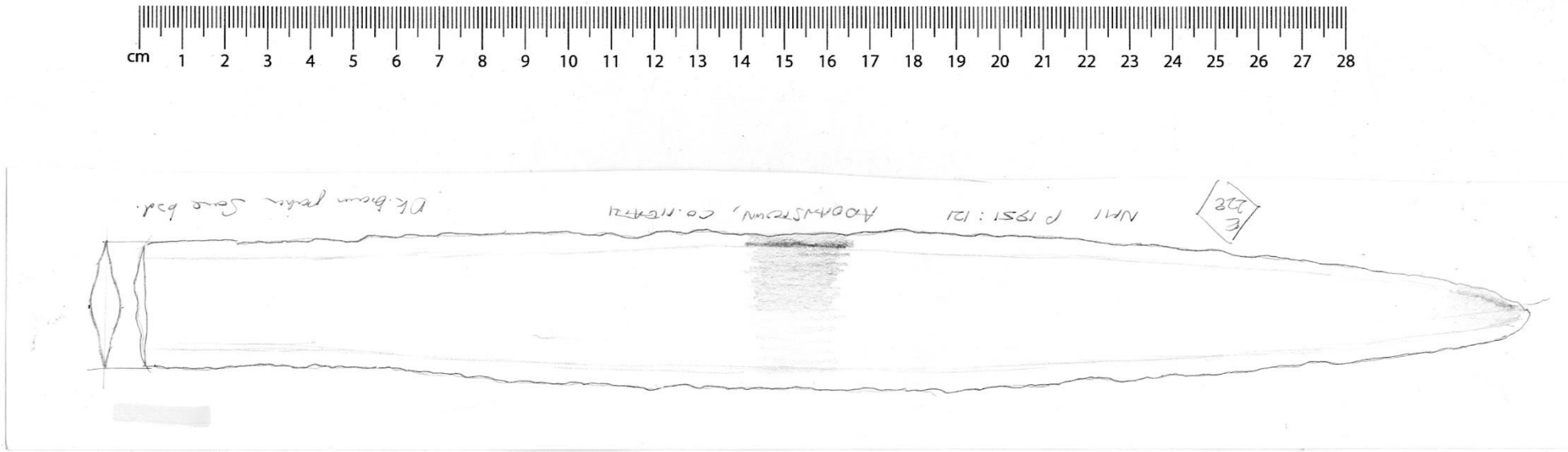

E: 224
NMI 1939:2
45
bevel petered out here
Black patina, patchy
FOXFORD, Co. MAYO
Blade worn - bevel only visible at hilt
Cast - probably from near Foxford, Co. Mayo
1969
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

226


E 226
N111 W30
Blade portion
(Co. mate)
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

227

quite corroded
Soldered joints
Black/brown patina with a lot of green corrosion
NMI 1953:625
E 227
Label reads 'Ancient Spear found in the Co Mayo'
Computer uploaded 18/7/09
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

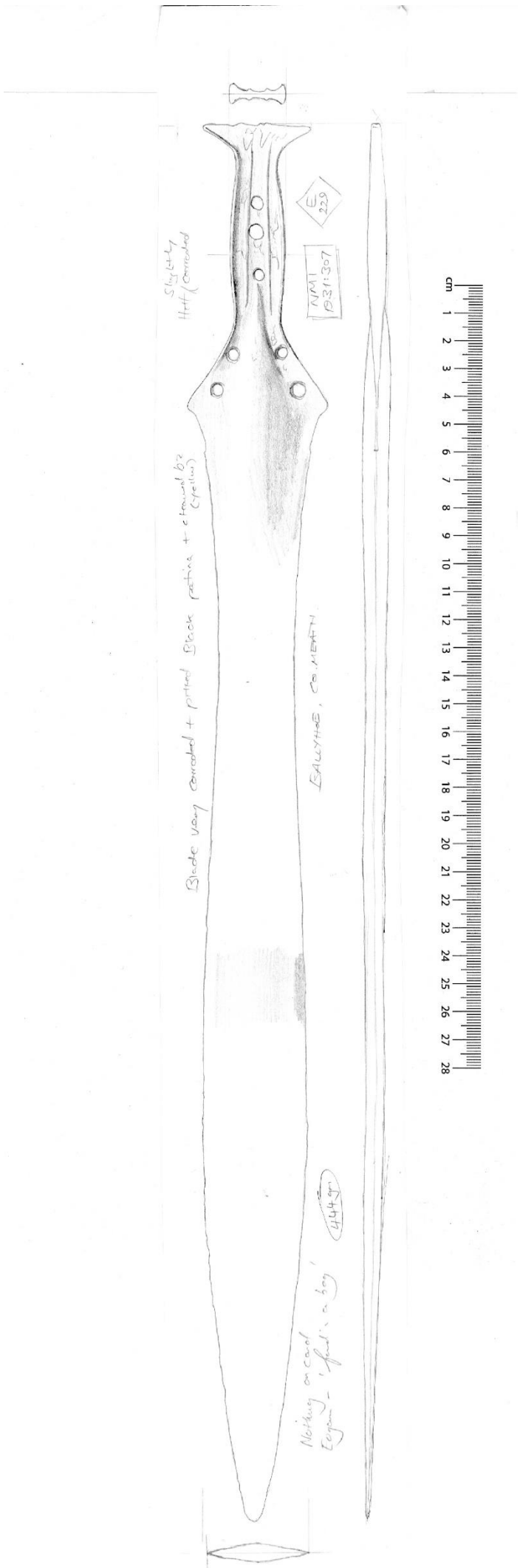

cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
Dk. brown resin. Some bad.
ADAMSTOWN, CO. MEATH
NMI P 1951 : 121
E 322

228 (2)

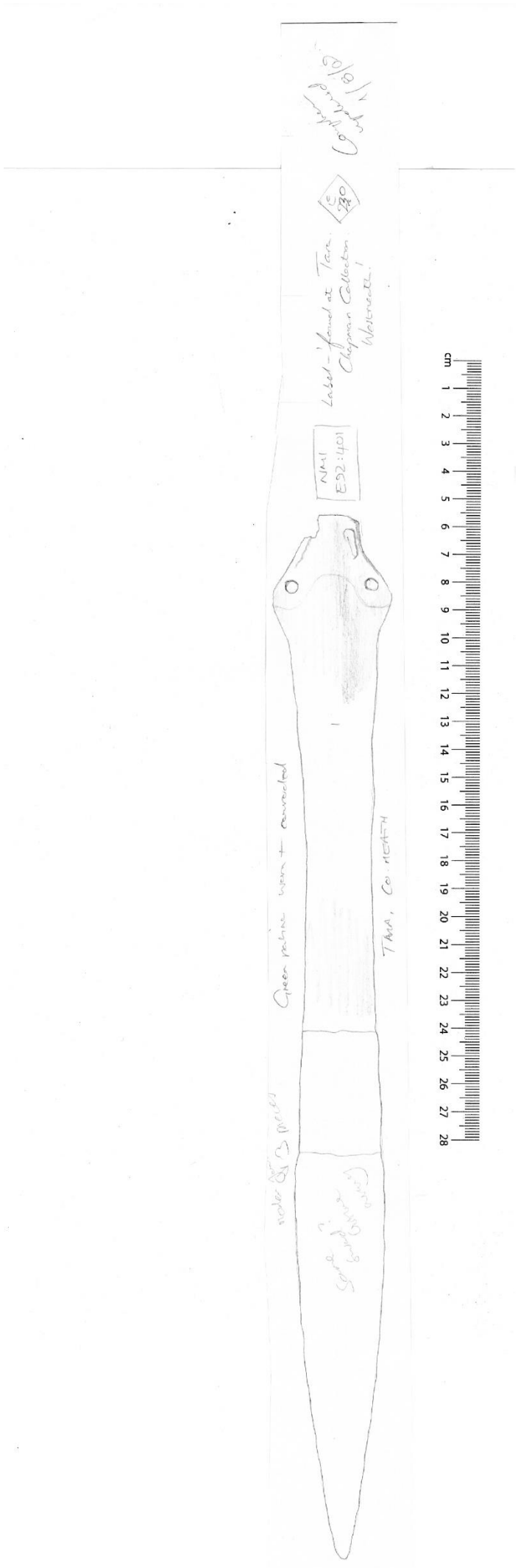
edge damage along both edges
NFII
P1251 :121
E 228
Conserved 18/7/10
NFII Found cod. -
Ferrous staining/damage in gravel at 12" under the bed of the stream
, ADDINSTOWN, Co. KILDARE

cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

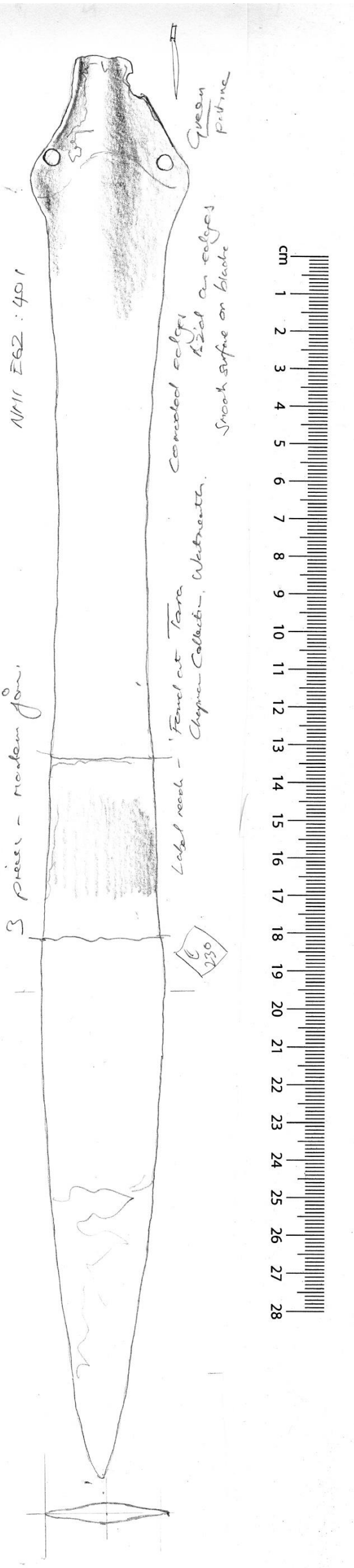
229

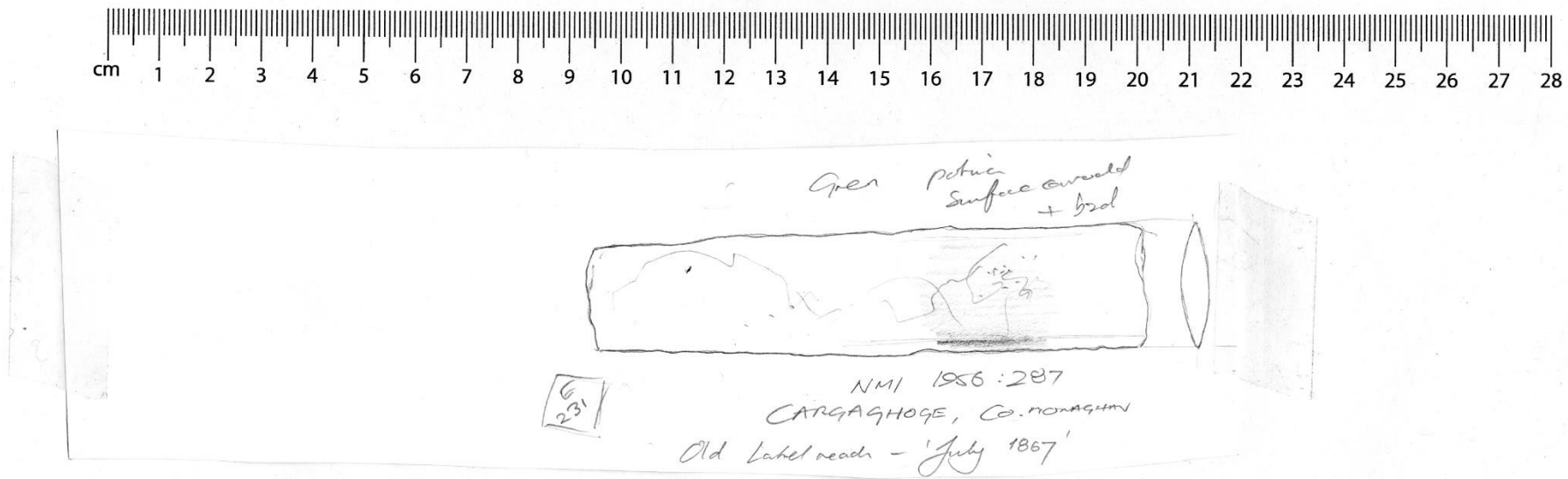

E 229
NMI 1931:307
Slightly Hatt/corroded
Blade very corroded + pitted. Black patina + ethanol ?? (Cyrelius)
BALLYHOE, CO. MEATH
Nothing on card
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

230


NAU
ES2:401
Label - found at Tam. Chapman Collection
Green paint worn + corroded
TAMA, Co. HEATH
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

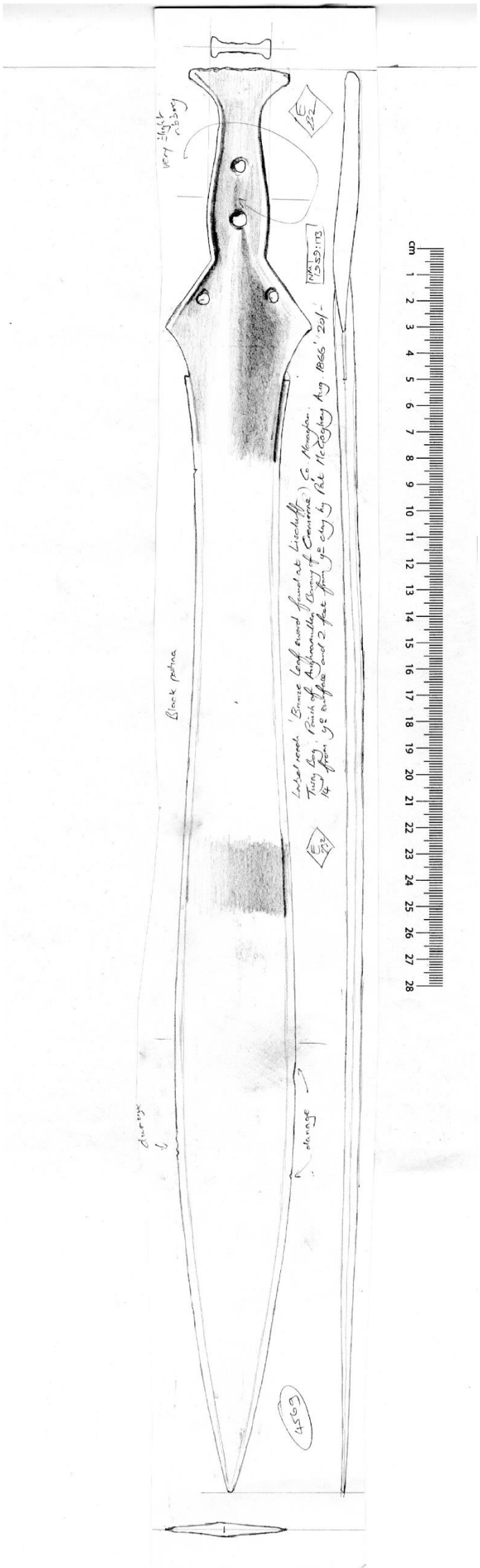
230 (2)


Green patina
Corroded edges
Rest on edges
Smooth surface on blade
1/11 E62 : 401
3 pieces - modern glue
Label reads - 'Found at Tara
Chapman Collection, Westmeath.
E 230
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28


cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
Grey pottery
Surface eroded
+ burnt
NMI 1956:287
CARGAGHOGE, CO. MONAGHAN
Old Label reads - 'July 1867'

231

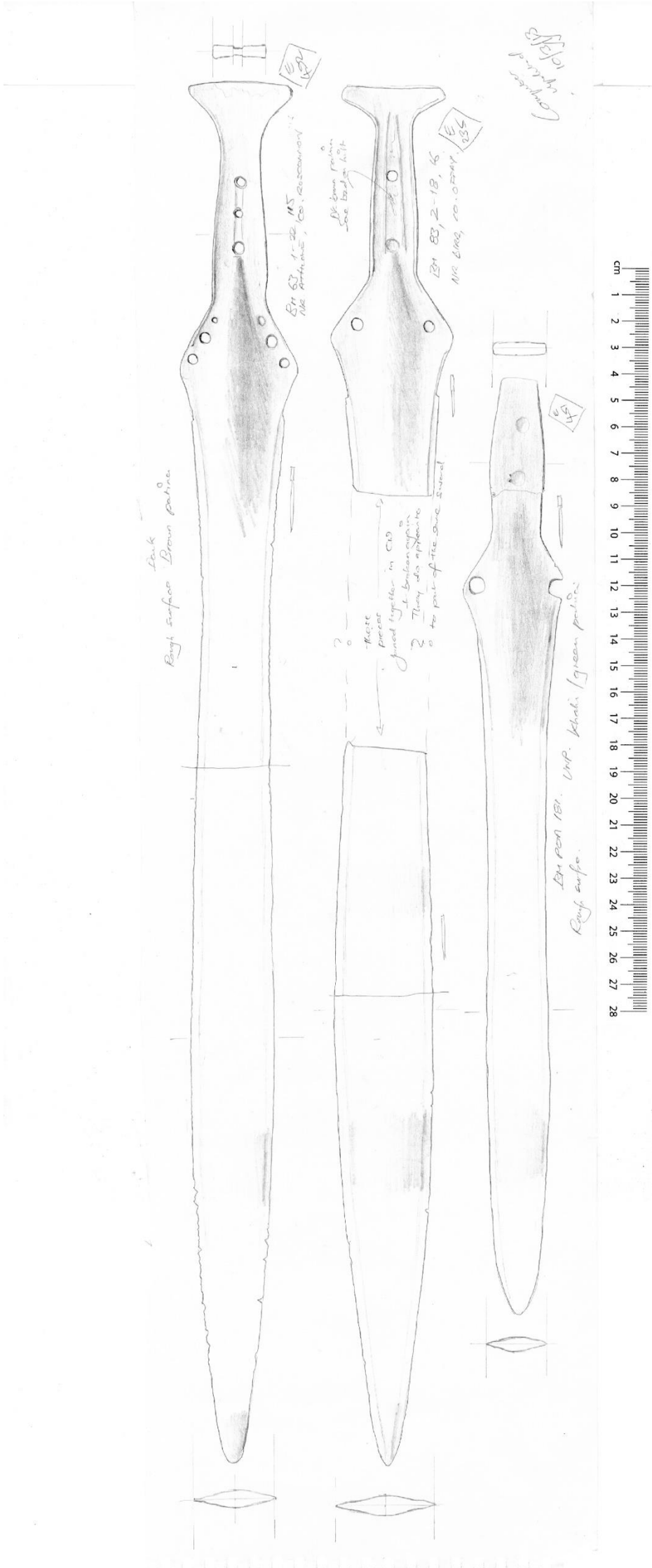
232


Very slight patina
Black patina
damage
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

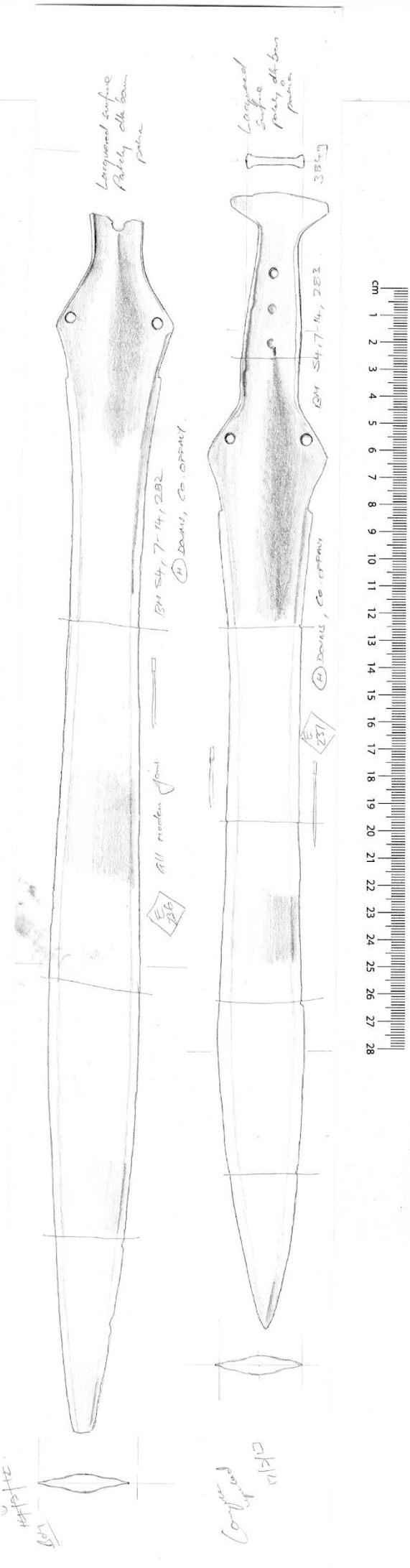
234

Dk brown patina
(LEMONGRASS)
COOLOORAH
CO. OFFALY
NMI
1933:761
1933:760
E
234
A+G
WORN
Nice thC blade
V damaged edge!
I said to have been
found in a souterrain (cairn)

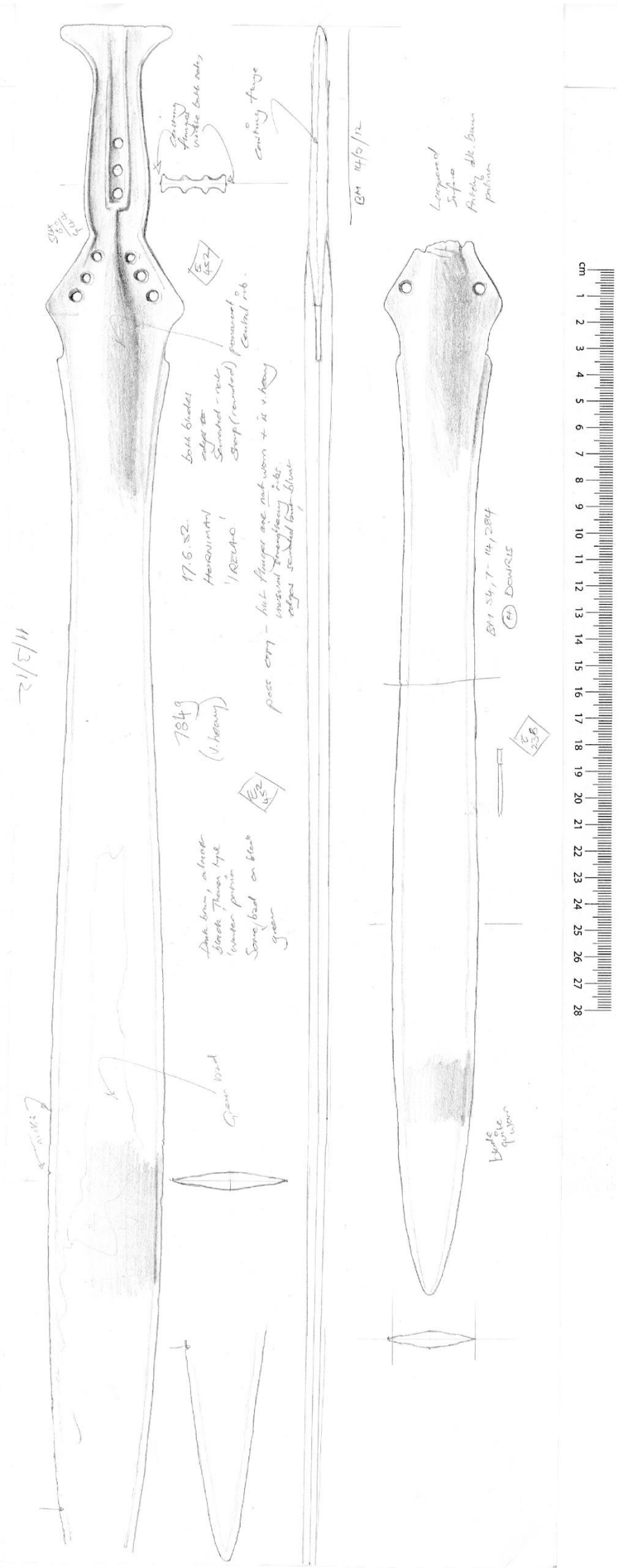
235
451
492

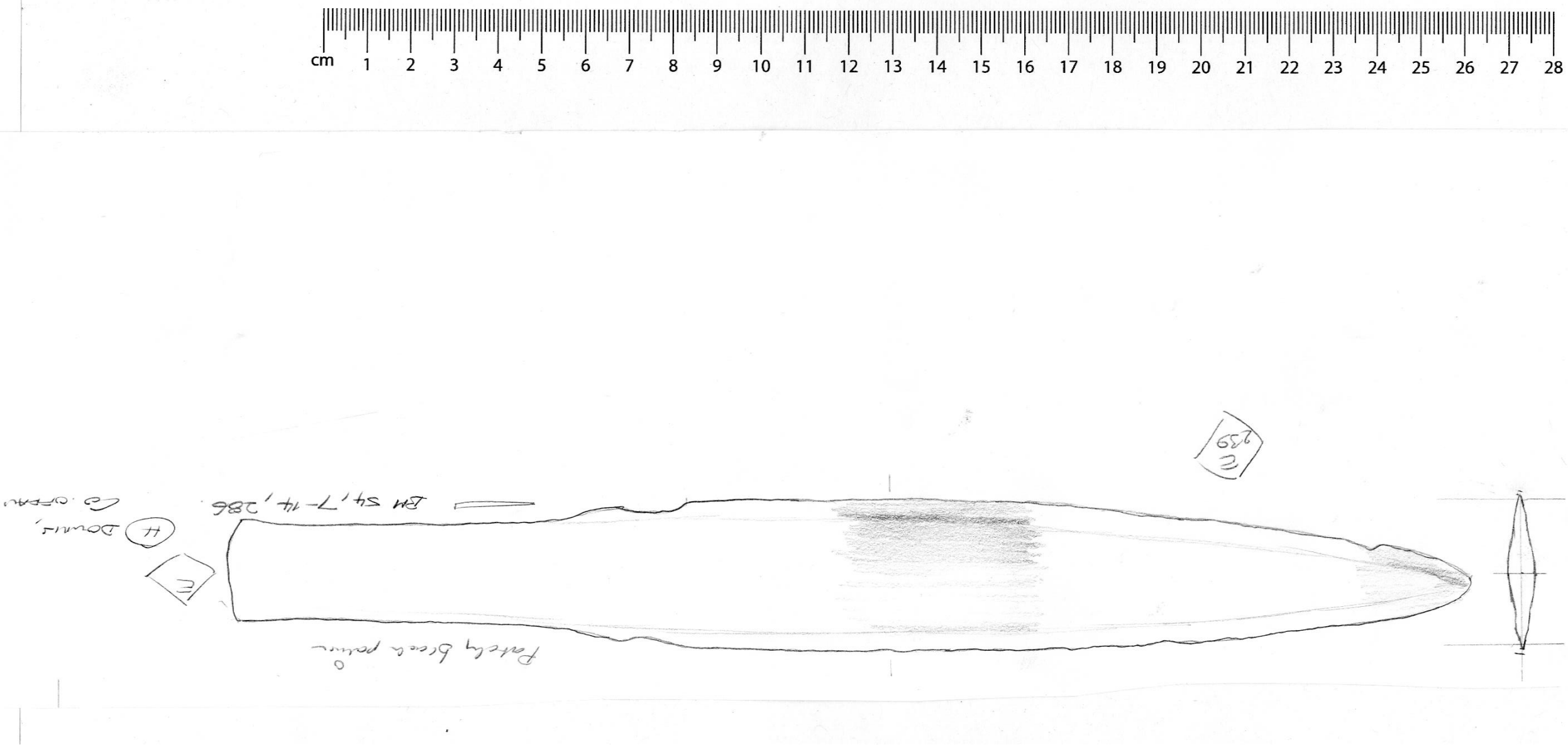


236
237


Lacquered surface
Patchy, dk brown
paint
BM 54,7-14,282
Davis Co. 1894
All wooden joint
Lacquered
surface
mainly dk brown
paint
3.8cm
BM 54,7-14,283
Davis Co. 1894
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

238,
452

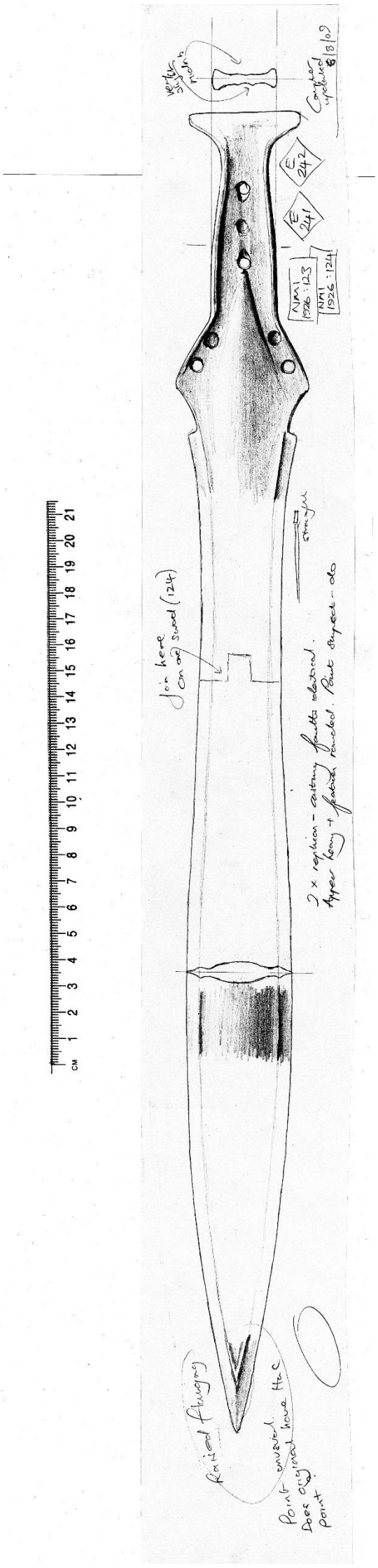

17.6.82
HERRINGTON
IRELAND
784g
(1 heavy)
BM 14/10/12
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28


cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
E 239
Patchy Bisse à peaux
Dessus, Ce. arrêtes
EM 54,7-14,286

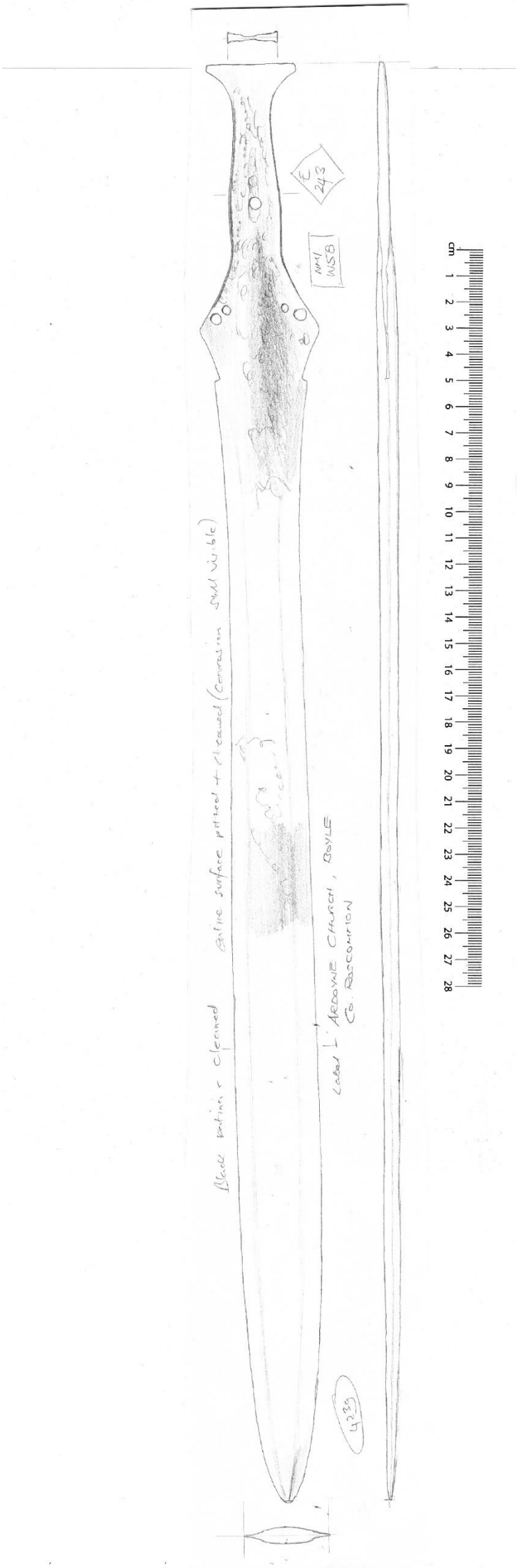
240

E 240
NMI 1955:188
Green patina
Cmo - 'Final examination note recorded'
BALLYLIN, Co. OFFALY

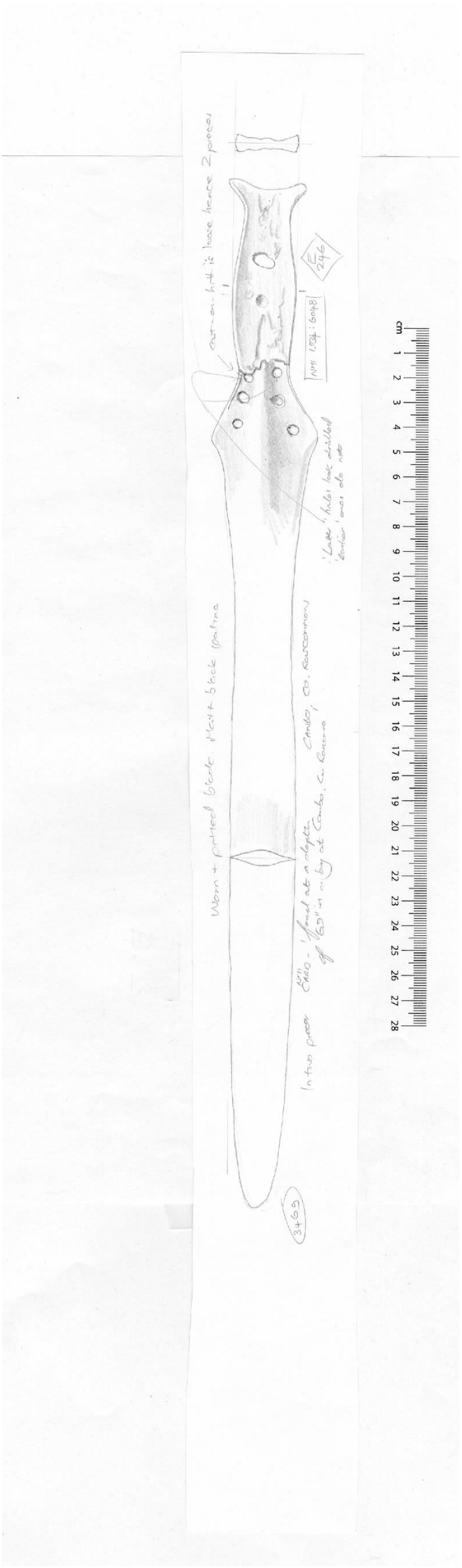
241
242


E 241
E 242
NMI 1926:123
NMI 1926:124
Join here (on one sword (124))
2 × replica - century fauchion blades.
Upper heavy + flexible, rounded. Point square - do
Point smoothed. Does original have point?

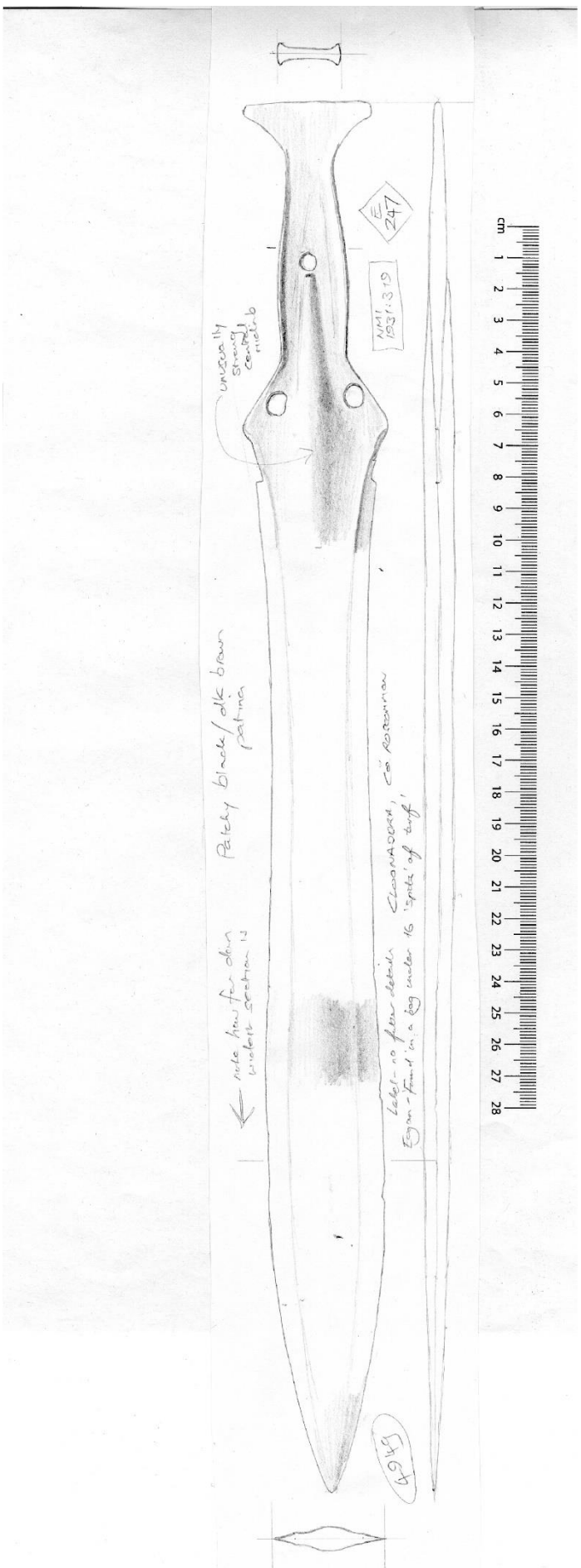
243


E 243
N-41 WS8
Black patina + cleaned
Active surface pitted + pitted (Corrosion Scale visible)
Cabar 1, Ardoyne Church, Boyle Co. Roscommon
4239

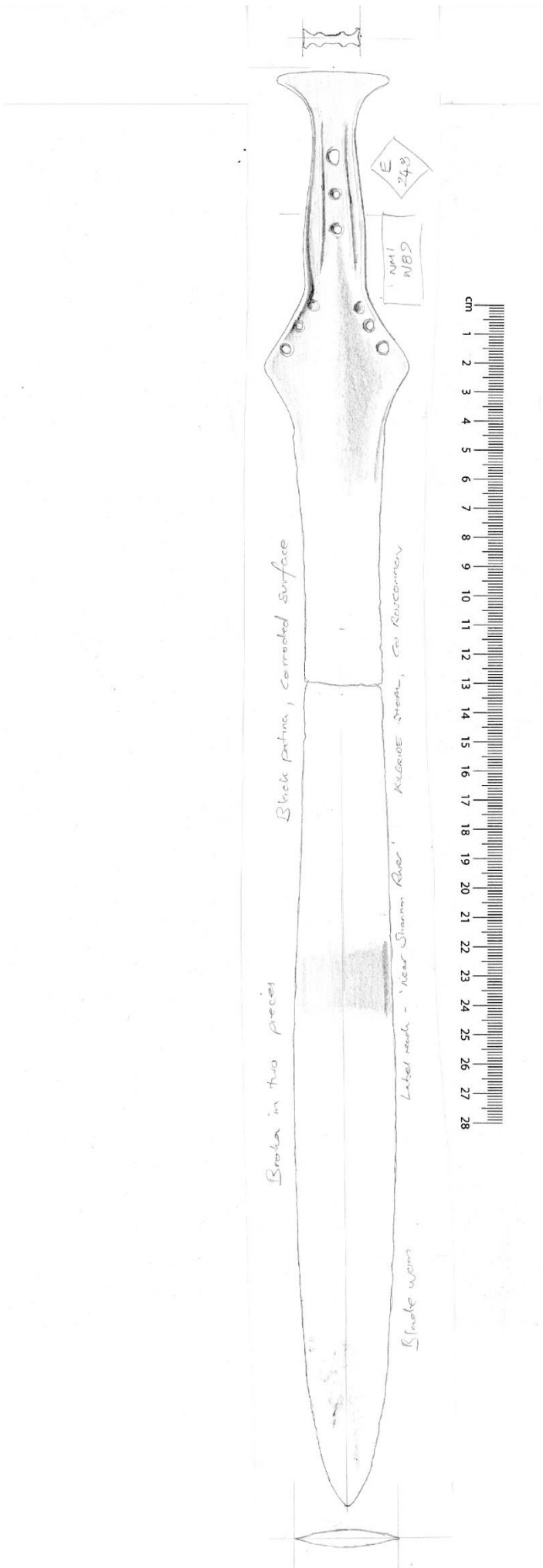
246



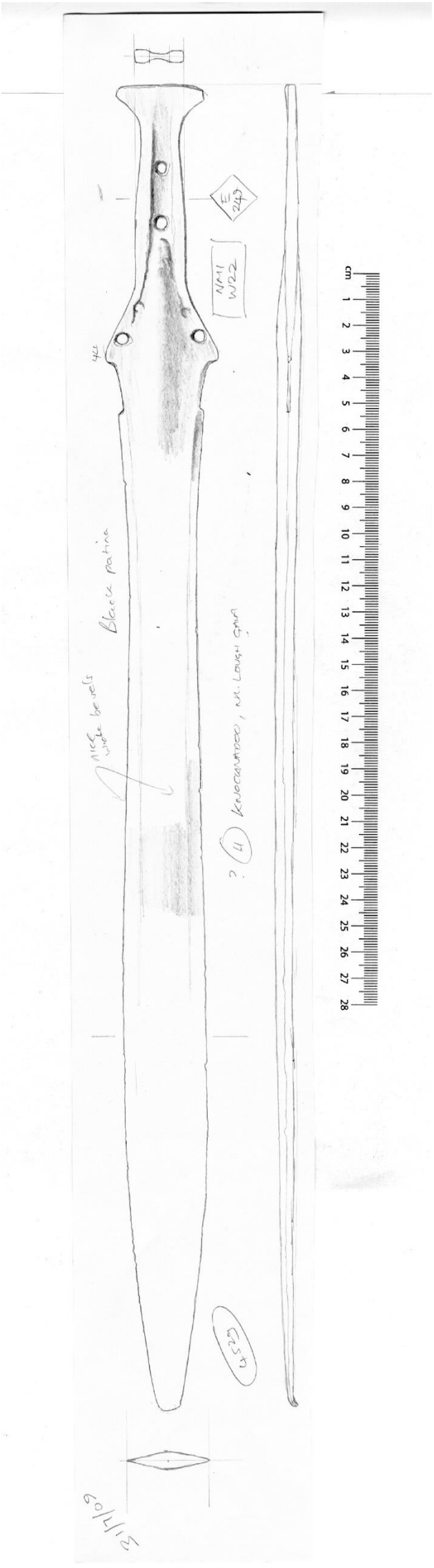
247


E 247
NMI 1937:379
Patchy blade/elk brown patina
Label: no place details CLONAMADERA, Co Roscommon
Egan-Found in a bog under 16 'spits' of turf'
4947
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

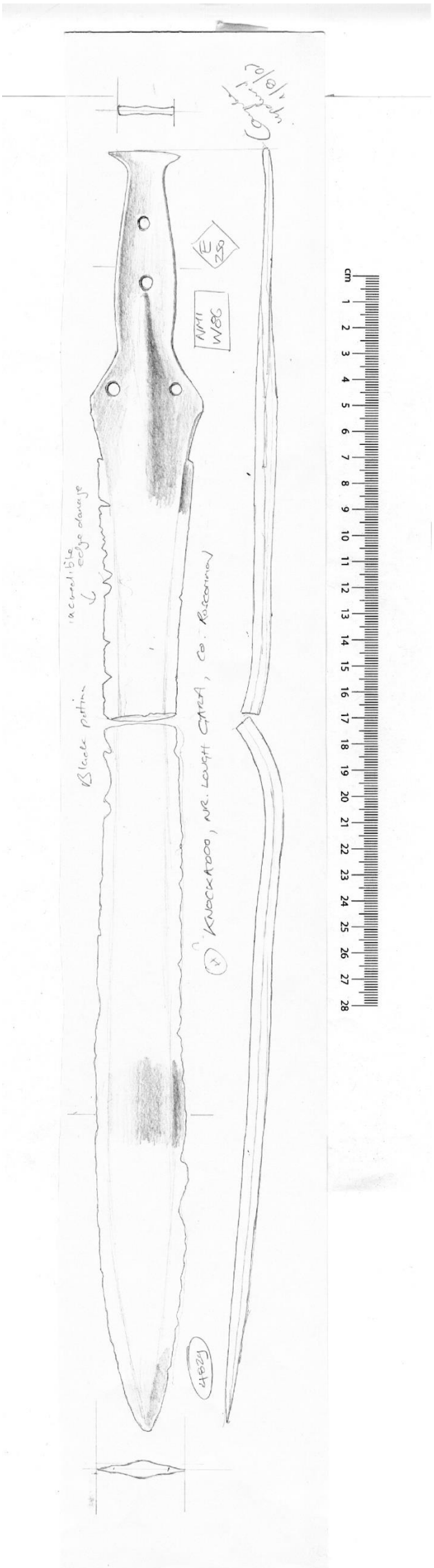
248


E 248
NMI W89
Black patina, corroded surface
Broken in two pieces
Label reads - 'near Shannon River' KILDARE (MEDAL, Co Roscommon
Snake worn
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

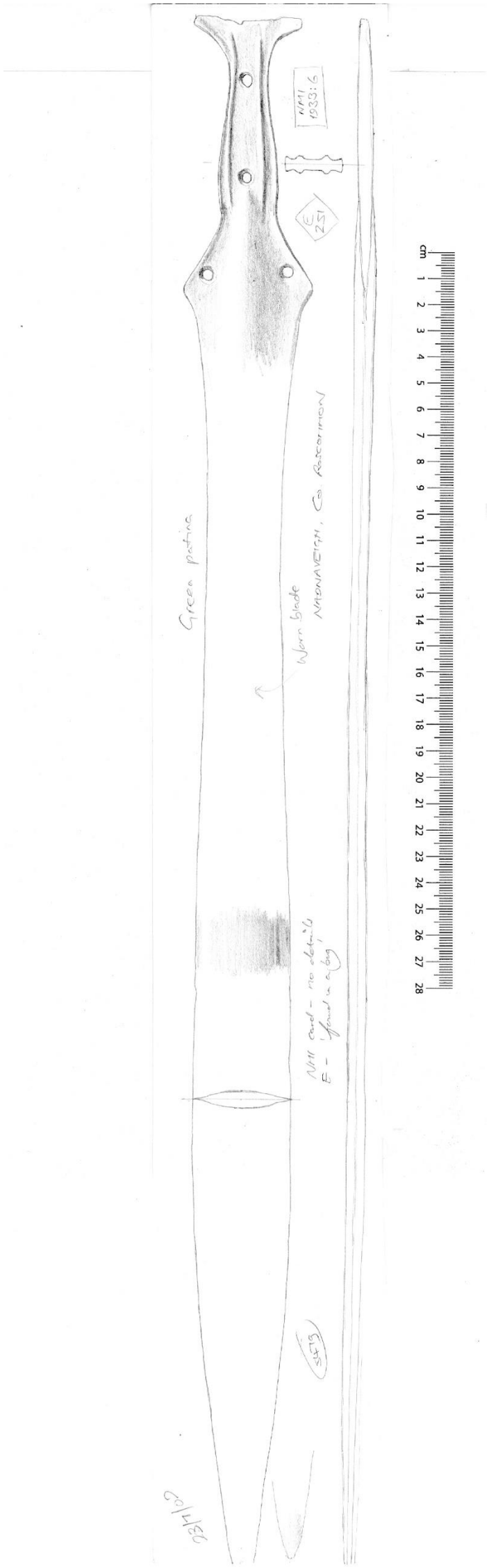
249



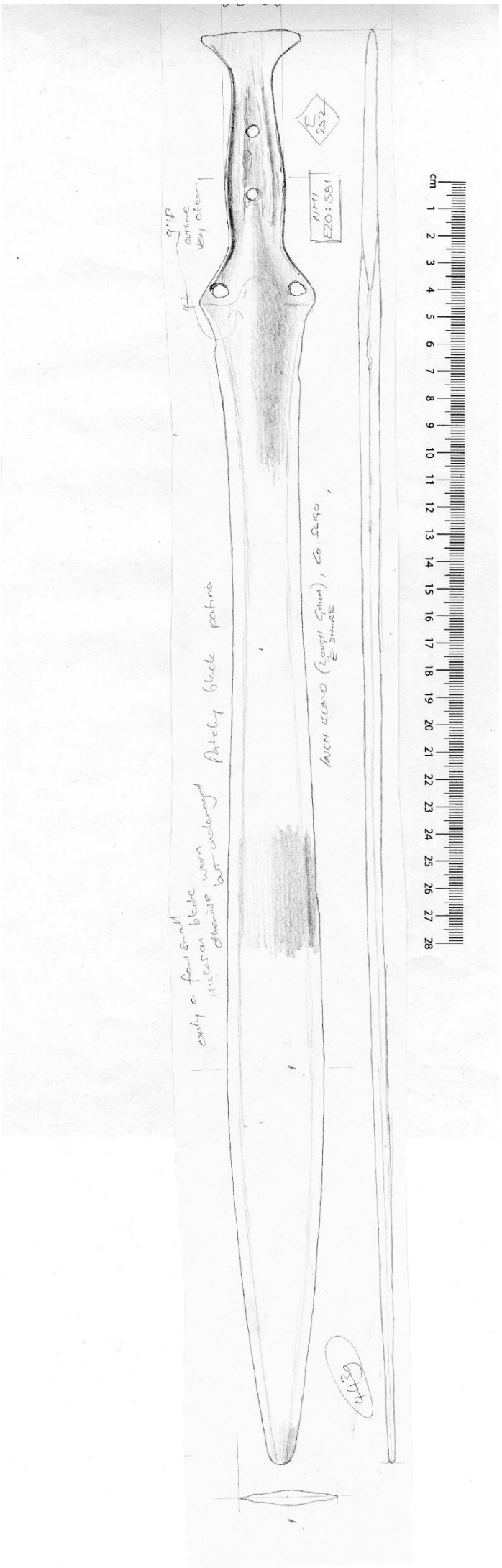
250


KNOCKADOO, NR. LOUGHGALL, CO. ARMAGH
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

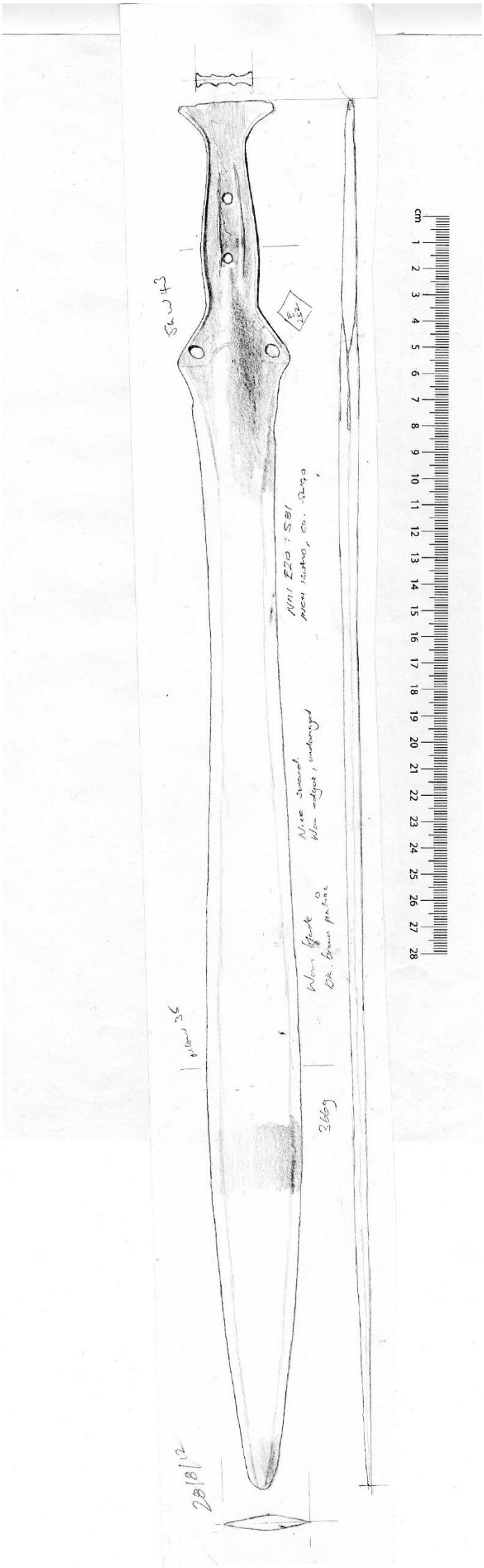
251


NMH 1933:6
E 251
Green patina
Worn blade
NMH card - no sketch
E - found in a bog!
cm

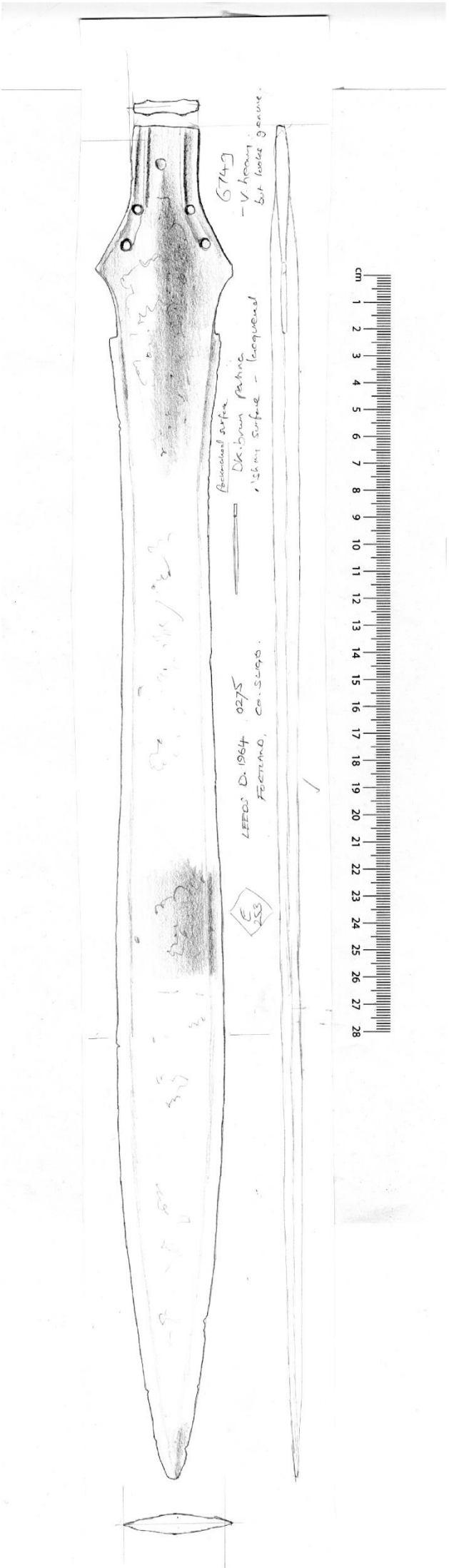
252


E 252
NMI E20:581
grip
narrow
very clear
42
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
early c. few small
nicks on blade, worn
otherwise
but unchanged
Patchy blade patina
INCH ISLAND (Lough Gara), Co. Sligo
E STARE
4439

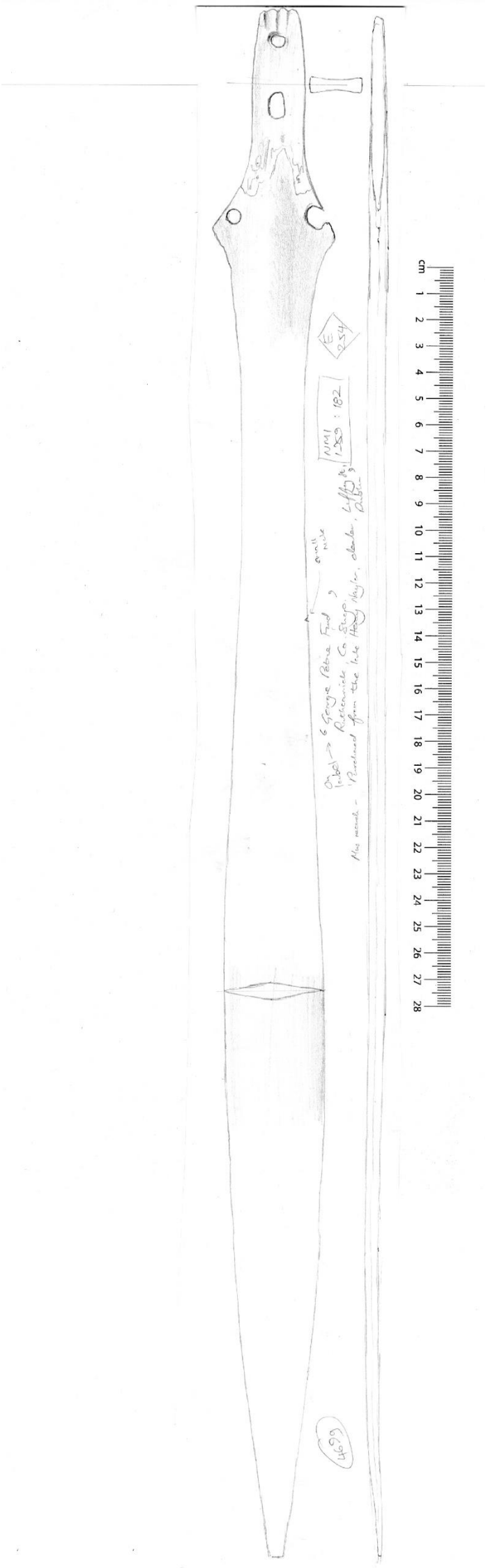
252 (2)



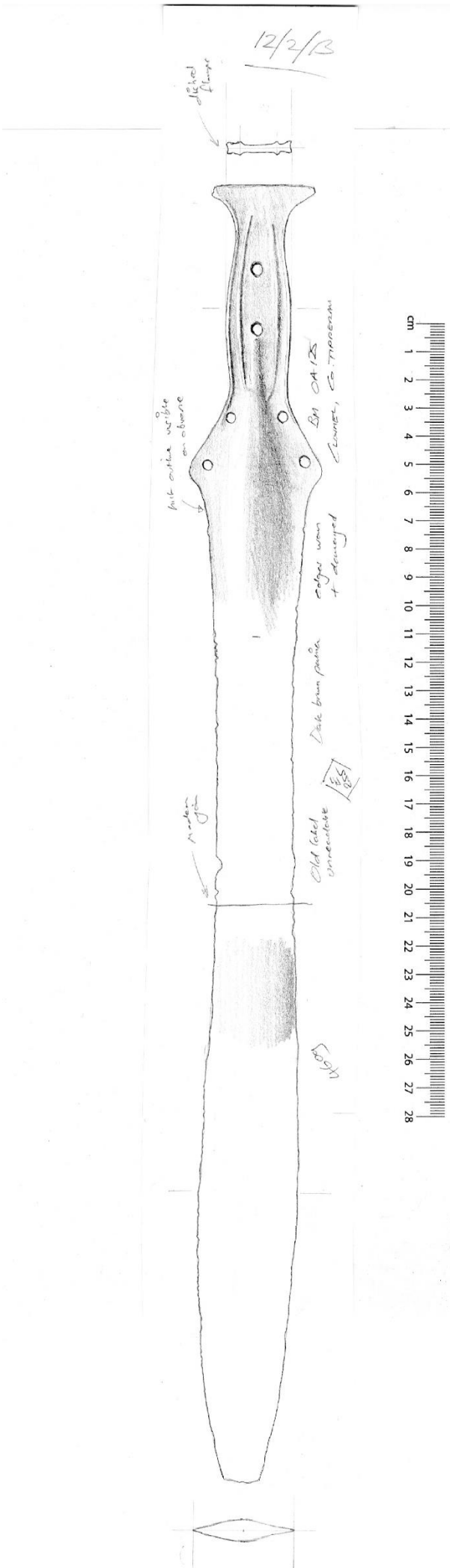
253


674
- V. heavy
but looks genuine.
Accidental surface
Dk. brown patina
, light surface - lacquered
LEEDS D. 1964 0275
FORTHAD. Co. SLIGO.
E 253
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

254


E 254
NMAI 1989 : 182
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

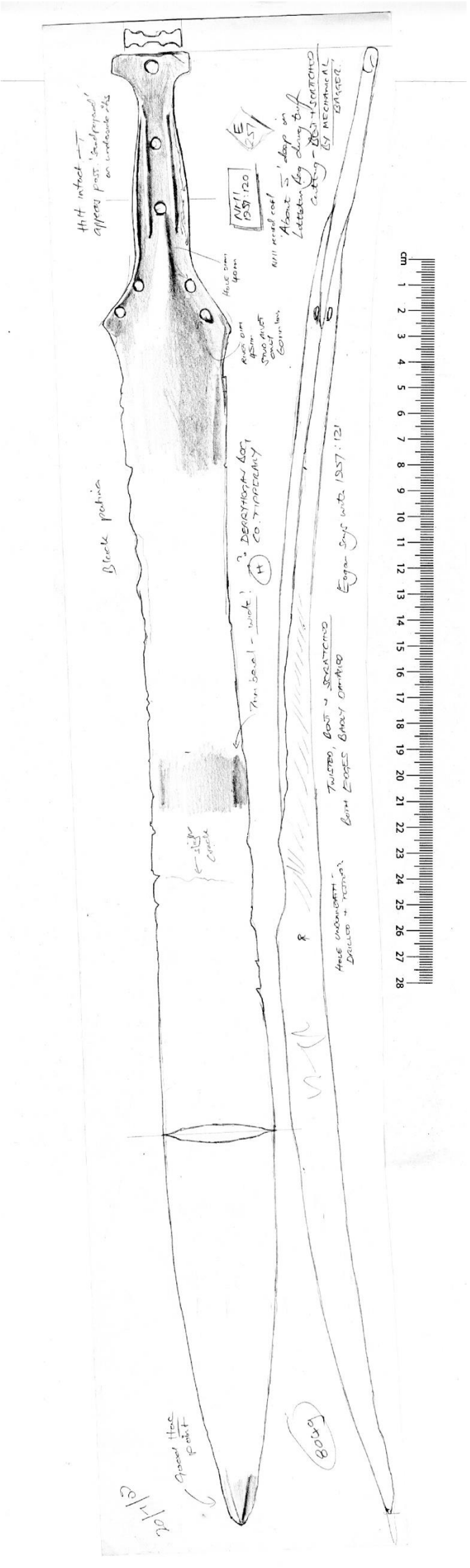
255


12/2/13
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

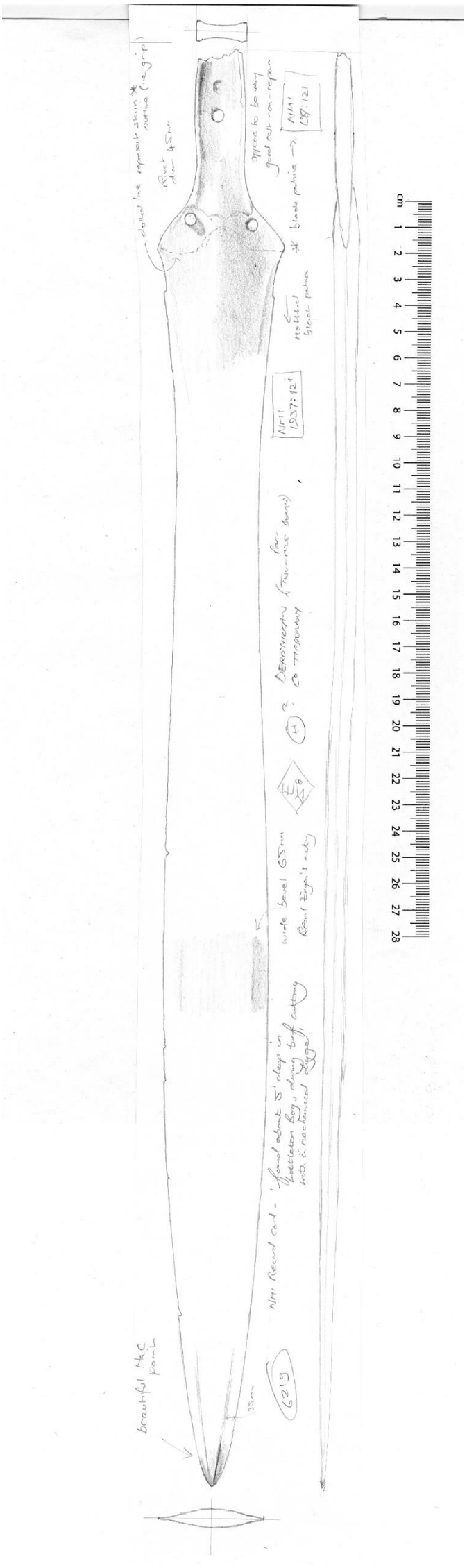
256

Patchy black patina
Patches of green corrosion
E 276
NMI 1934:480
CLONMEL, CO. TIPPERARY
Small fragment
Label read 'Sword + other finds (unreadable) found together in a field at Clonmel (?)' ——— > Wrong label? E has nothing
3989
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

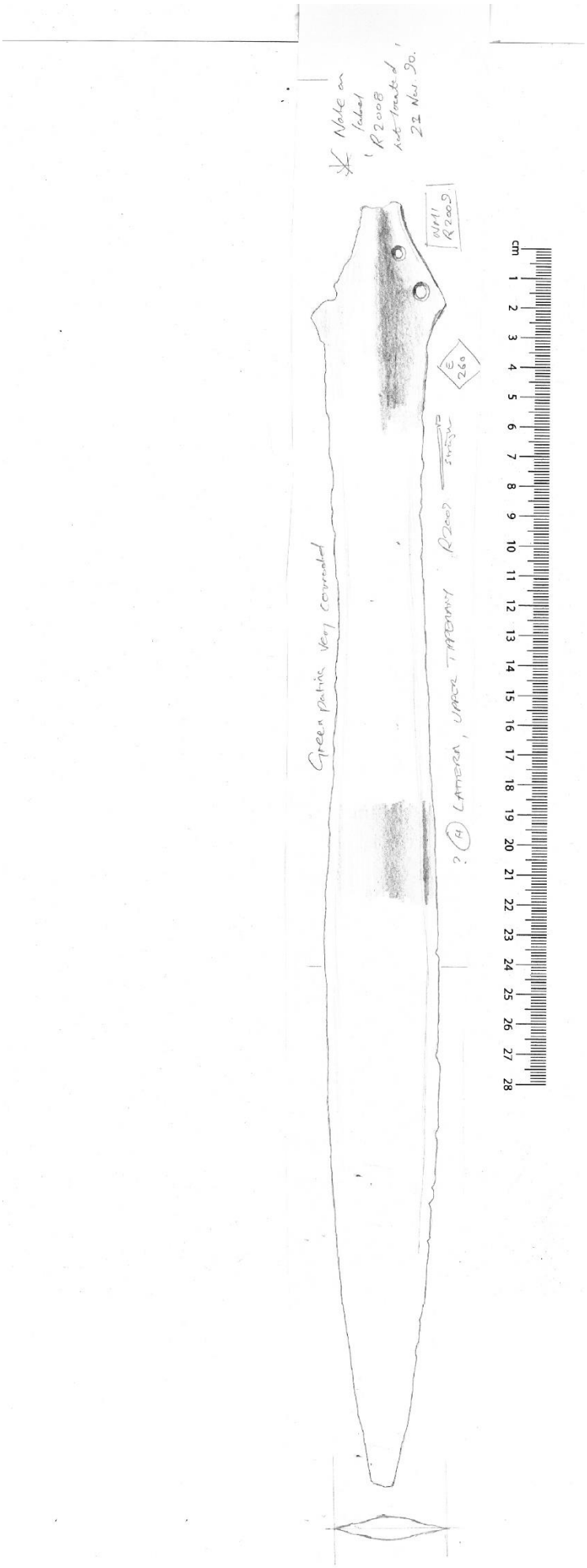
257



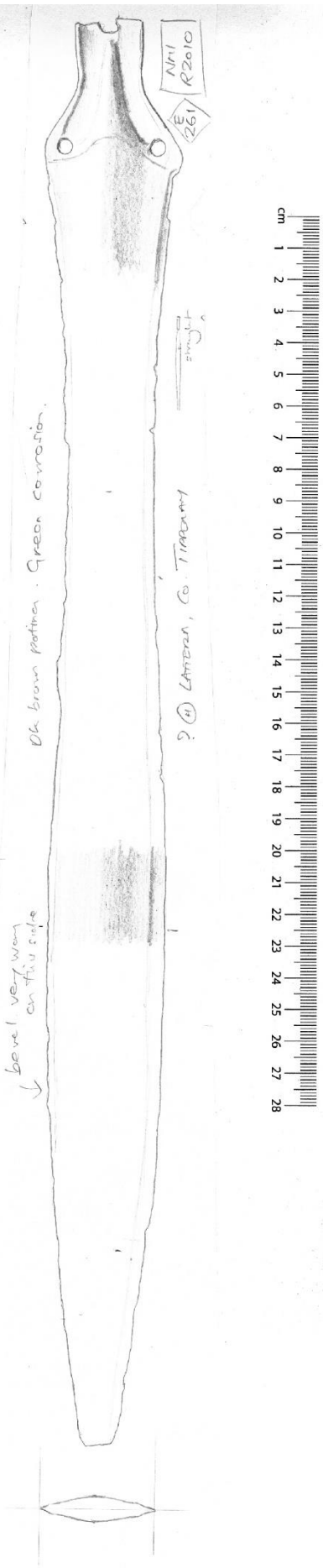
258



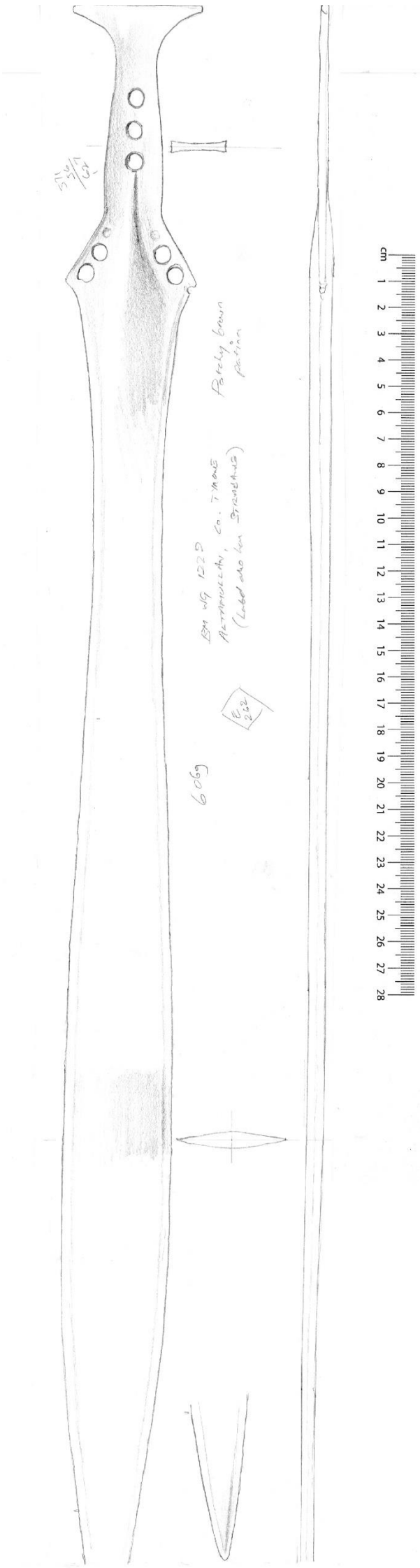
260


* Note on label R2008 not located 22 Nov. 90.
NMI R2009
E 260
Green patina very corroded
? (A) LANCER, UNCAL TIPPING R2009
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

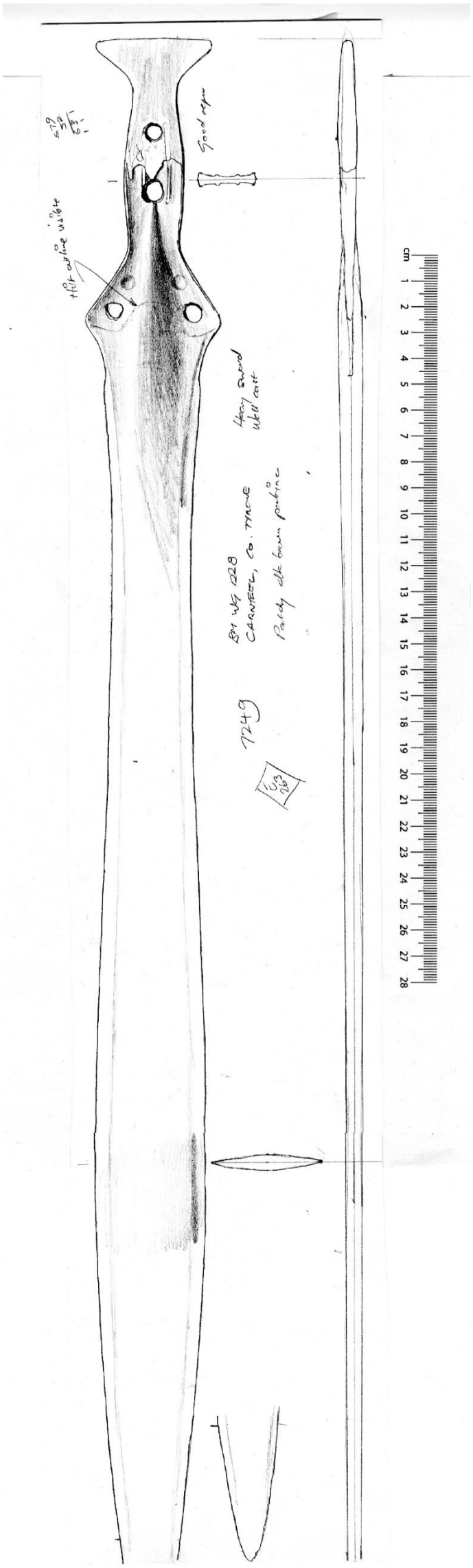
261

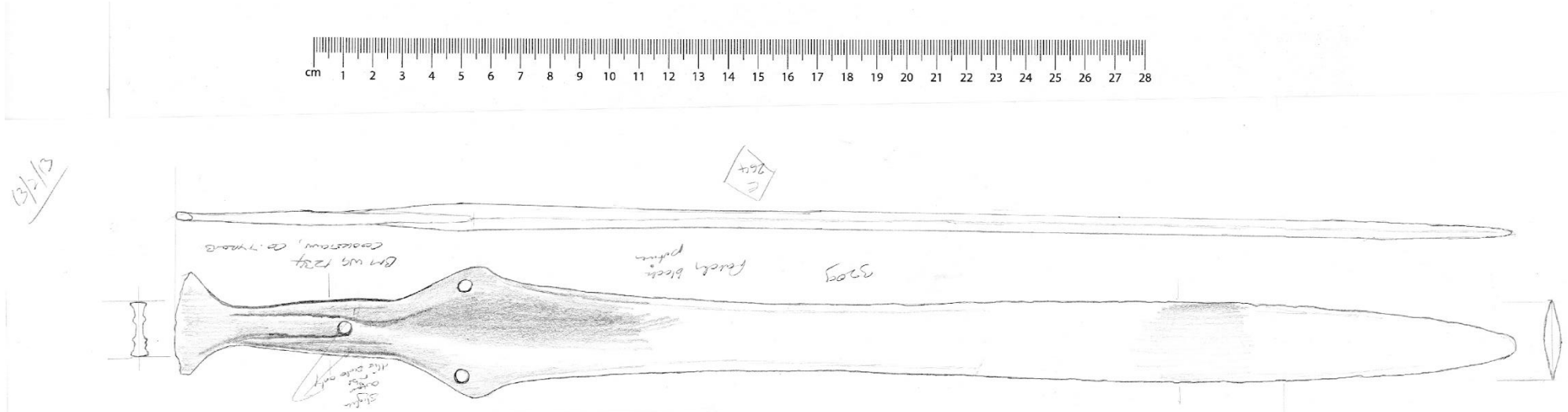

NNI
R2010
E1
261
Dk brown patina. Green corrosion.
bevel very worn on this side
cm

262



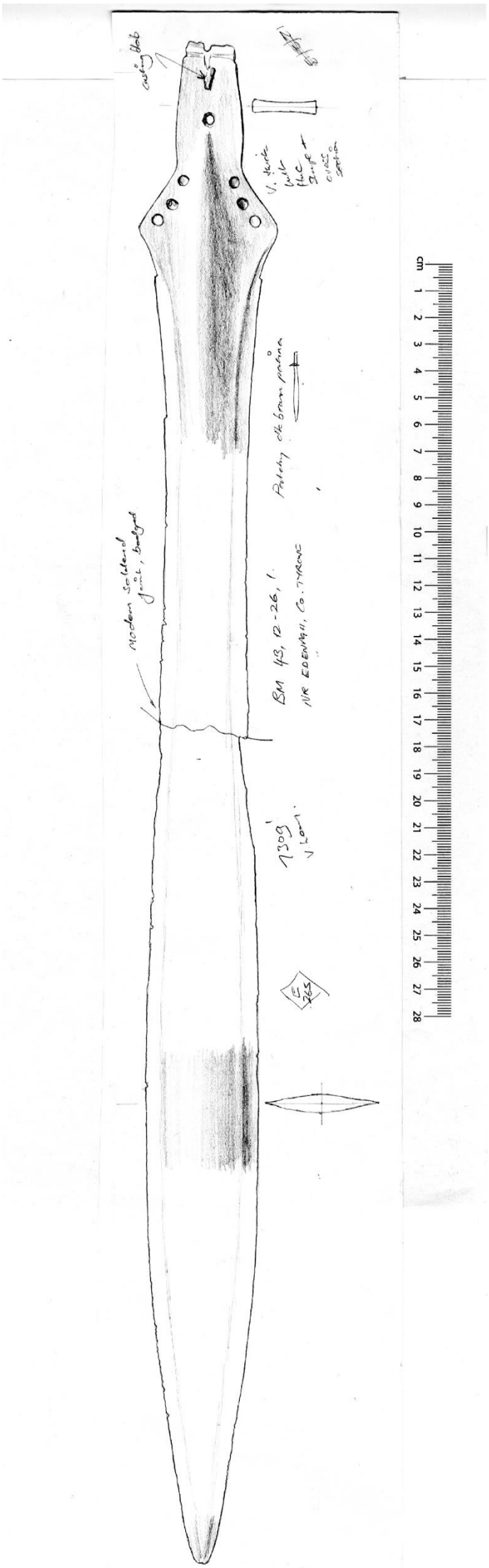
263


Good sym
Heavy sand
well cast
BM WG 1228
CARMARTH, CO. TYNE
Partly dk brown patina
7249
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

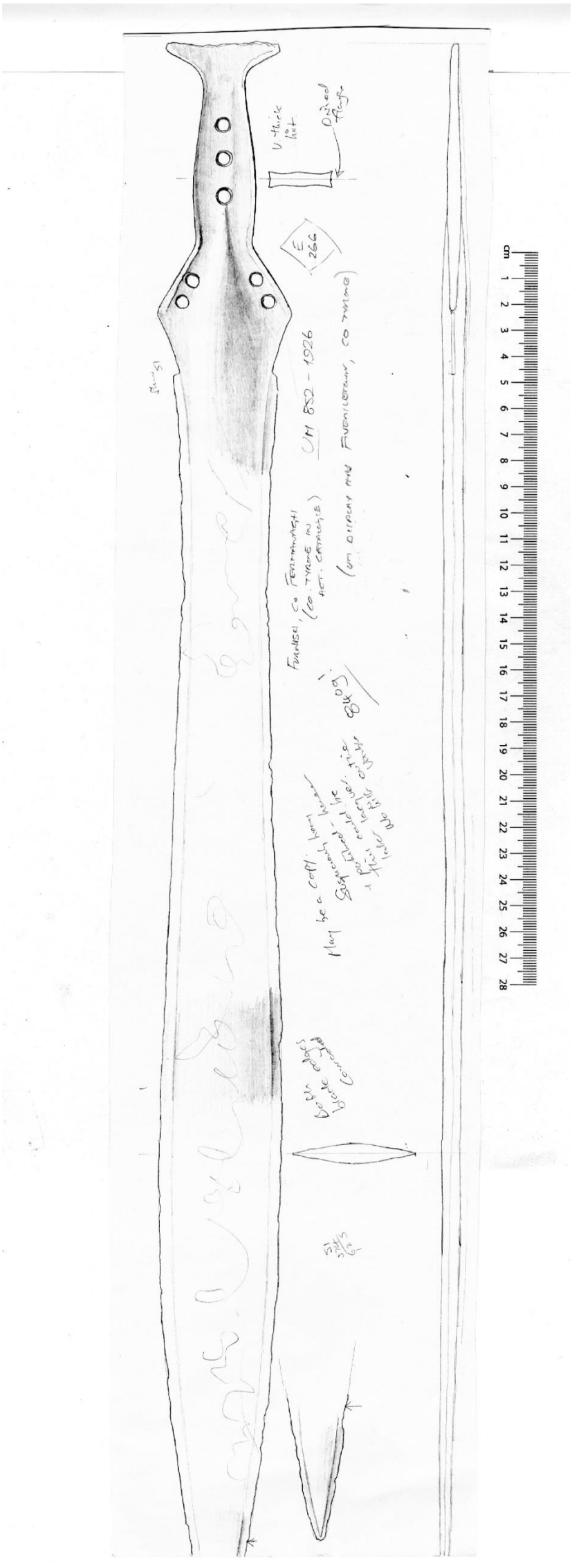


264

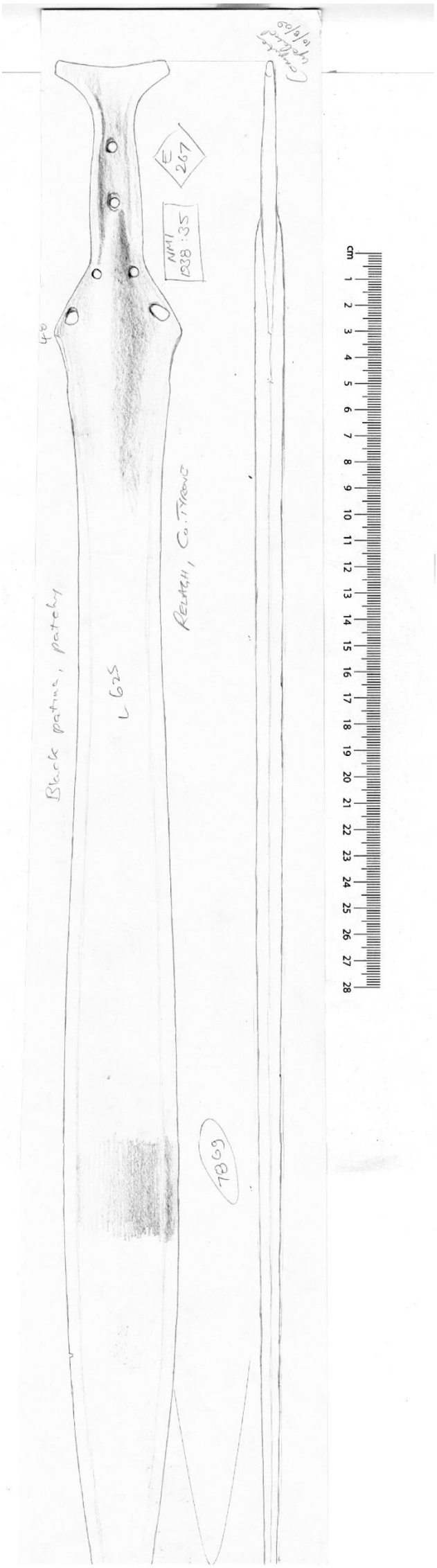
265



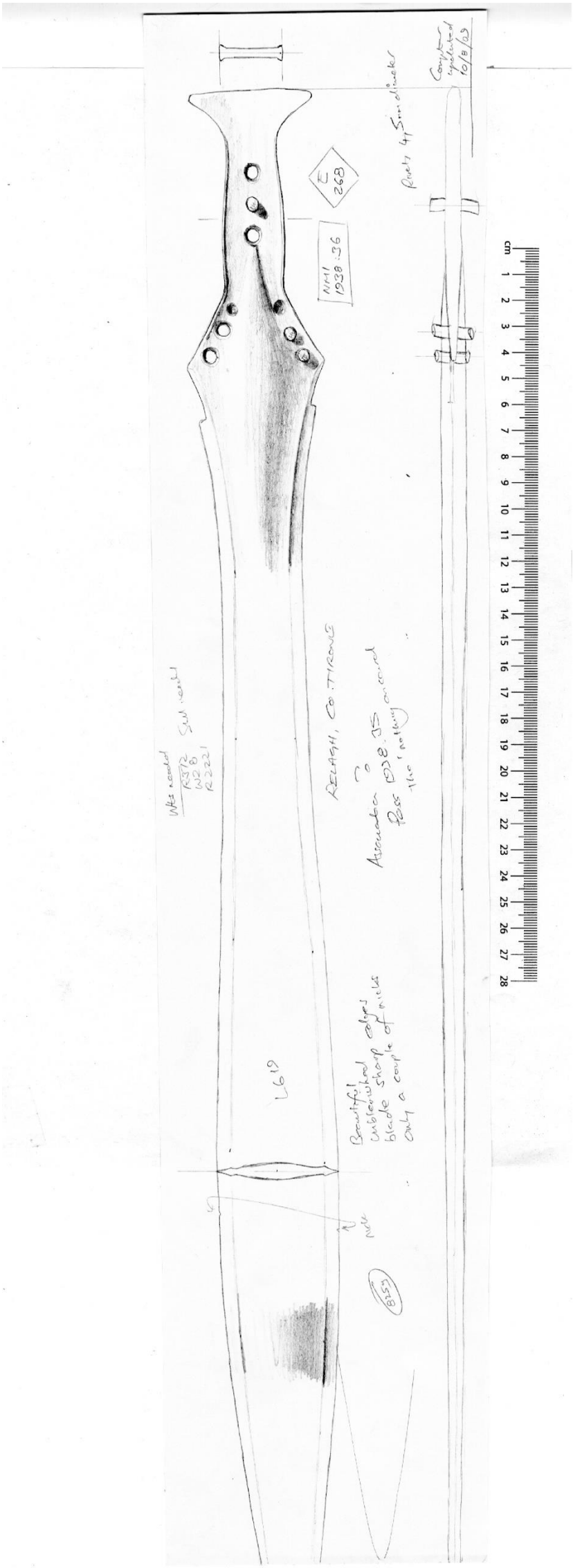
266


E 266
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

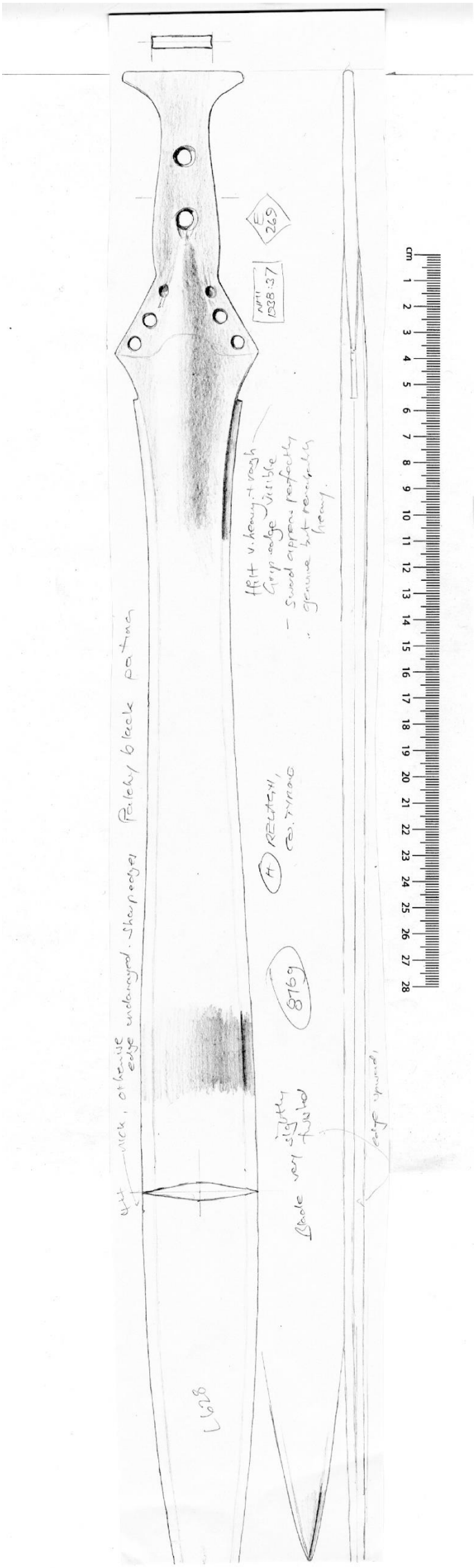
267


E 267
NMI 1938:35
Black patina, patchy
L 625
RALEIGH, Co. Tyrone
7809
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

268


E 268
NMI 1938:36
Computer digitised 10/8/05
Aberdeen
Boat 0.38.35 around
Beautiful unblemished elegant blade shape of mid 18C only a couple of minor nicks
L619
ARLAGH, Co. TYRONE
Was needed
R372
W38
R2221
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

269

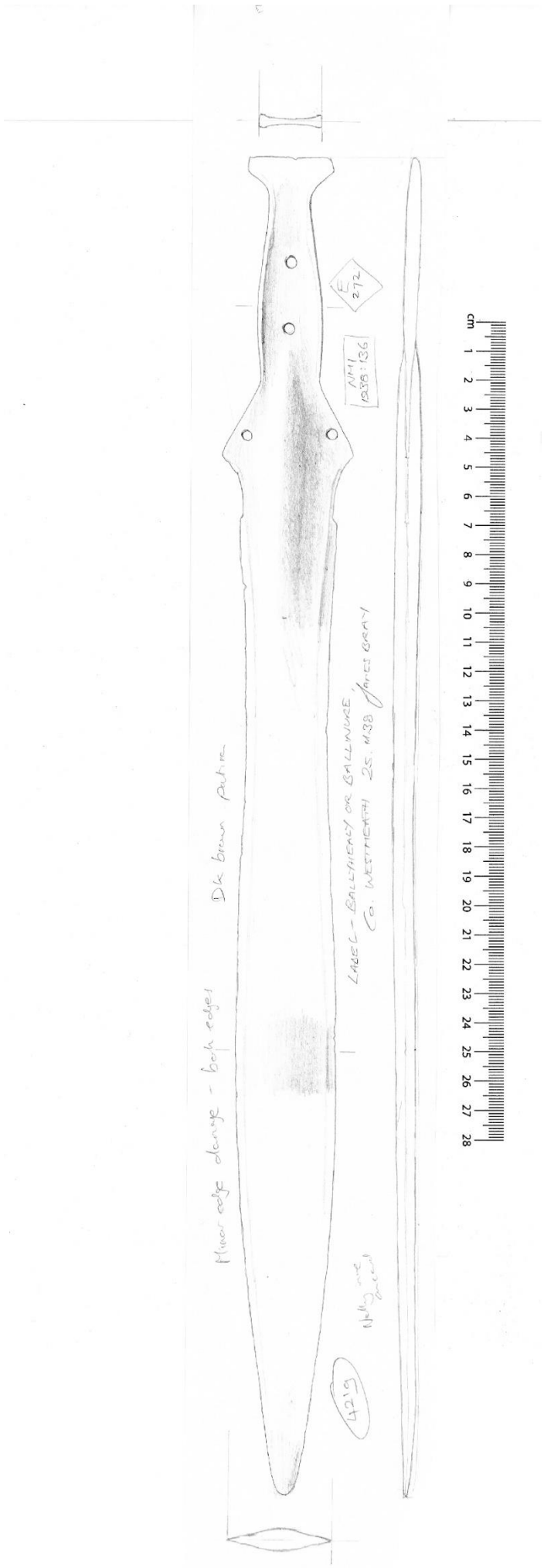

E 269
1938.37
8769
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

270

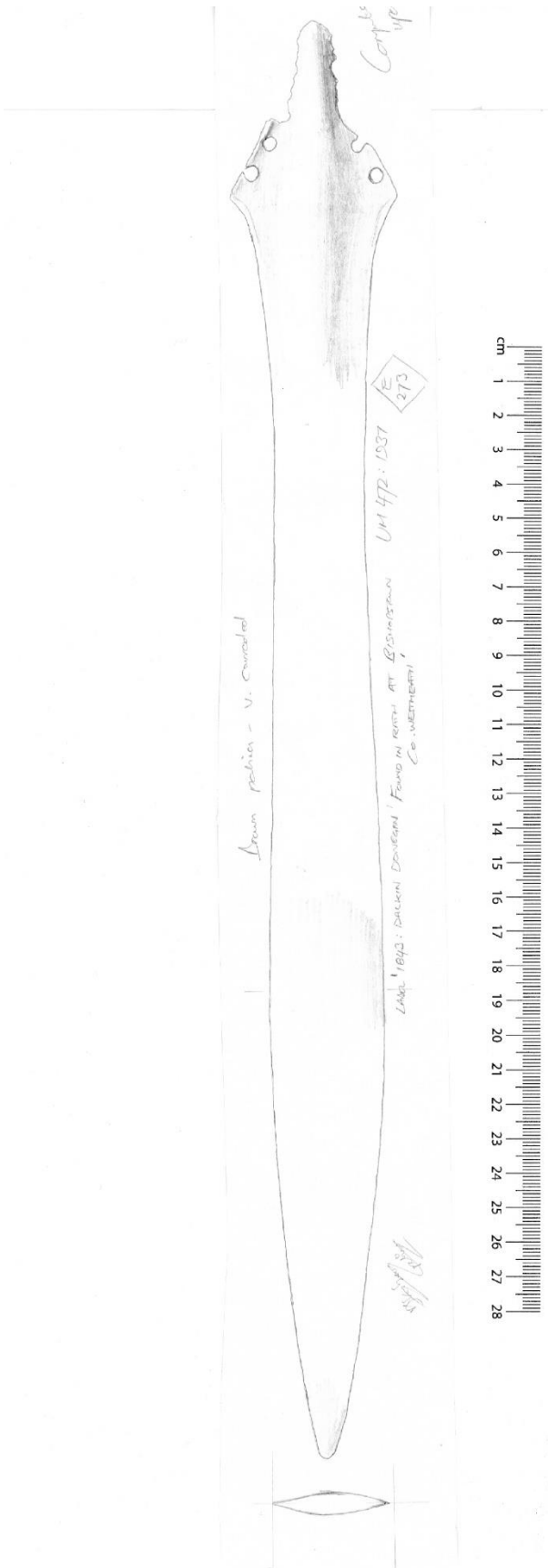
E 270
NMI
1948:157
Black polish. Corroded surface.
straight
Knockmaton, Co. Waterford

cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

272


E 272
NMI 1938:136
LABEL - BALLYHEALY OR BALLYNORE
CO WESTMEATH 25. M38 JAMES GRAY
Minor edge damage - both edges
Dk brown patina
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

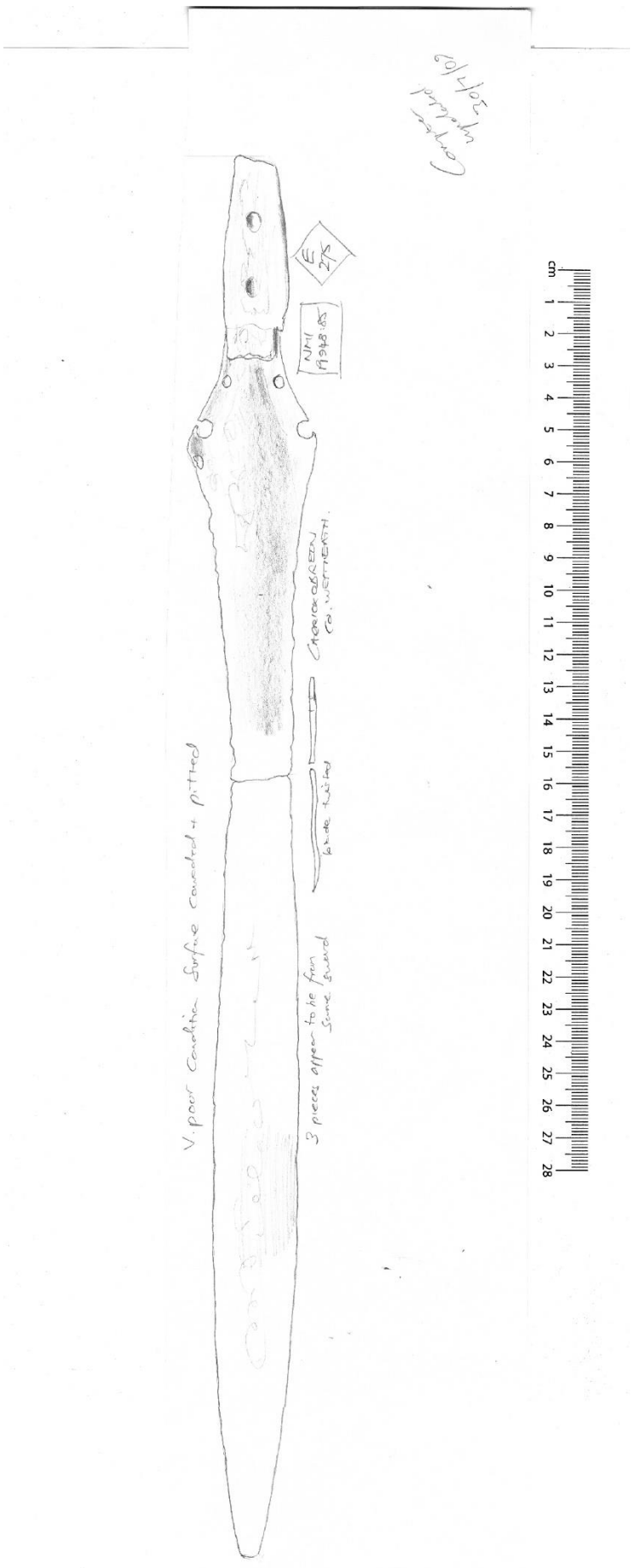
273


Complete
1/2
Bronze palstave - V. corroded
Unl 472 : 1937
E 273
LABEL 1893 : DARKIN DONEGAL Found in peat at Glenagivan Co. Wexford
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

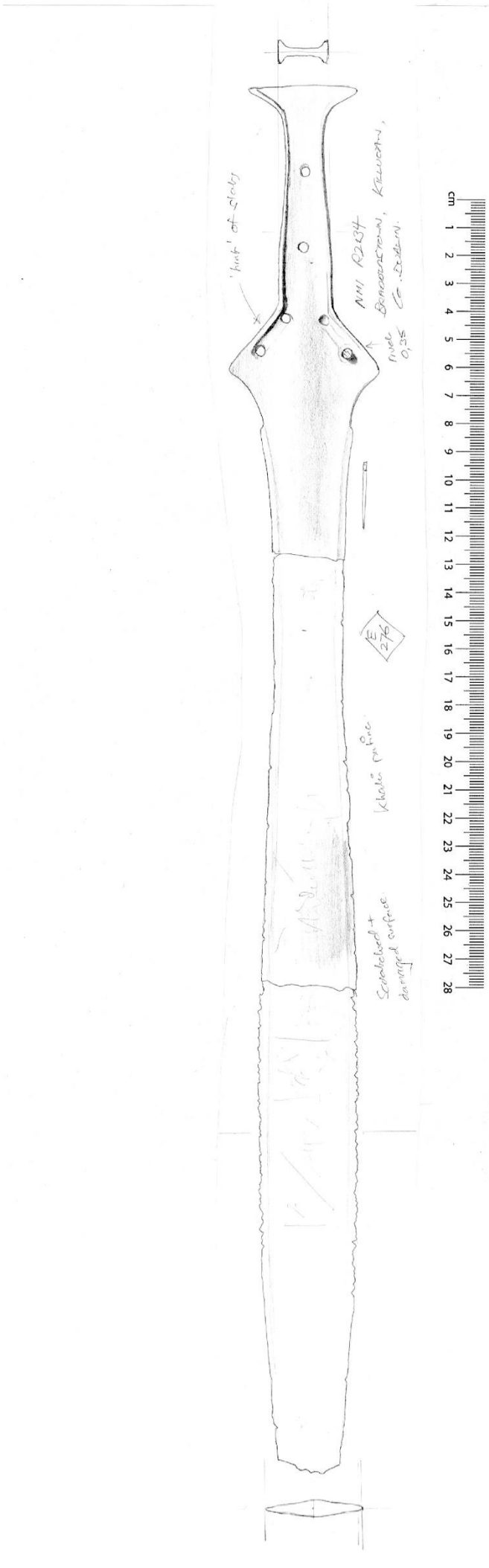
274

Complete upload 20/9/20
E 274
NMI 1955:31
edge damage
Blade patina. Scratched - mechanical damage?

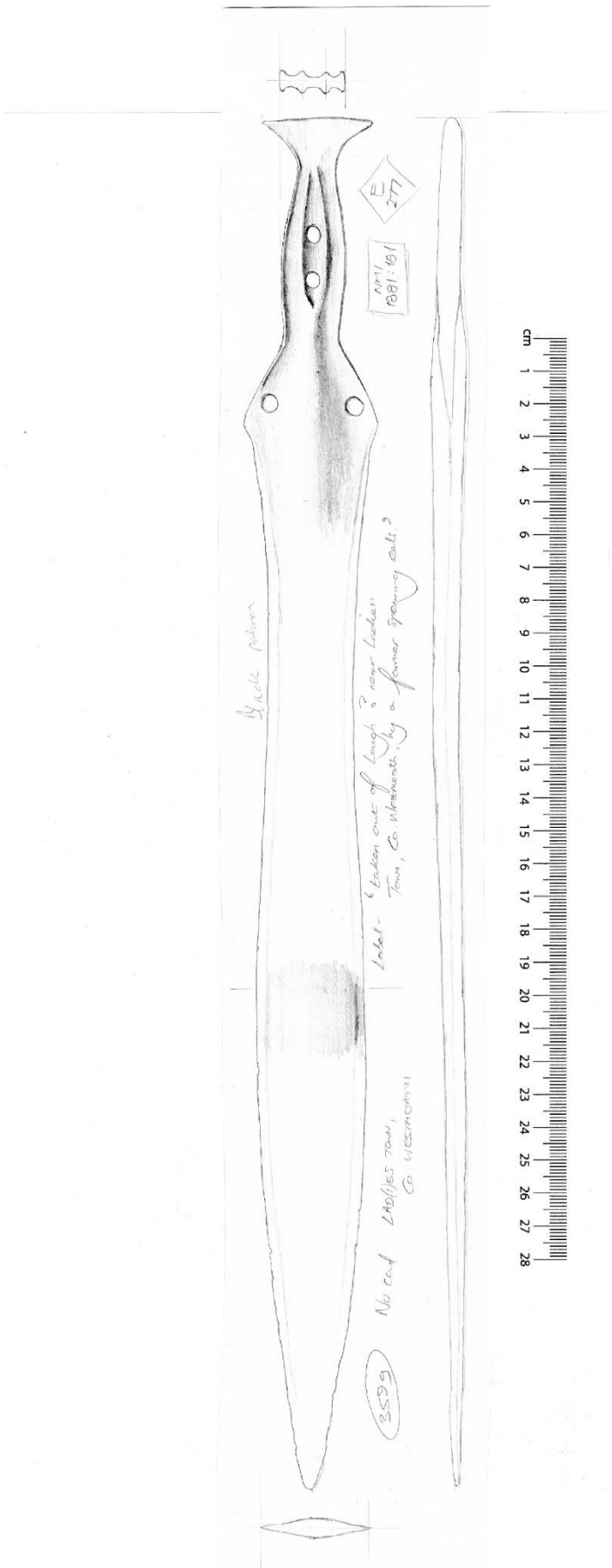
275


Corroded wrought iron
EE 275
NMI 1948:85
CARRICKGRAFFIN CO. WEXFORD.
blade tang
3 pieces appear to be from same sword
V. poor condition. Surface corroded + pitted
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

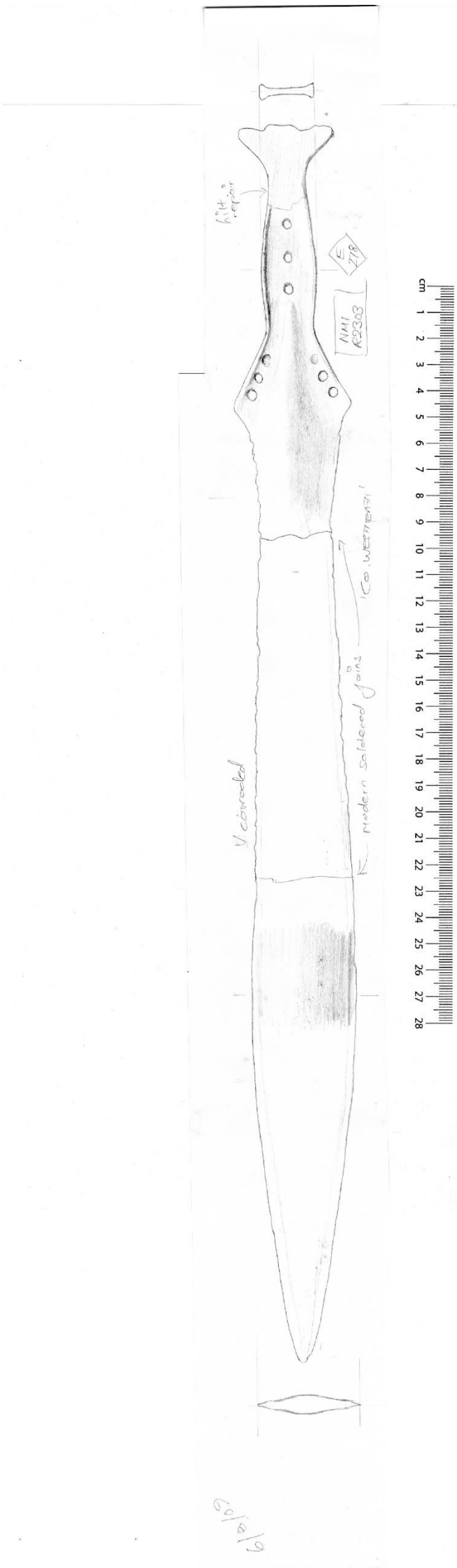
276



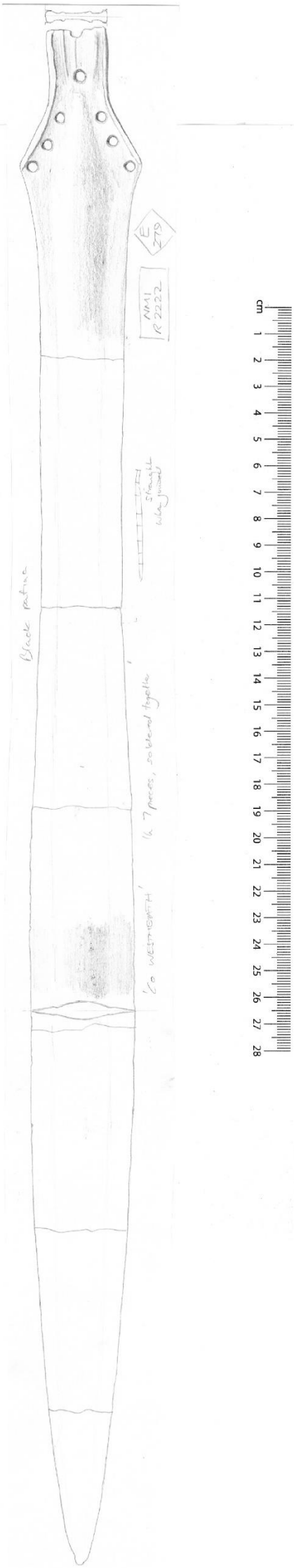
277


E 277
NMI 1981:181
Label: 'Taken out of Lough ? near Lucan Town, Co. Westmeath, by a farmer spearing eels'
No card
LADIES TOWN, Co WESTMEATH
2599
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

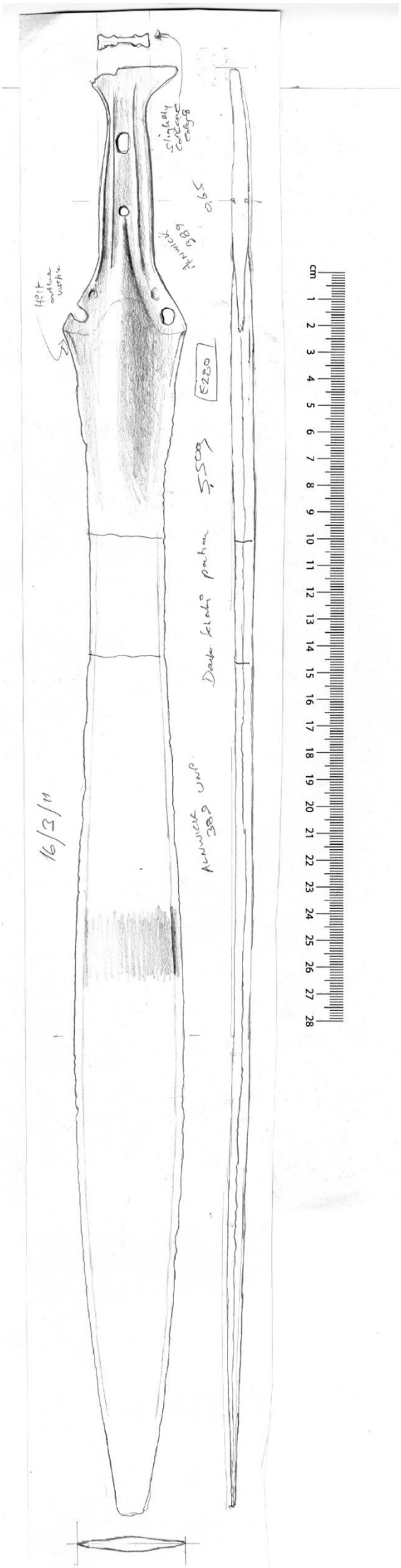
278


E 278
NMI R2308
V corroded
modern soldered joins
Co. WESTMEATH
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

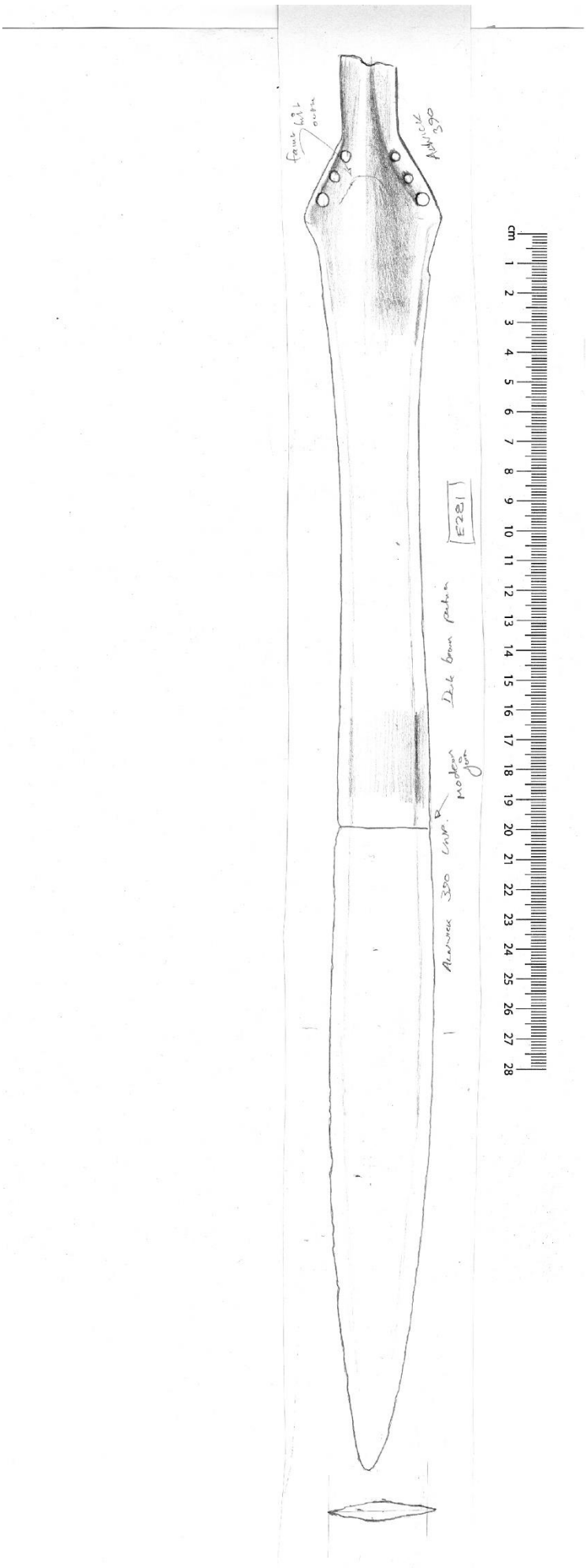
279


NMI
R 2222
E
279
Black patina
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

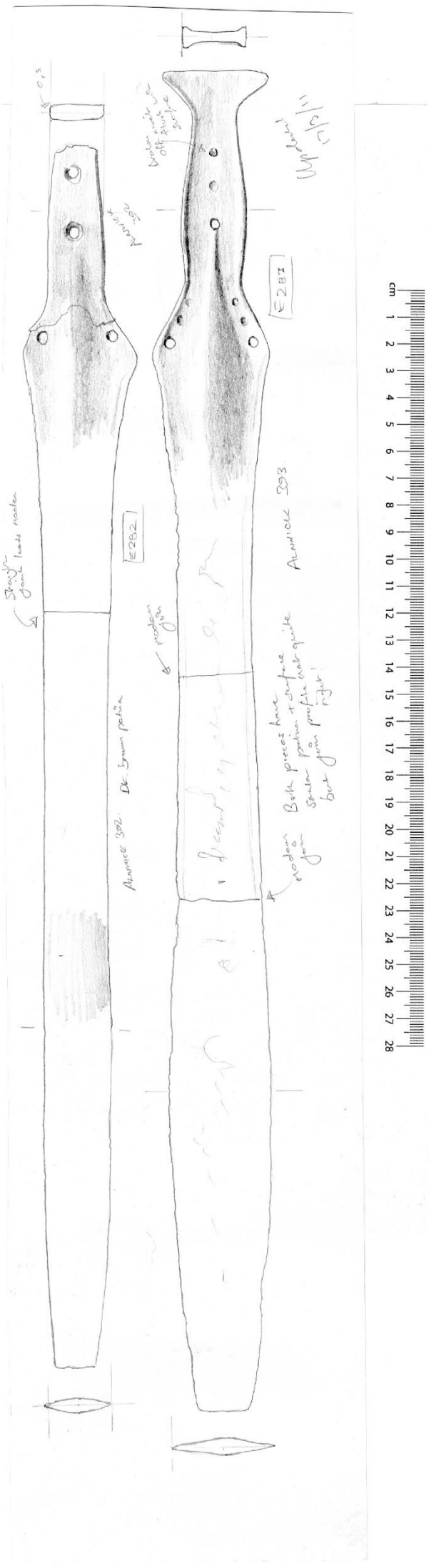
280



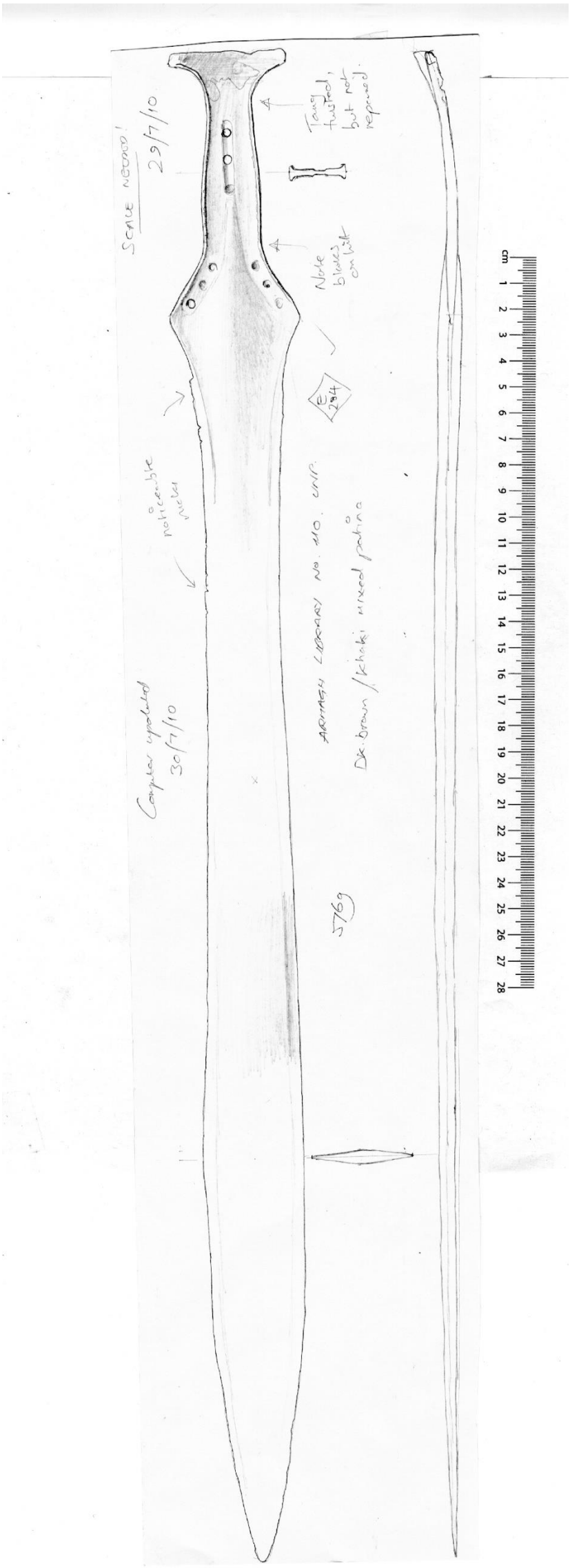
281



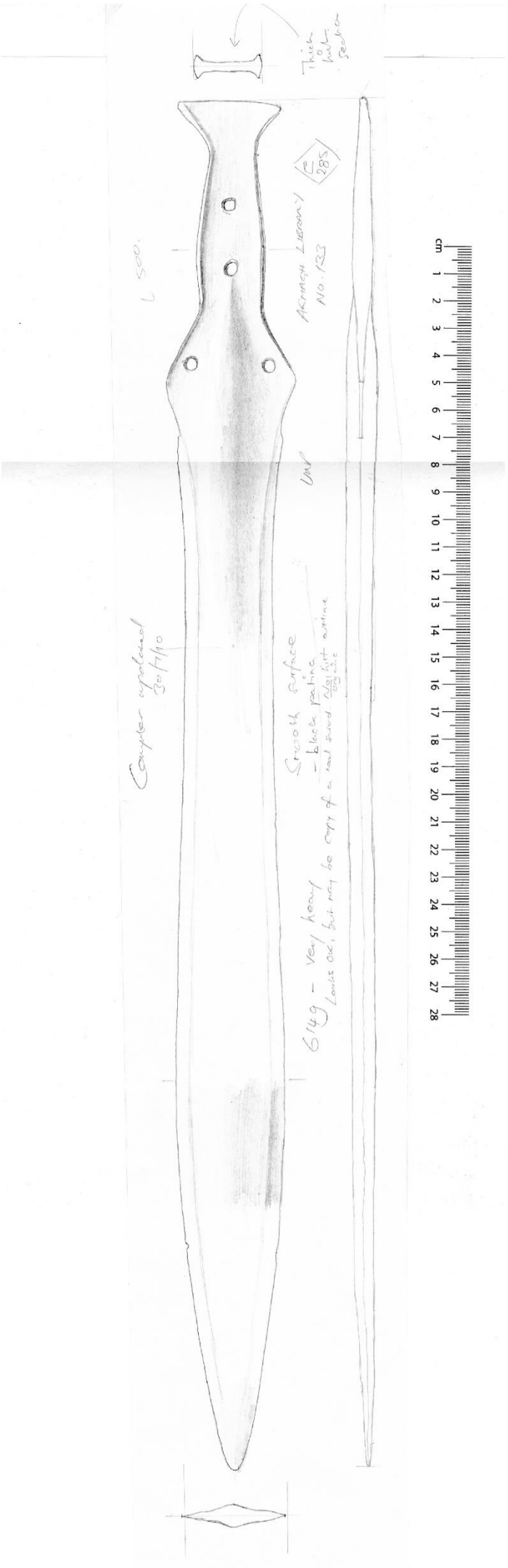
282 and 283


E282
E283
Annick 282
Annick 283
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

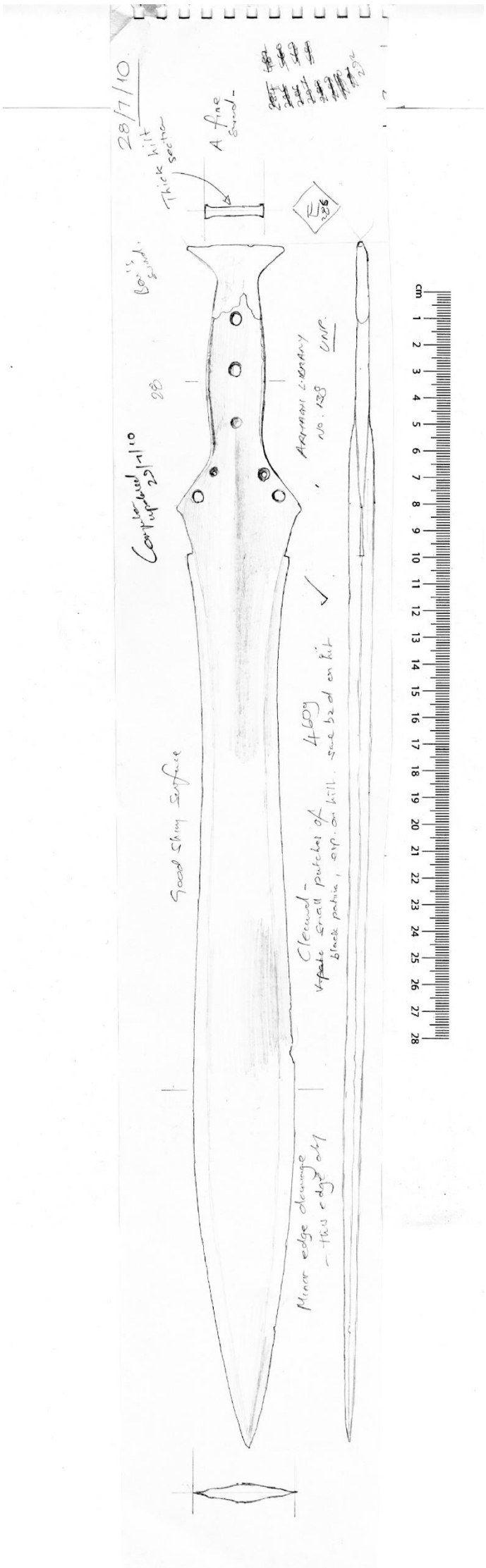
284


Scale needed!
29/7/10
Tang fractured, but not repaired.
Nice blades on hilt
E 294
Computer updated 30/7/10
ARMASH LOCALITY NO. 110. UNIT:
Dk. brown/khaki mixed patina
J769
cm

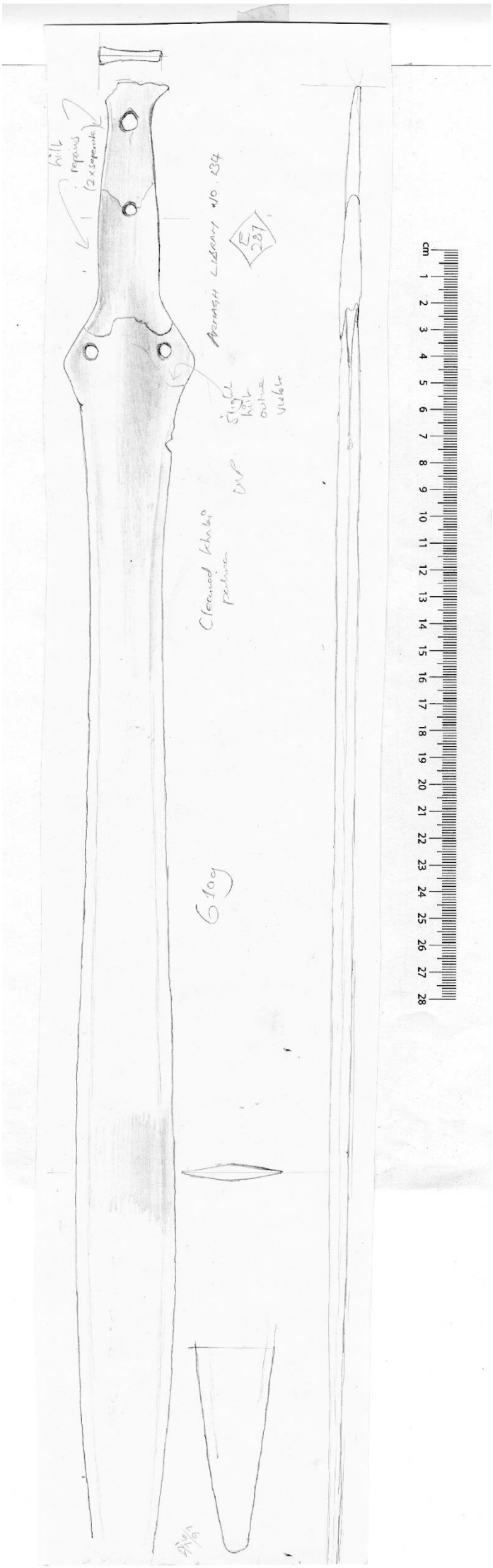
285


Thick back section
E 285
ARMOUR LIBRARY
NO. 133
Smooth surface
- black patina
Louis Ost, but may be copy of a real sword
Computer reproduced
Jan 11/10
6149 - very heavy
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

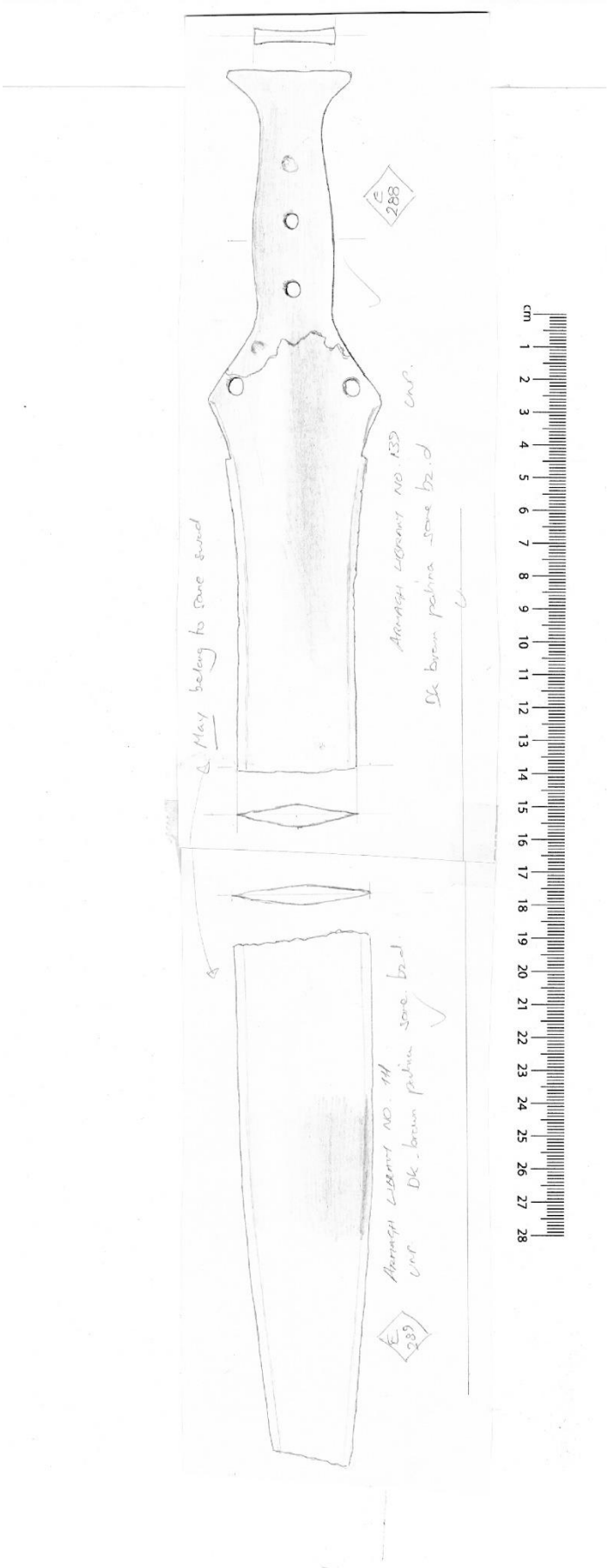
286

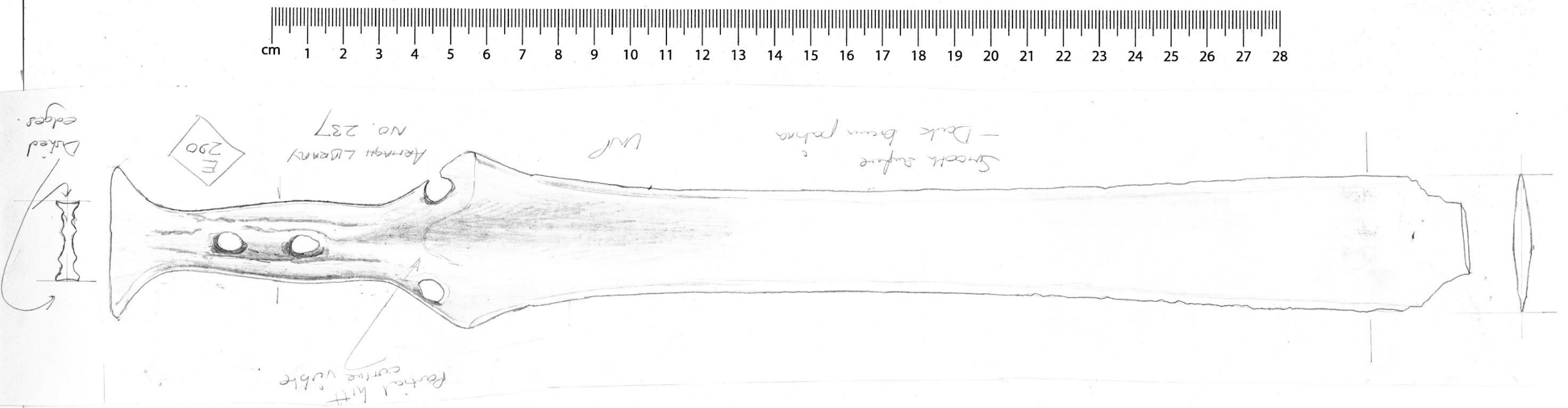

28/7/10
Thick hilt section
A fine sand-
Good shiny surface
Clouded -
Mixed edge damage
- thin edge only
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

287


Mill repairs (2 x separate)
Armagh Library no. 134
E 287
Slight kink outside
DMP
Cleaned Mus no
610g
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

288




cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
E 290
Armagh Library
No. 237
UAF
Smooth surface
– Dark brown patina
Faceted hilt
centre visible
Dished
edges.

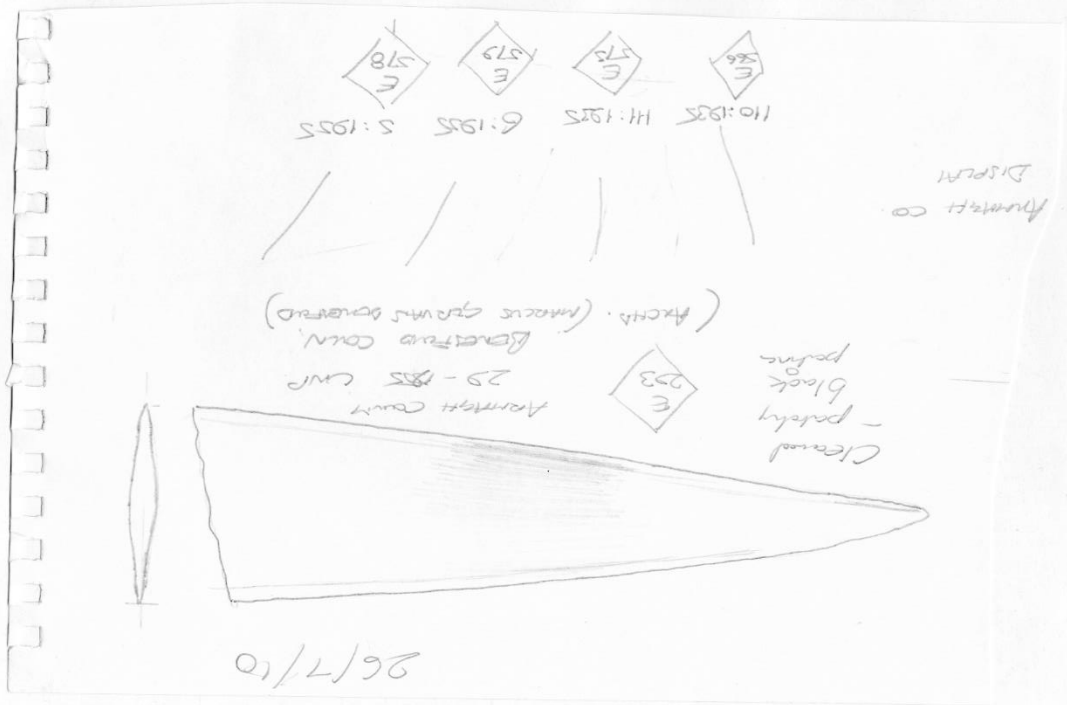
290

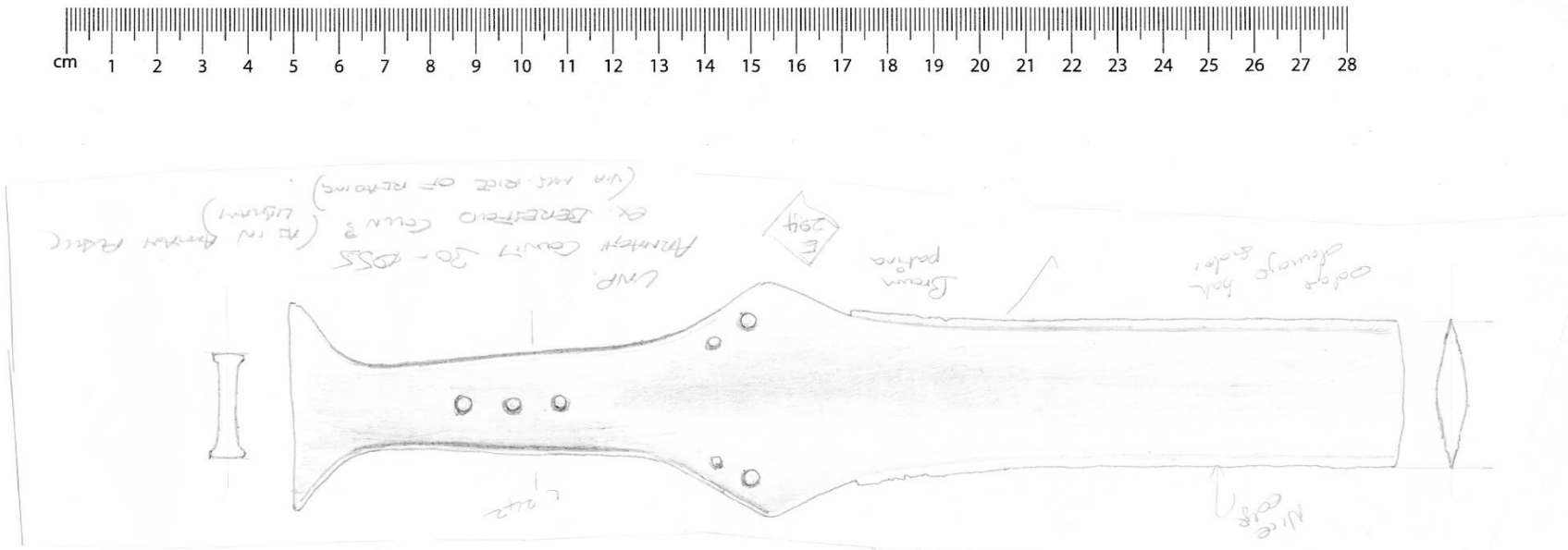
291

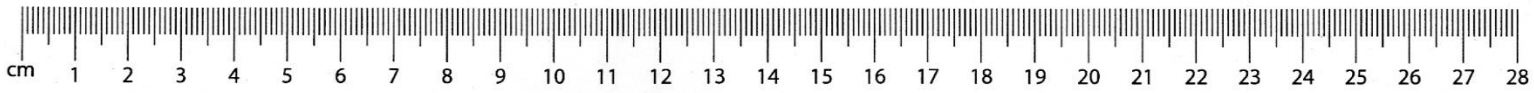
Akrotiri Catalog no. 112
Unit:
Loc: Room Delta
Sect: Bed (Unit III + Unit IV).
E 291

cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28


cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28




cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28



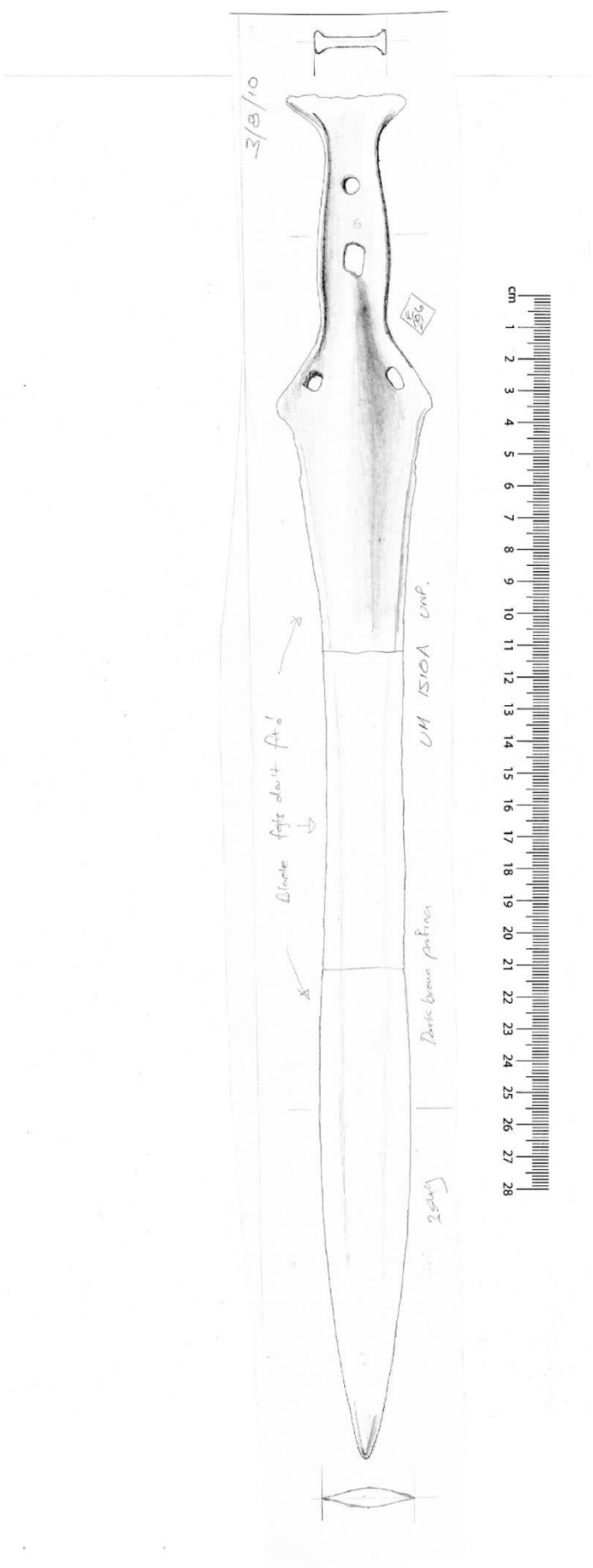
295

295 (2)

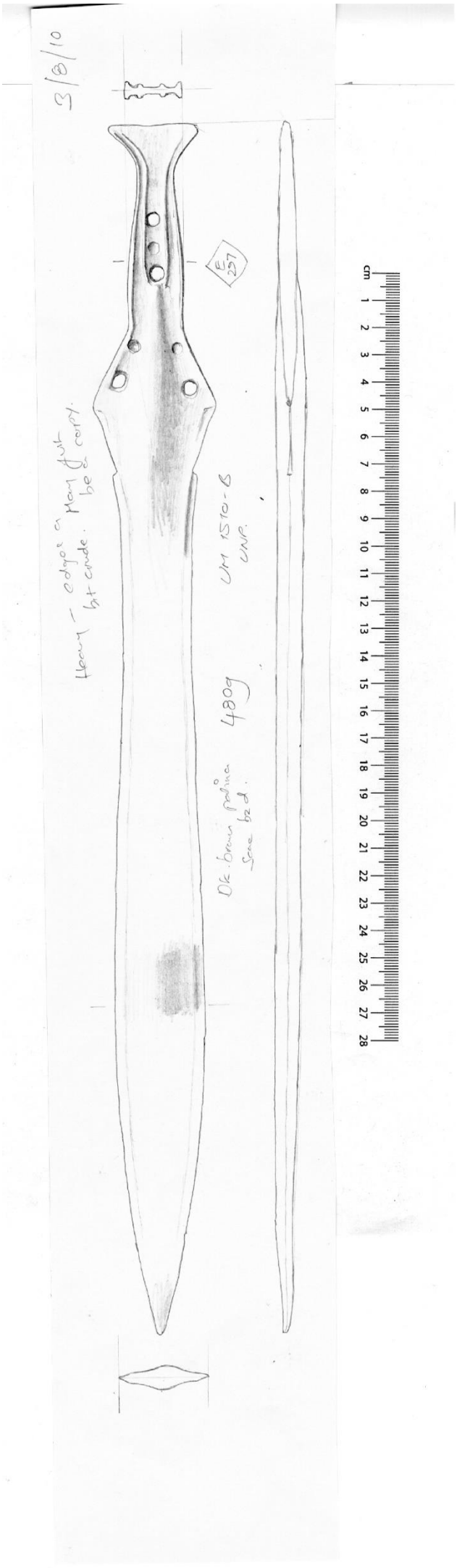
Reshaped second blade
L 24.6
Assigned County + museum abbr (e.g. Co. Armagh: 113 - 1985)
EJS 995
Dr. burin on proximal

cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

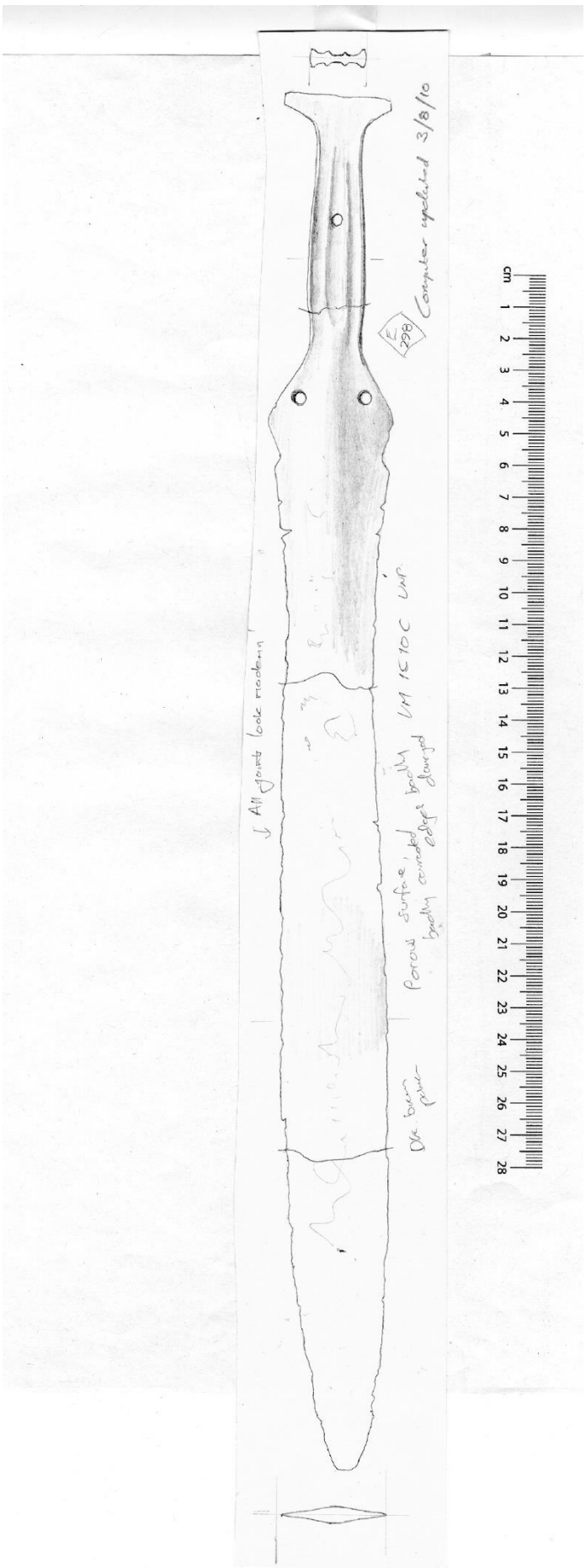
296


3/8/10
E 296
UNIDENTIFIED COMP.
Blade tapers down to pt.
Dark brown patina
2 5/8"
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

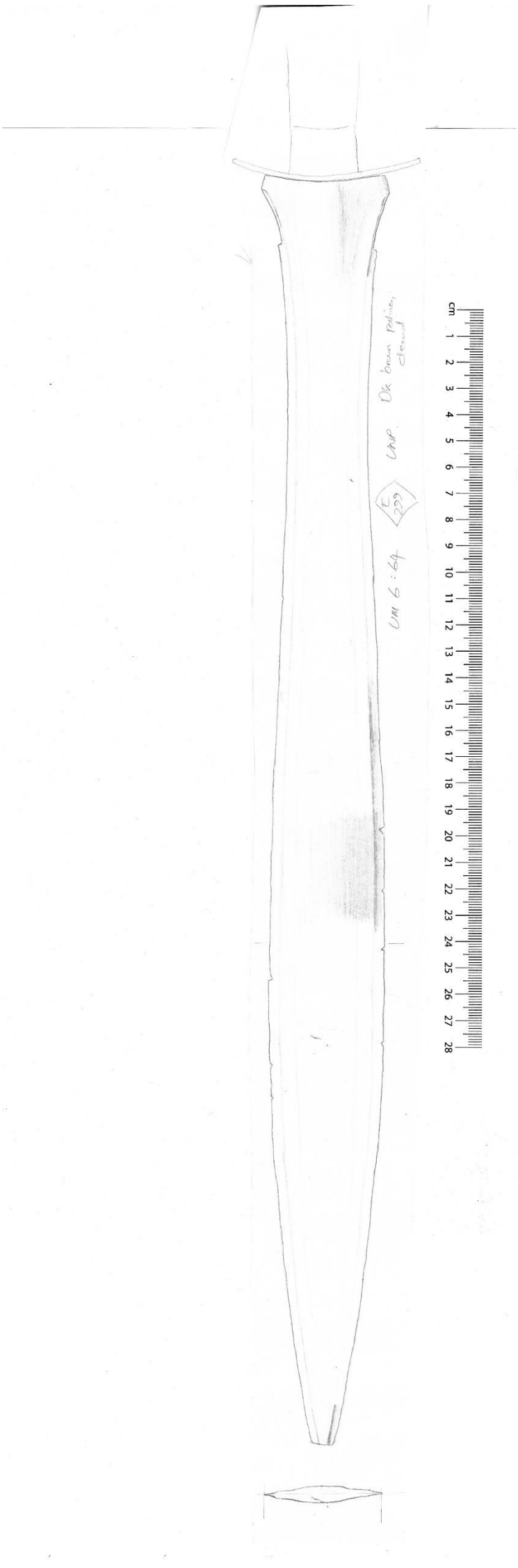
297


3/B/10
E 257
Heavy - edges & many flint bits inside. Many of unit be & corp.
UM 1510-B
UNP.
4809
Dk. brown patina
Some bzd.
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

298

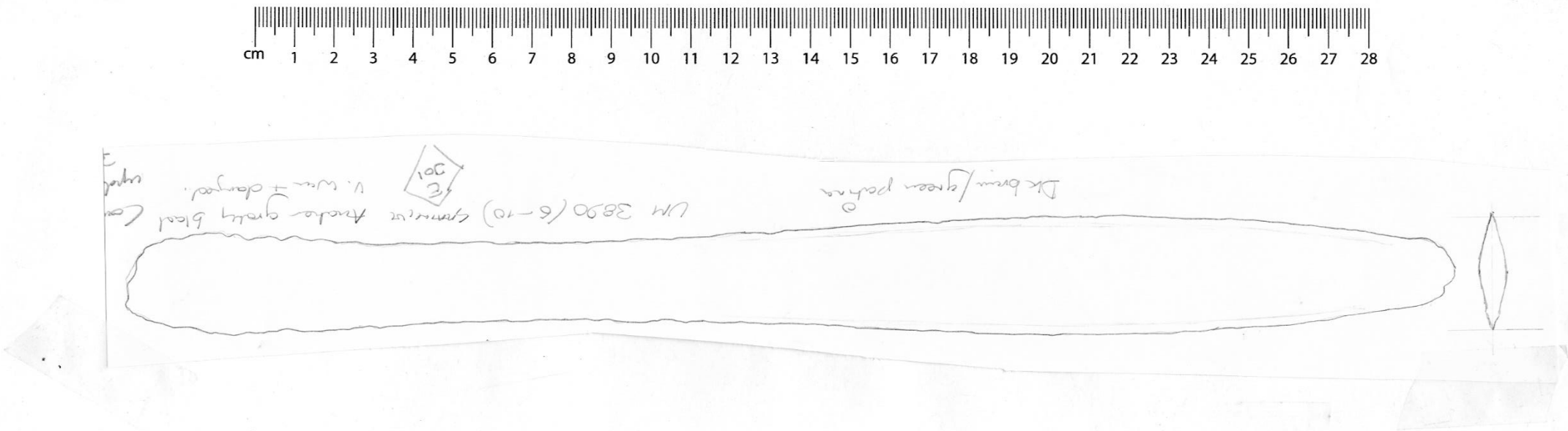

E 298
Computer updated 3/8/10
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

299


E 299
UNP
UM 6:64
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

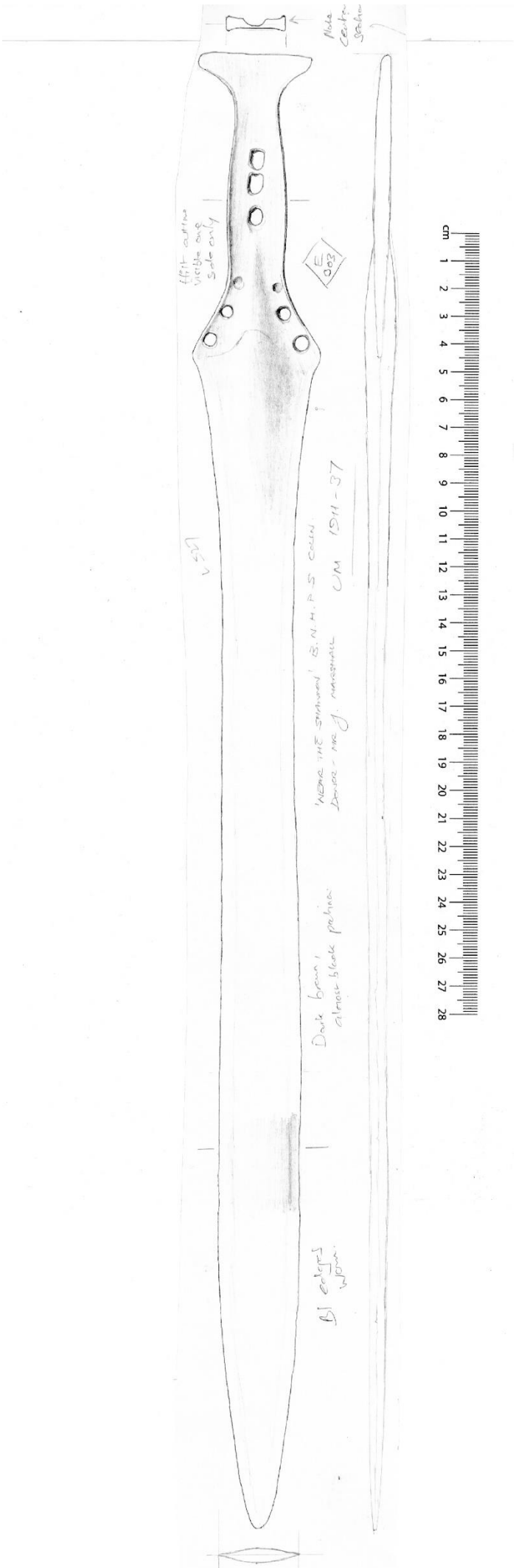
300

Grotty blade V. worn + damaged
UM 3884 (6-9) GRANGTON
300
Dk brown patina
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

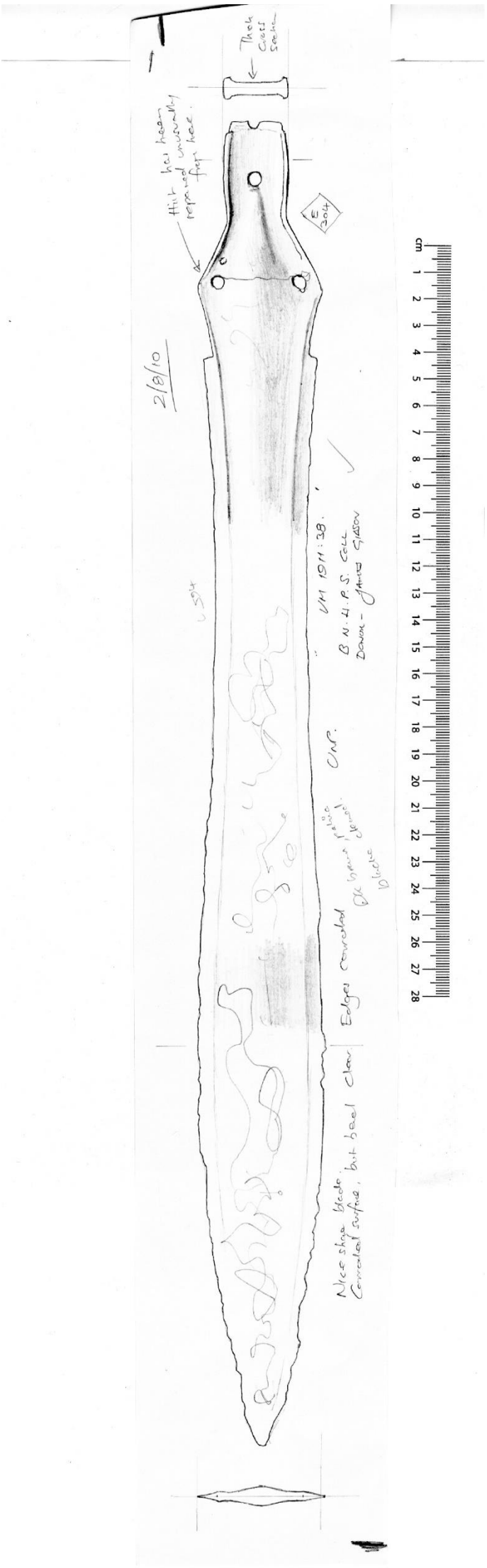


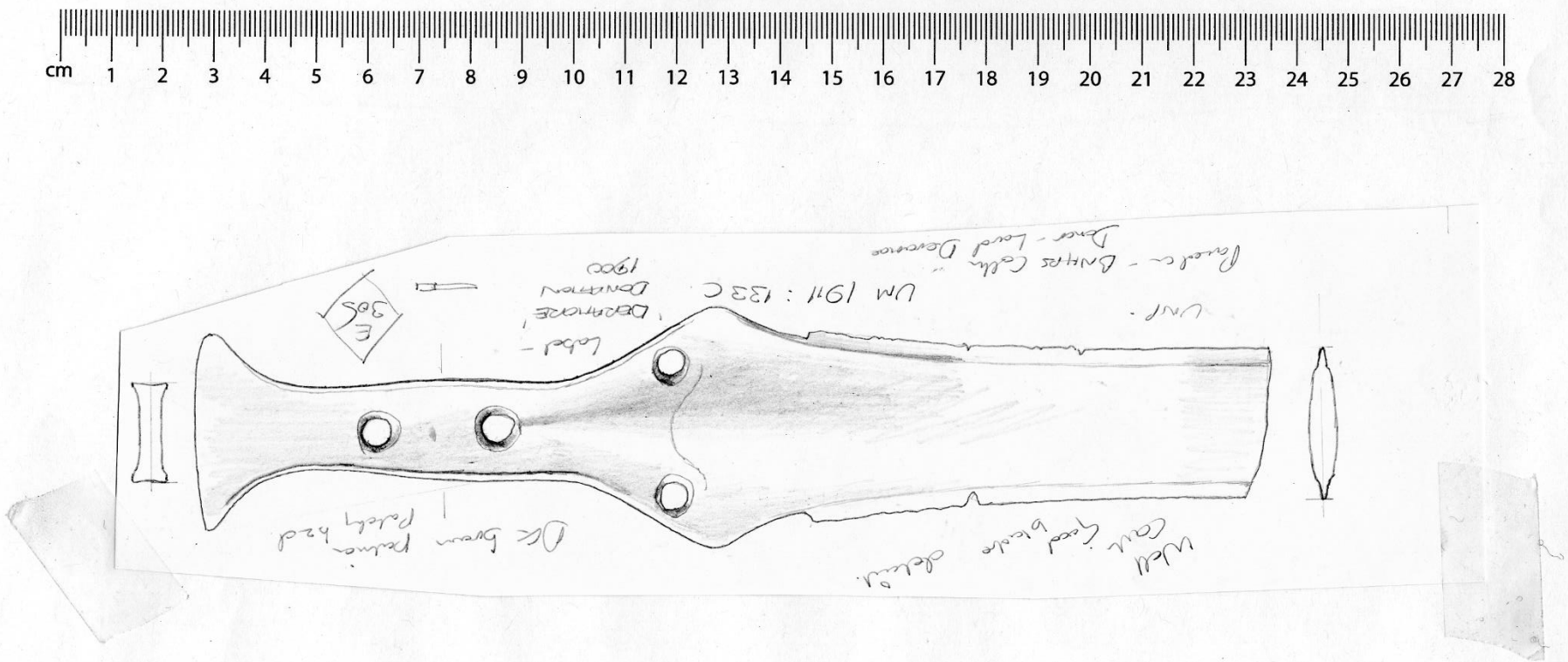
301

303

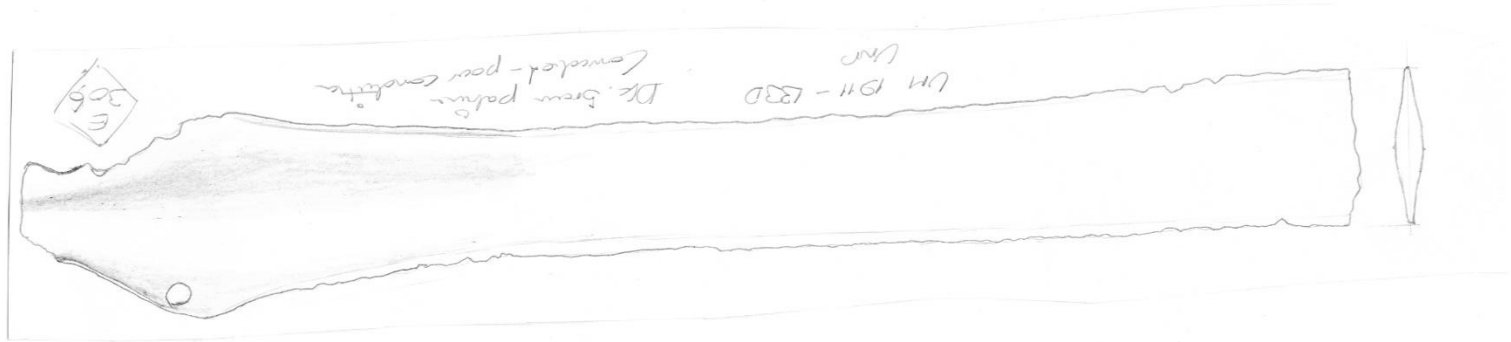


304


Thick Central Section
Hilt has been repaired unusually fast here.
E 304
2/8/10
VH 1911:38.
B.N.H.P.S. coll.
Davis - Gaines Station
Edges corroded
Nice ship blade
Corroded surface, but bad clear
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

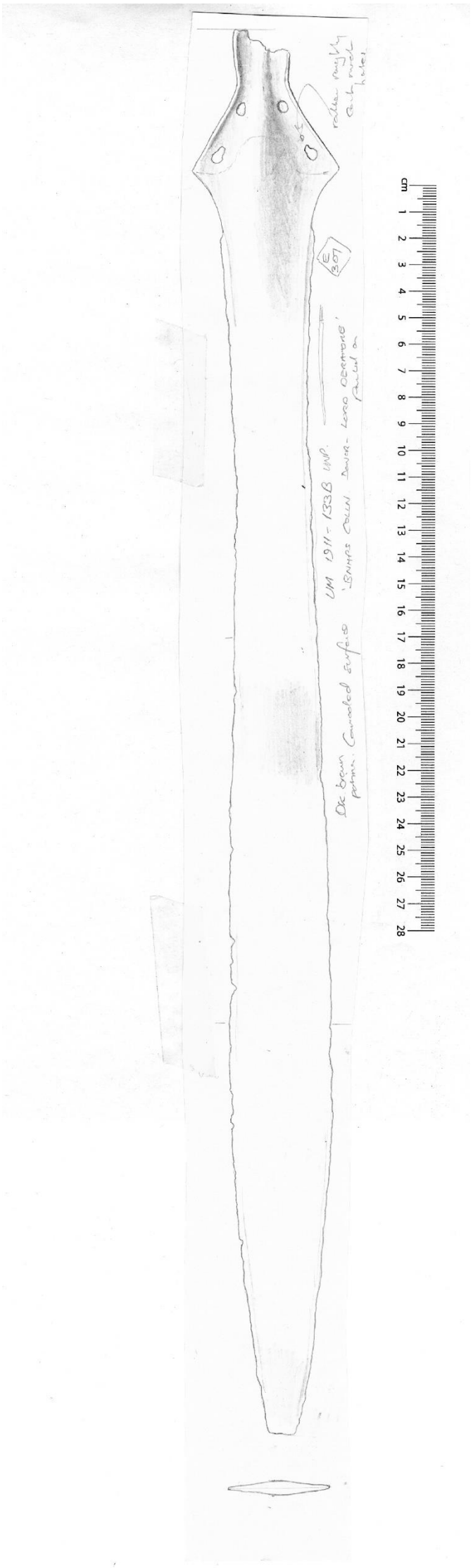


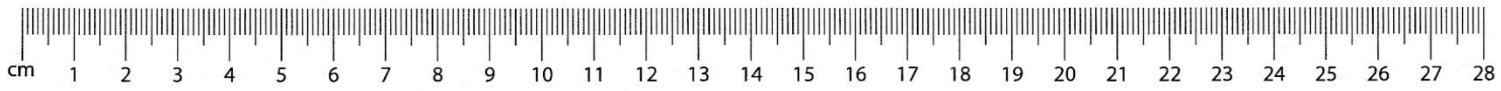
305

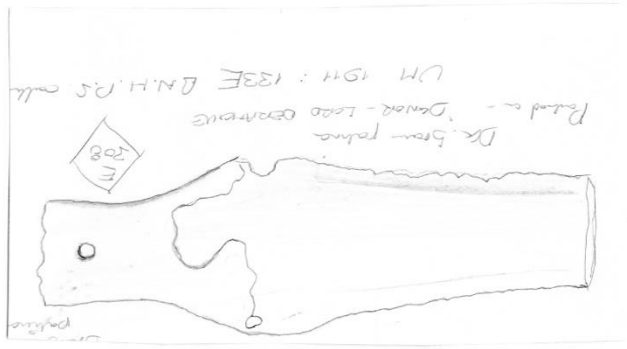


306

307







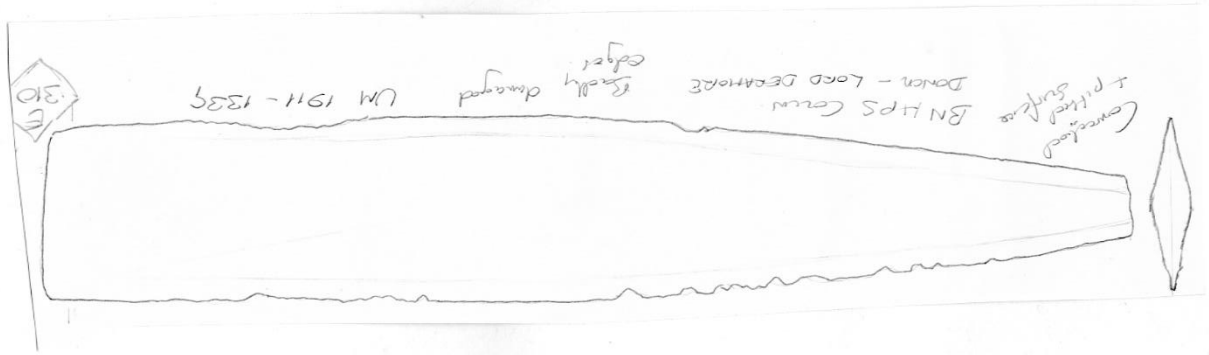
308

309

Patchy black patina.
E 309
UM 1911 - 1337F UNP
BNHRS Collin.
Dover - Lord Derahore Deraheore Dorchon 1900.

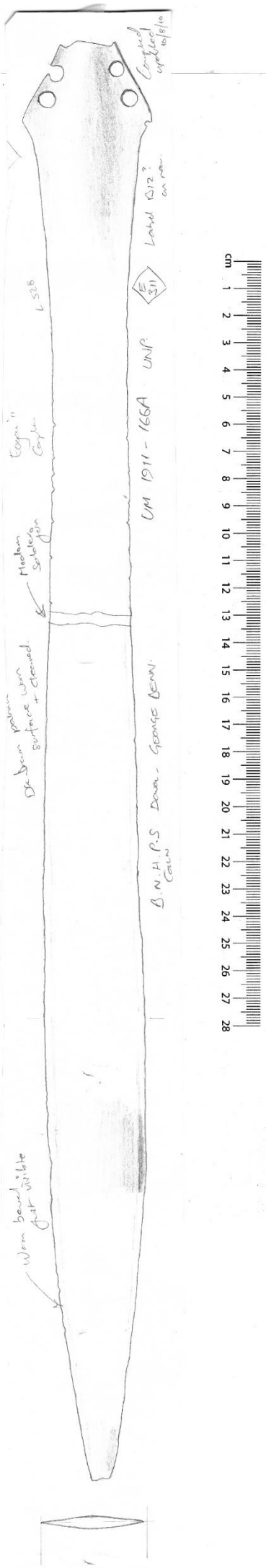
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

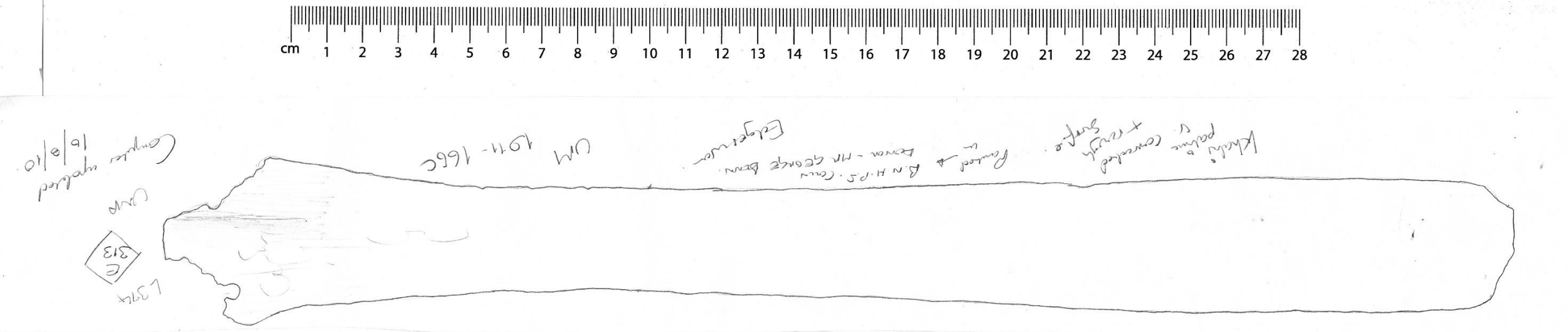

cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28


E 310
UM 1911 - 1337
Slightly damaged edges
BN HPS Cecil Donen - Lord Denmore
Converted Flatted Surface

310

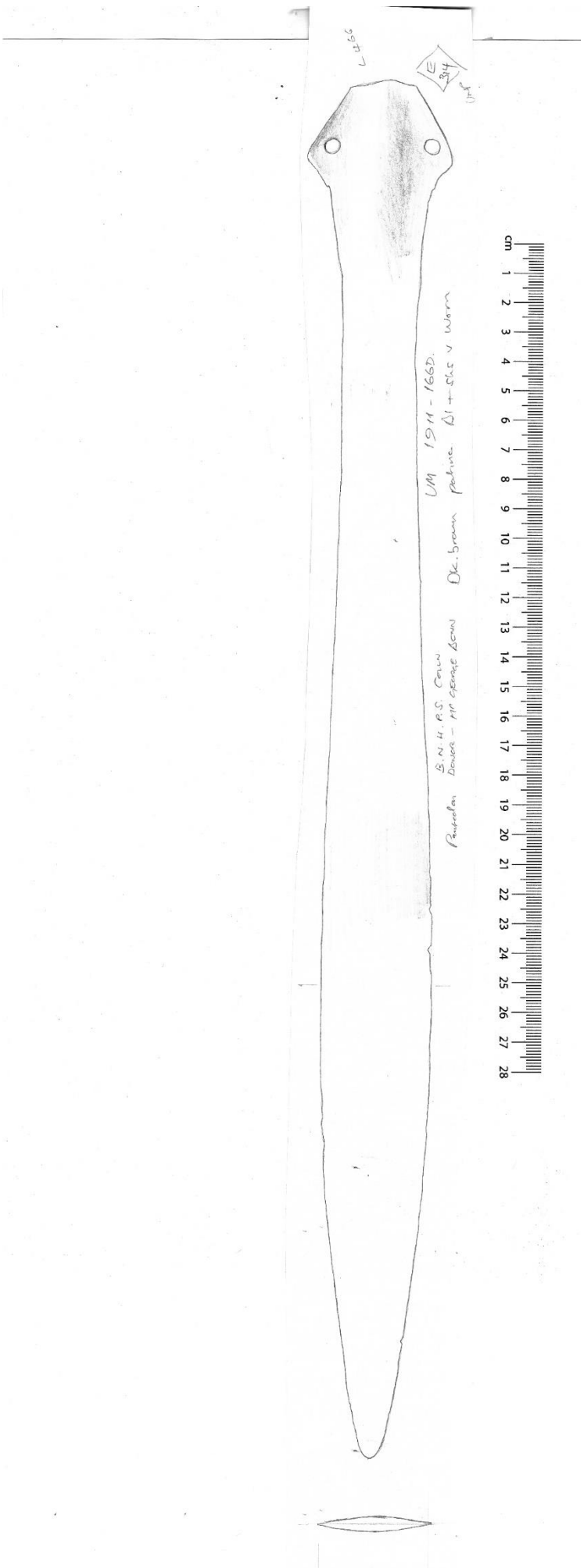
311


Conserved
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

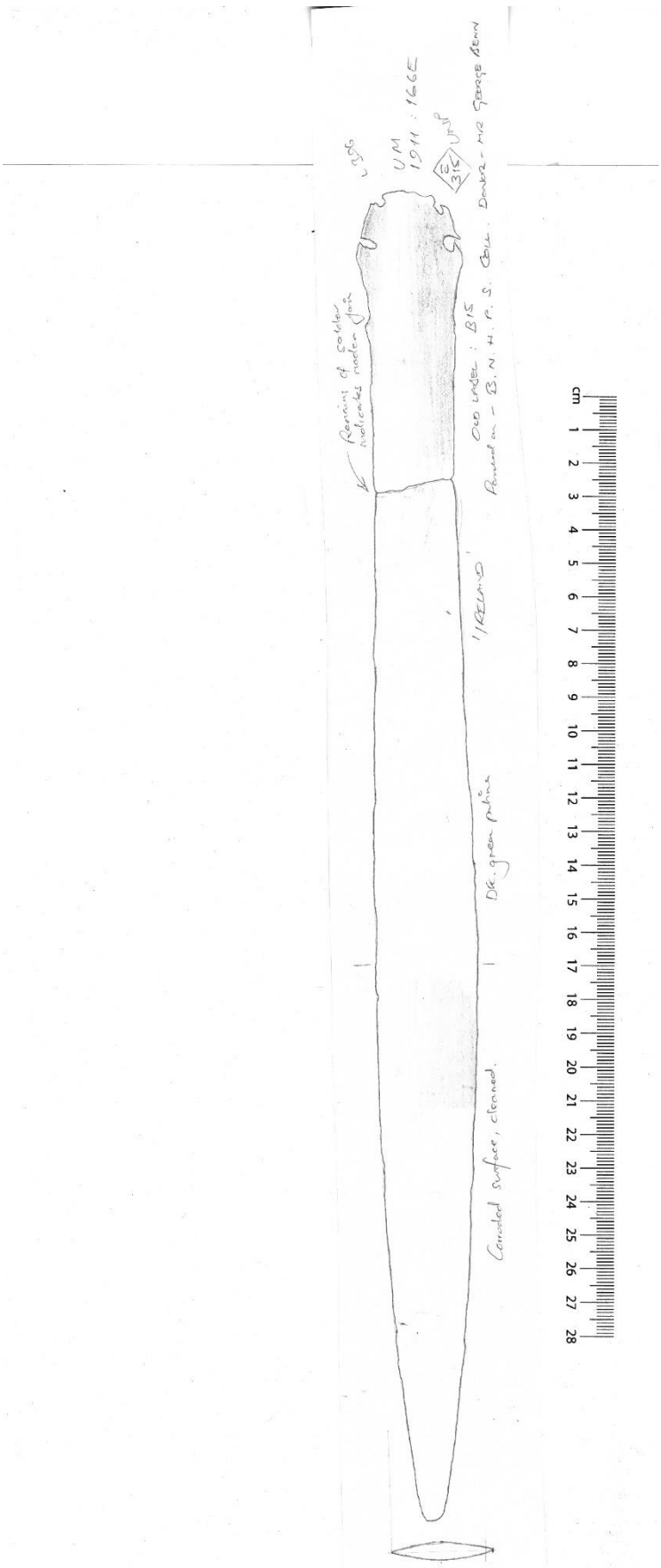


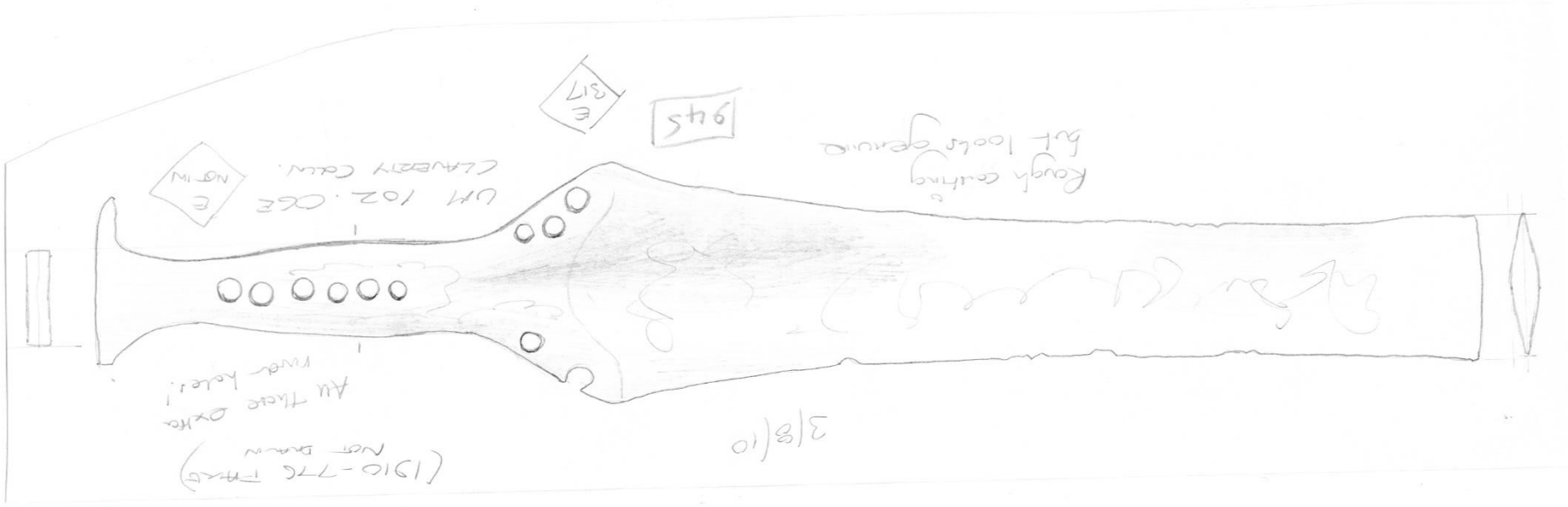
313

314



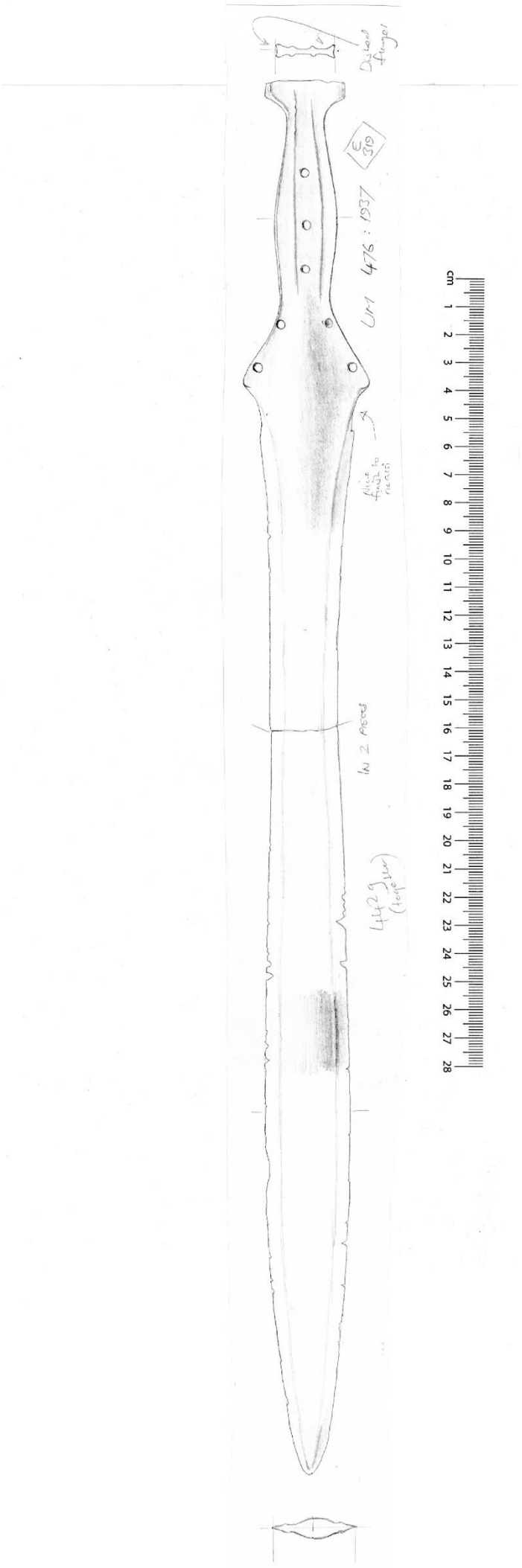
315


Remains of coated
indicates modern glue
UM
1911 : 1666
OD LABEL : B15
Found on - B. N. H. S. Belt. Dredge - m/v George Kenn
ICELAND
Dk. green patina
Corroded surface, cleaned.
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

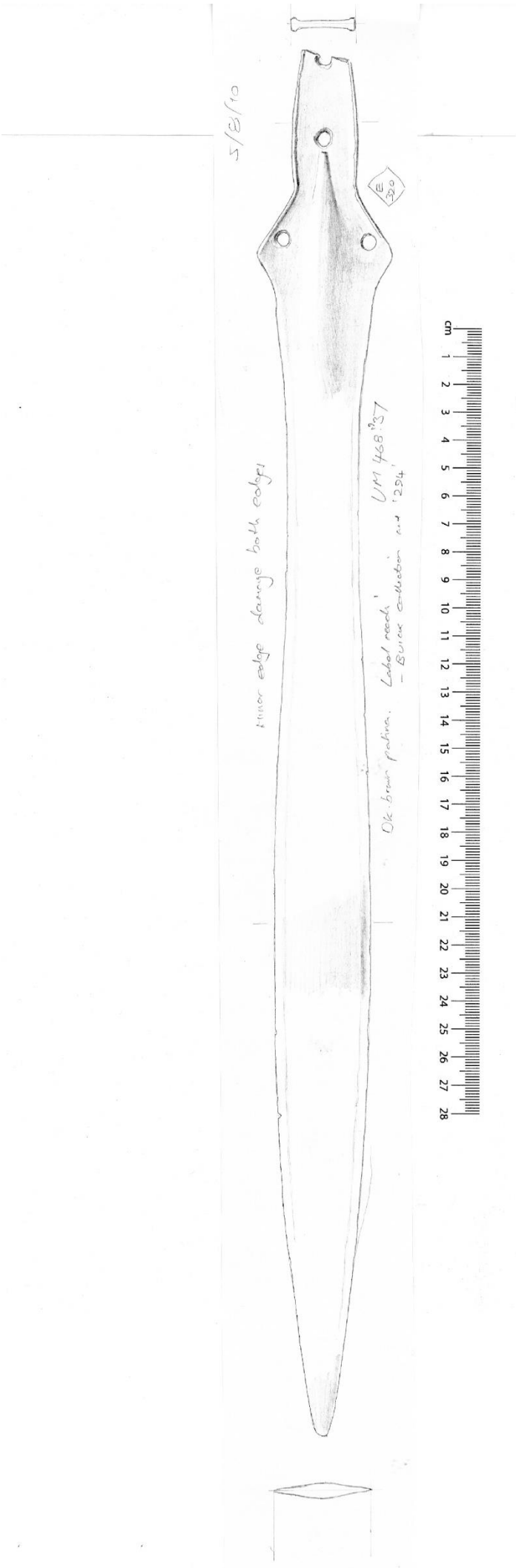


317

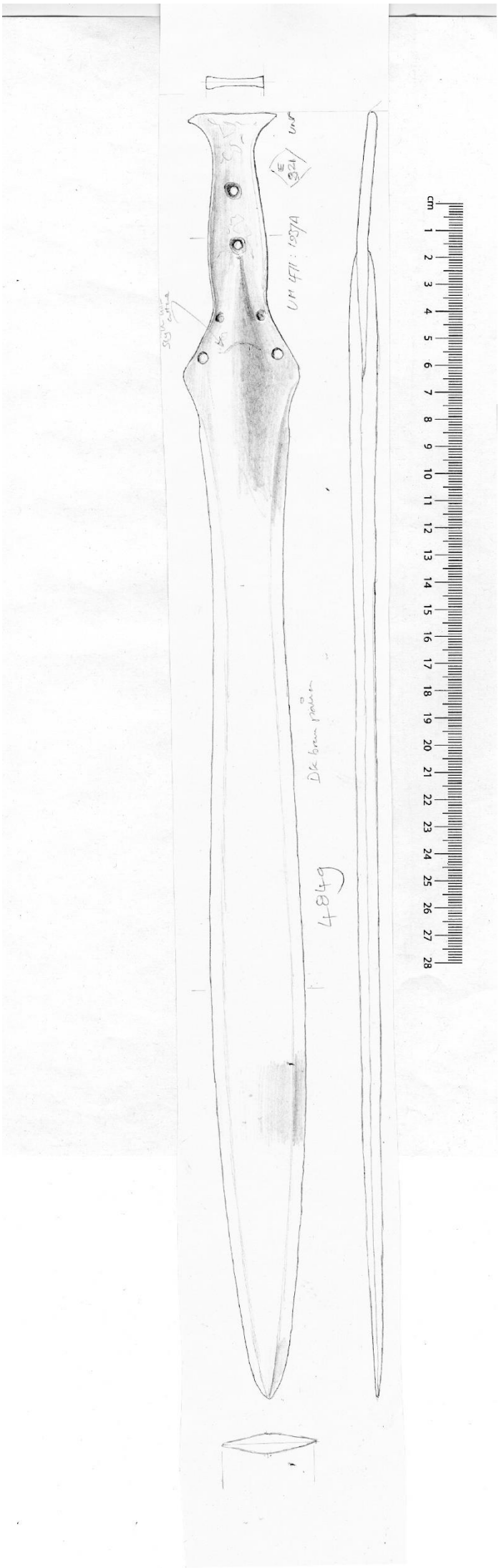
319


Diagonal fracture
E 319
UM 4776 : 1937
fracture to metal
IN 2 PIECES
442.5 gm
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

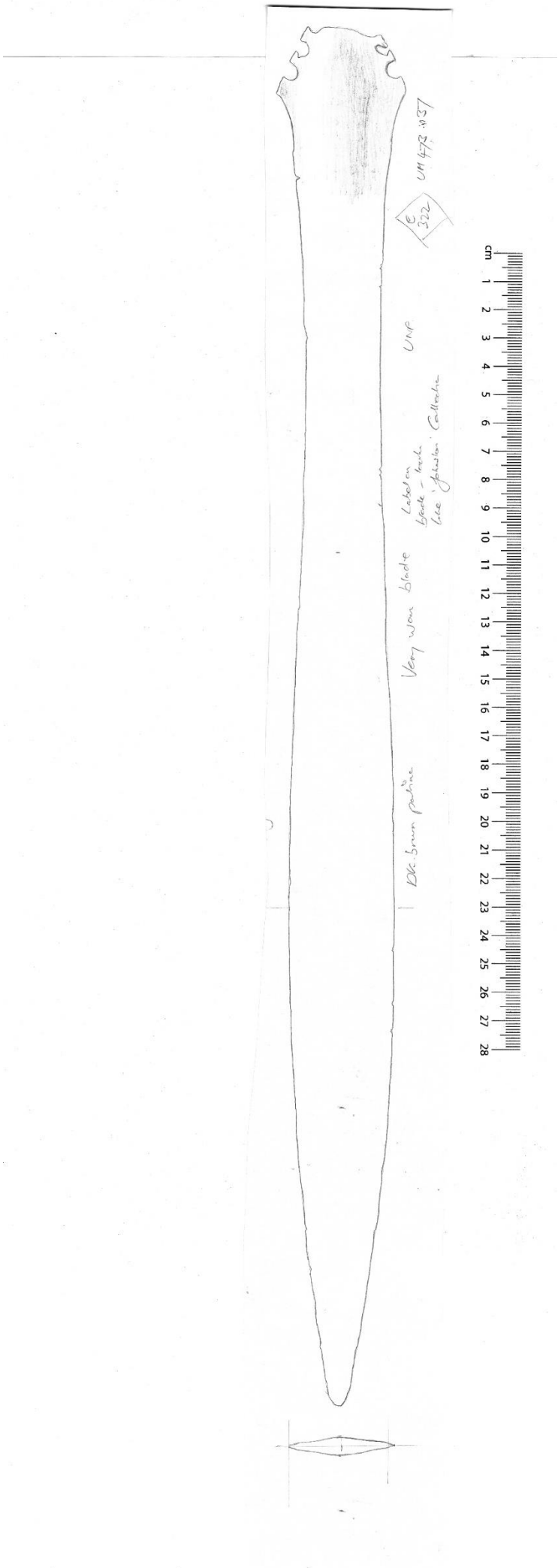
320


5/8/10
E 320
UM 468.1937
Ok. brown patina. Label reads '294'
- Burne collection
minor edge damage both edges
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

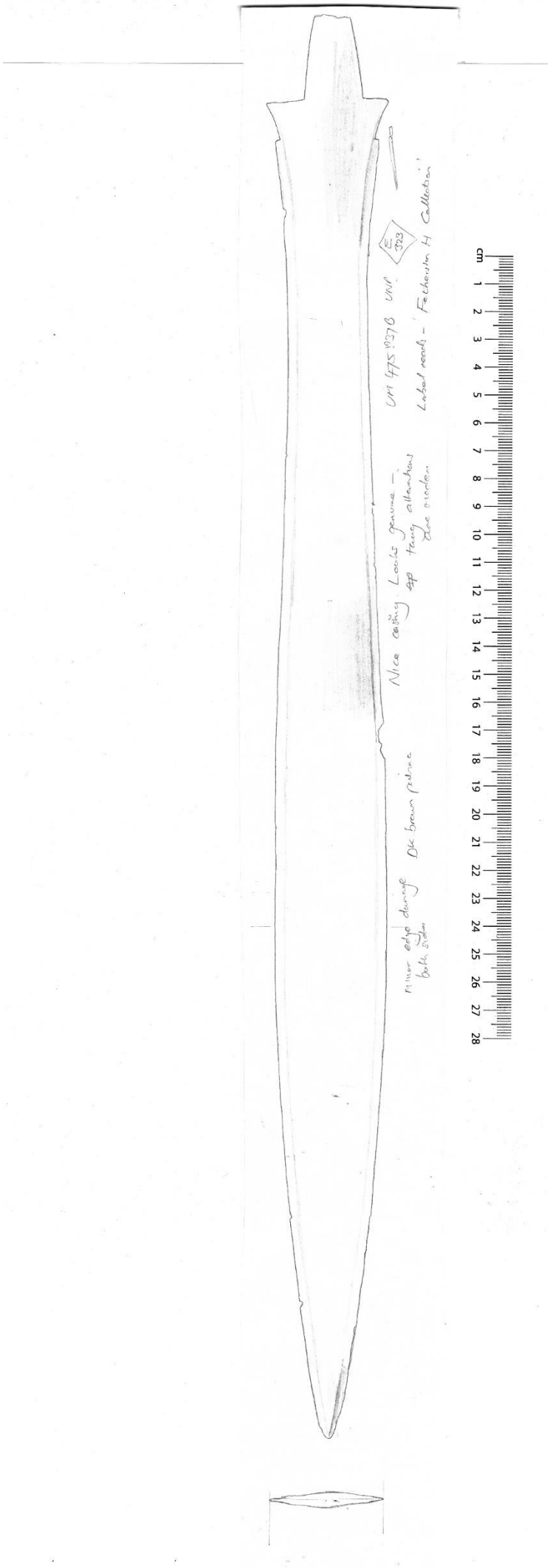
321


321
UM 471 : 1937/1
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

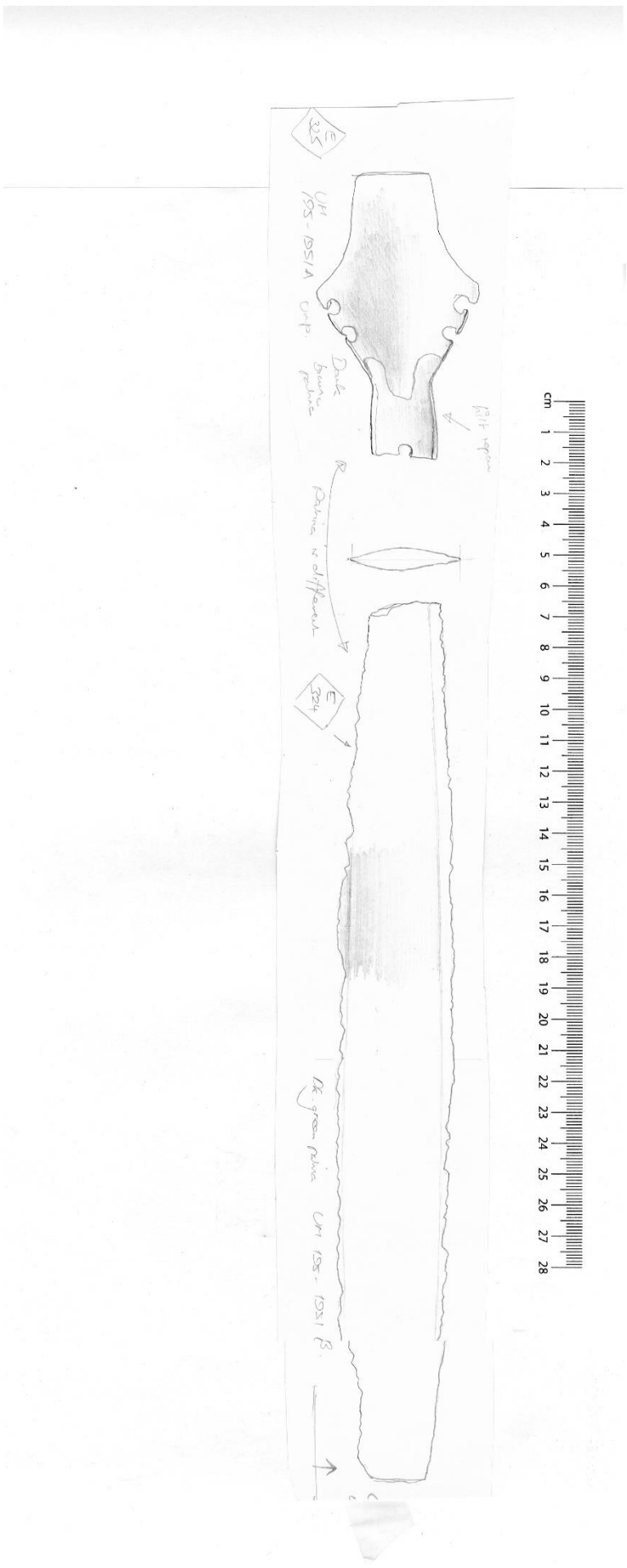
322


UM 472.937
E 322
UNP
Very worn blade
Dk. brown patina
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

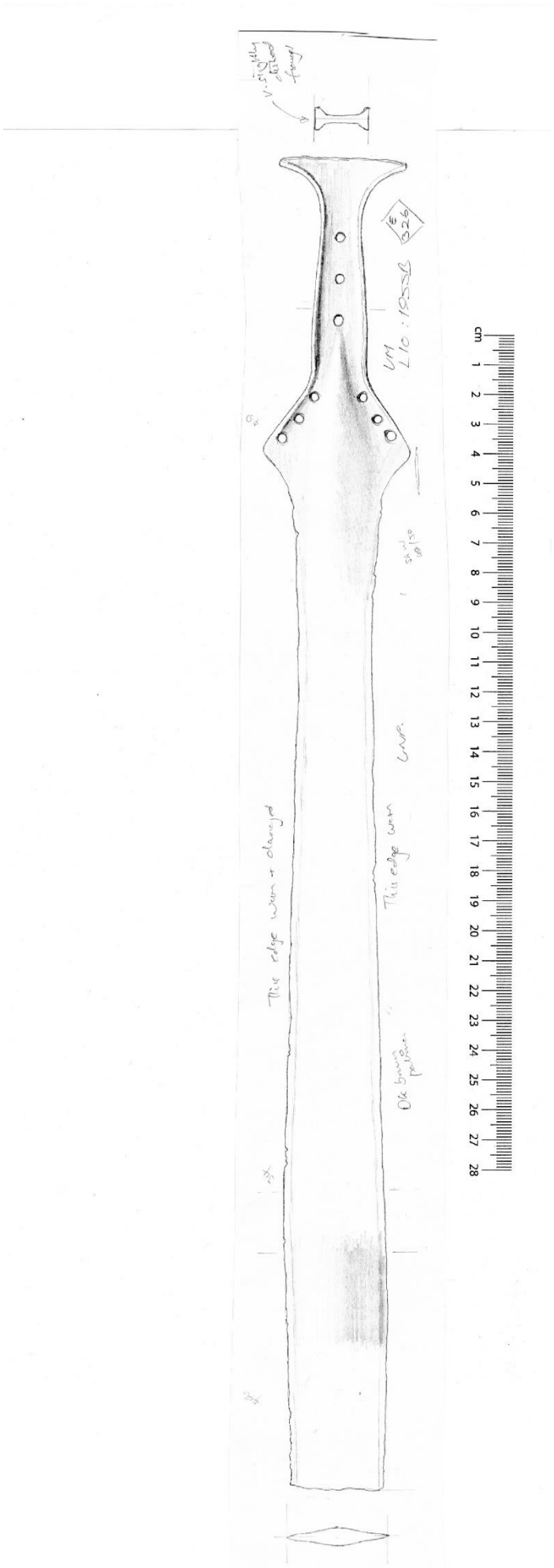
323


E 323
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

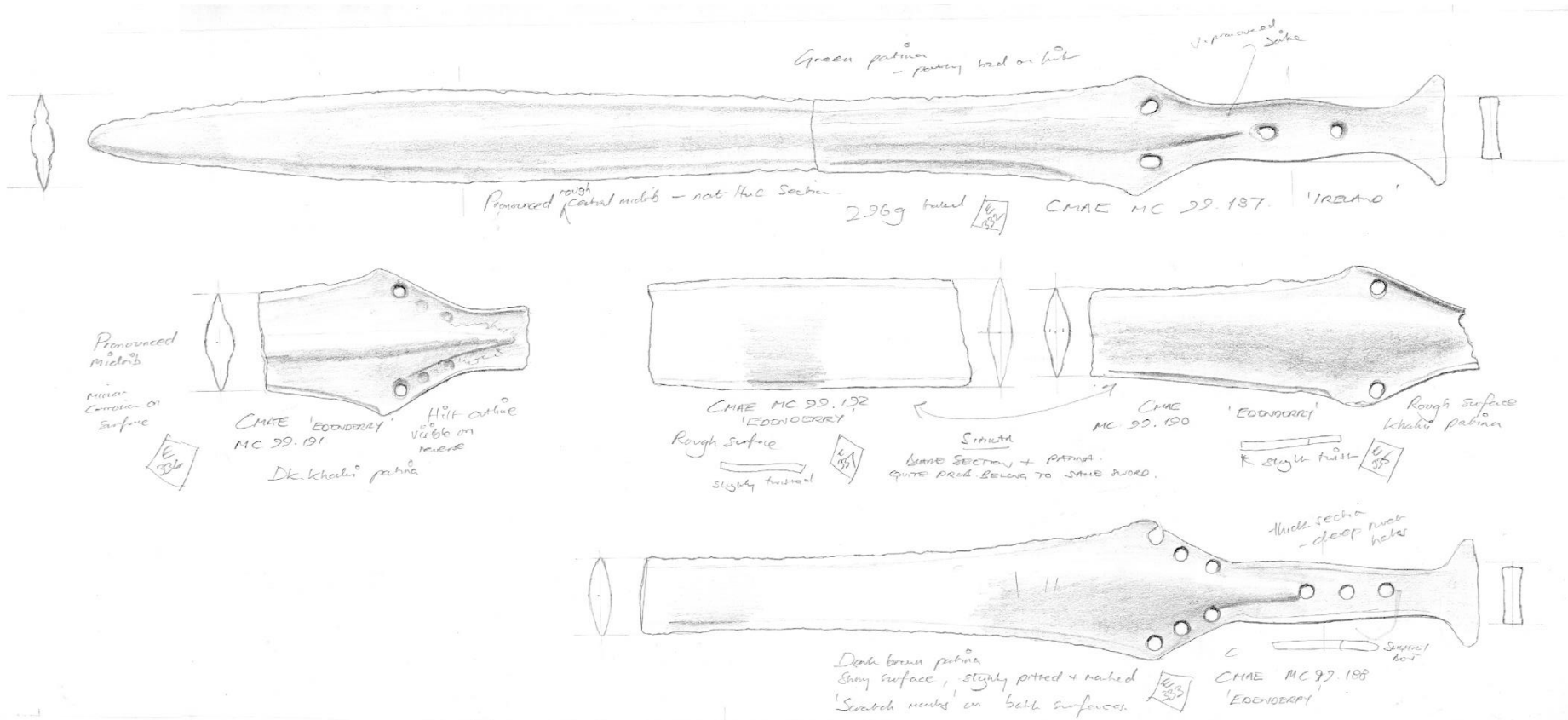
325


E 325
E 324
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

326

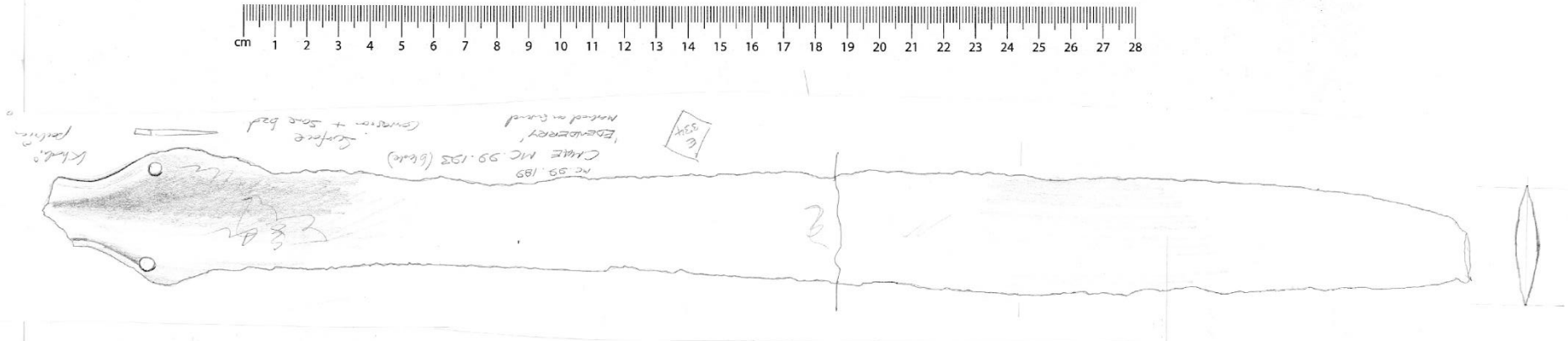

E 326
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

332
333
335
336
337



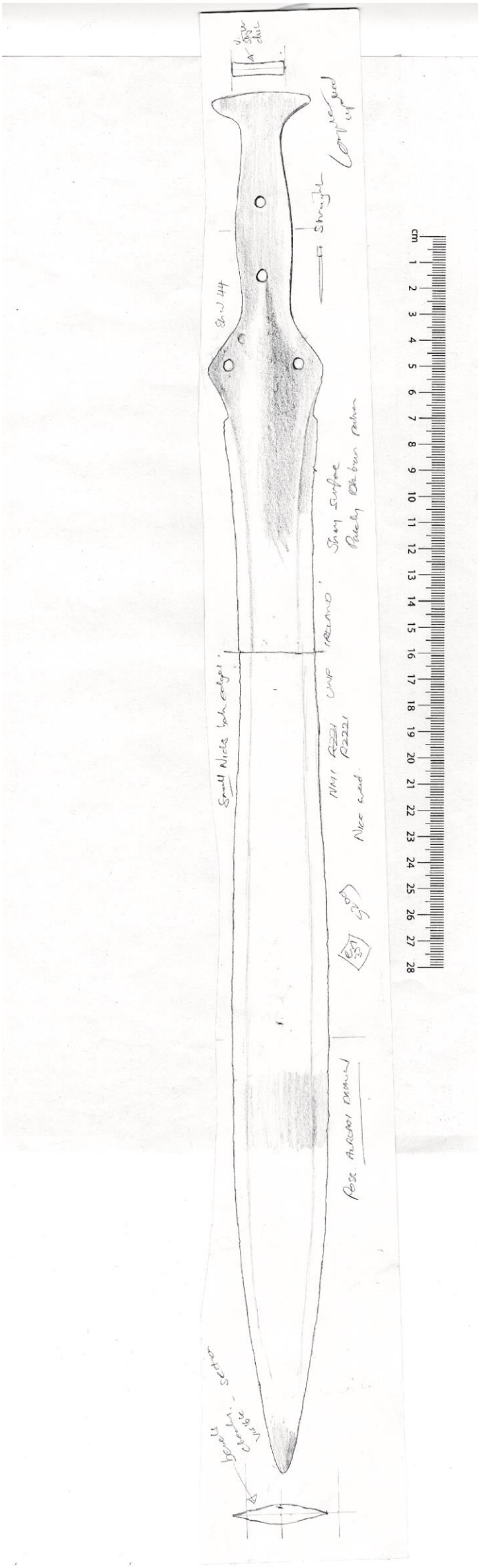
327

E 327
IRLAND, cm 2:1 : 1:1
Dr. bow patina
cleaned.
Modern
modification
Blade section
radiograph
suggesting copy:
but edge +
recess de'cut good
Casting
flaws well visible

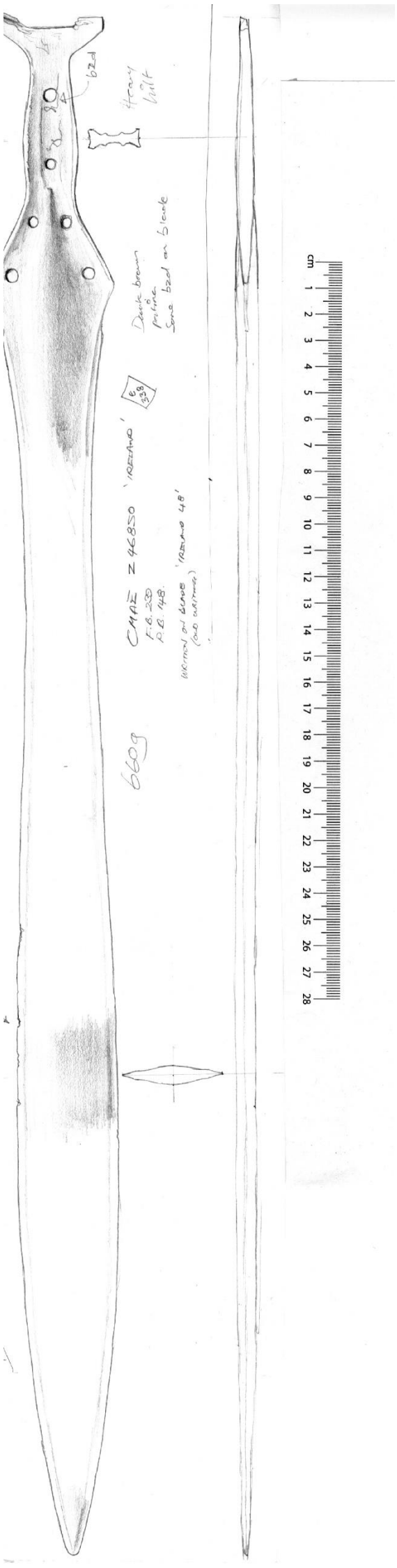


334

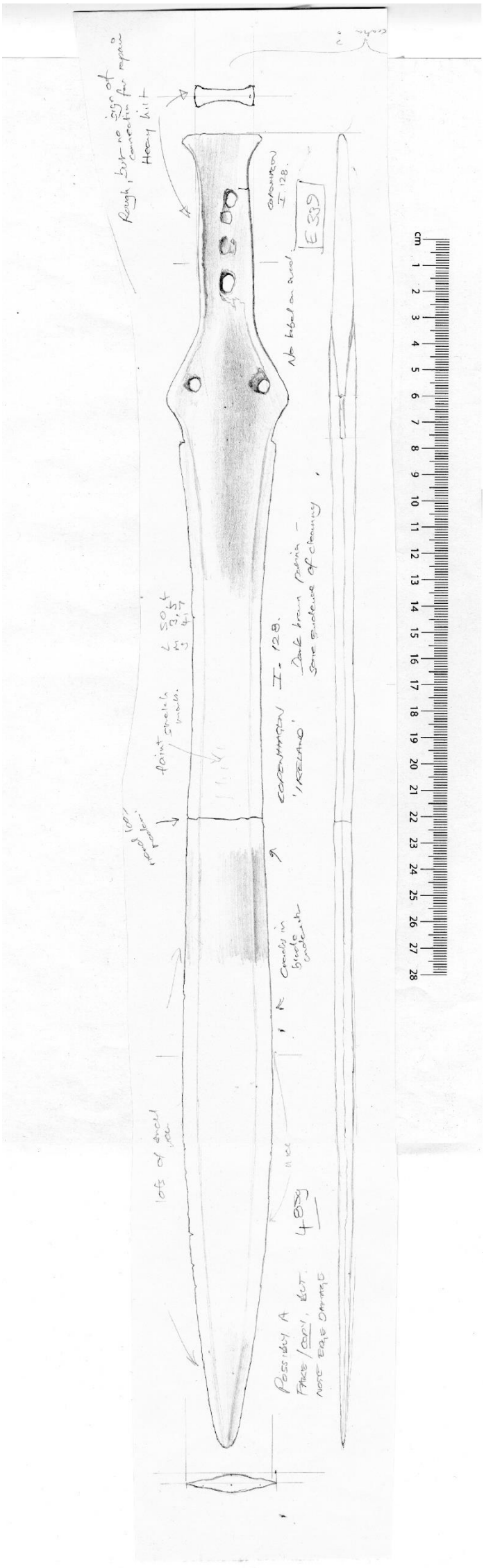
337

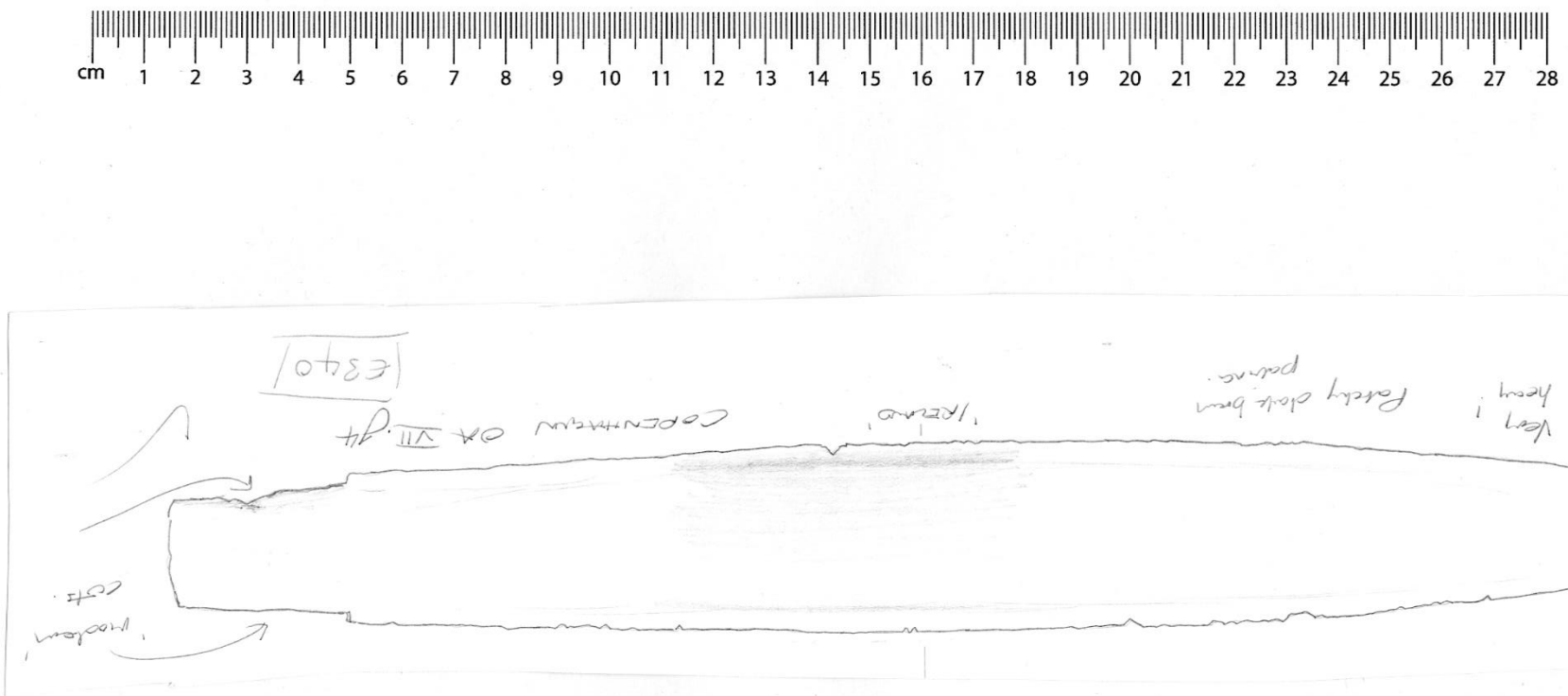


338

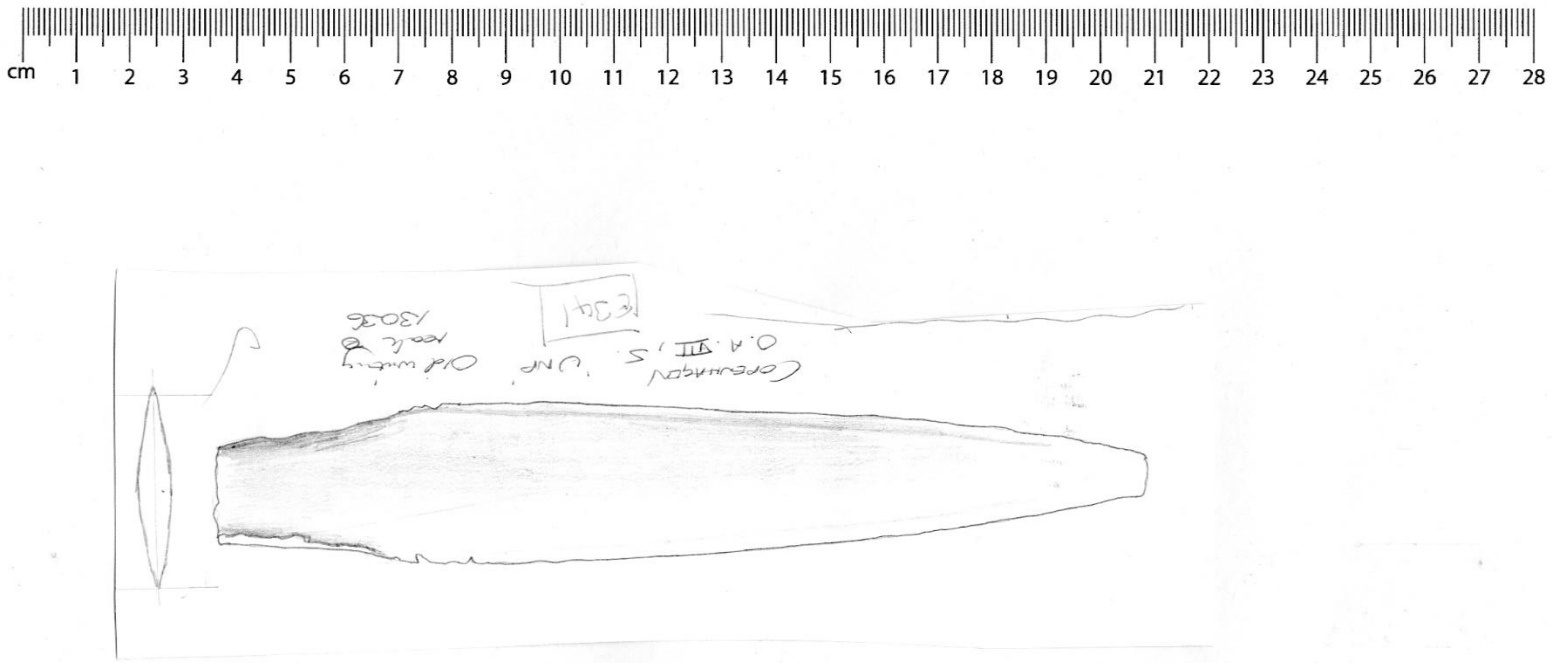


339

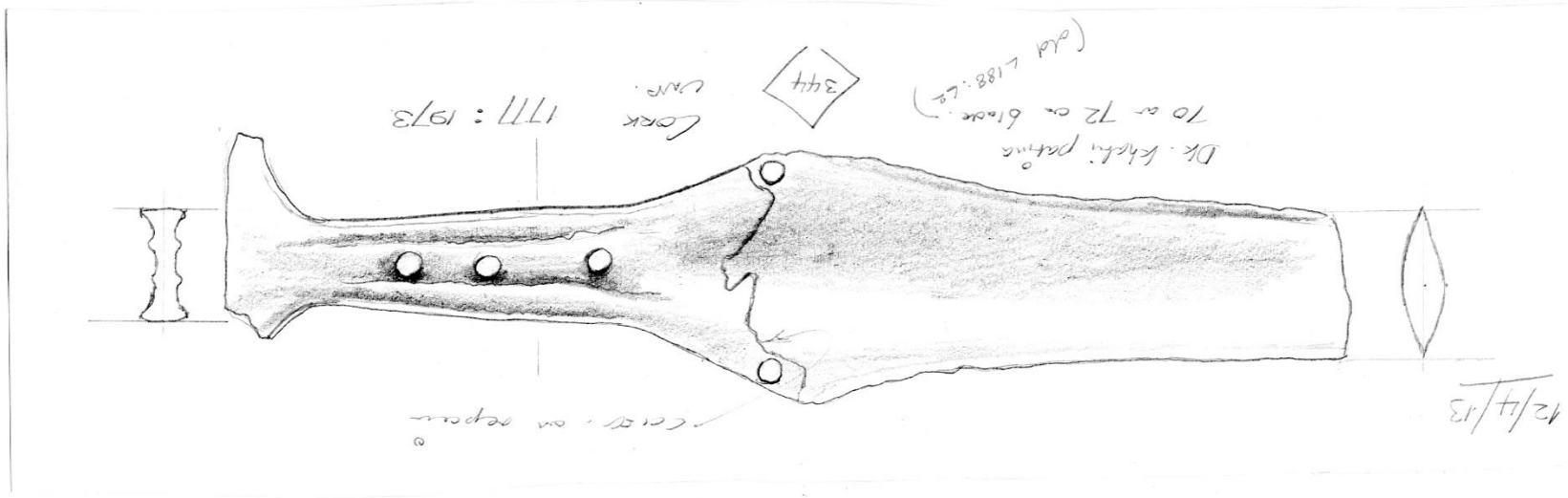

Rough, but no sign of conservation for repair
Heavy hilt
E 339
No label or seal
Faint stretch mark.
COPENHAGEN I. 128.
'ICELAND'
Dark brown patina – some evidence of cleaning
Cavity in blade underneath
Loss of steel
POSSIBLY A FRANK / CARL, BUT NOTE EDGE DAMAGE
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28



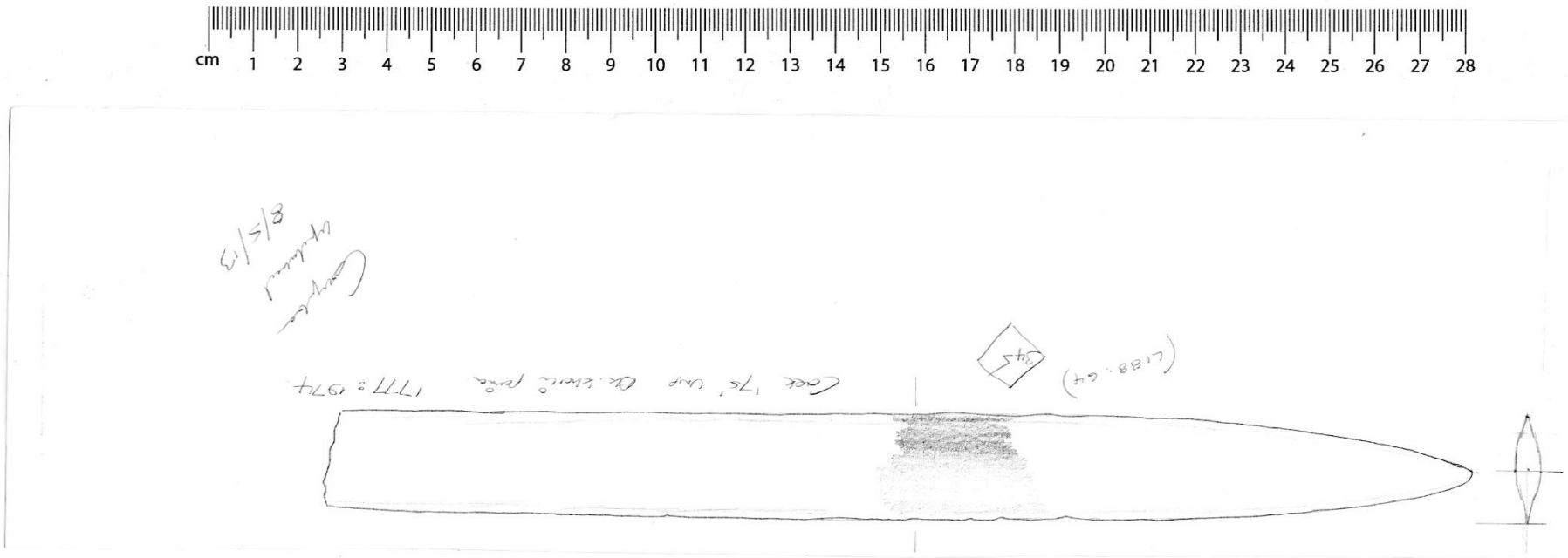
340



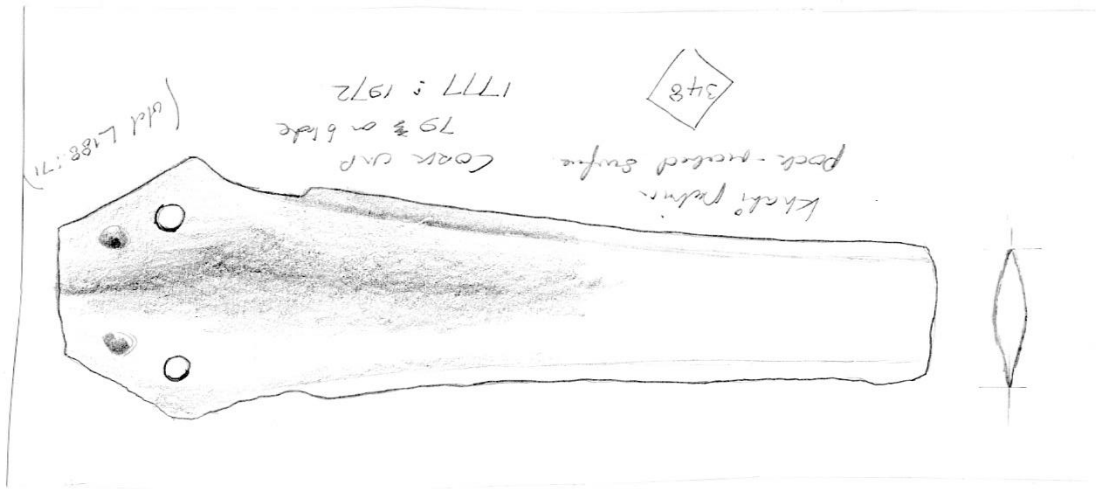
341



344

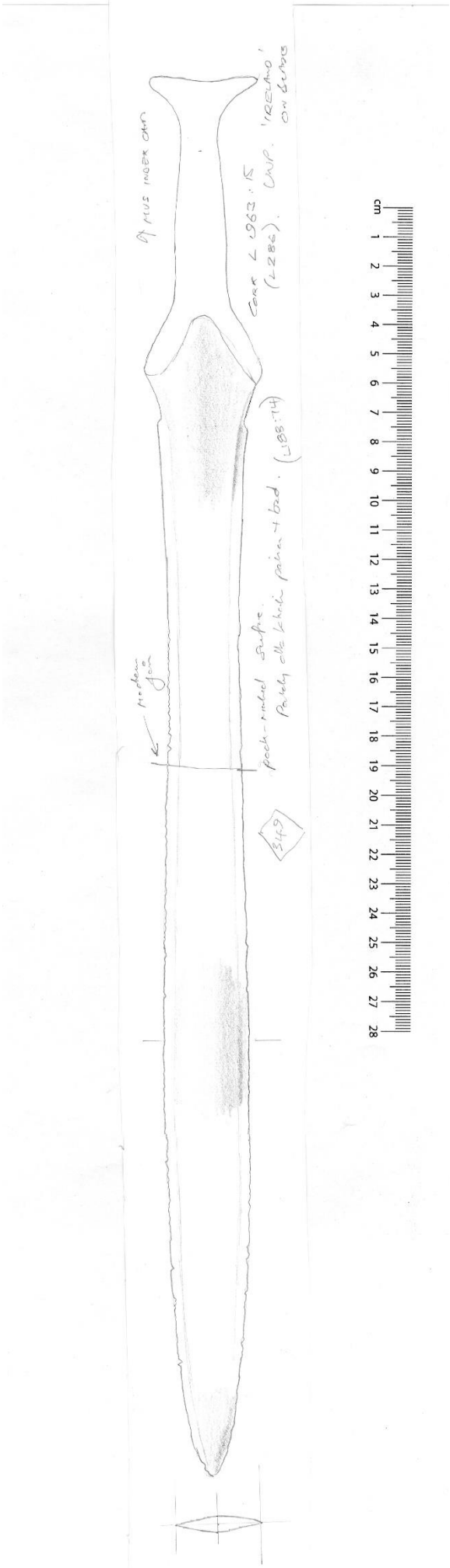


345

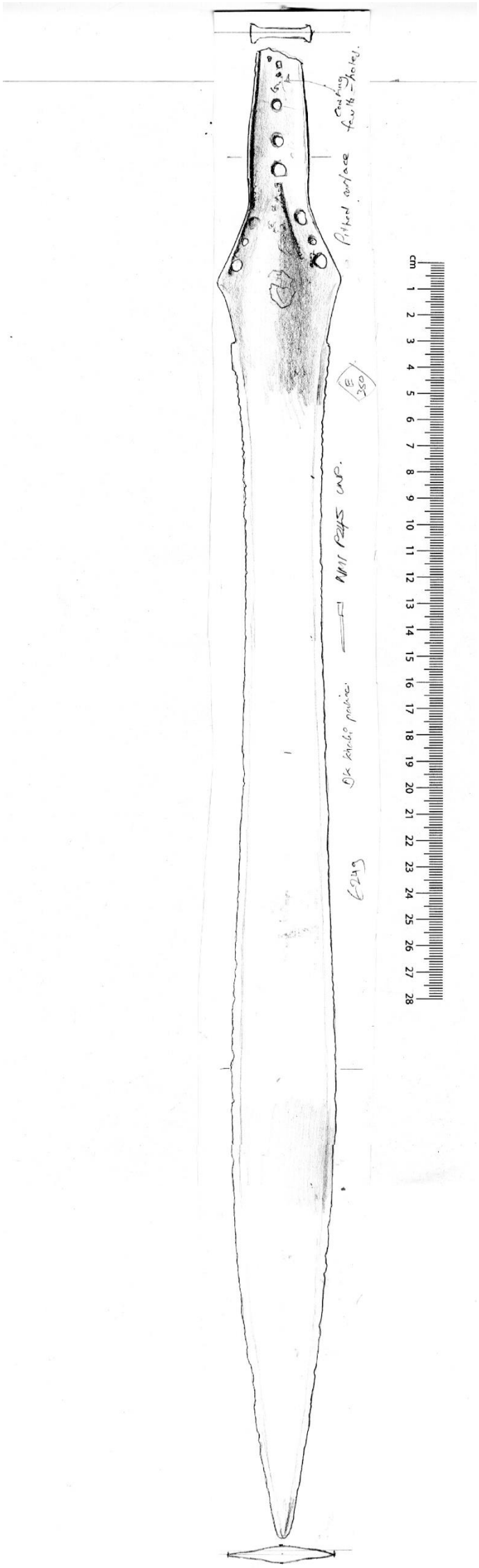

cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
Khaf Palm
Deck - worked surface
Coarse GP
79 % on blade
1777 : 1972
348
(old L488:71)

348

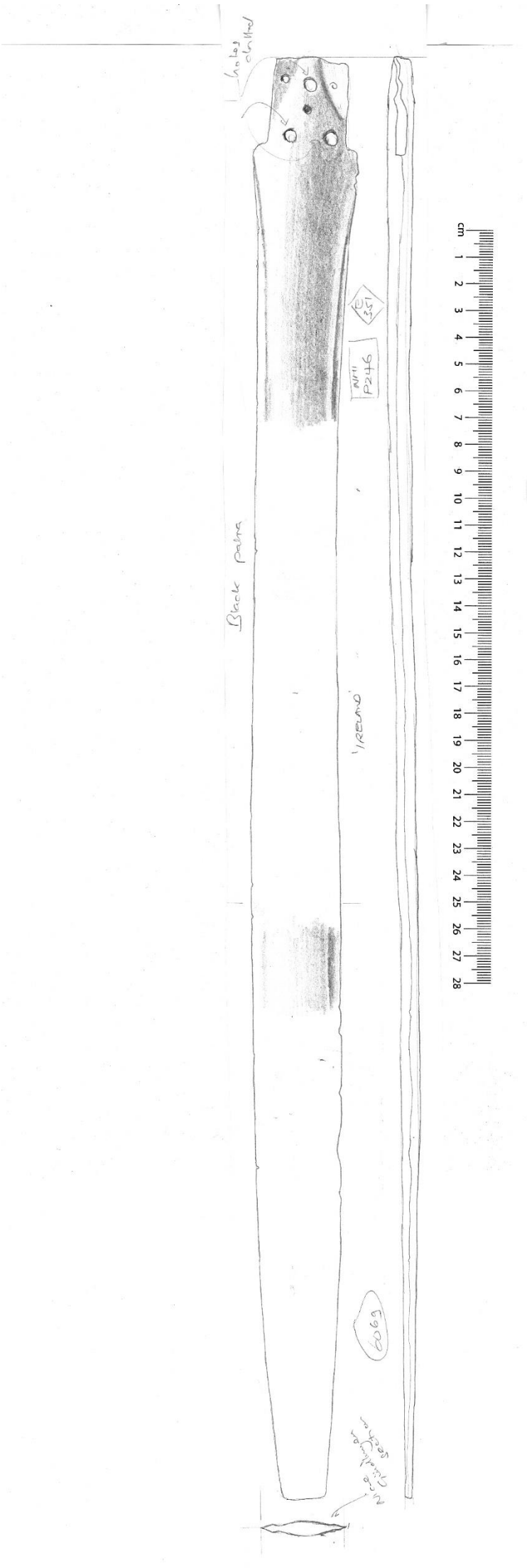
349



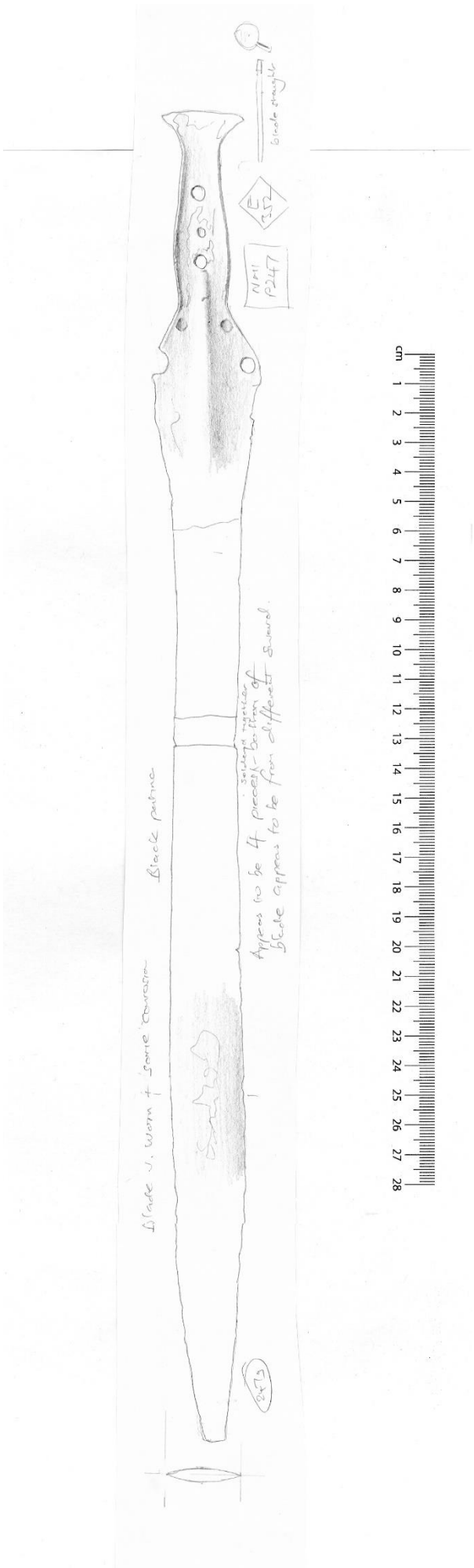
350



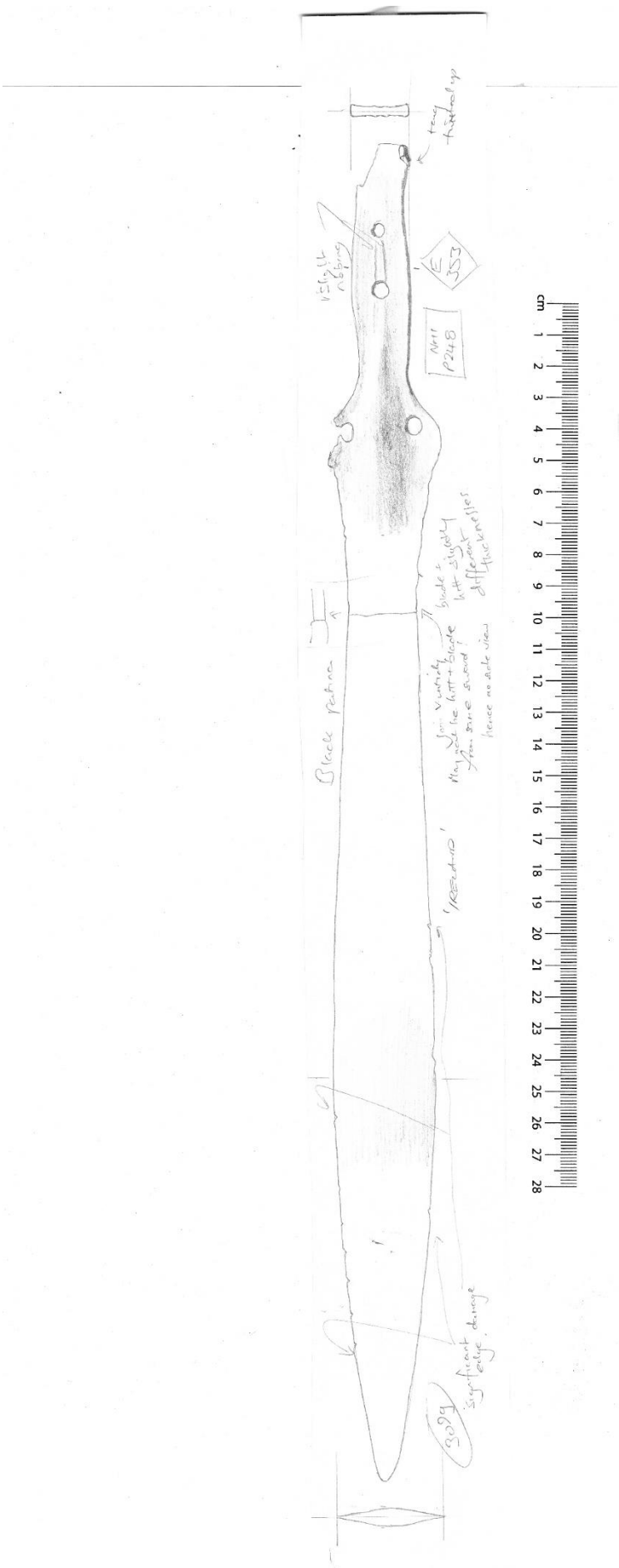
351

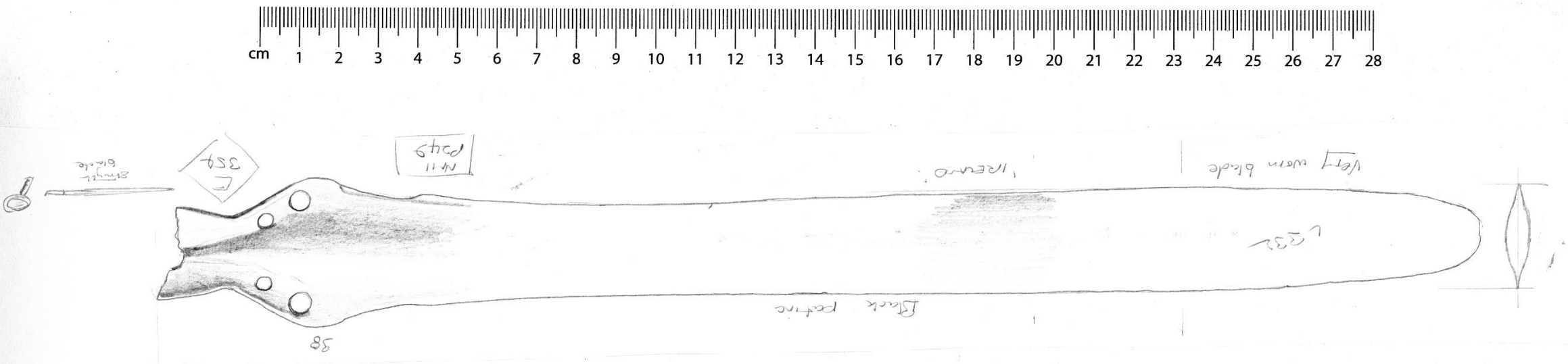


352

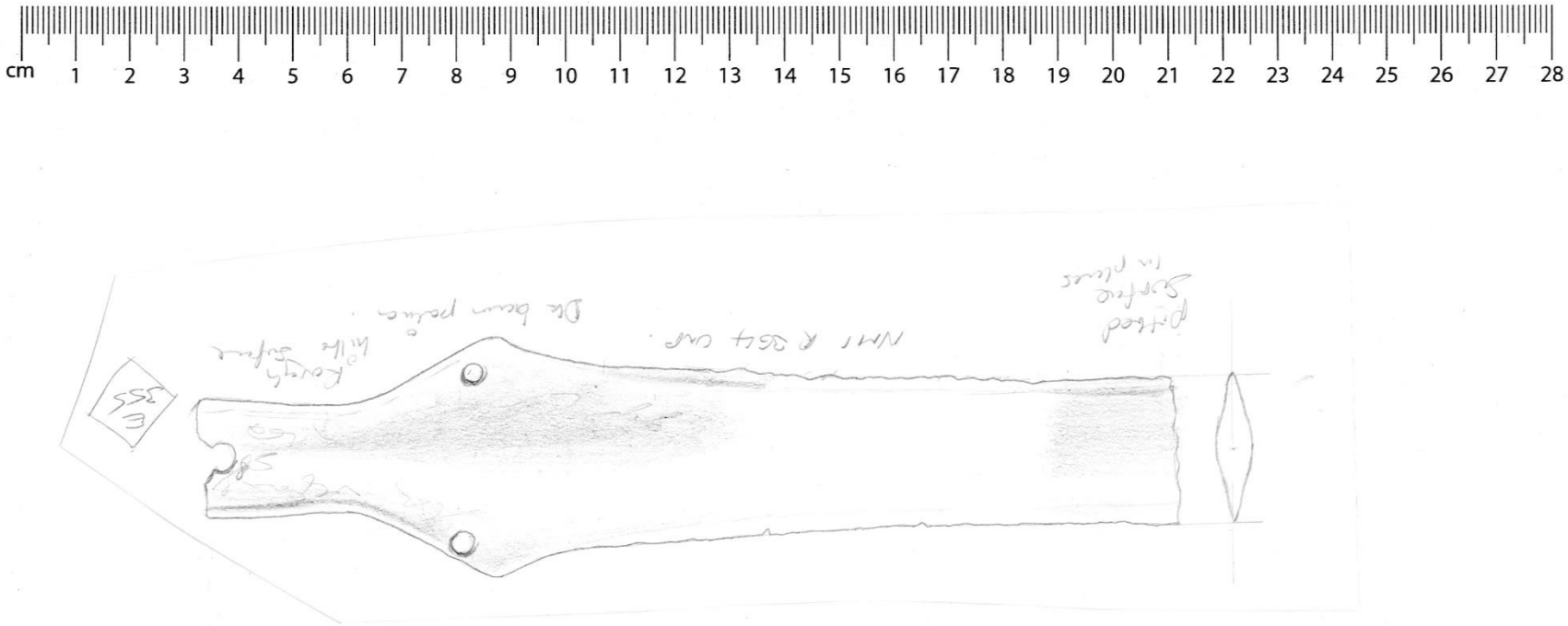

Blade straight
E 352
NMI P247
Blade narrow
Blade J. worn + some corrosion
Appears to be 4 pieces - Bottom of blade appears to be from different sword.
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

353

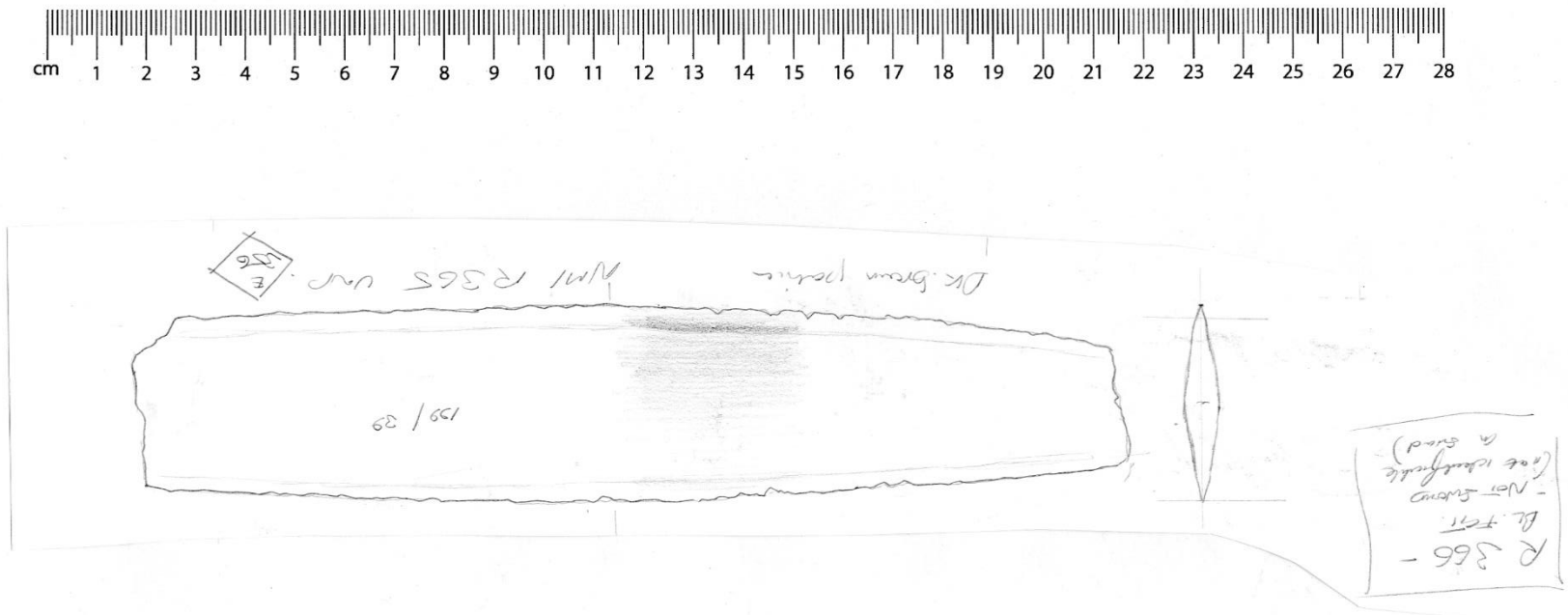



cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
Very worn blade
Black pitch
38

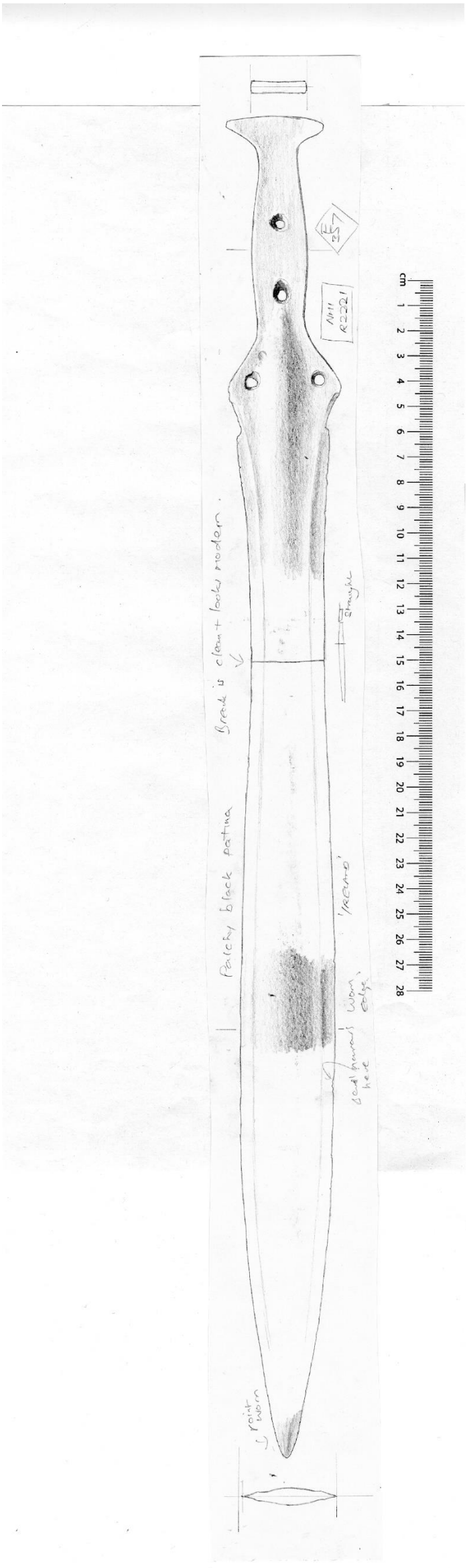
354



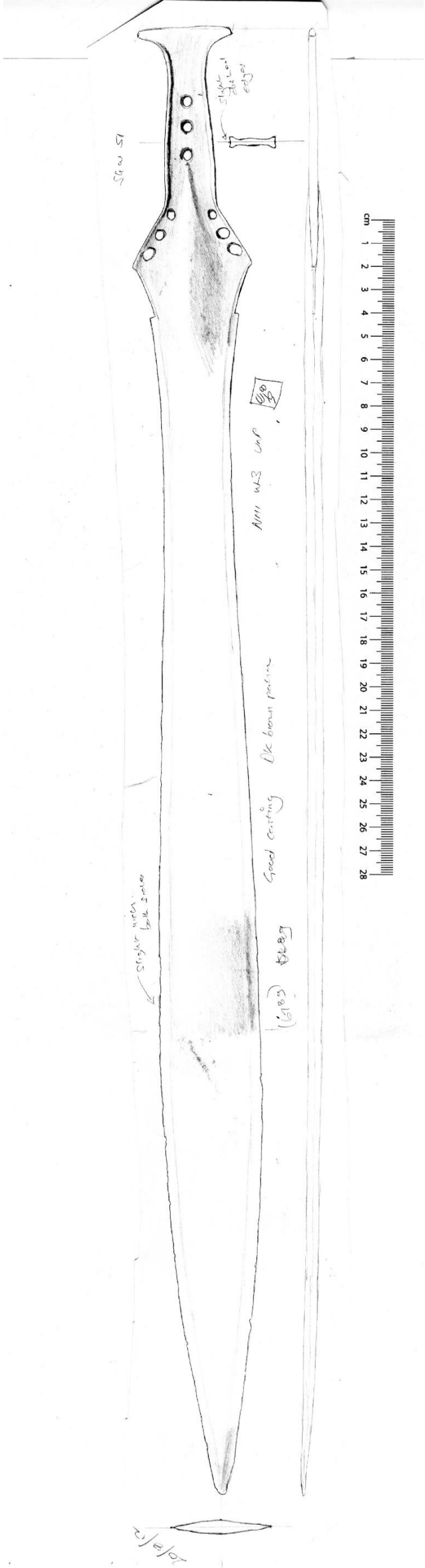
355


cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
R 366 -
- Not Evening
(one identifiable
a Band)

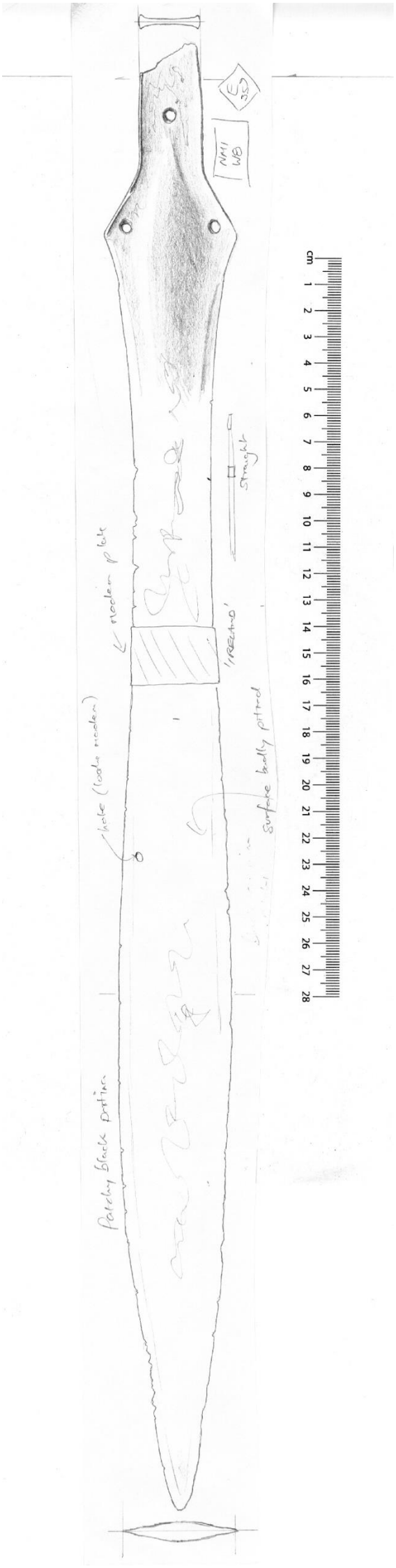
357


FE 357
NMI R2221
Spreads is clean + looks modern.
Patchy black patina
Straight
'Rebated'
Worn edge
Point worn

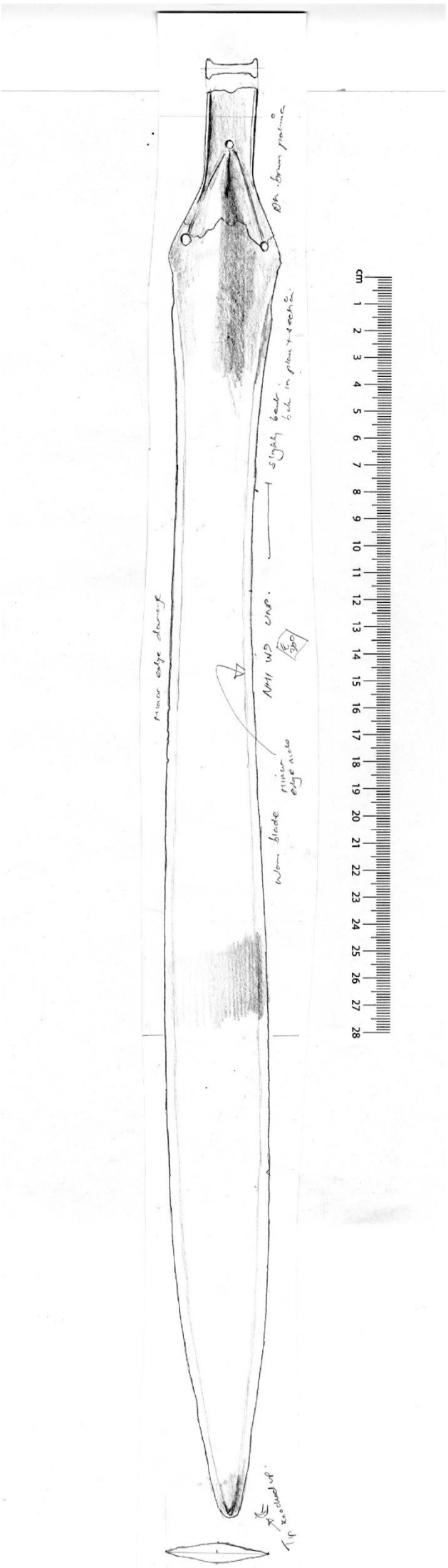
358



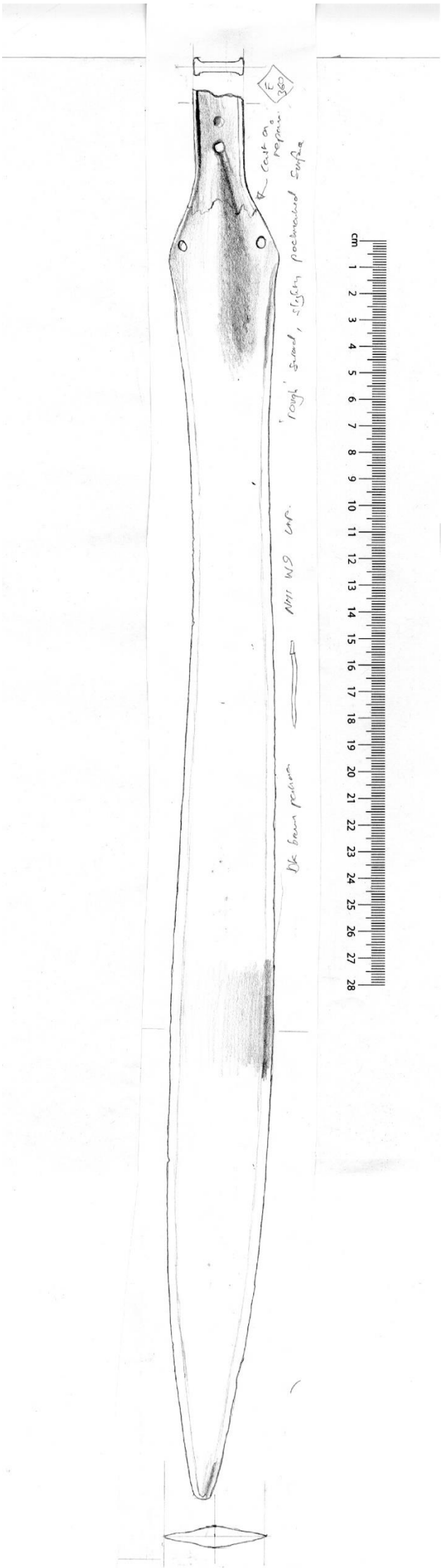
359


cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
straight
surface badly pitted

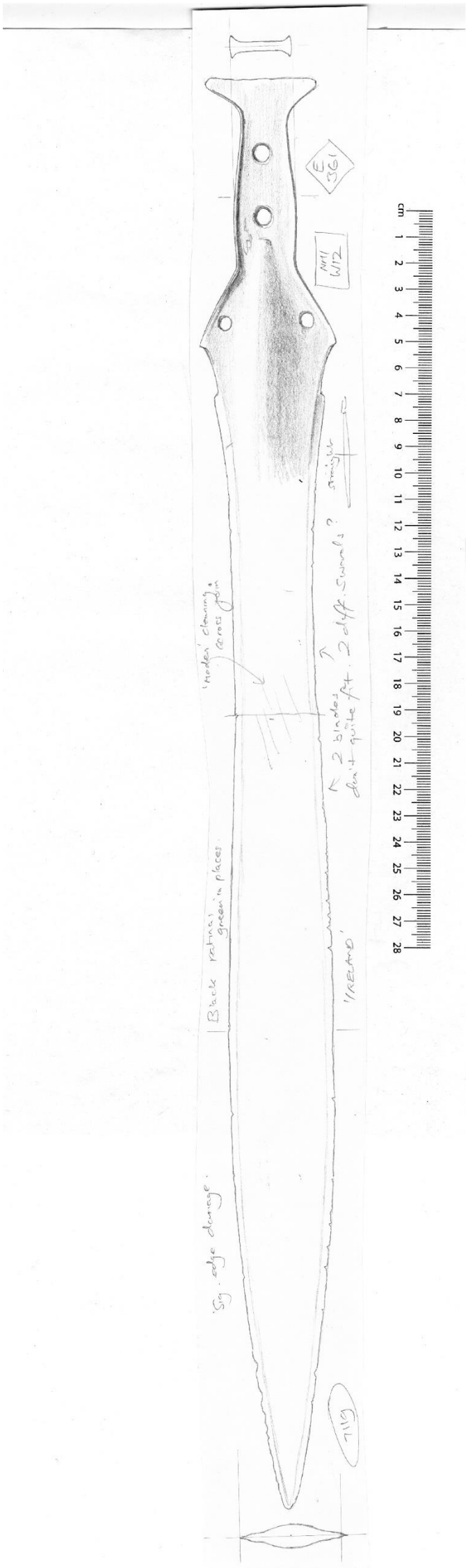
360



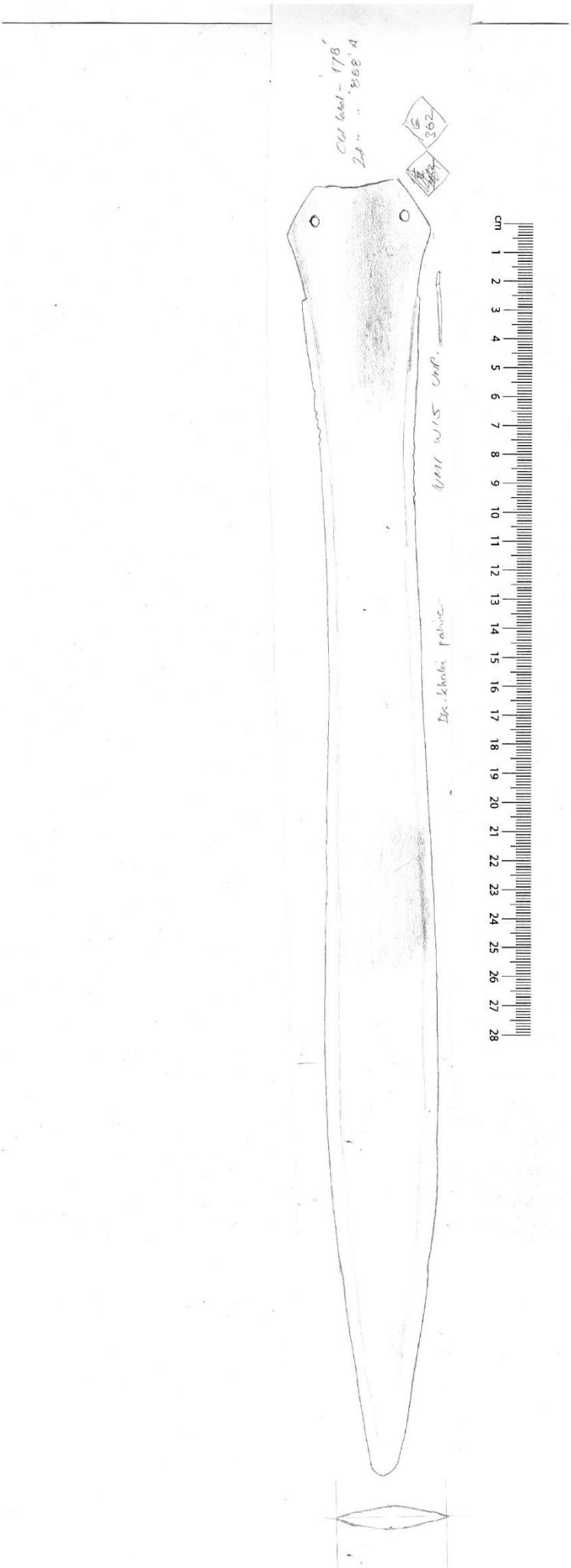
360 (2)


E 360
cast on repair
'rough' finish, possibly machined surface
NMS WS cm.
Oak beam section
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

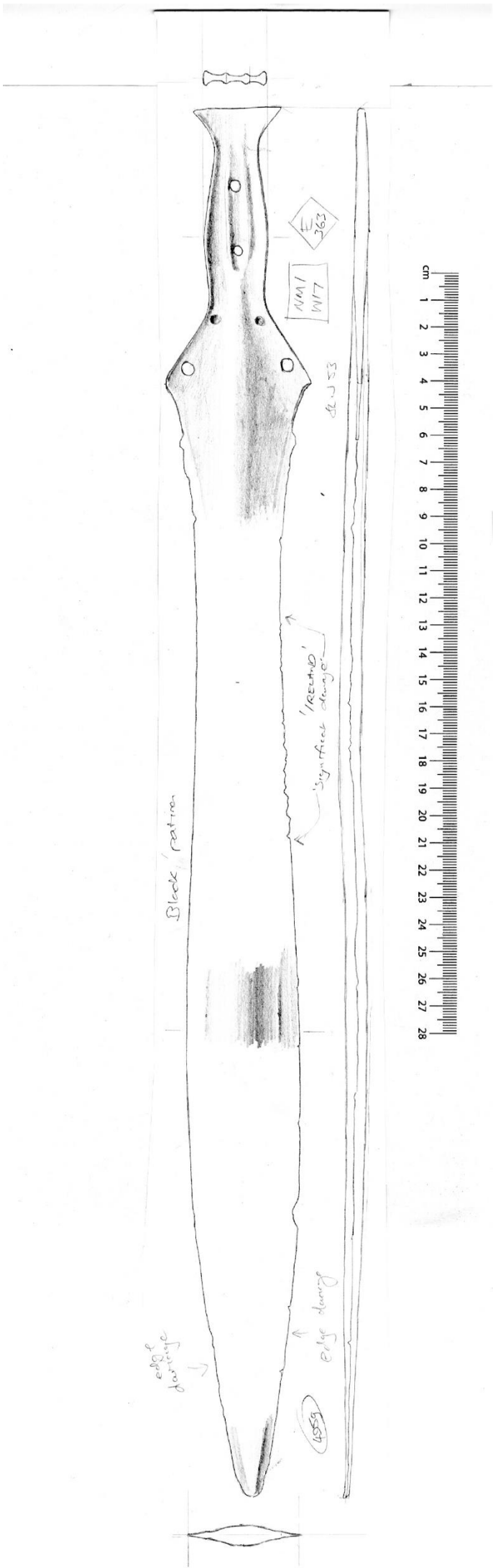
361

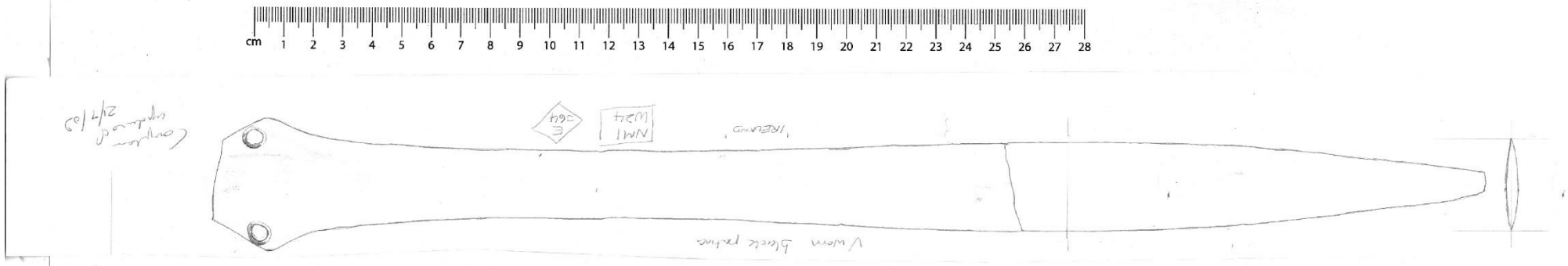

E 361
NH1 W12
'Modern' cleaning across join
2 blades don't quite fit. 2 diff. swords?
Similar
Black material, green in places
'IRELAND'
Sig. edge damage
719
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

362



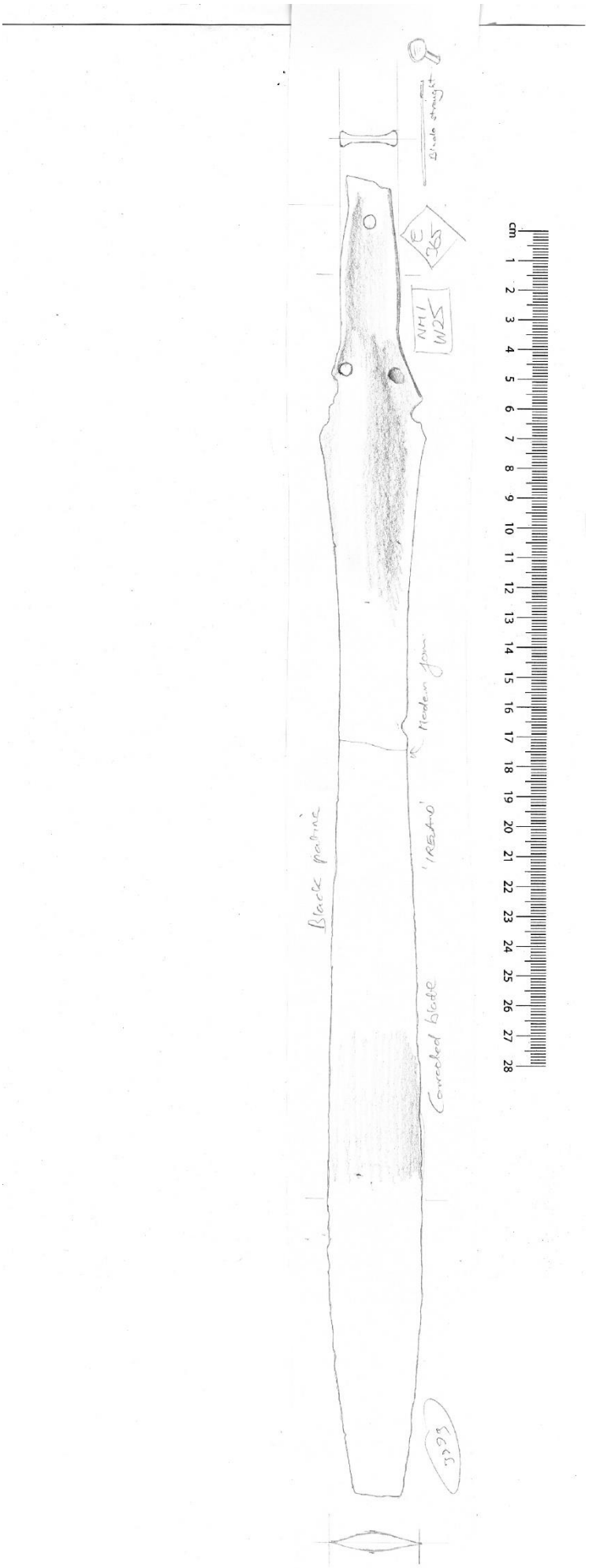
363


LI 363
NM1 W17
Blade / patten
'Irregular' damage
edge damage
edge damage
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

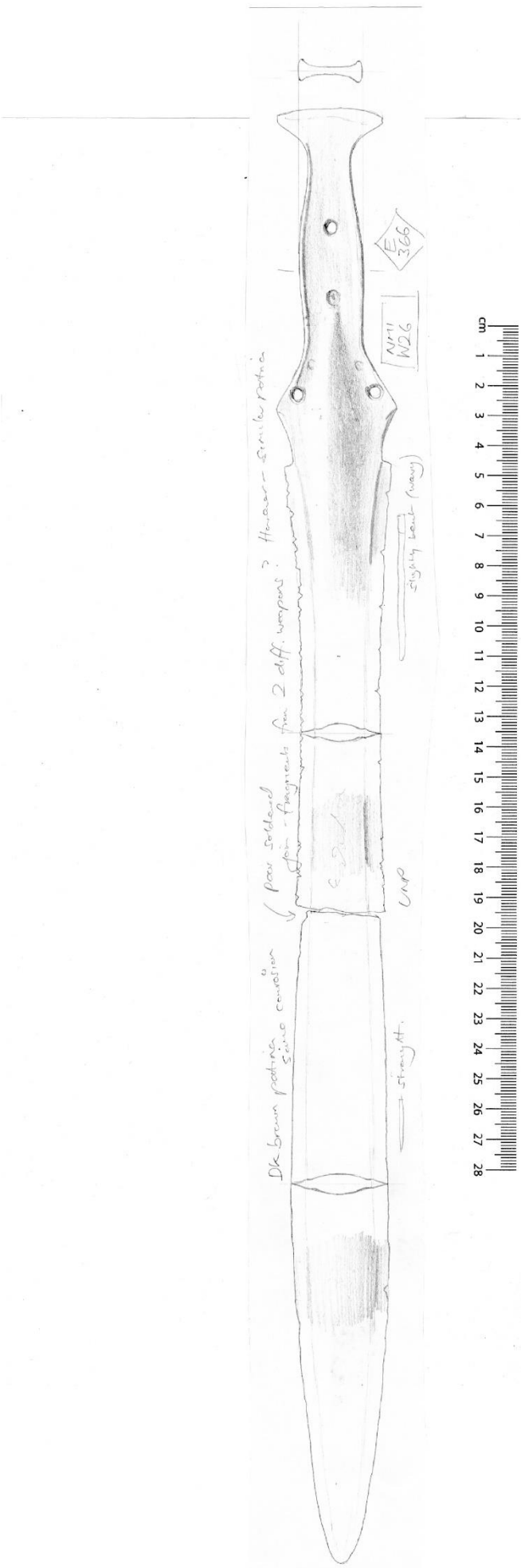


364

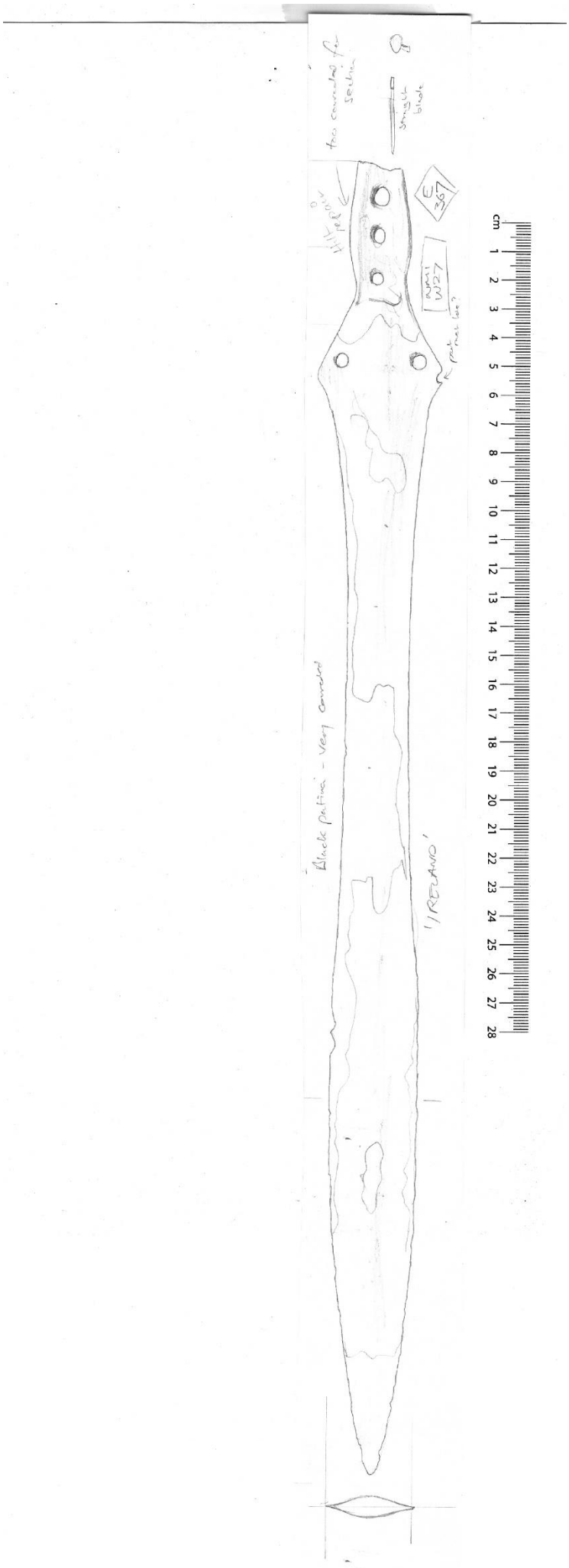
365


Blade straight
E 365
NHI W25
Modern join
Black patina
'RESTO'
Corroded blade
3393
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

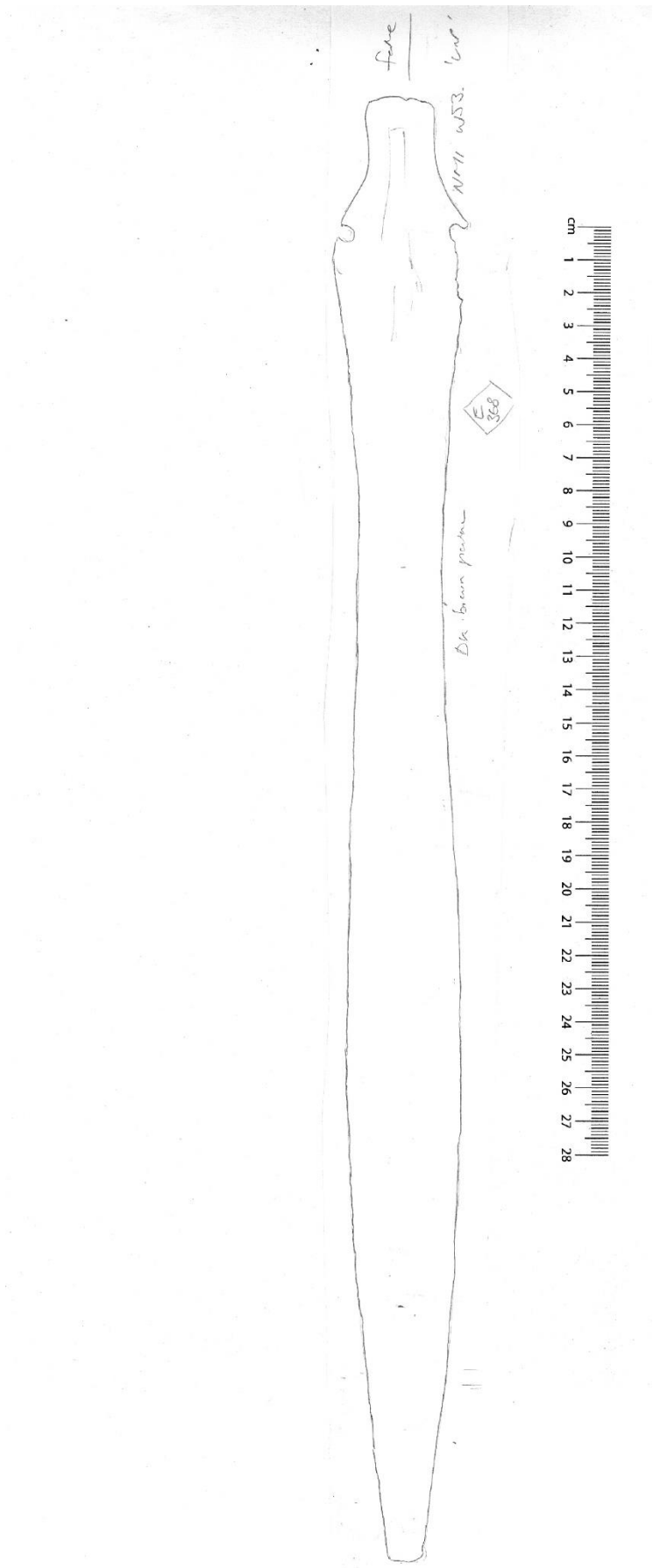
366


E 366
NM1
N26
slightly bent (wavy)
? Hoabaer similar proto.
Poor preserved
with fragments from 2 diff. weapons?
Dk brown patina
some corrosion
UNP
straight
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

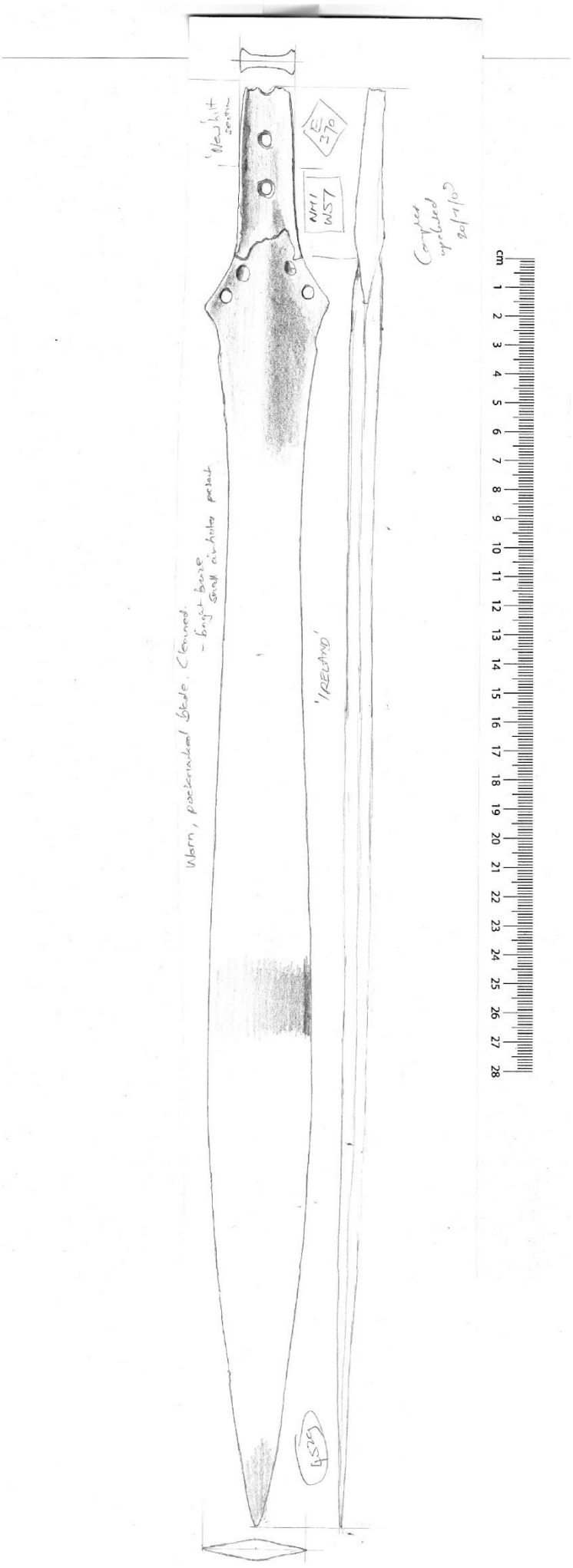
367


two rounded flat sections
straight blade
E 367
AMM WD7
Black patina - very corroded
'ROLAND'
cm

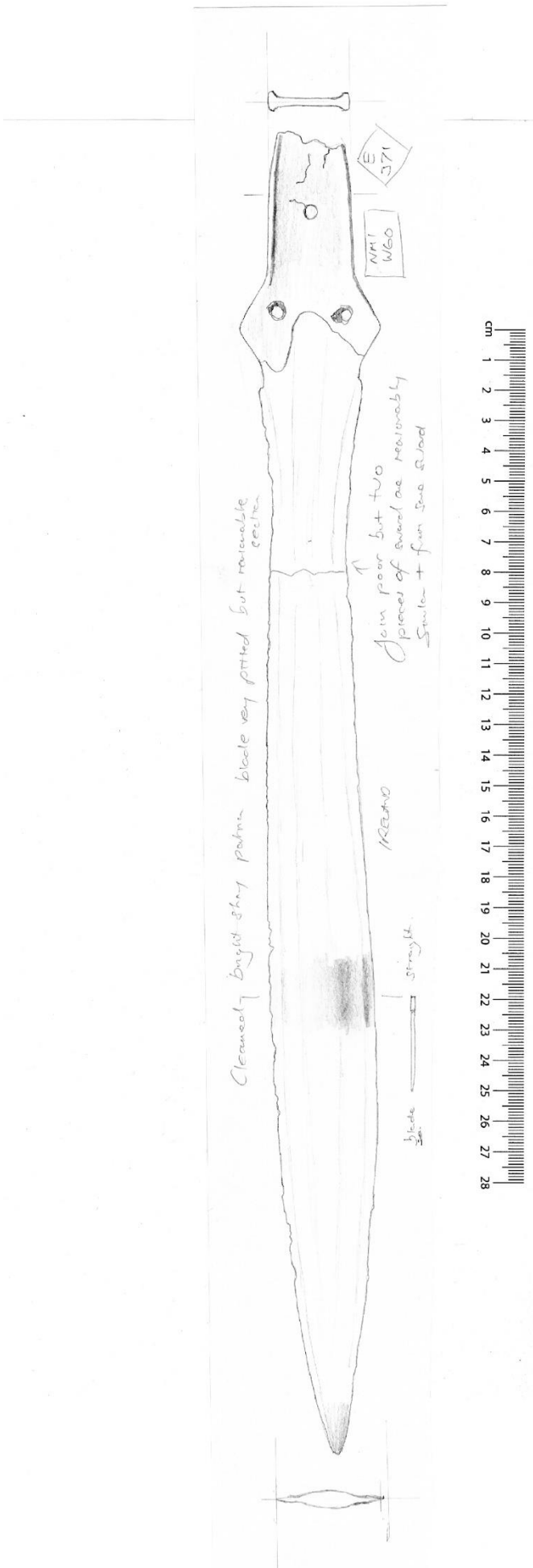
368



370


Worn, posteriorated blade. Cleaned.
- bright bone
small air holes present
'IRELAND'
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

371


E 371
NMI W60
Join poor but two pieces of broad axe removably Socket + four Stud Holes
IRELAND
Generally bright shiny patina blade very pitted but removable casting
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

372

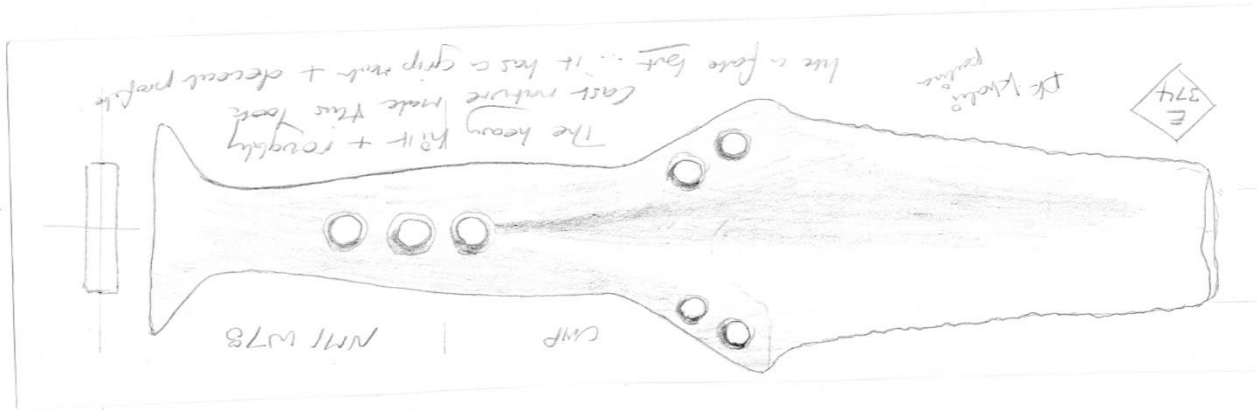
KNIT
WIT
E
372
Block pattern
IRELAND
(E: CO. CAVAN ?)

cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

373

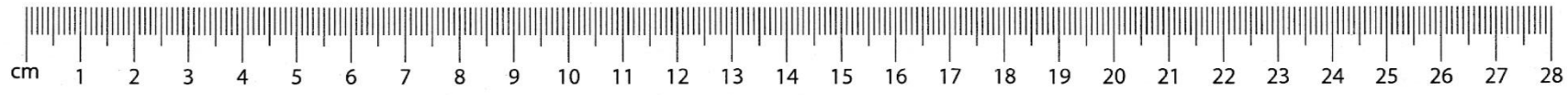
Old Label - Sir A. Chapman
NMI WTS UNP
E 373
Dk. brown patina
Looks like a genuine sword
Cut down, hilt repair made
1 blade extra Made into dagger

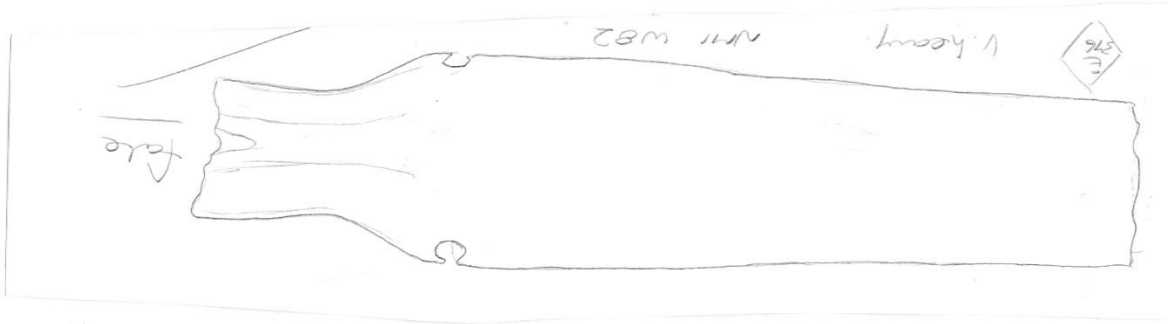

cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28


E
374

374

375

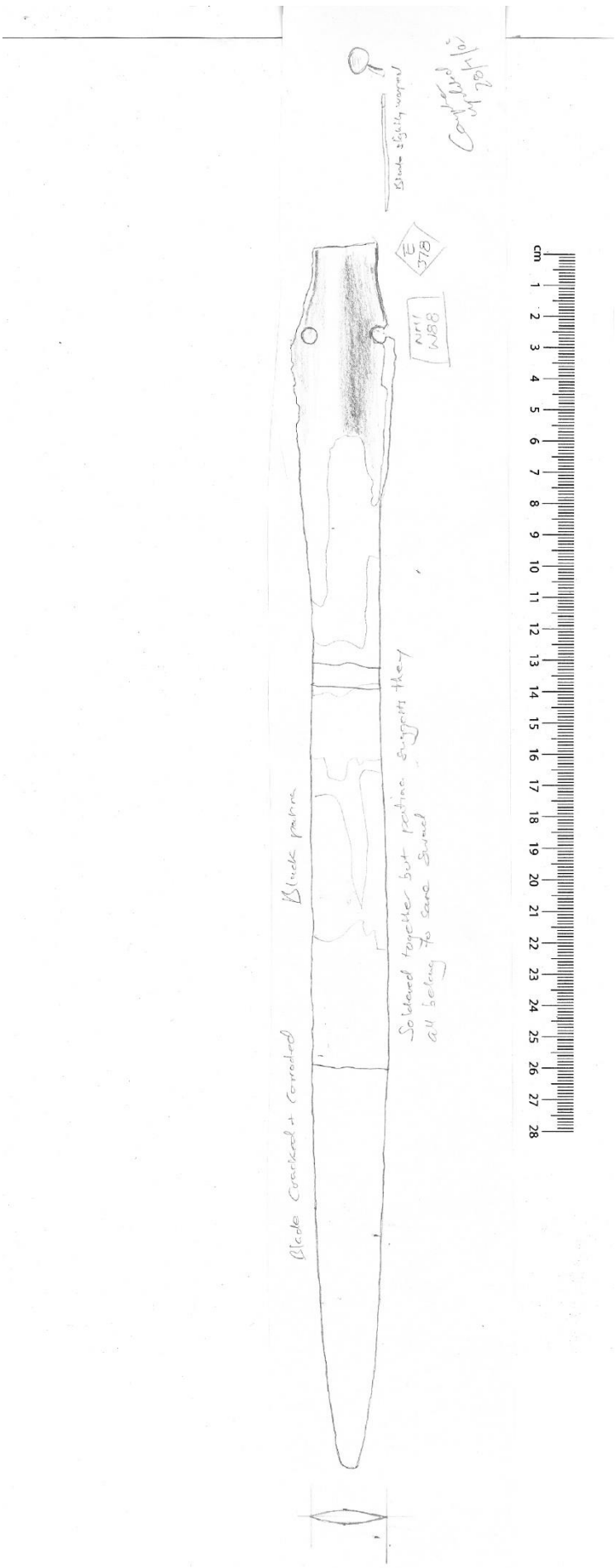




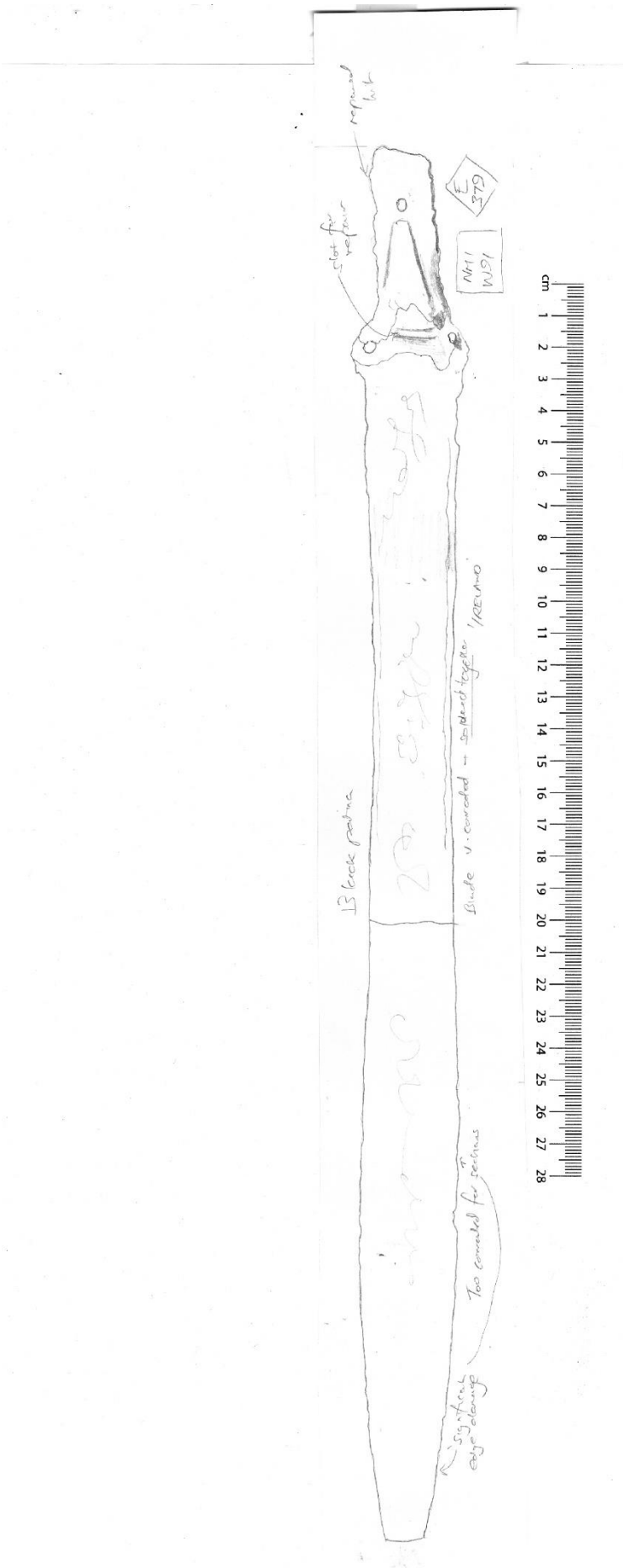
376

377

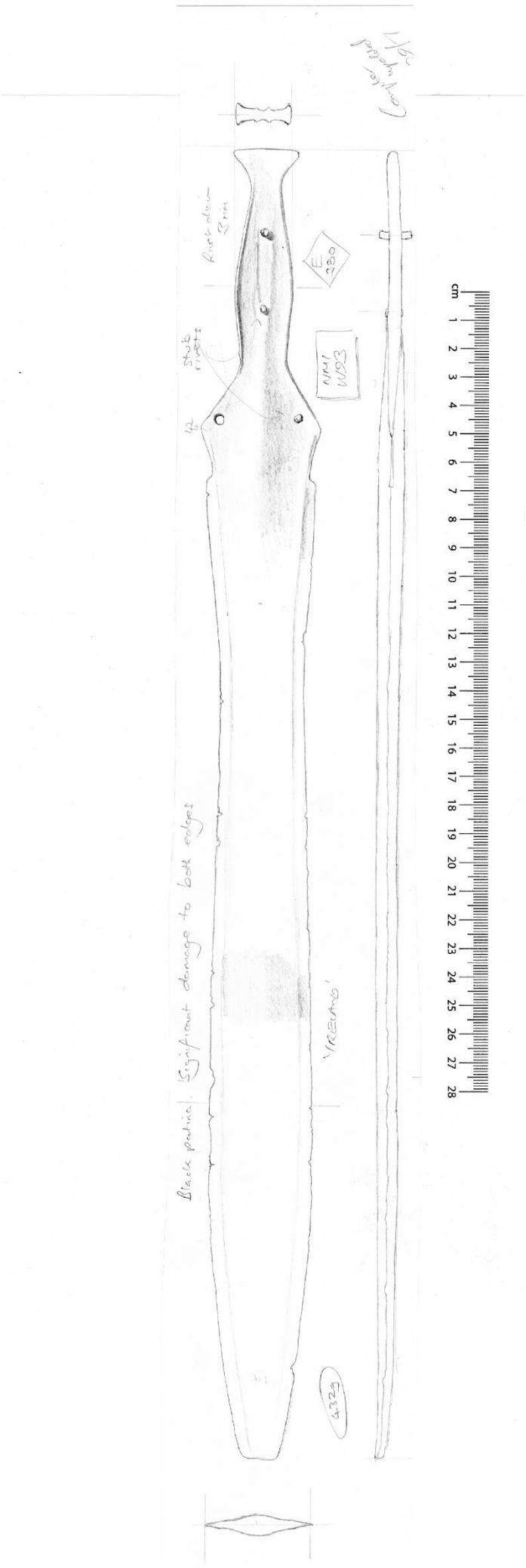
378


Blade sliding mount
Conserved
July 2014
E
378
NMI
W88
Soldered together but position suggests they
all belong to same sword
Blade parra
Blade Corroded + Corroded
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

379


E 379
NH1 WS1
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

380


Black patina. Significant damage to both edges
IRELAND
NMI 1093
E 280
cm

381

repair in cast
Fake (replica/copy
made recently)
central ridge
381

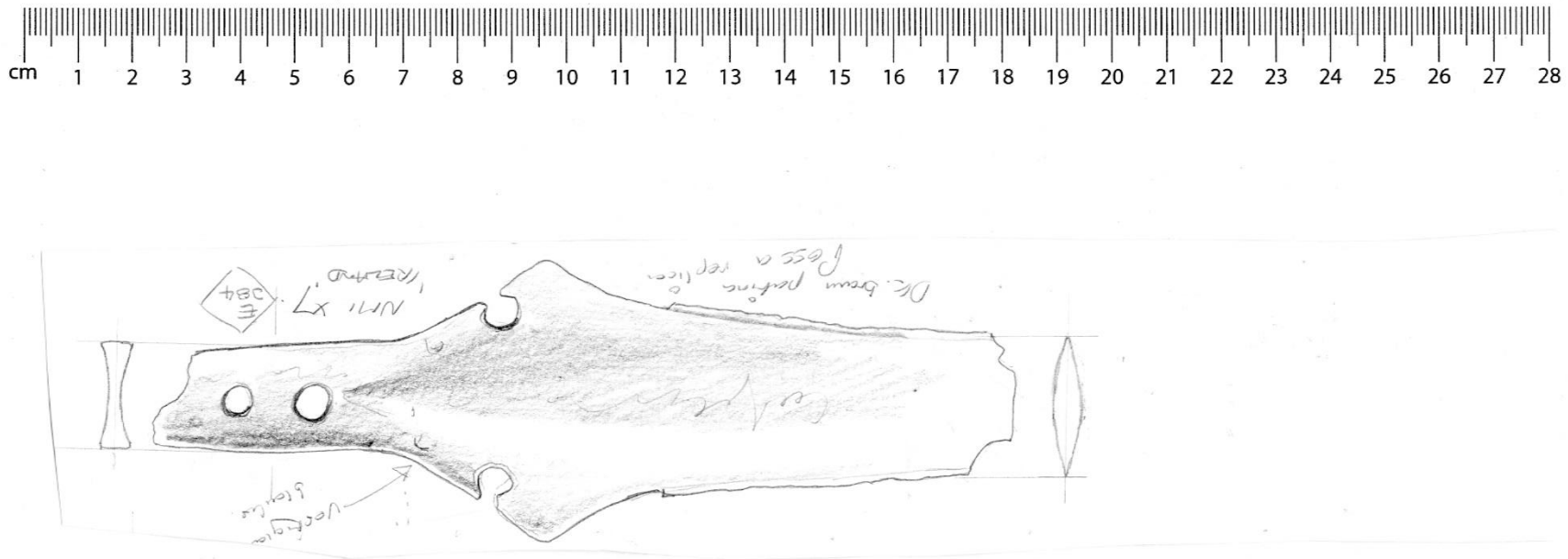

cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
E 382

382

383

Rough surface
... a scraper primed
from Pit C.
E
383
R2618 - digger

cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28



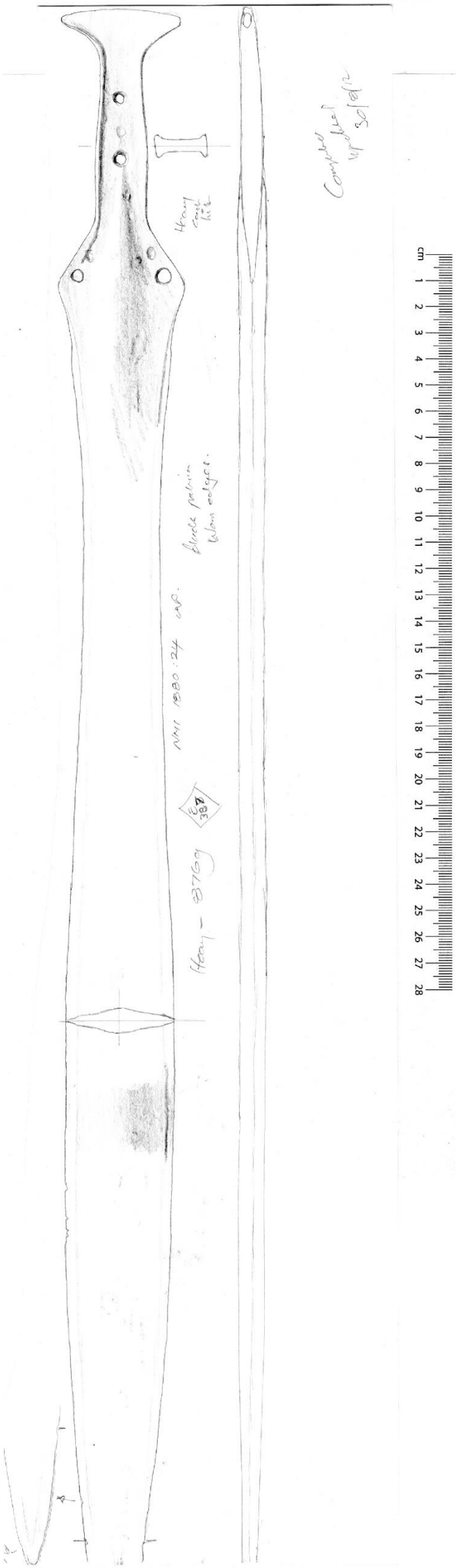
384

385

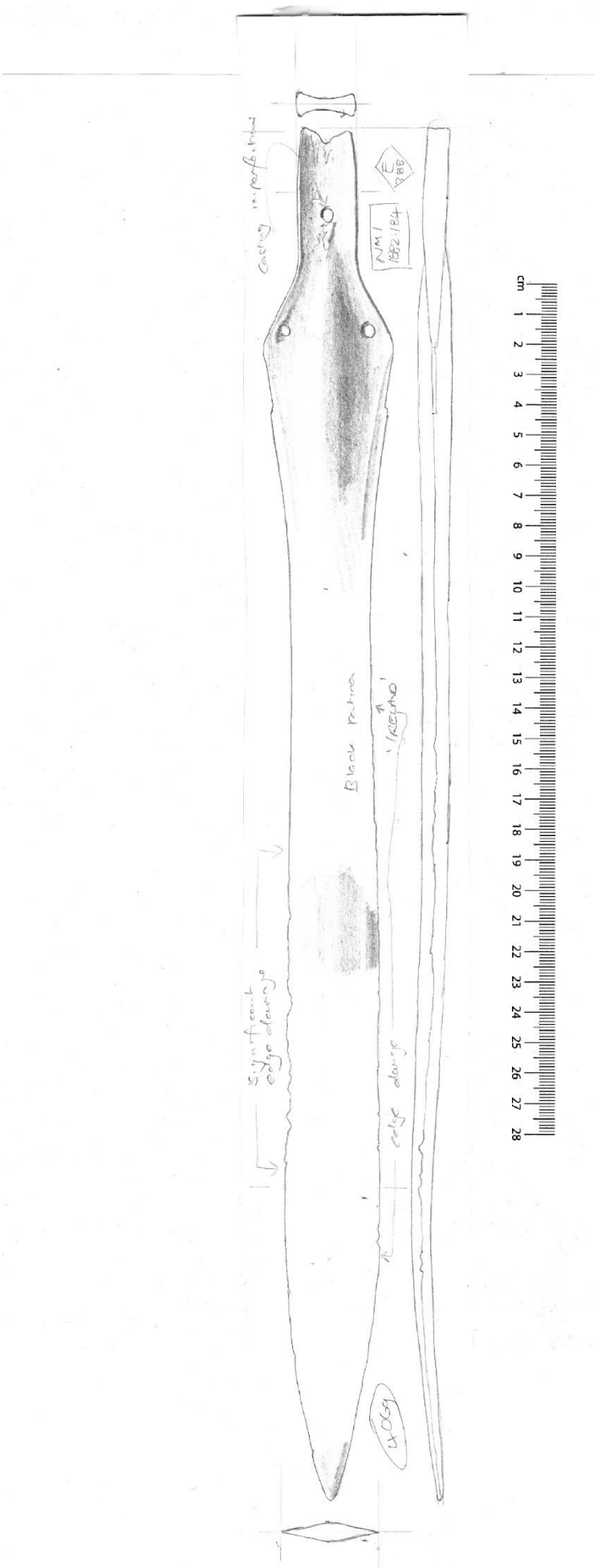
386

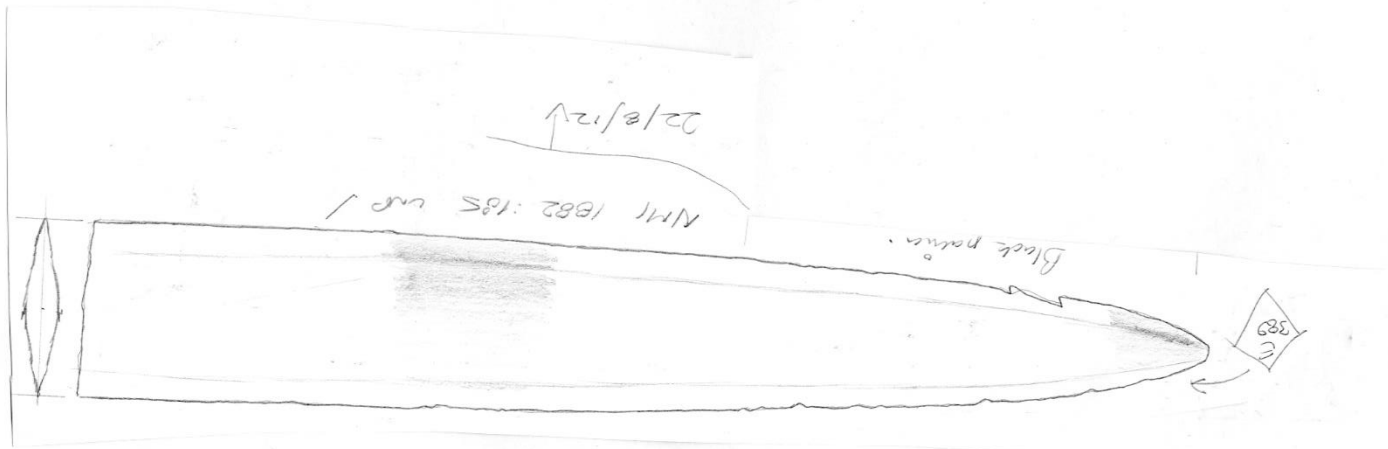
fake
E 386
NM1 1977:56. unp
v. heavy blade patina
850g
CM 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21

387


Heavy
Blade painted
Worn edges.
NMI 1880.24 cat.
Heavy - 87cm
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

388

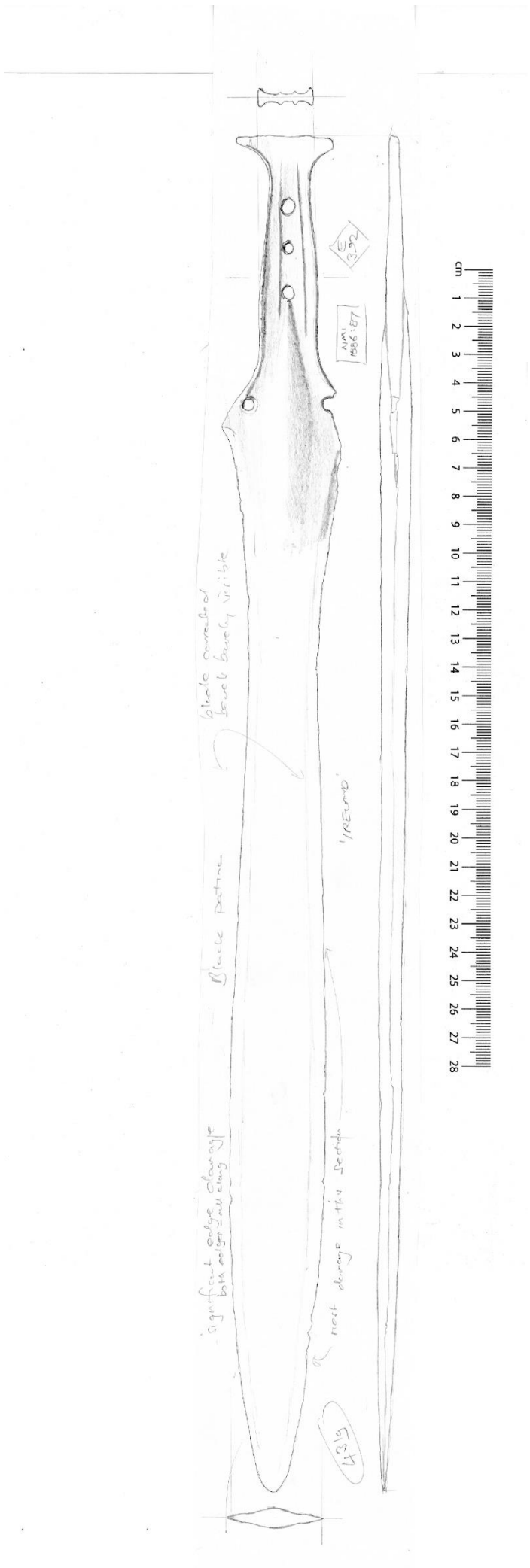

NMI 1882.184
E 288
Black patina
'IRELAND'
edge damage
edge damage
LX OKSY
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28



389

390/391

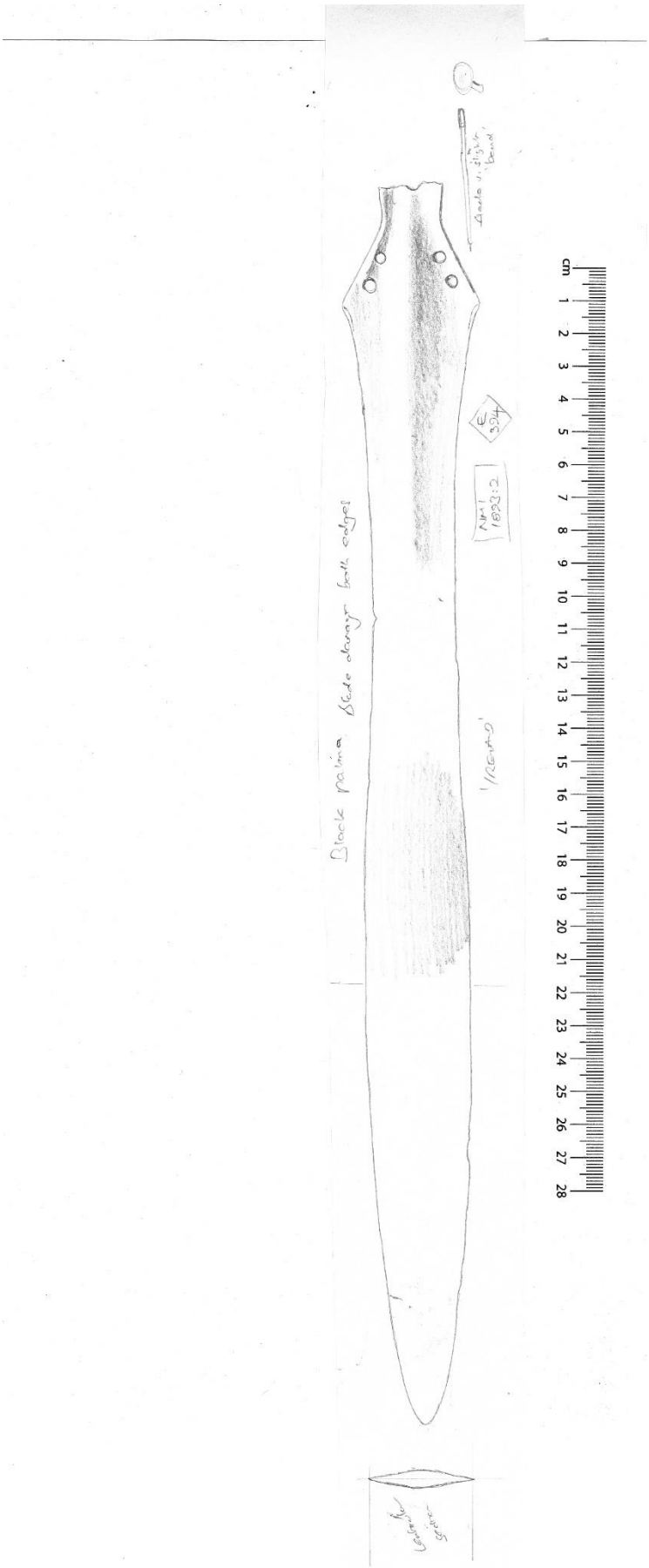
392


E 292
AIM 1986:87
'REAMD'
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

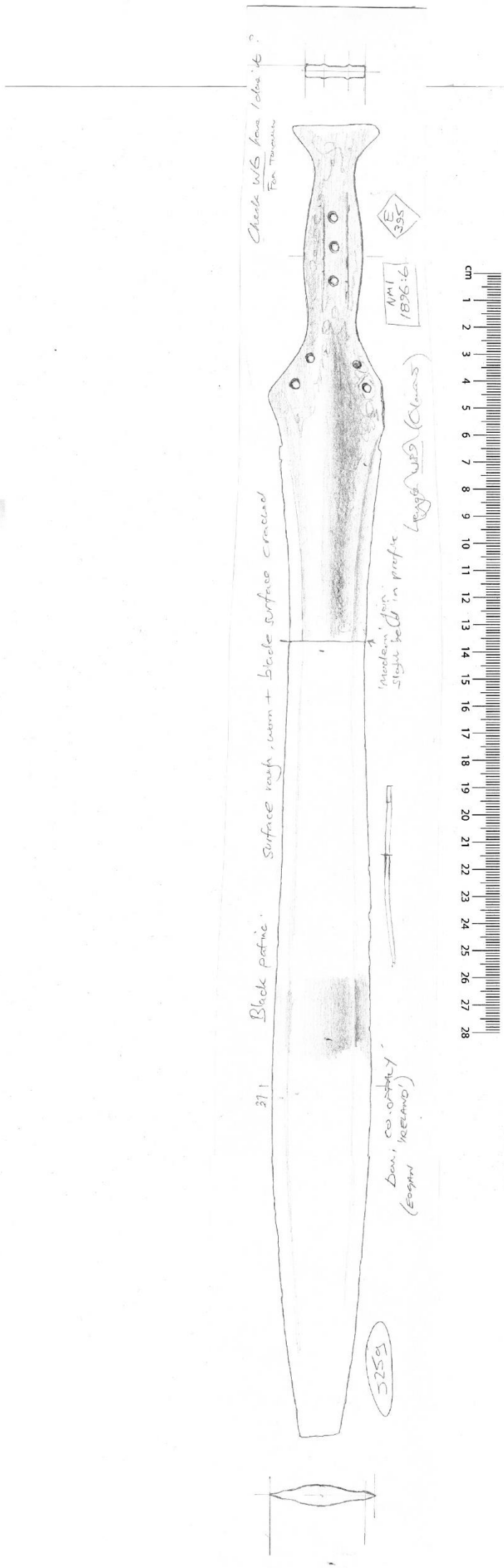
393

Nilgiri village.
NIII 1890 : 84 Dk khaki patine : some bzd.
UNP.
E 393
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

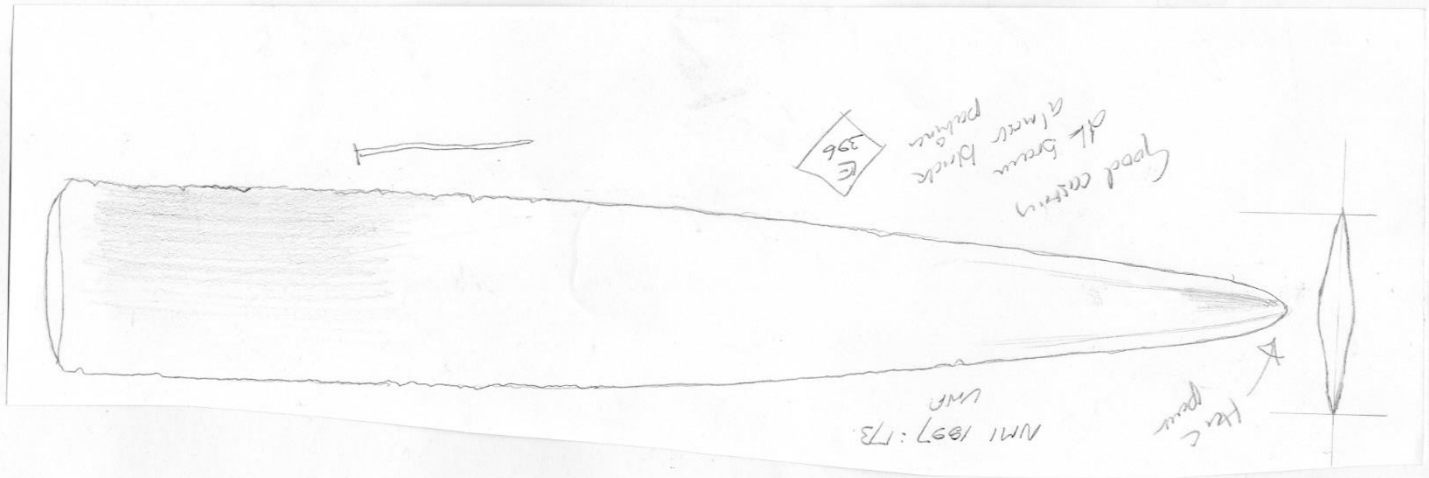
394


Blade patina, Blade damage both edges!
NM 1893:2
E 394
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

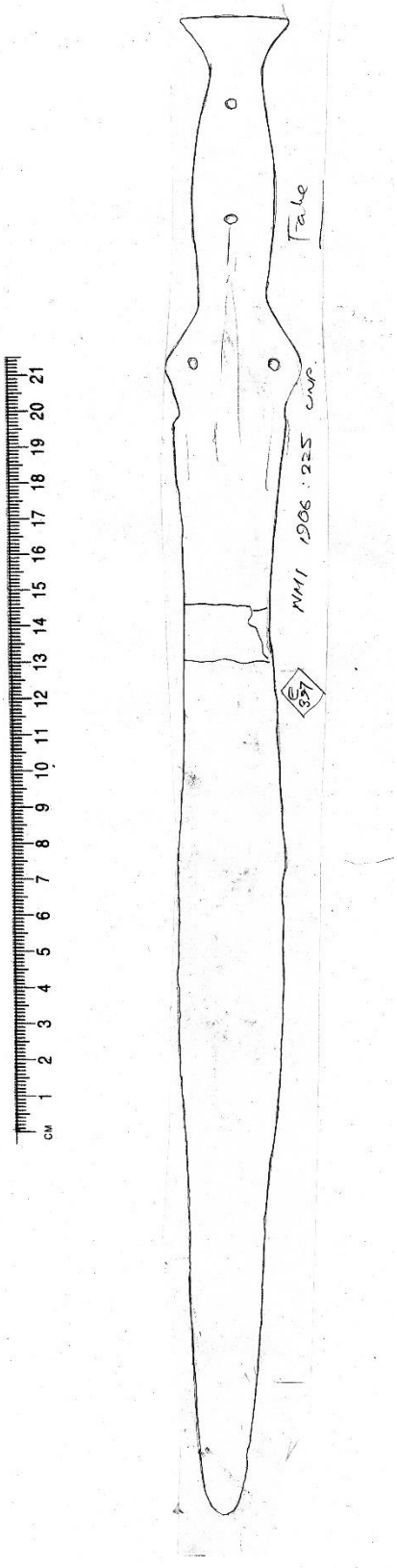
395

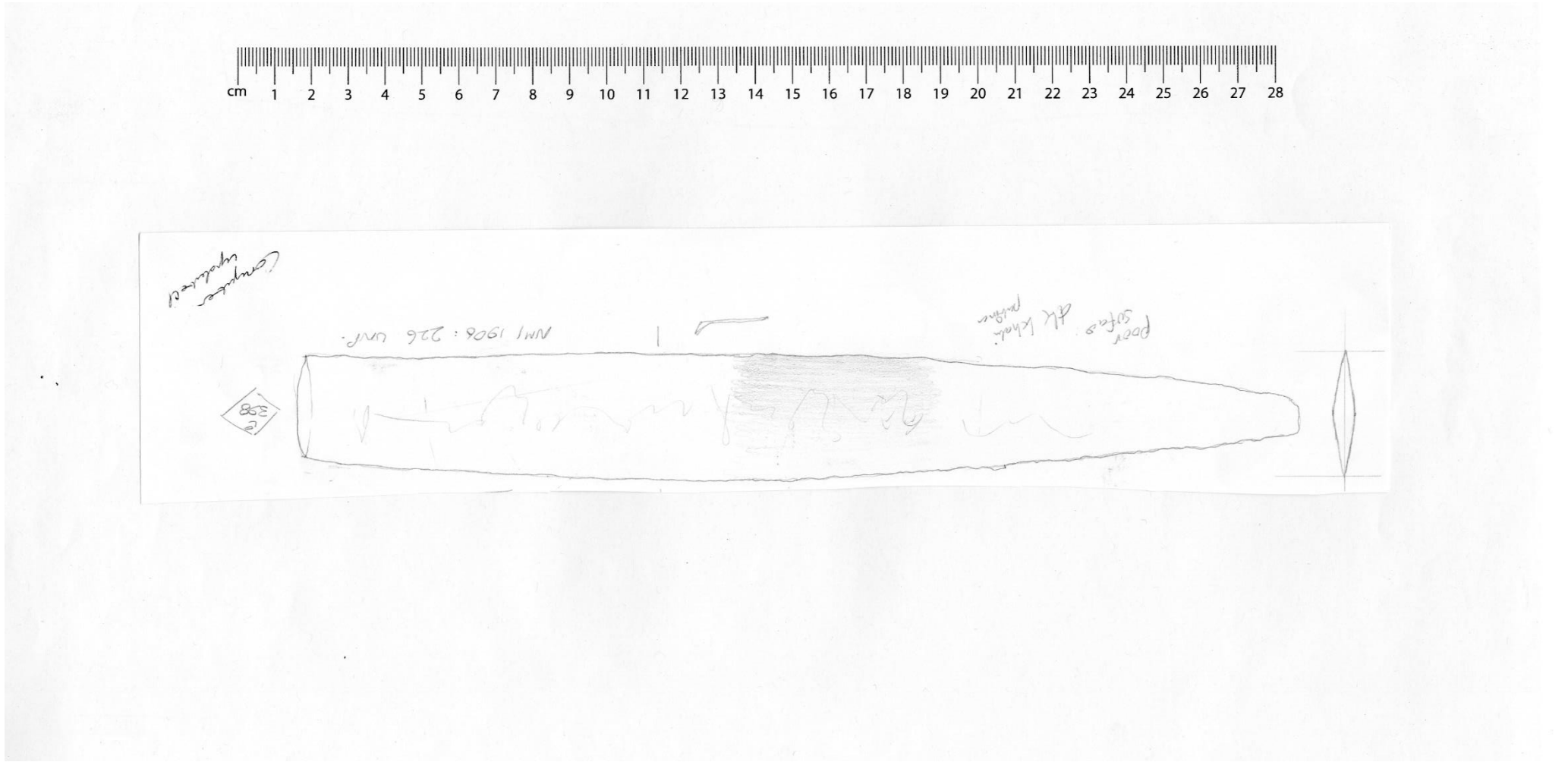

Check W/S for 1 dot ?
For Tomorrow
E 395
NMI 1896:61
Large UB2 (Clonm)
Modern 'dot' slight bend in profile
Surface rough, worn + blade surface cracked
Black patina'
371
Dun, Co. Offaly (Eogan Ireland)
325a
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28


cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

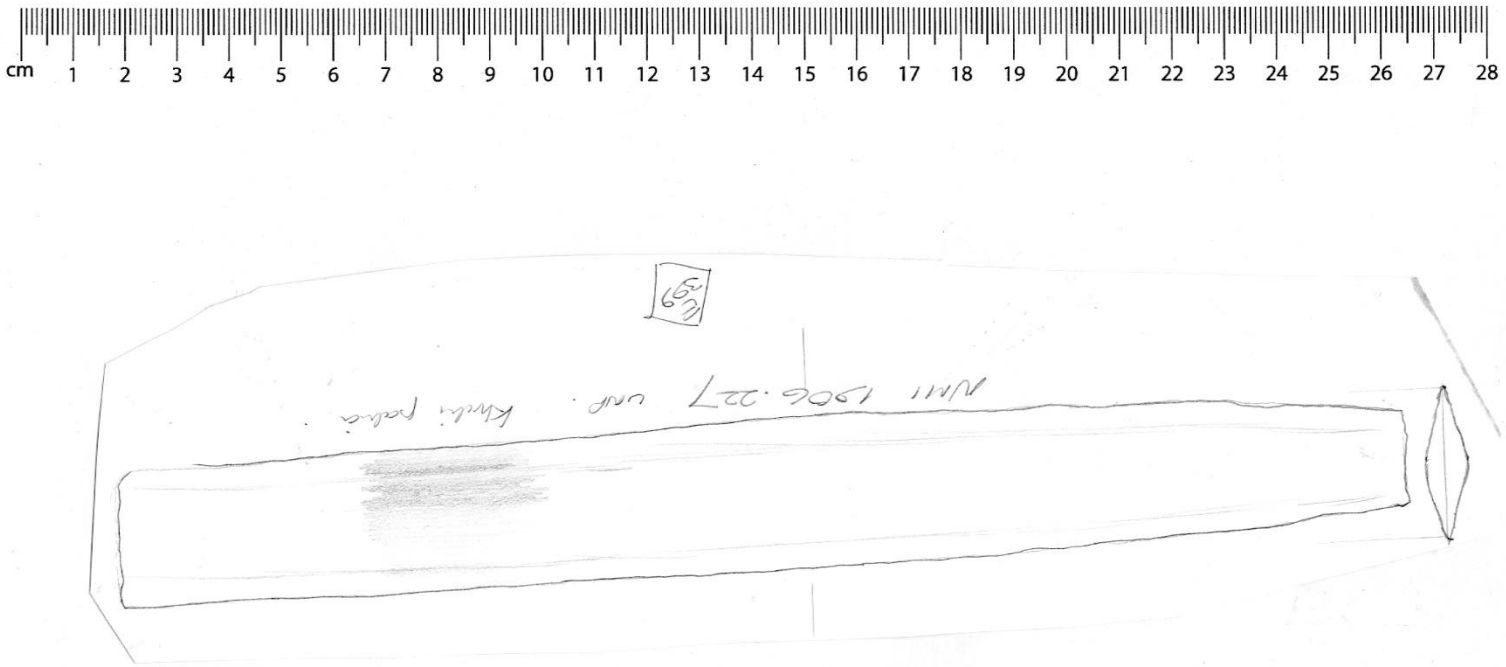


397

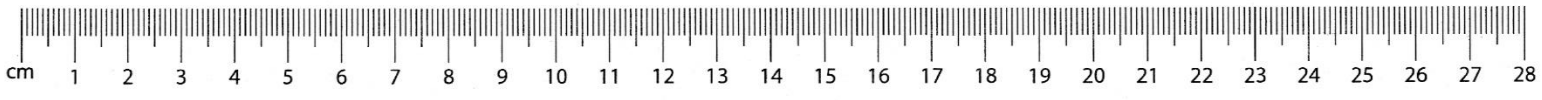

Tale
MM1 1906 : 225 cup
CM 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21

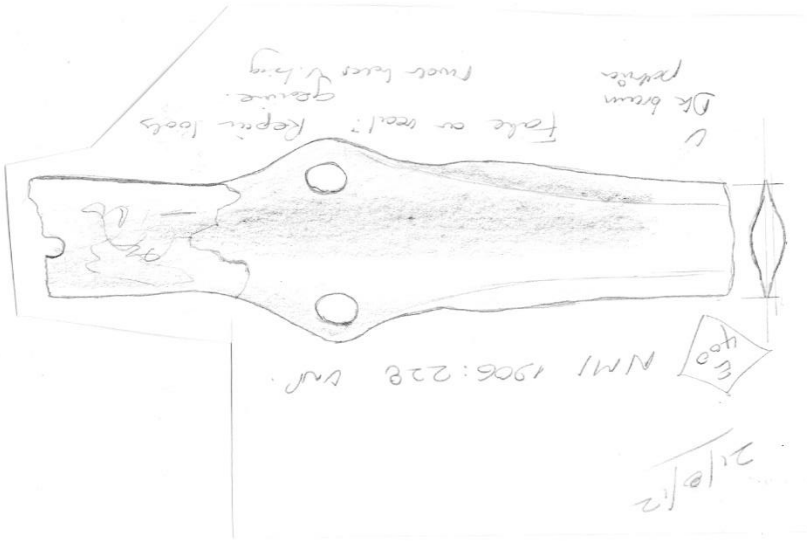


398

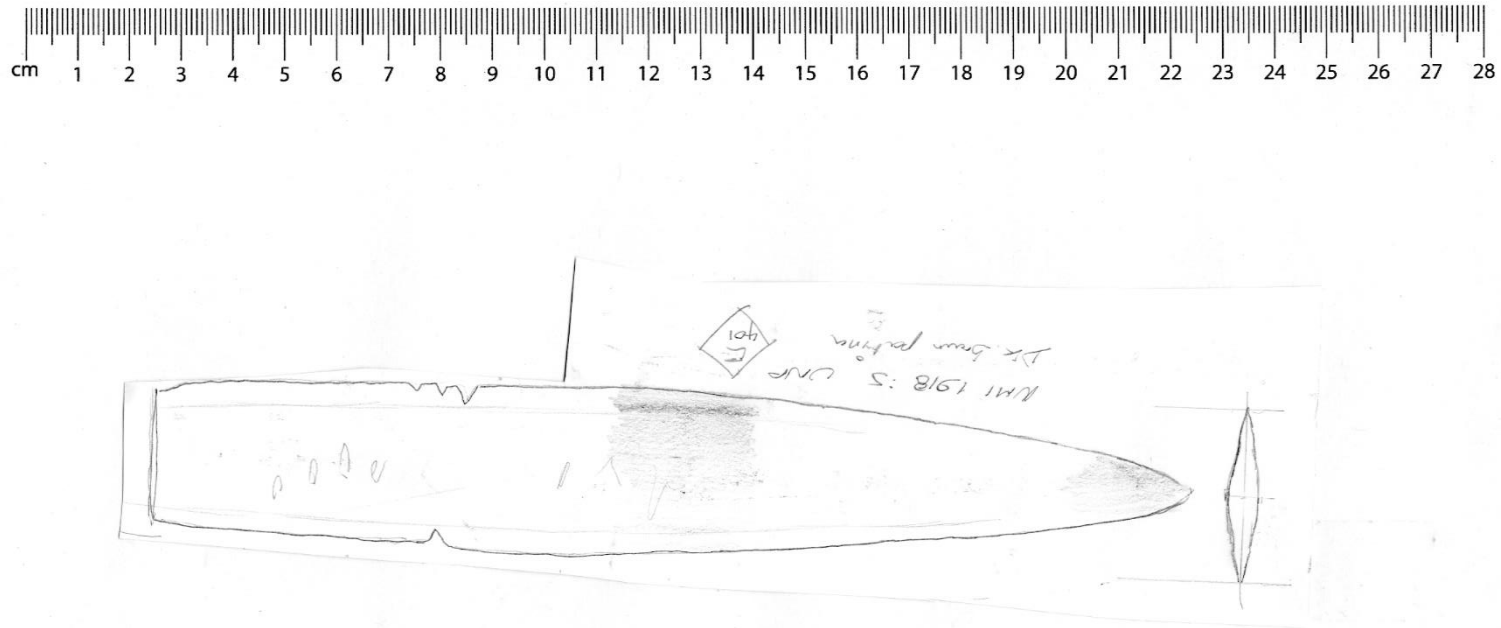


399

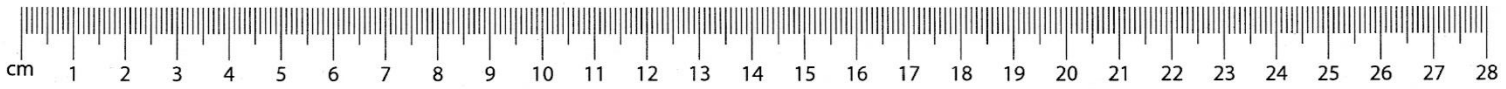


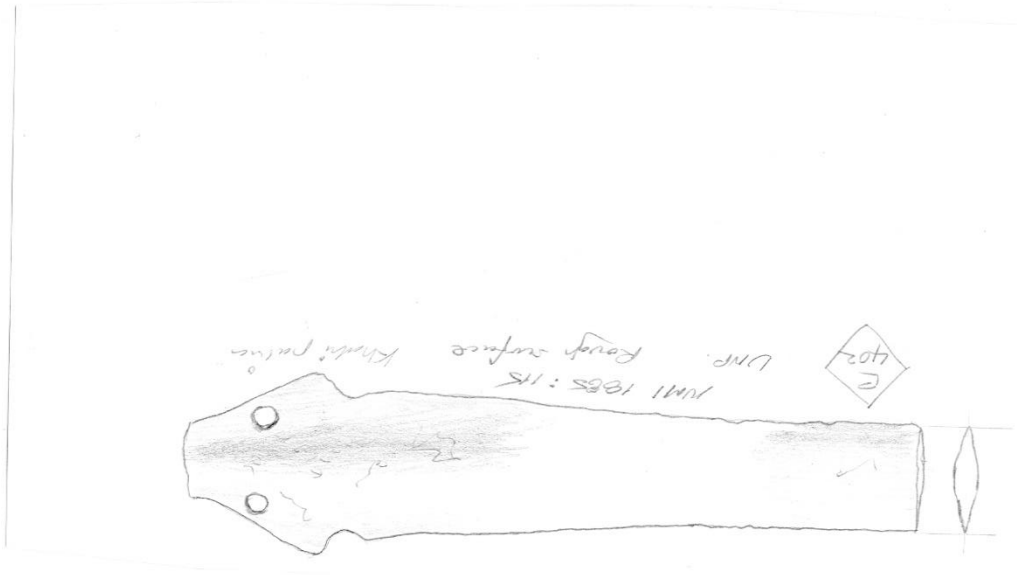


400



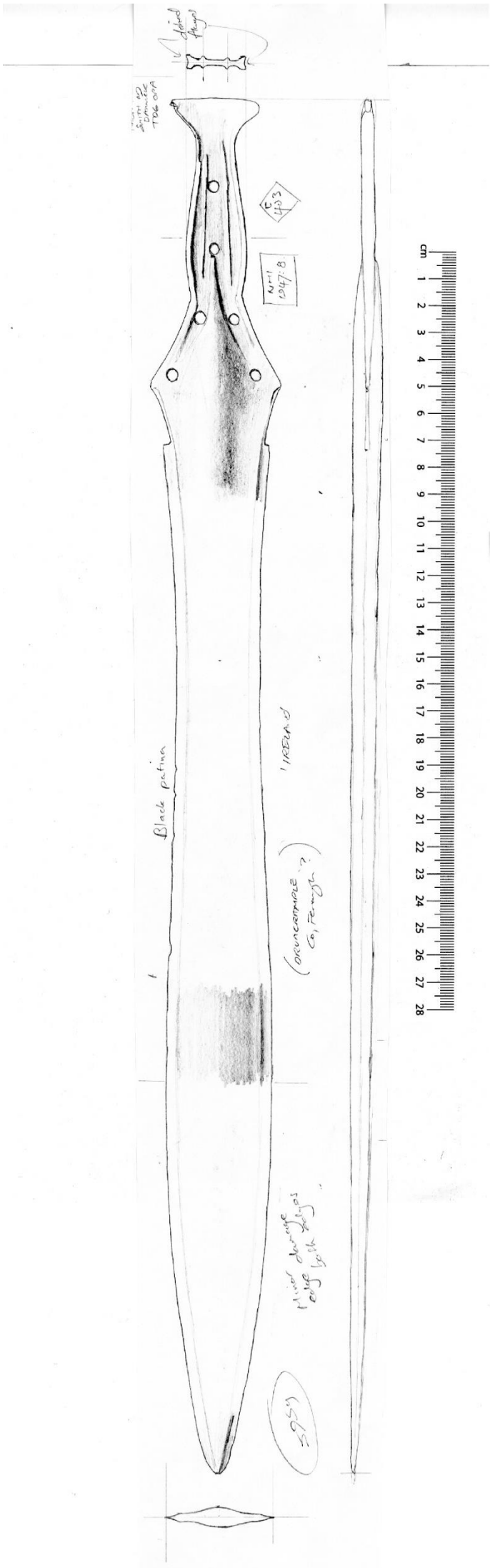
401



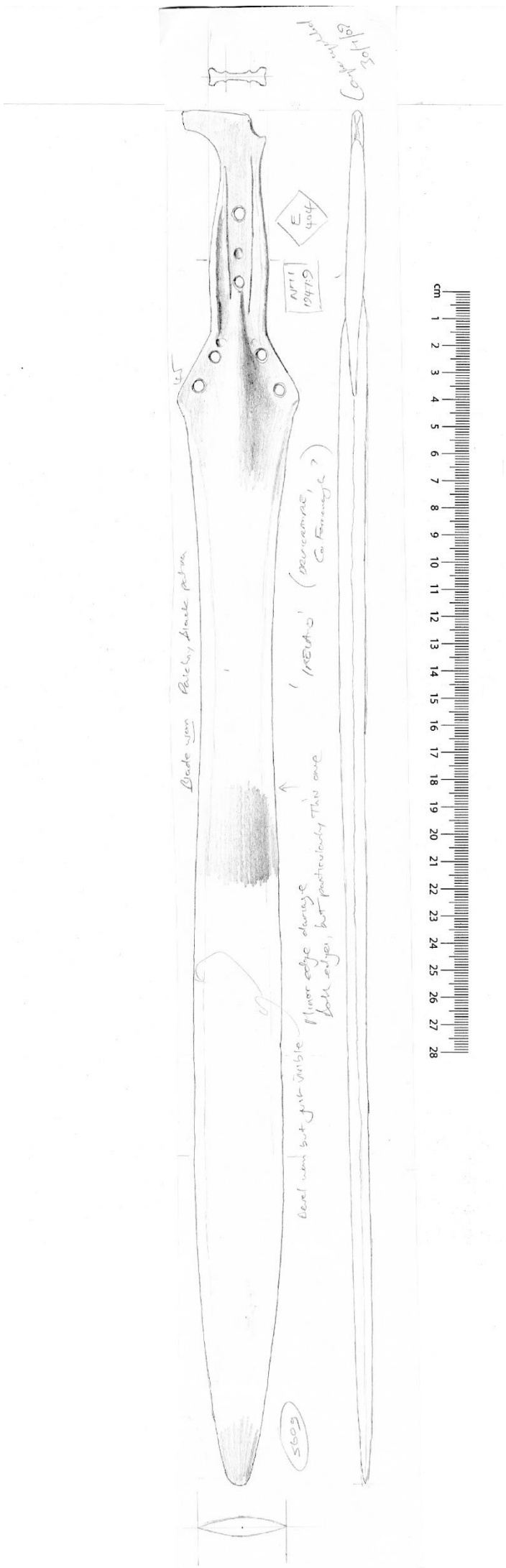


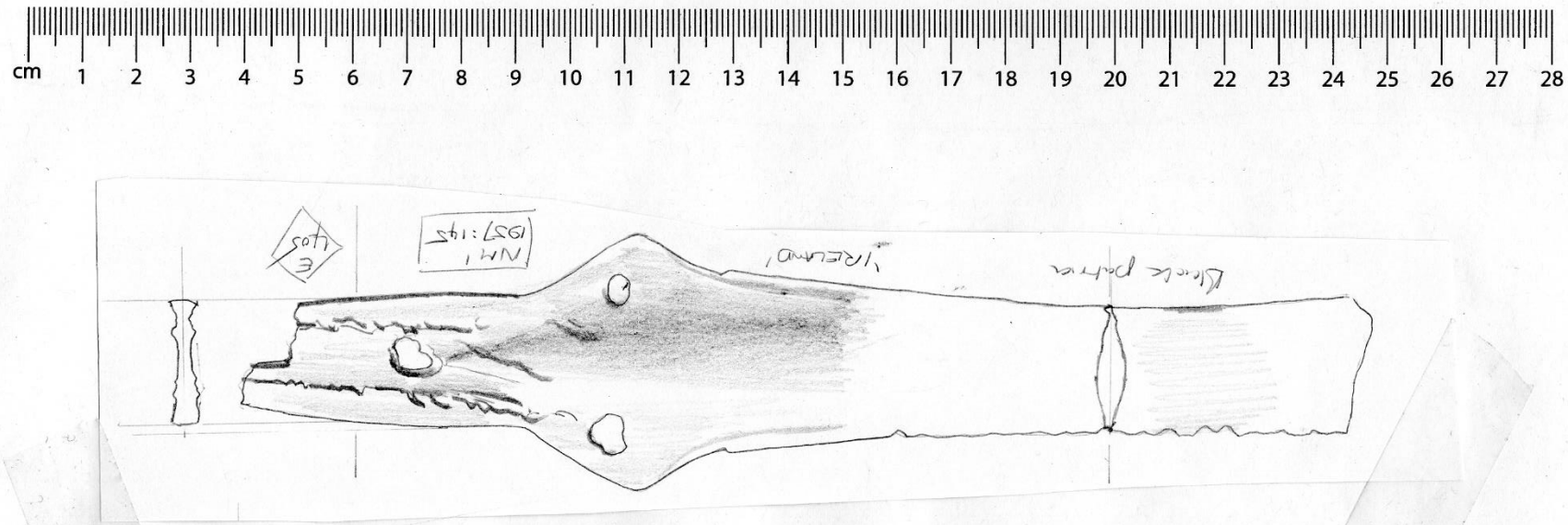
402

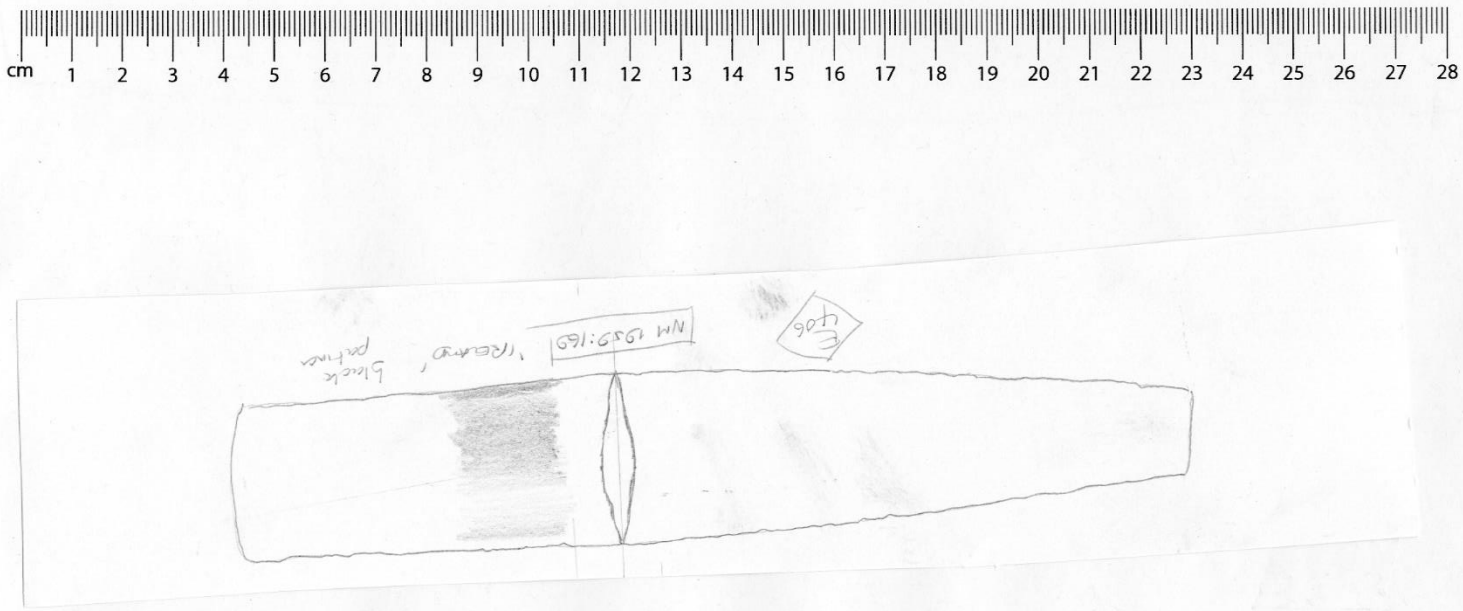
403


Black patina
IRELAND
(ORMEAU/MALE
Co, Fermanagh?)
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

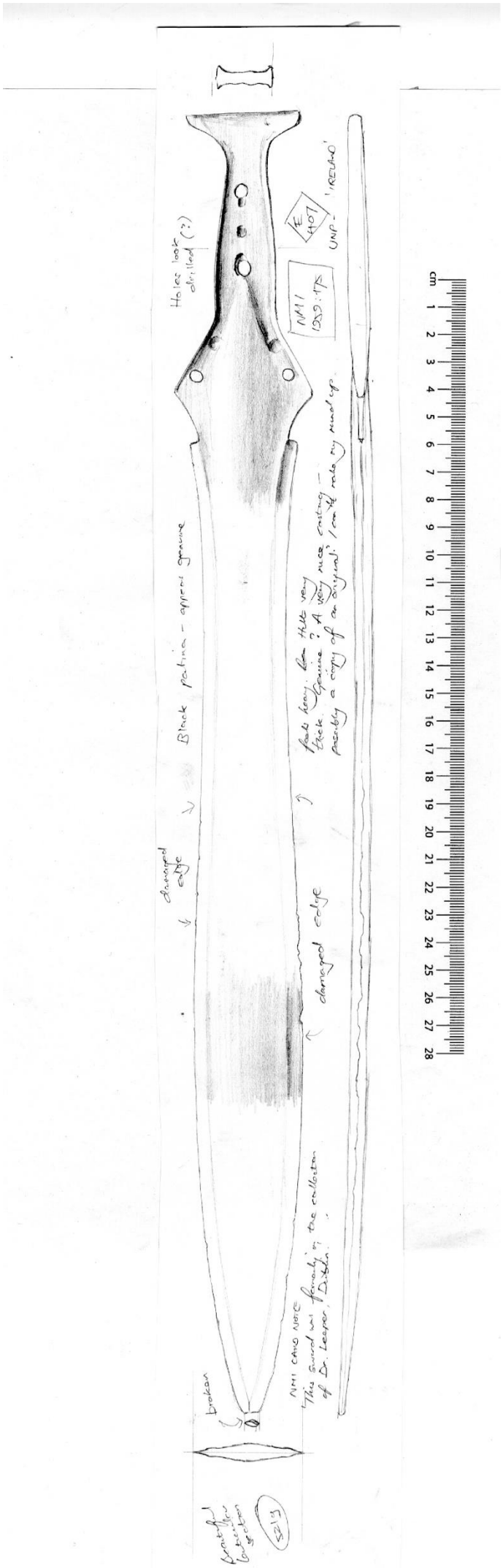
404

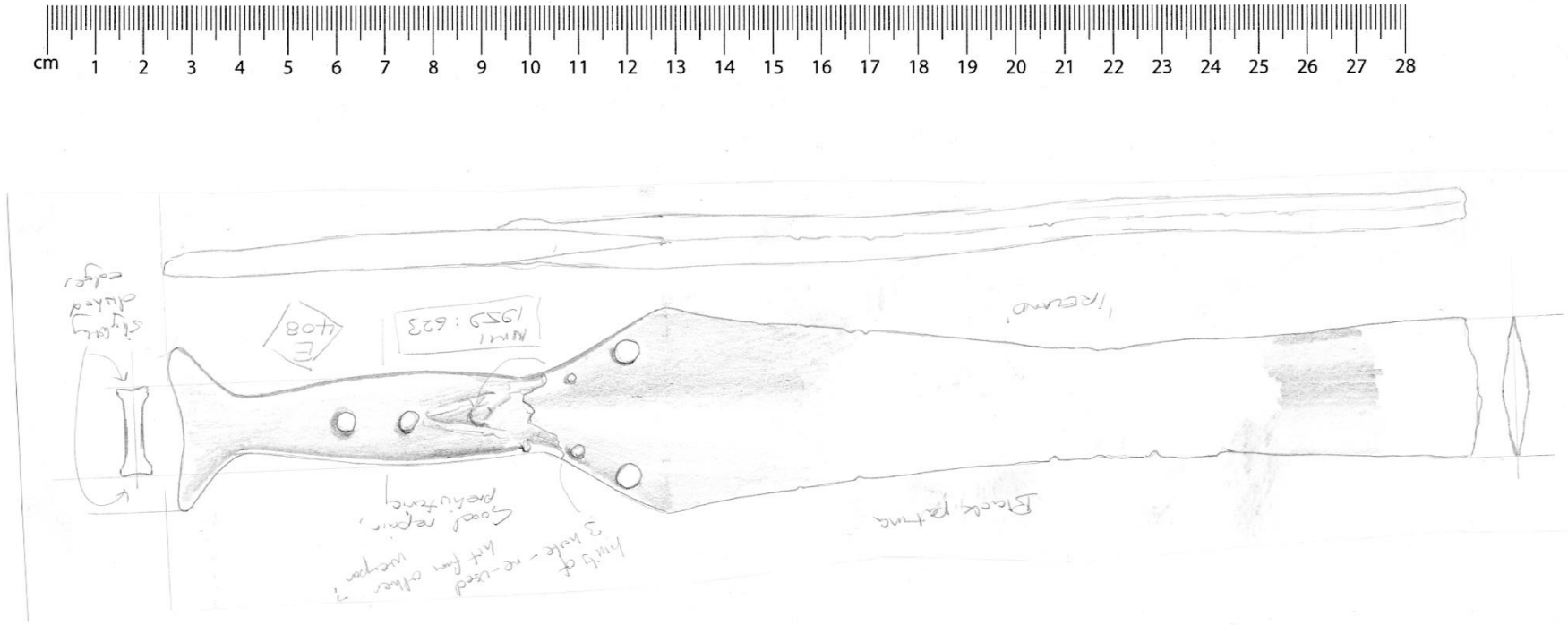

E 404
NMI 19479
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28


cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

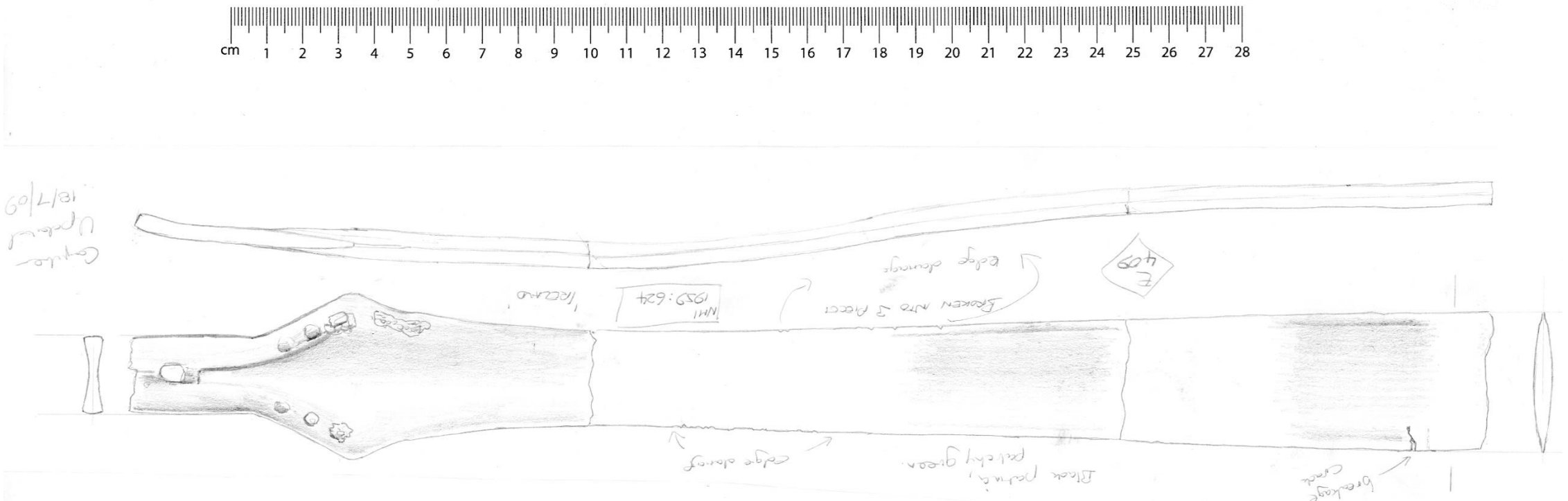

cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
NM 1949:169
'Reamo'
Black
pattern
E
406

407

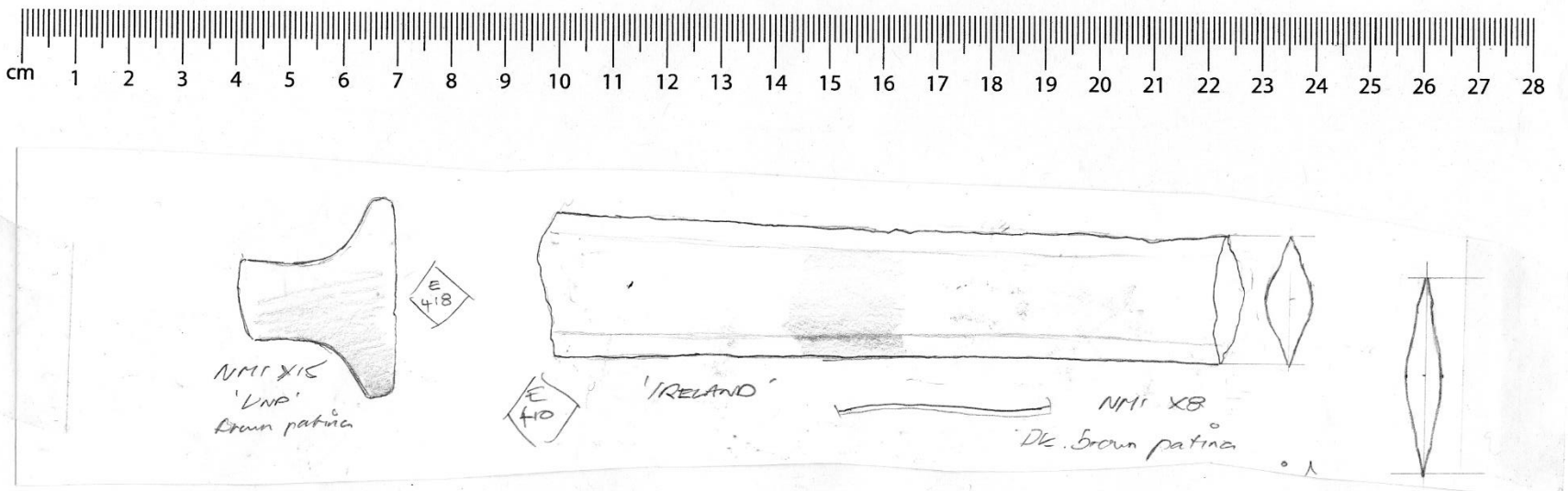

Holes look drilled (?)
Black patina - appears genuine
damaged edge
damaged edge
damaged edge
Feels heavy. Does this look right. Genuine ? A very nice existing piece. Possibly a copy of an original. I can't make my mind up.
NMI 1939:178
UNP - 'IRELAND'
broken
NMI CARD NOTE
'This sword was formerly in the collection of Dr. Leeper, Dublin.'
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28



408

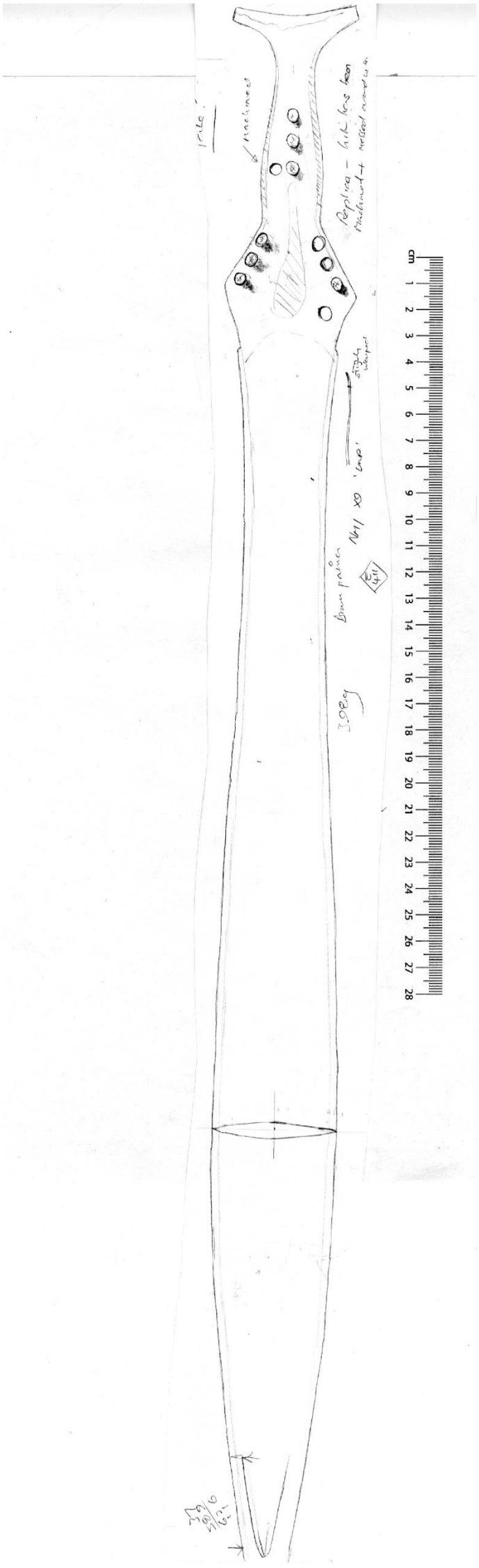


409

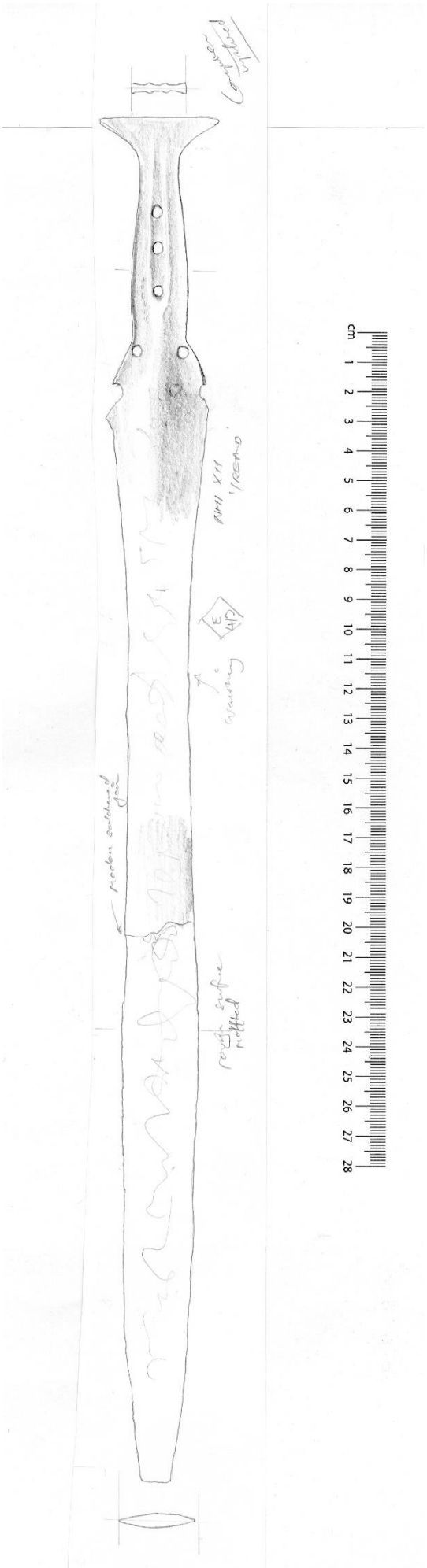

cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
E 418
NMI X15
'LNP'
Brown patina
E 410
'IRELAND'
NMI X8
Dk. Brown patina

410
418

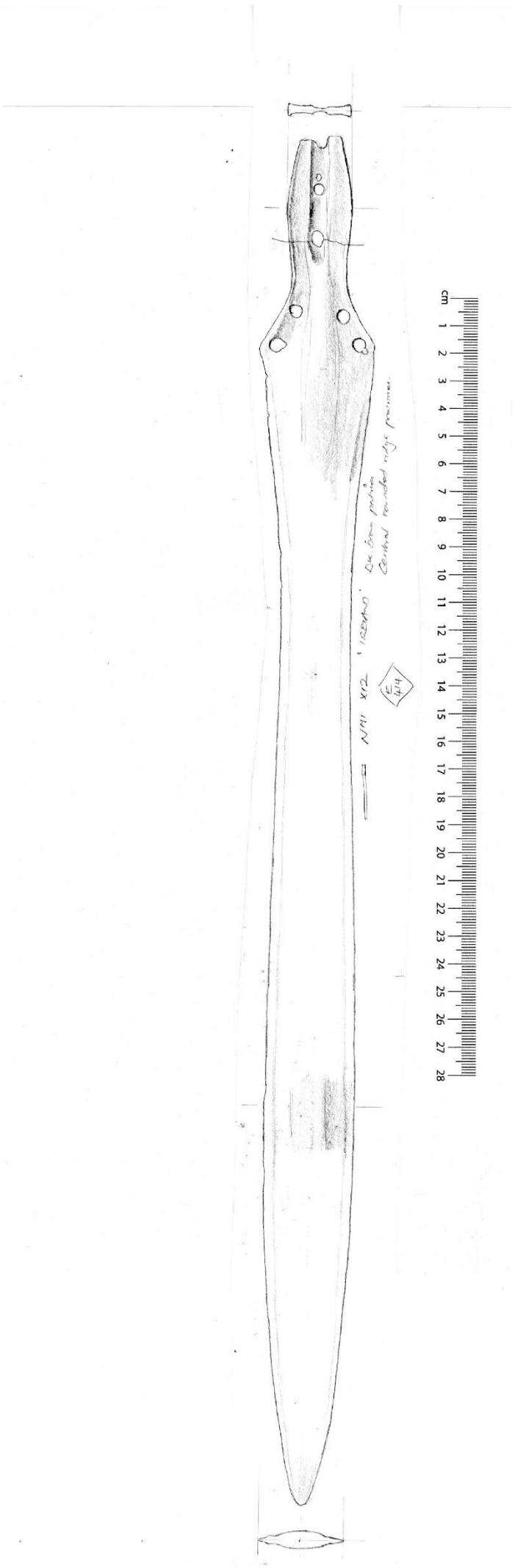
411



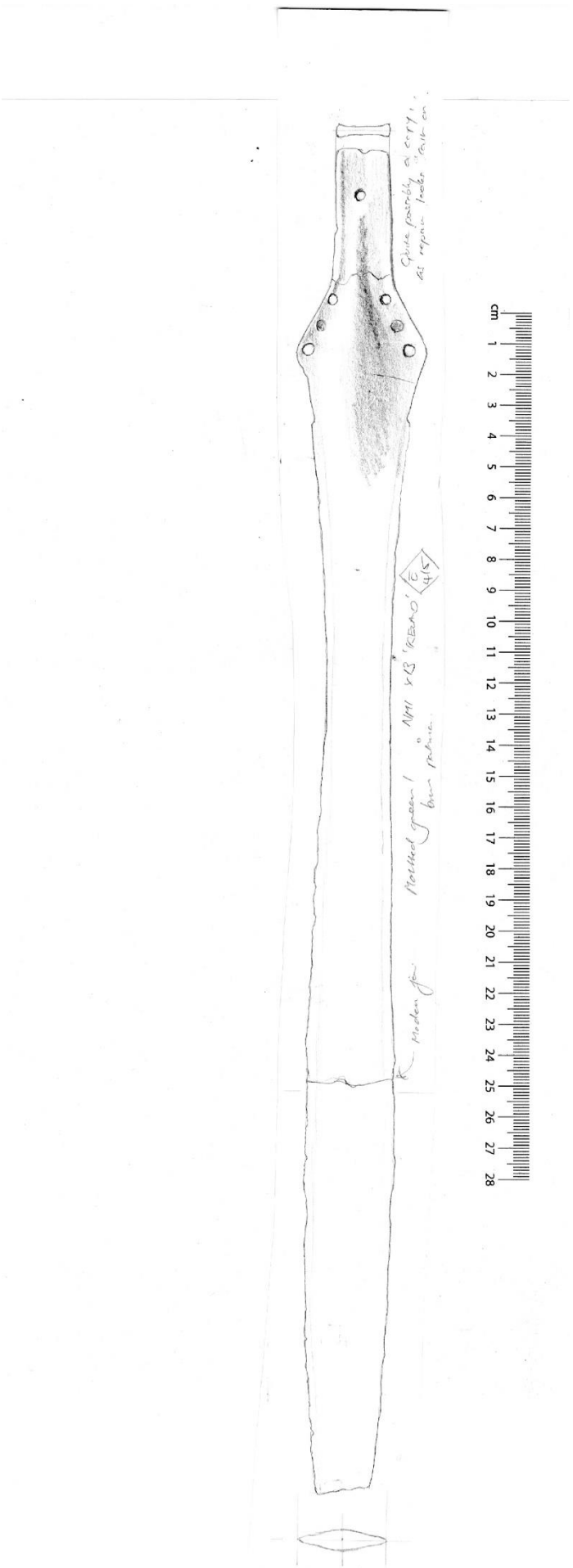
413

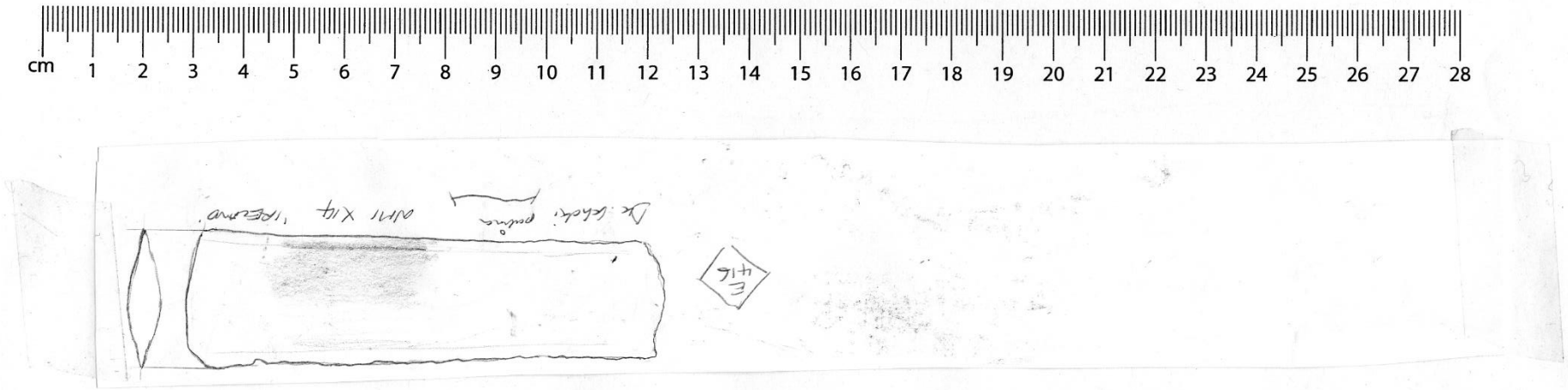


414



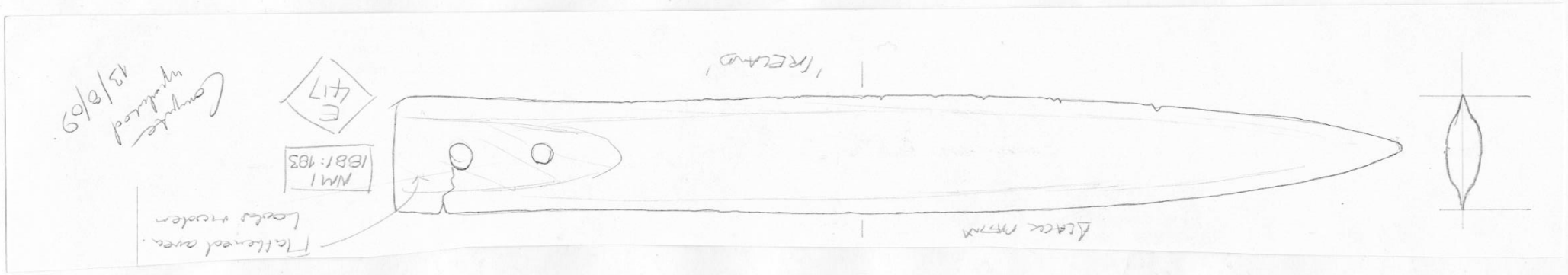
415




cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
E41/6

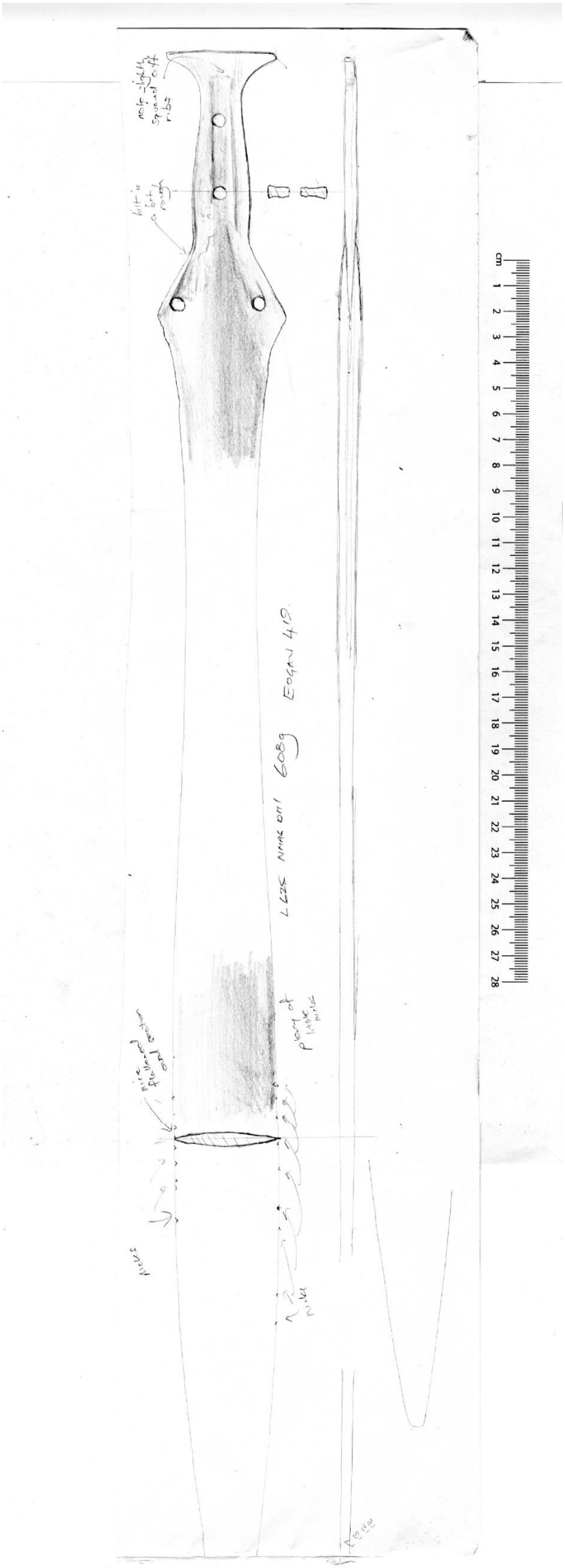
416


cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

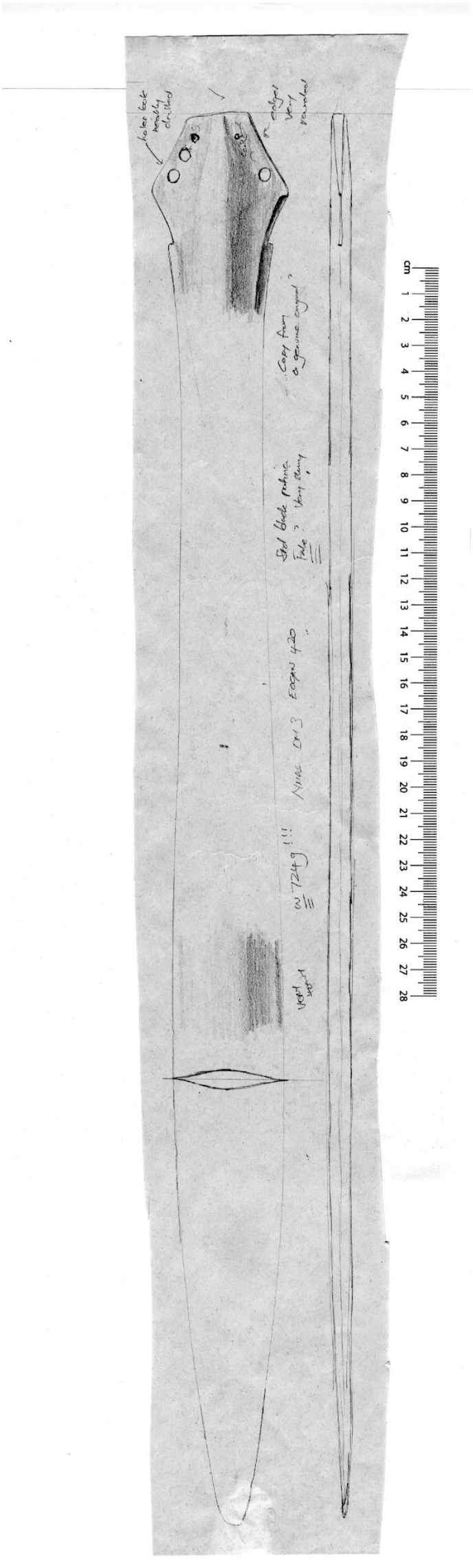

E 417
NMI 1881:183
13/8/09

417

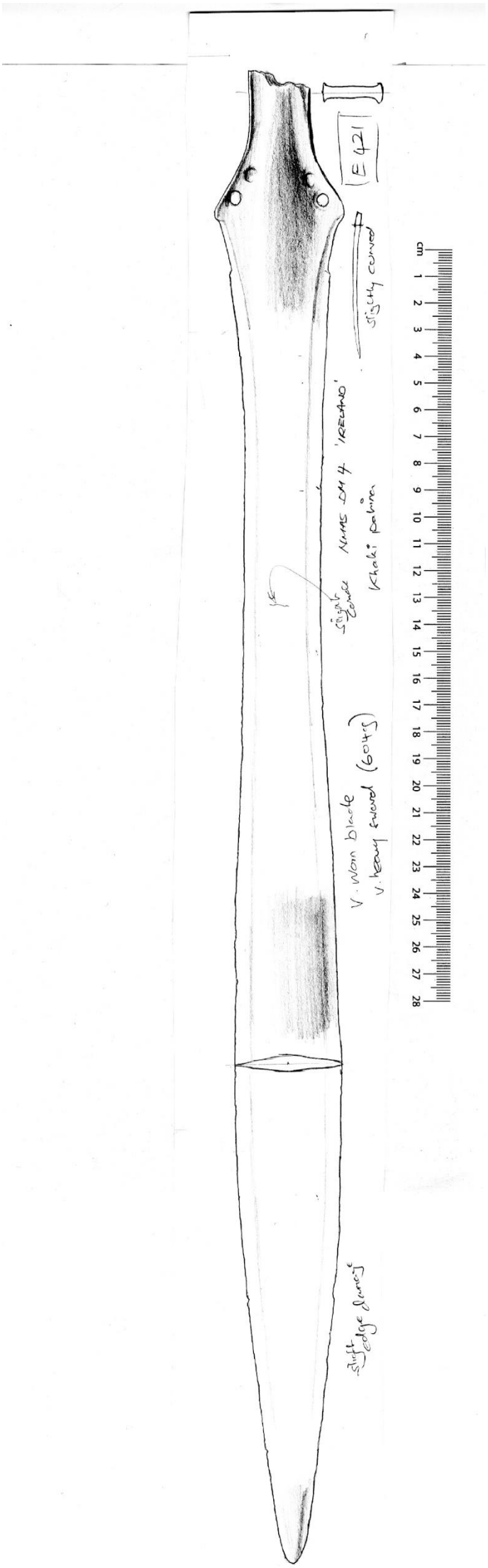
419



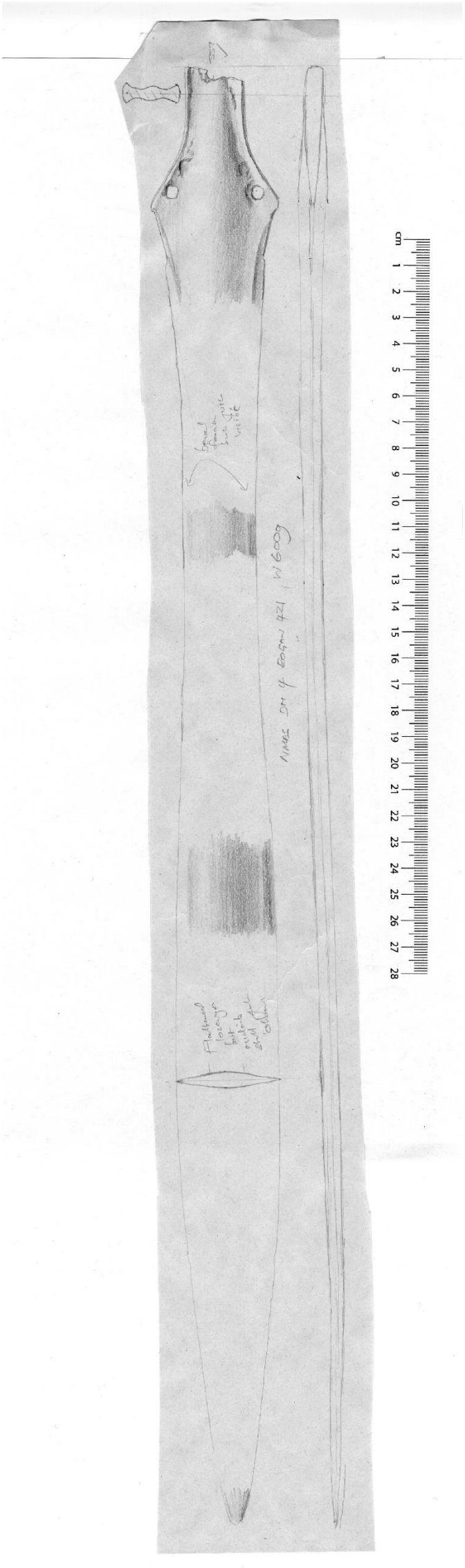
420


Holes look
Slot blade pocket
False ? Very shiny
Copy from a genuine original ?
Nitric Or 3
Eagle 420
cm

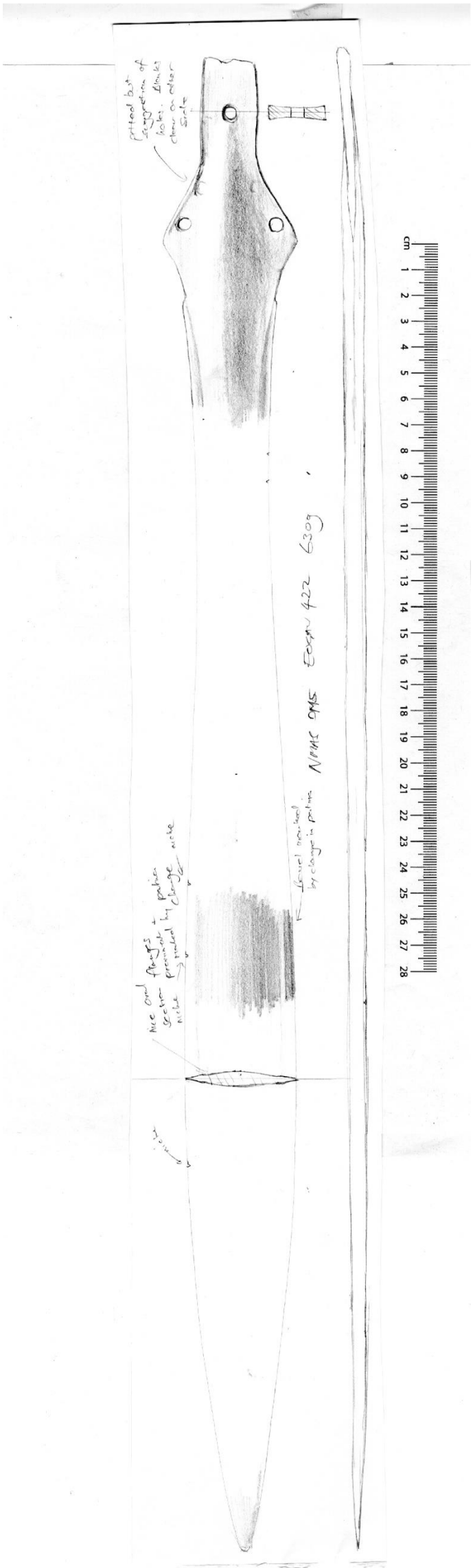
421


E 421
slightly curved
NAME ON 4 'IRELAND'
khaki patina
slight bends
V. worn blade
v. heavy sword (60+?)
slight edge flames

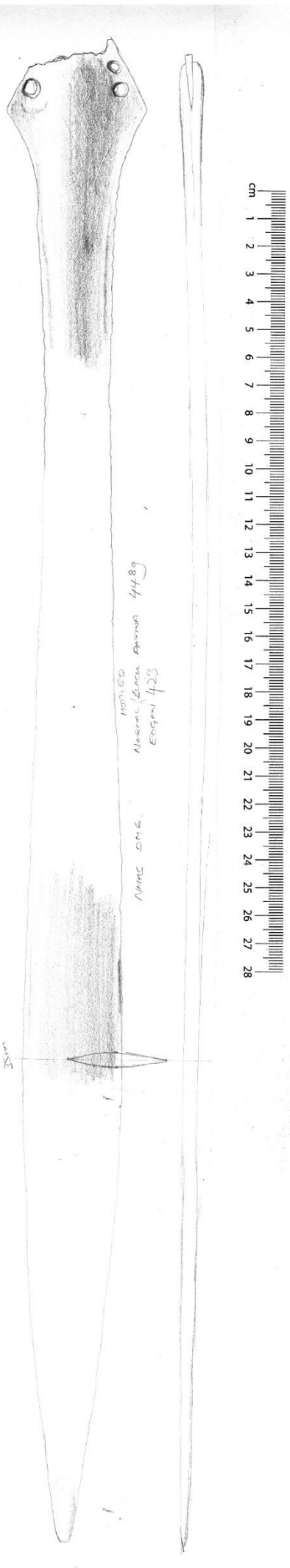
421(2)



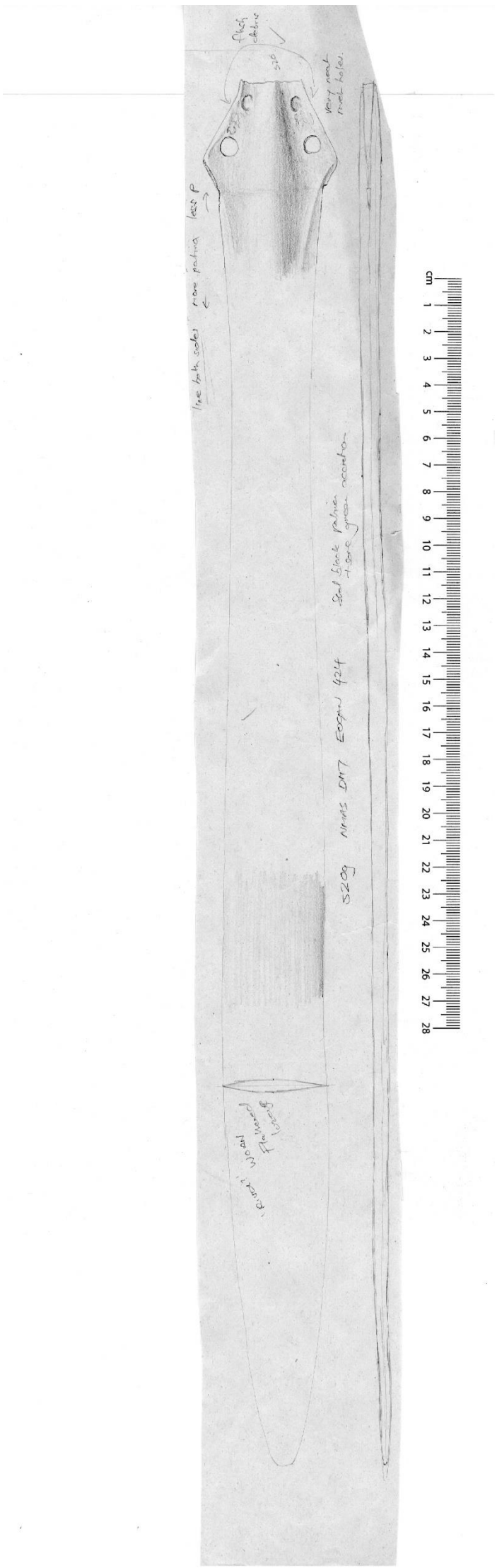
422


pitted but
Completion of
hole. Thicker
there on other
side
NEMI OMS Escan 422 6309
Slightly rounded
by change in pattern
Nice oval
Shape
section
Pronounced by pattern
change
cm

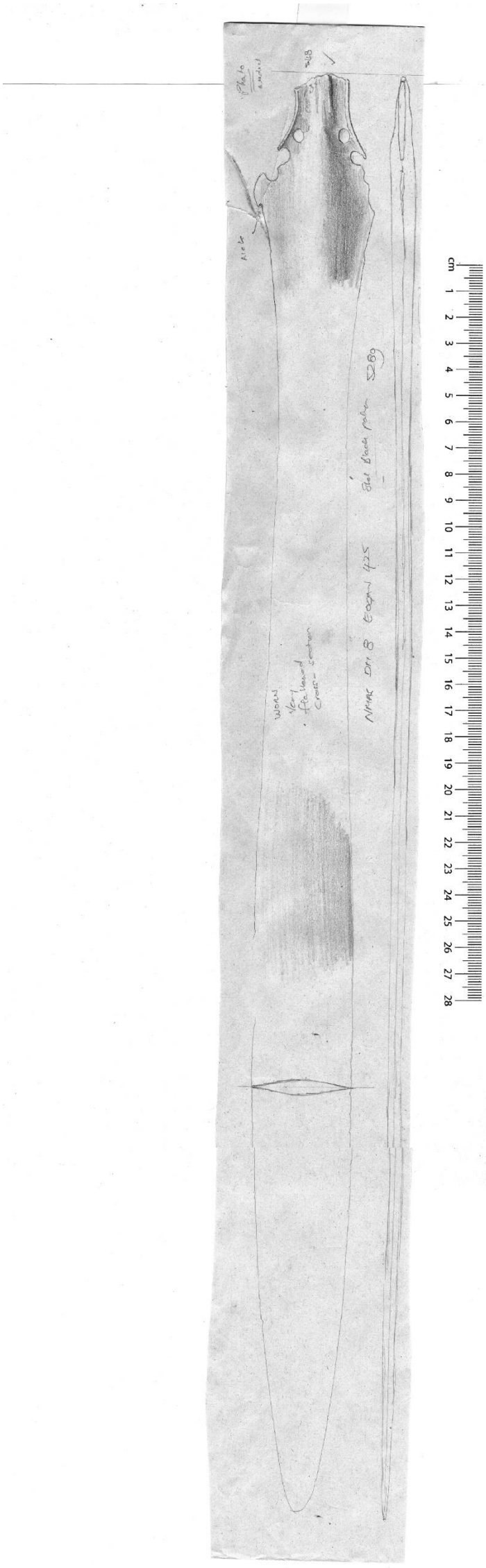
423



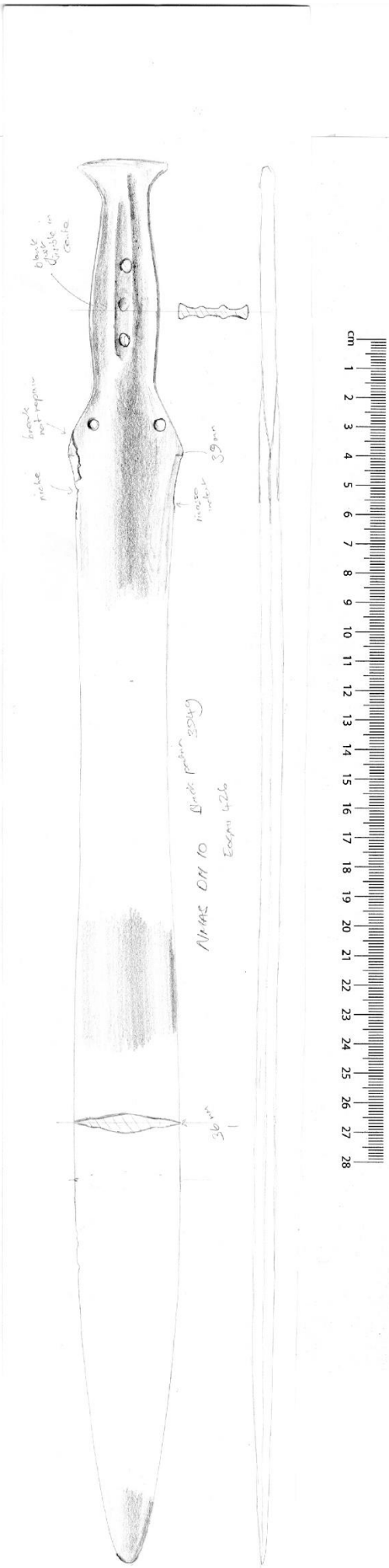
424


flush cabin
vent mast inlet holes
line both sides rope mating
Soul Black paint rope mount
S209 NMRS DM7 Eogan 424
Finish wood Fairlead
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

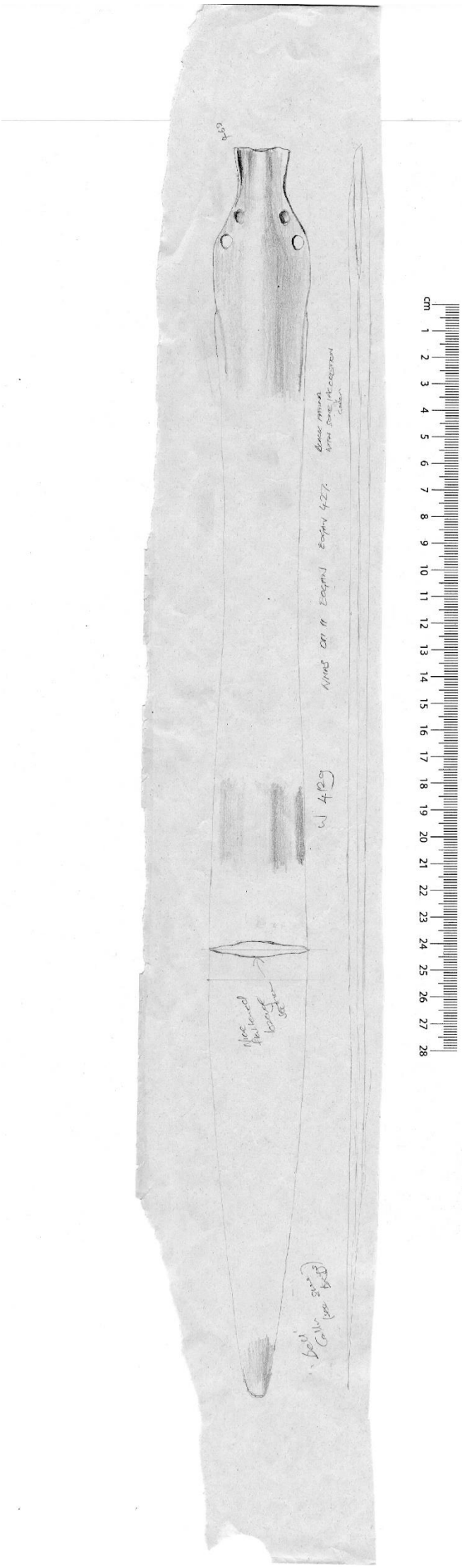
425



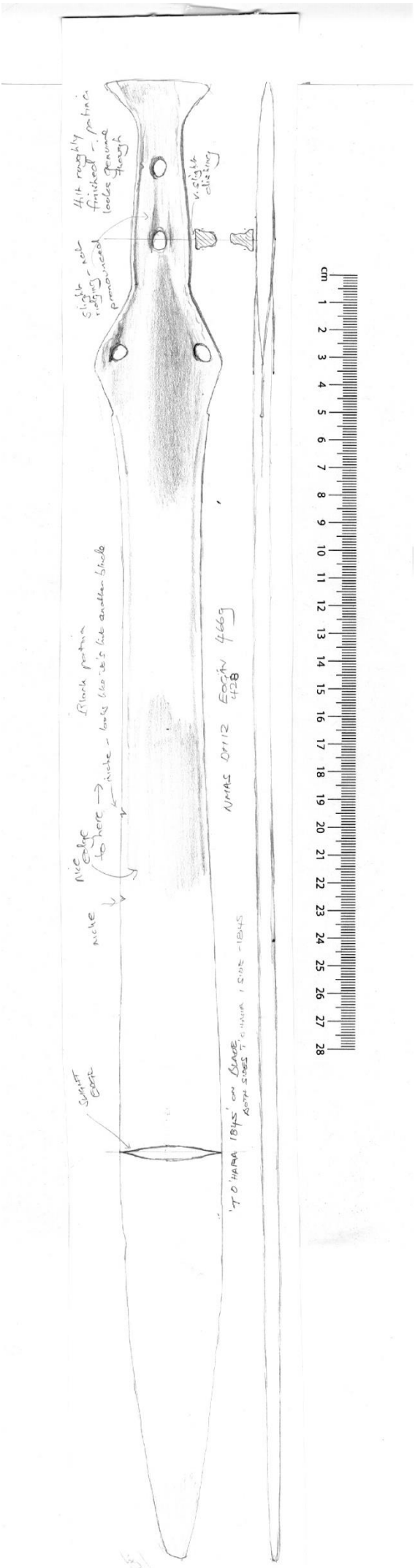
426



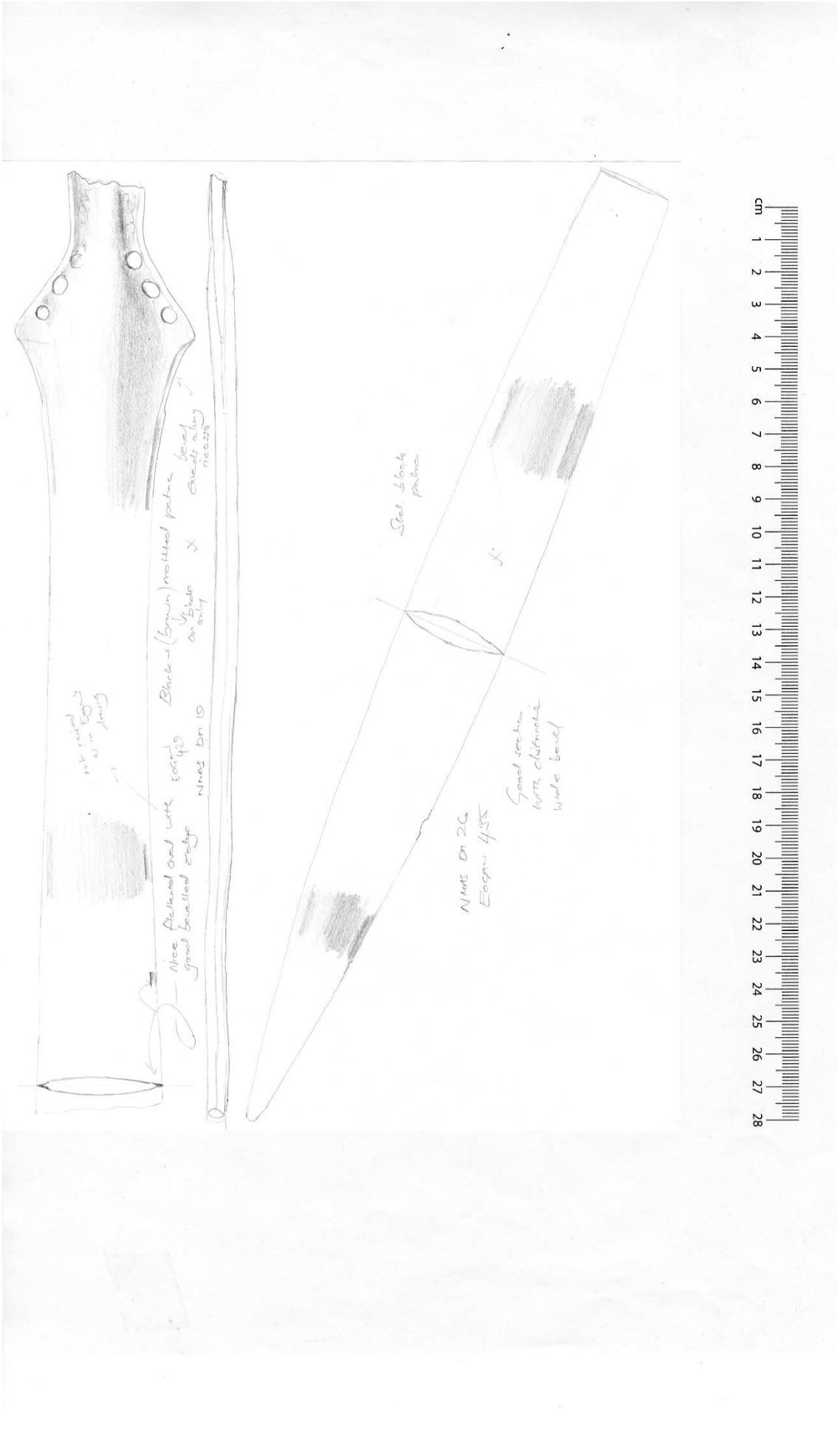
427



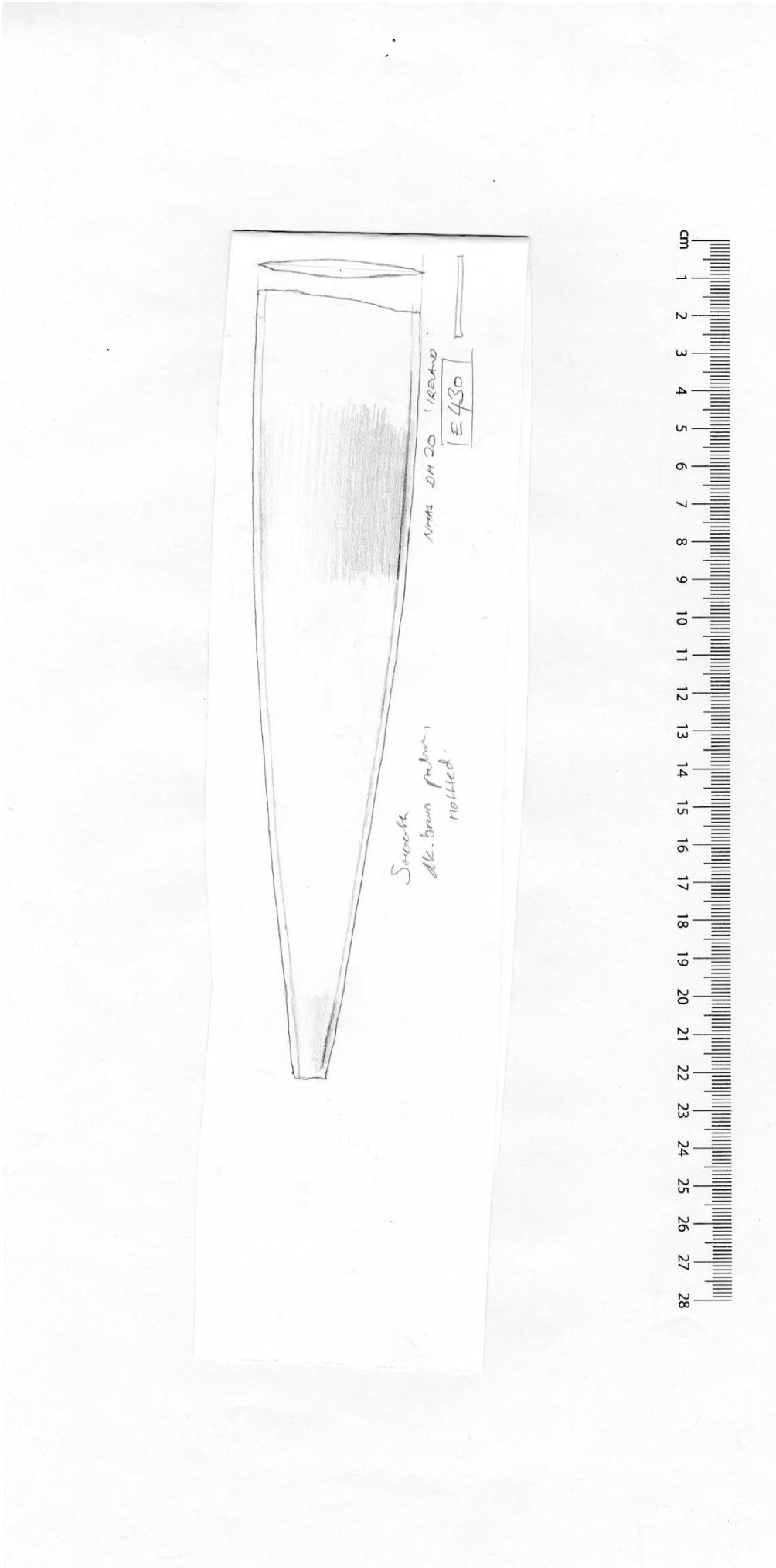
428

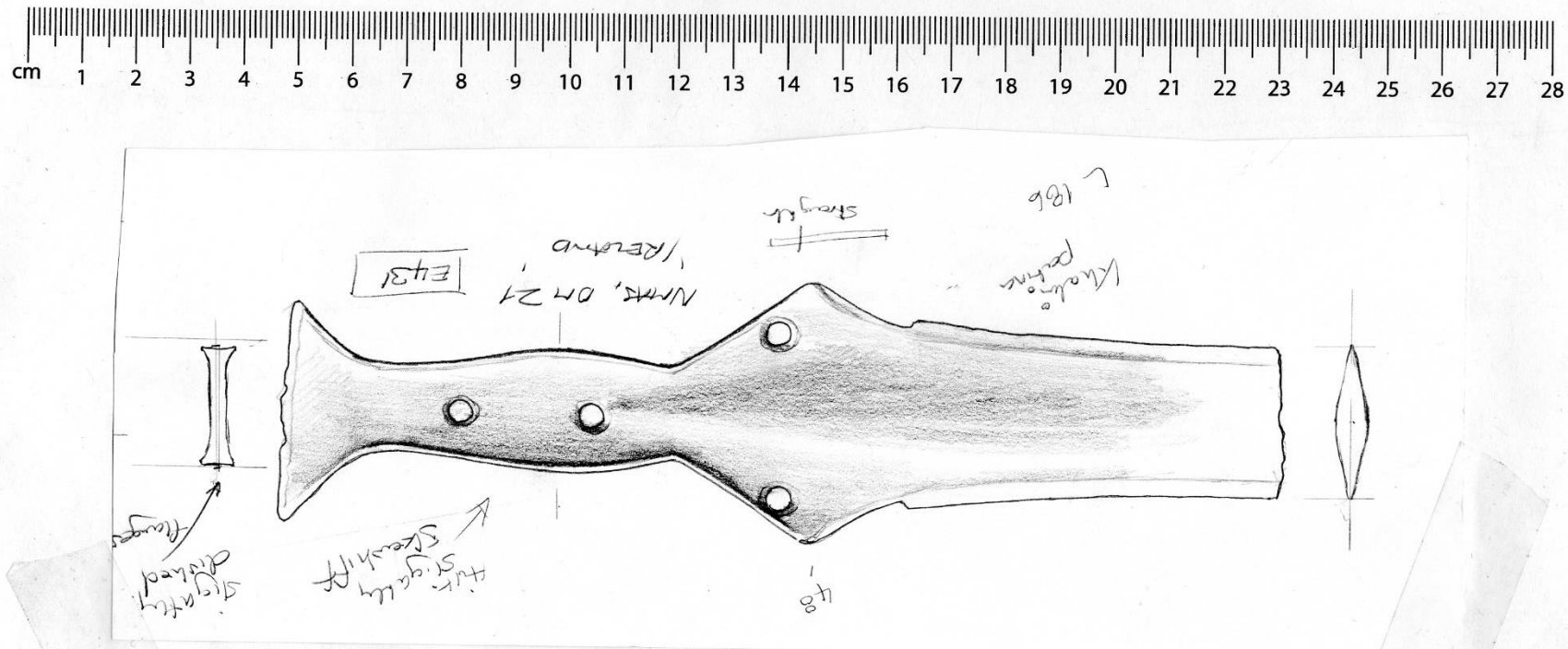

Hit roughly finished - patina looks genuine though
v. slight chasing
slight rolling - not pronounced
Blank patina
Nice edge to here
Niche - looks like it's hit another blade
Nice edge
Niche
NMAS 09112 E0634 469 428
'T O'HARA 1845' on blade
cm

429
and
435

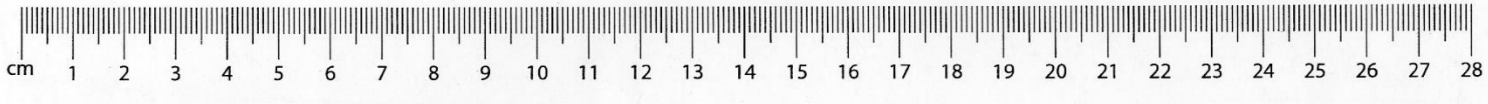

Nice Flattened oval with good bevelled edge
Blade of (brown) mottled patina
Steel blade patina
Good section with distinctive wide bevel
NMS DN 26
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

430



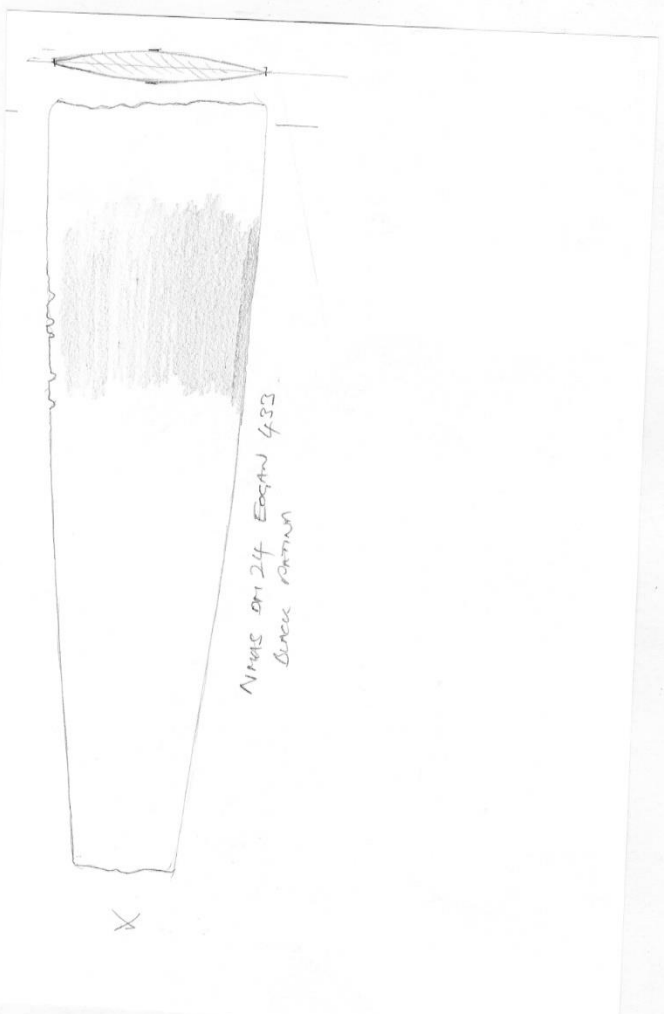


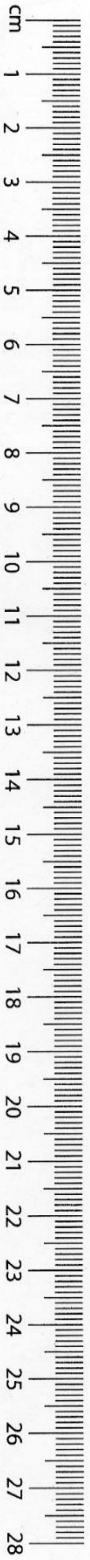
431

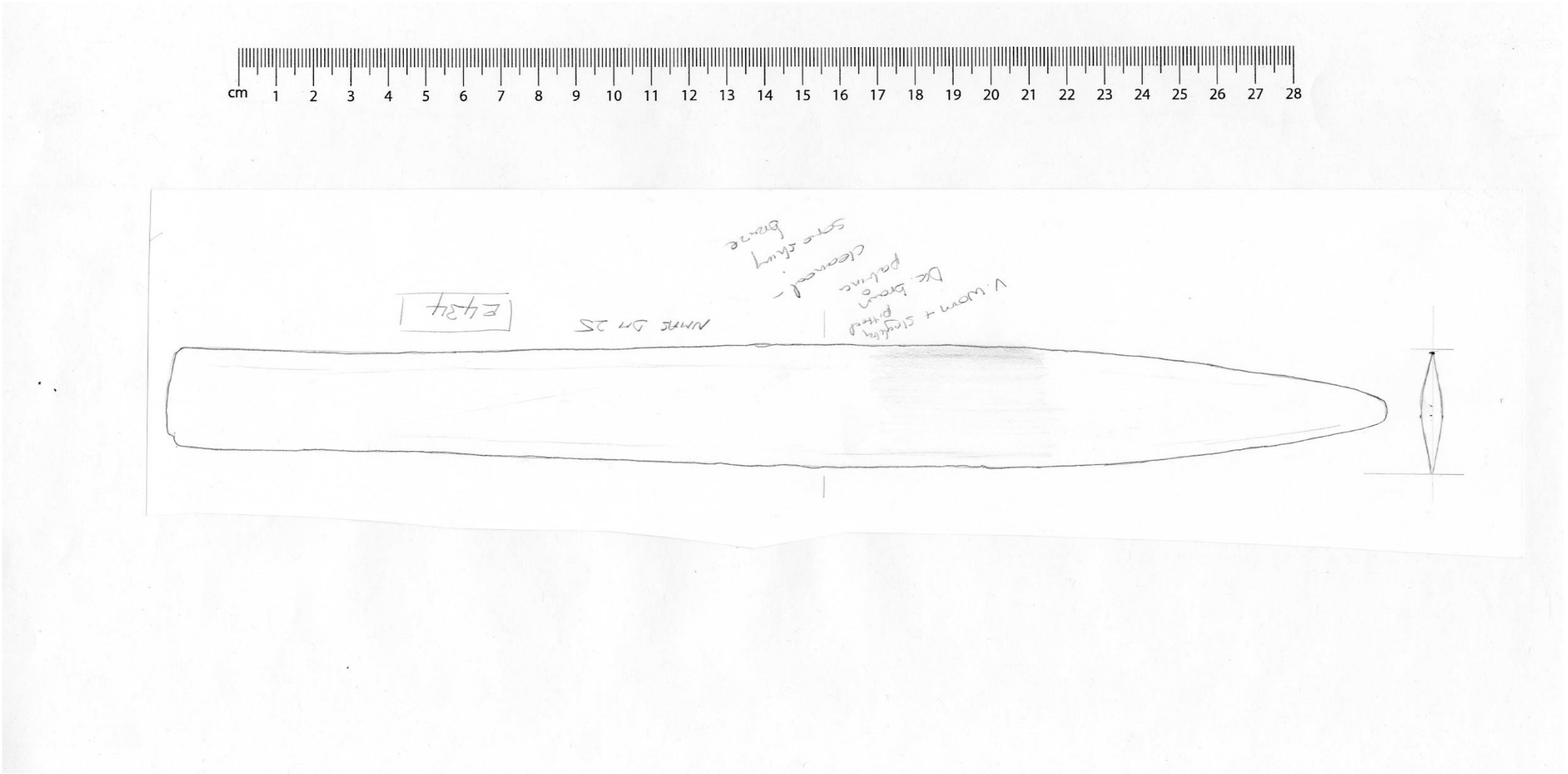

cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28


Don't fit together but look similar
Blade edge much narrower on piece to left
NAMS DM 22, 'IRELAND.'
E432
Smooth dk. brown patina
HaC blade.

433


Nmus on 24 Edging 433
Black ribbon


cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28



434

434 (2)

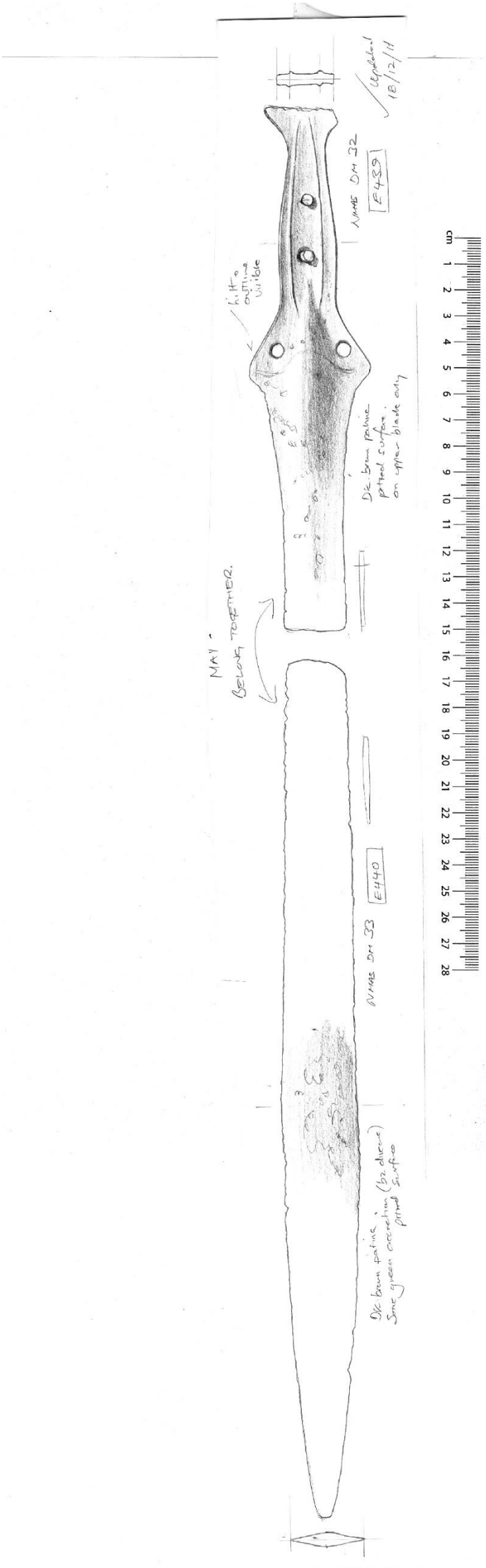
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
E434

436

Smooth surface | khaki patina
E436
NMAS Dec 28
IRELAND
Worn edge

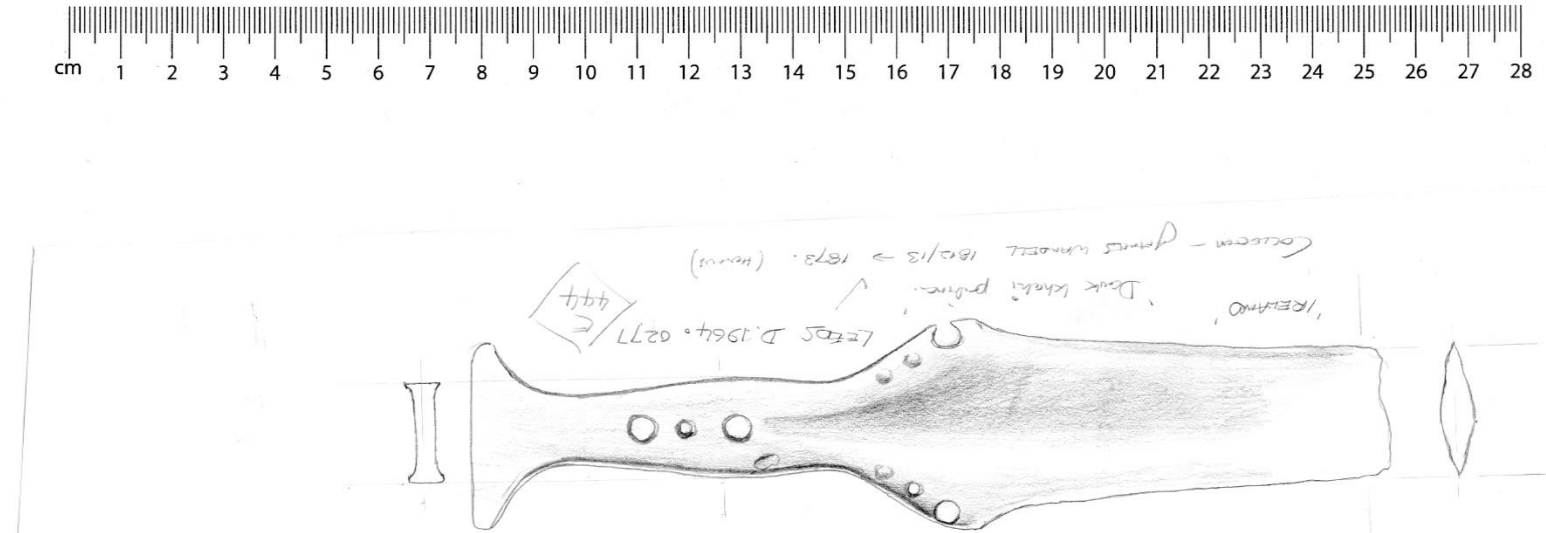
437
438
442

439


Updated 18/12/14
NMS DM 32
E439
Dk. brown patina
patinal surface
on upper blade only
hilt
outline
visible
MAY
BELONG TOGETHER.
NMS DM 33
E440
Dk brown patina (52 discus)
Some green excretion
patinal surface
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

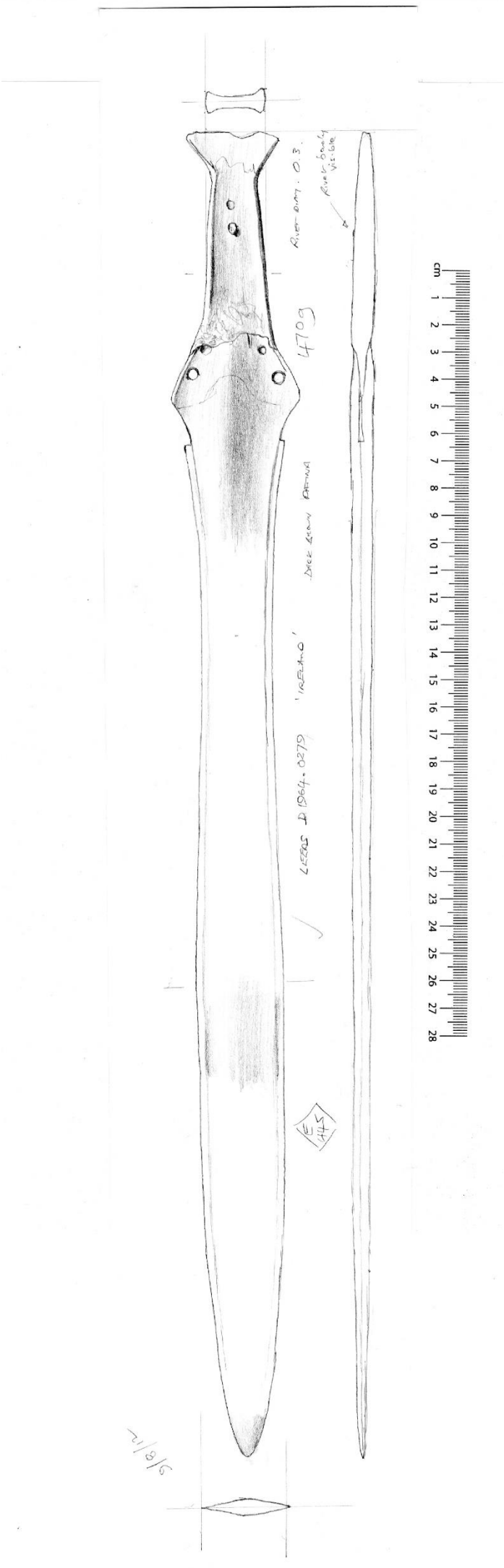

cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
E 443
(E ME OBRUNG)

443

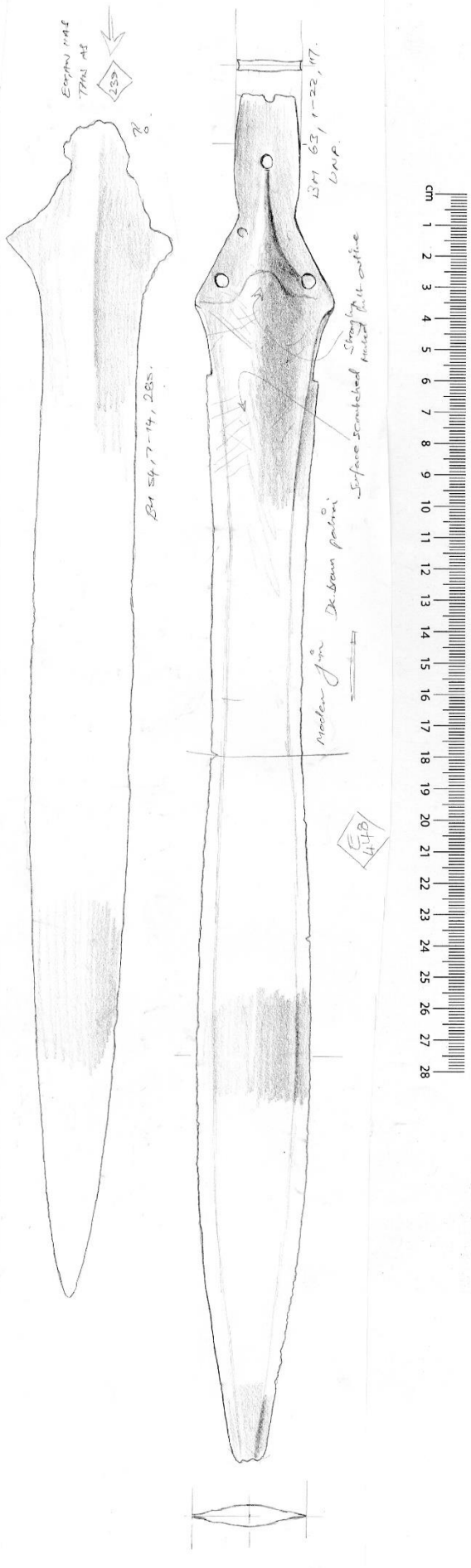


444

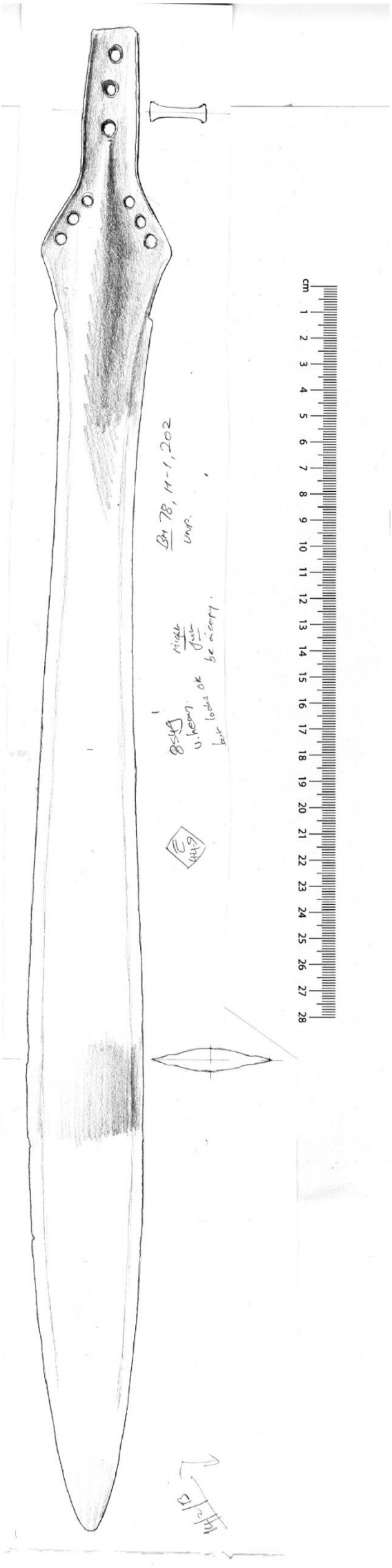
445


4709
1964.0279
IRELAND
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

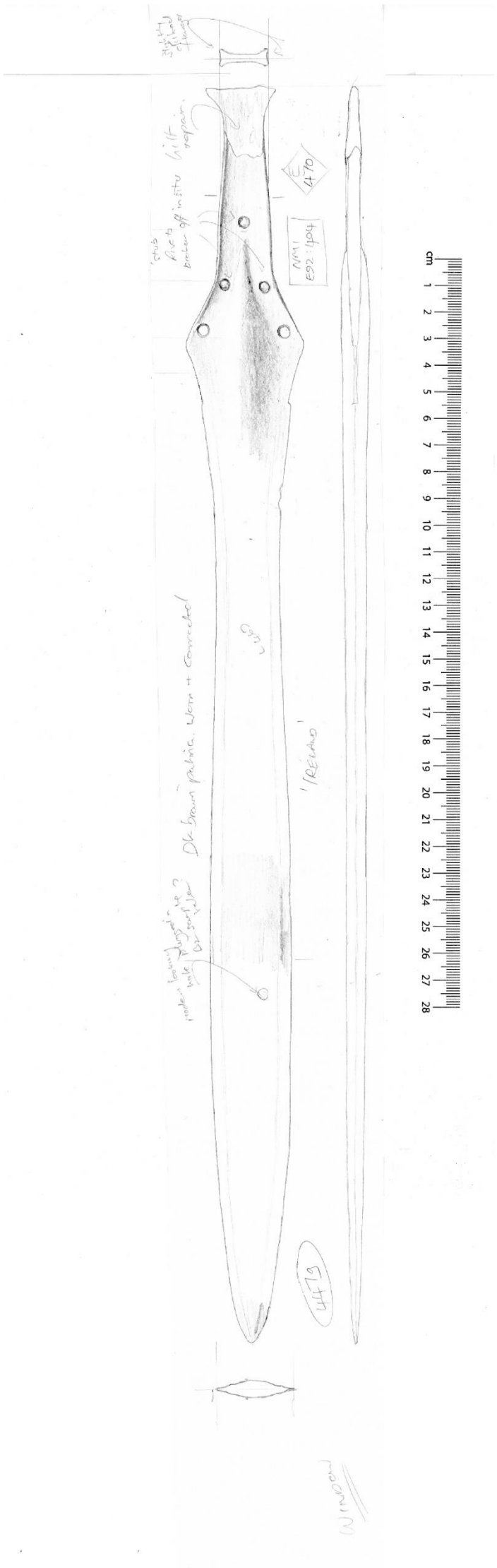
448



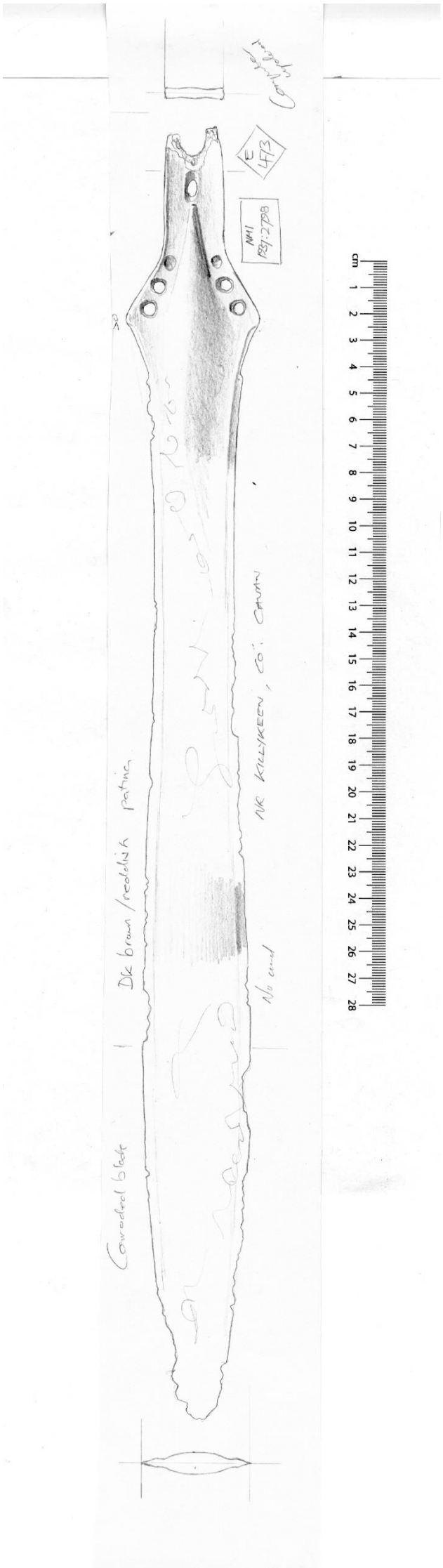
449


BH 78, 14-1, 202
Unsp.
Bronze
U. Jeremy
Right
four holes or
be nicely.
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

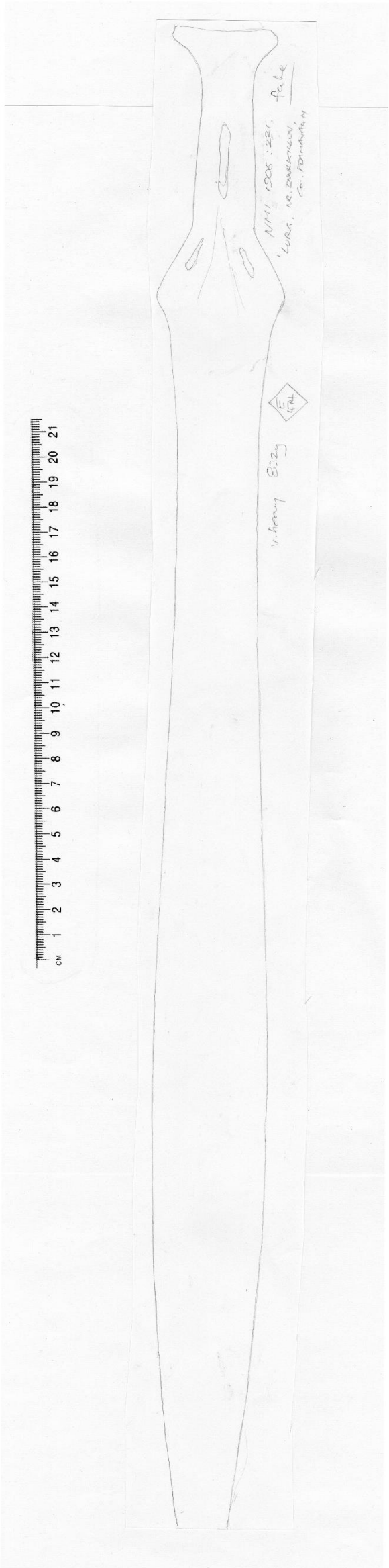
470



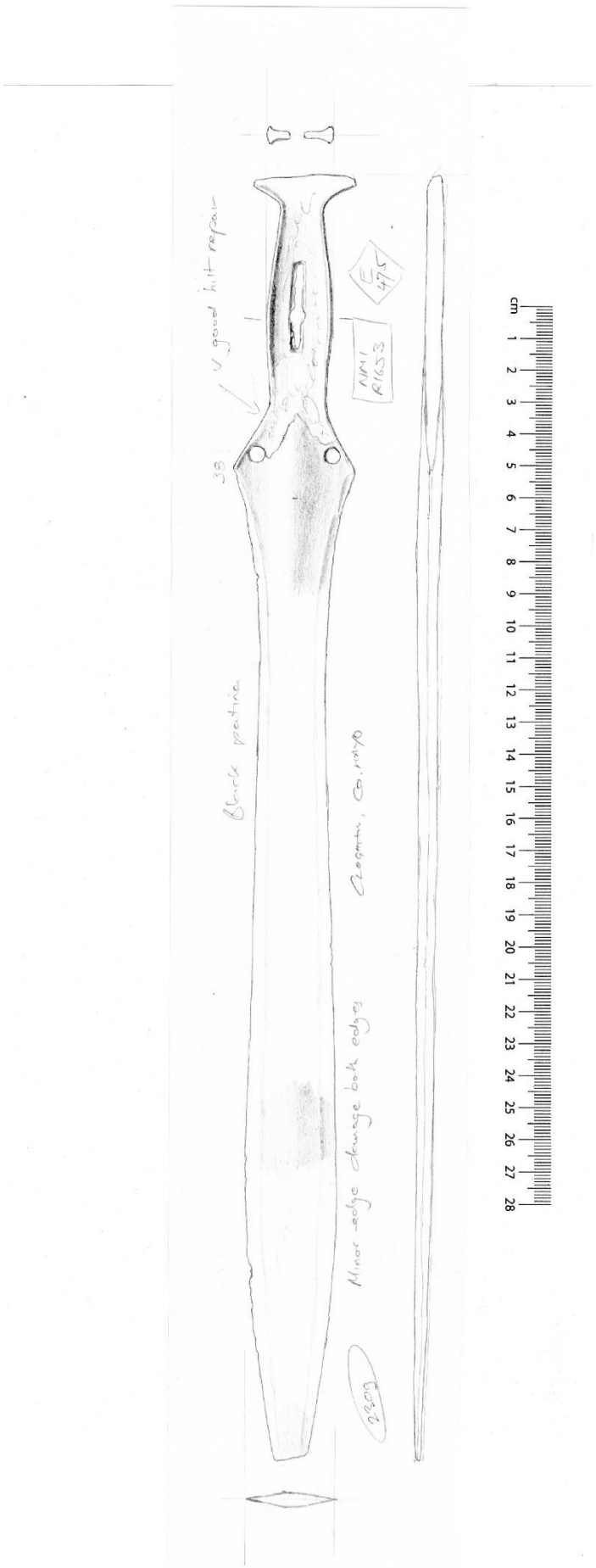
473


E 473
NMI R81:2798
NR KILLYKEEN, CO. CAVAN
No end
Dk brown / reddish patina
Corroded blade

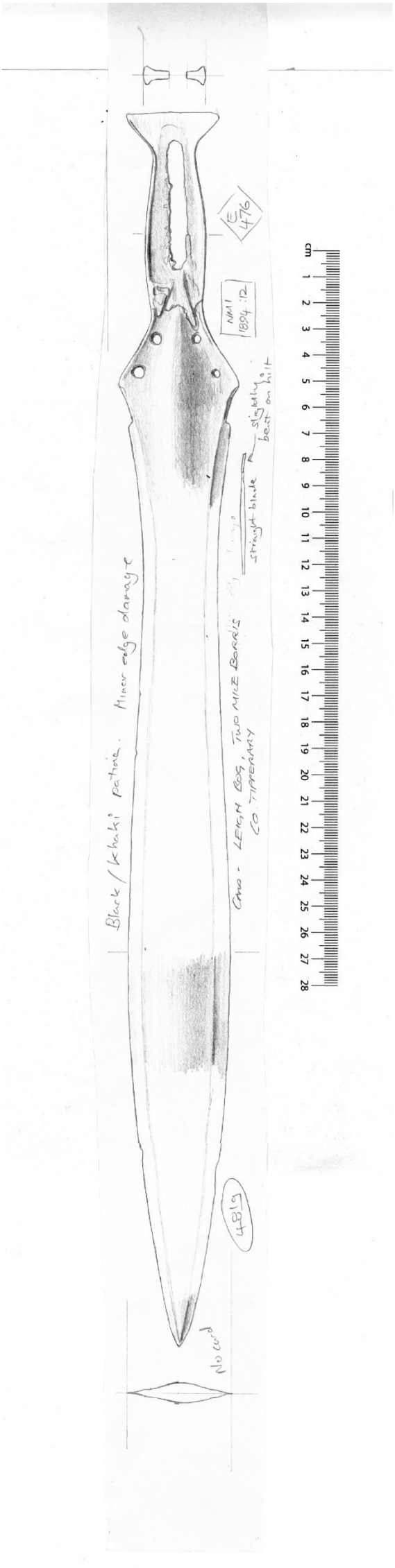
474



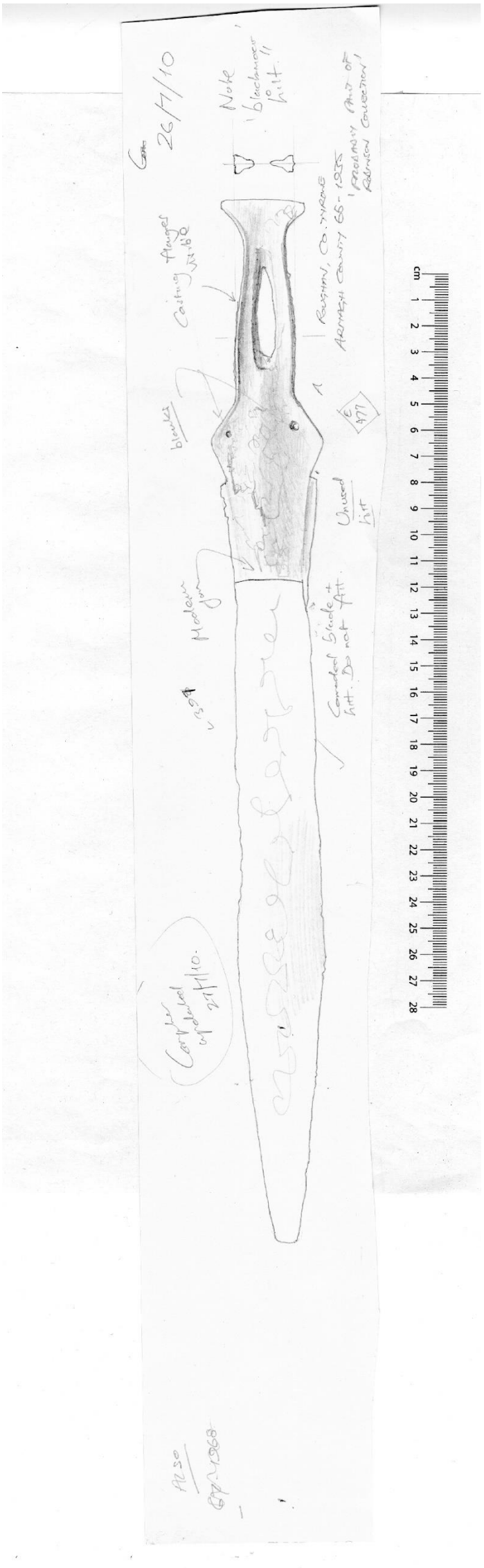
475


V good hilt repair
Black patina
Minor edge damage both edges
NMI R1653
E 475
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

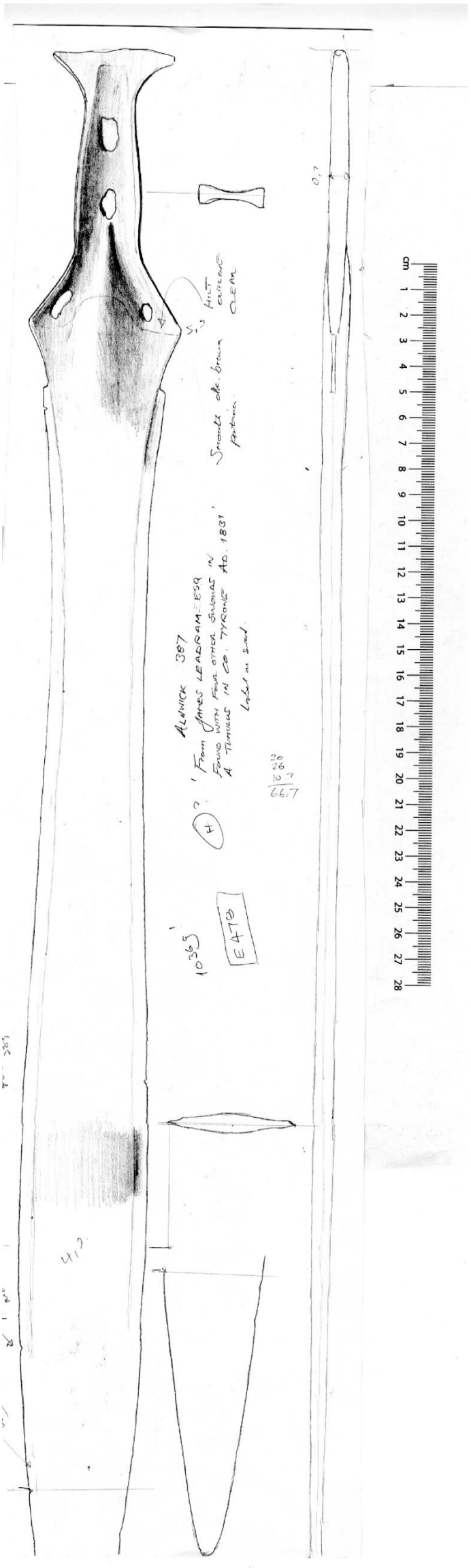
476


E 476
NMI 1894 :12
Black/khaki patina. Minor edge damage
Cmd - LEIGH BOG, TWO MILE BOARS CO. TIPPERARY
slightly bent on hilt
straight blade
4819
No cord
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

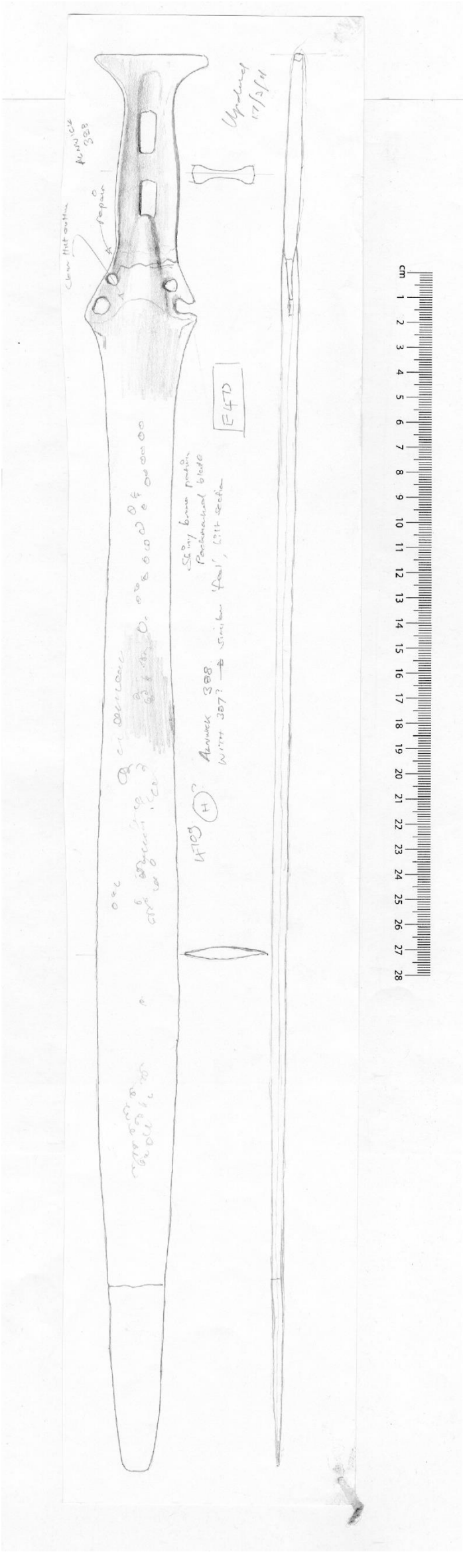
477


26/7/10
Note
Blackmore hilt
Casting flange
Blades
Unused hilt
Modern
Combined blade + hilt. Do not hilt
Combined with blade 27/7/10.
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

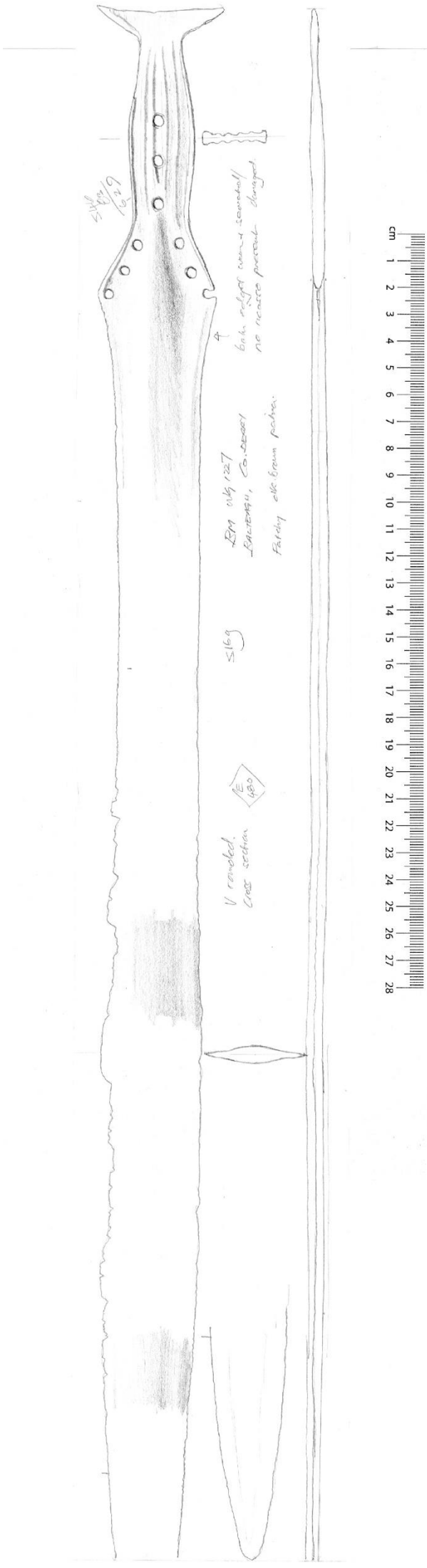
478


ALNWICK 387
From James LEADBRAM ESQ
Found with four other swords in
A Tumulus in Co. TYRONE AD. 1837
Lodged in Sand
Smooth dk. brown patina
HILT CORRODED CLEAN
E478
1036
66.7
cm

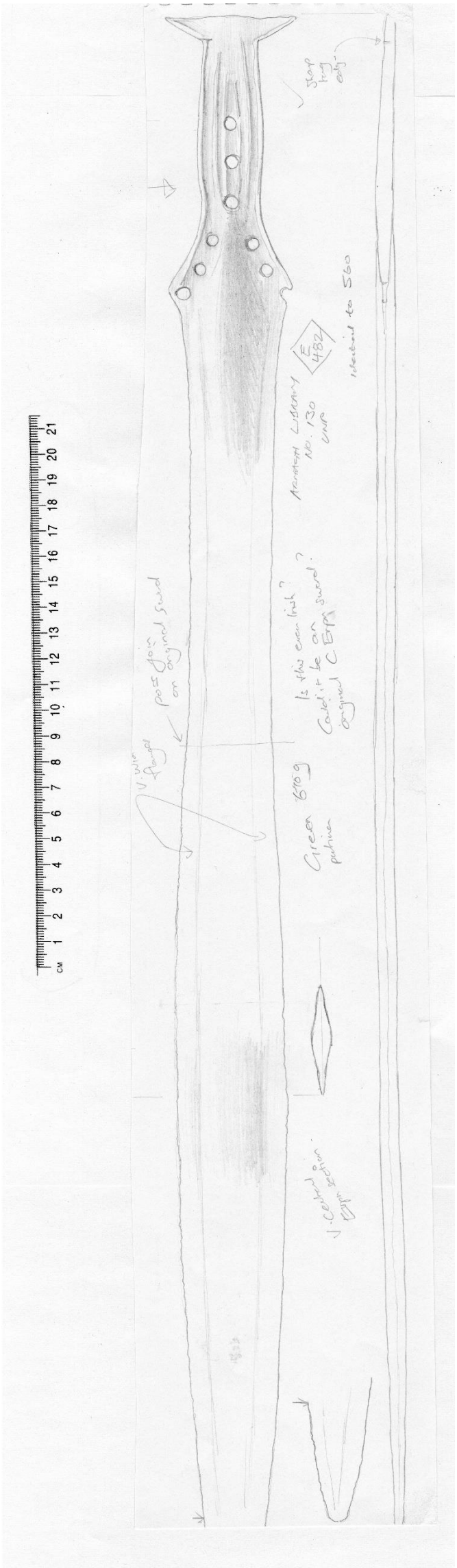
479


Updated 17/5/11
Repair
Clear Hat outline
Skiny brown patina
Patchmarked blade
Seal, Lith section
Aberdeen 388
Written 387?
LF109
H
E470
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

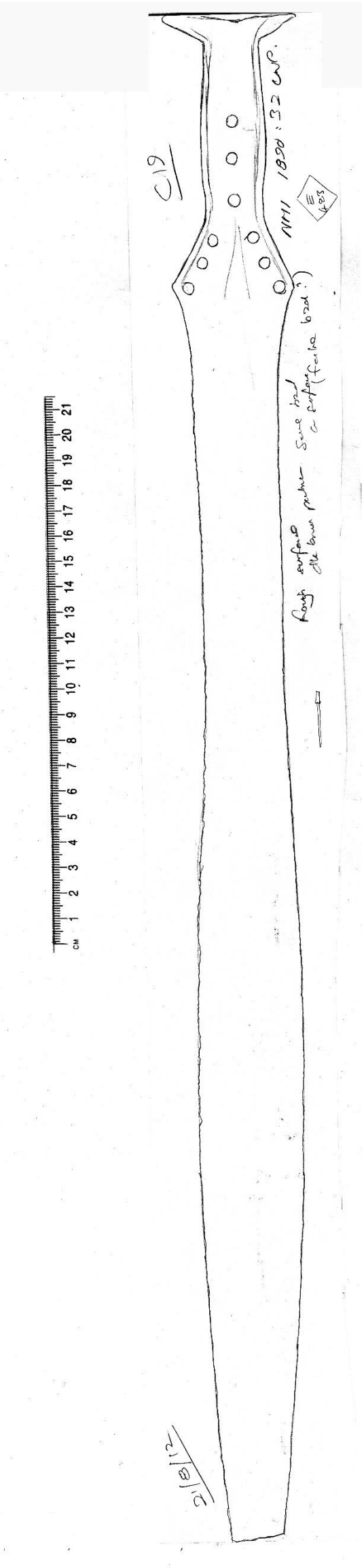
480



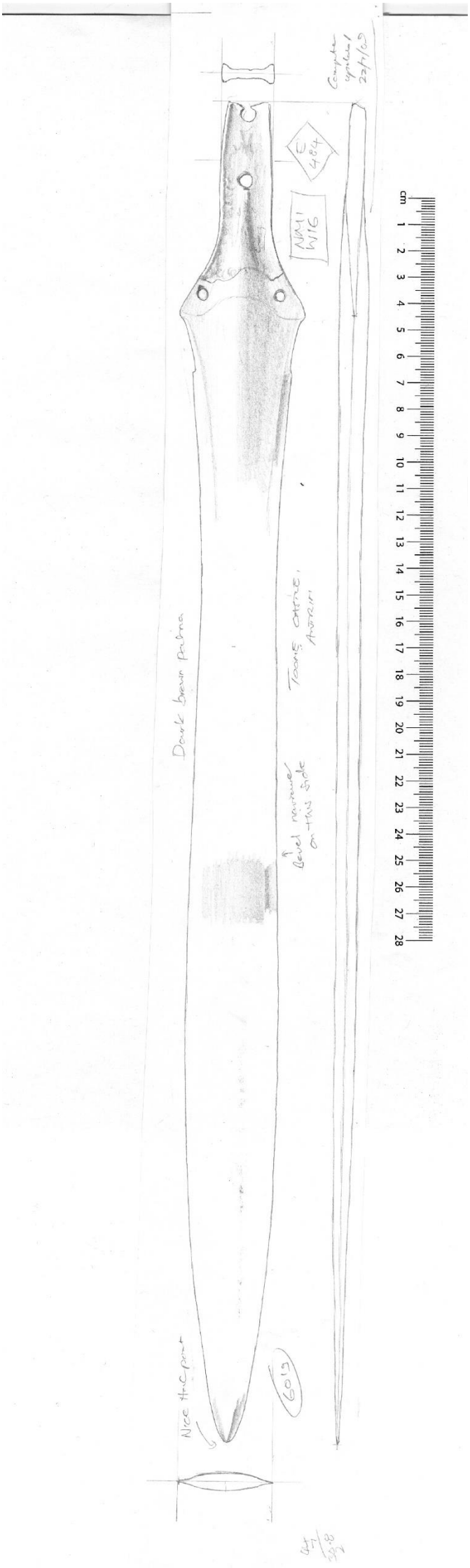
482


Green 6159
Is this even link?
Could it be an original sword?
Museum Library No. 130 UNP
E 482
Intended to 560
Post join on original sword
Visible Rivet
J. Cross section

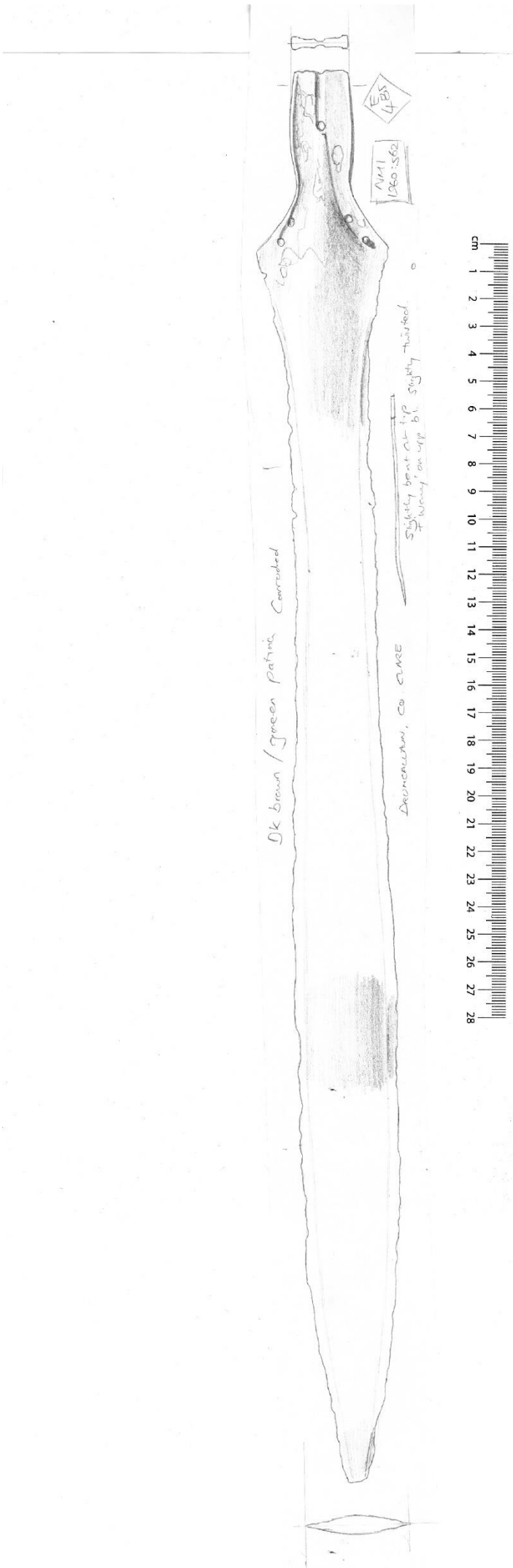
483


C19
NHI 1890 : 32 cm.
Rough surface
Sand
Scale
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21

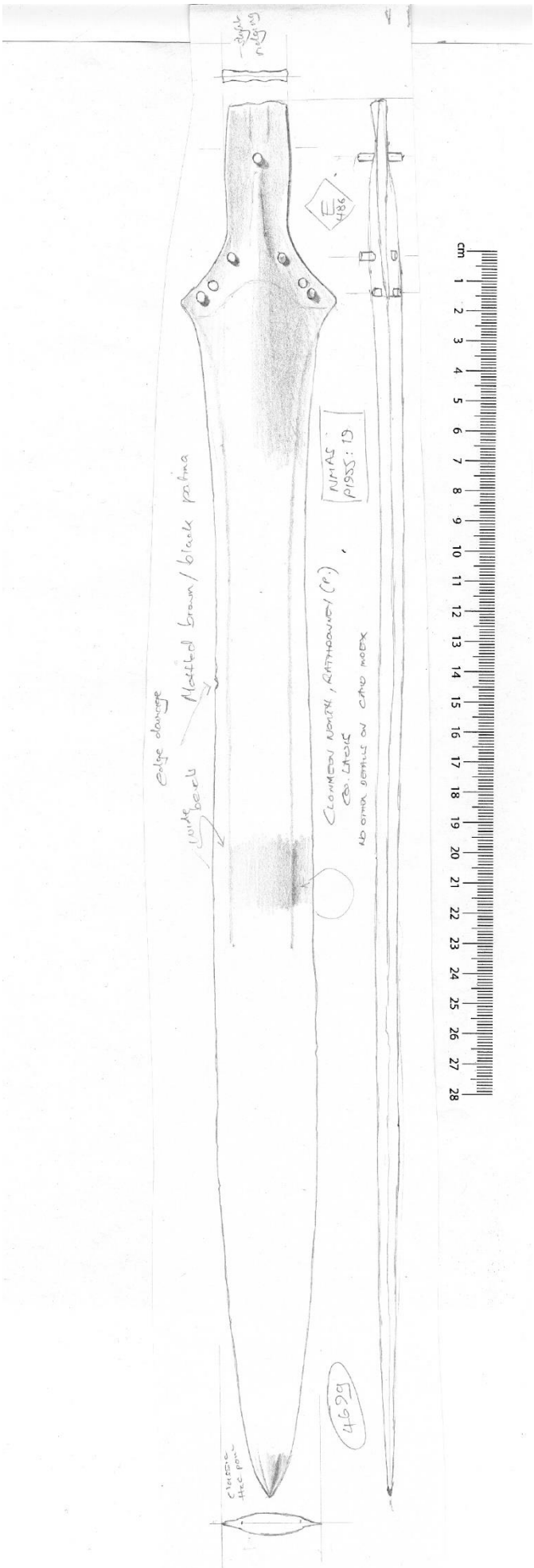
484


E 484
NAH W16
Double bevel pulling
Bevel narrower on thin side
Tapers centre, Astern
Nice Hydrant
601

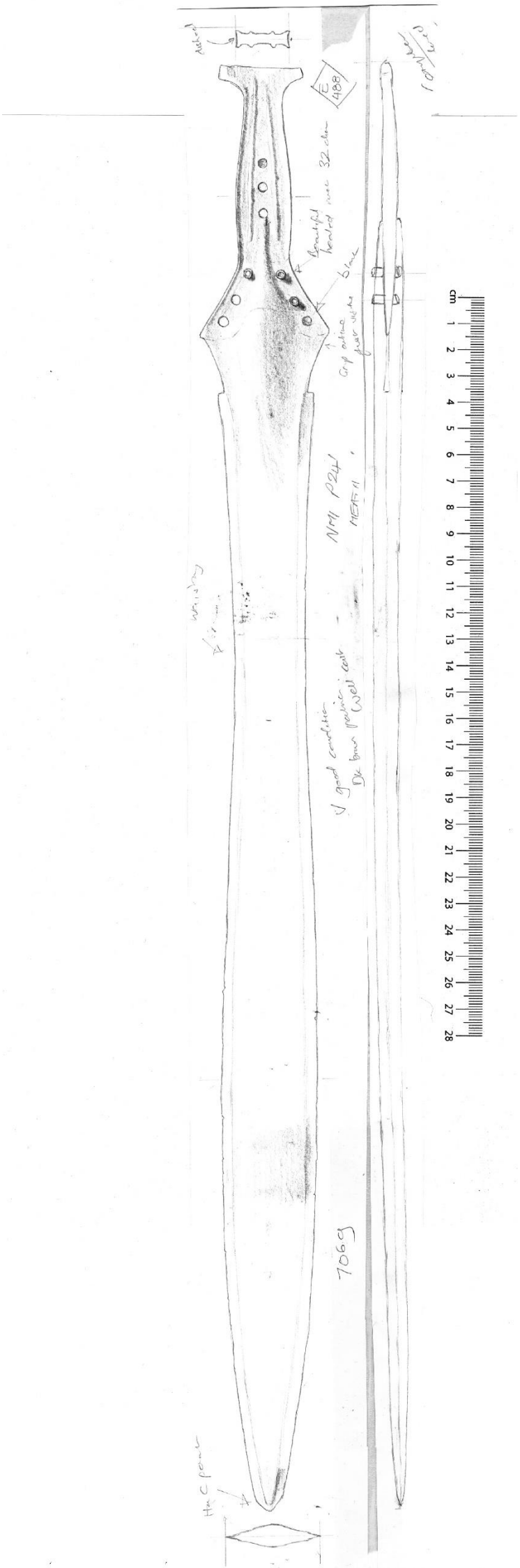
485


E85
485
NMI
1960:562
Dk brown / green patina Corroded
Slightly bent at tip
Twisted on upp bl
Slightly twisted
Duncallan, Co. Clare
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

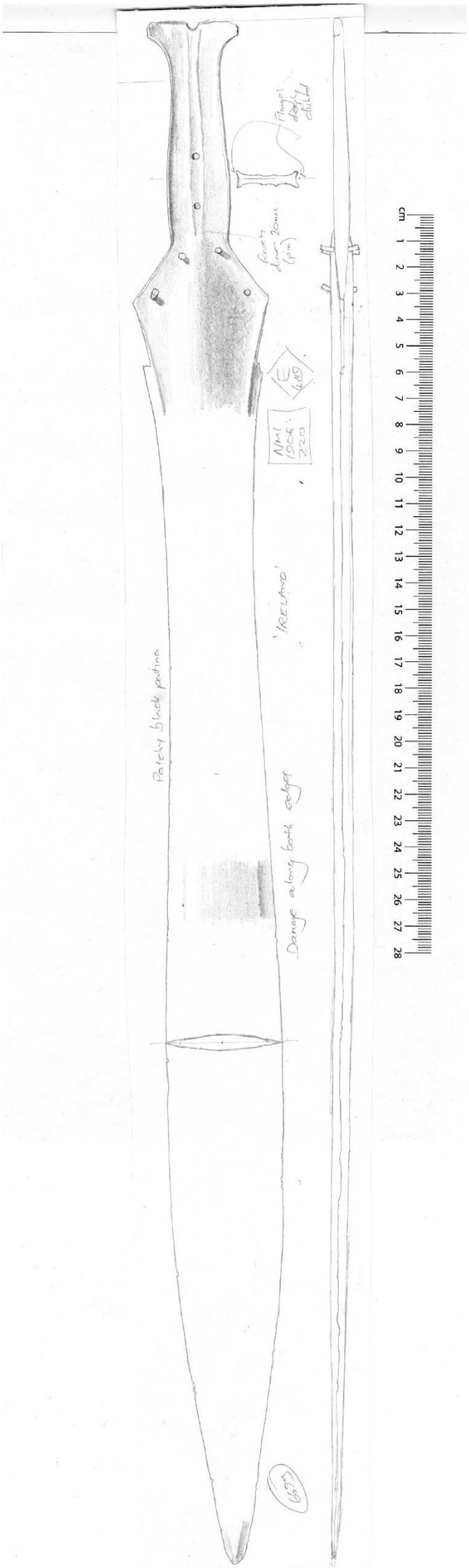
486



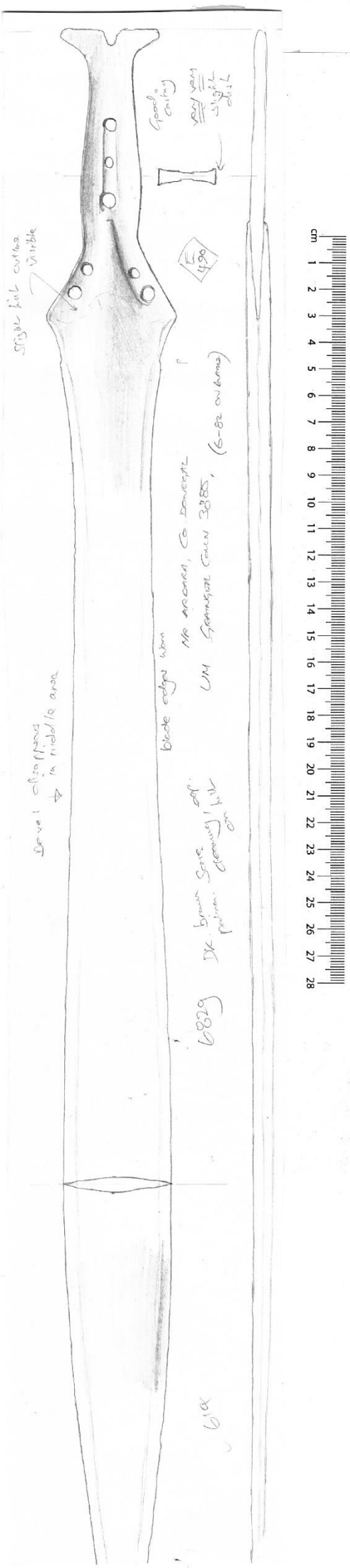
488



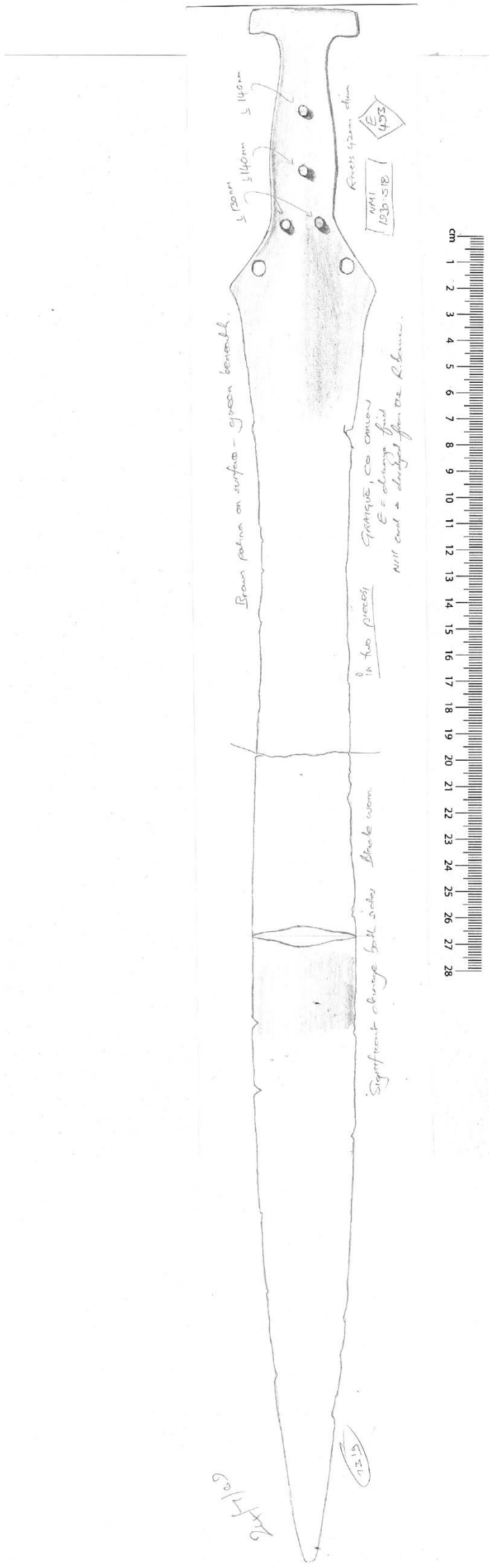
489


Patchy black patina
'IRELAND'
Damage along both edges
NMI 1904: 220
4.89
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

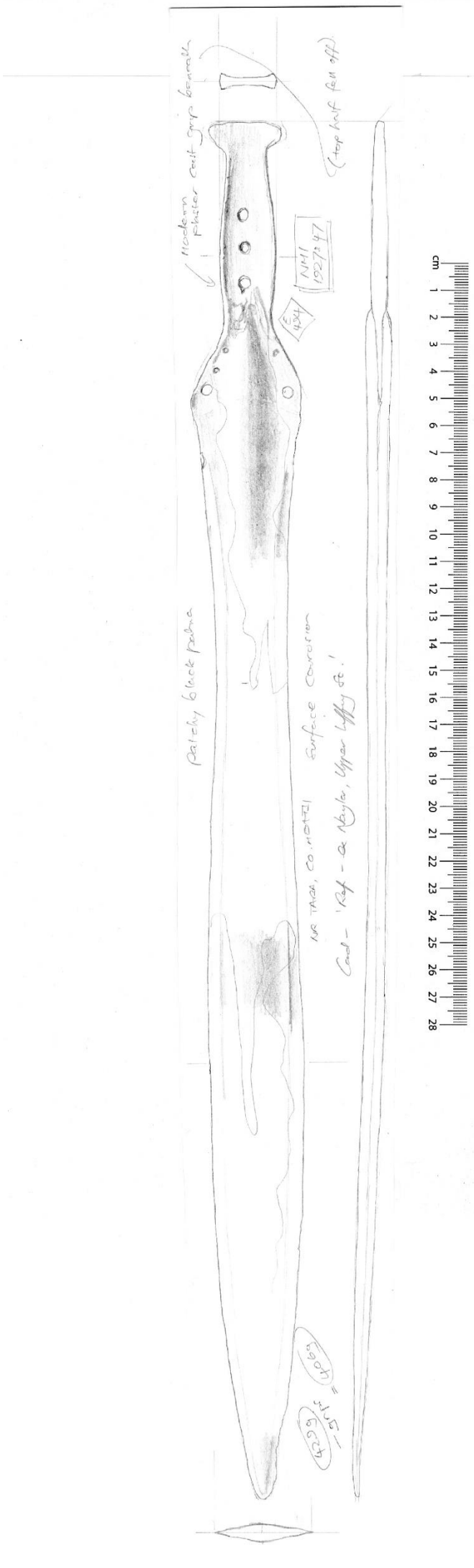
490



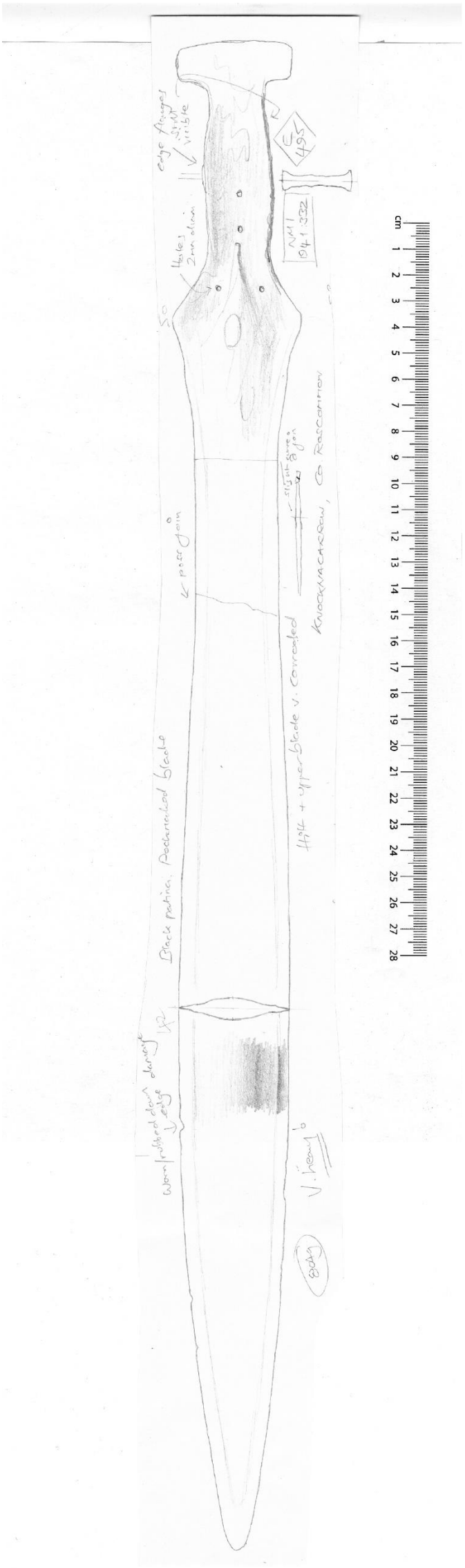
493


Brown patina on surface – green beneath
L 130mm
L 140mm
L 140mm
Across 42mm diam
E453
NMI
1936.518
GRATIQUE, CO CARLOW
E = chainage finish
Will need a shadow from the R beam
In two pieces
Significant chainage both sides
Blade worn
13.15
9x4.5cm
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

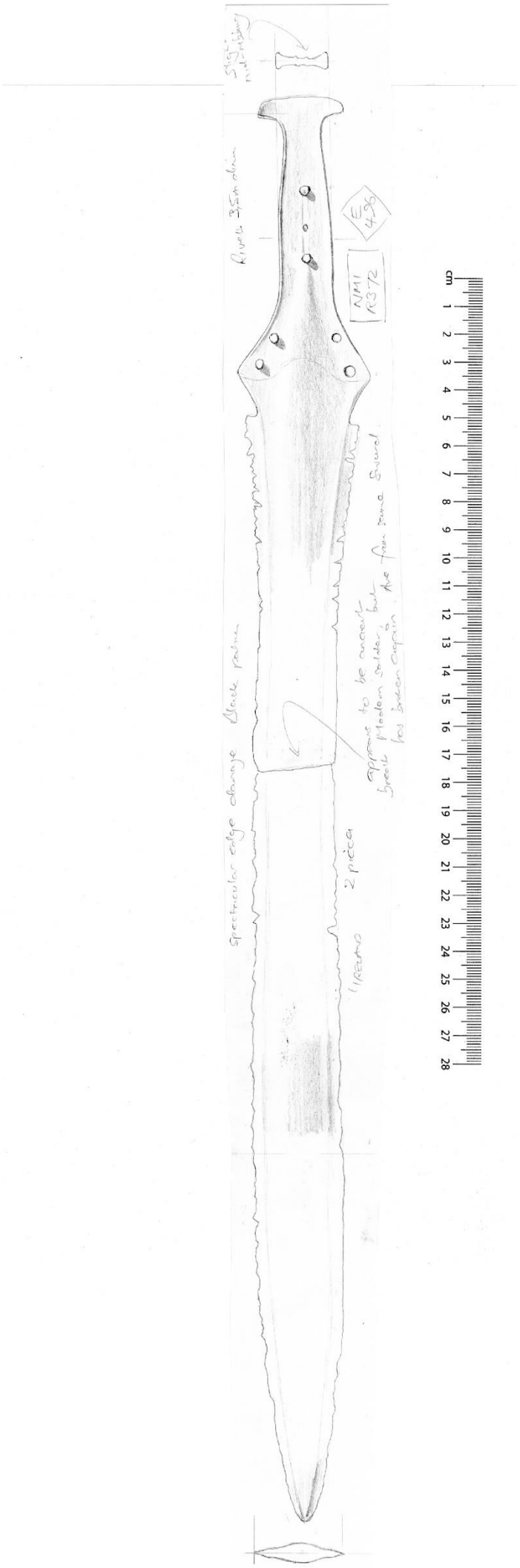
494


Modern plaster cast grip boundary
(tape half off)
NMI 19270 47
Patchy black patina
Surface corrosion
NR TAIGA, CO. MONTE!
Cast - 1 Ref - Ct Nbyler, Upper Lyttle ft.!
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

495

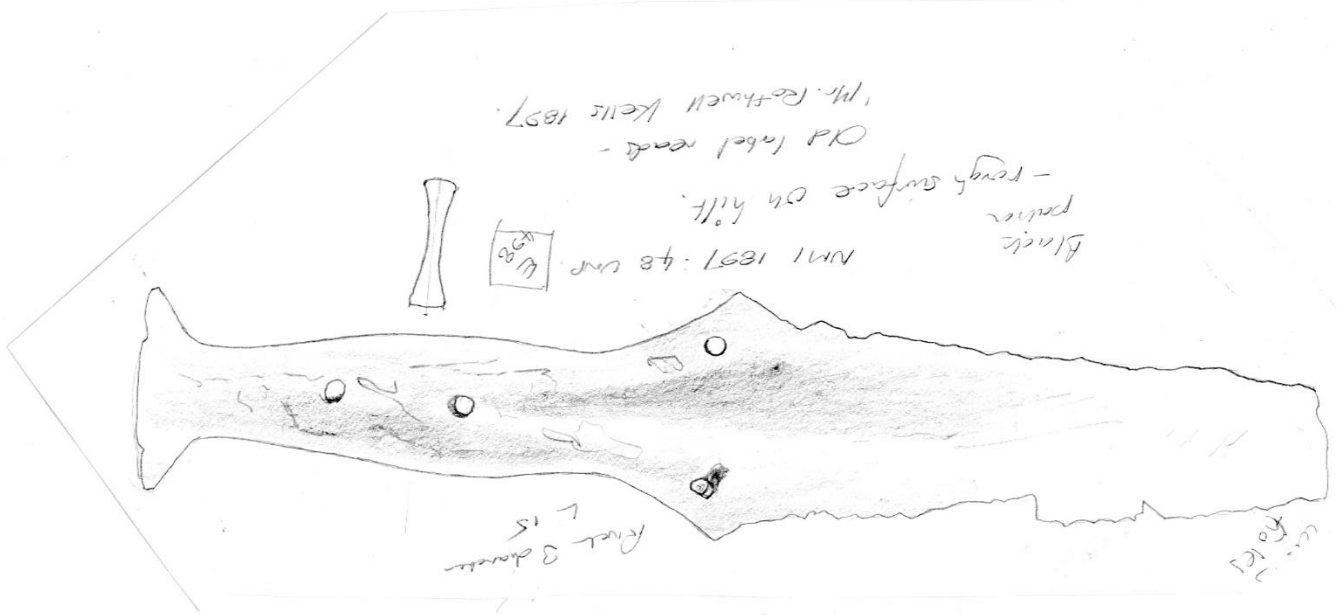

495
NMI 1941:332
Holes 2mm diam
Edge flanges slightly visible
Black patina. Patinated blade
Hilt + upper blade v. corroded
Knockmacarrow, Co Roscommon
V. heavy
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

496


Rivets 3.5cm plan
E 436
NMI R372
Spectacular edge damage Blade patina
Appears to be modern
break Modern Solder
Not broken Original
Ant Iron Sword
2 pieces
HILTGUARD
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

497

CM 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21
Complete
fragment
bz common
Kisuala, Co. Kitui
497

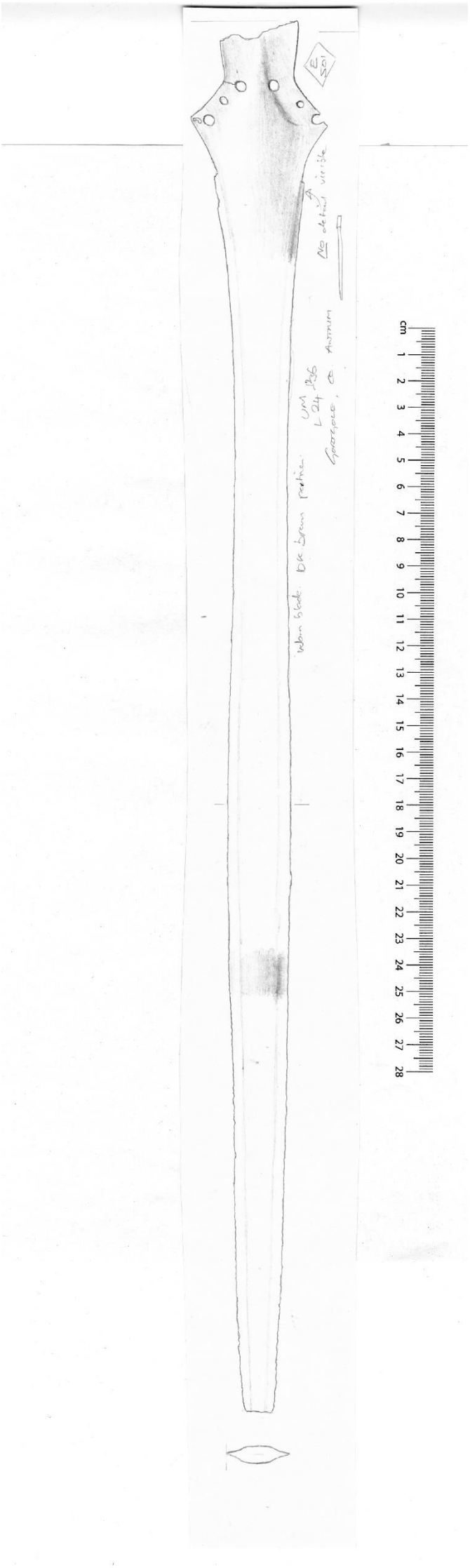


498

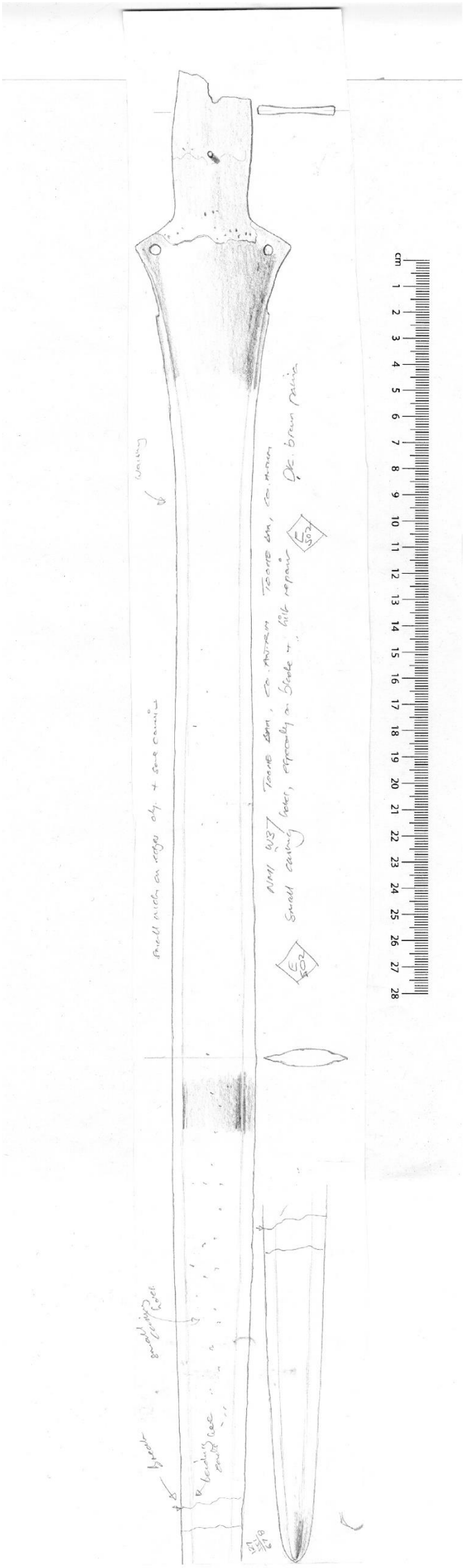
500


cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
REPLICA?

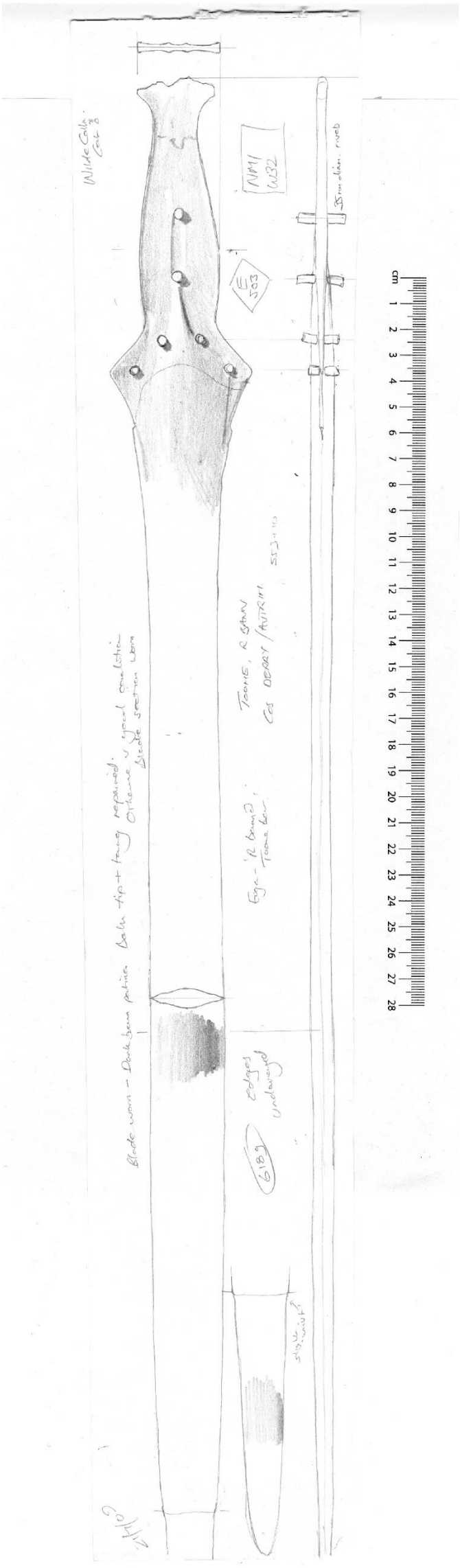
501



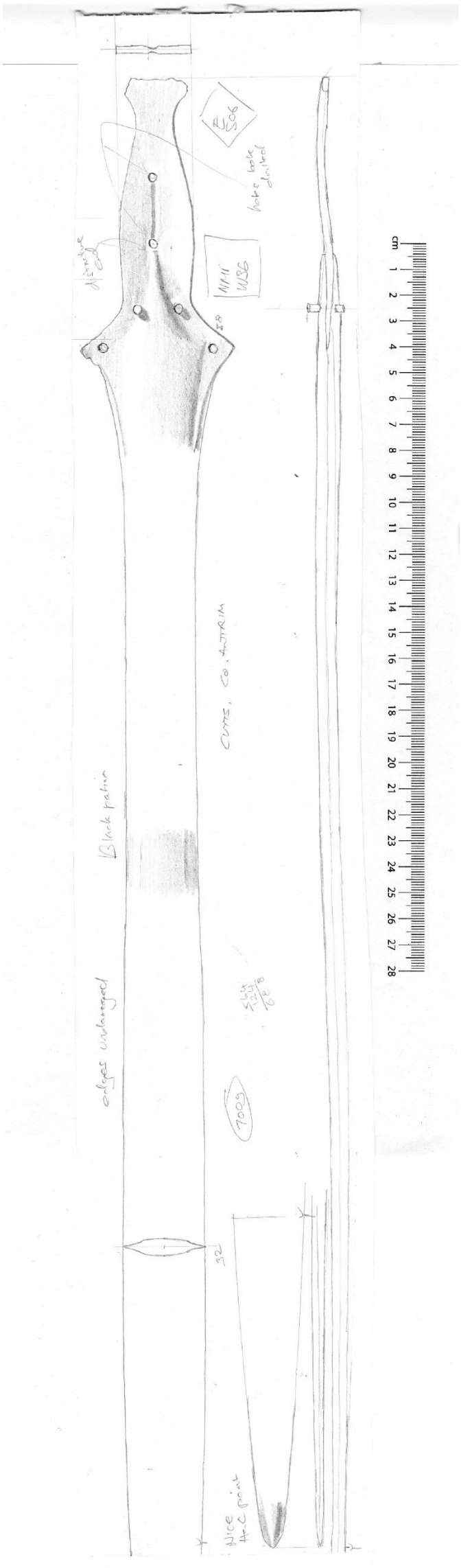
502



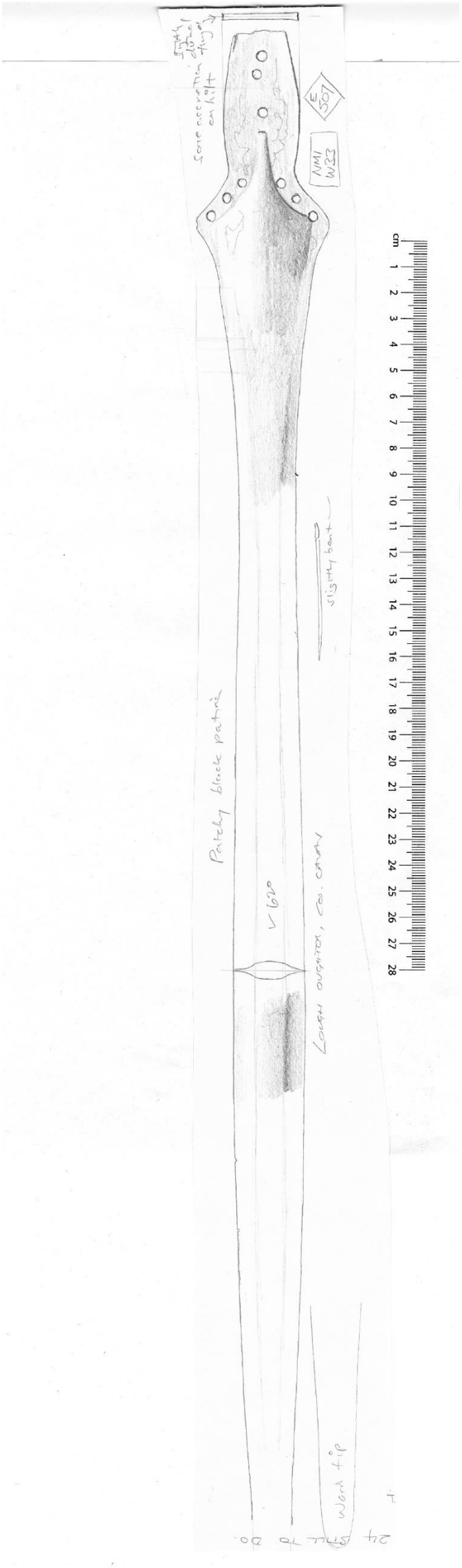
503


Wilde Collection
Cat B
NM1
W32
E
503
Blade worn – Dark patina
Scarf tip + toe repaired.
Extreme V groove evolution
Straight section here
Toone, R Shan
Ex DERBY / AUTRY
Eye – 'R bend'
Toone bow
SS3+10
Edges
Undamaged
618.9
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

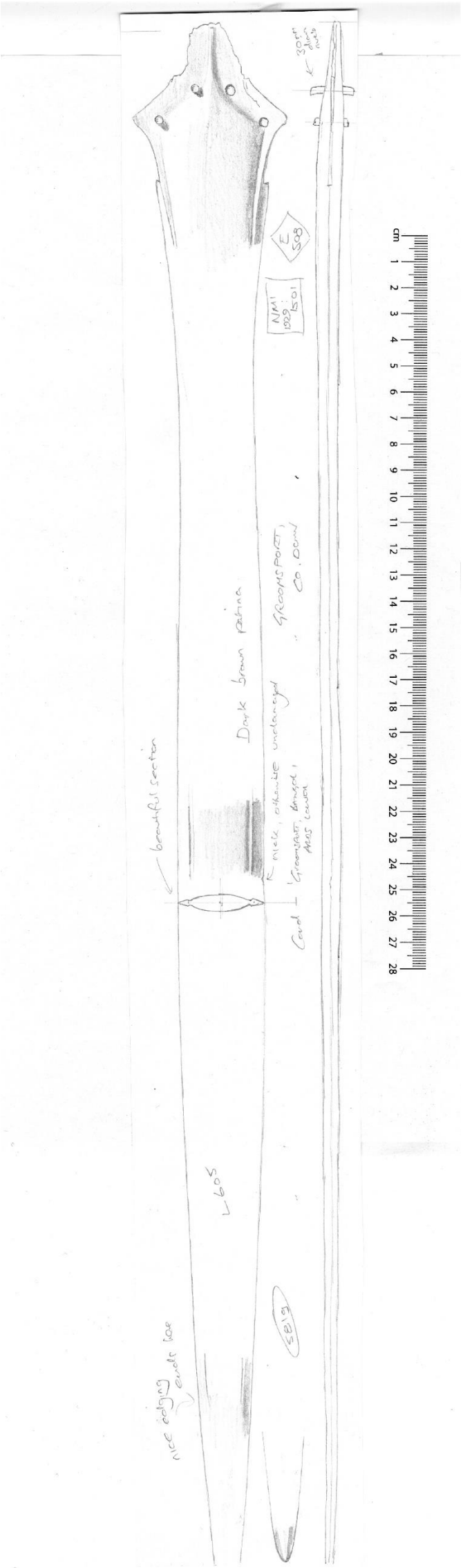
506


cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
EJ 506
MHI WBG
CUTS, CO. ANTRIM
Black patina
edges unlavaged
7009
32
Nice thic point

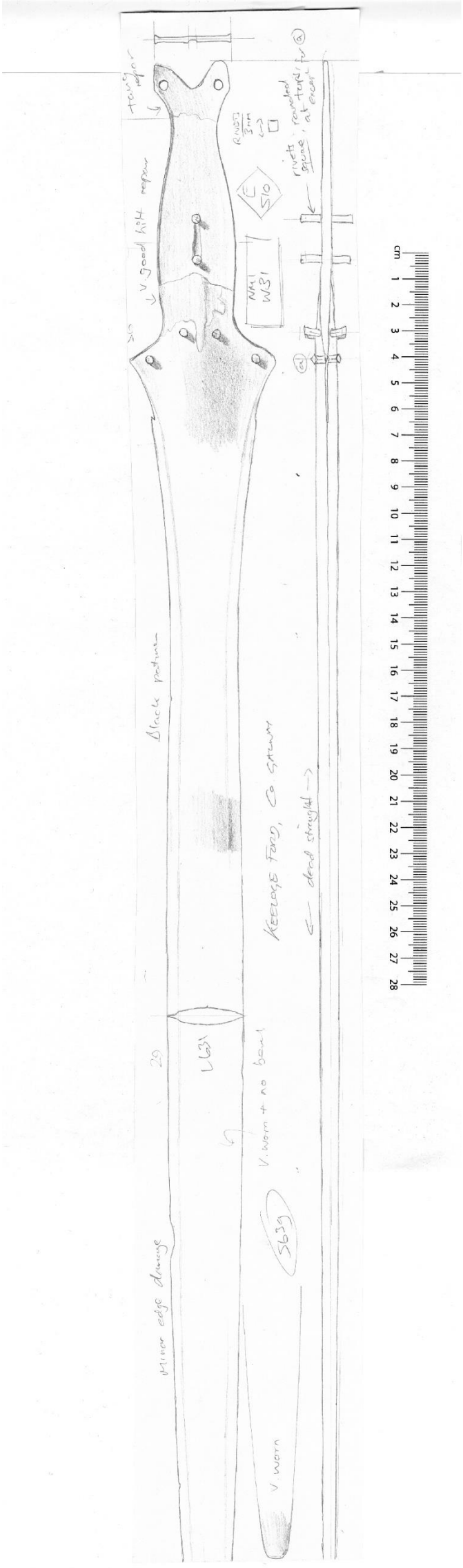
507


NMI
W33
slightly bent
Patchy black patina
Rough surface, esp. cavity
Worn tip
cm

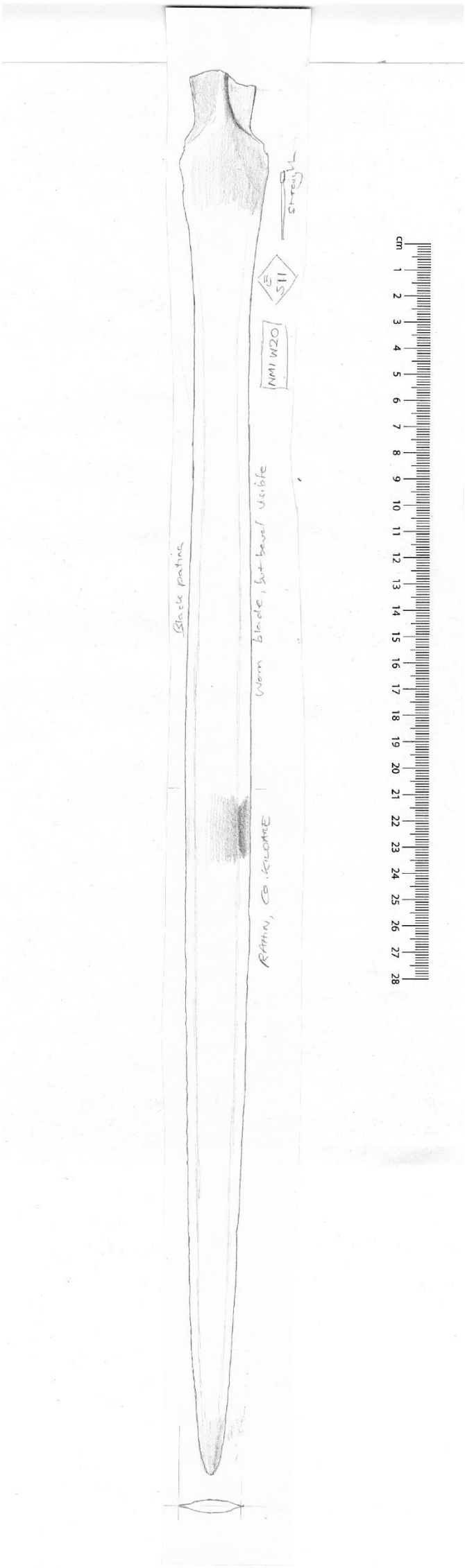
508


E 508
NMAI 129501
Dark brown patina
Groom's point
Cool
L605
SE19
cm

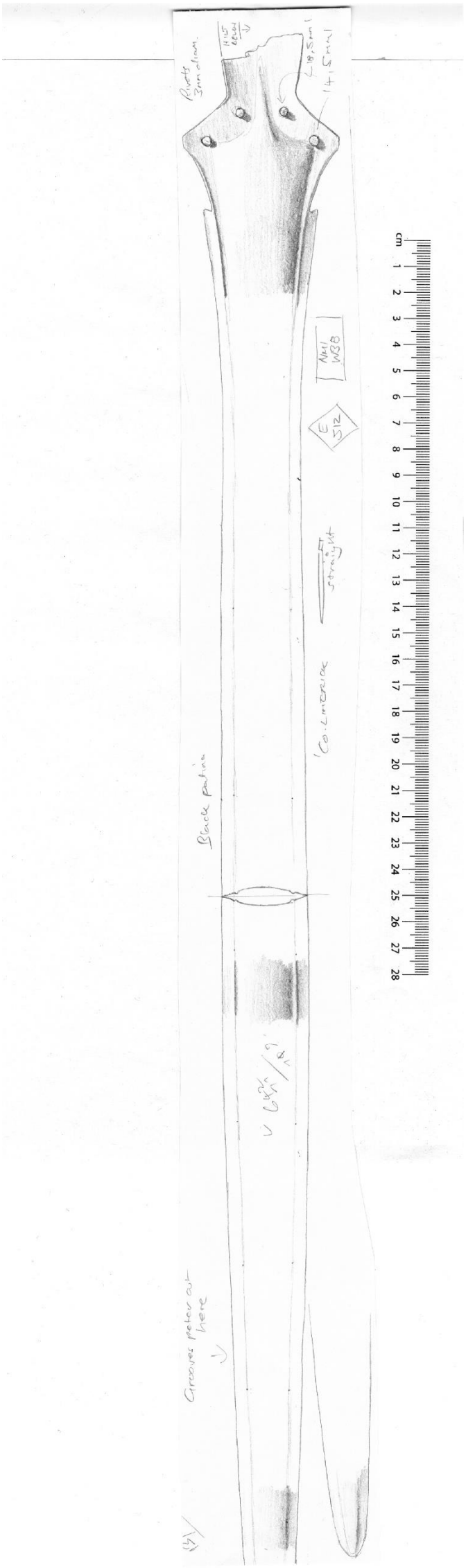
510


heavy taper
V. Good RH taper
Knife pattern
KEELOGE ford, to stump
dead straight
V. worn + no bend
V. worn
cm

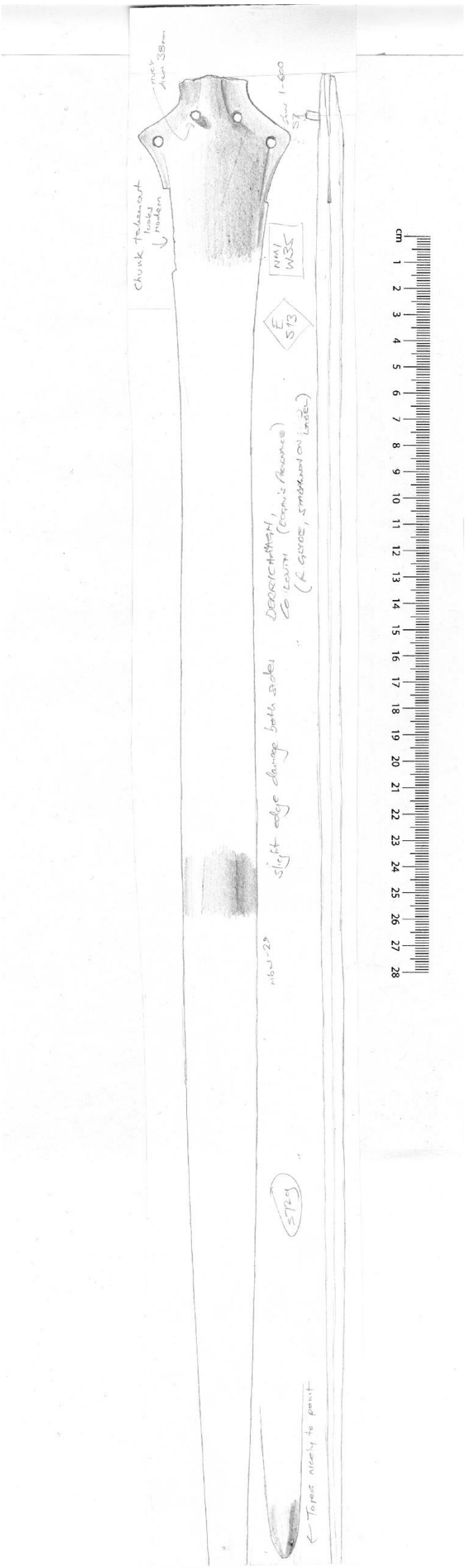
511


Slaty patina
worn blade, but base visible
RATHIN, CO. KILDARE
NMI W20
S11
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

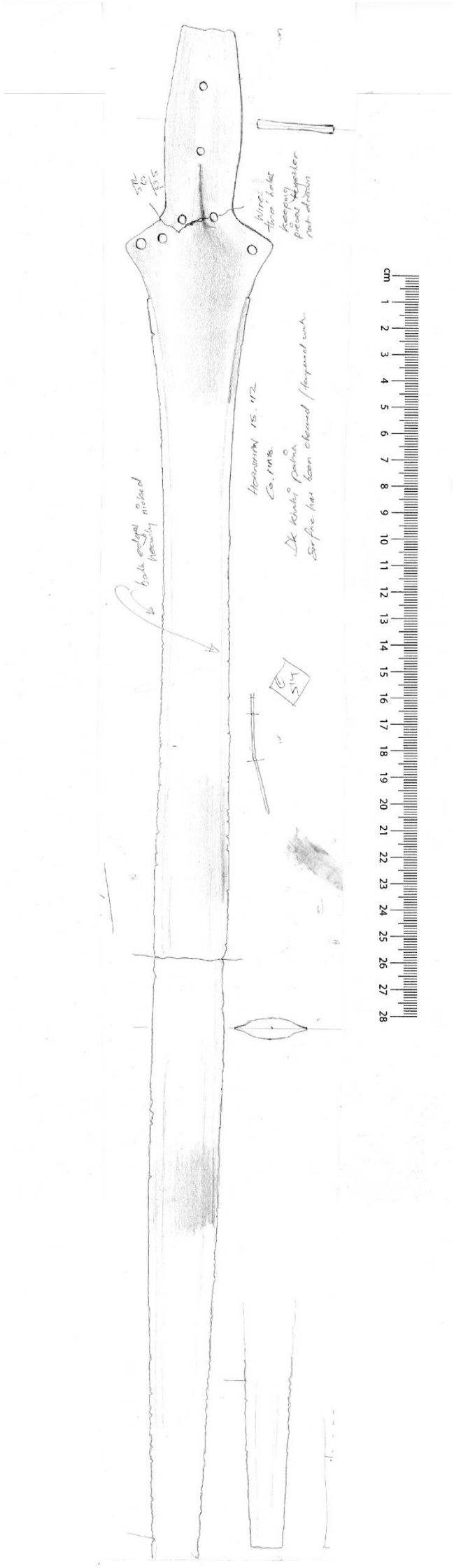
512



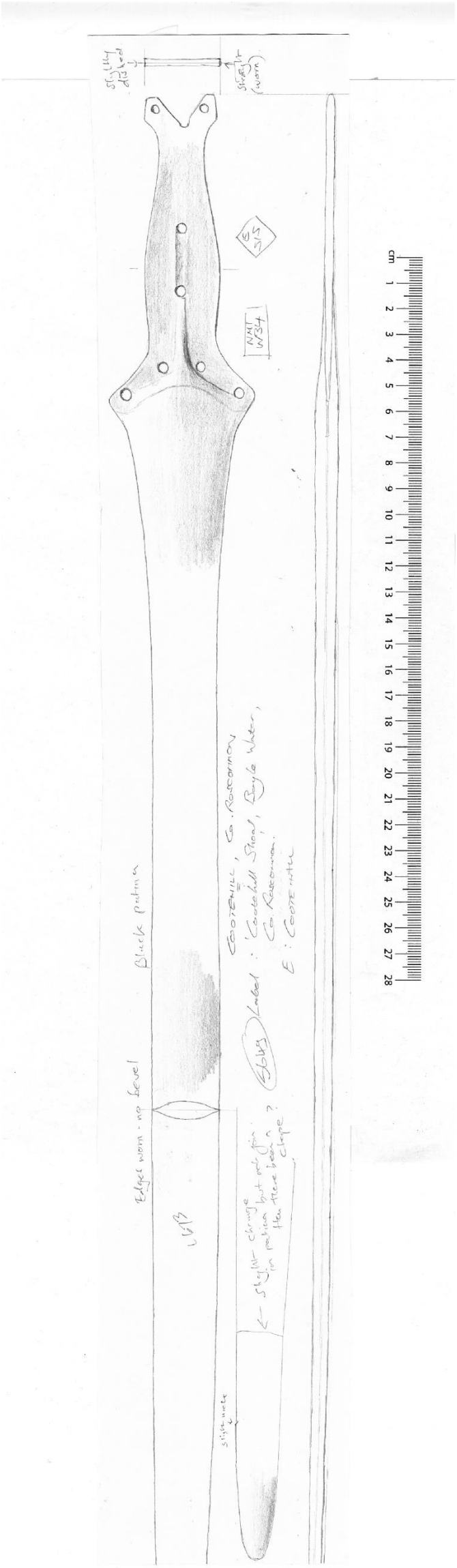
513


chunk fishhook
looks modern
slight edge damage both sides
cm

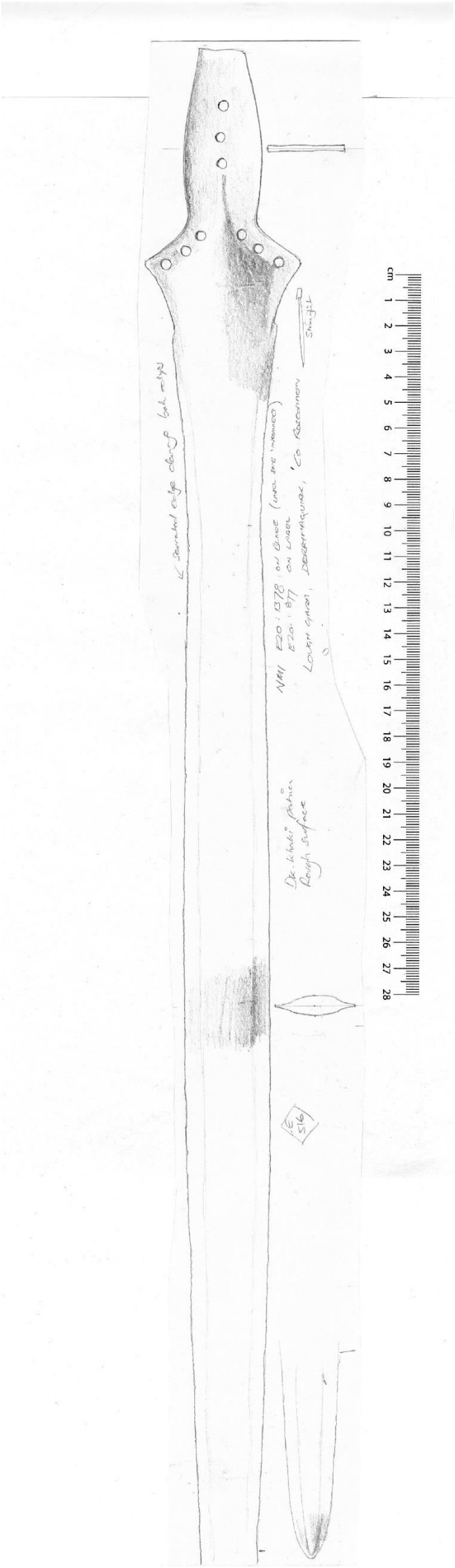
514



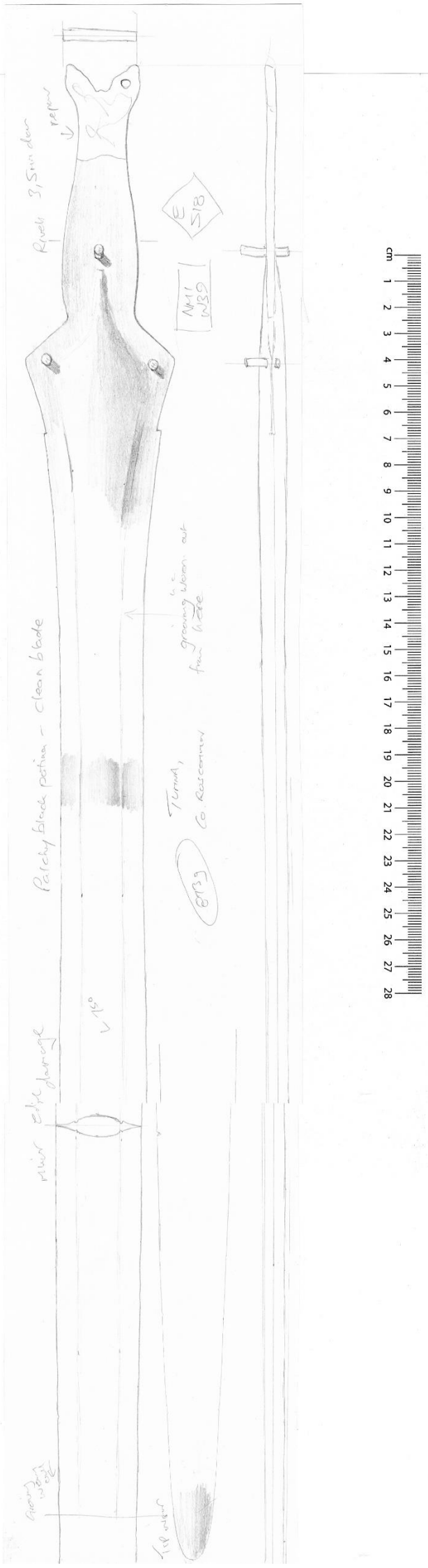
515


Blade pattern
Edges worn - no bevel
Goodhill, Co. Roscommon
Goodhill Shaad, Boyle River,
Co Roscommon.
E: Coote Hall
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

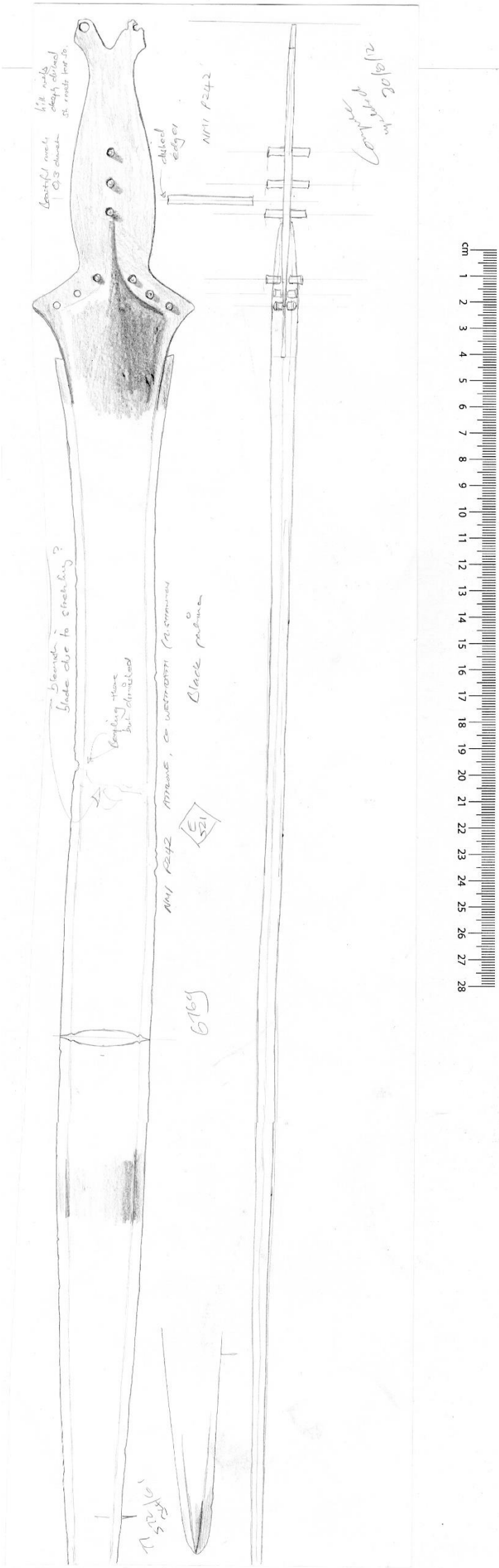
516

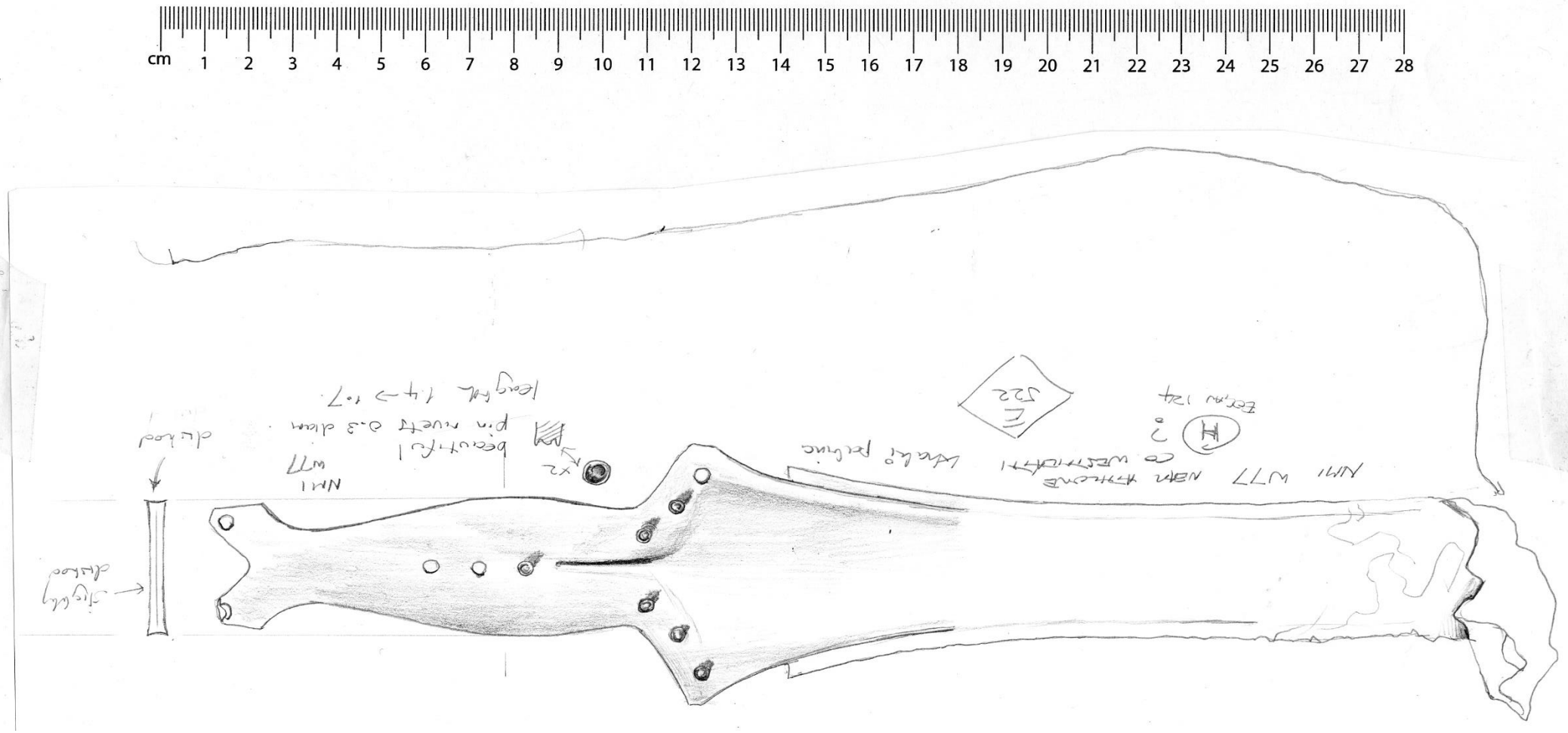


518


Apply 3/5mm dow
repeat
E
S18
No11
W35
grooving wear out
from here
Turn,
to Rescreen
EP93
Parchy blade portion - clean blade
15°
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

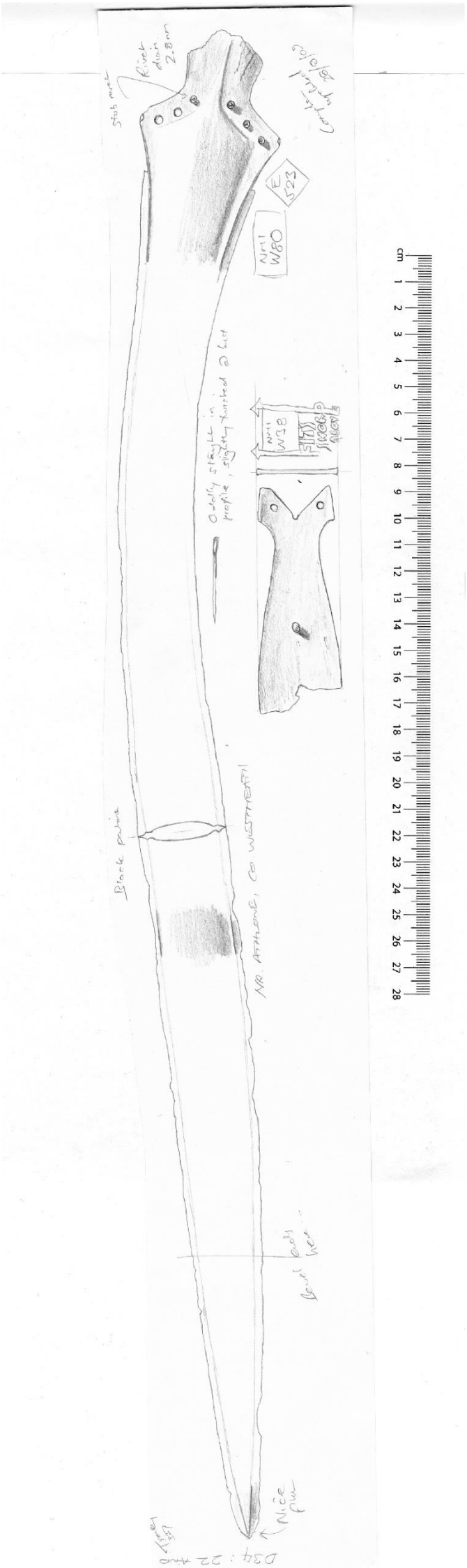
521





522

523


Rivet plain 2.8mm
Stub mast
E 523
NR11 W80
Carefully straighten profile, slightly twisted @ butt
NR11 W98
FLAT SWORD ALLOY
Black paint
NR ATHLONE, CO WESTMEATH
Nice flow
D24 : 22 mm
cm

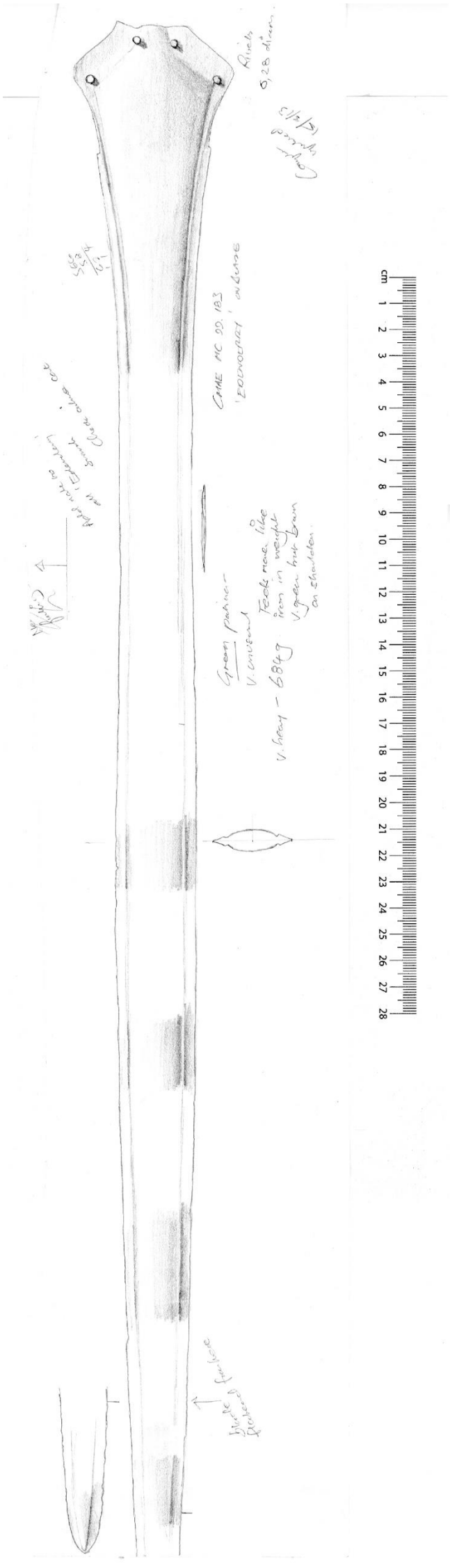
524

4" Solder
Crack
4" Solder
UNP.
UM 3880 (G.11)
Granular coal.
E 524
Paper or Hair blade?
Dk brown / olive green paint

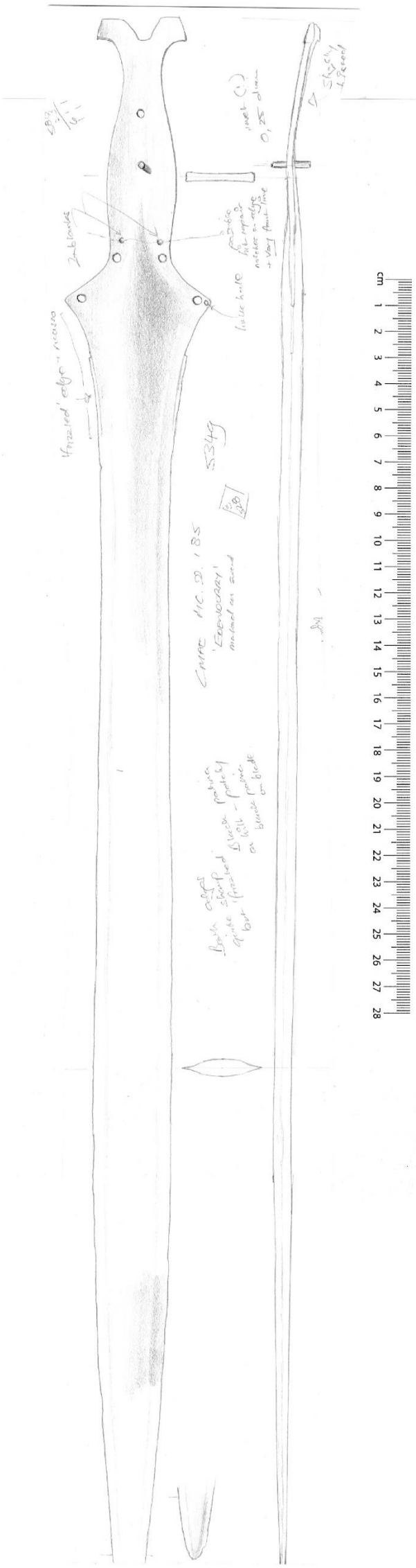
525

Ox brain patina
UM 475 : 1937A
Nice Hero blade
Bending sturdy tee
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

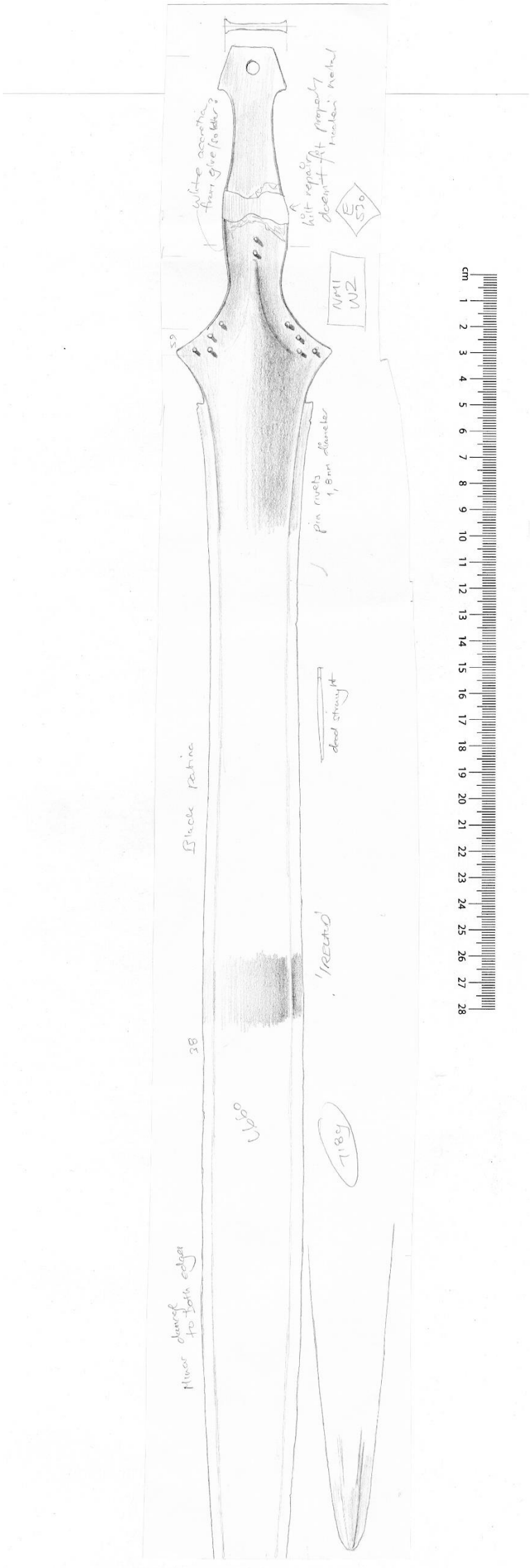
527



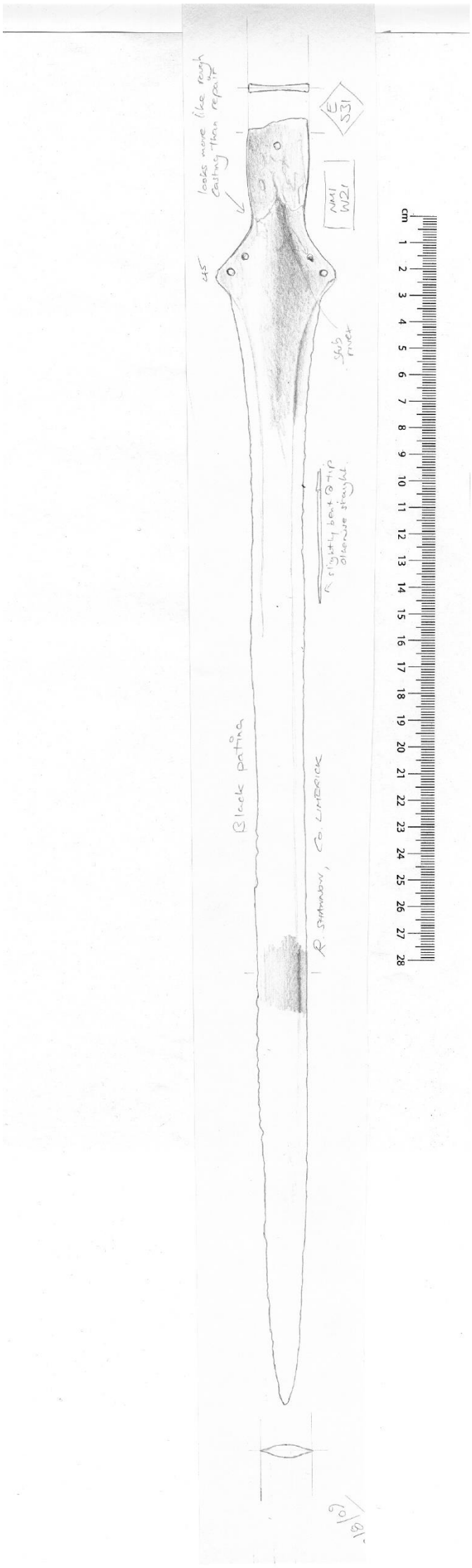
528



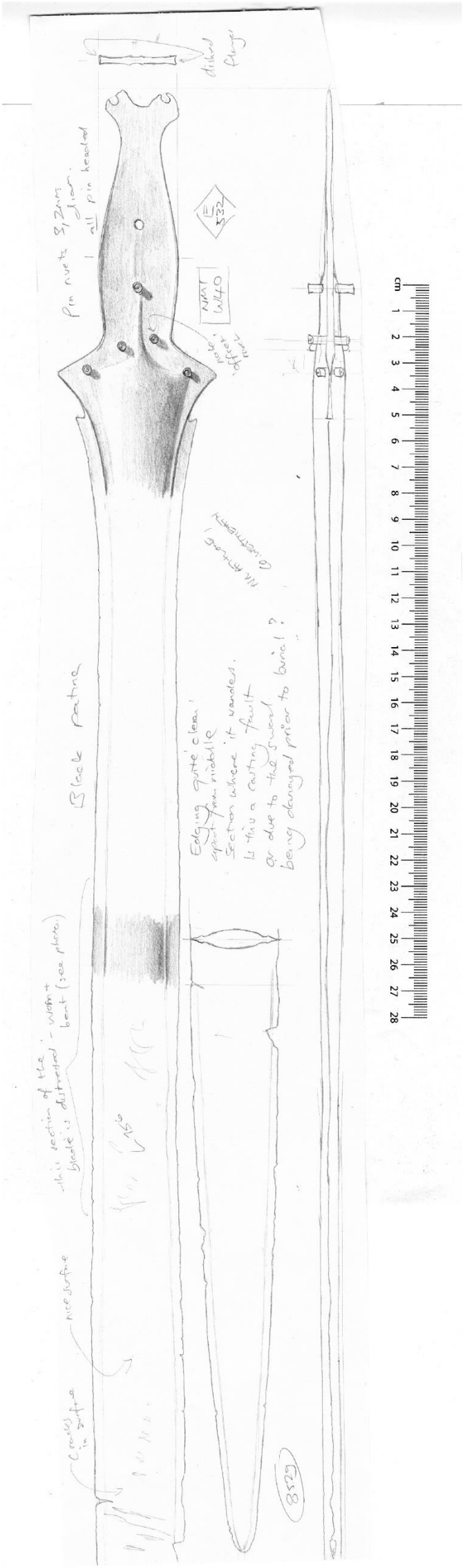
530


cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
Pin rivets
1,8mm diameter
dead straight
'RECURVE'
38
Linear damage
to both edges

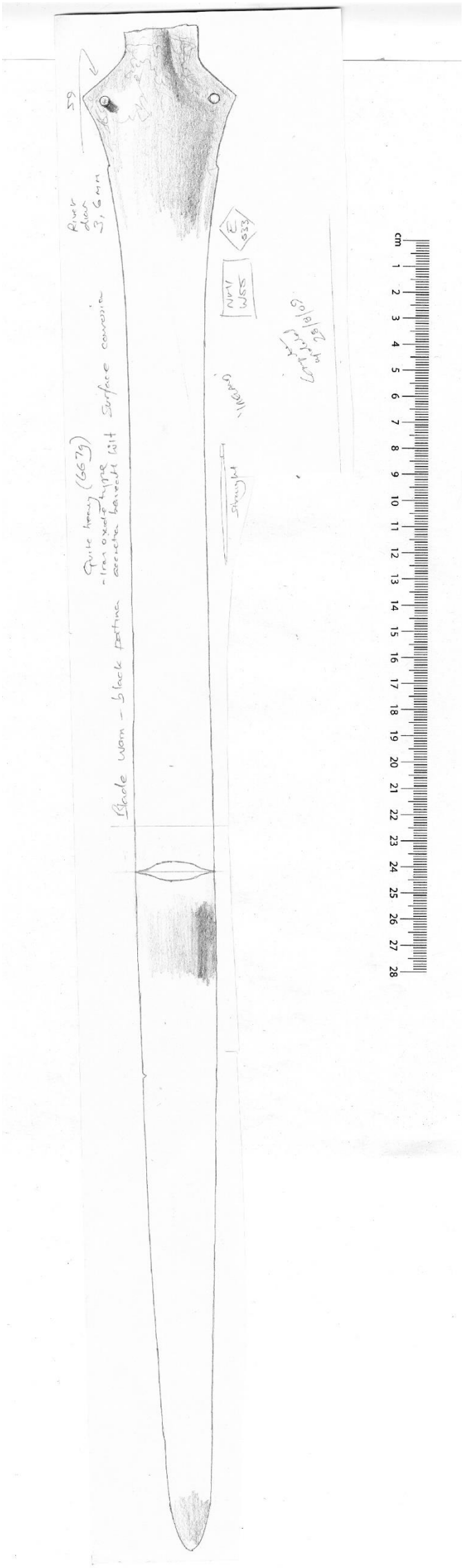
531

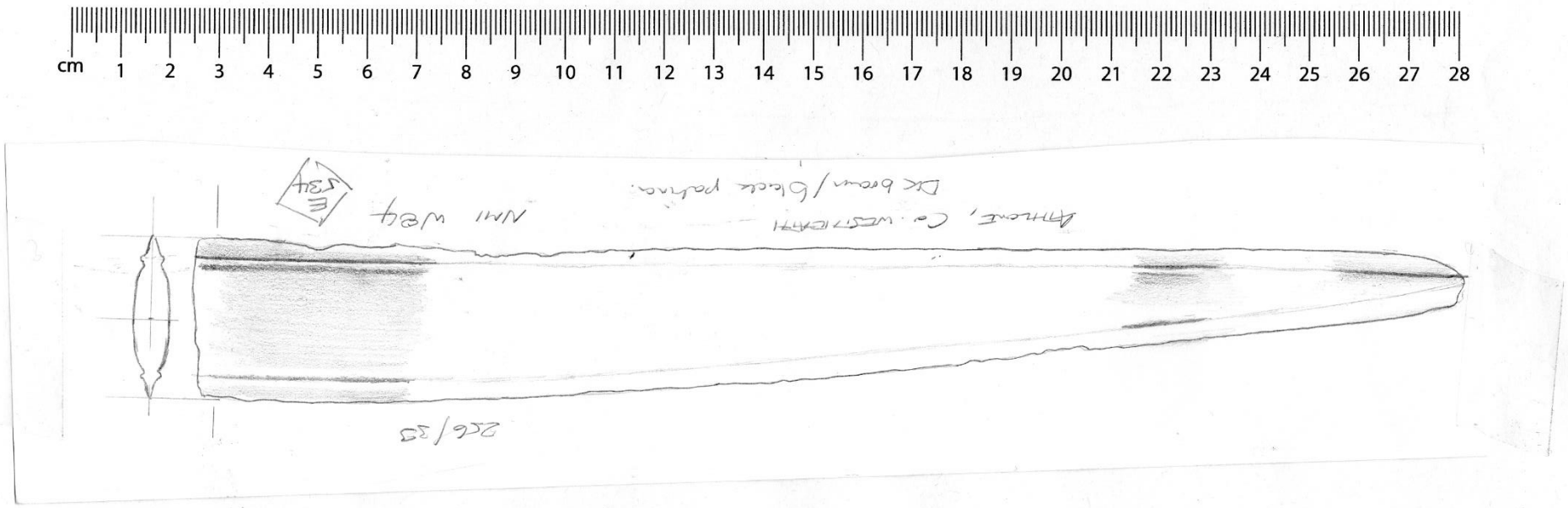

looks more like rough casting than repair
E 531
NMI W21
slag inclusion
slightly bent @ tip otherwise straight
black patina
R. SHANNON, CO. LIMERICK
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

532


Pin rivets S/Zamil
all pin headed
Blade rating
Edging quite clean
apart from nibble
Section where it wanders.
Is this a casting fault
or due to the sword
being damaged prior to burial?
cm

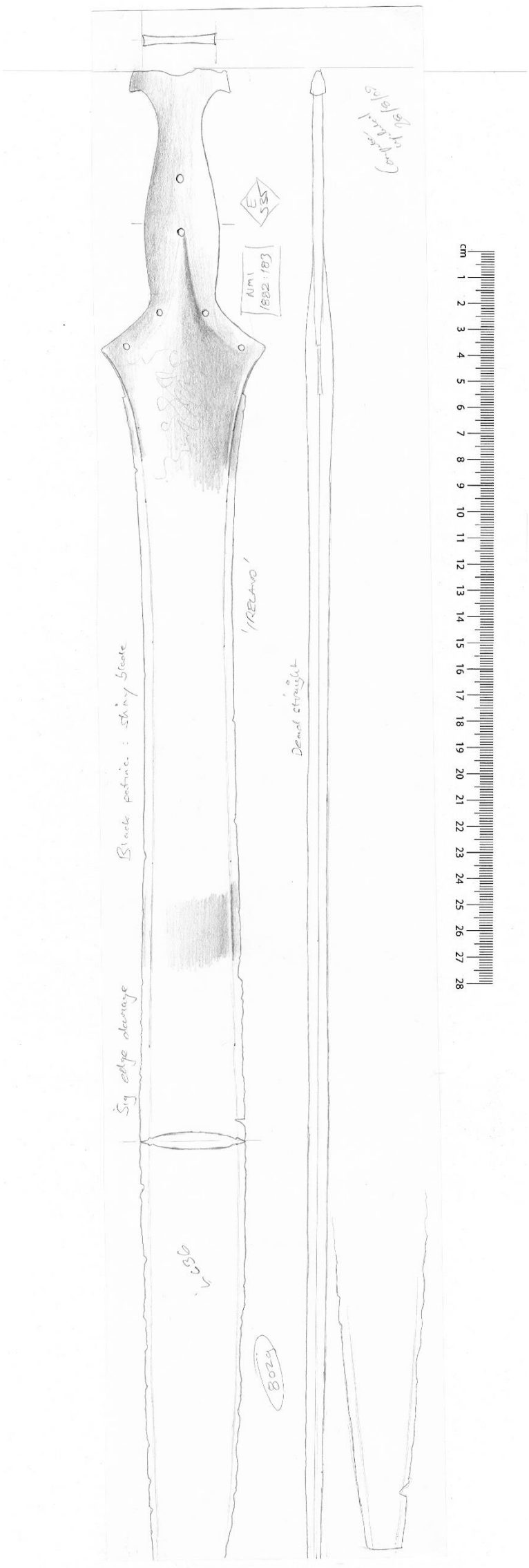
533





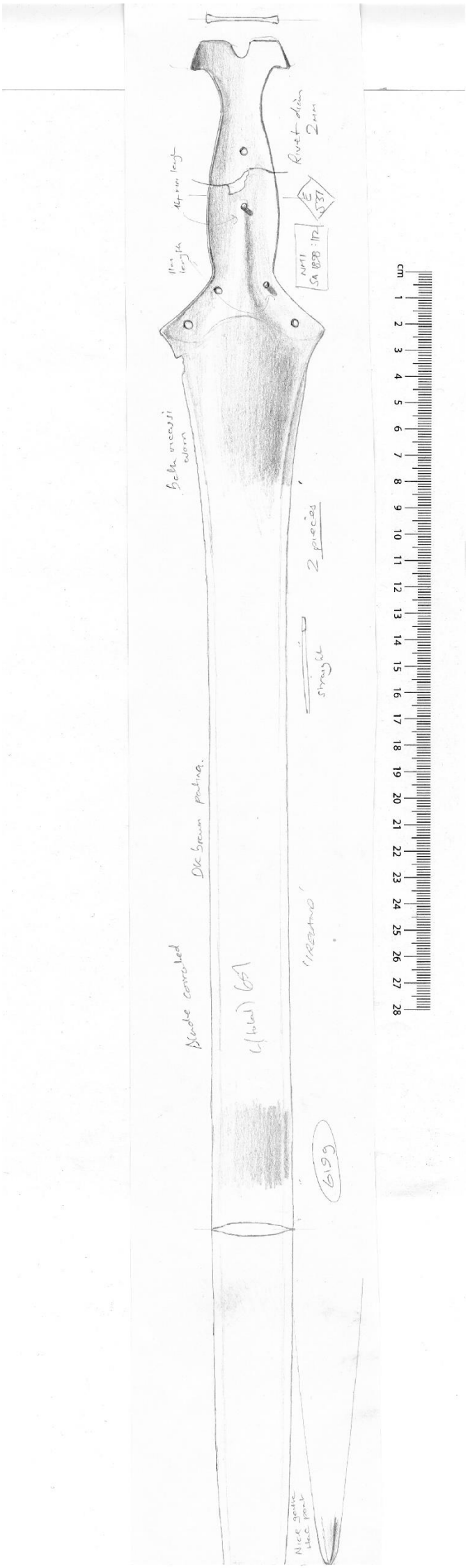
534

535

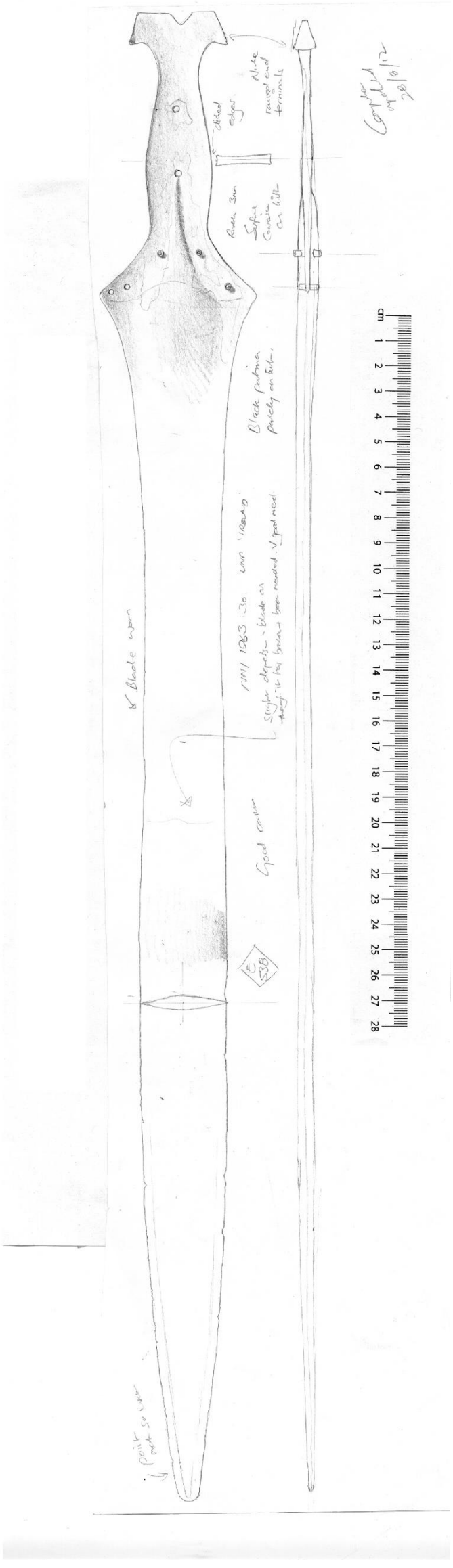

NMI
1882:183
'IRELAND'
Black patina : shiny blade
Sig edge damage
Dead straight
802a
cm

536

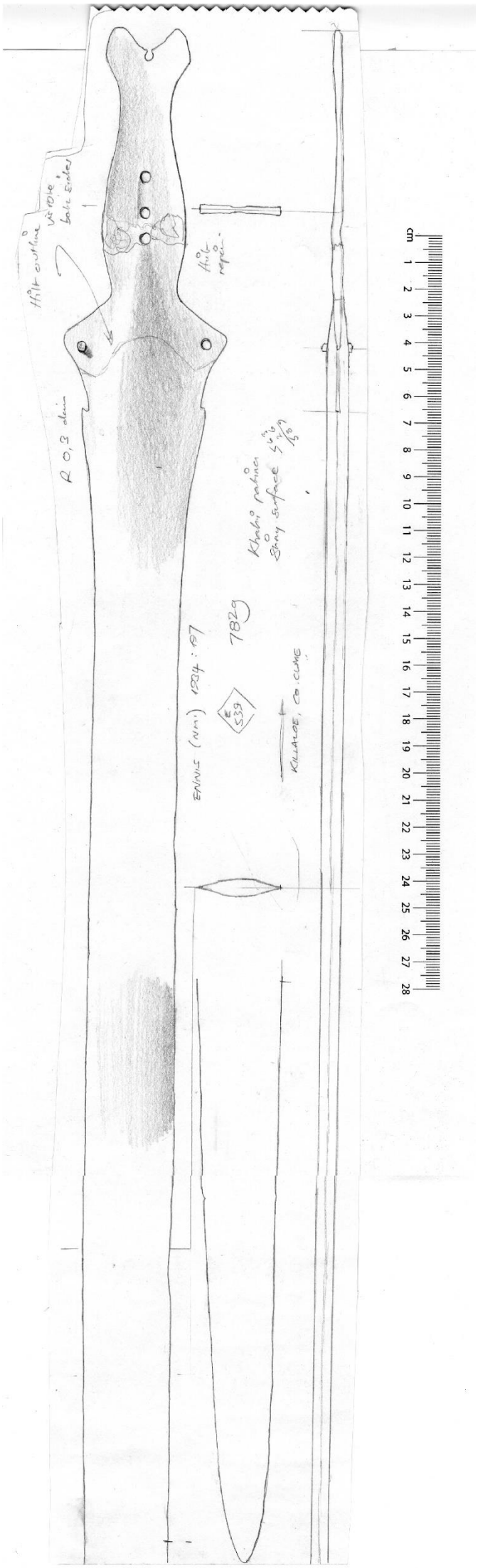
537


Rivet dia 2mm
46mm long
11cm length
NMI SA 1838 : 172
Bevelled groove
2 pieces
straight
Die sawn marking
Blade corroded
(Hilt) 69
Irregular
6199
Nice gentle line from

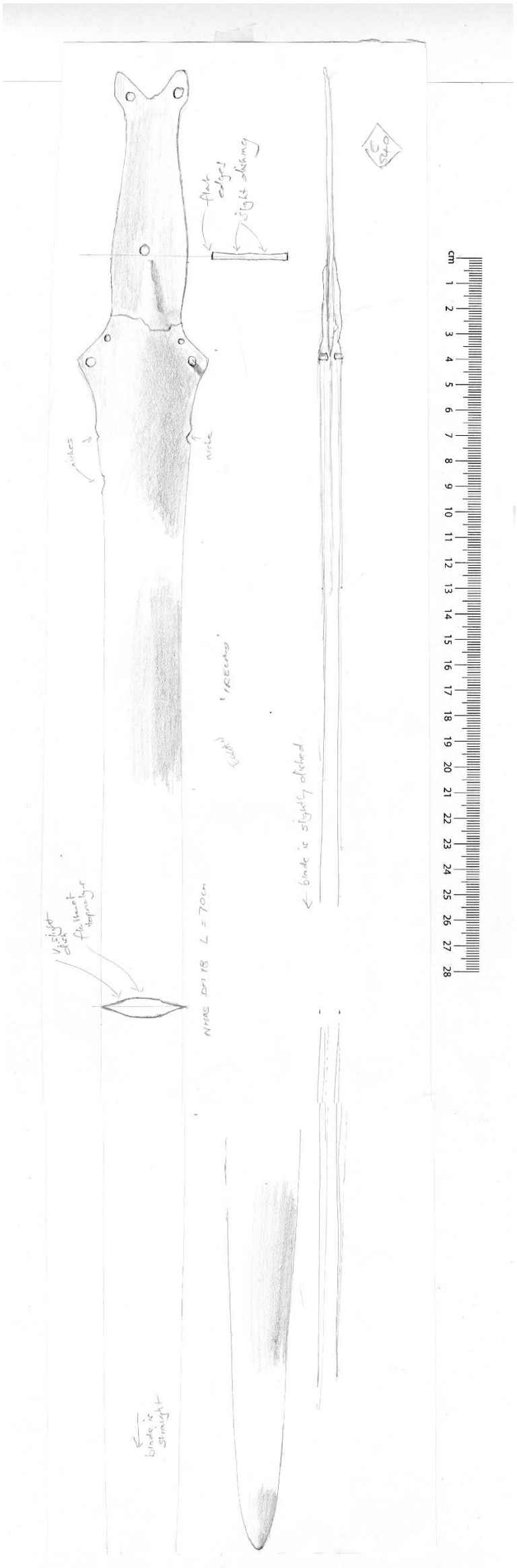
538



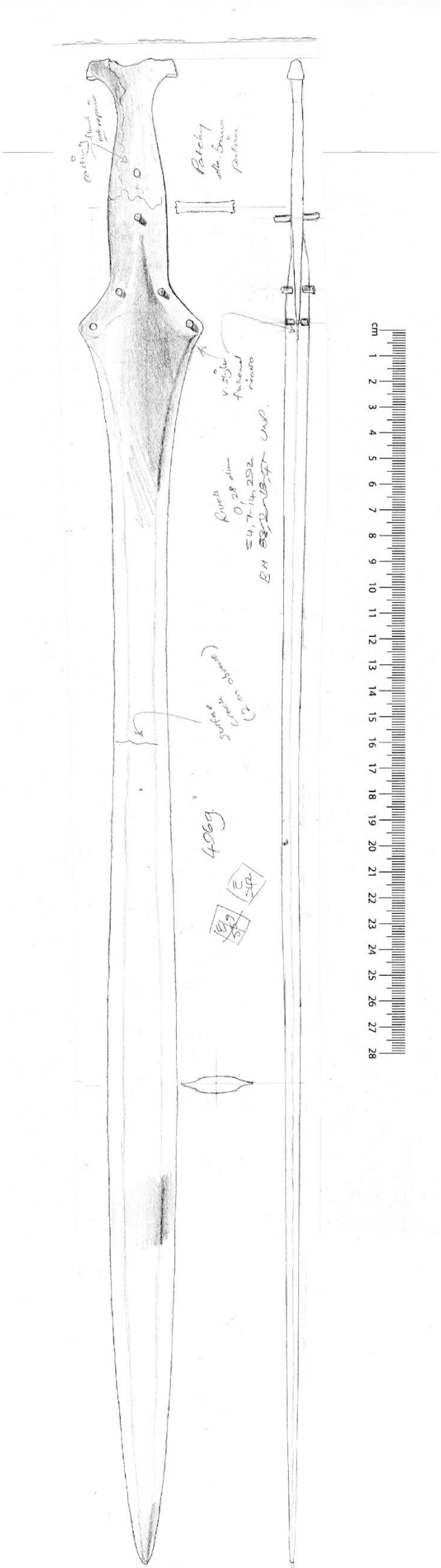
539


cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
R 0,3 diam
7829
E 539
ENNIS (NIM.) 1984 : 197
KILMACOE, CO. CLARE

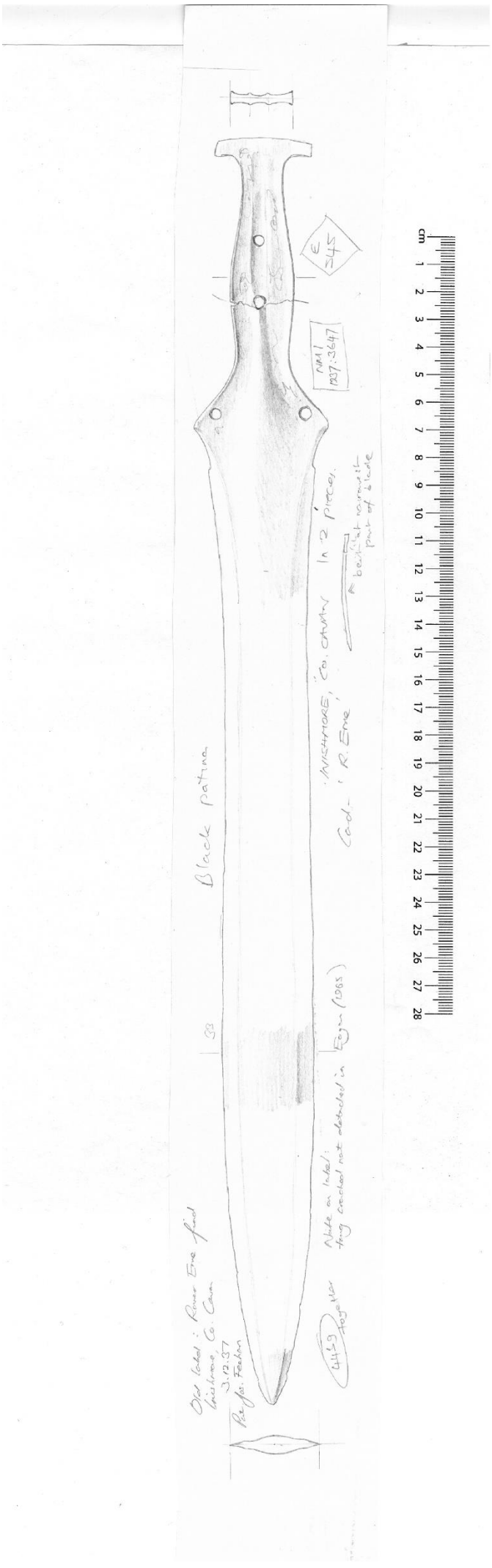
540


flat edged
slight slanting
nicks
nicks
'reeded'
blade is slightly arched
Visor slot
Attachment tang hole
L = 70cm
blade is straight
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

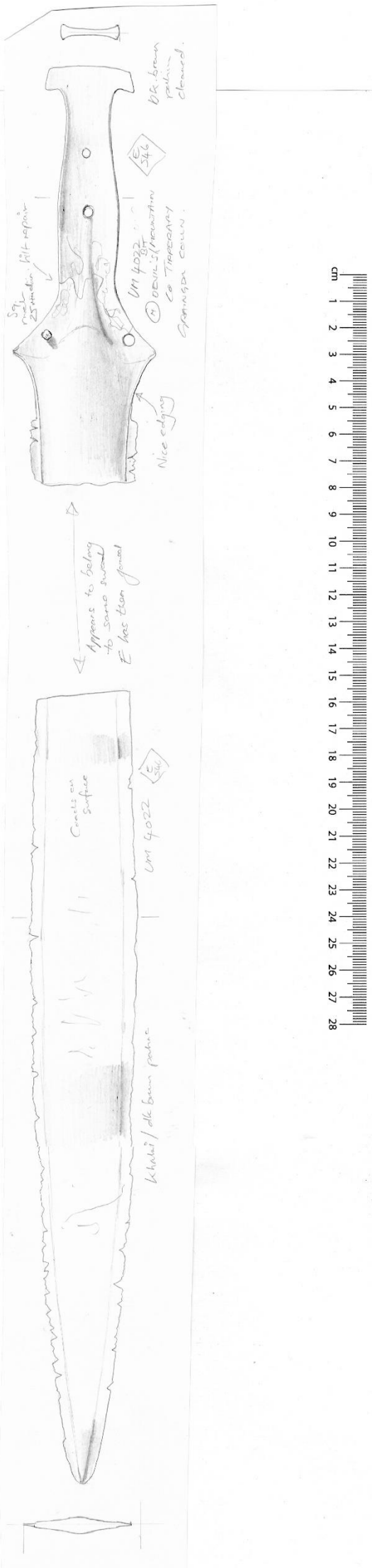
542



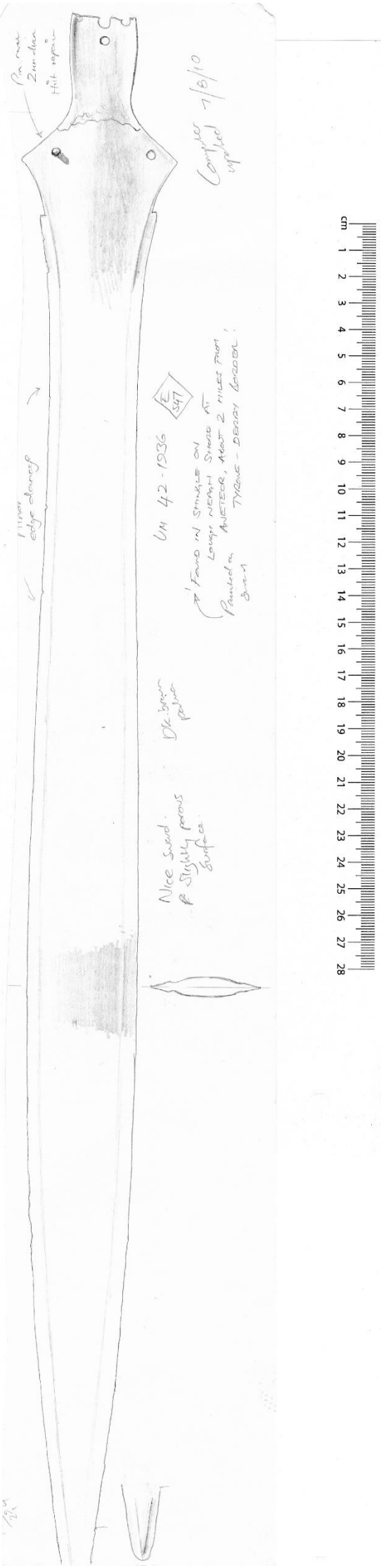
545


Black patina
Old label: Roman Iron Sword
Egypt (1065)
Note on label:
Frog cracked not detected in
Acquired
cm

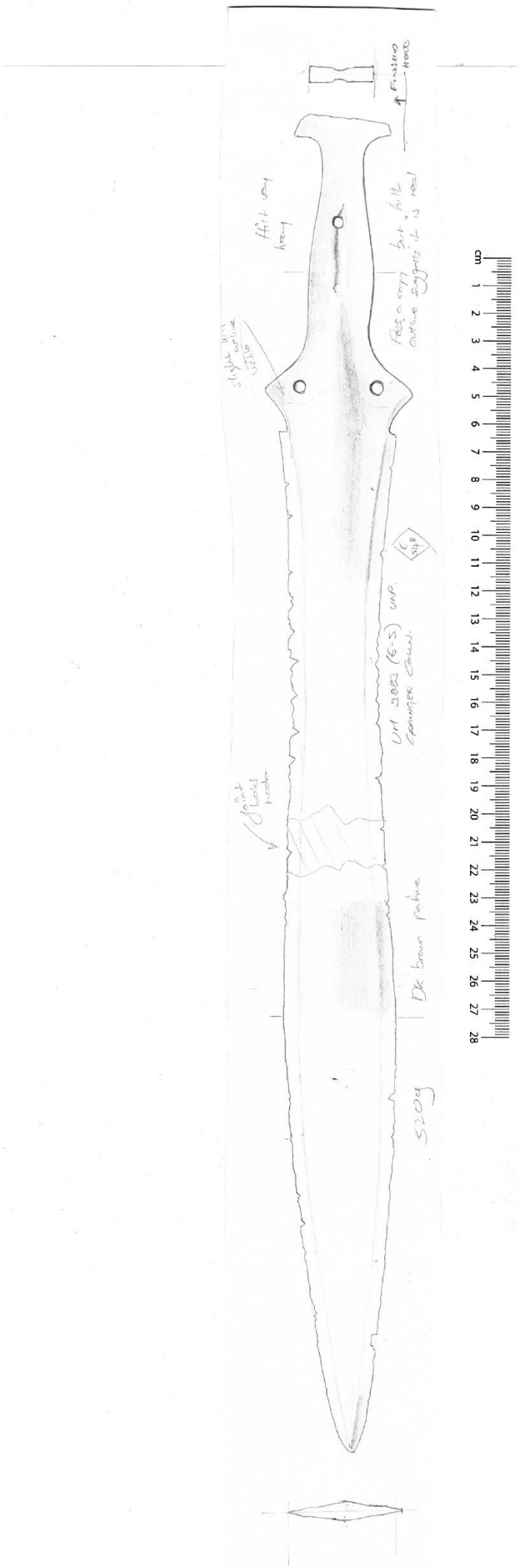
546


546
UM 4022
Nice edging
Appears to belong to same animal
UM 4022
Khaki / dk brown patina
cm

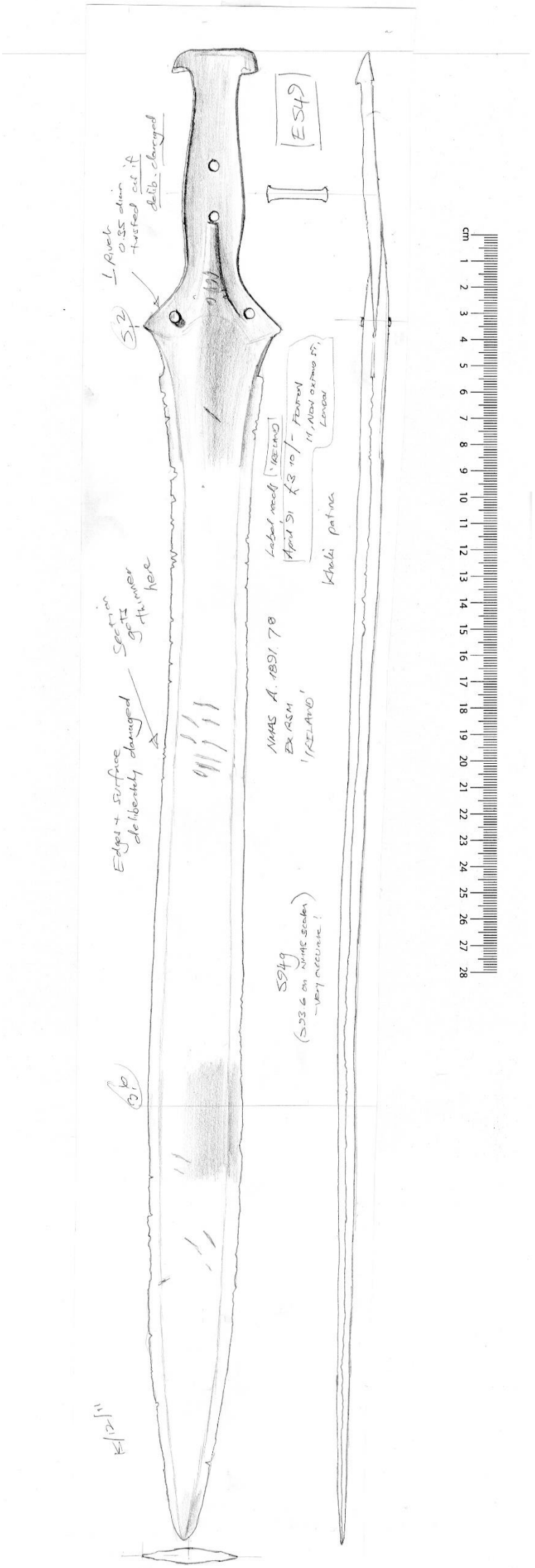
547


Pin new
2mm diam
Hilt repair
Complete 7/8/10
Upfiled
Upper edge damage
UM 42-1936
E 547
'Found in Stables on Lough Neagh Shore At Lough Neagh, About 2 miles from Portadown, Armagh, Tyrone - Derry London'
Dk brown patina
Nice sword.
Slightly porous surface
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

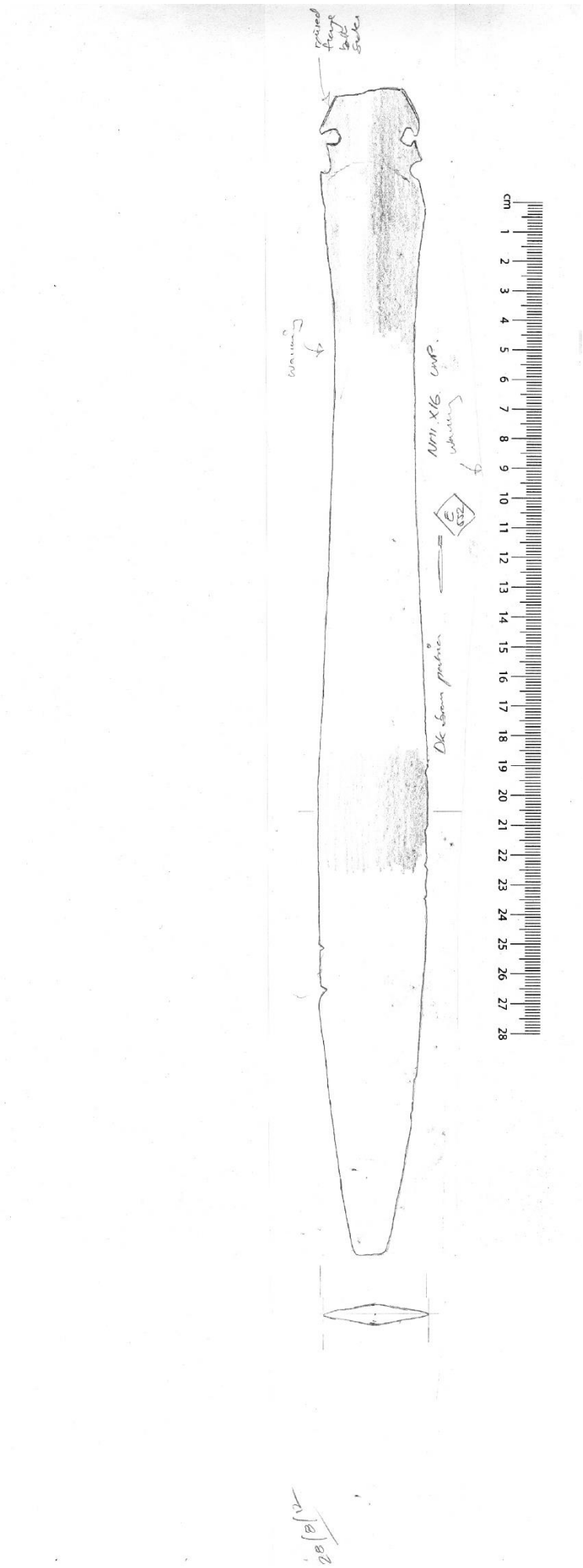
548



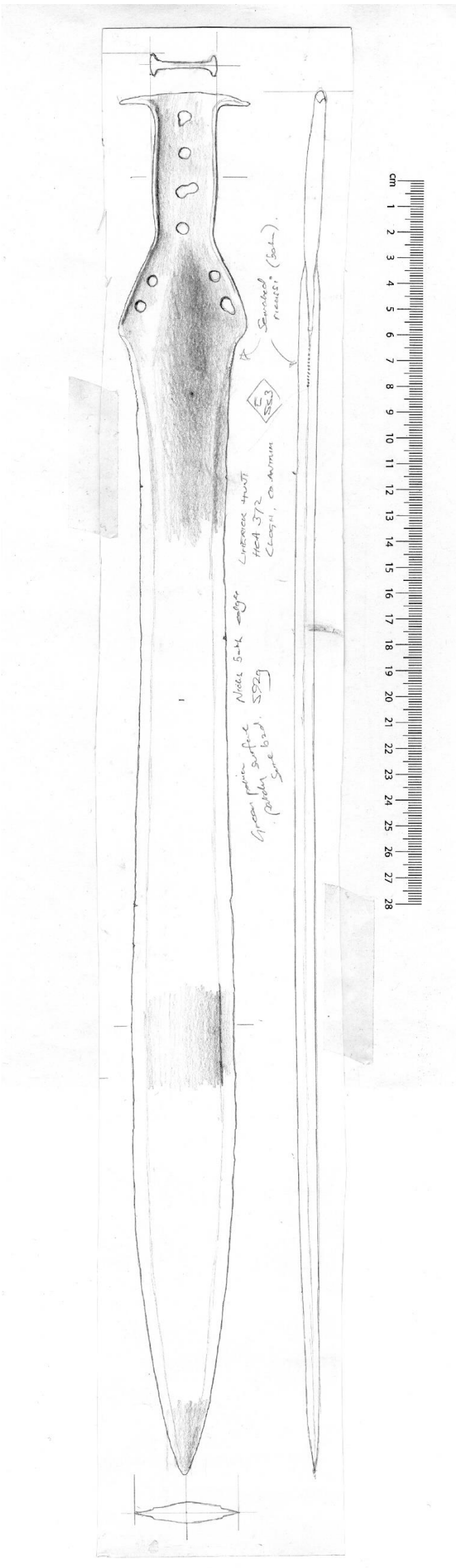
549


E549
1 Rivet
Edge + surface deliberately damaged
Label reads 'IRELAND'
April 51 £3 10/- Pearson
11, New Oxford St,
London
khaki patina
NAMS A. 1891.78
EX RCM
'IRELAND'
5949
(5.93 g on NMI scales)
- very accurate!
cm

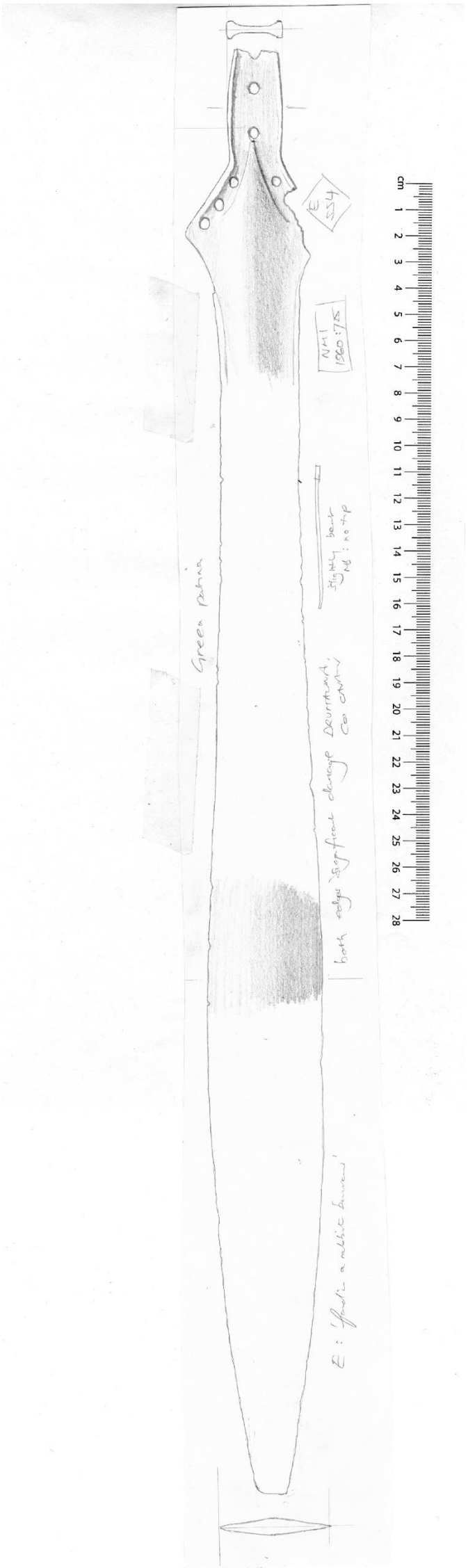
552



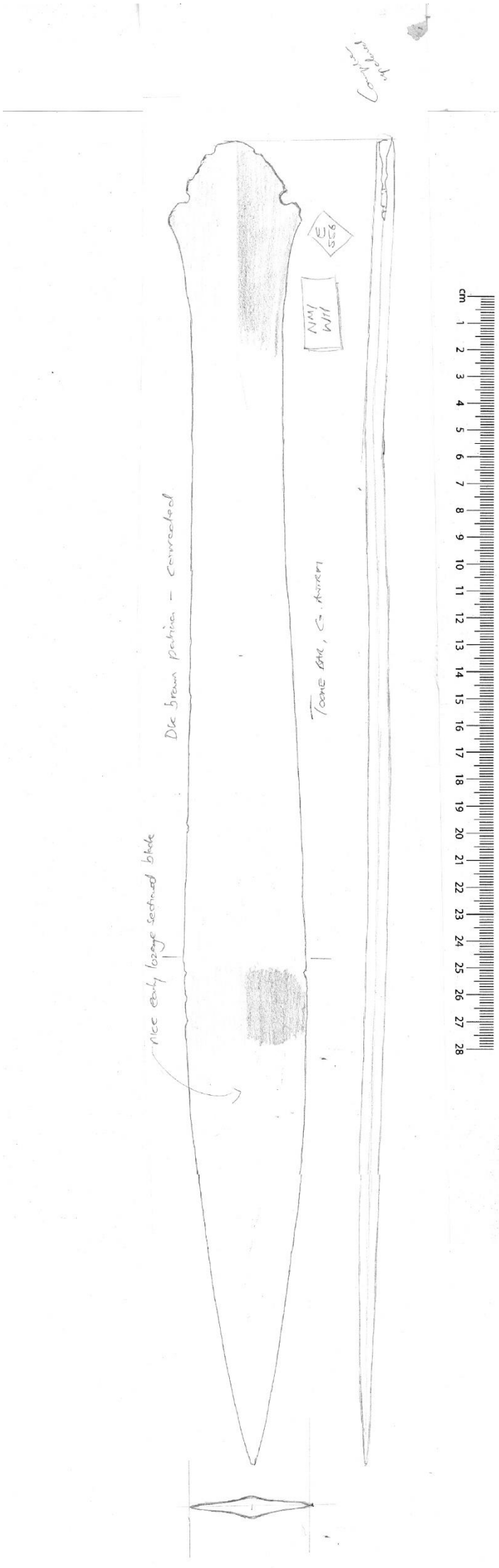
553


cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
E 553

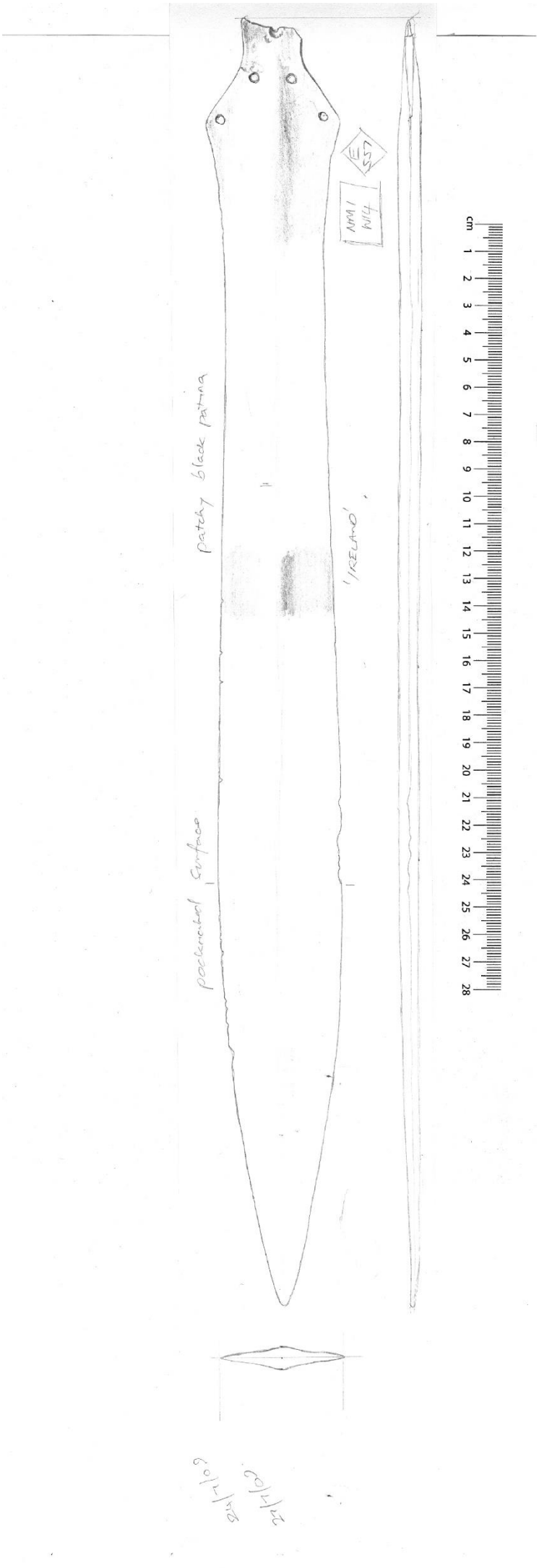
554

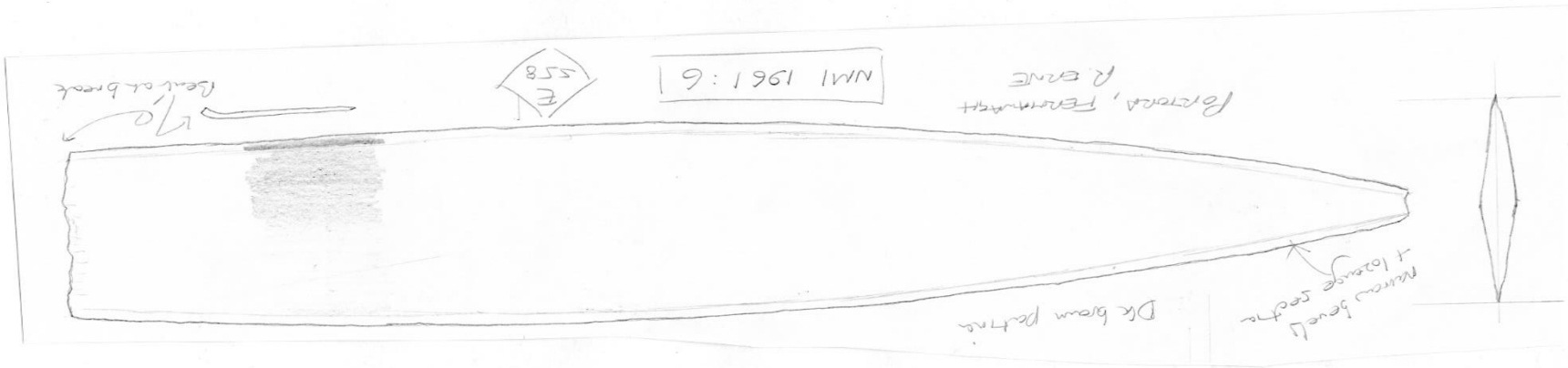

E 554
NMI 1960:175
Green patina
slightly bent
M: no tip
both edges significant damage Deurtrand; Co corr
E: Hafted a rabbit humerus

556

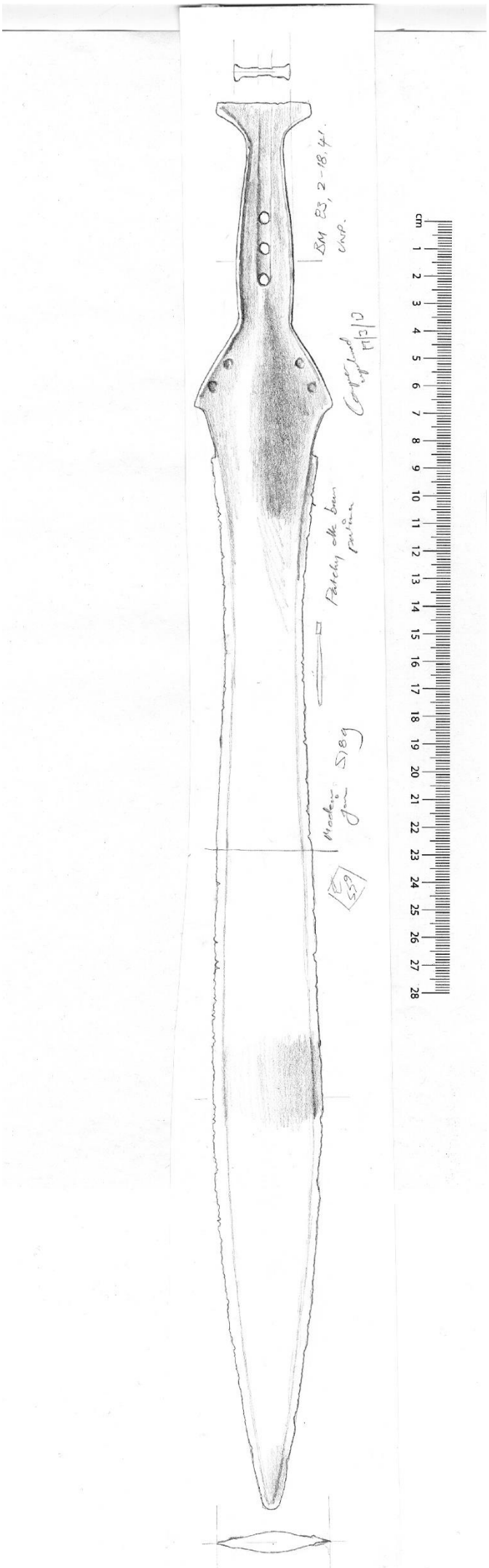

Die brown patina - corroded
Tang bar, c. knees
nice early looped sectioned blade
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

557

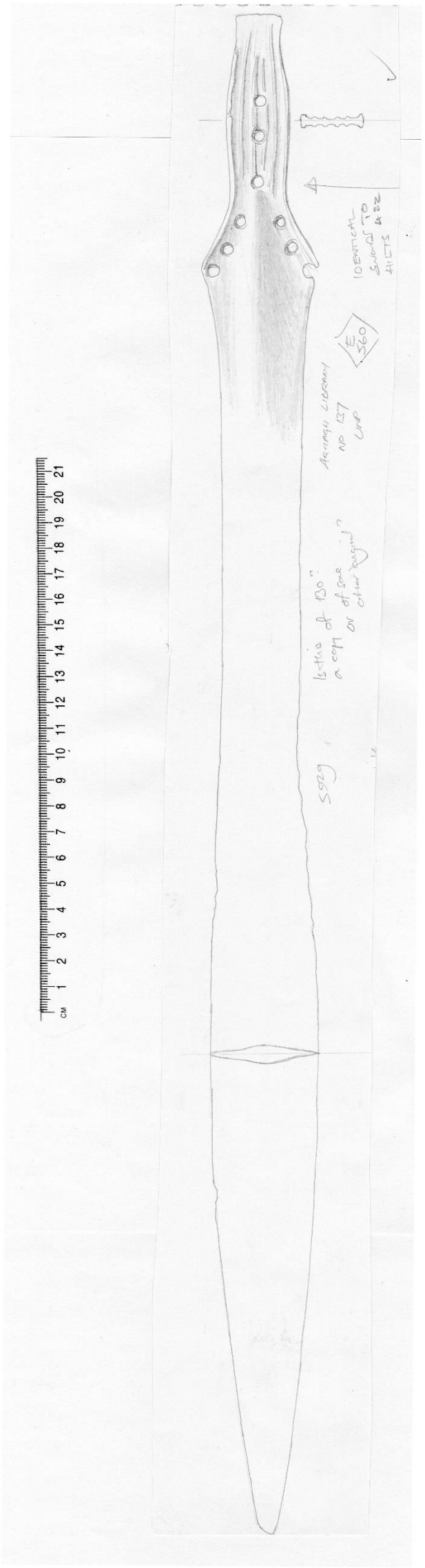



cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
558
NMI 1961 : 6 | 558
Dk brown patina
Natural bevel to shape edge
Bark, Fernmount, Range
Bent oak bent

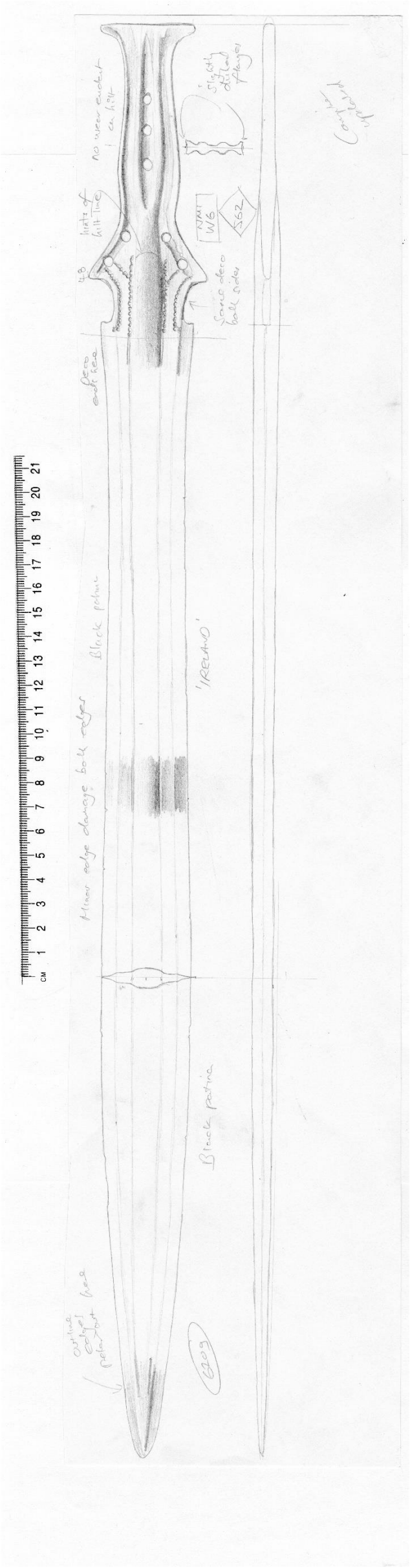
559

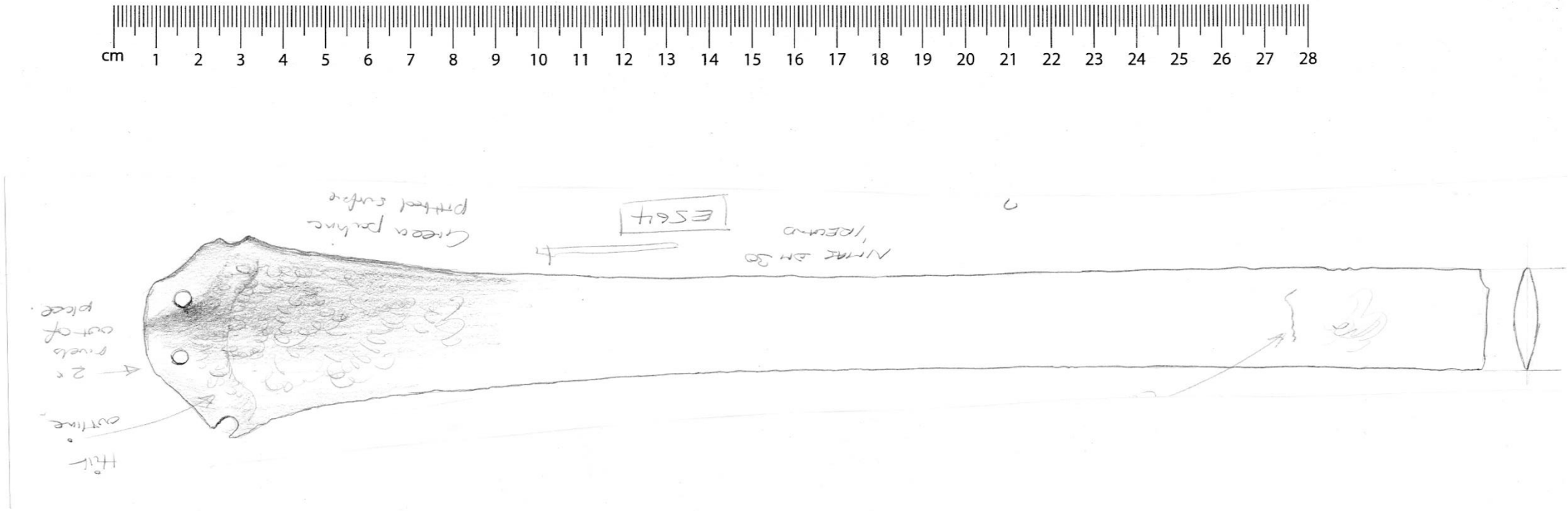


560

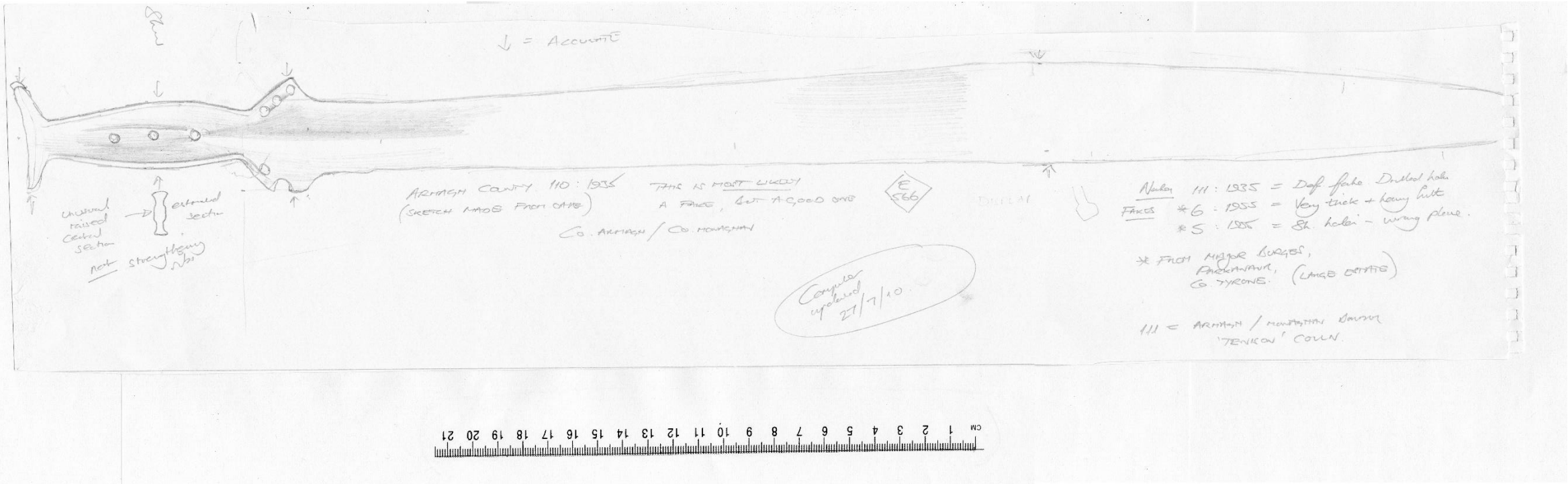

CM 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21
IDENTICAL SWORD TO #559 #1 LTS
E 560
Armagh Library No 137 Unid
Is this of 130°? a copy of one or other pictured?
S929

562


No wear evident
Slightly dished flange
Hilt line
Black patina
'IRELAND'
Black patina
E63



564


↓ = ACCURATE
Unaltered raised central section
Extended section
Not strengthening rib
ARMAGH COUNTY 110 : 1935
(SKETCH MADE FROM CAST)
THIS IS MOST UNLIKELY A FAKE, BUT A 6,000 ONE
CO. ARMAGH / CO. MONAGHAN
E 566
Computer updated 27/7/10
Nuala 111 : 1935 = Daf flake. Drilled hole
FAKES *6 : 1935 = Very thick + heavy butt
*5 : 1935 = Sh. holes - wrong plane.
* FROM MAJOR BURGES, FINCKENAGH, CO. TYRONE. (LARGE COTTAGE)
111 = ARMAGH / MONAGHAN BORDER 'TENNICON' COLLN.
CM 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21

566

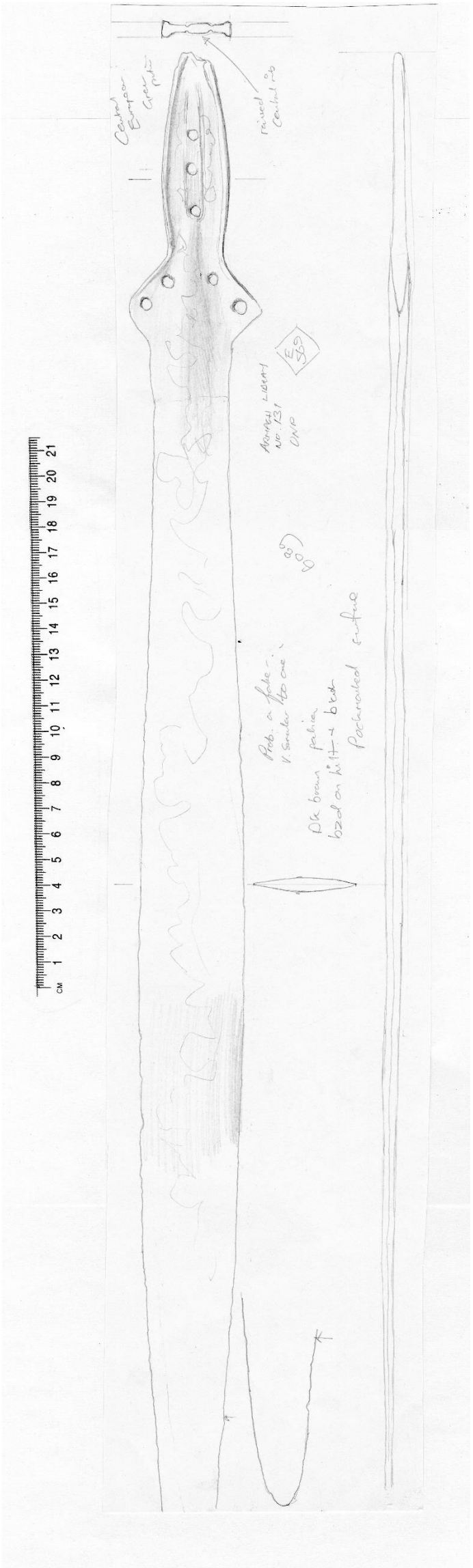
567

NMI 1933:170
FAIRC
GRANARD,
CO LONGFORD.
Label read - 'Found at Granard J.F. 3G 1804
567
4809
CM 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21

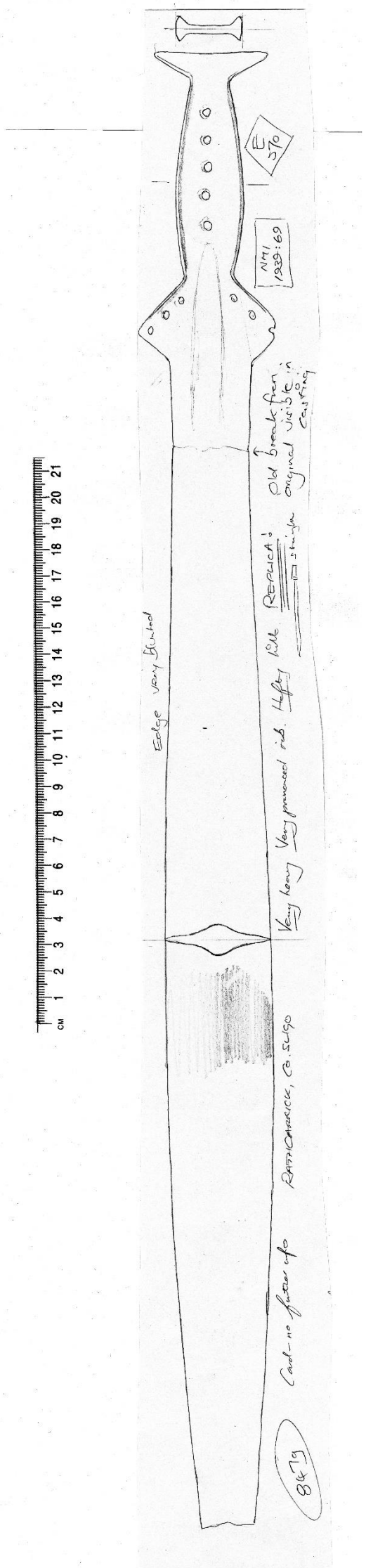
568

Black/green patina
Label read:- 'Flint bone and
Mc. knife' 1864. (31?)
E 568
NP 1909:171
CM 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21

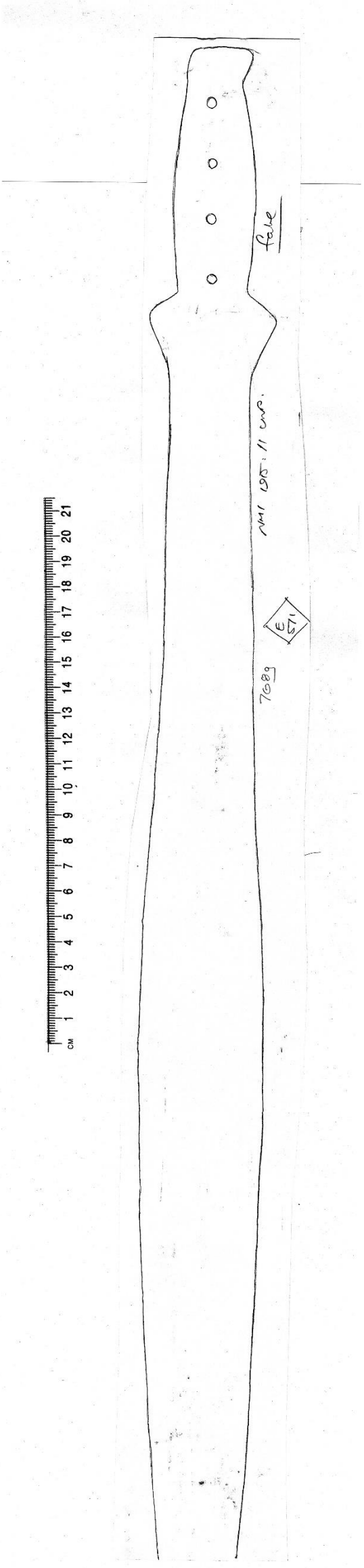
569



570


E 570
NMI 1939:69
Edge very blunted
Very heavy
Very pronounced rib. Hefty
Old
REPLICA!
Old Brooklyn
original visit
cast
Cast - no flaw ups
RATTLESNAKE, CO. SCIPIO
8479

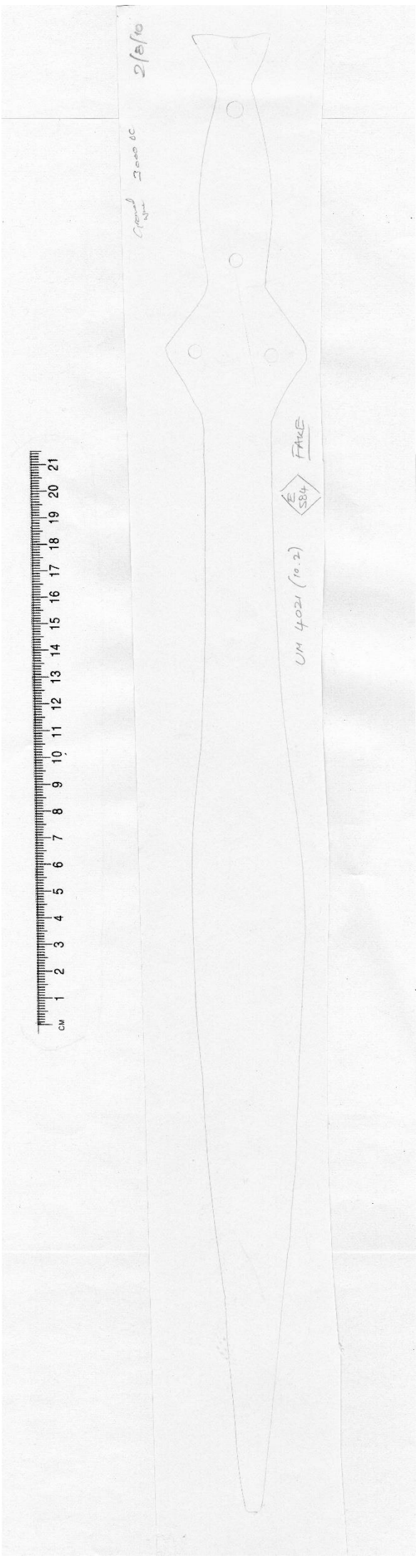
571



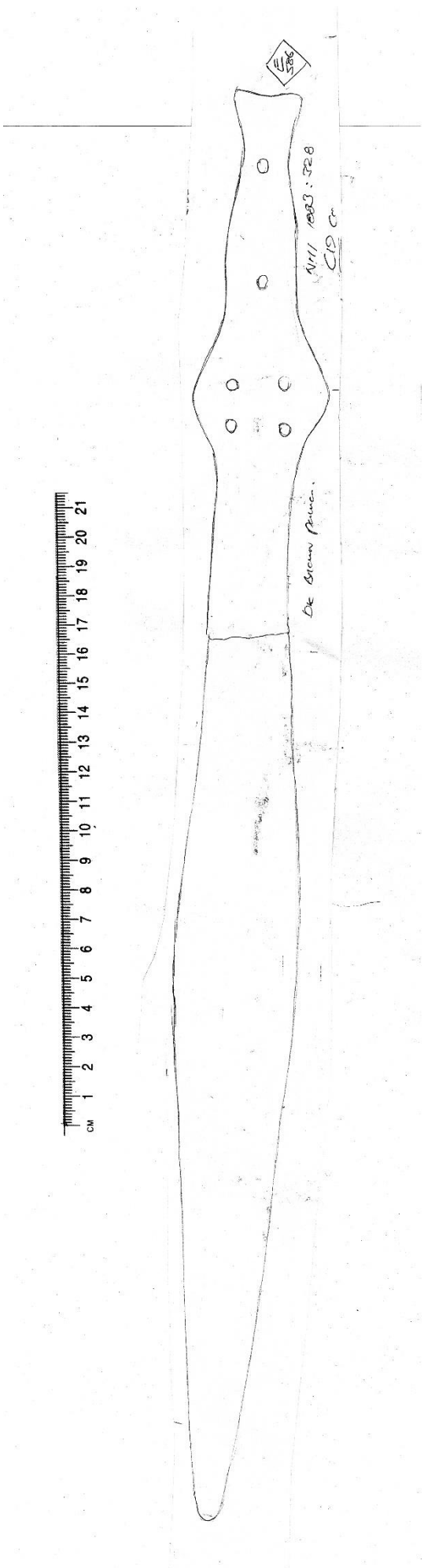
577

Holes are drilled
FAUS
NMI 1980:181
E 577
Label read
'Found at Fintona, Co. Tyrone, near Omagh,
in bog. A.K. Young No. 4 1843'
705g
16/7/09

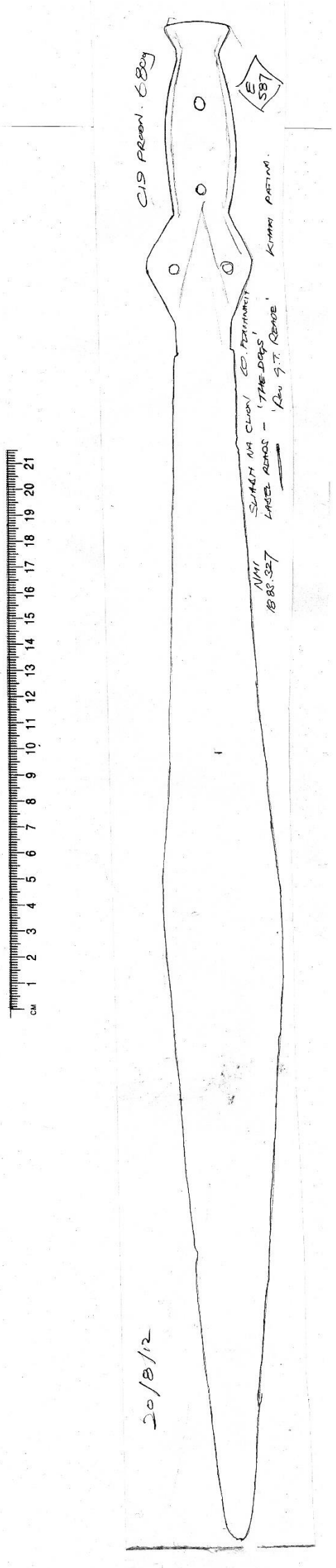
584


2/8/10
UM 4021 (10.2)
FAKE
CM 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21

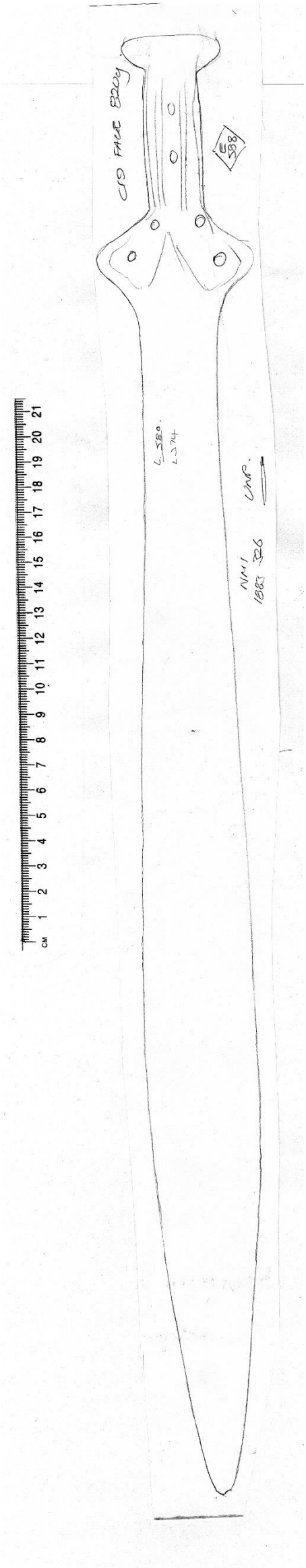
586



587


E
587
C19 Prov. Bog
SUMATRA Clan/ Co. Pennant
LABEL READS - 'THE DOGS'
Rev 9.7. Rence
KRIS PATINA.
NMI
1882.327
20/8/12

588

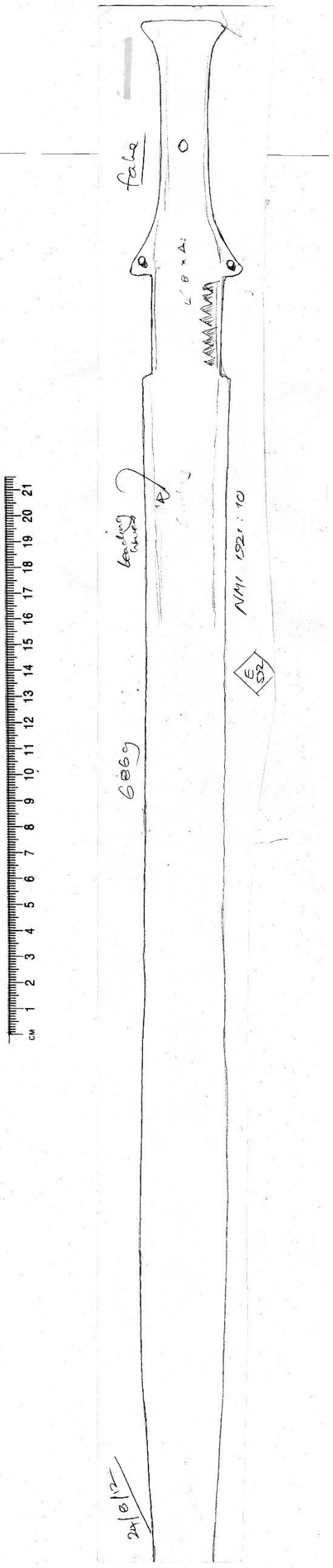

CO FINE BRONZE
588
L 580.
L 574
NAVAL
1861 26
UNP.
CM 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21

589

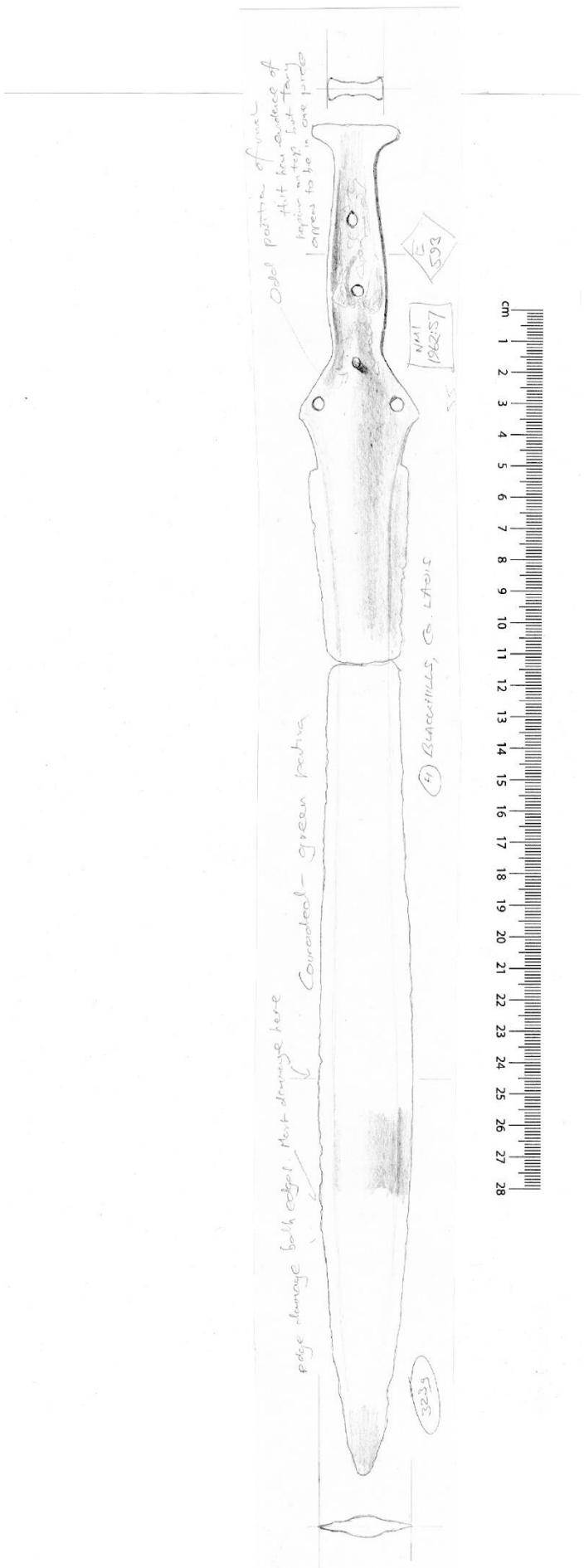
590

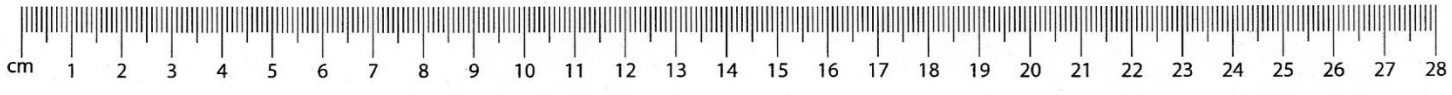
N/71 W69 cm. 530
4'69
Dk green patina
CM 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21

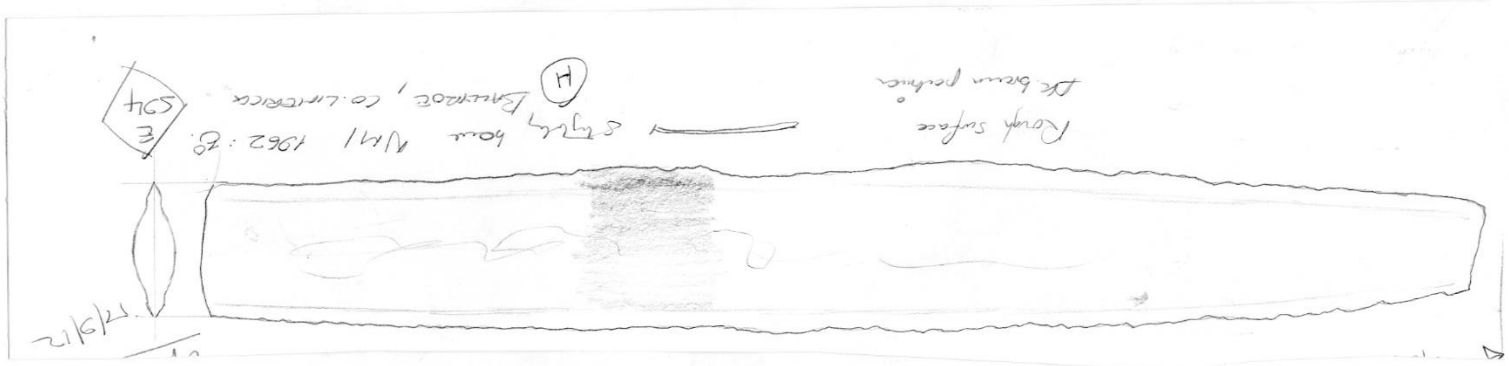
592



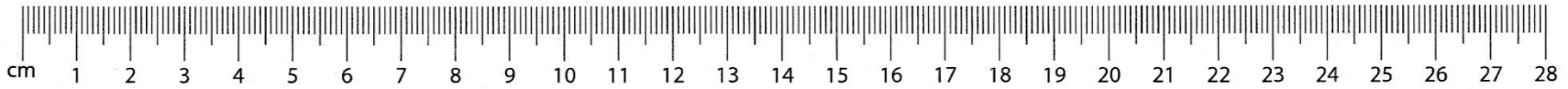
593

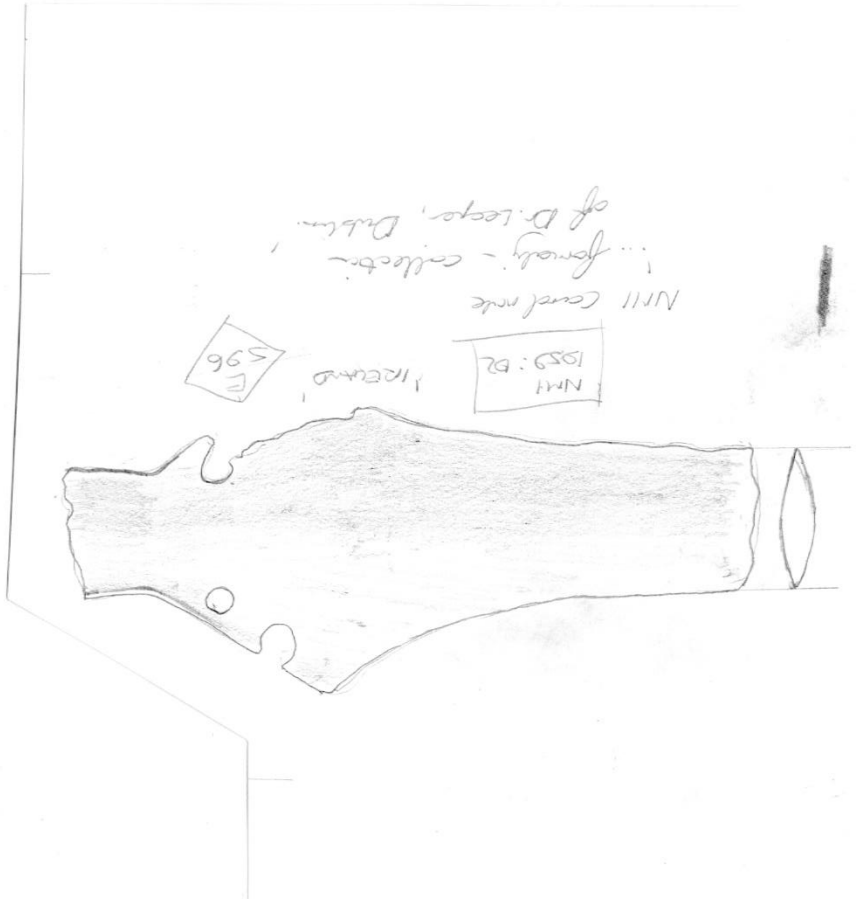

E 593
NMI 1962:57
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28


cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28


Rough surface
Axe blow marks
Sawmaker, Co. Limerick
H
E
594

595





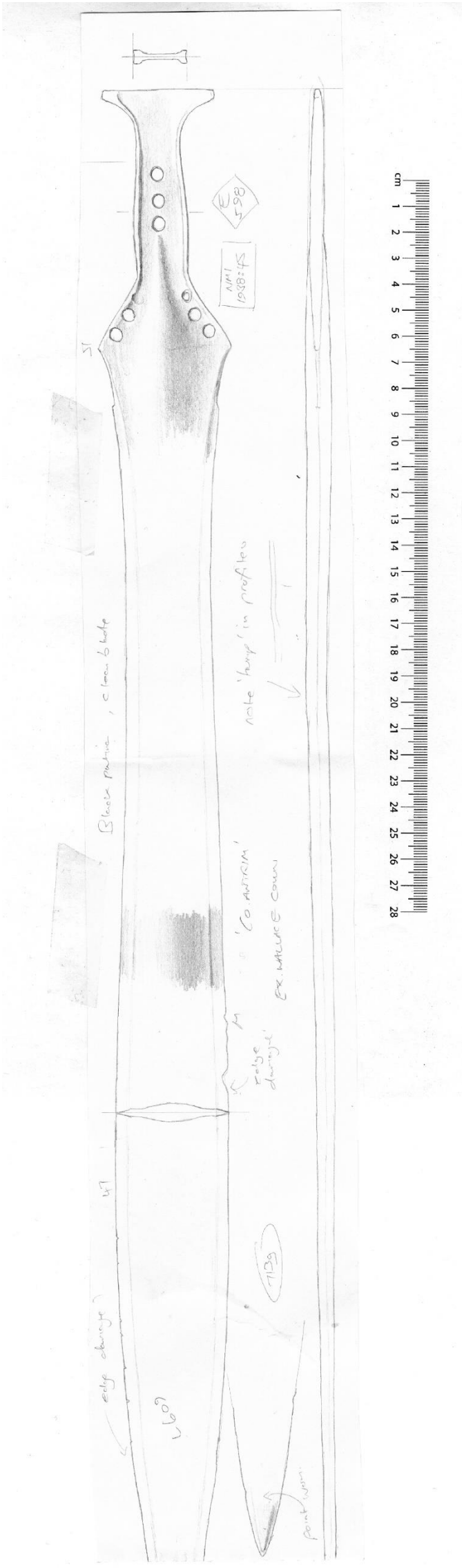
596

597

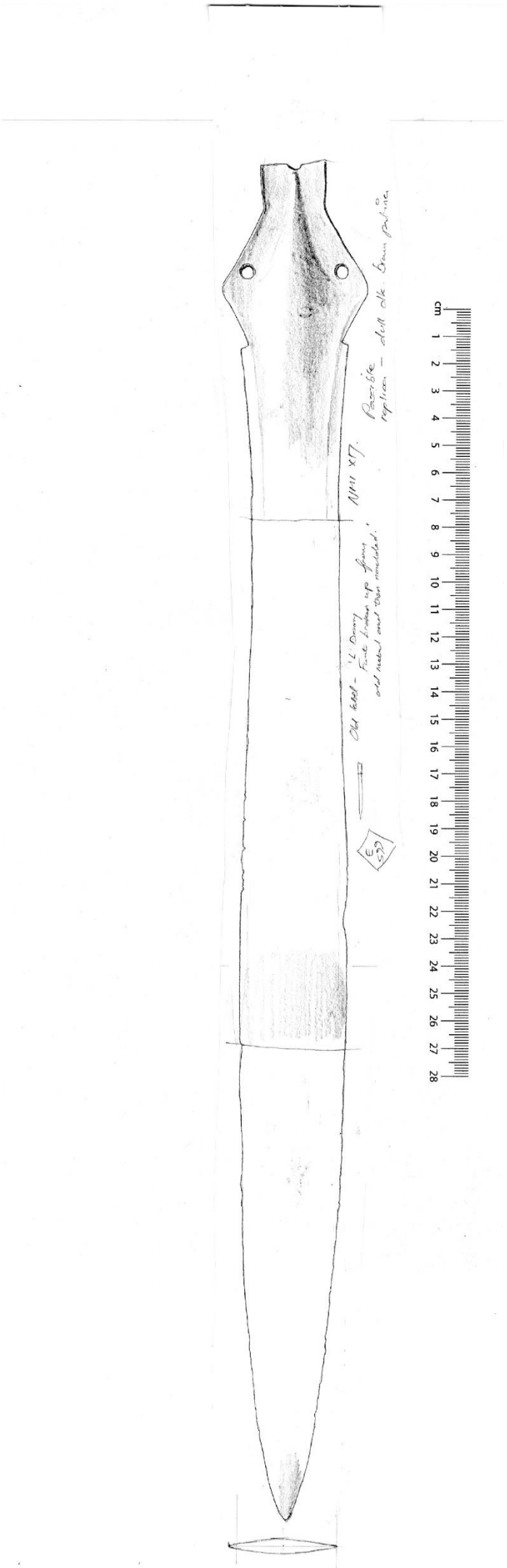
NMI
1938:44
E.
597
Co. Antrim
Black/green patina
Sig edge damage
straight

cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

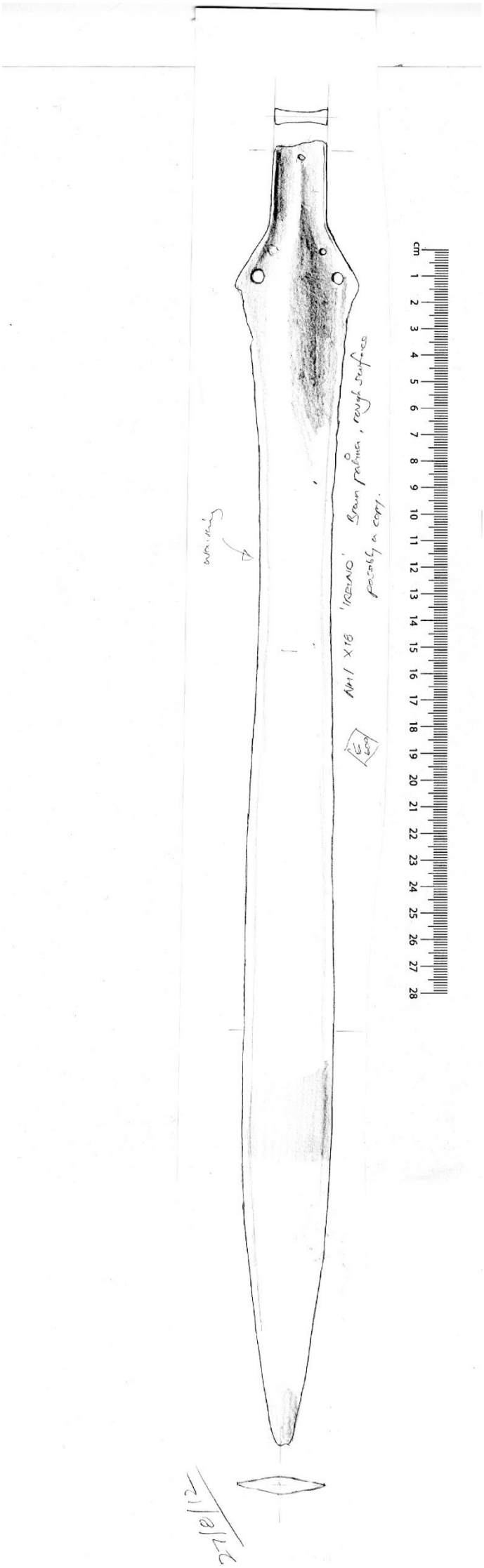
598


E 598
NMI 1938:45
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

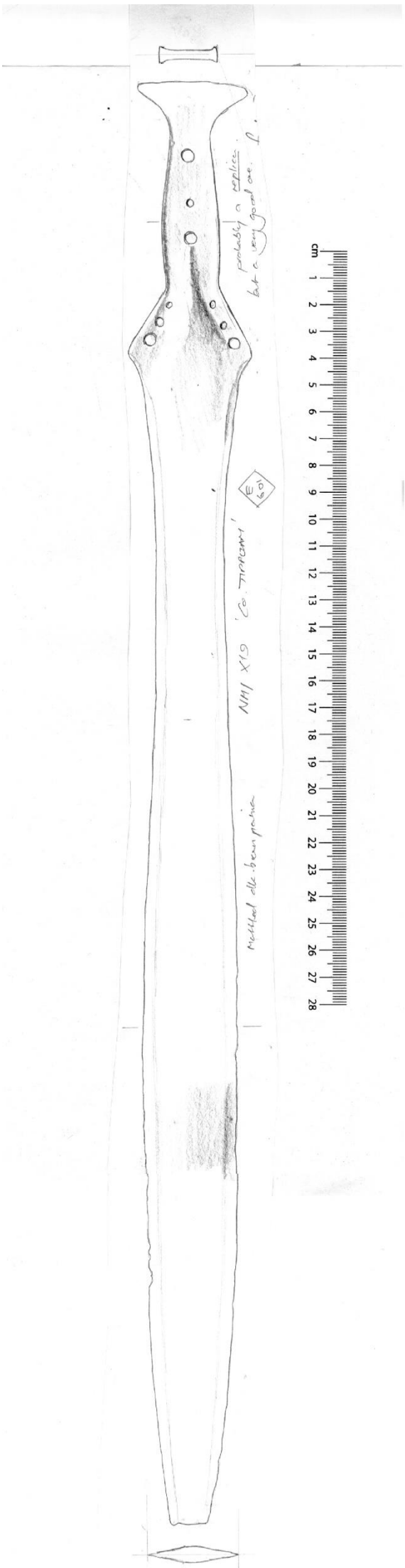
599

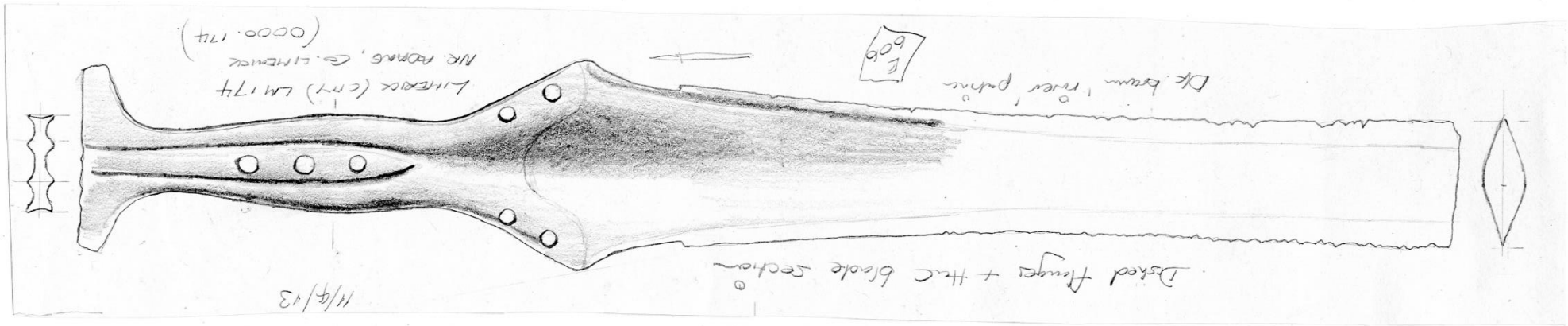


600

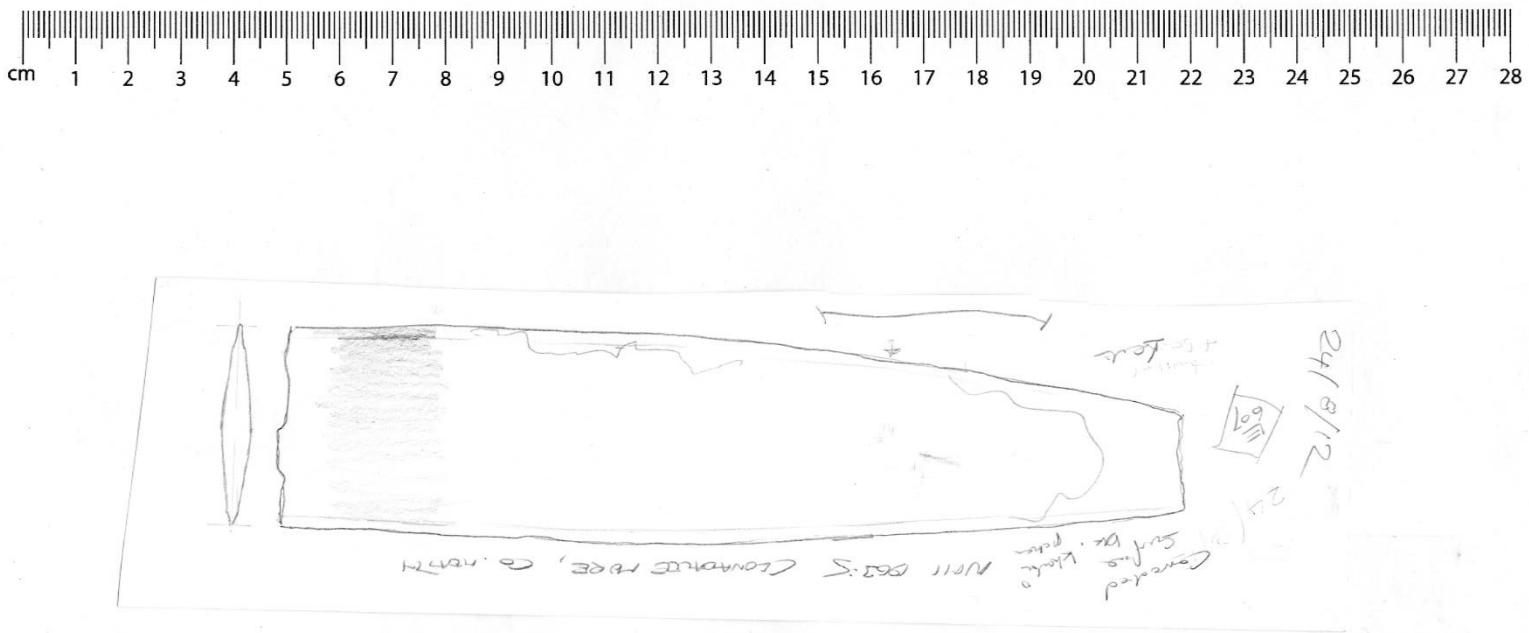

cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
'IRENIO'
Brown patina, rough surface
possibly a copy.
NM1 X18

601



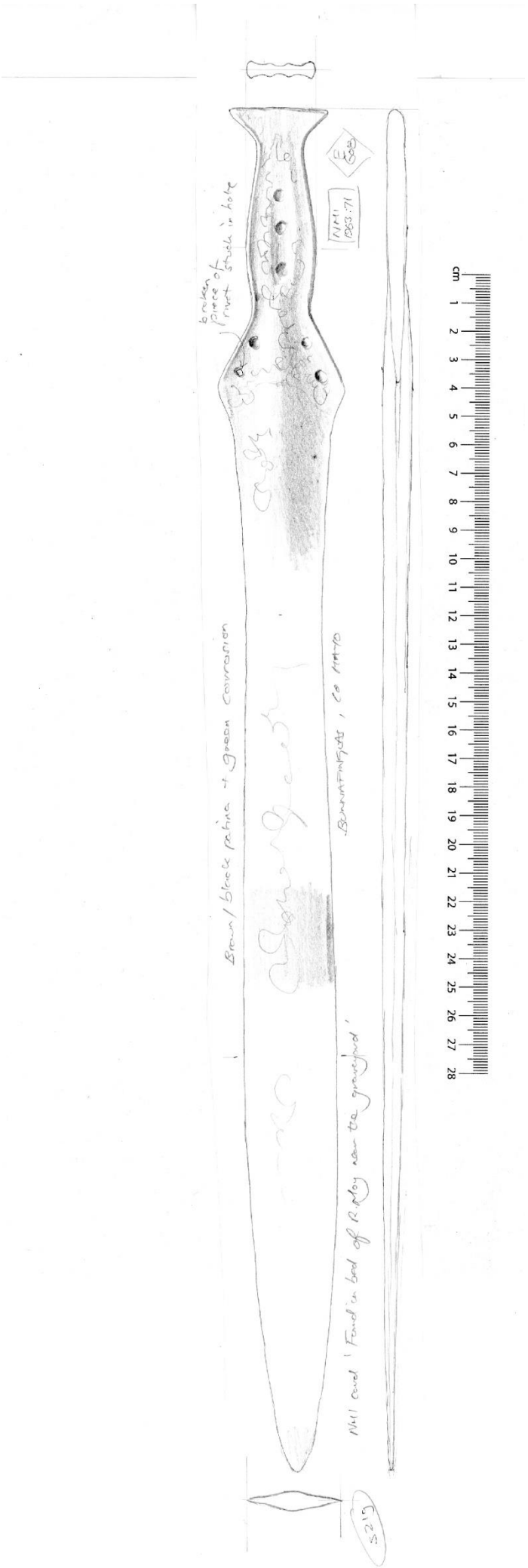

cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
606
Dk. brown ' river ' prehist.
Limerick (CMY) LM 17th
NIR Rooms, Gr. Limerick
(0000.17H)
Dated Thurgot + Hic Gloole section
11/4/13

606

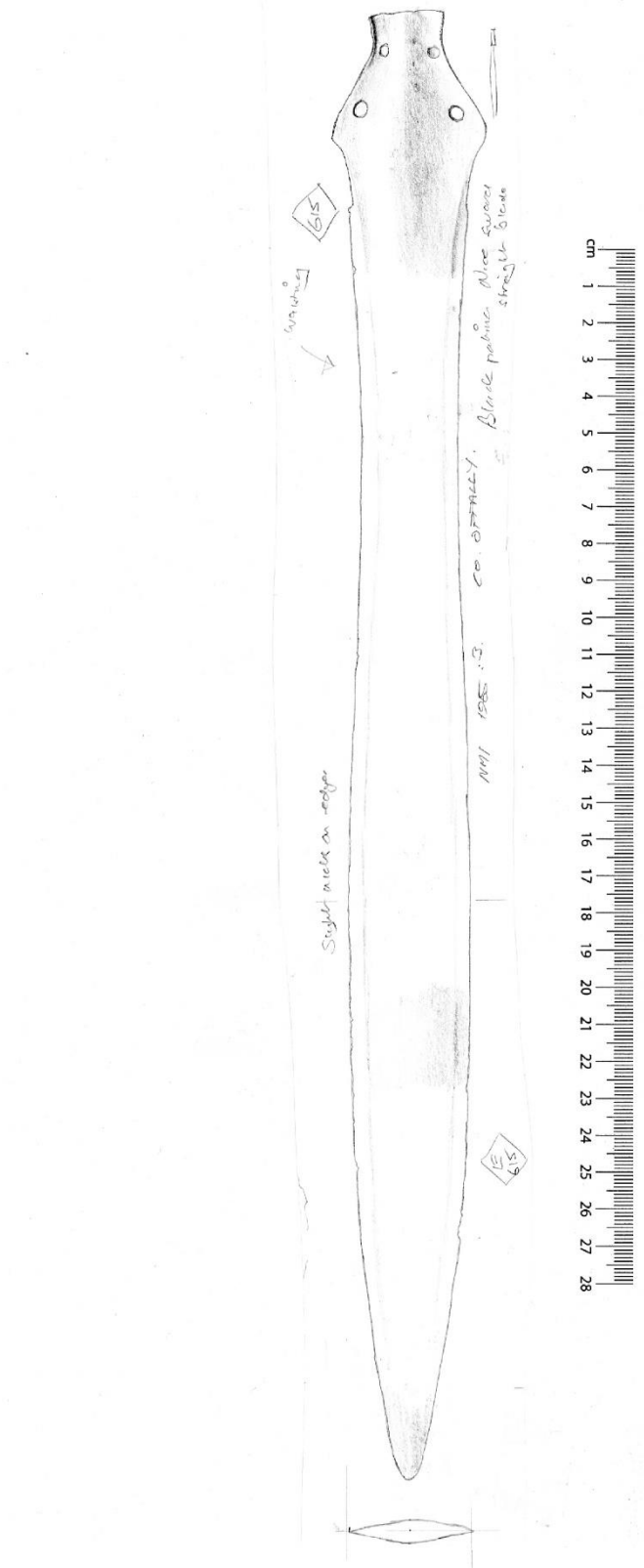


607

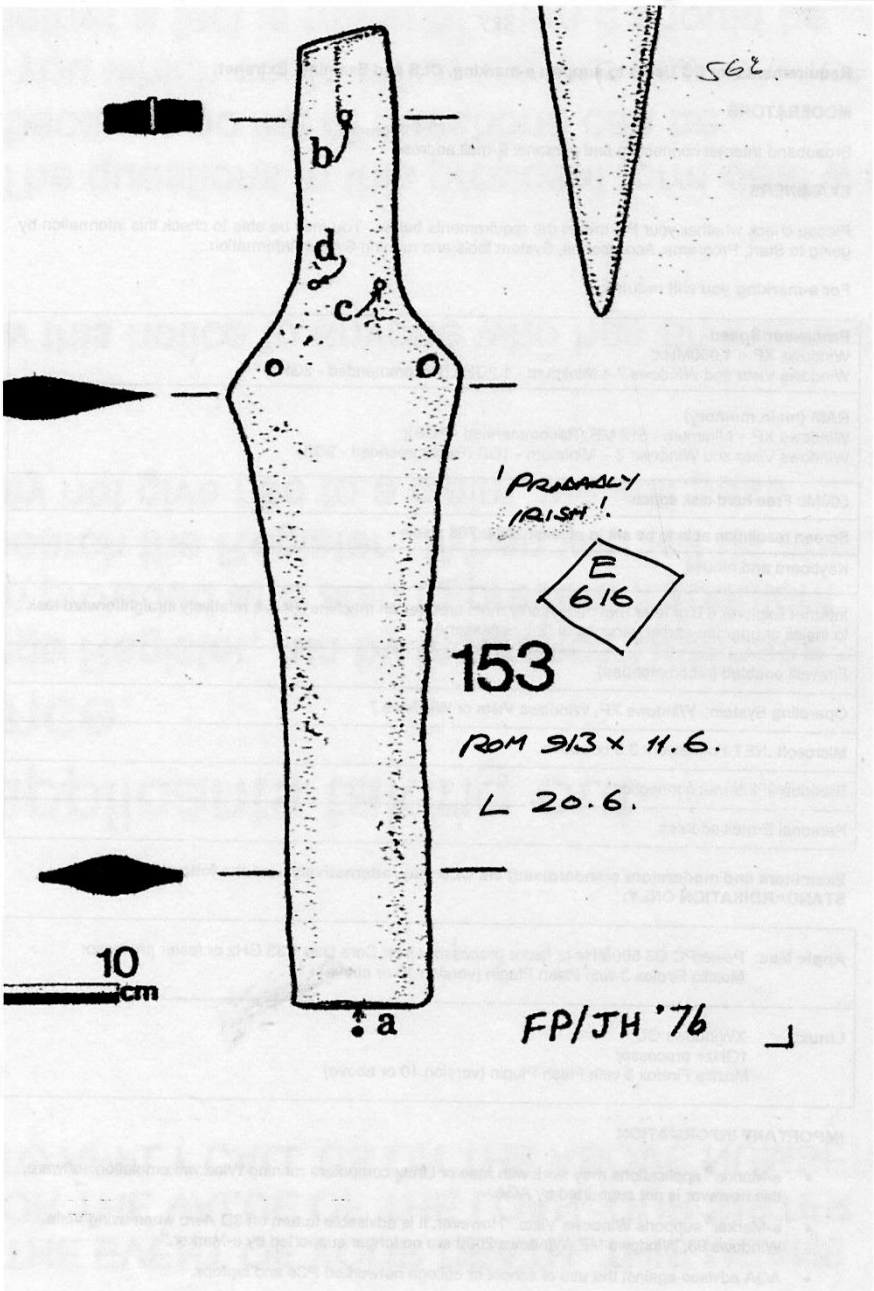
608


broken piece of rivet shank in hole
Brown/black patina + green corrosion
Bundintingat, Co Mayo
Found in bed of R. Moy near the graveyard
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

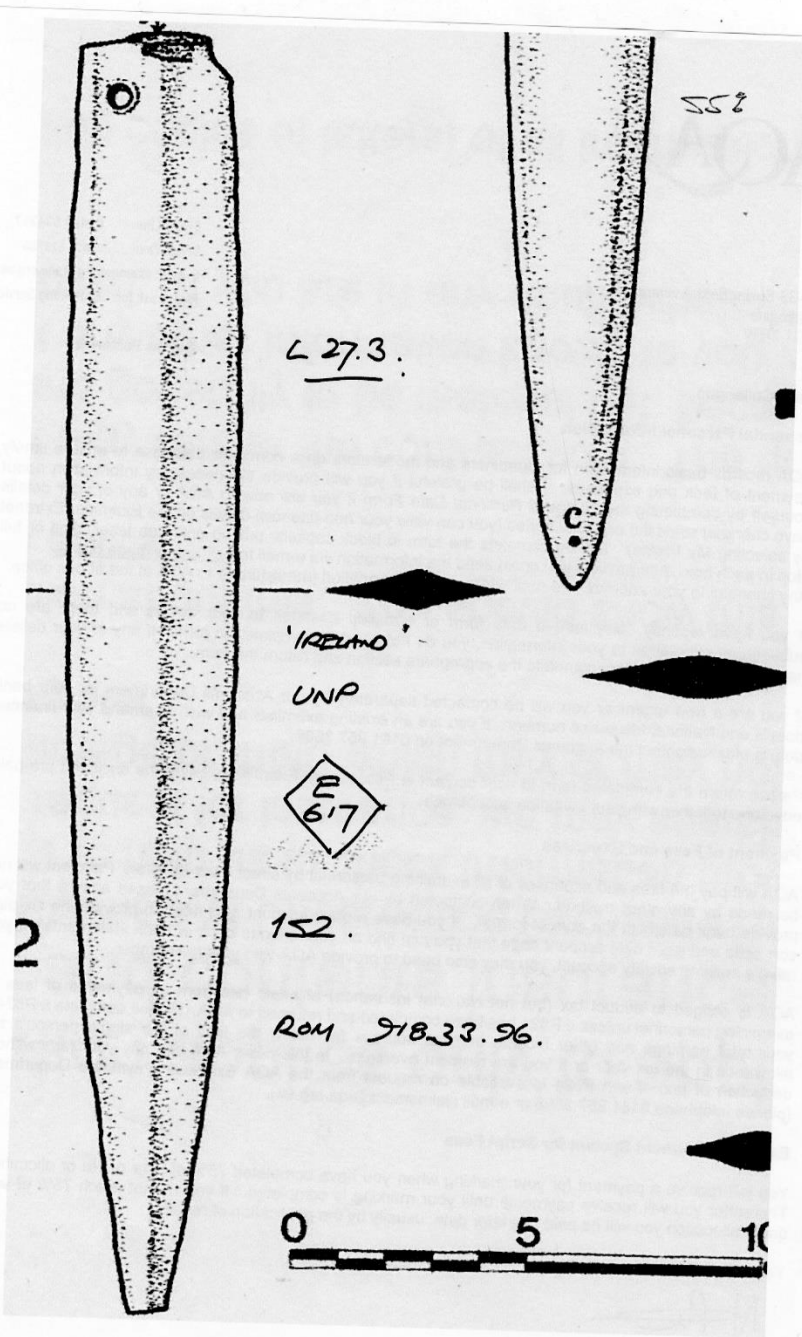
615



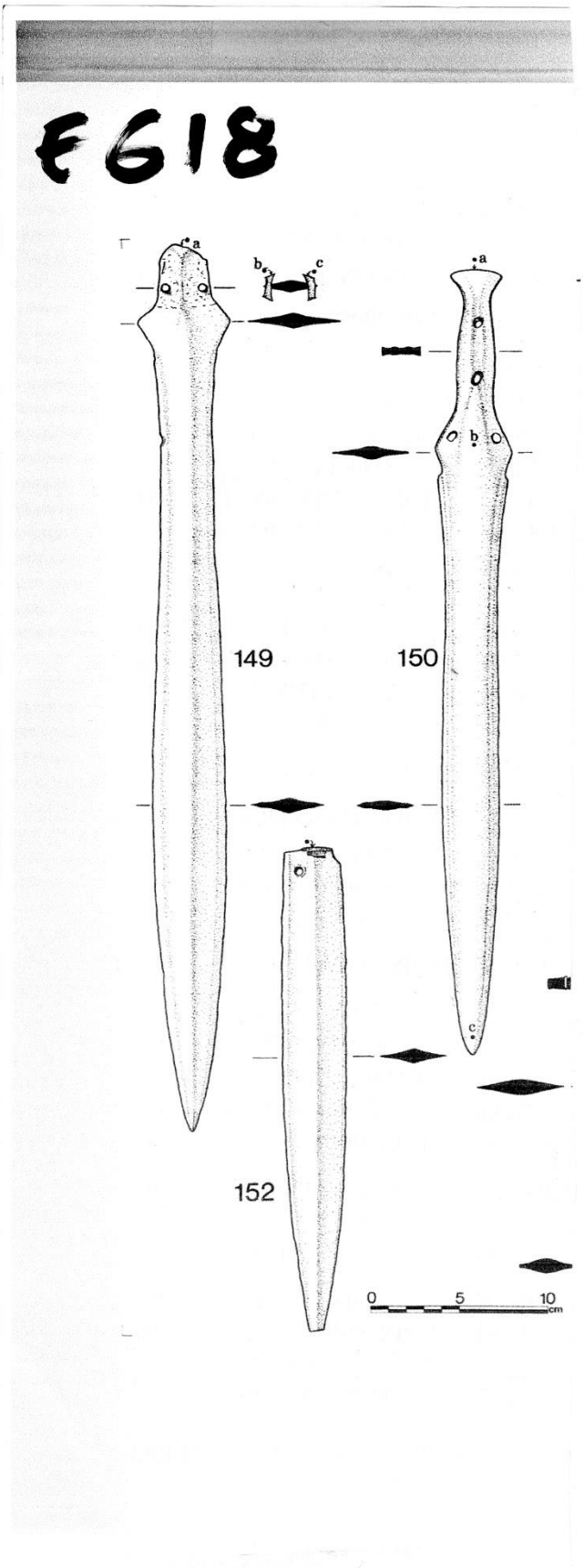
616



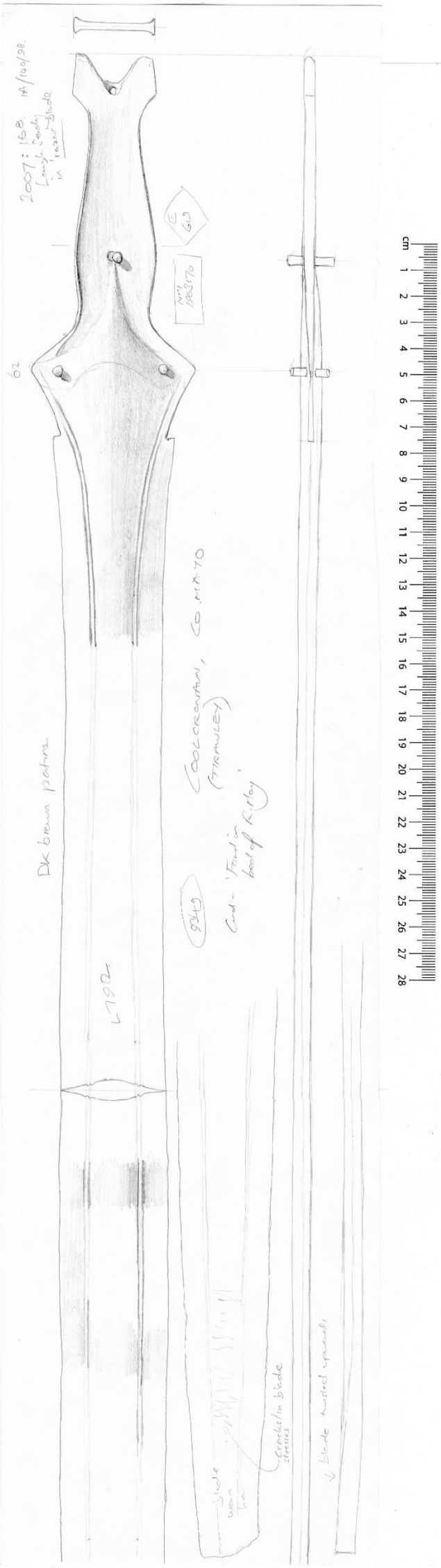
617

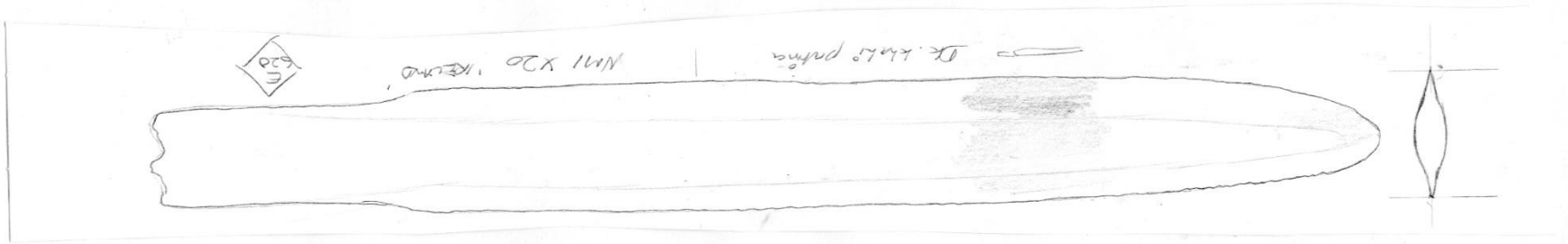


618



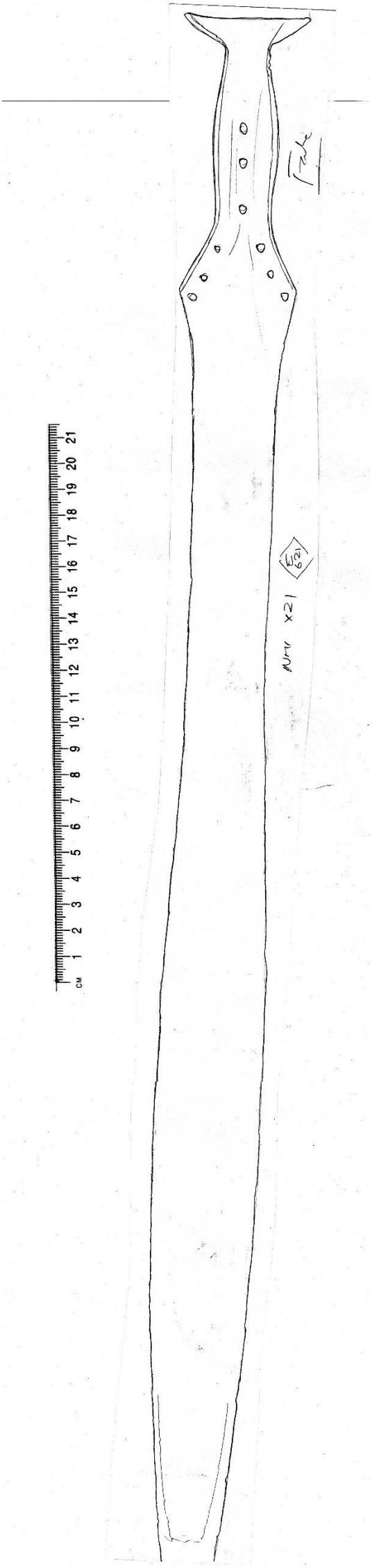
619


2007: 168. HA/104/98.
Dk brown patina
GOLCOMBEAN, CO. MAYO
(STRANGLEY)
Found in bed of River
Grooves in blade
Blade twisted upwards
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

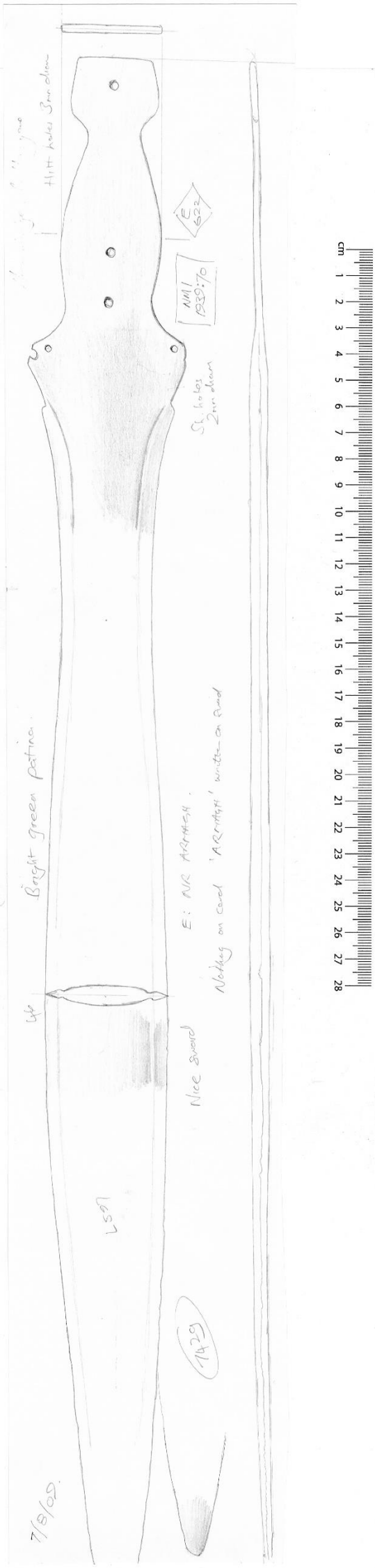


620

621



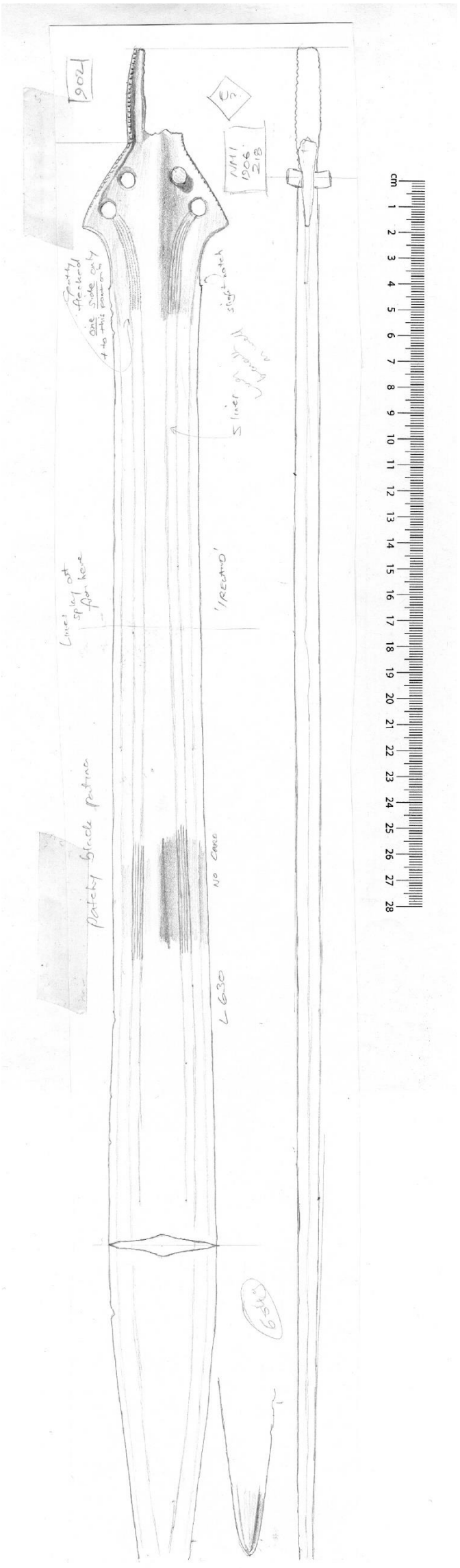
622



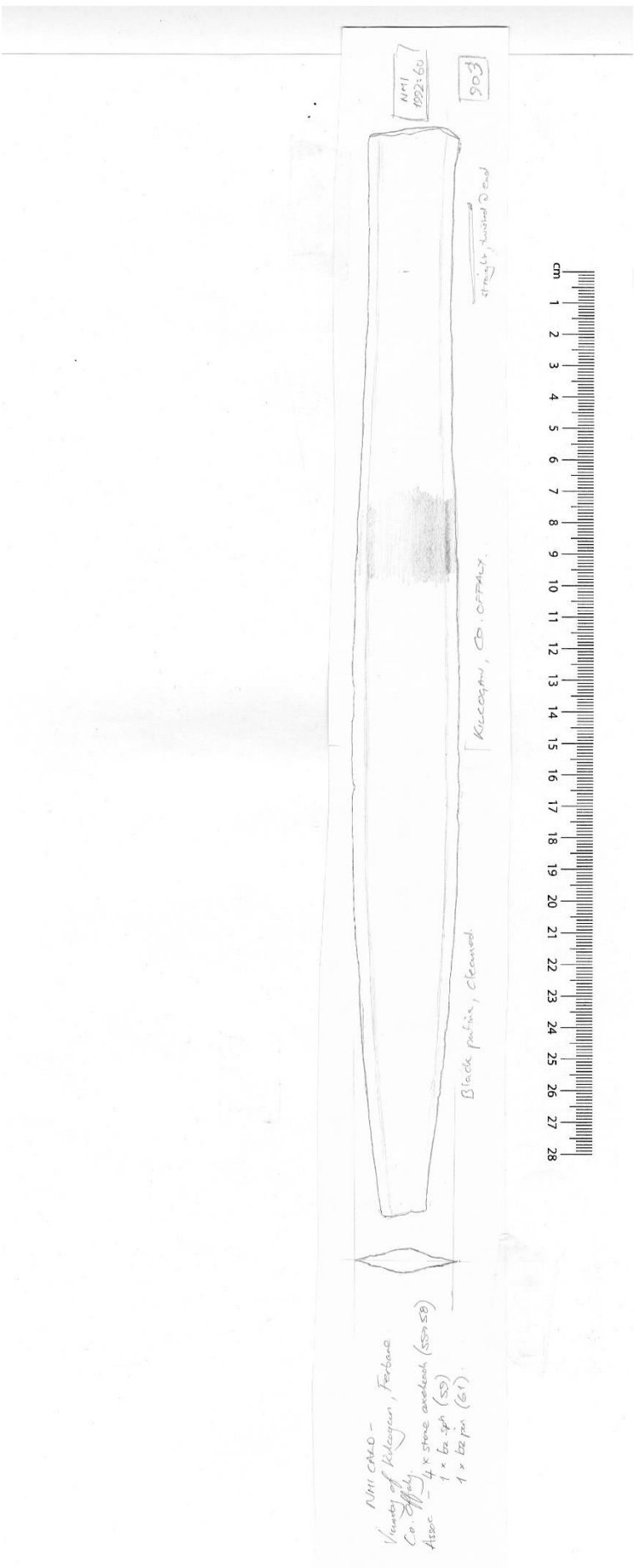
901

901
Black patina
minor edge damage both edges
wide bevels
NMI 1935:21
cm

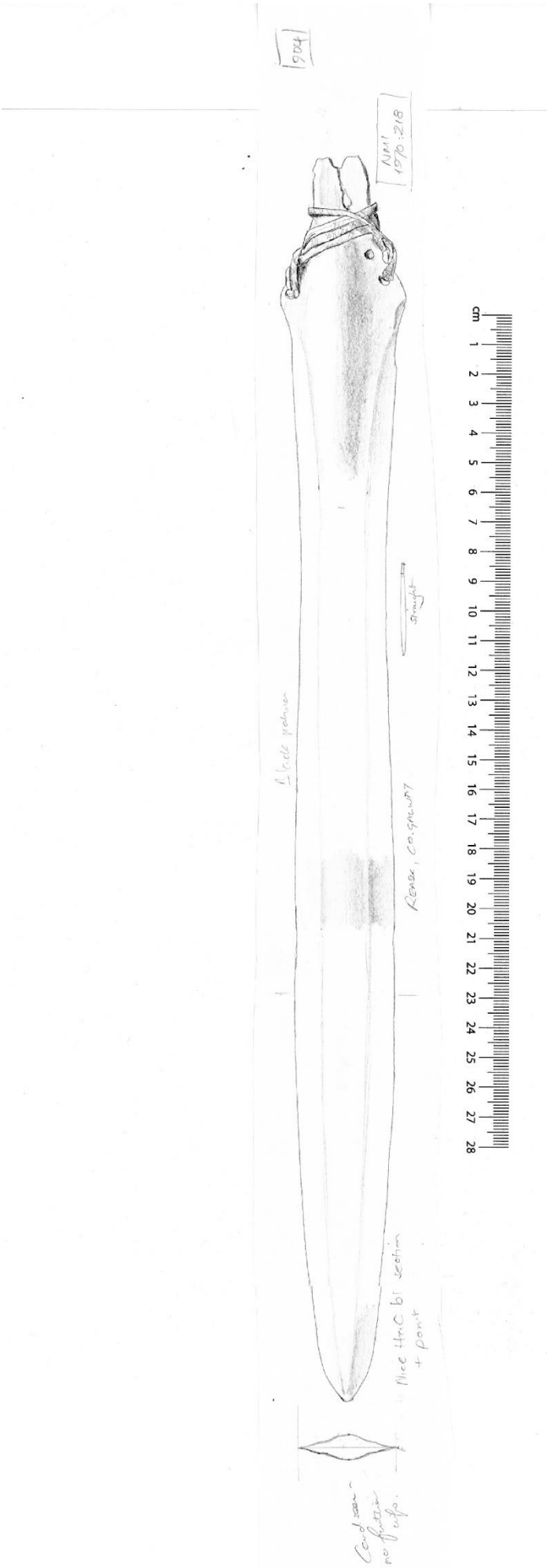
902


902
1/REAMD
NO CORD
L 630
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

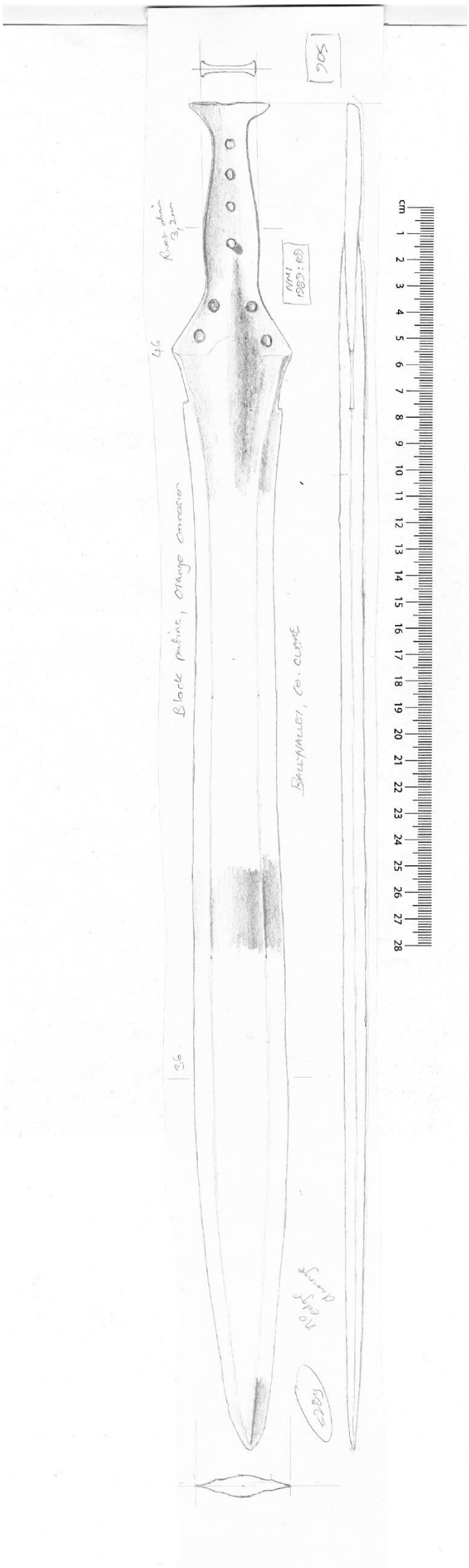
903


NMI 1992:60
903
Kilcoagan, Co. Offaly.
Black patina, cleaned.
NMI CAT.O -
Vicinity of Kilcoagan, Fertane
Co. Offaly
Issue - 4 x stone axeheads (SS29 SB)
1 x ba sph (SD)
1 x bz pin (61).
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

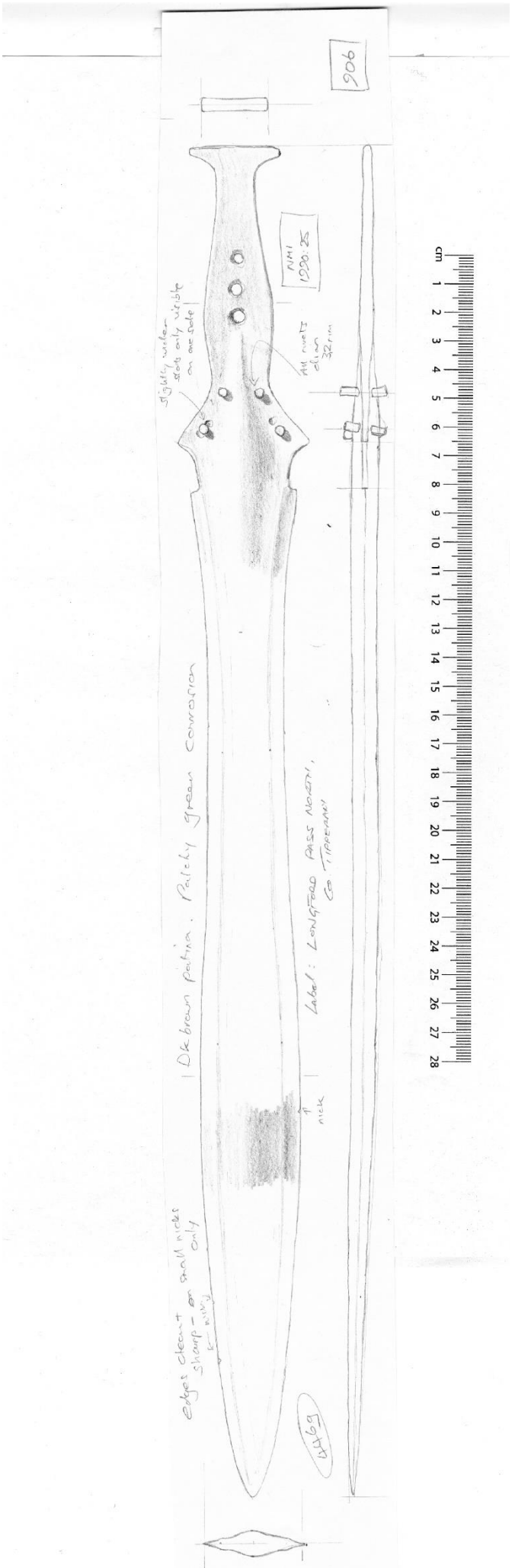
904


904
NMI 1970:218
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

905


905
Black patina, orange corrosion
Ballyhalbert, Co. Antrim
cm

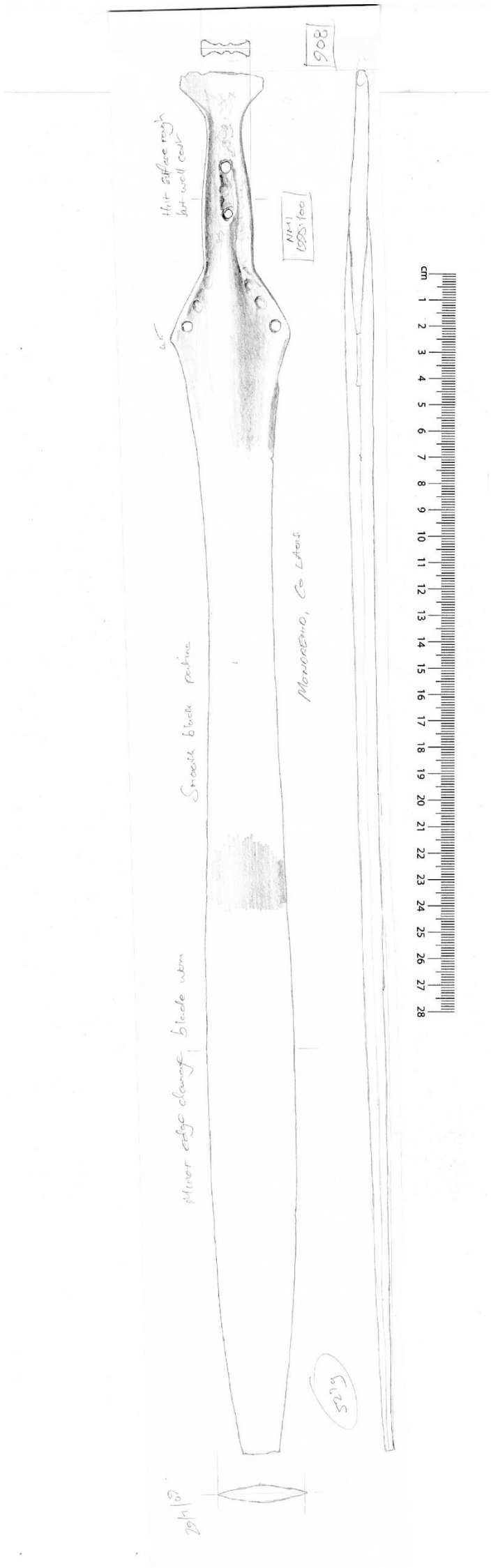
906


906
NMI 1990: 25
Slightly wider slots only visible on one side
NMI rivets 31mm 32mm
Dk brown patina. Patchy green corrosion
Label: LONGFORD PASS NORTH, Co. TIPPERARY
nick
Edges sheared – no small nicks only
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

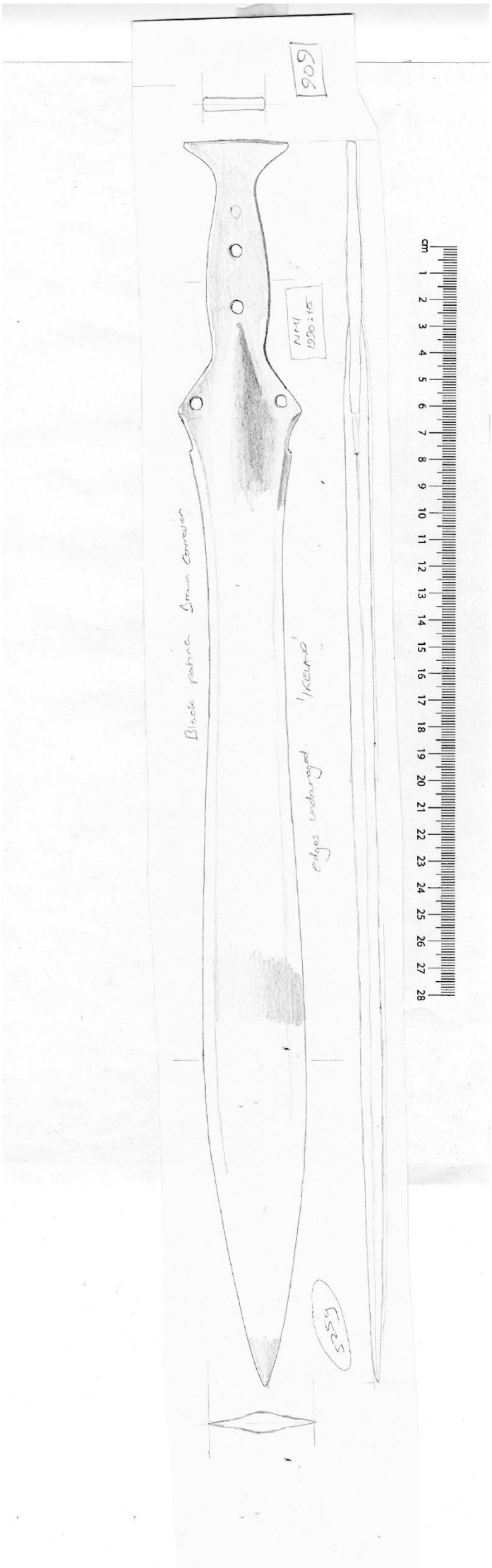
907

907
Conserved 9/1/19
NMI 1998.58
Khaki green matrix
Significant edge damage
Label: LULLYMORE BOG, CO. KILDARE
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

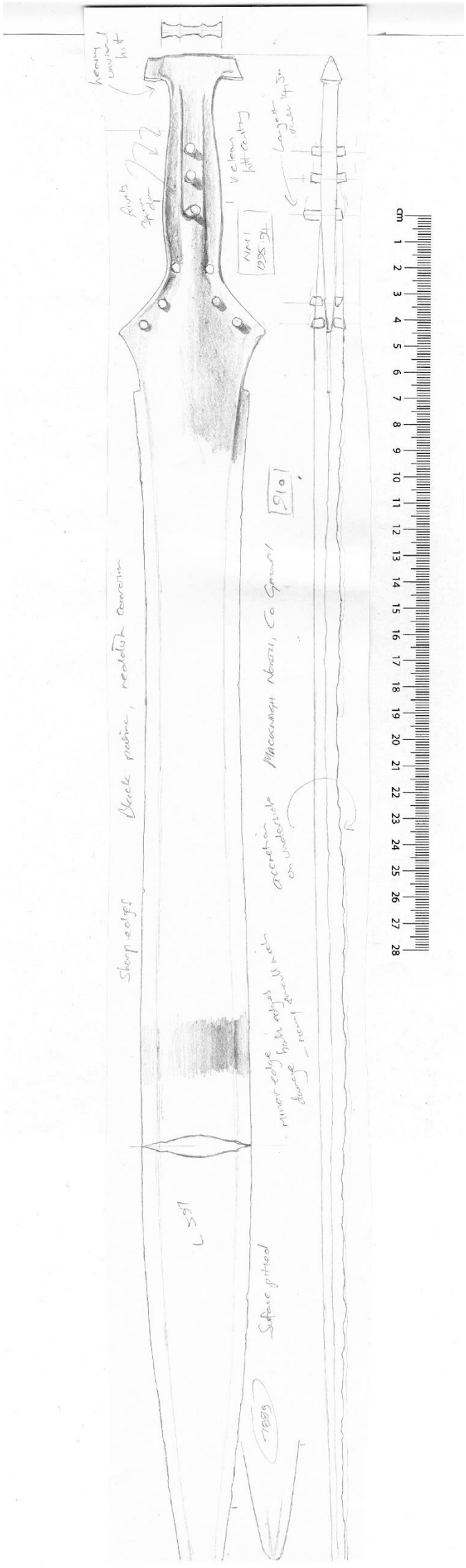
908


908
Hilt surface rough but well cast
Smooth blade patina
Minor edge damage, blade worn
MONDAGHINO, Co LAOIS
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

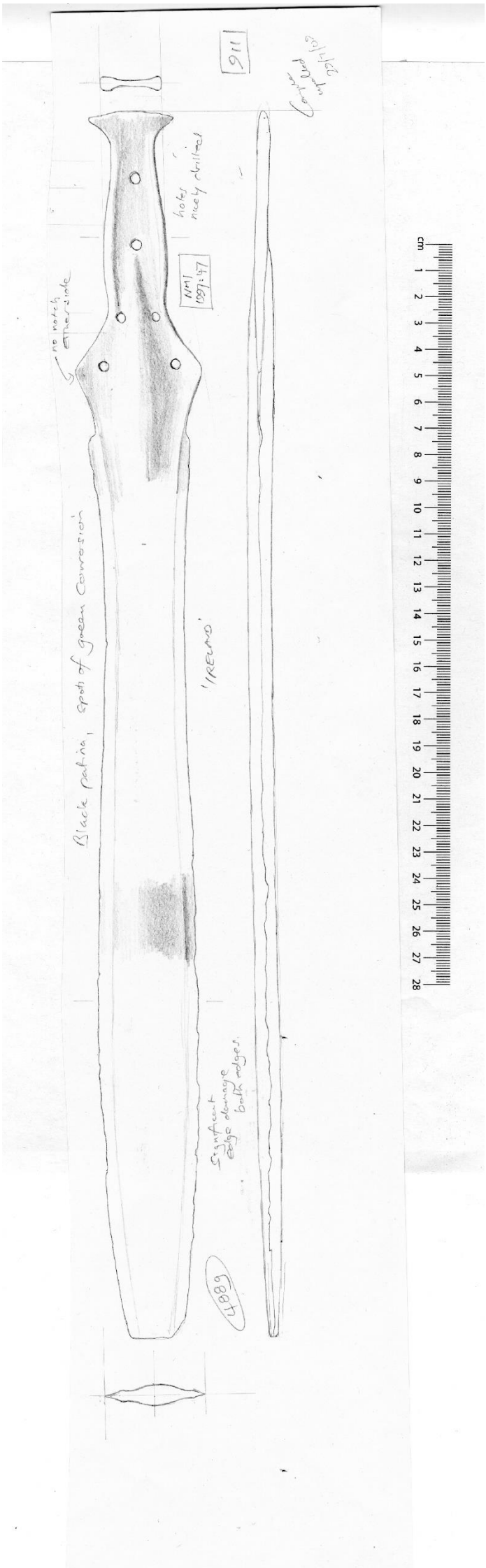
909


909
NMI
1930:15
Blade patina 5mm common
edges undamaged
'IRELAND'
S2559
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

910


Sharp edges
Blade patina, modern corrosion
Reception on underside
Minor edge hole adjacent to damage
Surface pitted
L 59
cm

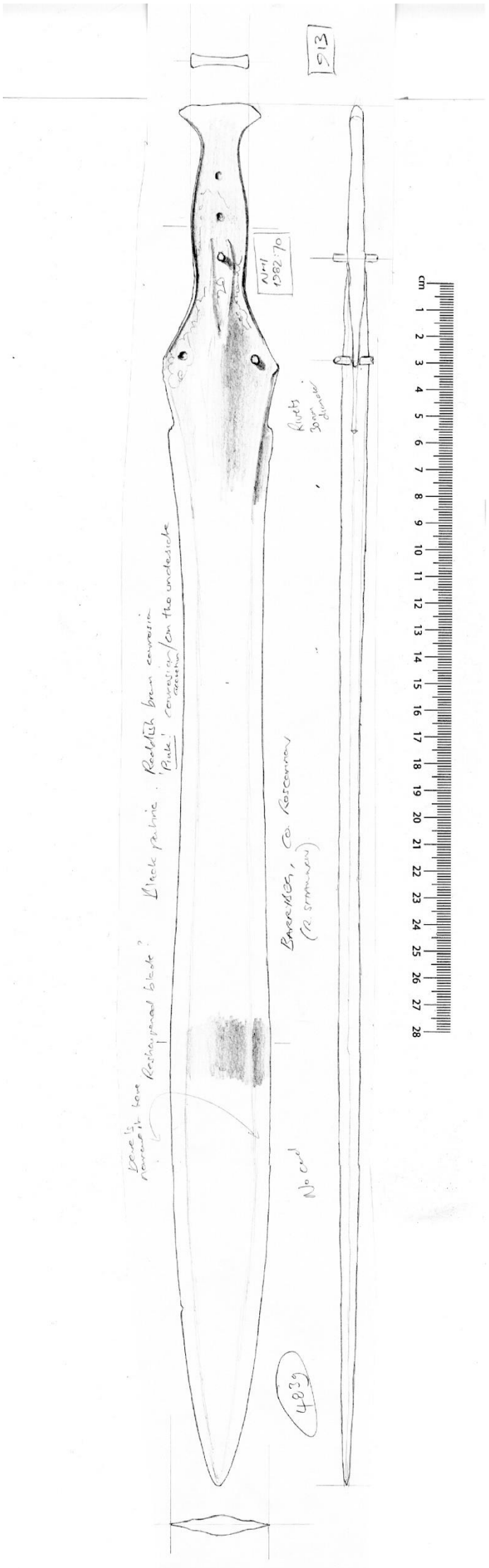
911


911
holes
nicely chamfered
no notch
Black patina, spots of green corrosion
'IRELAND'
Significant
edge damage
both edges
4889
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

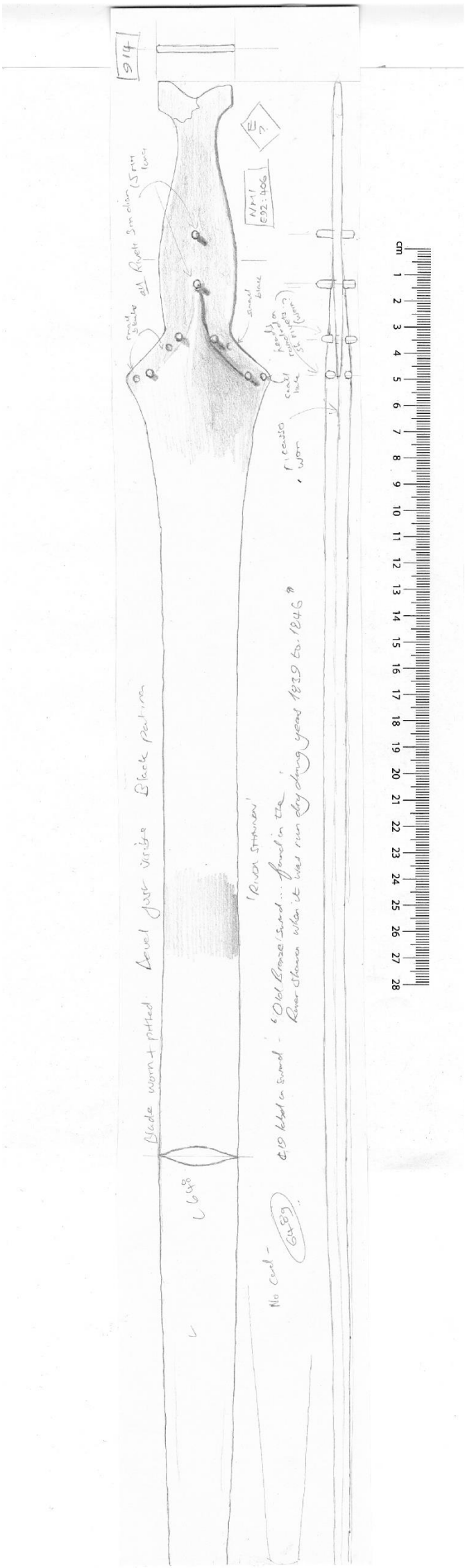
912

912
NMI
1995:332
Ok brown patina green corrosion worn
Straight blade
Bevelled edge
Found - Seema Lough, Nuckagh, Co Mayo
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

913


913
NMI 1982:70
Rivets
Broken
Ballinrobe, Co Roscommon
(Roscommon)
No end
4839
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

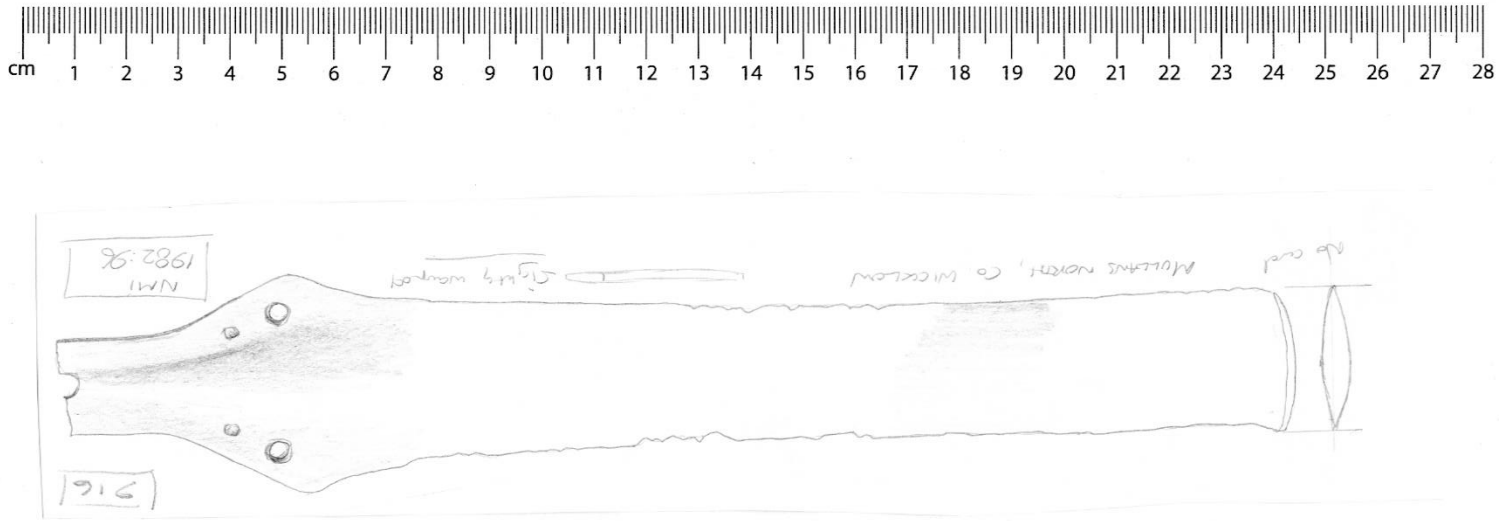
914


914
Blade worn + pitted
Bevel poor shape
Black paint
'River Shannon'
'Old Limerick Sword ... found in the River Shannon when it was run dry during years 1929 to 1946'
No cast -
cm

915

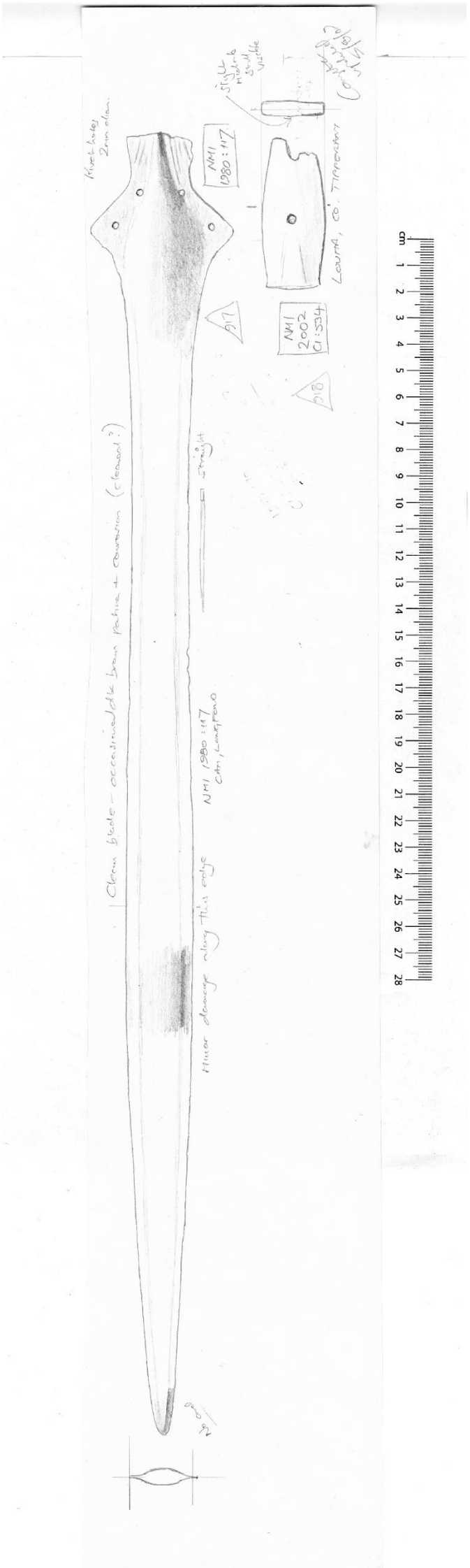
915
Copyright unpublished 1/8/09
NMI E92:408
Blade | pushrod
modern join
Label - 'From Chapman Collection Kellie Castle'

cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

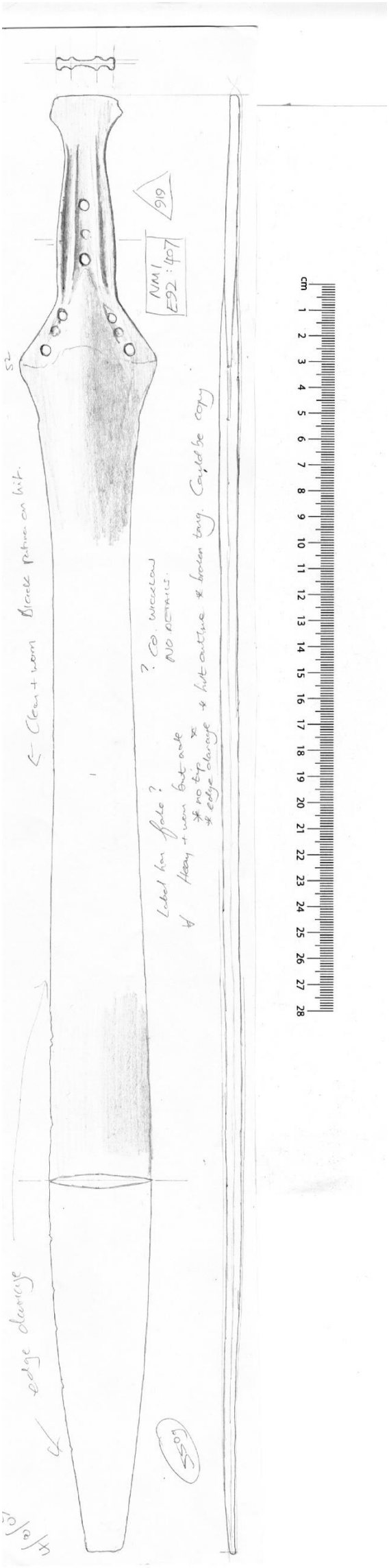

cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
NMI 1982.98
916

916

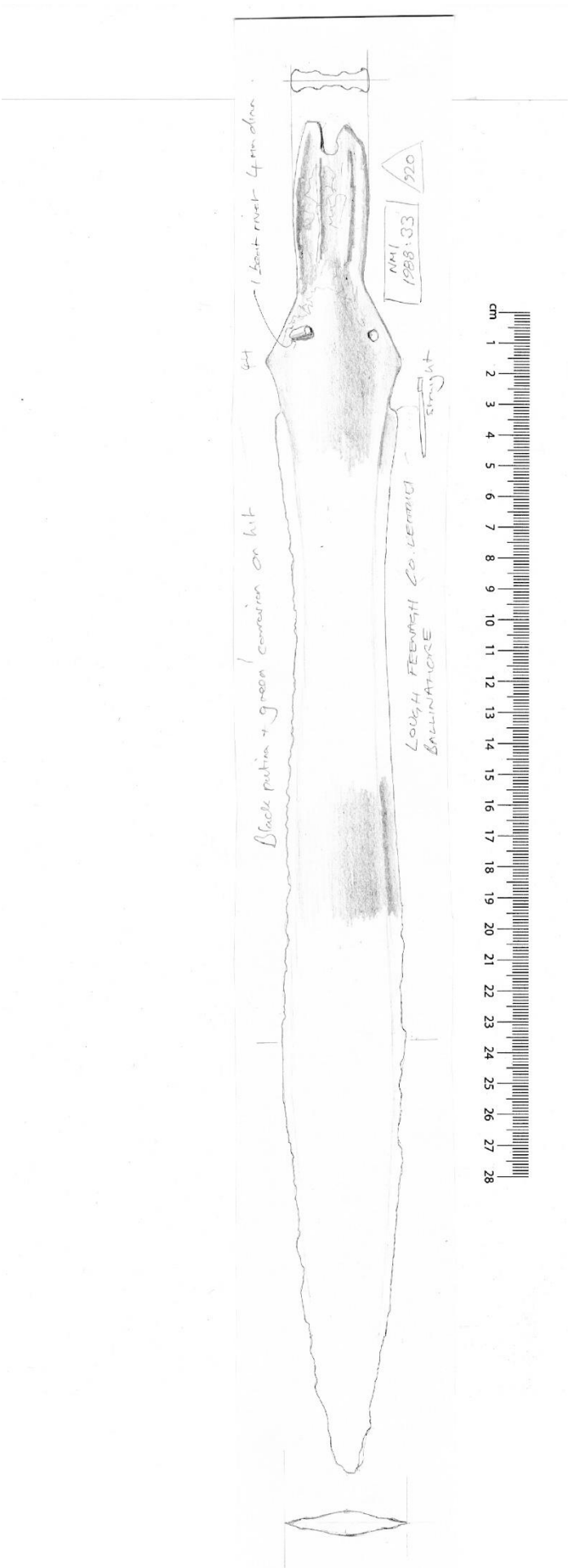
917
918


NMI 1980 : 147
NMI 2002 : 1334
Louth, Co. Tipperary
Straight
NMI 1980 : 147
Cam, Longford
Minor damage along this edge
cm

919

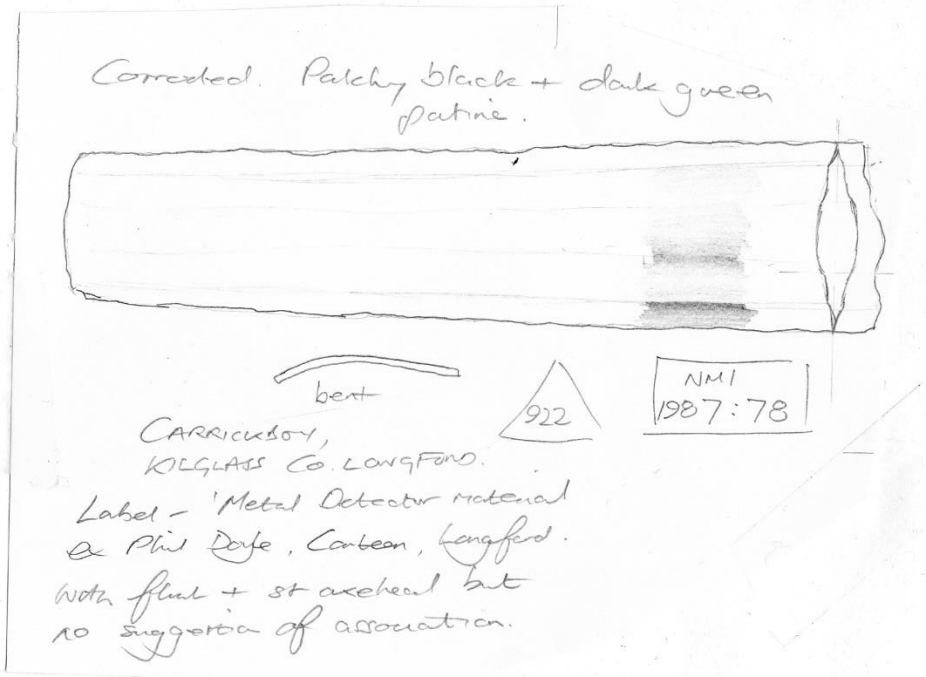

919
NMI
E92 : 407
S2
? Co. wicklow
NO DETAILS.
Label has flaked
Heavy + worn but note
* no tip
* edge damage
* hilt outline * broken twig. Could be copy
edge damage
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

920


NMI 1988:33
920
Black patina + green corrosion on hilt
LOUGH FEENAGH CO. LEITRIM
BALLINAMORE
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

921


cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

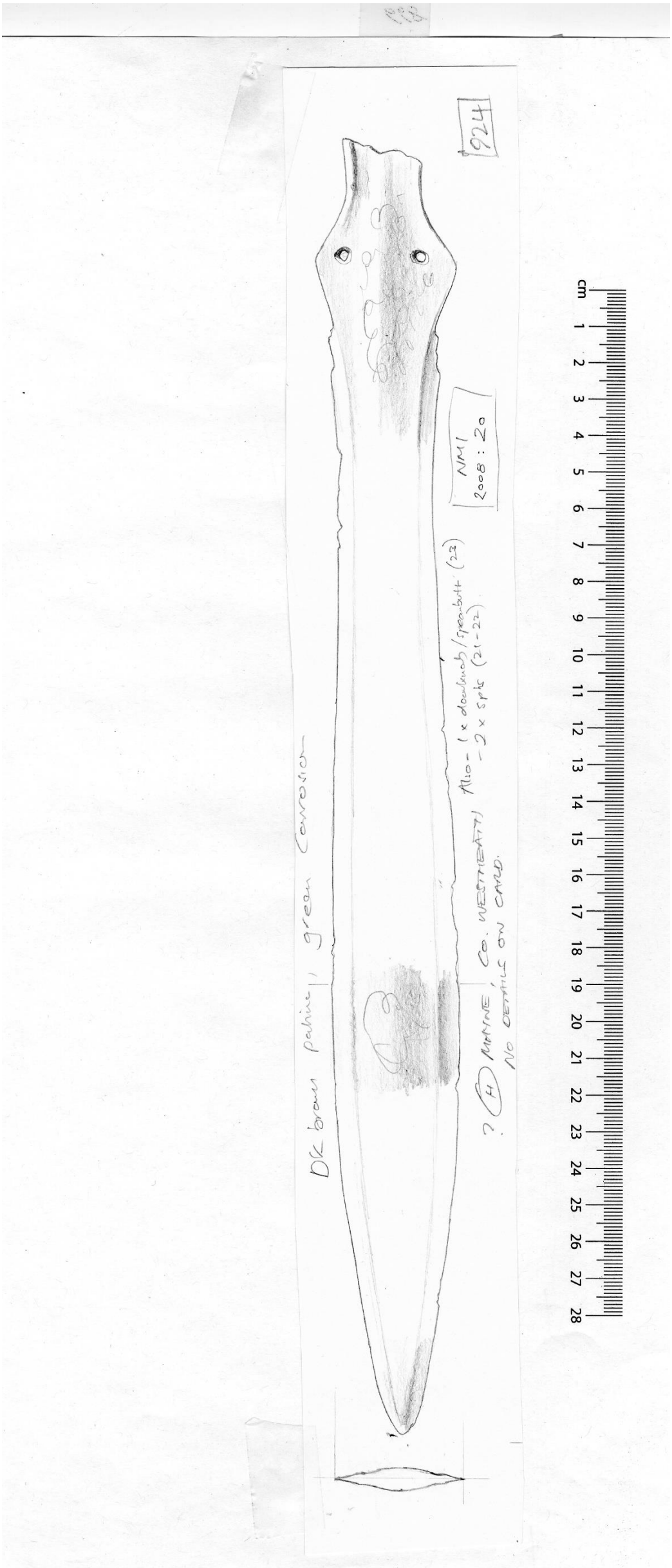

Corroded. Patchy black + dark green patine.
bent
922
NMI
1987:78
CARRICKBOY,
KILGLASS Co. LONGFORD.
Label - 'Metal Detector material
ex Phil Doyle, Carbean, Longford.
With flint + st axehead but
no suggestion of association.

922

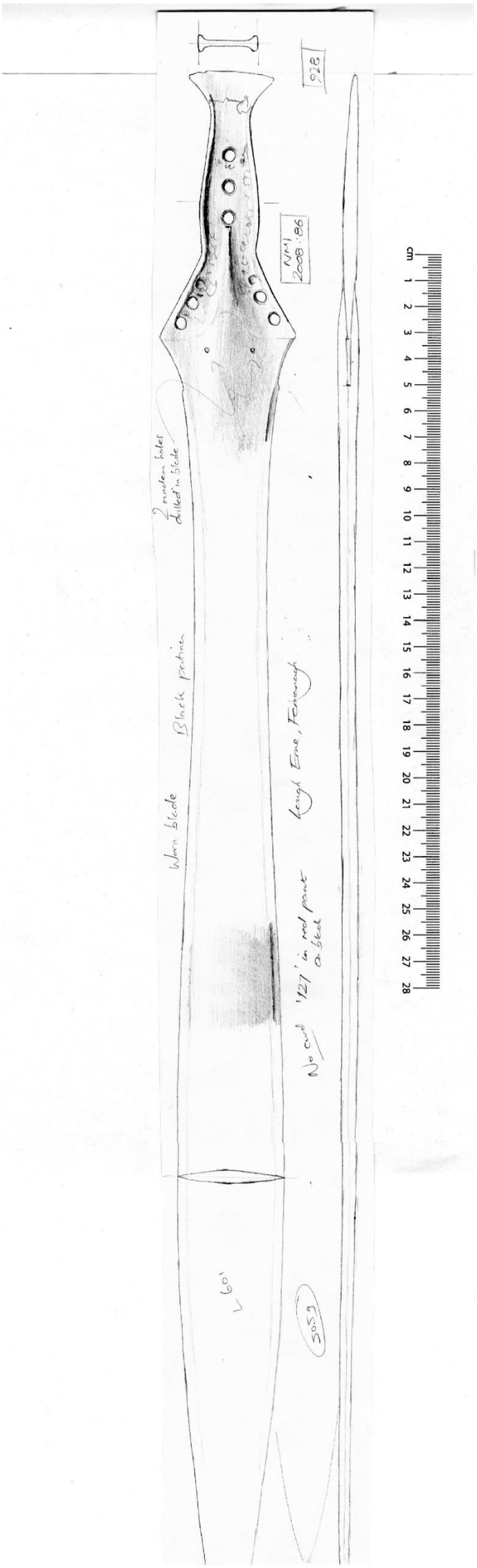
923

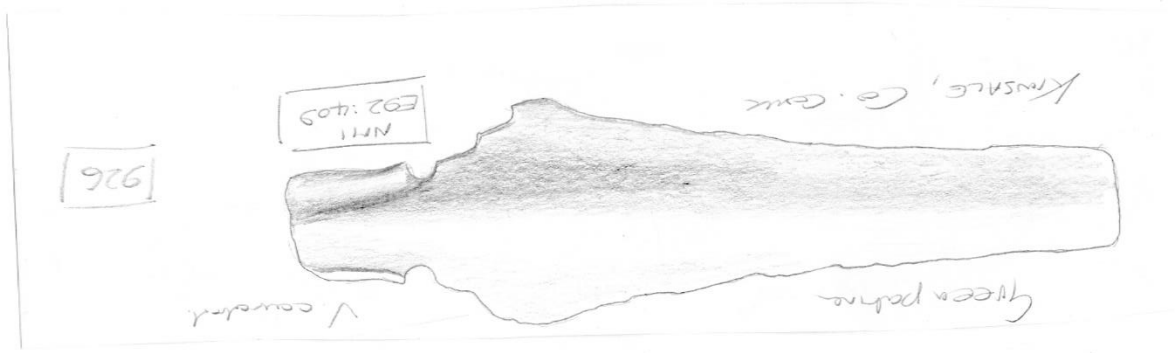
44
Patchy black patina
MEELICK, CO ROSCOMMON
923
NMI 1985:88
slightly bent (wavy)
Significant edge damage
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

924


924
NM1
2008 : 20
Dk brown patina / green corrosion
Allo - 1 x downturned spearbutt (23)
- 2 x spike (21-22)
? (H) Matrine, Co. Westmeath
No details on card.
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

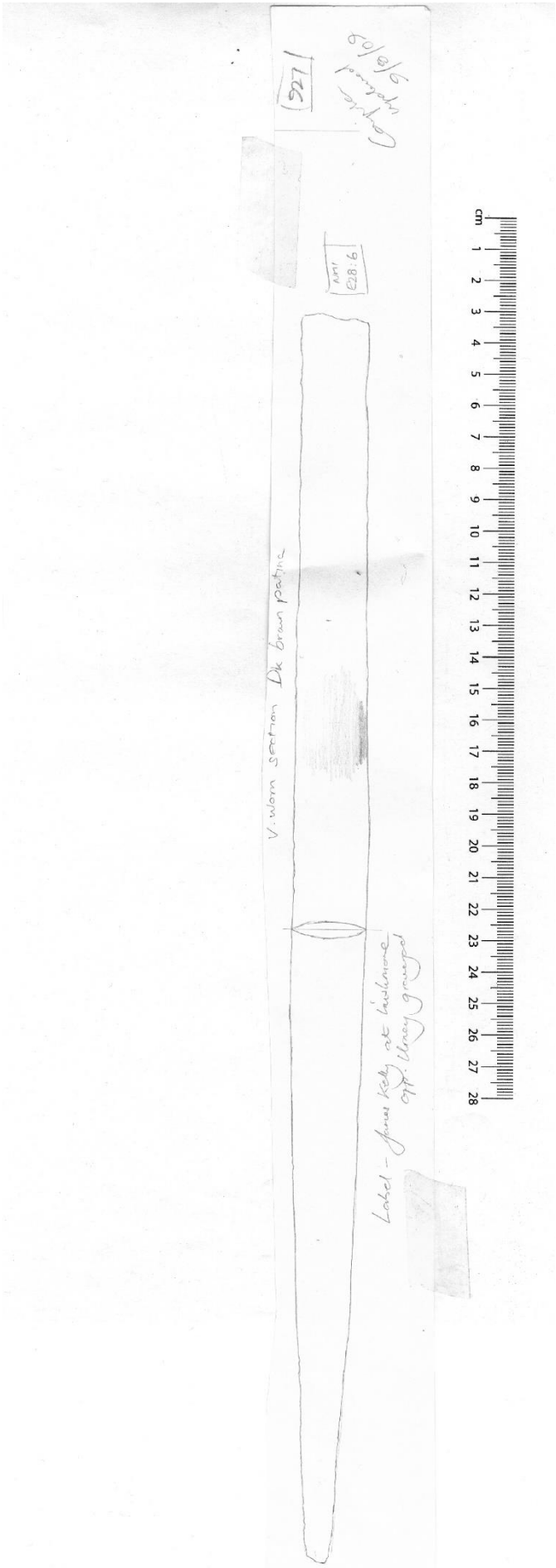
925

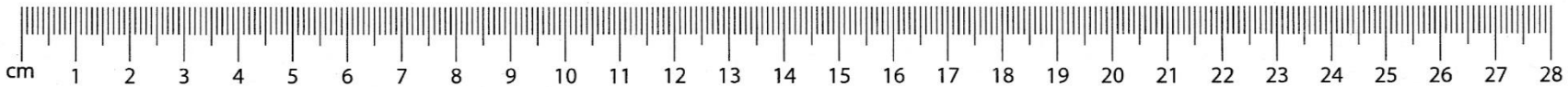

928
NMI 2008:86
2 modern holes drilled in blade
Worn blade
Black patina
Lough Erne, Fermanagh
No end '127' is mod part in black
50.9
60°
cm

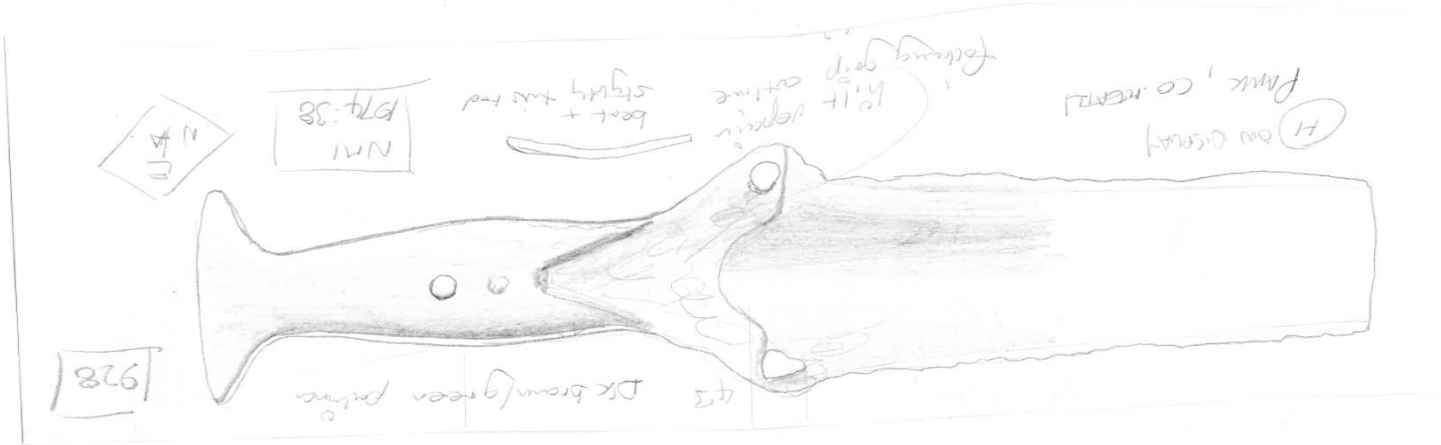

cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
926
NMI
E92 :1409
Knossos, Ce. Cave
River pebble
V. common

926

927

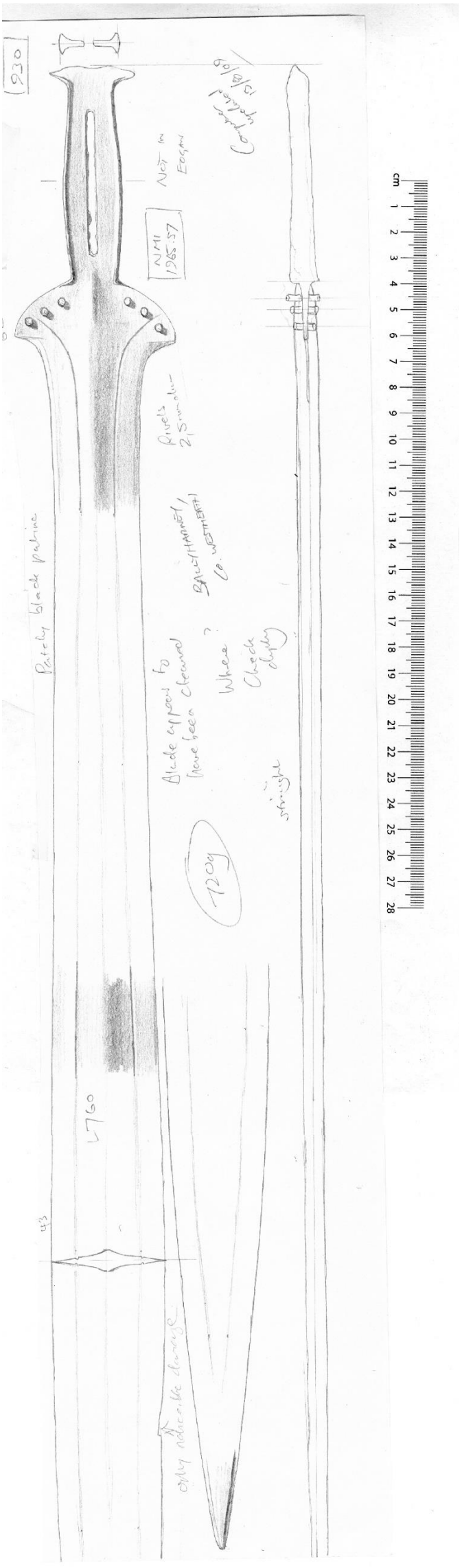

927
V. worn section Dk brown patina
Label - Jones Kelly at Ashmore
Opp: Unog grounds
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28



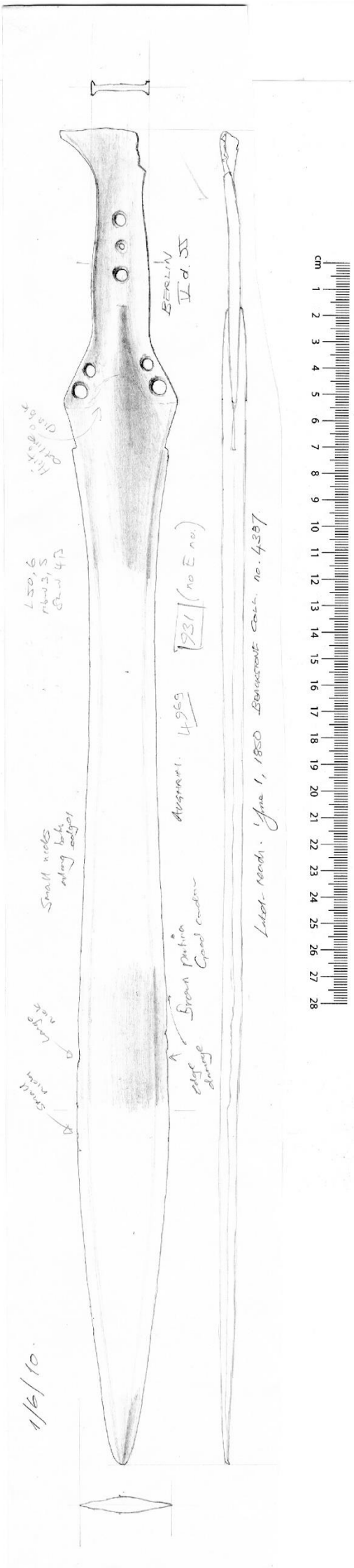


928

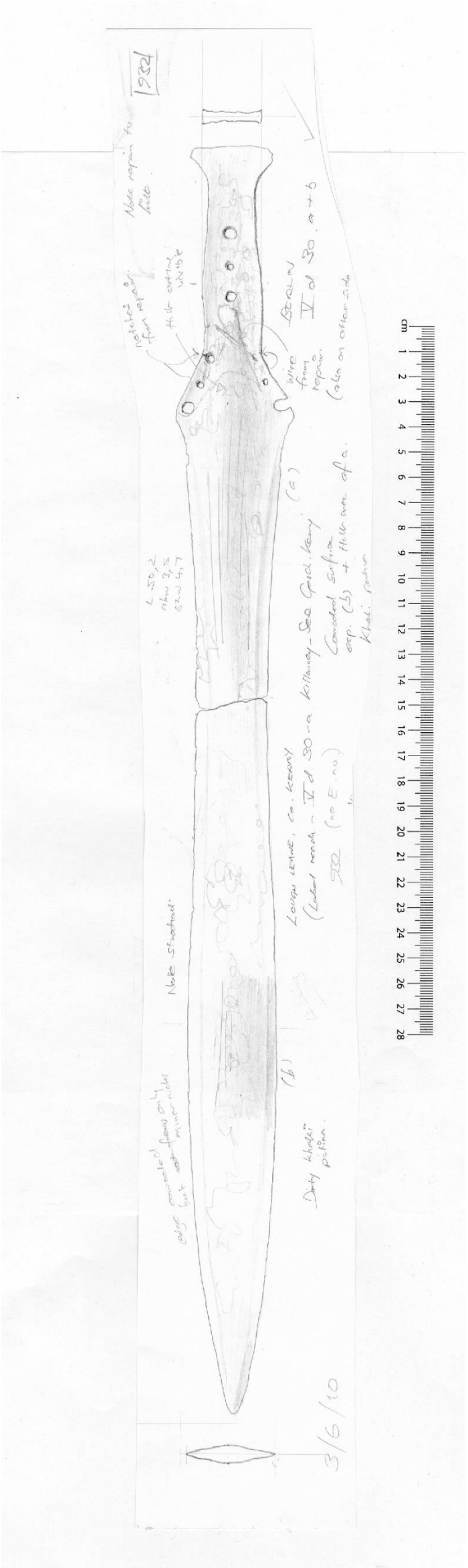
930


930
NMI 1965.57
Rivets 21 Survive
BALLYHANNOT / Co. WESTMEATH
Blade appears to have been cleaned
Where ?
Check display
Butterfly blade marking
L760
cm

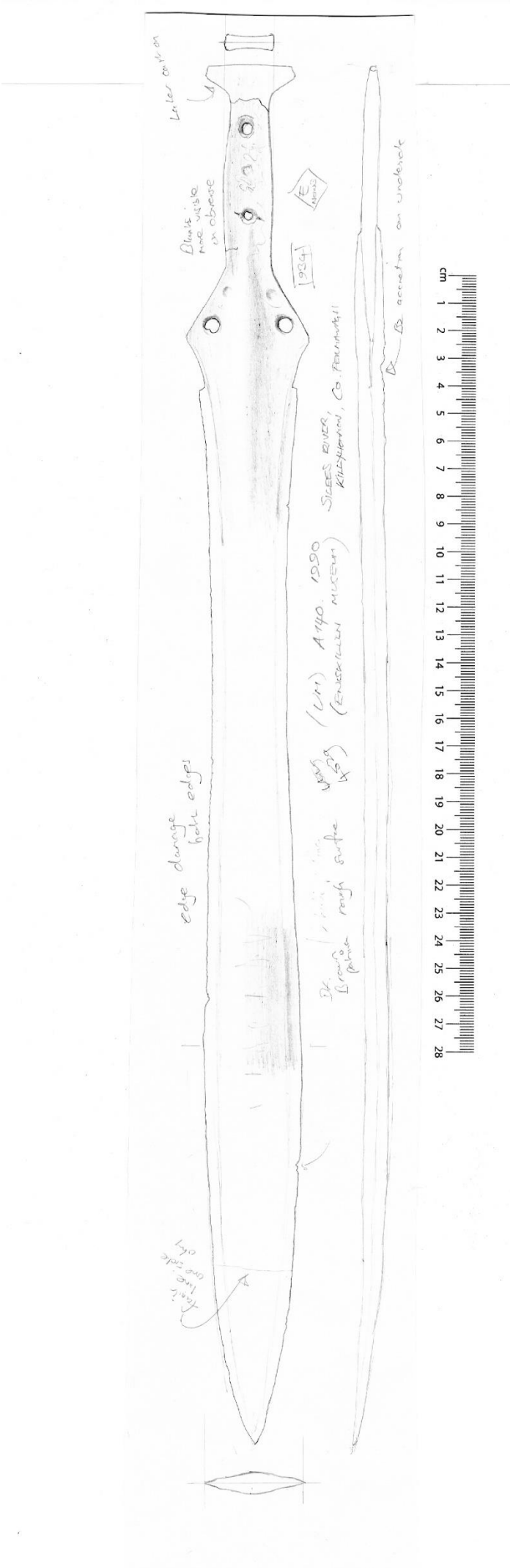
931


BERLIN
II d. 55
931
(no E no)
4969
Small nicks along both edges!
Lower Nordh. June 1, 1850 Berendt Coll. no. 4397
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

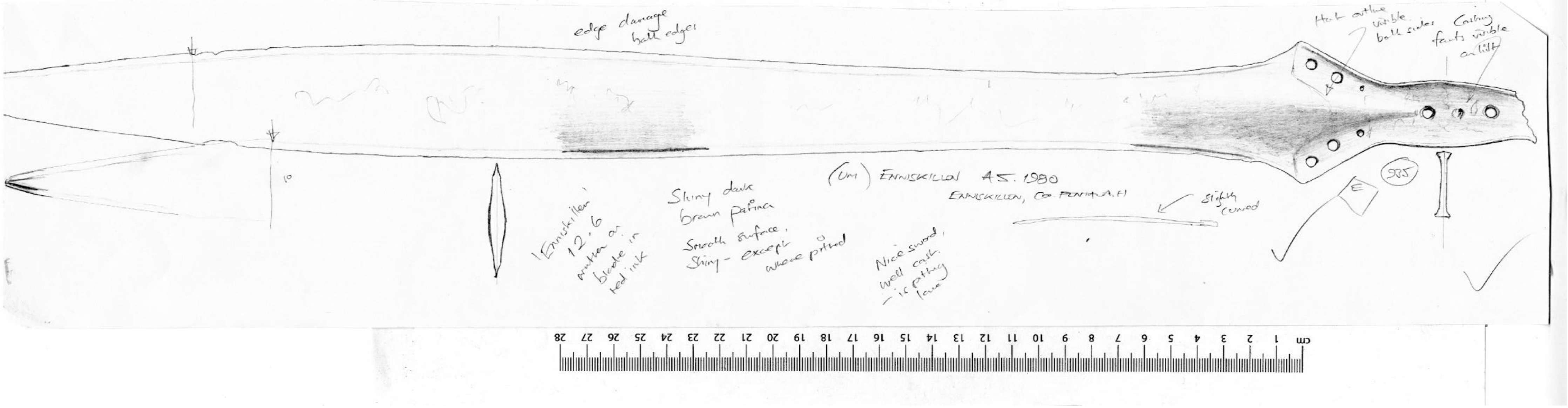
932


1984
Note repair to base.
Note striations
Wire from repair
Note shoulder
Dirty khaki patina.
3/6/10
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

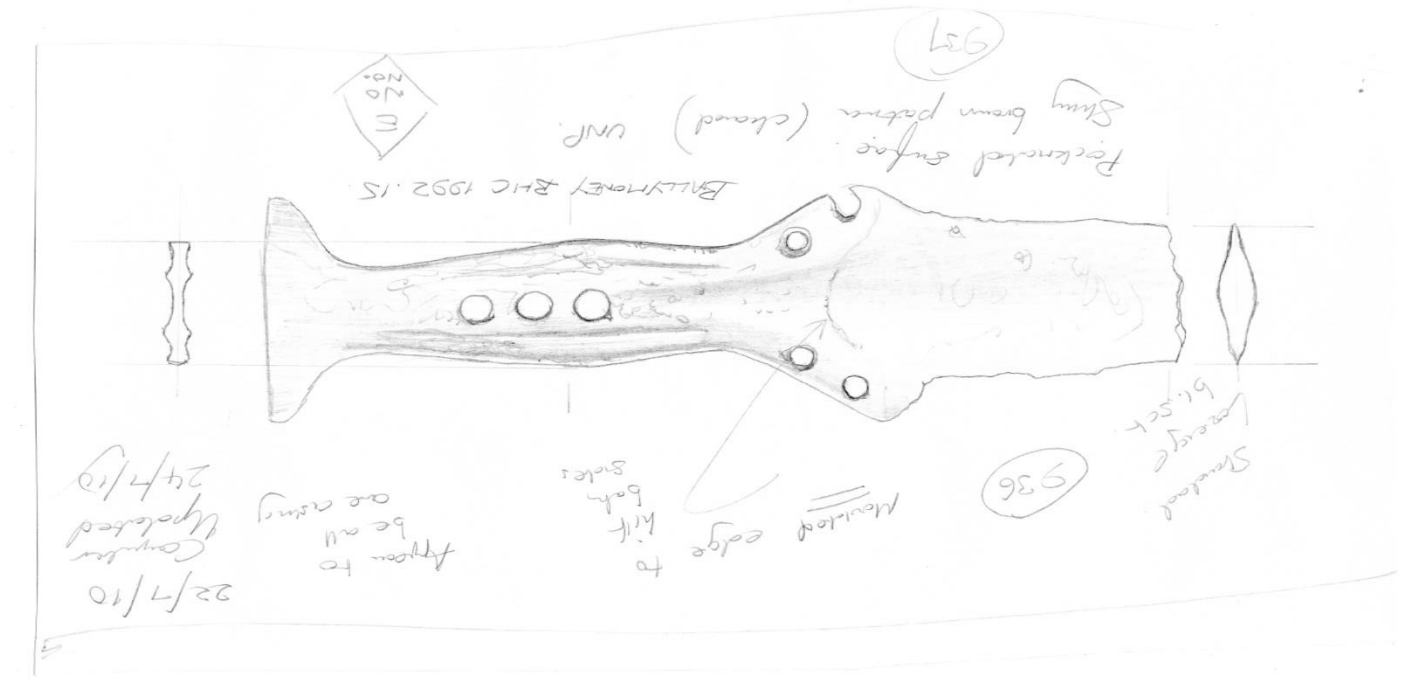
934


Later carving
Discoloration and abrasion
1934
E
SIGERS RIVER, KILLYHEVLIN, CO. FERMANAGH
(UM) A140. 1990
(ULSTER MUSEUM)
edge damage
Dk brown patina
rough surface
Light line on one side only
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

935

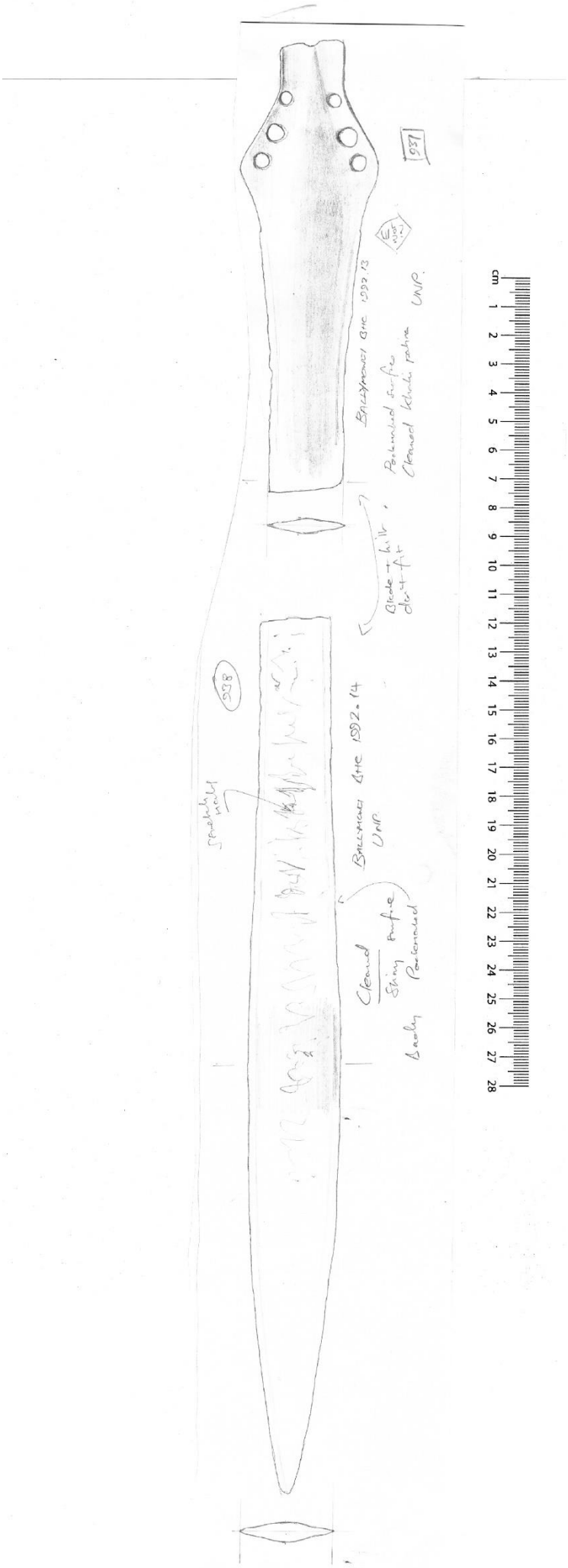


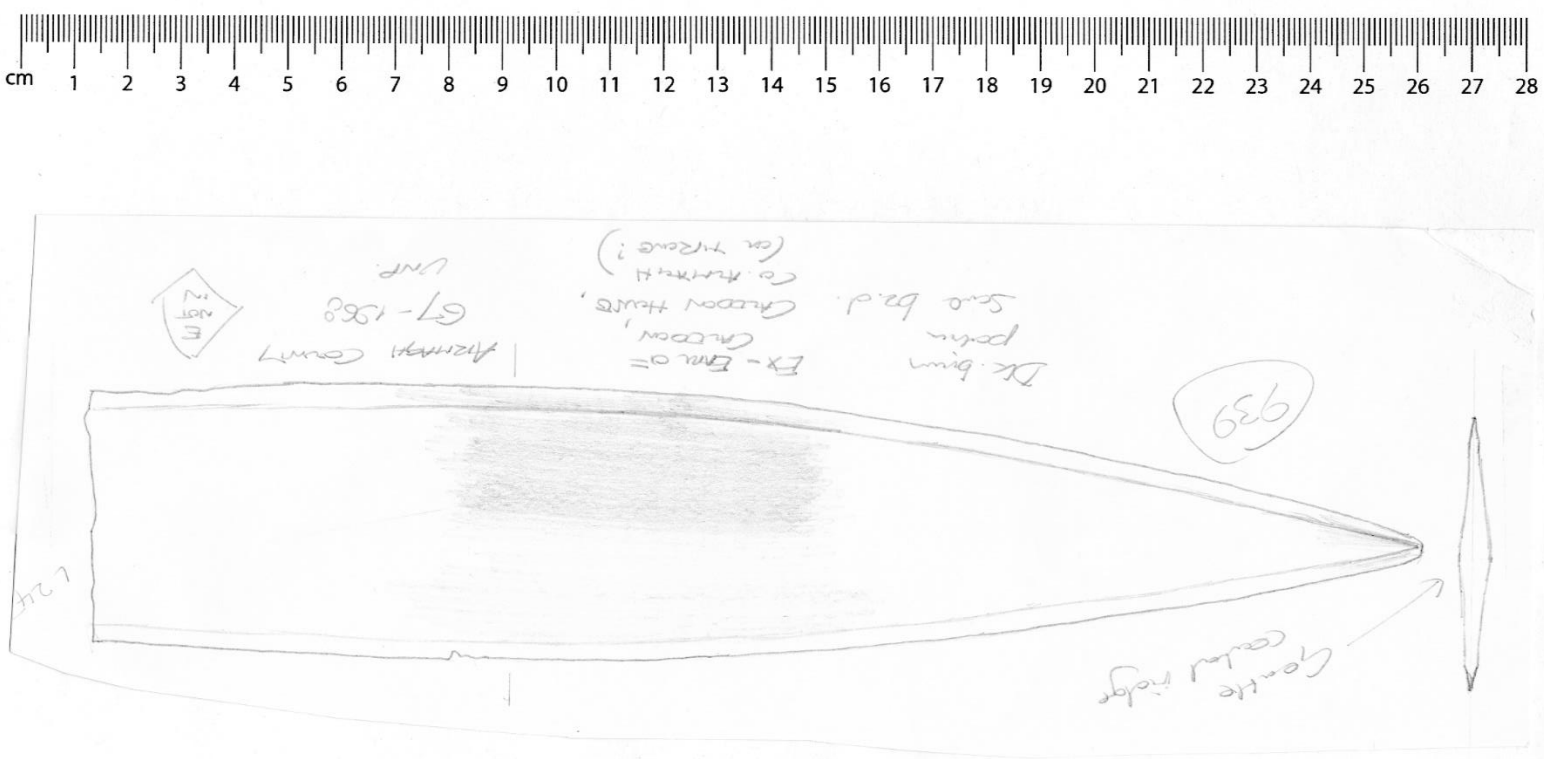
(UM) ENNISKILLEN A5.1980
ENNISKILLEN, CO FERMANAGH
935
E
Hilt outline visible both sides
Casting faults visible on hilt
slightly curved
edge damage both edges
10
'Enniskillen' 12.6 written on blade in red ink
Shiny dark brown patina
Smooth surface, Shiny - except where pitted
Nice sword, well cast - is pretty lovely
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28



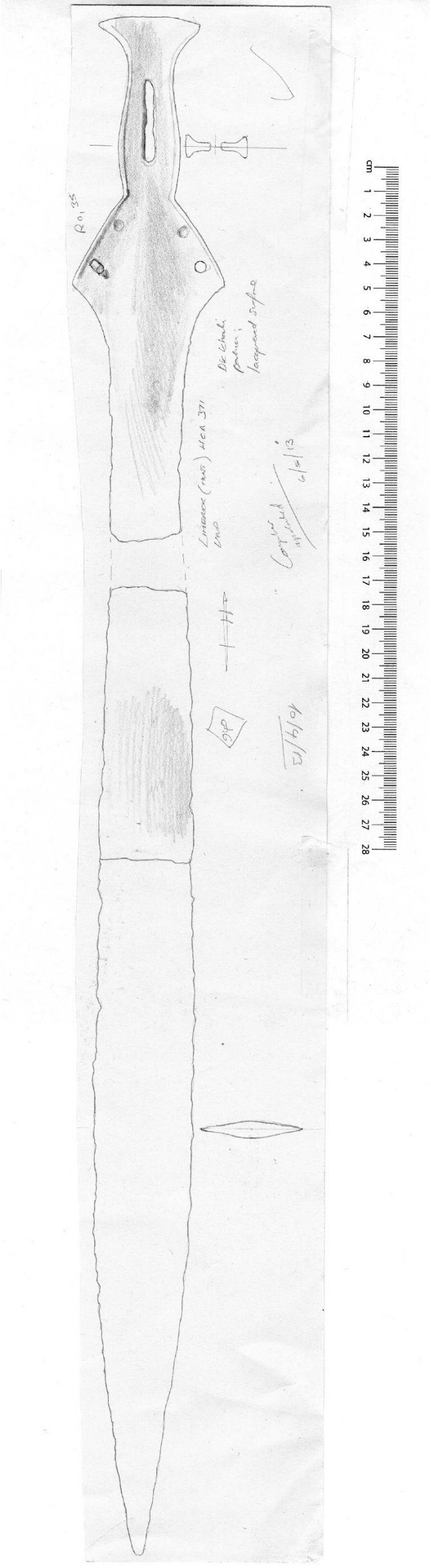
936

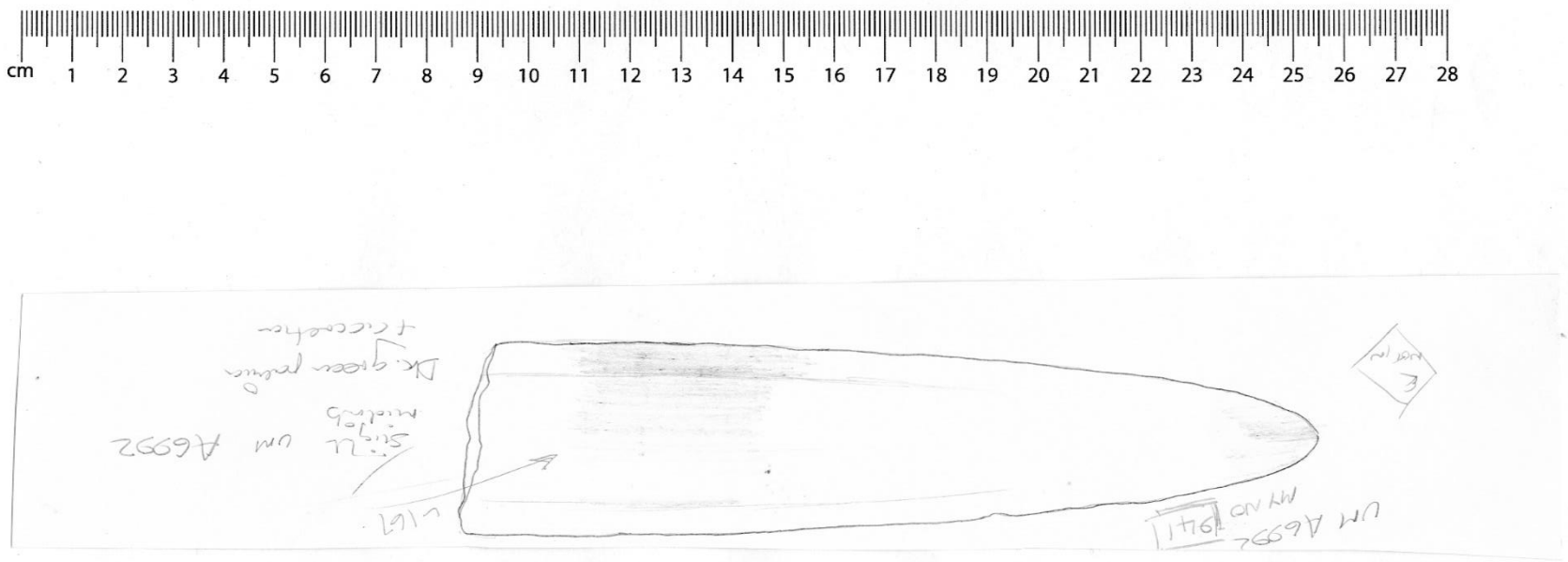
937


937
938
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28


cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
939

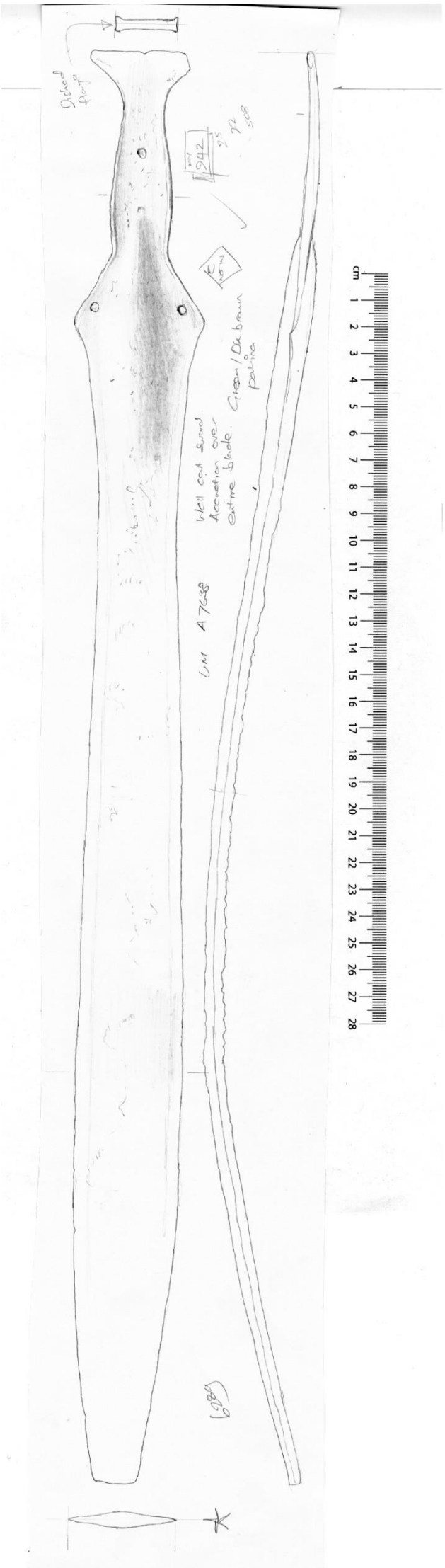
940



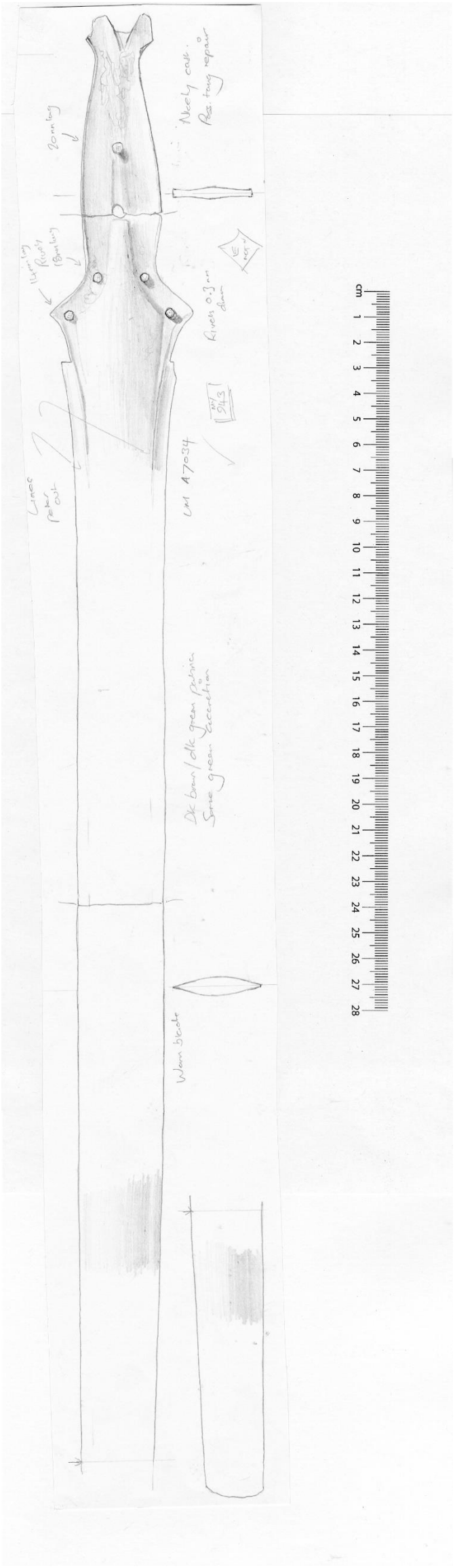


941

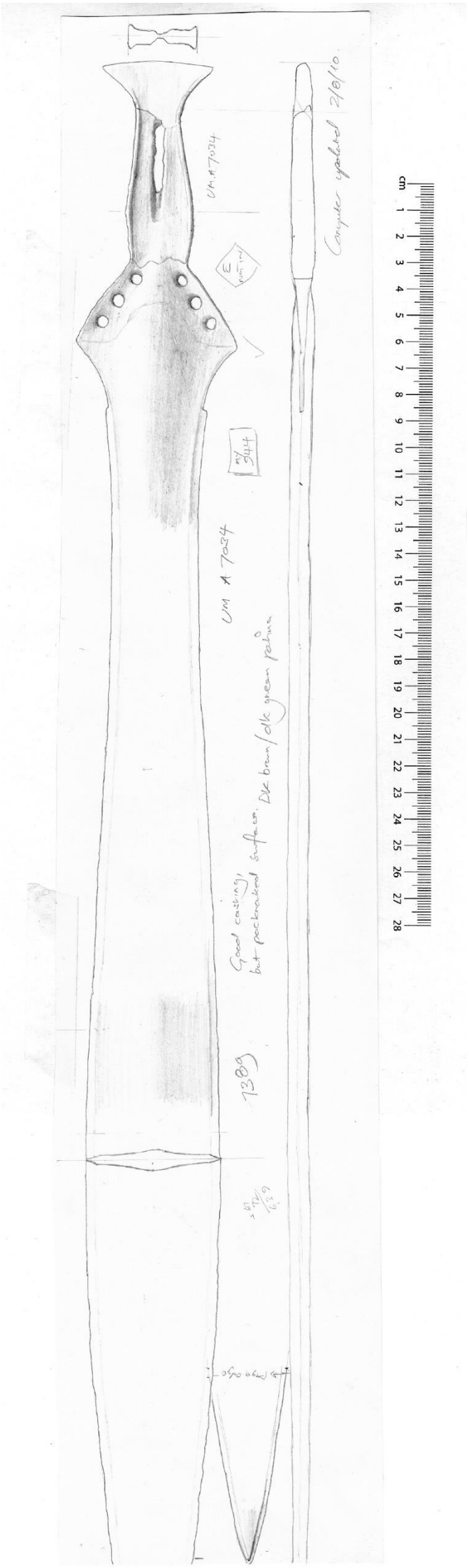
942


942
Well cut sword
Accretion over
entire blade
Green/Ox brown
patina
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

943


Needs cuff.
Poss. fixing repair
20mm long
Kivers 0.5mm
Worn inside
Worn beside
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

944

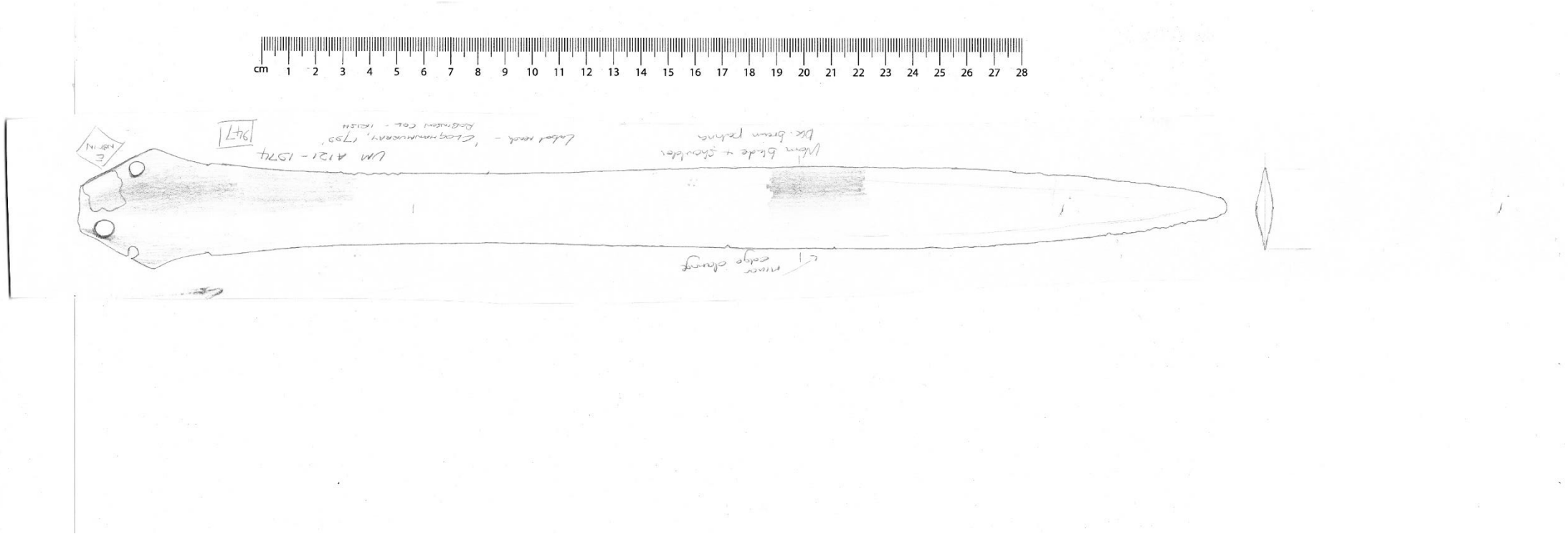

UM.A 7034
Computer updated 2/8/10
UM A 7034
Good casting, but pecknicked surfaces. Dk brown/olk green patina
1389

945

Rough surface
Dk. brown patina
Ennis (NM) 1974 : 29
945
Killaloe, Co. Clare
Marked rounded
Seobhan
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

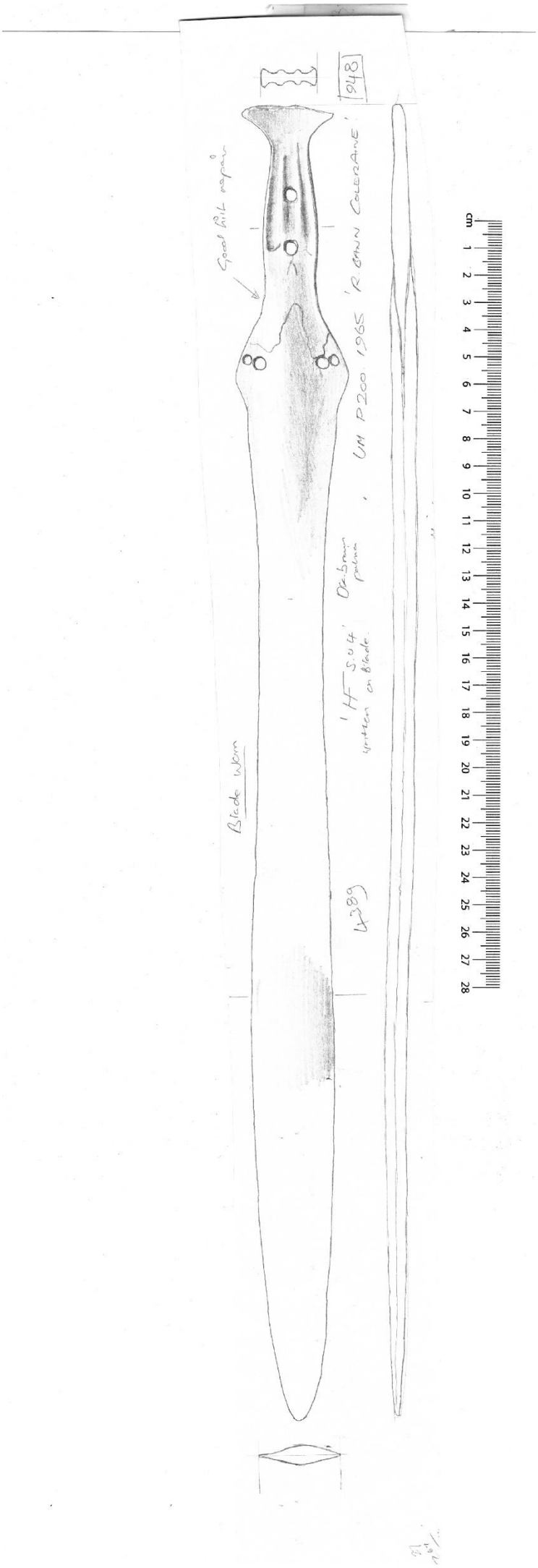
946

Rivets broken off in holes
blade
porous corroded surface
UM 85-1954
946
E NOT IN
Fakes of the Day!
A 115-1974 = FAKE

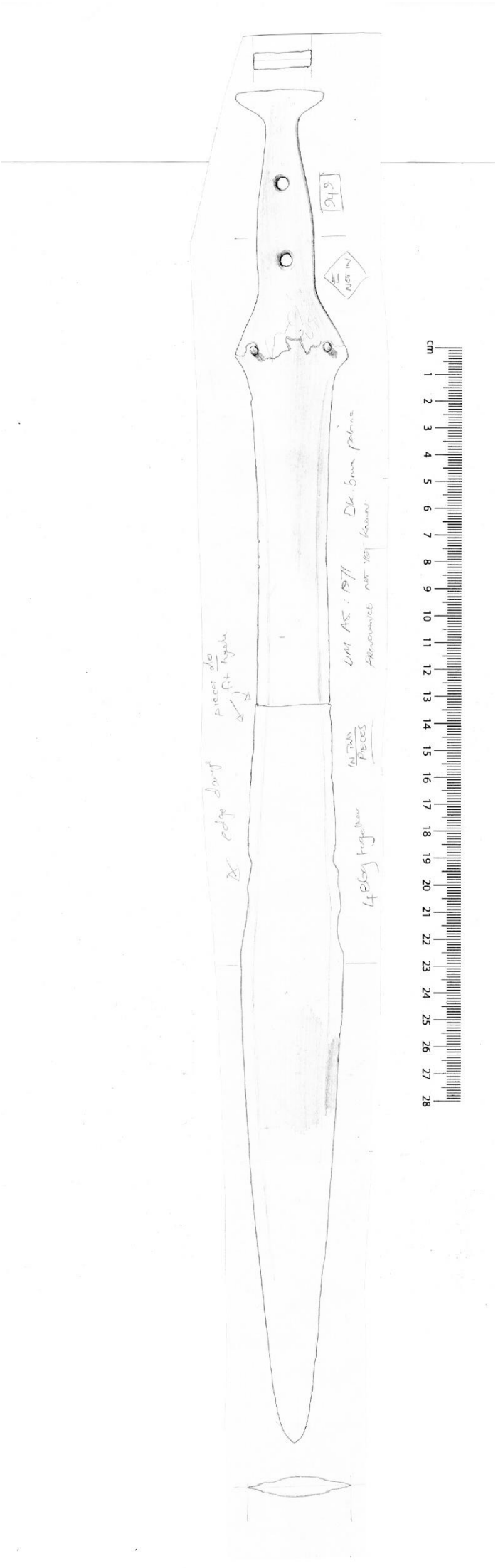


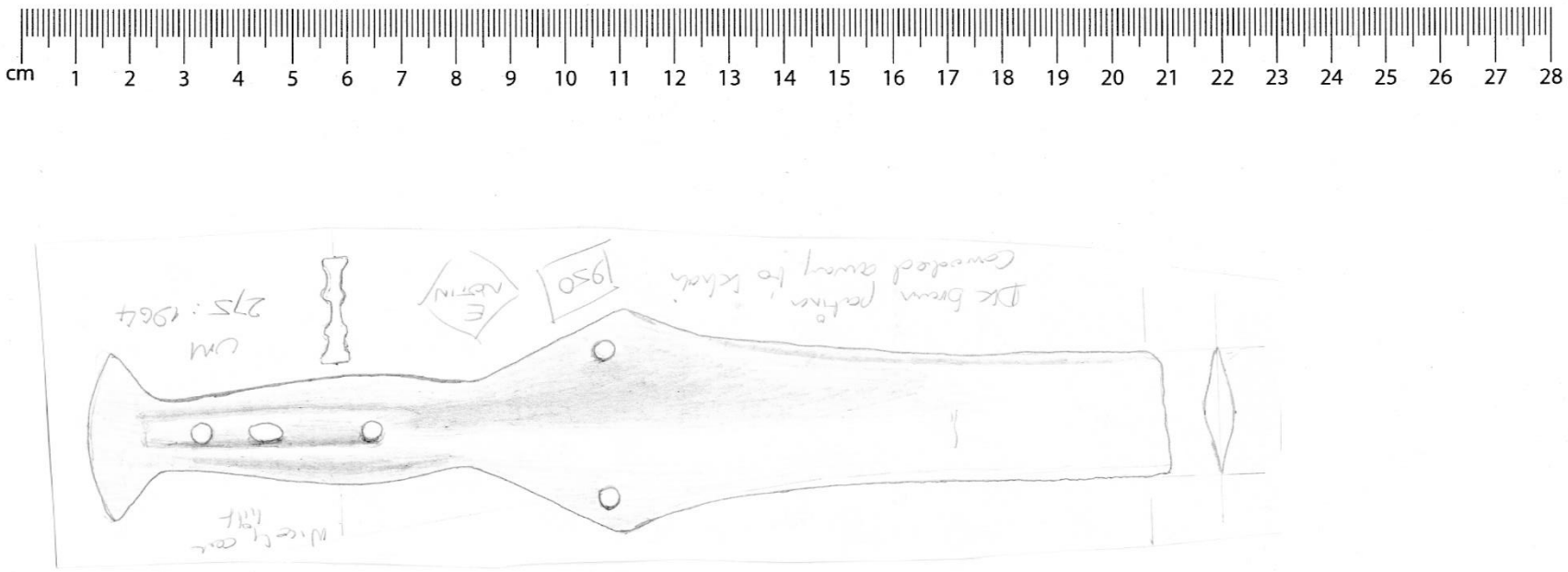
947

948


948
Good RIK repair
'R Gmun Colegiane'
UM P200 1965
Old brown polish
'HF S.U 4' written on blade.
Blade worn
(289)
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

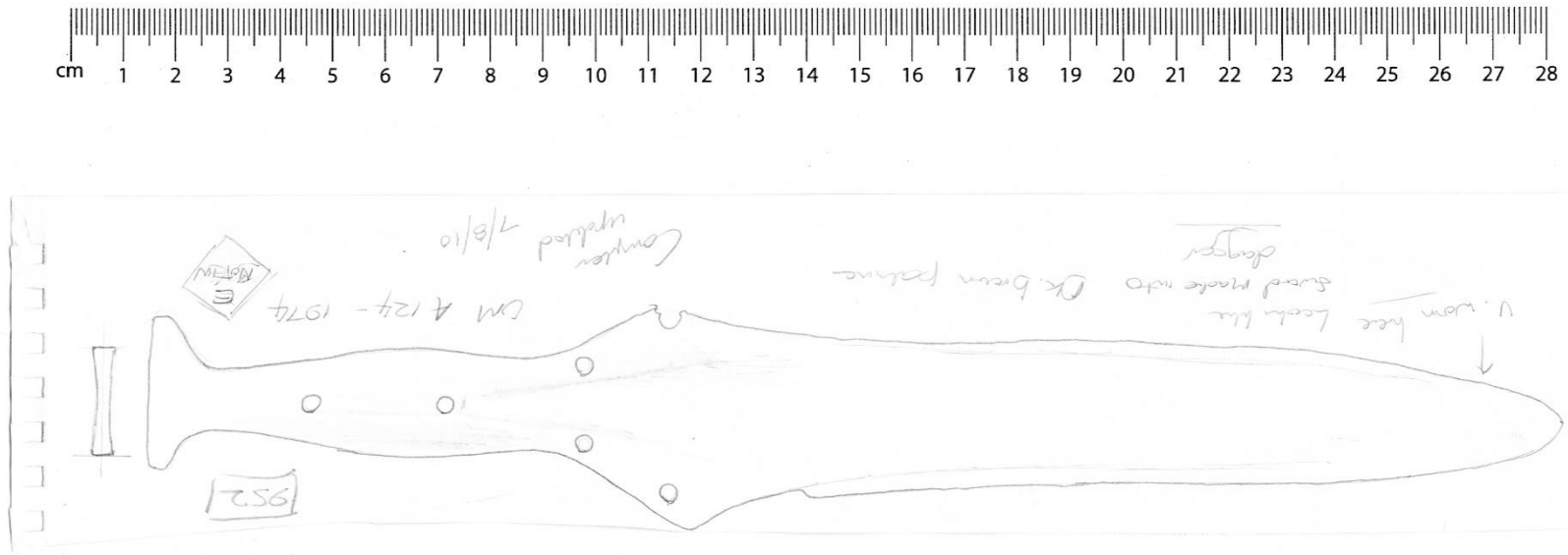
949





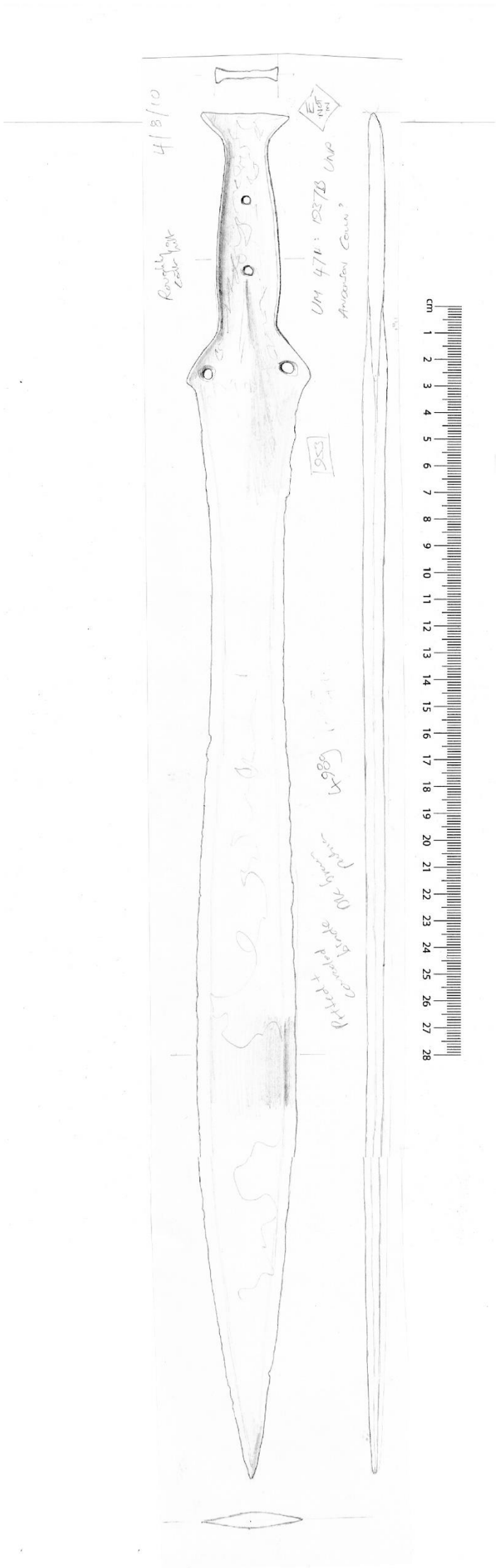
950

951

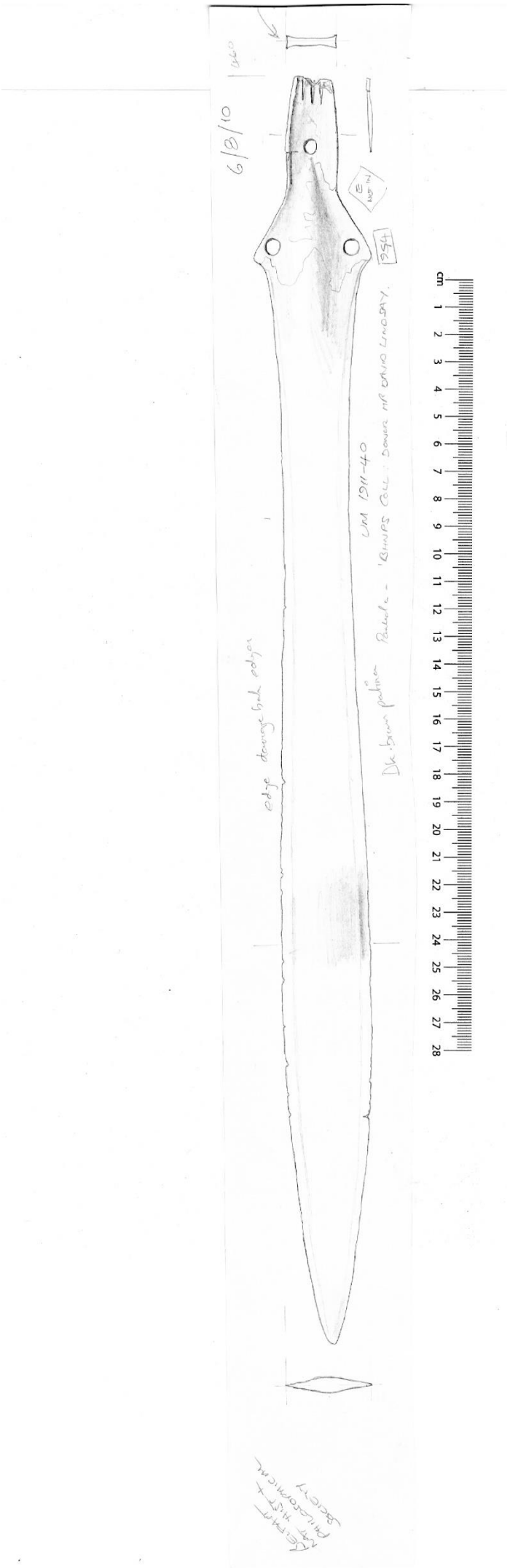


952

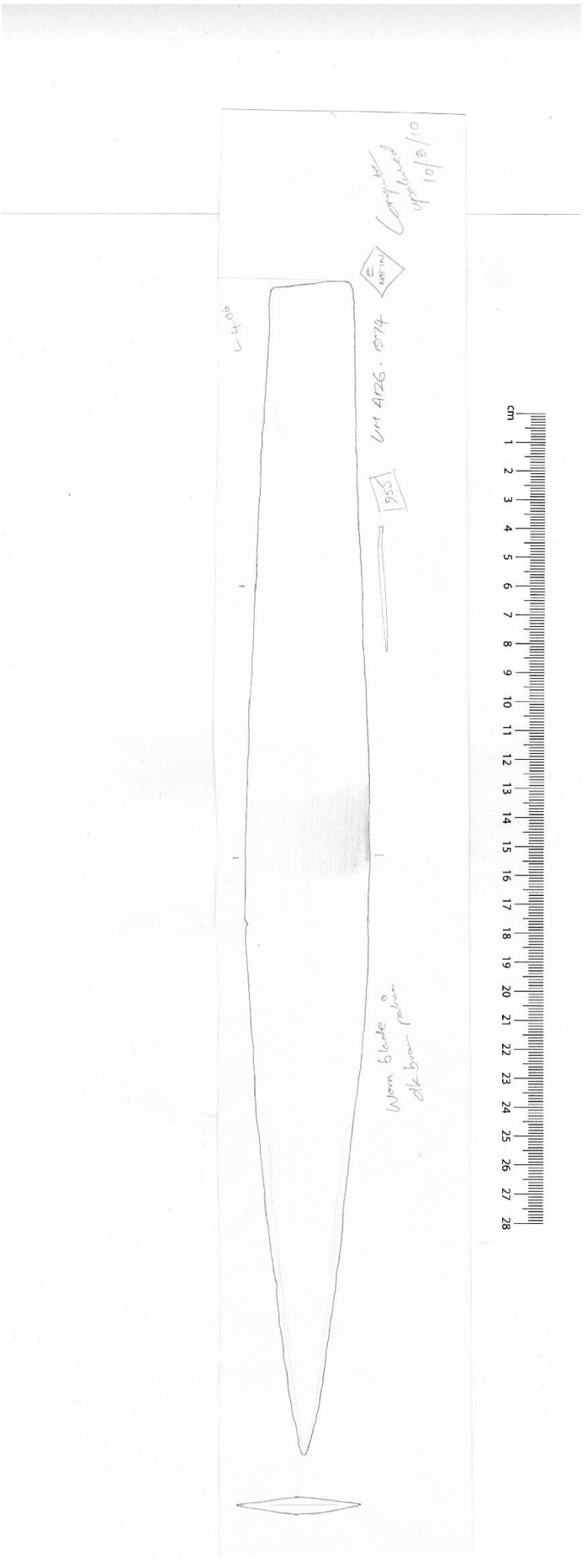
953



954


6/8/10
954
UM 1911-40
edge damage both edges
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

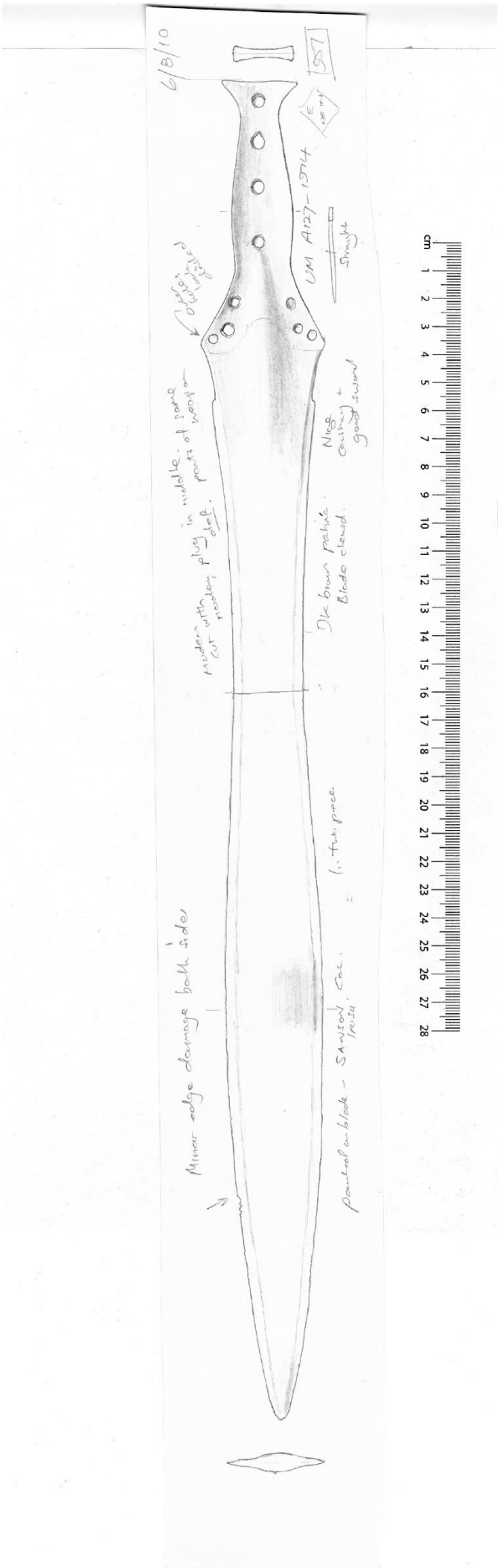
955


Complete
Unpolished
10/10/10
Unit 4126 - 15174
955
Worn blade
elk bone point
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

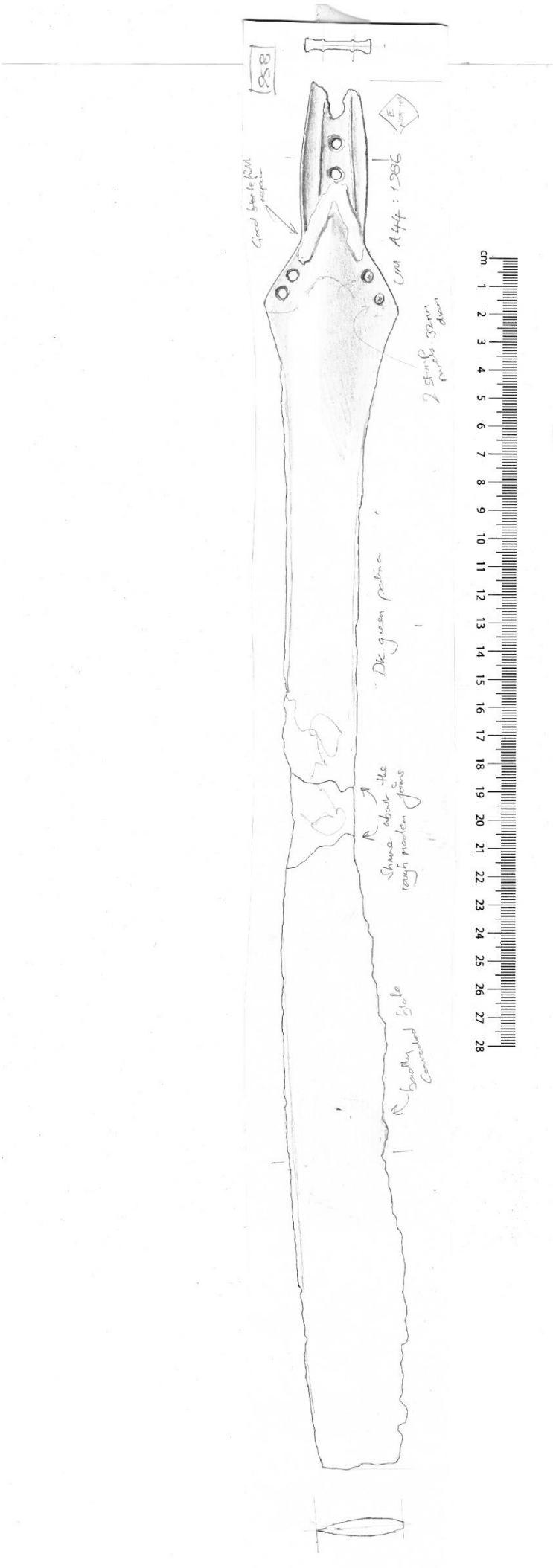
956

V. distinct ridging
UM VM 125 : 1974
956
Ok. green leads
Paulsen
Robinson Col. Cat.
C. Egypt.

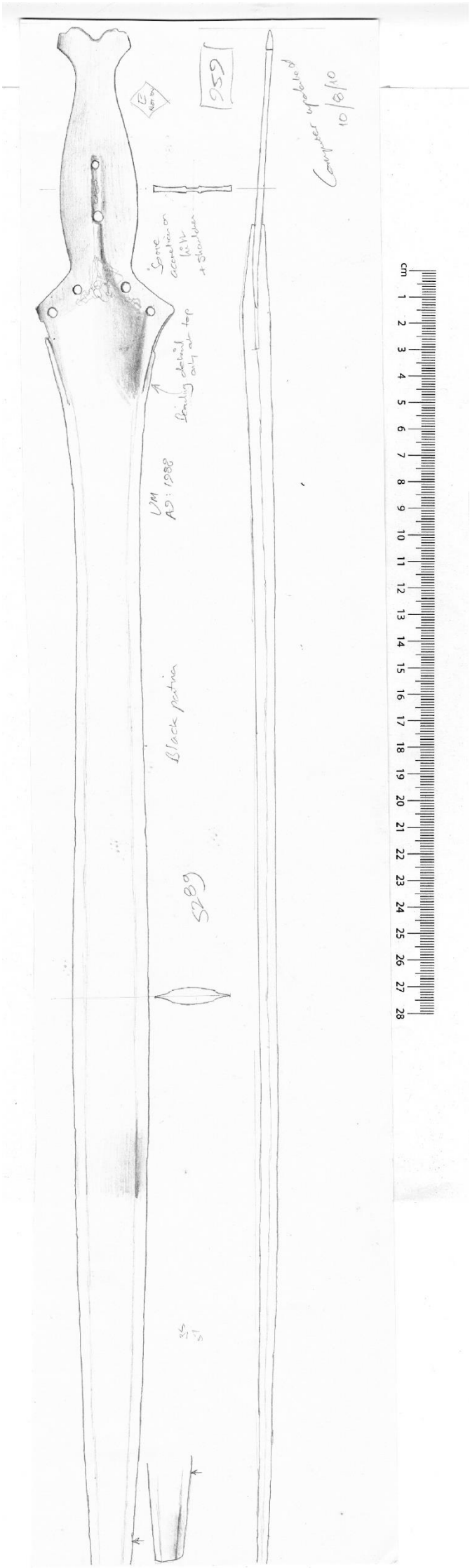
957


6/B/10
957
UM A127-1974
Straight
Modern cut with plug in middle of some part of blade.
Dk brown patina. Blade clean.
Nice centring + good sword
Minor edge damage both sides
Pommel on blade - SAWSON, Cal. 1814
1. Hilt piece
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

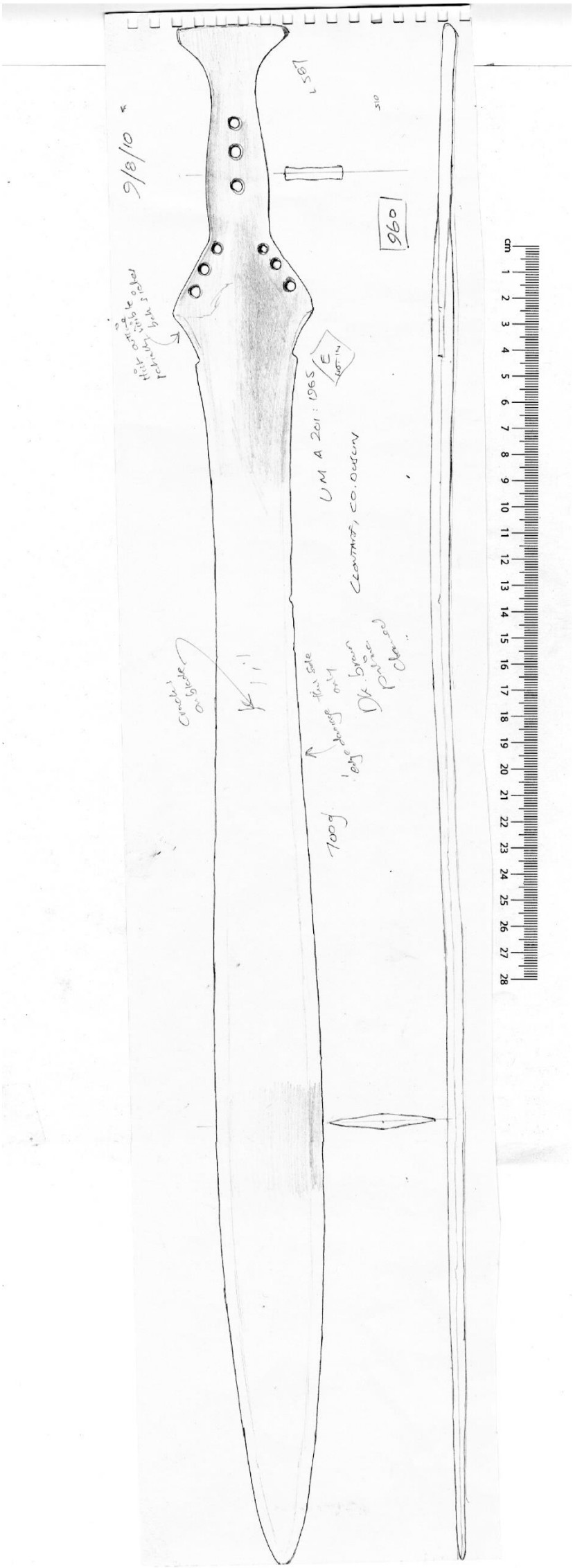
958


958
Good leather repair
Dk green paint
Shows about the rough wooden grip
Leather Grip
Corroded Hole
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

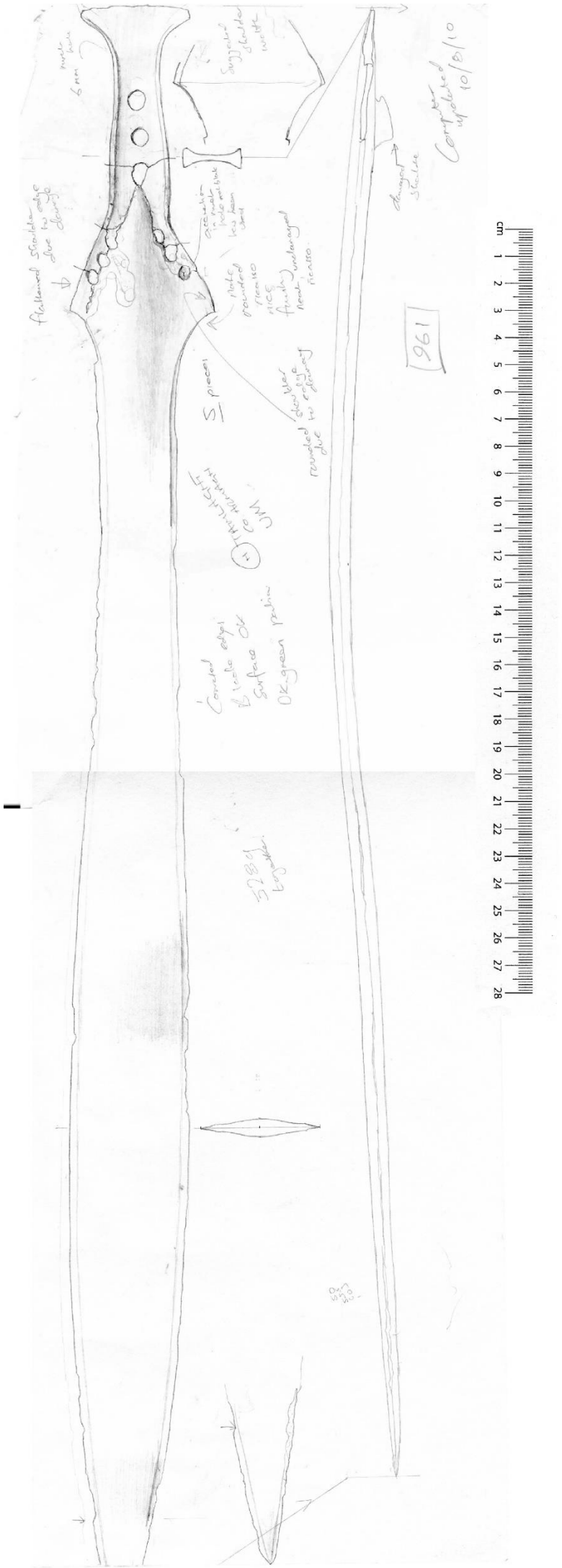
959


959
Some accentuation of lower + shoulder
finishing detailed only on top
LM
AS: 1988
Black patina
SD89
Computer updated
10/8/10
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

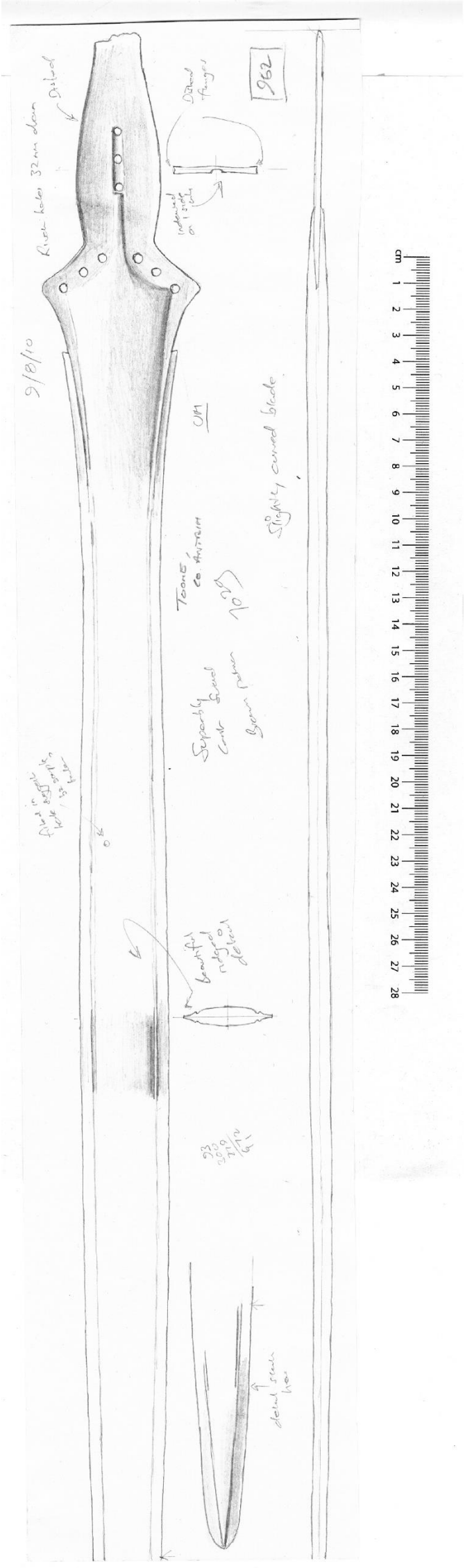
960



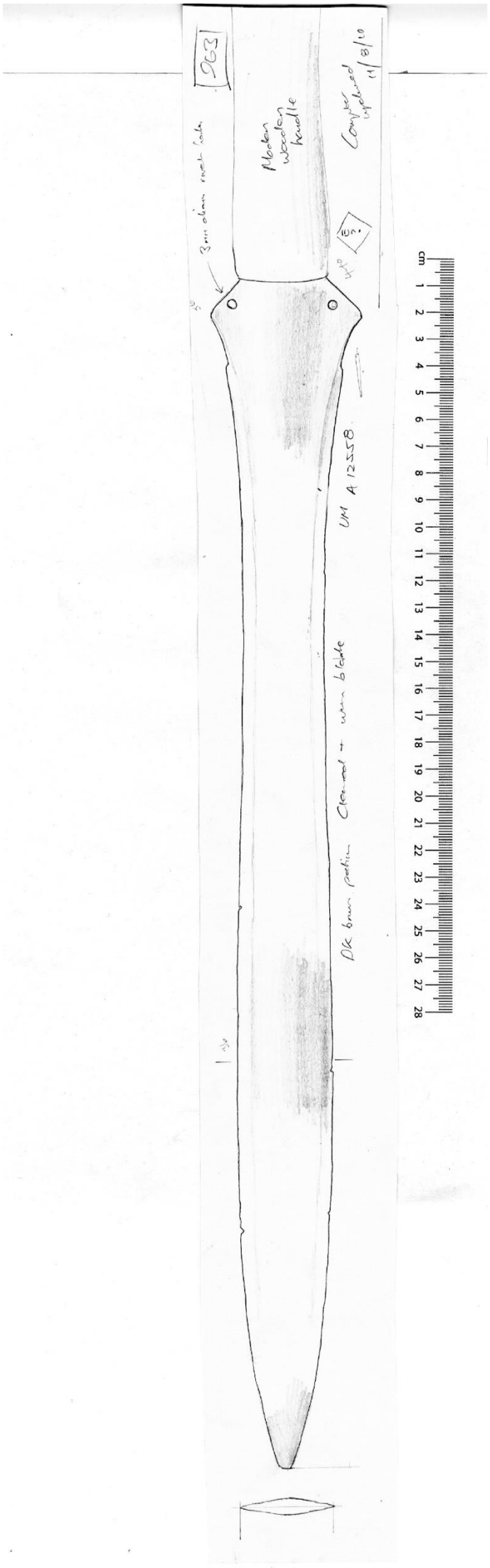
961


961
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

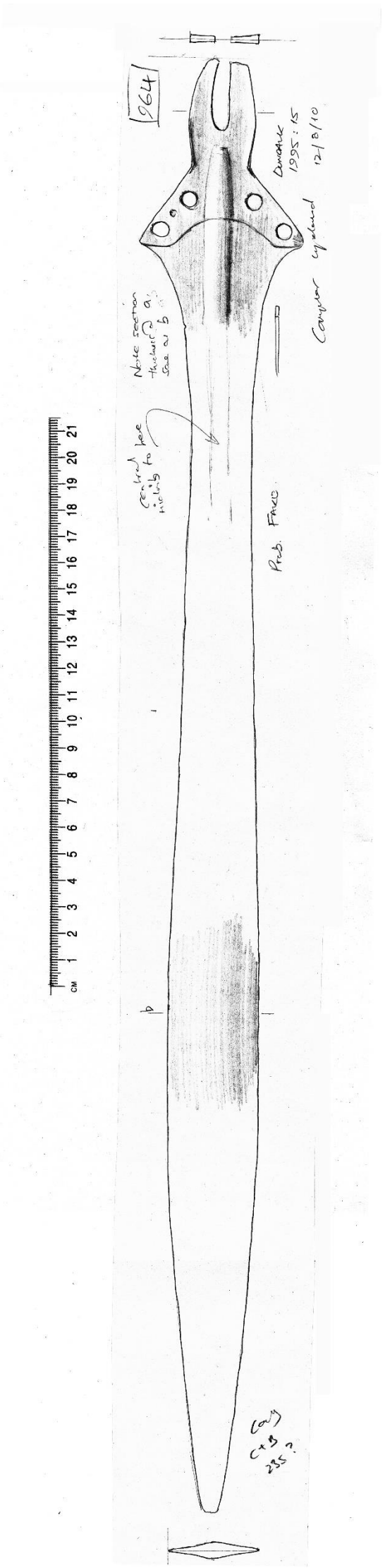
962



963

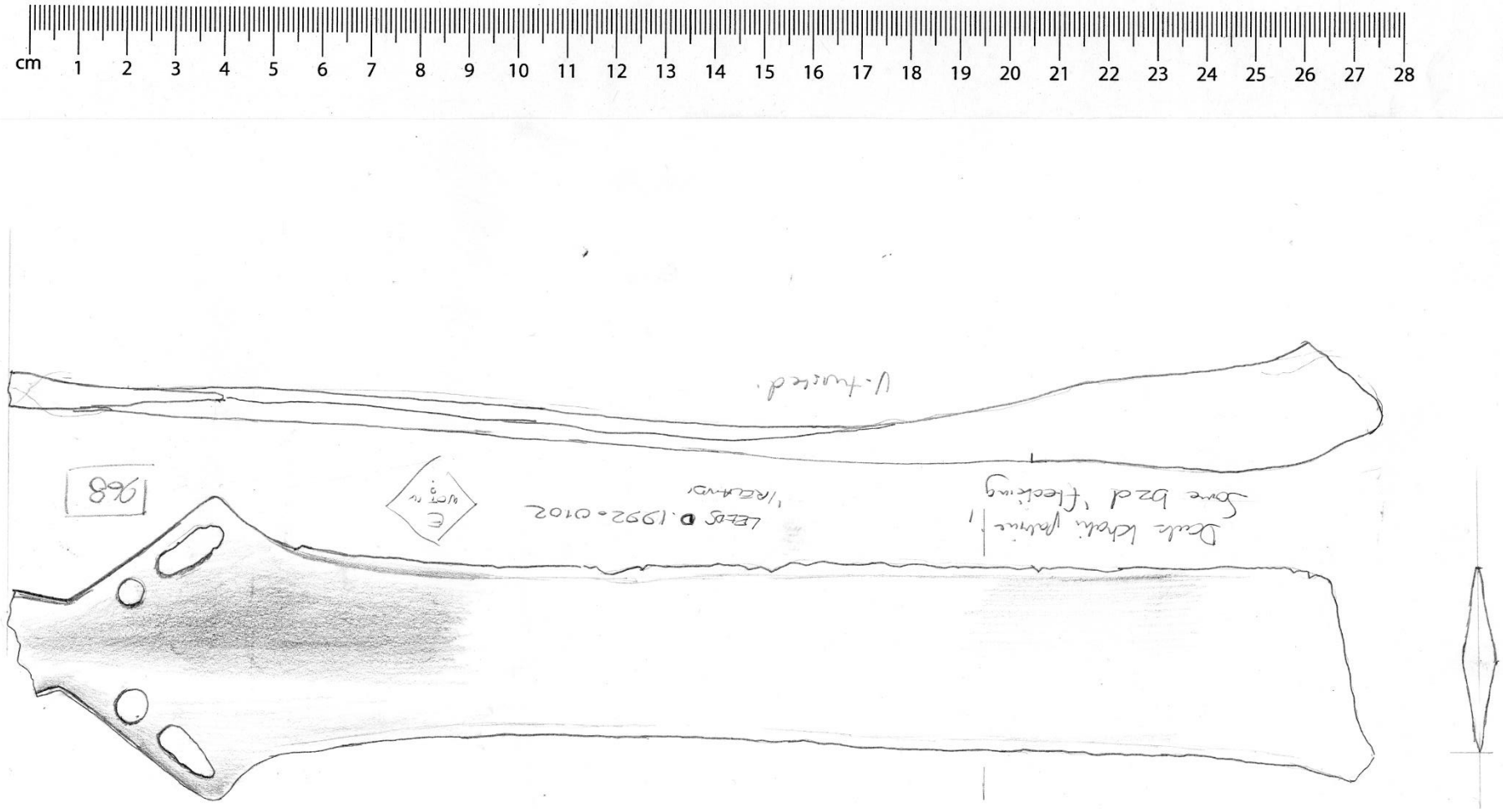

963
Modern wooden handle
Completed unfinished 11/8/10
UM A 12558
cm

964


964
Drawn 1995 : 15
12/8/10
Prob. FMC
CM 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21

967

E
NOT IN
?
967
LEEDS D-1964.0278
IRELAND
Dk. brown patina
'Victorian' Local Finds '54'


cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
Deck kitchen machine
Screw bird fitting
LEGS D.1992-0102
E
V.Rea Amos
68
V. twisted.

968

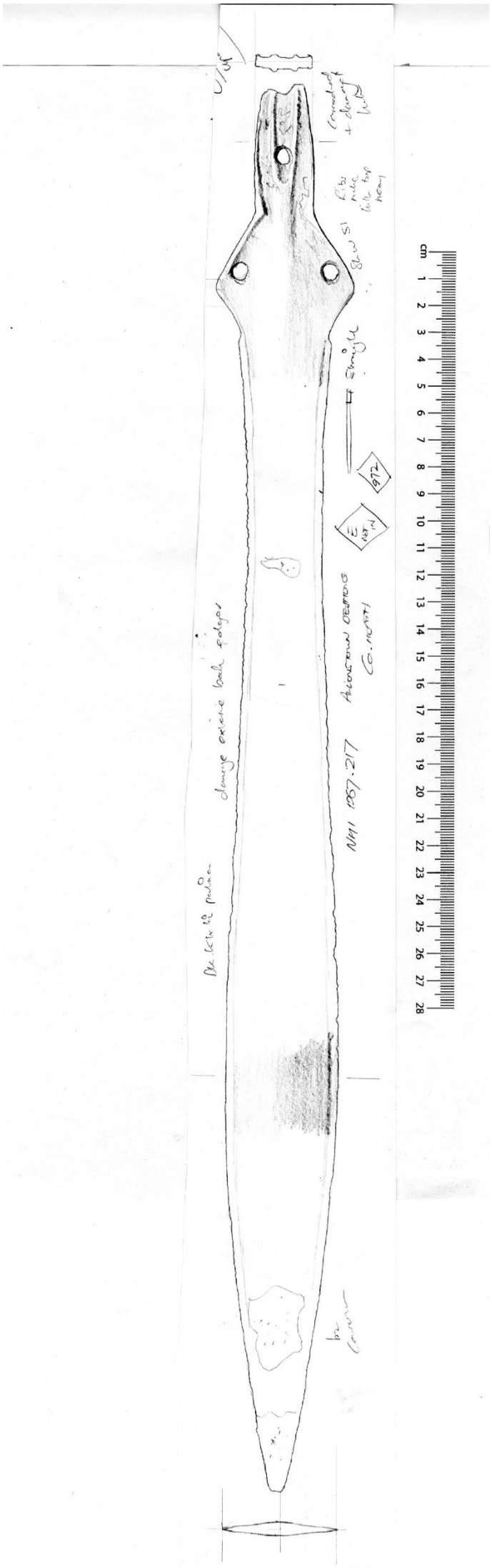
969

Unpolished
969
modern dust
V rough piece dk brown patina
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

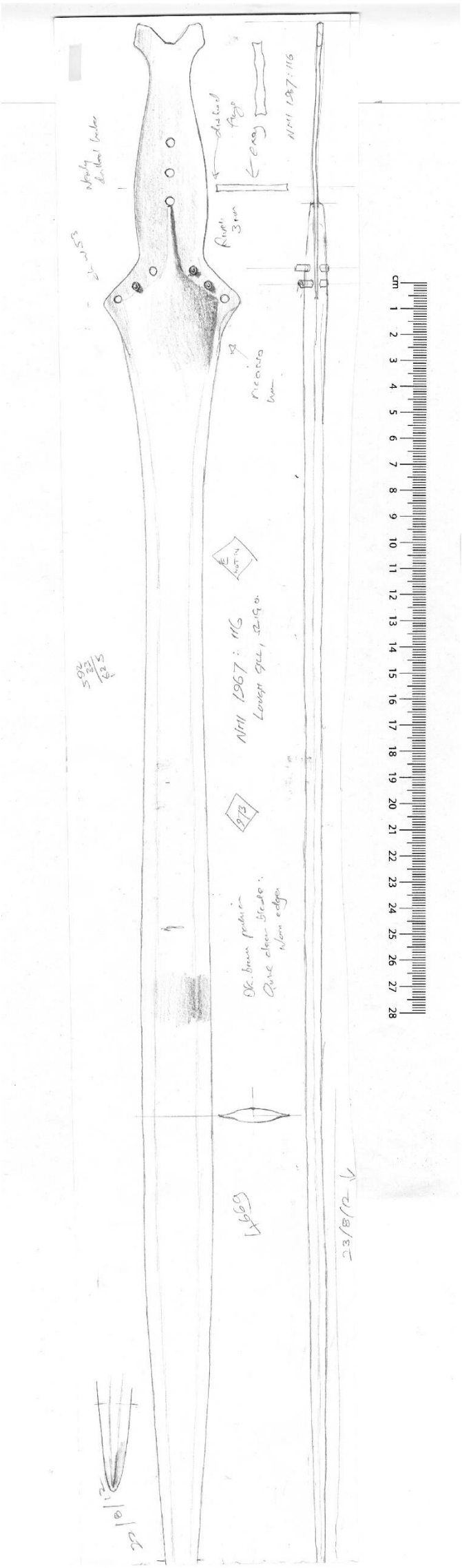
971

NMI 195 : 67:1
Derrynaught, Co. Tipperary
Rough hilt
Surface
khaki paint
970
971
NMI 196 : 67 : 2
Wide bevel
Dk. khaki paint
Good
Handle
Some curved bone other than leatherlike used
probably in place missing
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

972

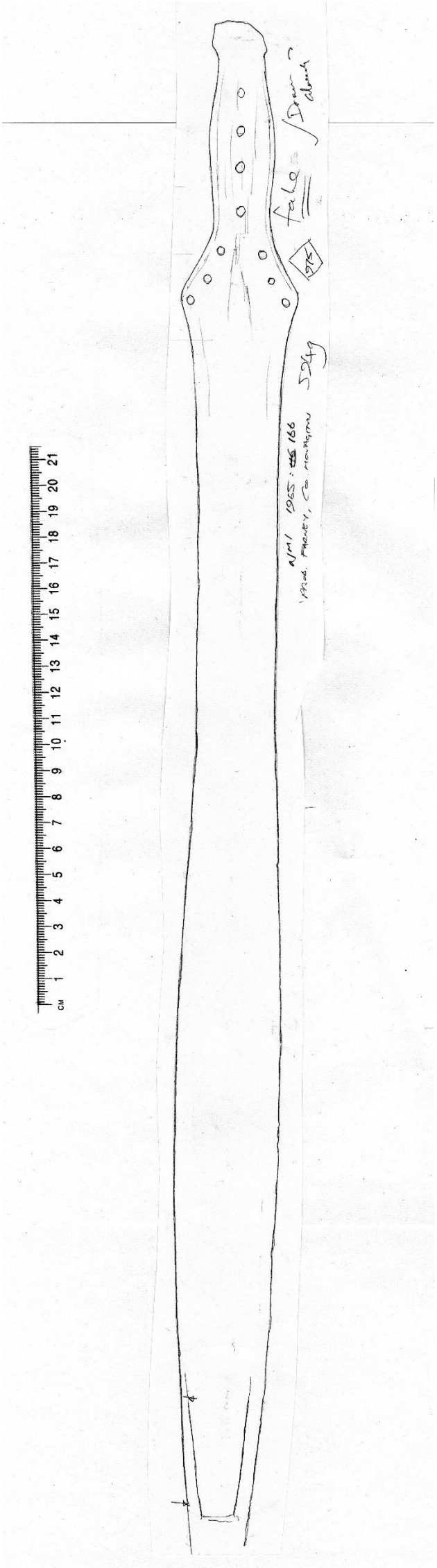


973

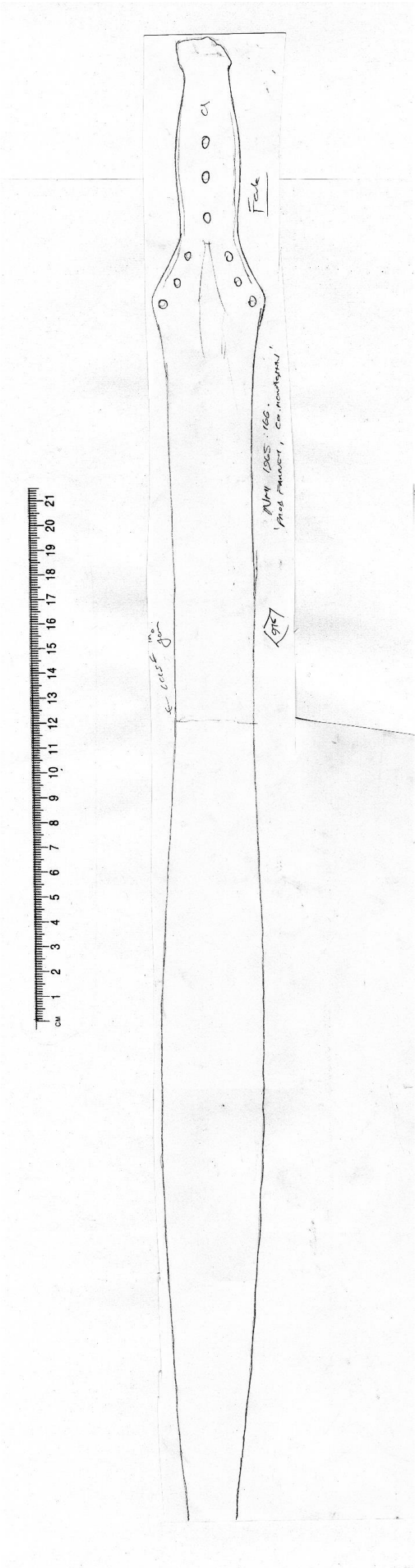


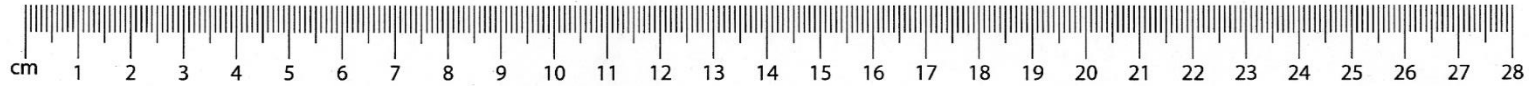
974

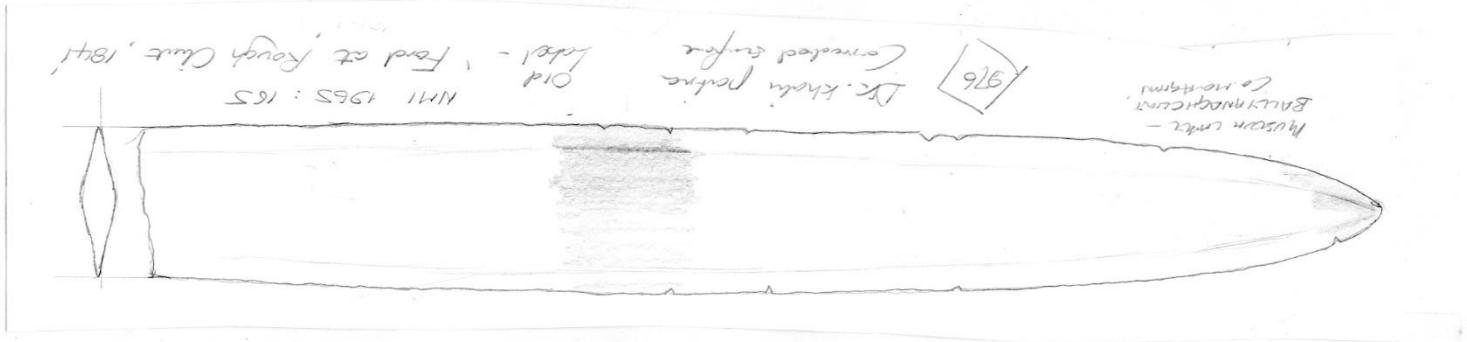
975


CM 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21
975
Falo
Dawn
Ajm 1965 : 166
Prod. Money, Co Hamm
SDFG

975 (2)

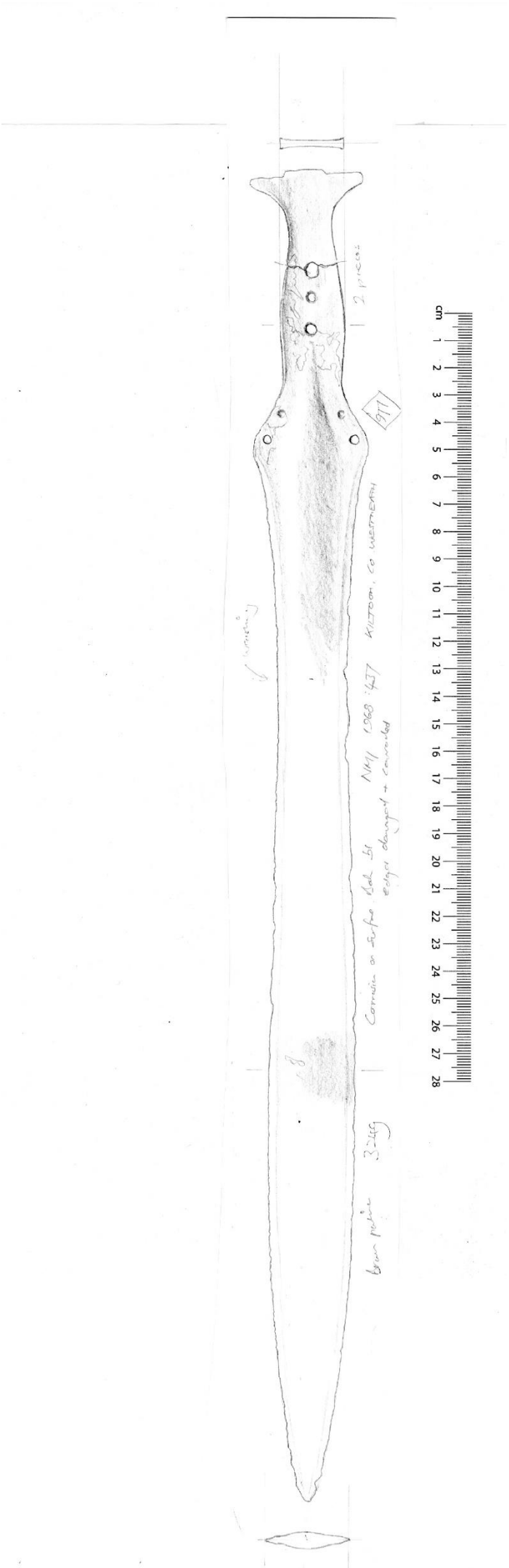

C1
Fcle
MNH 1965 · 166 · 1
PROS PARVET, Co. MONAGHAN
975
CM 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21


cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

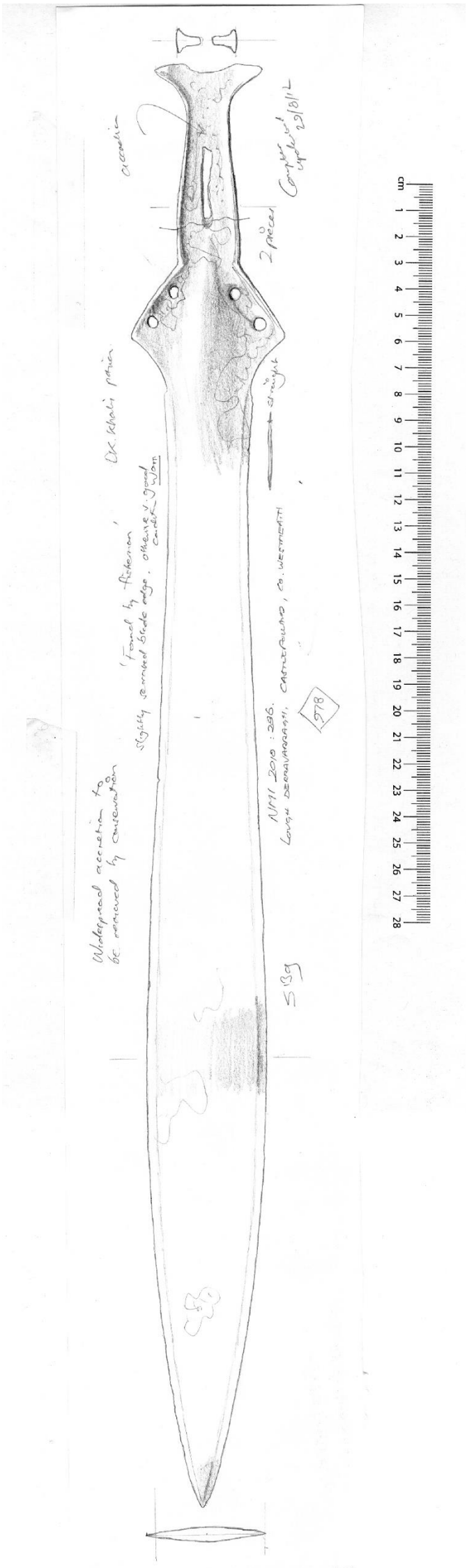

976

976

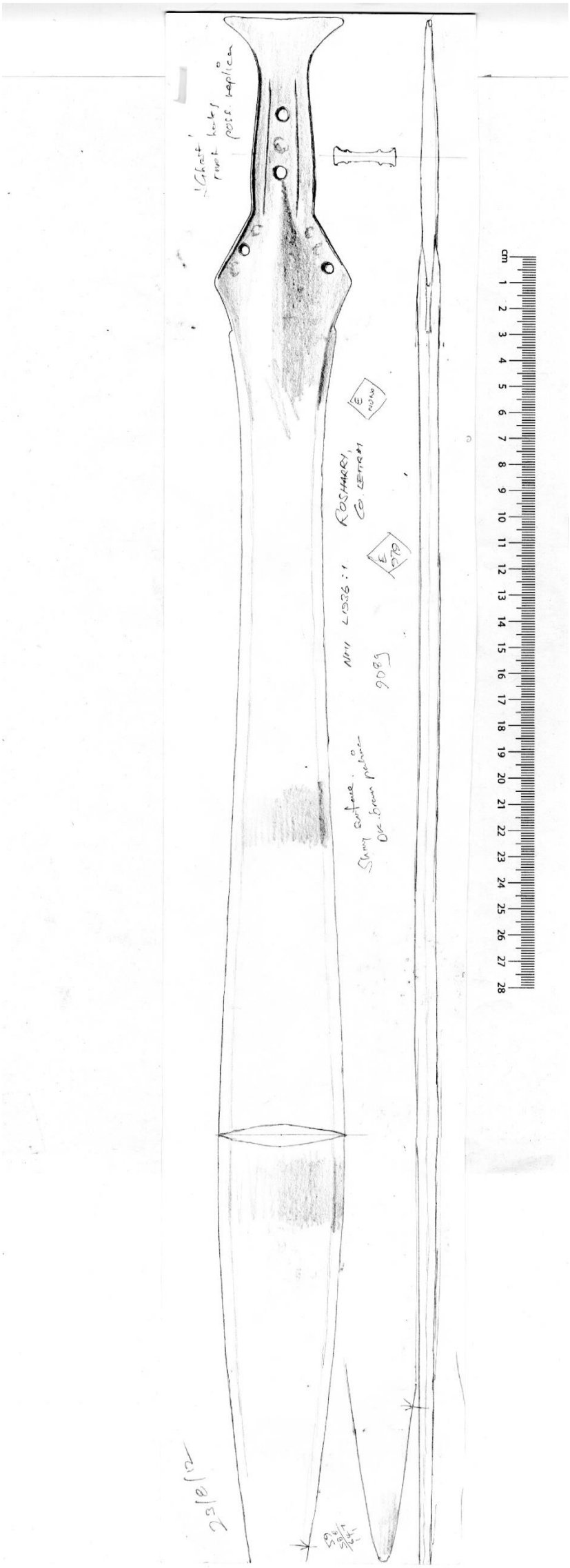
977


977
2 pieces
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

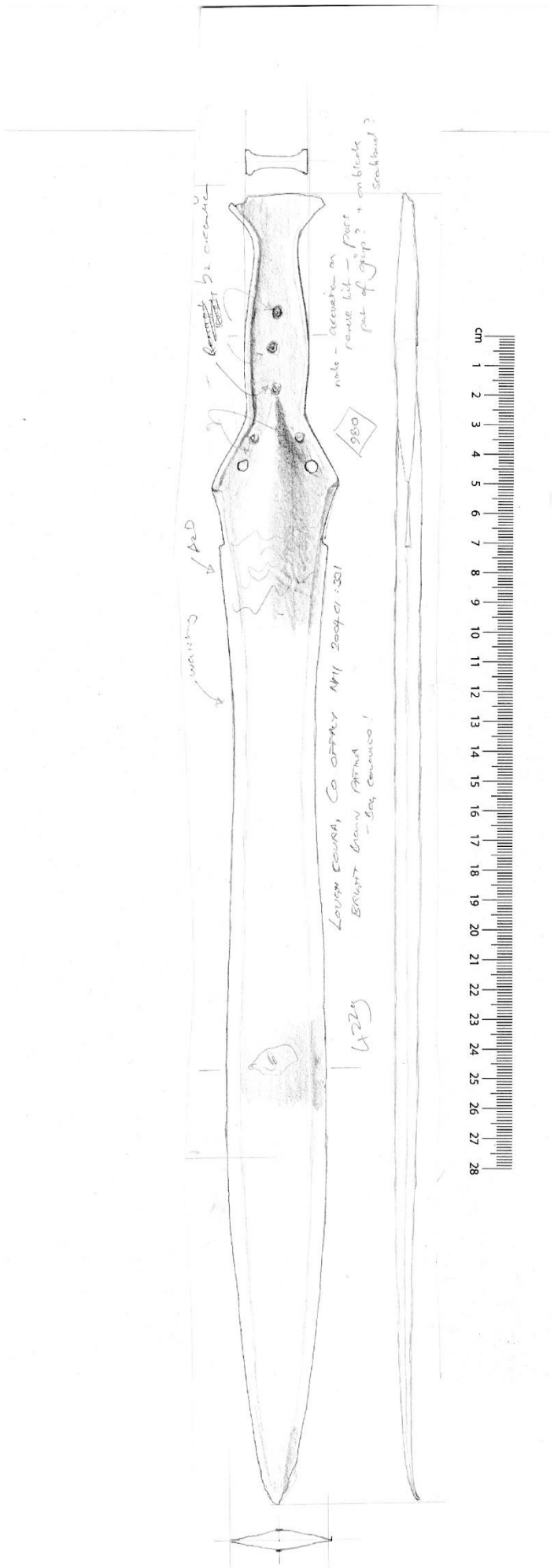
978



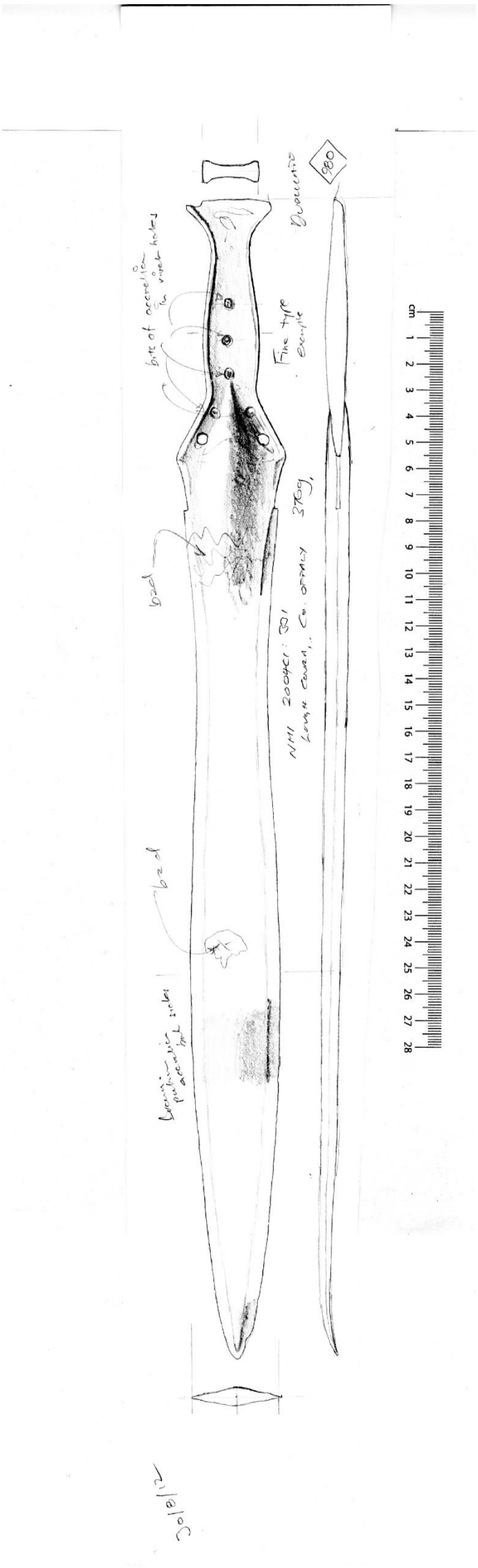
979



980


980
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

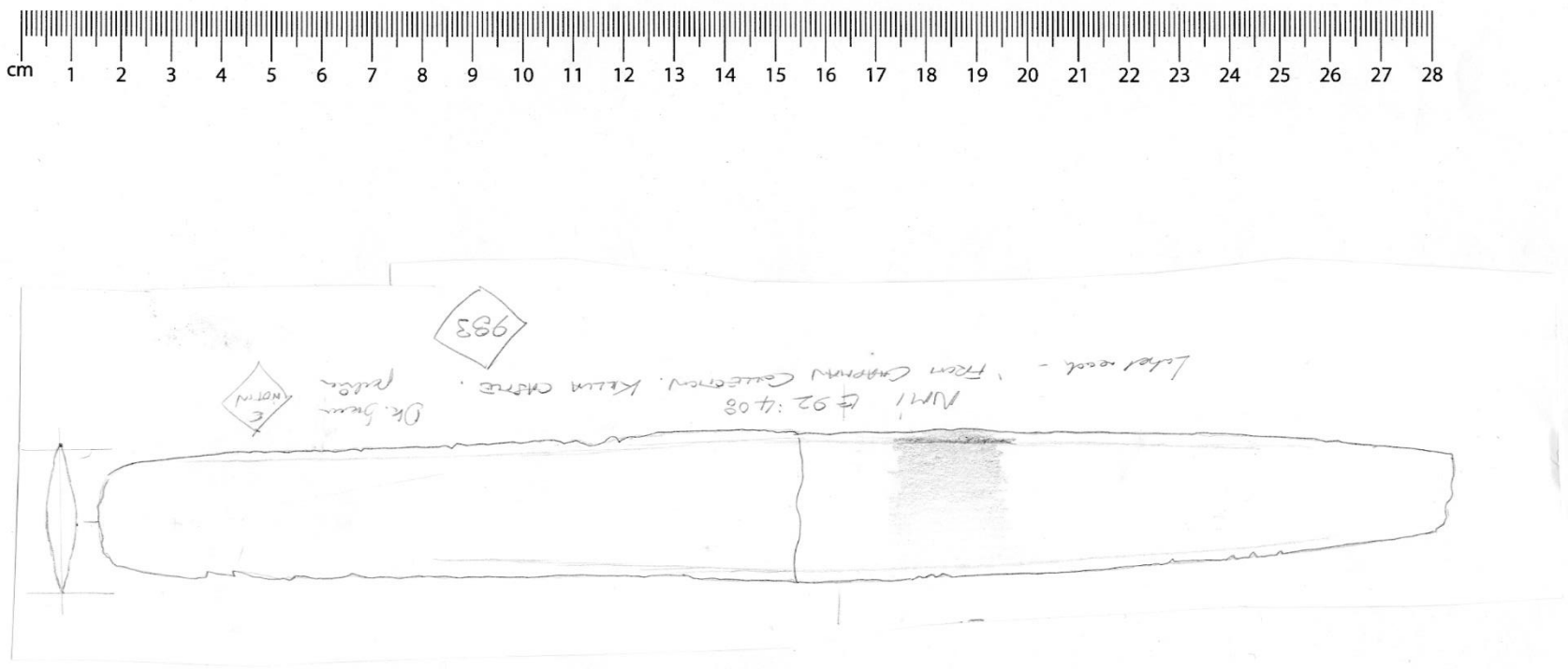
980 (2)


980
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

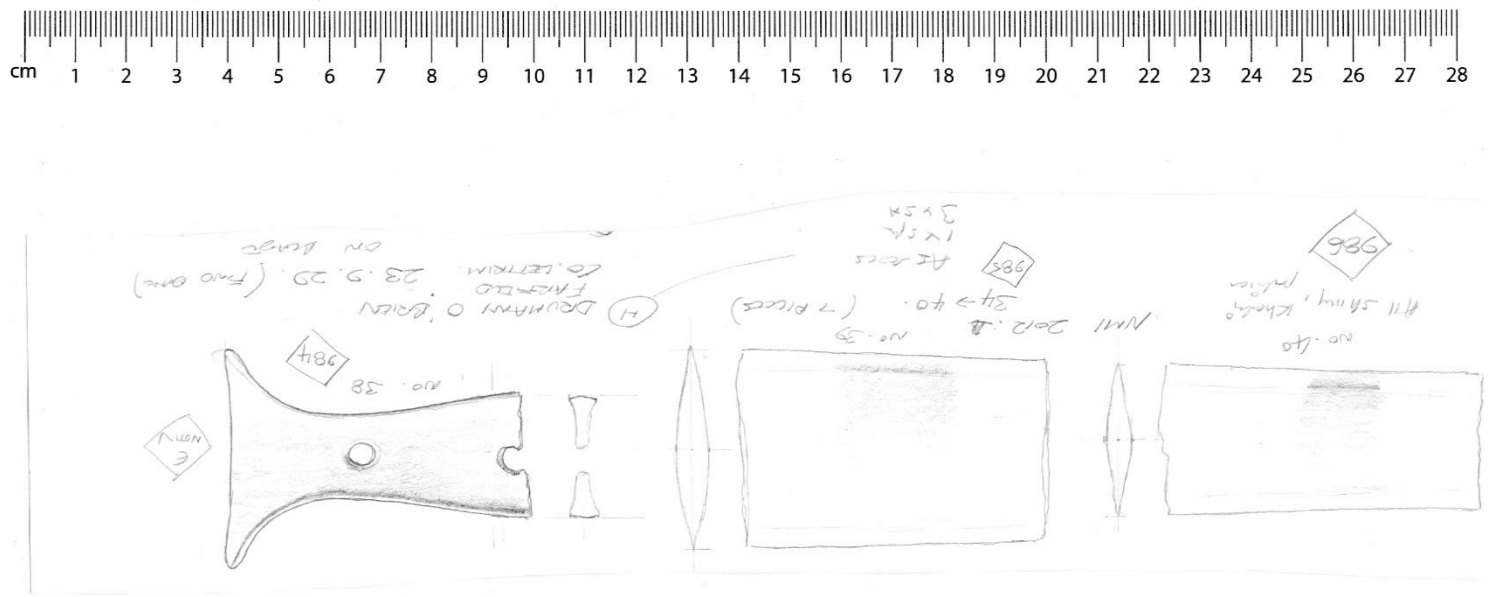
981

982

982
Good blade (Ex. Khaki pattern
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

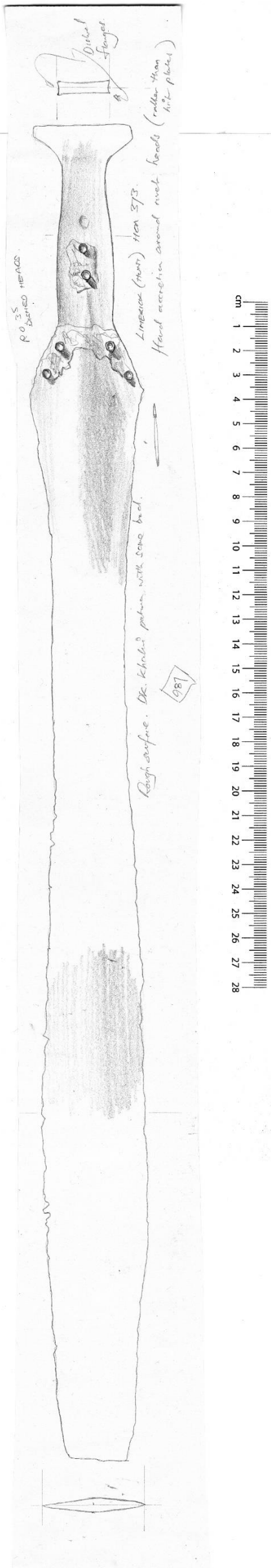

cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
983

983

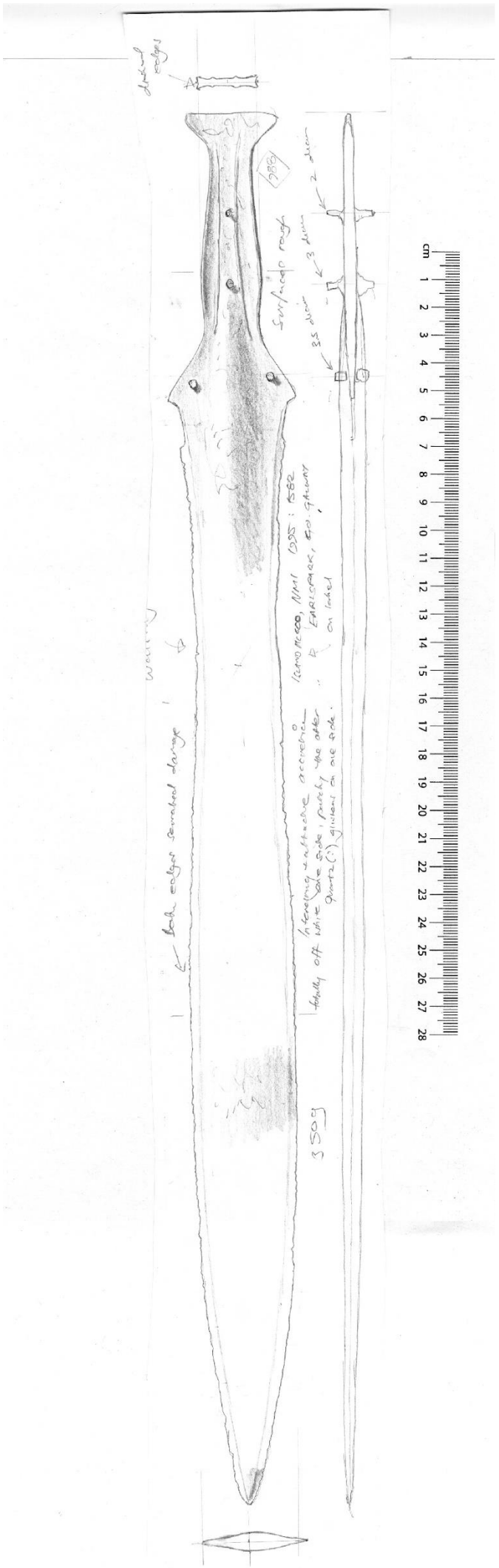


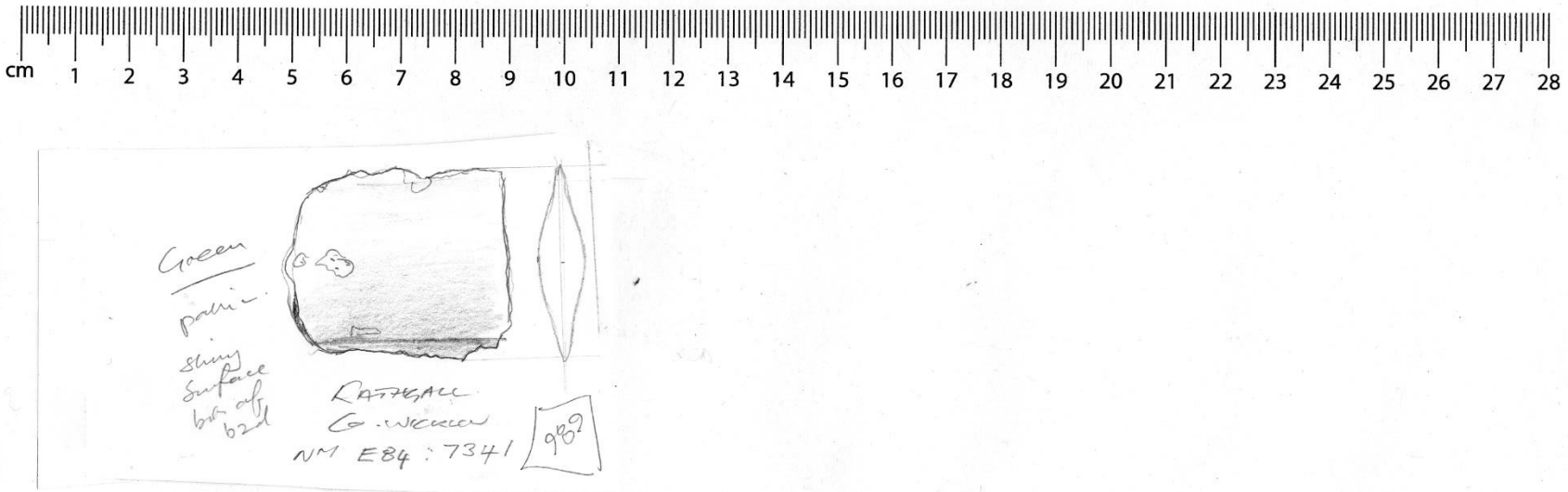
984
985
986

987


Distal finger
Rough surface. Dk. Khaki? patina with some bad.
Limestone (marl) 1cm 3/3.
Head eccentric around rivet heads (rather than hit flakes)
cm

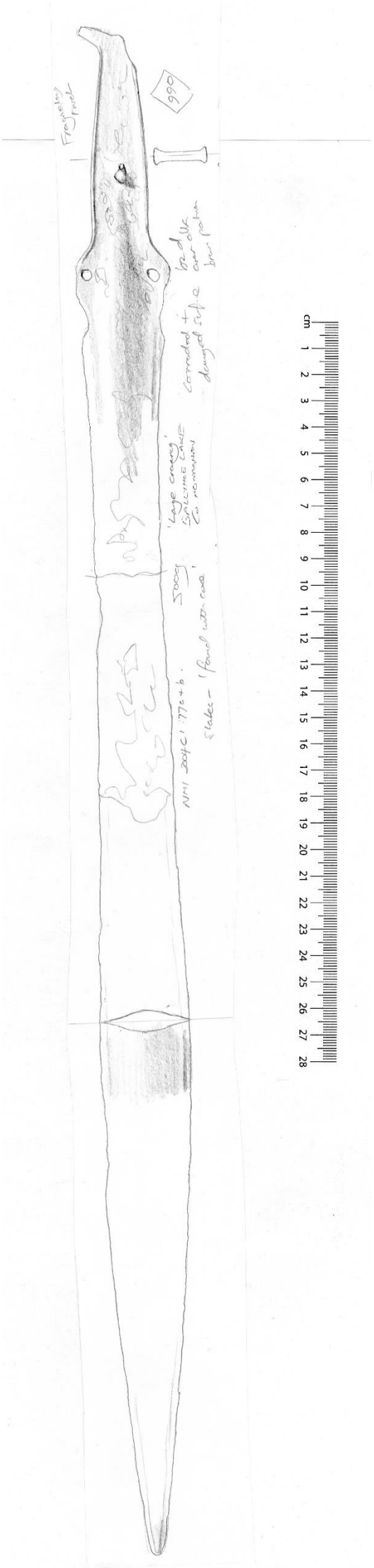
988


988
Sem/acap rough
3 mm
2 mm
2.5 mm
both edges serrated damage
Intentionally chipped off white
Quartz(?) present on one side.
3509
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

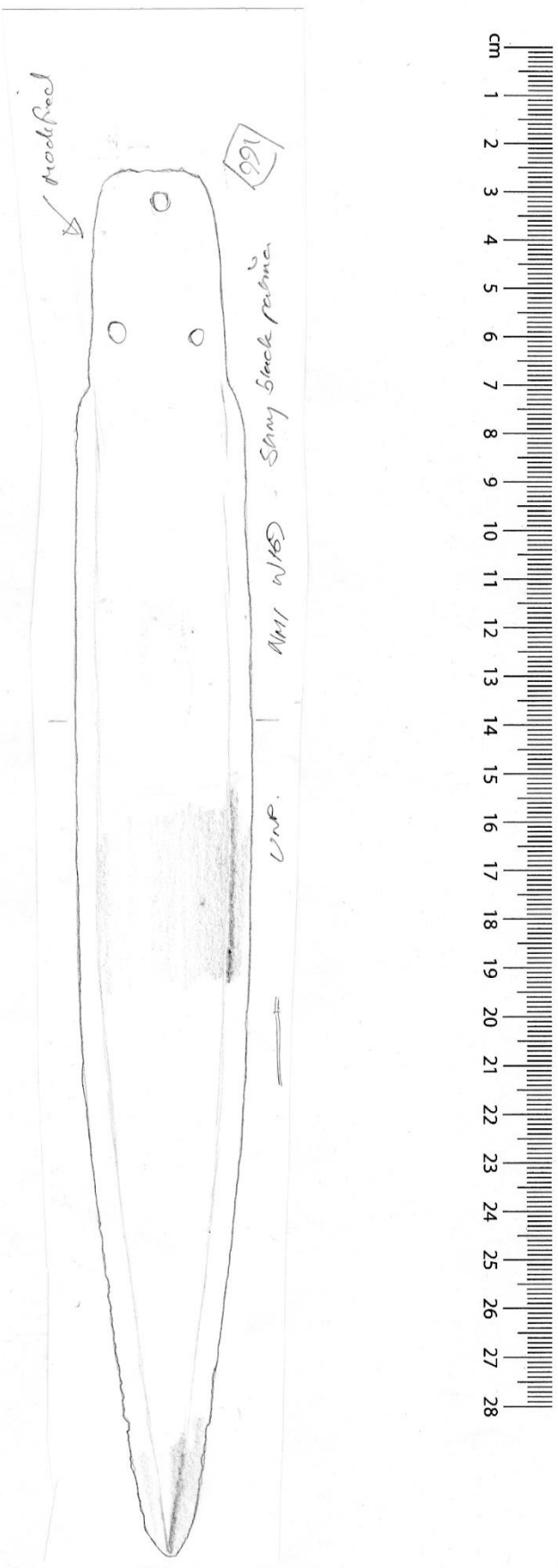

cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
Green
patin-
shiny
surface
bot of
bowl
RATTRAY
C. WICKHAM
NM E84 : 7341
989

989

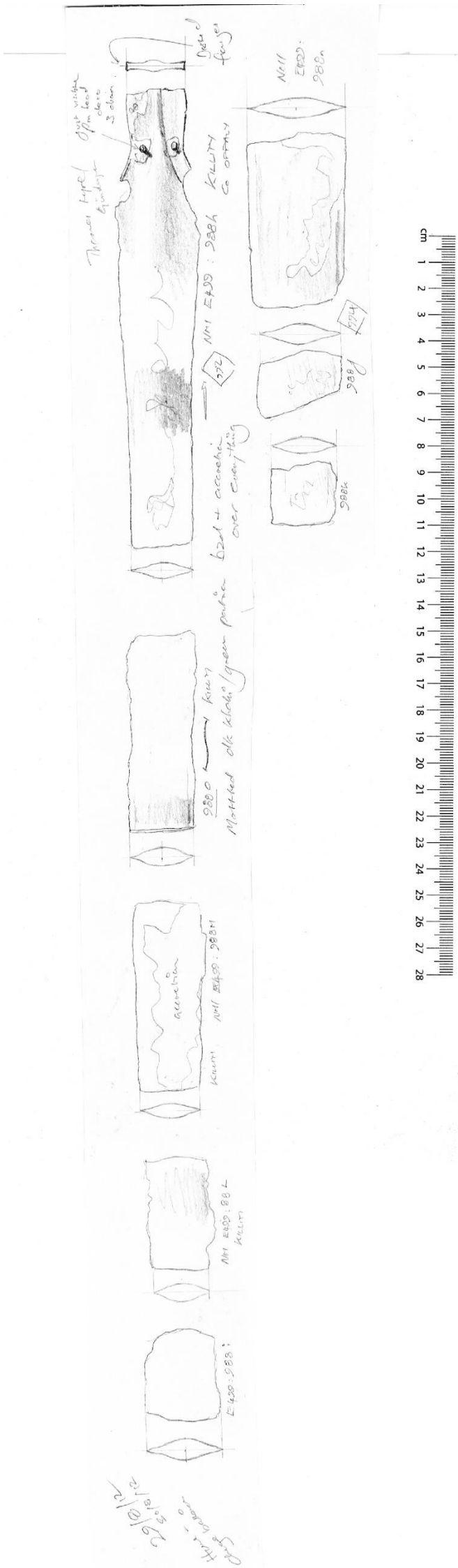
990

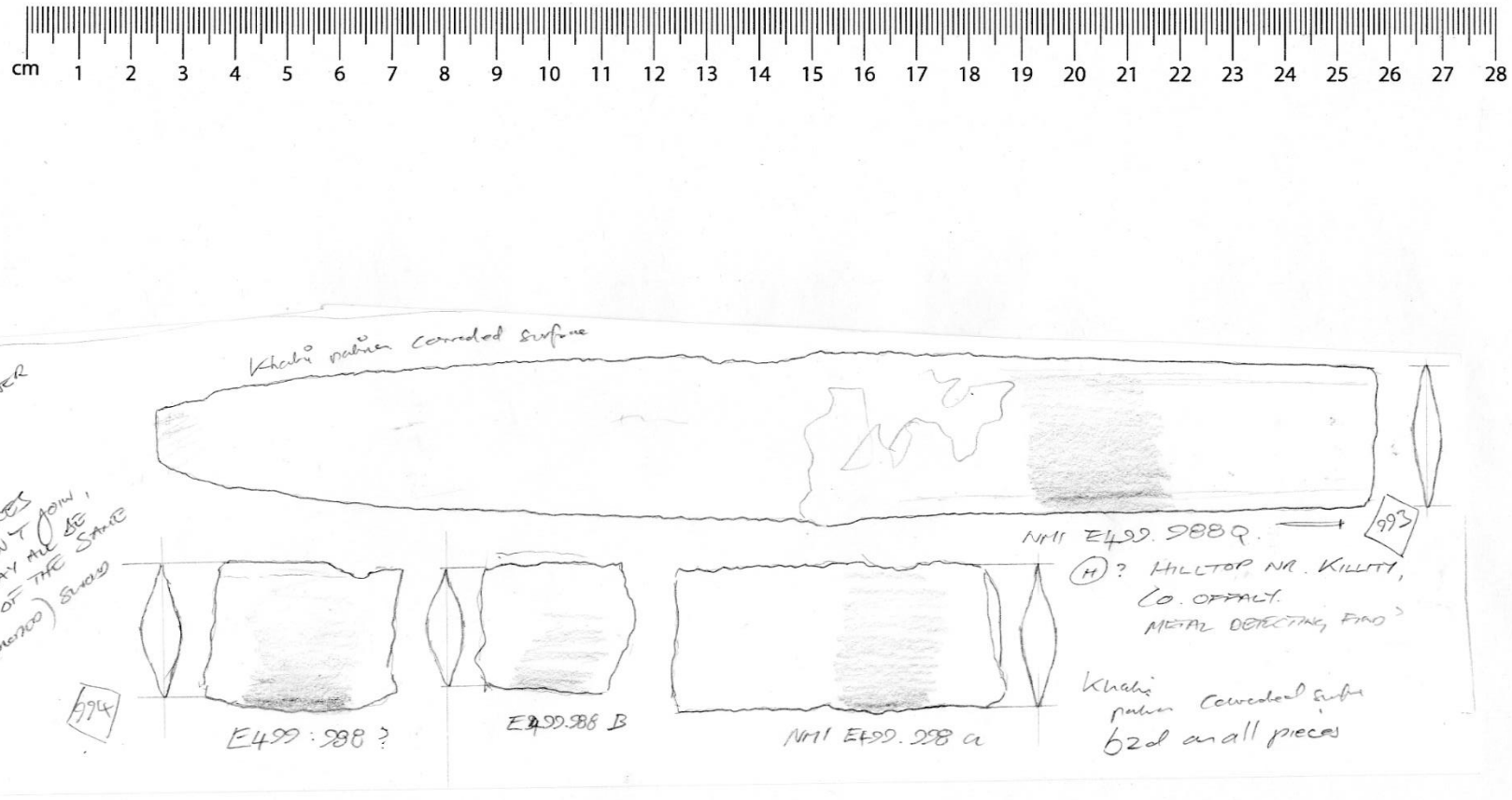

990
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

991


modified
991
Nail with Shaft remains
Unf.
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

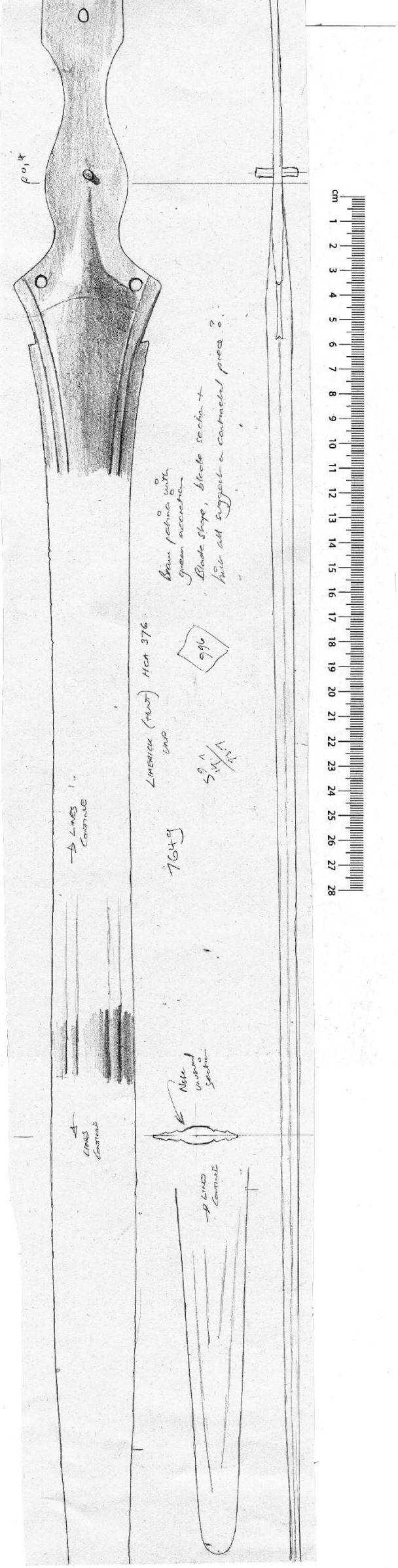
992
994

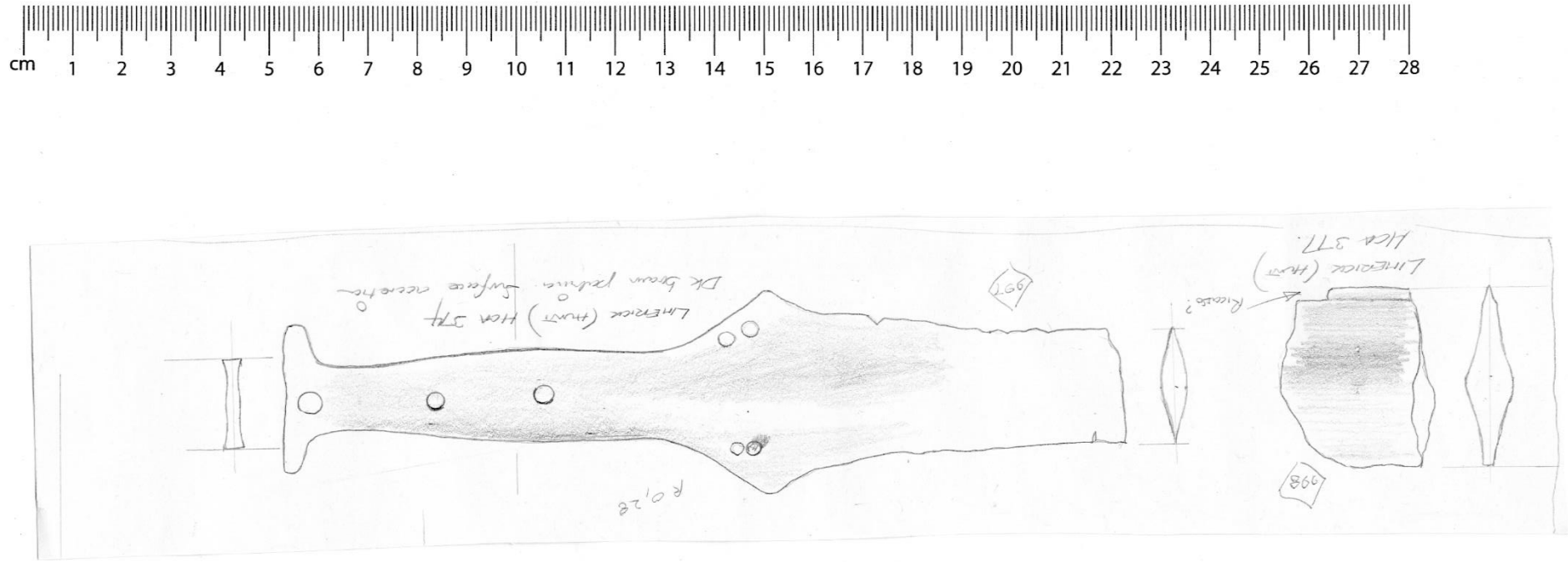



cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
KILLITY KOARER
Khaki patina corroded surface
PIECES DON'T JOIN, BUT MAY ALL BE PART OF THE SAME (CORRODED) SWORD
993
NMI E499.988 Q.
(H)? HILLTOP NR. KILLITY, CO. OFFALY. METAL DETECTING FIND
994
E499:988?
E499.988 B
NMI E499.988 a
Khaki patina corroded surface based on all pieces

994

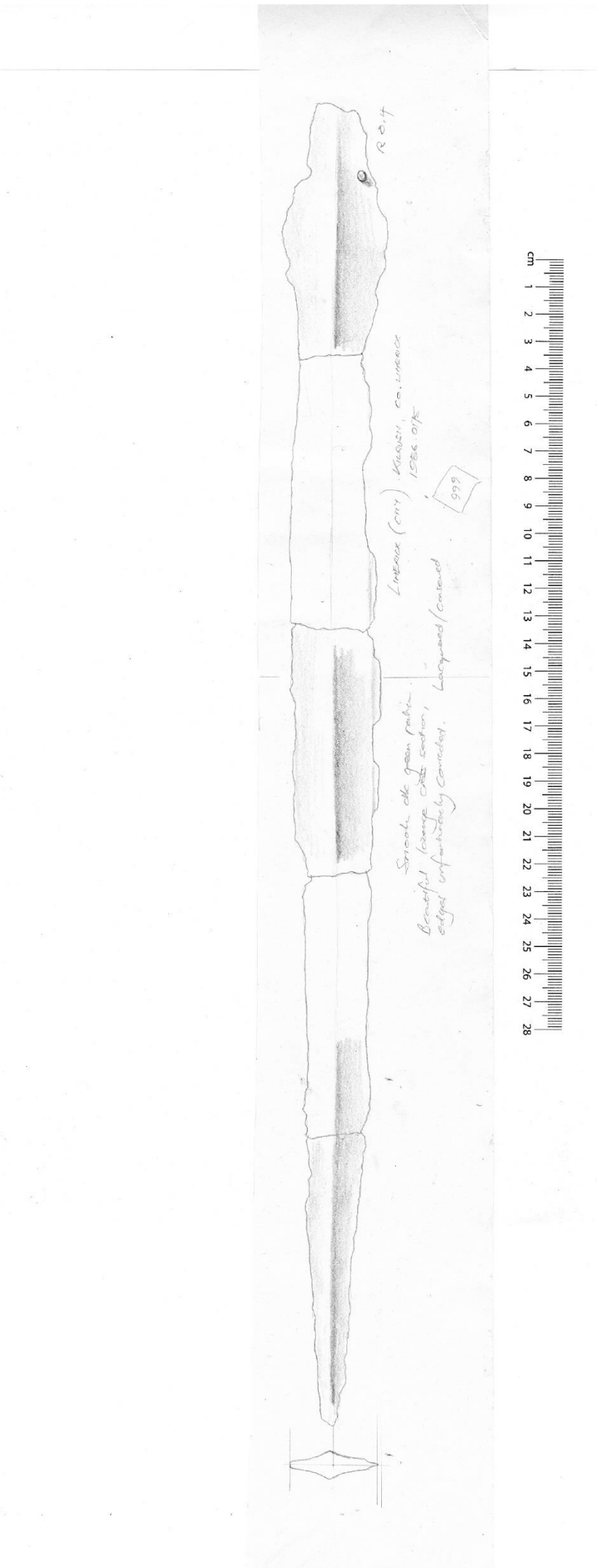
996



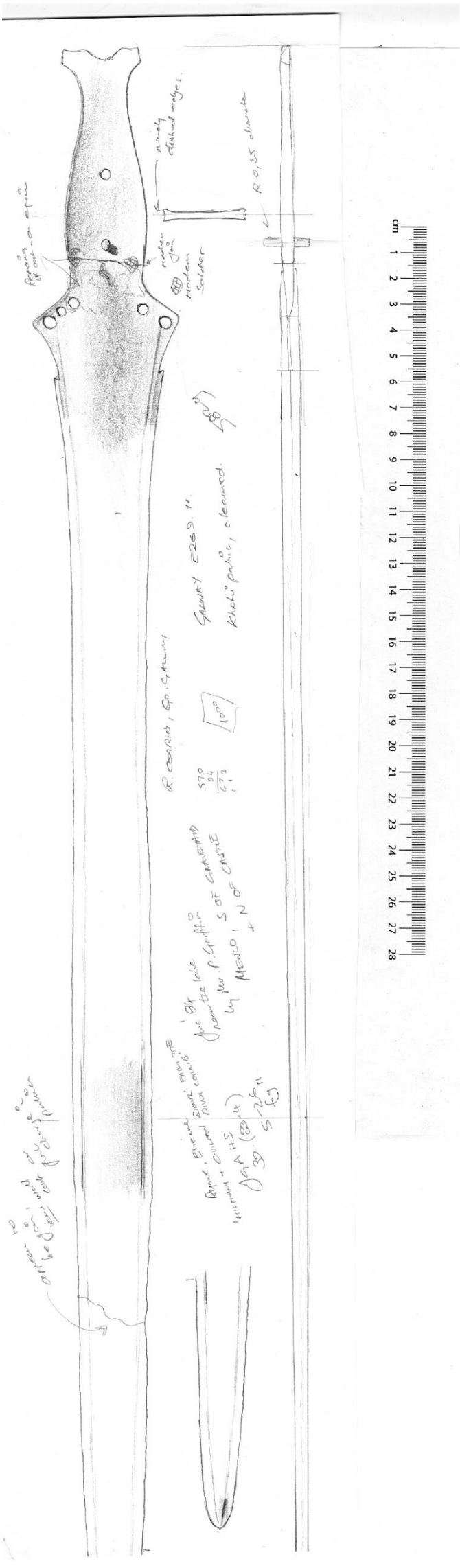

cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
Linerick (hunt) Hca 374
Dk brown patina. Surface reserve.
R 0.28
997
Linerick (hunt)
Hca 377.

997

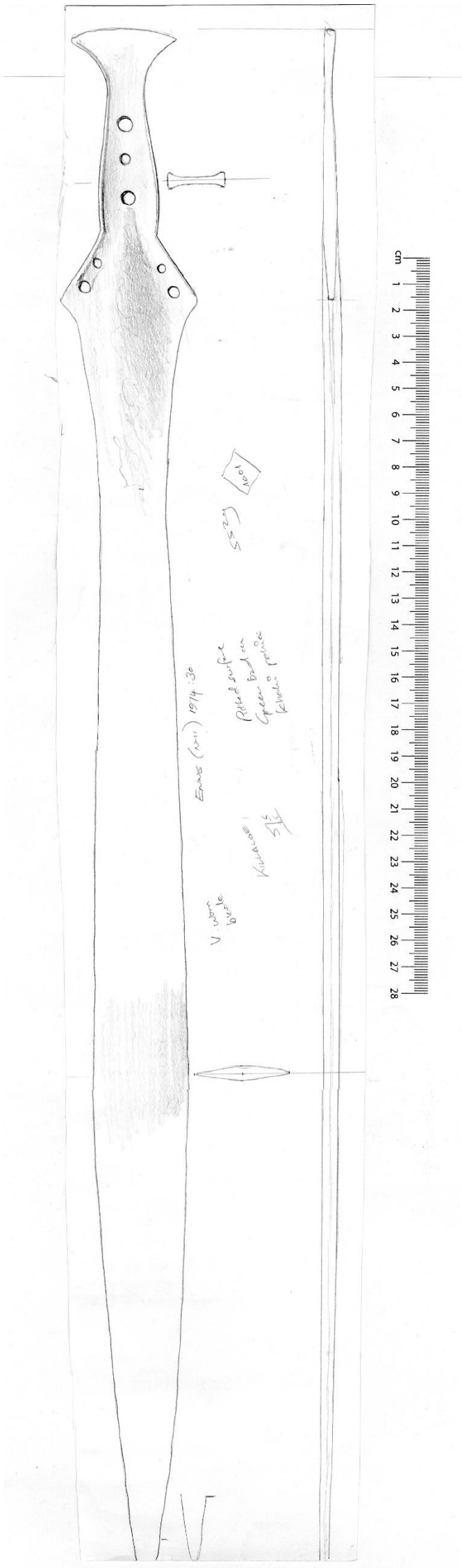
999


R.D.T
LIMERICK (CITY). KILRUSH, CO. LIMERICK
1986 O/C
999
Smooth dk green patina.
Beautiful large cast section,
edges unfortunately corroded.
Lacquered/cleaned
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

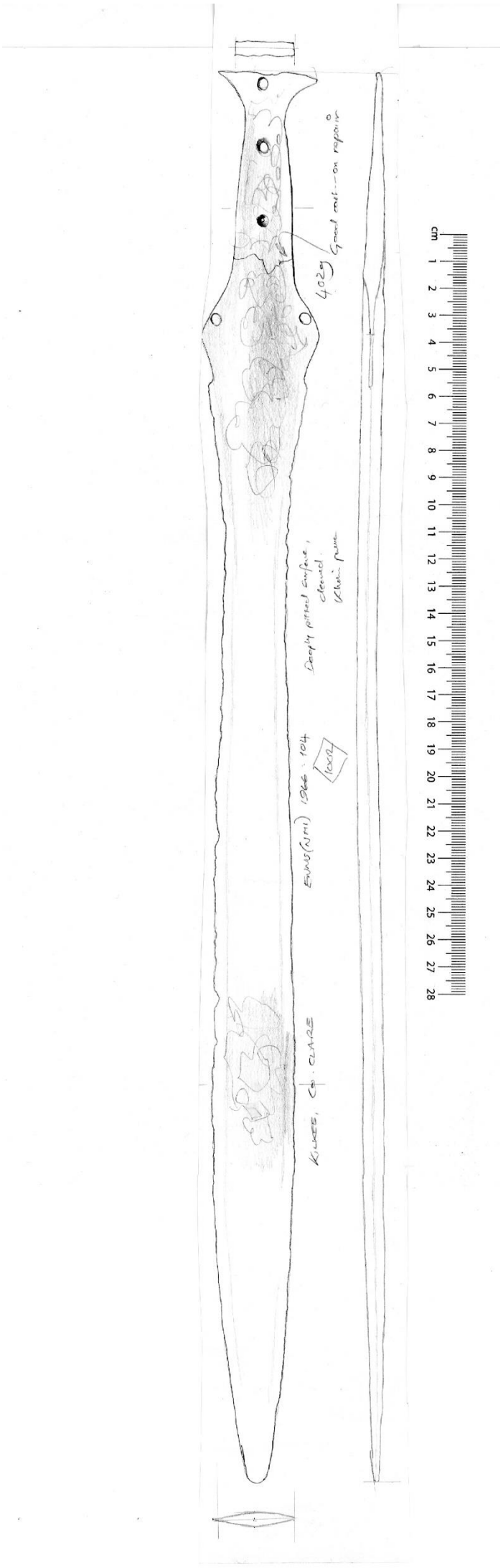
1000



1001


1001
cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

1002


402g
Good metal—no repairs
Deeply patinated surface, cleaned. Khaki paint
EWRS(NM) 1966 : 104
1002
KINGS, Co. CLARE
cm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

APPENDIX C

SWORD MOULD FRAGMENTS FROM IRELAND

White Park Bay, Co Antrim (Nos 1 to 8).
Two hilt fragments, one shoulder, the rest blade. Jope (1953) has photographs of two of these fragments (one hilt and one point) in an article on the three swords from Ballycroghan. All fragments were found in the extensive dunes which line the bay, but details of the find circumstances are unknown.
Dalkey Island, Co. Dublin (Nos 9 and 10)
Both appear to be from the blade section. Found during excavations in 1959 (Liversage 1968).
Old Connaught, Co. Dublin (No 12).
This appears to be part of the blade section of a mould. According to Eogan this is the only extant example of a number of fragments found with other objects on a gravel knoll, surrounded by a broad ditch, in 1894. This may have been a burial mound.
Bohovny, Co. Fermanagh (Nos 13 and 14)
Two fragments from blade sections. According to Plunkett (1899) they were found in peat at a depth of 21 feet, associated with the remains of a crannog and possible buildings.
Lough Eskragh, Co. Tyrone (Nos 15 to 22)
All except no 22 appear to be from the blade section of moulds. No 22 may be a tang. Found during 1953 excavations of a crannog site (see also entry below for later finds).

Clay mould fragments for casting swords listed by Eogan (1965). Numbers refer to those used in his catalogue (1965, 176-179 and fig. 95).

Dun Aonghasa, Co. Galway (Waddell 2000, 218-221 and fig.91: O Faolain 2004, 180 and fig.44)
A spectacular fort built on a coastal cliff. Part of the blade section of a mould. Also found were moulds for other artefacts including spearheads, socketed axes, pins and bracelets, plus crucible fragments. All were inside a house the walls of which extended beneath the exterior wall of the fort
King's Stables, Tray, Co. Armagh (Lynne 1977 and 2008: Eogan 1993,109: Ó Faolain 2004, 176 and fig.40)
Fifteen mould fragments found in 1975 in what the excavation report describes as a 'waterlogged hollow', originally a man made embanked pond, some 25 metres in diameter. All the fragments came from the lower gravel layers of two sections dug as trenches across part of the hollow. The pond lies to the north east of Haughey's Fort within the royal complex of Emain Macha (Navan), the historical Iron Age capital of the kingdom of Ulster. All the mould fragments are for blades and have oval cross

sections of Ewart Park/Eogan Class IV type. Parts of a human skull and numerous red deer antlers were also found in the same layers
Lough Eskragh, Co. Tyrone (Williams 1978: Ó Faolain 2004, 185 and fig. 47B)
In addition to those mould fragments listed by Eogan further excavations of crannog structures during 1973 uncovered mould and crucible fragments, five of which were sword moulds. All came from Site B, the same site which had produced the 1953 fragments.
Rathgall, Co.Wicklow (Raftery 1971 and 1976: Ó Faolain 2004: Waddell 2000, 272 and pl. 17a)
Part of a clay bivalve mould found during Raftery's excavations of this multivallate hillfort during the 1970s. The fragment appears to be from the point side of the widest part of the blade. More than 400 weapon mould fragments were found in total, plus lumps and bars of bronze, in an area with nine large hearths near the round house in the innermost area of the fort.

Mould fragments discovered since the publication of Eogan's 1965 Catalogue