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**An assessment of the positive contribution and
negative impact of hobbyist metal detecting to
sites of conflict in the UK**

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**Submitted in fulfilment of the requirements for the
Degree of Doctor of Philosophy**

School of Humanities

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Abstract

In the UK sites of conflict, in particular battlefields, are becoming more frequently associated with the label 'heritage at risk'. As the concept of battlefield and conflict archaeology has evolved, so too has the recognition that battlefields are dynamic, yet fragile, archaeological landscapes in need of protection. The tangible evidence of battle is primarily identified by distributions of artefacts held within the topsoil, such as lead projectiles, weapon fragments or buttons torn from clothing; debris strewn in the heat of battle. Much of the battlefield therefore remains as a faint footprint, and where it survives, may provide valuable information, if recorded accurately.

Drawing evidence from numerous sources, including a two year monitoring programme of the auction site *eBay*, from October 2008 until November 2010 and data produced by the heritage sector, this research intends to highlight the activities of hobbyist metal detectorists as a key issue in the conservation and management of sites of conflict. Whilst the research recognises the positive contribution of hobbyist metal detecting through engagement with archaeologists, responsible practice and the discovery of previously unknown sites of conflict, it also identifies the negative impact of this activity through the unrecorded removal of battle-related material resulting in the erosion of artefact scatters and ultimately the loss of important national heritage. Another important element of this research has been to further understand the nature of this activity and the motivation to metal detect on sites of conflict, achieved through the presentation of detailed case studies and the application of sociological frameworks such as 'serious leisure' (Stebbins 1992). Overall, the fundamental aim of the research has been to inform heritage management strategies to ensure the future protection of landscapes of conflict in the UK.

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This thesis is dedicated to my grandparents, a generation of strength and dignity, surviving hardships we could never imagine. My thanks to them and the opportunities they gave me.

Author's declaration

I declare that, except where explicit reference is made to the contribution to others, that this dissertation is the result of my own work and has not been submitted for any other degree at the University of Glasgow or any other institution.

Signature _____

Printed Name _____

Abbreviations

AMAA	Ancient Monuments and Archaeological Areas Act
BAJR	British Archaeology Jobs Resource
CBA	Centre for Battlefield Archaeology
ESTOC	European Studies of Terrains of Conflict
FID	Federation of Independent Detectorists
FLO	Finds Liaison Officer
HER	Historic Environment Record
NCMD	National Council for Metal Detecting
NPS	National Park Service
NTS	National Trust for Scotland
PAS	Portable Antiquities Scheme
QLTR	Queen's and Lord Treasurer's Remembrancer
RCAHMS	Royal Commission on the Ancient and Historical Monuments of Scotland
SHEP	Scottish Historic Environment Policy
SMC	Scheduled Monument Consent
SNH	Scottish Natural Heritage
STOP!	Stop Taking Our Past
TTU	Treasure Trove Unit
UKDN	United Kingdom Detector-Net
WTK	War of the Three Kingdoms

Chapter One

Introduction

1.1 Research background

Conservation and public access are key themes within battlefield heritage management in the UK. Although considered of equal importance, should public access to battlefields and other sites of conflict be limited, especially when the activities of certain groups such as hobbyist metal detectorists may pose a threat to their conservation? This is a question faced by those charged with managing battlefield heritage in the UK (Carmen 2005; Foard 2008; Pollard 2009). It is a question which requires striking a balance between recognising the right of those to conduct metal detecting as a hobby and the need to protect battlefields as archaeologically sensitive historic landscapes. Battlefield archaeology and metal detecting may be portrayed in many ways as a marriage of convenience; they are necessary, but often uncomfortable bedfellows. The methodological approach of battlefield archaeology regularly requires the experienced assistance of metal detectorists in order to effectively recover and record artefact material from sites of conflict for the purposes of understanding their archaeological character. Yet, over the last decade questions have arisen relating to the nature of metal detecting activity on sites of conflict in the UK. Much of this enquiry has been focused on the negative impacts of metal detecting, with the hobby considered to be one of the most significant threats, together with building and development, to the conservation of battlefield heritage (Foard 2008, 241; English Heritage 2012¹). This was prompted by events such as the large scale metal detector rally which took place on an area of the English Civil War² battlefield of Marston Moor (1644) in 2003. The rally involved over 500 participants and it was estimated that between 300 – 3000 unrecorded artefacts relating to the battlefield were removed from the site (Sutherland 2004). With no law covering battlefield heritage in the UK, no statutory protection could be offered to halt or reduce the impact of the rally. Several similar rallies have occurred across the UK since Marston Moor, although not to this scale (Resource 2003).

¹ <http://www.english-heritage.org.uk/caring/heritage-at-risk/types/registered-battlefields-at-risk/>

² This period is regularly referred to as the English Civil War, however, it is widely agreed that the term War of the Three Kingdoms (WTK) is more accurate, particularly as this research covers this conflict in Scotland and Wales, as well as England

This event, amongst others outlined in this research, puts much weight to this concern over metal detecting activity on sites of conflict in the UK. It would, however, be disingenuous to focus entirely on the negative impact of hobbyist metal detecting on battlefield archaeology when it is clear that a number of individuals within the hobby have made a significant positive contribution to battlefield archaeology by consistently recording and reporting their finds, or working alongside archaeologists. We must, however, not be over cautious in asking difficult questions at the risk of threatening good relations. Questions such as, are we encouraging activity by involving hobbyist metal detectorists in battlefield archaeology projects on battlefields, or teaching recording skills? Should we be looking to ban all metal detecting on sites of conflict, or is it enough to build awareness of their fragile nature? However, as this research will demonstrate, metal detecting activities that negatively impact or positively contribute are not mutually exclusive, with no definitive black and white areas to identify.

1.2 Thesis Structure

This thesis will begin by outlining key research questions, aims and objectives which will form the basis of the study. This chapter will also be an opportunity to clarify definitions associated with both metal detecting and battlefield heritage management; as well as provide a brief history of metal detecting and its relationship with battlefield archaeology in the UK and abroad. The thesis will then go on to provide a background to this research, covering all aspects relating to metal detecting and battlefield archaeology. This will include, in Chapters Two and Three respectively, a summary of heritage laws, structures and bodies relevant to metal detecting nationally and internationally, and an outline of the methodological and ethical framework on which this research is structured.

The next section of the thesis will focus on presenting data gathered throughout the course of this research relating to the nature and extent of hobbyist metal detecting activity on sites of conflict in the UK. To account for the diverse laws and heritage bodies across the UK the dataset has been divided across two chapters: Chapter Four will present data gathered from Scotland from sources such as Treasure Trove Unit (TTU) and the Royal Commission of Ancient and Historic Monuments Scotland (RCAHMS). Chapter Five will present data from England and Wales which has been drawn from sources including the Portable Antiquities Scheme (PAS), and the Historic Environment Record (HER). Other sources of data featuring in both chapters include the internet auction website *eBay*, metal

detecting forums, the media, and communications with individual metal detectorists. The nature of hobbyist metal detecting in the UK was explored through three case studies: Chapter six focused on the discovery of a previously unknown site of conflict by a metal detectorist in Tywardreath, Cornwall; Chapter Seven outlines the work of one metal detectorist on the Battle of Sedgemoor (1685); and Chapter Eight assesses the contribution of metal detecting clubs and non-affiliated hobbyist metal detectorists to battlefield archaeology in Scotland, with a particular focus on two community-led projects on the Battles of Philiphaugh (1645) and Prestonpans (1745). The final chapter will draw this data together in discussion, providing a framework with which to recognise and understand negatively impacting and positively contributing metal detecting activity. It will also aim to address the conflicting roles of the battlefield archaeologist and the metal detecting community, with recommendations for the future of battlefield heritage management in the UK.

1.3 Research questions

To reflect the dual nature of this research it will consider the following questions:

1. What is the extent of metal detecting activity on sites of conflict in the UK and what form does it take? Is it mostly conducted by individuals, groups or clubs? Are rallies a regular occurrence on battlefield landscapes? What are hobbyist metal detectorists attitudes to the archaeology of battlefields and what is their motivation to metal detect on them?
2. Does the activity of metal detecting impact in any way the archaeology of sites of conflict and the understanding of battlefield heritage? Is metal detecting a risk to the conservation of battlefield heritage in the UK?
3. Can metal detecting make a contribution to battlefield archaeology? What is the nature of this contribution?
4. In terms of a contribution to battlefield archaeology, has metal detecting increased our understanding of particular sites of conflict or have potentially new sites of

conflict been identified through the activity of metal detecting? Is it possible to recognise this through the analysis of private collections of material?

5. What are the prevailing attitudes towards battlefield archaeology and metal detecting from the perspective of both communities?

1.3.1 Research aims and objectives

In order to investigate the questions proposed within this research regarding the activity of metal detecting on sites of conflict in the UK, the achievement of the following aims and objectives will be pursued:

Aim 1:

To assess the extent of metal detecting on sites of conflict dating from the mid-16th to early 19th century in the UK. This will include sites such as battlefields, siege sites, skirmish sites, military camp sites and firing ranges.

Objective i:

This will be achieved by working closely within the metal detecting community, using a flexible approach to draw experience from both archaeological and ethnographic theoretical and methodological frameworks in order to gain access to private collections of material or information regarding metal detecting activity on sites of conflict.

Objective ii:

This will be achieved by adopting a search methodology to evaluate sources of project based research data, published material, grey literature, as well as media and online sources. This will include searches of the HER; information from heritage organisations; contacts with colleagues; attendance at conferences; and detailed searches of the media, including online sources such as forums, emailing lists and general internet searches.

Objective iii:

By conducting a two year monitoring programme of lots containing battle related material sold on the auction website eBay, in order to identify sites which have been subject to metal detecting activity and to assess the volume of potentially unrecorded material removed from sites of conflict.

Objective iv:

By collecting artefact data from the Treasure Trove Unit in Scotland and the Portable Antiquities Scheme, in order to identify sites which have been subject to metal detecting activity and to assess the potential volume of recorded material removed from sites of conflict.

Aim 2:

To examine the nature and extent of the potential contribution of metal detecting to battlefield archaeology in the UK.

Objective i:

By analysing private collections of material in order to identify signature assemblages of battle related material which may indicate the presence of a site of conflict.

Objective ii:

By assessing the level of participation of metal detecting individuals and groups within archaeological research projects on sites of conflict.

Objective iii:

By evaluating the standard of recording and the quality of artefact assemblages recovered by metal detectorists.

Objective iv:

By assessing the potential of metal detecting assemblages, or research carried out by metal detectorists, to identify the presence of previously unrecorded sites of conflict.

Aim 3:

To assess the potential impacts of metal detecting activity on battlefield archaeology and to understand the nature and extent of this impact.

Objective i:

By assessing the extent of the removal, collection and sale of unrecorded battle related material by metal detectorists using data collected from *eBay*, the Treasure Trove Unit, and the Portable Antiquities Scheme database.

Objective ii:

By corresponding with metal detectorists, archaeologists and other heritage workers to collate accounts of metal detecting and the removal of unrecorded material on sites of conflict across the UK.

Objective iii:

By monitoring sources of information including the various forms of media, such as newspapers, metal detecting magazines and internet sites and forums for references relating to metal detecting on sites of conflict across the UK.

There are various aspects of this research which tie into the main themes presented above. These include the ethical issues and challenges regarding metal detecting and its use within battlefield archaeology and issues related to the protection of battlefields as important national heritage sites. It will also consider the relationship between metal detectorists and archaeologists by assessing the range of attitudes towards each group, an understanding which is vital to ensure the progress of research in this ever growing field of study.

As much of this research is focused around collecting and comparing artefact data from various sites of conflict it will potentially make a valuable contribution to our knowledge of artefact assemblages associated with conflict sites and perhaps to improve techniques in their identification. This study will therefore play an important role in British heritage management and will provide much needed research into the analysis of battle-related artefact assemblages. A further aim is to work closely with the Portable Antiquities Scheme, the Treasure Trove Unit and metal detecting groups in order to develop a strategy to encourage metal detectorists to declare and accurately record their finds of battle related material. This will involve building an awareness of the archaeological signature of sites of conflict and how to recognise it, as well as challenging the pre-conceived notion, held within both the metal detecting and heritage management communities, that artefacts such as musket balls are not worth recording as they have little value or contextual information to offer. A further aspect of this focus on musket balls will be to establish whether concentrations of musket balls may reflect actions, such as small scale skirmishes, which have not been recorded in the historical record.

1.4 Definitions

For those who may not be familiar with terms associated with metal detecting or the discipline of battlefield archaeology it is necessary to provide working definitions of current words, expressions, phrases, titles and objects referred to within this research. The definition of terms such as *Treasure*, *Treasure trove*, *English Heritage Battlefields Register* and the *Historic Scotland Inventory of Battlefields* (along with the term *SHEP*) will be detailed fully in Chapter Two, therefore only a brief abstract for each will be presented here to act as a point of reference. This section has been ordered thematically, beginning with definitions relating to heritage management, then metal detecting, and finally concluding with the archaeology of conflict.

Battlefield Archaeology

The terms *battlefield archaeology* and *conflict archaeology* are often used synonymously to describe a growing sub-discipline within archaeology. Although the term *conflict archaeology* is more accurate as it encompasses a broader study of conflict, the expression *battlefield archaeology* is sometimes used in the media or other public focused areas, perhaps as it is perceived to be more familiar or mainstream, for example, the *Centre for Battlefield Archaeology*. A brief history of battlefield archaeology is discussed in section 1.5.1.

Battlefield Heritage Management

As archaeologically sensitive landscapes battlefields require a varied strategic approach in order to successfully manage their conservation, battlefield heritage management must consider factors that may affect both the physical environment i.e. both buried and upstanding archaeology related to the conflict and the visual setting or the character of the landscape. The latter may be impacted on by other actions such as the removal of hedges or the construction of electricity pylons. The English Heritage Battlefield Register and the Historic Scotland Inventory of Historic Battlefields have outlined key points in the effective management of battlefield landscapes.

The Battlefields Trust

The Battlefields Trust is a charitable organisation with the fundamental aim of protecting historic battlefields in the UK by providing a representative voice to campaign local and national government. The Trust was founded in 1992, inspired by the development of a

motorway link which due to cut across the WTK battlefield of Naseby. Another aim of the Trust is to promote an awareness of the importance of battlefield heritage, which it does by supporting the establishment of footpaths, interpretative panels and research projects on battlefields across the UK. The Battlefields Trust also maintains the UK Battlefield Resource Centre, an online database containing historical, archaeological and geographical information on sites of conflict in the UK.

English Heritage Battlefield Register

The register of historic battlefields in England was first produced in 1994 in response to growing concerns that nationally important battlefields were under continual pressure from increasing development. Although the register does not offer statutory protection, it does act as a trigger within the planning process to highlight potential threats to the battlefield to ensure that, ideally, suitable mitigating factors are taken into consideration before planning consent is granted. The forty-three battlefields currently listed in the register were selected through strict criteria to establish the national importance of the engagement and the ability to define it historically and physically in the landscape; although this process did not until recently involve advice from archaeologists.

Historic Scotland Inventory of Historic Battlefields

The inventory, launched in 2011, is built within the framework of the SHEP (Scottish Historic Environment Policy), which aims to provide ‘strategic policy’ and structured advice to those making the decisions at grassroots level working within heritage management (SHEP 2009, 10). A fundamental difference between the inventory and the register is the awareness and understanding of the archaeological environment, dealing not only with more prominent features such as earthworks or burials, but also artefact scatters and buried deposits e.g. entrenchments (2009, 72). The former will take into account more outlying events or features associated with the battle that do not form part of the main engagement, such as baggage train positions, rout, skirmishes or encampments.

Metal Detector

The metal detector is a hand held device designed to locate the presence of metal objects under the principles of electro-magnetism. Metal detectors create an electro-magnetic field by running an electric current through a wire coil called an oscillator. As the oscillator passes over a metal object the magnetic field produced by the charged wire coil is altered (Grove 2005, 4). Alteration to the balance of the magnetic field is measured and then

translated into an audio signal to identify the position of the object (Clark 1997, 121). Early manifestations of the metal detector include a device built by Alexander Graham Bell in 1881 to locate a bullet lodged in body of US President J. Garfield after an assassination attempt (Pollard 2009, 182). The invention of the modern metal detector as a portable device was for the detection of land mines during World War II – a function it continues to fulfil today, albeit in a more advanced manner.

Rapid developments were made from the 1960s to improve the sensitivity and efficiency of the metal detector, the most significant of which includes the introduction of the *transistor* and the development of the highly complex *pulsed induction meters* (Addyman 2009, 51). The transistor works by amplifying the power of a current, therefore a relatively low current may be used to operate a machine, which before would have required a greater energy source. With the transistor metal detectors could be smaller, lighter and powered for longer using a simple battery pack. The *pulsed induction meter*, created by C. Colani in 1964, was designed primarily to enhance the sensitivity of the instrument to locate metallic objects at a greater depth, as well as the ability to identify ‘both magnetic and non-magnetic’ (Colani and Aitken 1966). The latter is a commonly recognised setting in modern metal detectors which allows the user to ‘discriminate’ between ferrous and non-ferrous objects.

Hobby (of metal detecting)

Stebbins describes a hobby as a leisure pursuit and one which ‘bears no resemblance to ordinary working roles’ (1992, 10). He goes on to identify those who practice a hobby to be ‘serious about and committed to their endeavours, even though they feel neither a social necessity nor a personal obligation to engage with them’ (1992, 11). This provides an apt definition of the activity of metal detecting and one which the metal detecting community recognises, with Trevor Austin, General Secretary of the NCMD, describing it as a ‘legitimate recreational hobby’ (2009, 119). The vast majority of those who metal detect choose to do so out of an interest in history and archaeology; to socialise and to keep active; any other reason i.e. to loot archaeological sites solely for the purpose of later sale of recovered artefacts may be described as *nighthawks*. The description of metal detecting as a hobby should not be regarded as demeaning, as it does not reflect negatively on the level of skill and expertise which may be achieved by individuals, or the time and effort given over to it; they are, as Stebbins highlights, ‘serious’ and ‘committed’. The use of the terms ‘amateur’ and ‘professional’ within metal detecting will be discussed throughout this thesis.

Metal Detectorist

The term metal detectorist retains more meaning than simply - ‘a person who operates a metal detector’, as it may also refer to someone who engages in the hobby of metal detecting (Plate 1). There has been an attempt in recent years to establish the term ‘metal detector user’ as a more politically correct description, perhaps because ‘metal detectorist’ is too closely associated with that of ‘treasure hunter’ or ‘looter’ (Thomas 2009, 31). It appears the term ‘metal detector user’ is an attempt by both sides to enhance the public image of the hobby by creating neutral ground based on new rhetoric. There does not appear to be any real bias towards a particular term within the metal detecting community, although organisations such as the PAS are more comfortable with it.

This thesis will refer only to ‘metal detectorist’ as a descriptive term, as the author has seen no evidence to suggest that the metal detecting community considers it to be associated with any negative connotations. More importantly however, the author does not believe that the principles of political-correctness, which appear to have been the motive for the adoption of ‘metal detector user’, should be applied to a hobby.



Plate 1: Hobbyist metal detectorist in fields near Fort George, Ardersier, Highland. The bucket is to collect scrap metal or objects not considered to be worth recording with a hand-held GPS device. The majority of artefacts recovered by this individual are recorded and reported to the Treasure Trove Unit. Image taken by the author.

Treasure Hunter

To describe a metal detectorist as a treasure hunter was common in the UK before the 1980s, however it is now regarded a derogatory term synonymous with looter, as accentuated in heritage initiatives such as the STOP! campaign organised by the CBA in the 1980s (Addyman 2009, 53). In many quarters the term now generates an assumption that metal detectorists search only for valuable objects to sell rather than pursuing an interest in, or contributing to, our understanding of the past. However, in the US it appears to have adopted a more ‘Indiana Jones’ like status, unlike the negative term ‘relic hunter’, and is something which is currently reflected in British tabloid media as a populist term for metal detectorists, particularly when covering significant finds such as the Staffordshire hoard. The term is still in general use, for example the popular metal detecting magazine ‘*Treasure Hunting*’ and recent publications such as ‘*The Treasure Hunter’s Handbook*’ (Grove 2005).

Metal detecting rally

A rally may be described as a large-scale organised event on an area of land, usually highlighted as having some historical interest, where individuals pay a fee to metal detect and recover artefacts over the course of a weekend. In terms of size a rally is defined by the Portable Antiquities Scheme (PAS) as an event attended by over 50 people (PAS 2012³). Large-scale rallies in England generally attract over 2000 people and although there is often an archaeological presence at these events, usually small teams of Finds Liaison Officers from PAS, the number of people and the volume of finds recovered make the logistics of accurately recording this material problematic (Levick and Sutton 2008, 21). In Scotland rallies are on average small events with approximately 60-100 participants over one weekend, as observed by the author when attending rallies at Methven, Perth and Kinross and Kinblethmont, Angus in October 2012 (Plate 2).

Nighthawking

Nighthawking is defined in the ‘Nighthawks and Nighthawking’ report published by Oxford Archaeology in 2009 on behalf of English Heritage as:

‘the illegal search for and removal of antiquities from the ground by criminals using metal detectors, without the permission of landowners, or on prohibited land such as Scheduled Monuments (SM)’ (Oxford Archaeology 2009, 1).

³ Guidance for organisers of metal detecting rallies: <http://finds.org.uk/getinvolved/guides/rallycode>

Within this report Oxford Archaeology are careful to distinguish between ‘nighthawks’ and ‘responsible metal detectorists’, identified as those who follow good practice and contribute to our knowledge of the archaeological record (2009, 1). Nighthawking is often associated with the raiding of archaeological sites, usually when an excavation is in progress, and under the cover of darkness. However, the practice of nighthawking more commonly involves detecting on land without permission from the landowner; in England and Wales those believed to be engaging in nighthawking are liable to prosecution under the *Theft Act, 1968* or may be sued for trespassing under common law. Although trespassing laws and the *Theft Act* do not apply in Scotland the non-reporting of archaeological objects to TTU may also be regarded as nighthawking (Campbell and Thomas 2012).



Plate 2: Metal detectorists attending a rally near the battlefield of Methven (1306), Perth and Kinross. Image taken by the author.

Portable Antiquity

A portable antiquity is any individual or collection of archaeological objects which is easily movable and may be transported. With regards to sites of conflict, distribution scatters of portable antiquities e.g. musket balls, represent the debris of conflict activity and will often lie suspended in the plough soil. As portable antiquities may be removed from their context or easily disturbed in the ground their protection presents a significant concern in conservation management.

Treasure

In England, Treasure is defined by the *Treasure Act 1996* as any object over 300 years old with a metallic content that is at least 10% precious metal i.e. silver or gold. In Scotland the concept of Treasure is based on the principles of the Scots common law *bona vacantia* i.e. ownerless goods, which in turn has its foundation in the ‘core maxim’ of Scot’s law that states *quod nullius est fit domini Regis* i.e. that which belongs to nobody becomes our Lord the King’s [Queen’s]. This common law allows for any archaeological object recovered from the ground in Scotland to be claimed by the Crown on behalf of the nation, with no restriction of the age of the object, although the majority of Victorian objects and 20th century coins do not require reporting to the Treasure Trove Unit.

Signature Artefact

This term is used to identify diagnostic artefacts which are commonly associated with sites of conflict and are usually linked to weaponry. Signature artefacts of conflict will change depending on the period in question, for example for a medieval battle such as Towton (1461) distribution patterns of iron arrowheads would be provide a diagnostic signature. For this particular research, which focuses on conflict between the 16th – 19th century, signature artefacts will include lead and iron projectiles such as musket balls, pistol balls, grapeshot, canister shot and cannon balls (Harrington 2004, 112). Artefacts indicative of the War of the Three Kingdoms (WTK), a major period of study within this research, may also include items such as bandolier caps and powder flask nozzles which are dropped or torn off during battle. Other less common battle related artefacts such as musket parts e.g. trigger guards, sword fragments, armour pieces may also form signature assemblages of sites of conflict (Plate 3).



Plate 3: Examples of signature artefacts - powder-box caps and powder-flask nozzle (top left), musket ball with casting sprue (top right), 18th century signature assemblage from Prestonpans (1745) (bottom left), fragment of trigger guard from a pistol (bottom right). Images taken by the author.

Site of Conflict

This is a general descriptive term which refers to a site containing archaeological distributions of identifiable material relating to military or conflict activity i.e. a battlefield, skirmish, siege, encampment and firing range: see below for more detailed descriptions of each. This may be used synonymously with ‘field of conflict’, a term devised by Dr Tony Pollard and Dr Phil Freeman and initially presented as a title for the first battlefield archaeology conference held within the University of Glasgow in 2000 (Freeman and Pollard 2001; Scott and McFeaters 2011).

Battlefield

English Heritage recognises a battle as ‘involving wholly or largely formed bodies of armed men, normally deployed and engaged on the field under formal command’ (English Heritage 2012, 3). A battlefield, therefore, is recognised by Historic Scotland as the ‘area of land over which a battle was fought or significant activities relating to a battle occurred’. Historic Scotland also employs phrases such as ‘combative engagement’ and ‘aim of

inflicting lethal force against an opposing force' to further define the nature of battle (Historic Scotland 2012). This more accurately reflects the nature of warfare in Scotland which, compared to England, may be characterised by smaller armies or more informal battle arrays. Archaeologically, that is in addition to the landscape itself, a battlefield may be recognised as a scatter of battle-related, or signature artefacts, suspended in the plough-soil which represents the debris of the action (Fig. 1); fired bullets, broken weaponry and torn clothing (Pollard 2005). Analysis of the artefact distribution, together with the historic terrain, allows archaeologists to define the extent of the battle, and possibly identify certain engagements, within the landscape (Foard 2003). Upstanding remains, such as earthwork defences, trenches or fortifications, etc. are rarer features of a battlefield. In Scotland, surviving defences built during the Battle of Glenshiel (1719) are protected scheduled monuments (MacSween 2001; RCAHMS Canmore ID: NG91SE 1), and a ditch believed to have been created or modified to act as a defensive feature has recently been identified on the battlefield of Philiphaugh (1645) (Ferguson 2011). The characteristics of a battlefield, and with it its chances of archaeological survival, are defined by the period in which they were fought. Evidence of medieval battlefields, for example, is difficult to trace in the landscape. This is primarily due to weaponry, and other forms of material culture, being composed of iron which does not survive in the archaeological record, particularly after several centuries; the Battle of Towton (1461) is a rare example where hundreds of iron arrowheads have been recovered (Fiorato et al 2000). Furthermore, historical sources from this period are less reliable in providing detailed accounts of an event, in comparison to later 17th-19th century sources, which may include official records, military maps and eye-witness accounts such as diaries and letters. The development of military tactics and firearm technology, and with it the production of lead bullets, as well as other objects composed of more resilient metals such as copper alloy, result in battlefields becoming more 'visible' in the archaeological record.



Figure 1: Distribution map of artefacts recovered during archaeological investigation of the Battle of Culloden (1746) using systematic metal detecting survey. Each dot represents a signature artefact recorded to sub-centimetre accuracy using a Total Station (reproduced by permission of Dr Tony Pollard, Centre for Battlefield Archaeology)

Encampment

An encampment may be described as temporary accommodation for soldiers and support units, usually when on campaign or when conducting military activities away from the main support bases, such as forts or barracks. Three categories of military encampment from the 16th – 17th century have been identified ranging from basic bivouacs of the ‘temporary camp’ for overnight or short-term use, to more complex arrangements of the ‘standing camp’ and the ‘besieging camp’ (Rowland 1997, 2). For example, the Scottish camp constructed during the Siege of Newark in 1644 was well fortified and large enough to accommodate 7000 soldiers (Pollard and Oliver 2002, 232). As Fairrie notes, the main requirement for a campsite was ‘level ground for drilling and safe rifle ranges’ (1991, 81), although this is perhaps have been more relevant for 18th-19th century encampments built during peacetime for training.

Archaeological investigation of military encampments has been limited; an encampment at Newark was investigated in 2002 and recovered a small assemblage of artefacts including folded strips of lead used in the manufacture of lead projectiles (Pollard

and Oliver 2002, 233). Metal detecting activity on campsites has recovered coins, buttons, buckles, military accessories and domestic objects such as clay pipes (Bailey 2001, 39).

Firing/Practice Range

A firing range may be described as an area for target practice with firearms usually situated in a location with rising ground or steep banks to act as a backstop to avoid stray bullets. Butts are often used as target practice. For example, the Royal Highland Regiment in the mid-18th century are described as using targets with a ‘black spot in the middle’ suggesting live firing rather than with blanks; a practice often used to save ammunition (Brumwell 2002, 248). A good example of a firing range may be found at Fort George, Ardersier, Highland, where a local metal detectorist has recovered a substantial volume of musket balls and other modern bullets, including examples of experimental Enfield bullets. Here the military have taken advantage of an escarpment for live firing.

Skirmish

A skirmish may be described as an engagement ‘between military forces not in battle array’ (English Heritage 2012, 3). Skirmishing may occur in the opening stages of a battle, with the use of specialised troops, in order to harry the opposing force in an attempt to weaken the front lines prior the main engagement. Skirmishes may also occur more unpredictably, particularly in a time of warfare if small bands of infantry or cavalry meet unexpectedly or are ambushed, as described by Purkiss in her history of the WTK:

‘Much of the WTK wasn’t fought in large Waterloo-like set-piece battles; many soldiers served for its entire duration without ever seeing a big engagement. Rather, it was fought in a series of skirmishes, guerrilla attacks, surprise encounters with rearguards, sudden cavalry swoops....’ (Purkiss 2007, 208)

Typically, skirmishes share a number of archaeological characteristics with battlefields in terms of material culture, although if involving cavalry action it is more likely to be identified by a greater volume of pistol balls than any other category of projectile. Furthermore, as fleeting events, unlike pitched battles that may last several hours, a skirmish is more likely to be smaller in scale and lack the same tactical significance; it may also therefore not be recorded historically. Larger skirmishes, such as at Tywardreath, Cornwall (see Chapter Six) represented by substantial artefact scatters which cover a wide area and appear to have involved intensive fighting, are more difficult to differentiate as it could be argued that this action displays similar characteristics to a pitched battle. However, as suggested by the definition of ‘battle’, regardless of the size or intensity, this

action would have required the military bodies to be formed in ‘battle array’ and to be under ‘formal command’, which in this case is unlikely.

Siege

A siege site is described by English Heritage as ‘actions against fixed positions, often with both defensive, and offensive, works constructed...often already designated through listing and scheduling’ (English Heritage 2012, 3). A siege site may therefore vary in size from manor houses, such as Basing House, to large scale fortifications, such as Newark Castle (Harrington 2004, 60). Associated archaeological material, in particular objects that may be recovered by hobbyist metal detectorists rather than during excavation, may include a higher proportion of artillery projectiles such as cannon balls compared to other sites of conflict. Artefact scatters are also more likely to be represented by intensive patterns of distribution reflecting several years of engagement, particularly in relation to WTK siege sites.

1.5 A brief history of metal detecting in the UK

Metal detecting as a hobby first surfaced as a major leisure activity in the late 1960s, owing much to technological improvements, including the introduction of the transistor and latterly the pulsed induction meter mentioned earlier, which ear-marked the metal detector as user-friendly device capturing the nation’s imagination for treasure hunting. The actual beginnings of the hobby are difficult to distinguish and it appears to have had a number of origins. Thomas (2009) identifies some early references to the activity of metal detecting, including a letter to *The Times* from a Professor Richard Atkinson who describes it as ‘the American hobby of treasure hunting’ and the sale of artefacts by American GIs stationed at airbases in Norfolk from the 1950s which may have been recovered by use of a more primitive metal detector (Thomas 2009, 134). This early link of metal detecting to the military is well established. The first battery powered coil to generate a magnetic field was first devised by Dr Gerhard Fisher in 1937, and then later developed by Polish officer Lieutenant Jozef Stanislaw Kosacki for use during WWII to sweep for land mines; a technique utilised by the army to this day, albeit to a more advanced scale. A metal detectorist based in Cornwall, referred to as MdCW (Chapter Six), originally became interested in metal detecting whilst stationed with the Parachute Regiment in Germany in the late 1960s. After injuring his leg in a training exercise he was handed a decommissioned metal detector to ‘amuse himself’ whilst on sick leave. When returning to

the UK he came across a similar model in an ex-army store and carried on his interest to this day and as a result has contributed significantly our knowledge of WTK activity in Cornwall (MdCW pers. comm. 2008).

Before the introduction of the Archaeological Monuments and Areas Act, 1979 or local bye-laws restricting metal detecting on council property, there were few legal constraints to where metal detectorists could roam, as long as land access was granted. Ancient treasure laws in England and Wales (see Chapter Two) and museum resources across the country were not prepared to deal with this new influx of unrecorded portable antiquities (Addyman 2009, 52). The hobby rapidly gained popularity with approximately 150,000 people participating across the country in 1980 (Dennison and Dobinson 1995, 1). It was also at this point that the strain and frustration of the archaeological community began to come to the fore in the Stop Taking Our Past (STOP!) campaign, orchestrated primarily by the Council for British Archaeology with the support of numerous heritage bodies. STOP! did little to halt metal detecting, in fact it spurred metal detectorists to unify, with the formation of the National Council of Metal Detecting (NCMD) in 1981. The NCMD aimed to provide a collective voice to promote the hobby and defend against opposition. This was quickly followed by the creation of the Code of Practice for Responsible Metal Detecting in 1983, which aimed to legitimise the hobby and respond to general accusations that it was a reckless and damaging activity.

Although now widely criticised as a demeaning and ultimately damaging movement, depicting metal detectorists as nothing better than criminals, one can understand on reflection the motives behind such a forceful campaign. In as little as 10 years, the recovery of archaeological material by members of the public had gone from virtually nothing to thousands of artefacts each year. Furthermore rather than casual discoveries made by gardeners or farmers, it was a deliberate activity which was seen to cause irreparable damage to the archaeological record. With little means of tracking the provenance of artefacts, or the ability to protect archaeological sites, many archaeologists felt they were losing control over what appeared to be an unstoppable threat to the nation's heritage. This campaign created a considerable gulf between archaeologists and metal detectorists and although relations have improved substantially, tension still exists between the two groups (Thomas 2007, 17).

To focus entirely on the negative history of metal detecting would be contrary to the intention of this thesis which ultimately aims to address both the negative impacts and

positive contributions of metal detecting to battlefield archaeology. The contribution metal detectorists have made to archaeology in general has been recognised in certain circles, e.g. numismatics (Spencer 2009), for a number of years and recent discoveries such as the Staffordshire Hoard of Anglo-Saxon gold in England (Foggo 2009⁴) and an assemblage of Bronze Age gold torcs in Stirlingshire, Scotland (BBC News, 3 November 2009⁵) have done much to support this view. The 2005/06 Annual Report of the Portable Antiquities Scheme stated that the reporting of archaeological finds, the majority of which were discovered by metal detectorists, had doubled since 2003/04 (PAS 2006). This led Culture Secretary David Lammey to proclaim metal detectorists as the ‘unsung heroes of the UK’s heritage’ (BBC News, 19 January 2007⁶); a welcome turnaround of attitude to many metal detectorists, to others a worrying statement of legitimacy. The Nighthawking Report (Oxford Archaeology 2009) commissioned by English Heritage to assess the impact of illegal metal detecting on archaeological sites served to dampen public spirit by depicting the darker elements of the activity. Whilst efforts were made to differentiate ‘nighthawkers’ from ‘responsible hobbyists’, it was impossible for metal detectorists not to be tainted by news articles reconnecting the traditional ideas of ‘treasure hunters’ and ‘historic sites under threat’ (Mukherjee 2009⁷).

The timely and coincidental discovery of two substantial gold hoards in England and Scotland, as previously mentioned, reinstated the hobby into renewed public interest. However, an interesting factor which may have been more significant in fuelling this ‘renewed public interest’ was the recent economic recession of 2009. Metal detecting was lauded as a way of making a fortune in harsh financial times, after all Tony Herbert, an unemployed victim of the recession, was set to receive nearly £500 000 for his finding of the Staffordshire Hoard; treasure hunting had returned to the fold. A plethora of get rich quick articles appeared in the media and unusually as a storyline in the Radio Four series *The Archers*. In an episode entitled ‘*Gold fever*’ Joe and Eddie Grundy use a metal detector to find valuable treasure in the form of a medieval hoard, however the story was quickly dropped as it became apparent that they were engaging in nighthawking by trespassing on Grange Farm land (Stimpson. pers. comm. 2009). Tabloid and broadsheet papers included

⁴ <http://www.timesonline.co.uk/tol/news/article6850885> (last viewed 29 September 2009)

⁵ http://news.bbc.co.uk/go/pr/fr/-/1/scotland/tayside_and_central/8339798.stm (last viewed 3 November 2009)

⁶ <http://newsvote.bbc.co.uk/mpapps/pagetools/print/news.bbc.co.uk/1/hi/uk/6271879.stm> (last viewed 19 January 2007)

⁷ <http://news.bbc.co.uk/go/pr/fr/-/1/hi/uk/7891871.stm> (last viewed 16 February 2009)

the headlines, '*When hidden treasure is just a Stone's throw away*' (Meyer 2009)⁸; '*There's gold in them thar glens*' (McQueen 2009, 20⁹); and in the Financial Times '*The Optimistic Detectorist*' (Watson 2008). Alarminglly the latter two articles both suggest battlefields as good place to search, with the *Daily Record* going as far to reference 'items uncovered at Culloden battlefield', a landscape protected by the National Trust for Scotland, in an accompanying map entitled, '*Where to dig up a fortune in Scotland*' (Fig. 2) (McQueen 2009, 21¹⁰).

⁸ The Observer, 5 July 2009

⁹ The Daily Record, 1 September 2009

¹⁰ The Daily Record, 1 September 2009

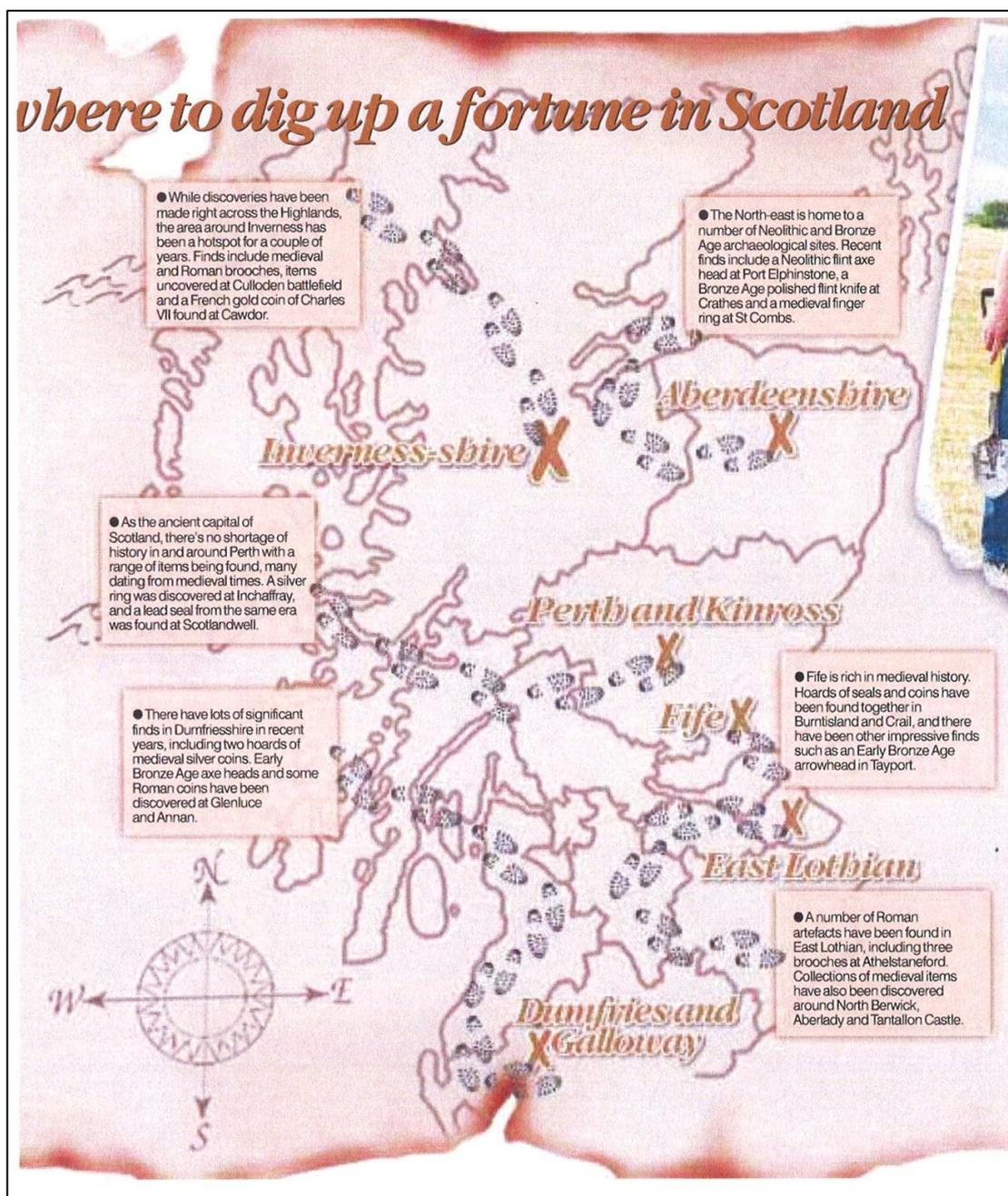


Figure 2: 'Where to dig up a fortune in Scotland' as featured in the Daily Record in 2009. Note '...items uncovered at Culloden battlefield' a site under the stewardship of the National Trust for Scotland who prohibit metal detecting on their properties. Reproduced by permission of the Scottish Daily Record Ltd.

The history of metal detecting has been dominated by its strained relationship with archaeology and its struggle to be recognised as a legitimate hobby. In many ways it has successfully achieved this with a number of anecdotal reports from archaeologists, heritage managers such as Finds Liaison Officers and metal detectorists themselves maintaining friendly and productive relations and engaging in a range of community archaeology projects across the UK. Occasionally blips in this brave new world of mutual co-operation occur, as in the recent boycotting by the NCMD of the 'Portable Antiquities: Archaeology, Collecting and Metal Detecting' conference held in Newcastle in 2010 on the grounds that

the themes were ‘harmful to the reputation of metal detecting’ (Austin 2010) has shown. However this defiant stance was not representative of the wider community and was strongly criticised by many metal detectorists who attended the conference as a ‘paranoid and unnecessary step backwards’ (Anon, pers. comm. March 2010). It is clear from this that substantial progress has been made and that the protection of archaeology, including battlefield landscapes, is reliant on an open and productive relationship where an understanding of the sensitivity of the archaeological record is encouraged.

1.5.1 A brief history of Battlefield Archaeology and the use of metal detecting

A truly detailed history of the origins and development of battlefield or conflict archaeology would reflect on the diverse nature of research and the rapid growth of its international profile. However in order to stay relevant to this particular thesis a more limited account relating to recent progress of the discipline and its relationship to metal detecting is necessary. If a concise overview of the subject is required Scott and McFeaters 2011 journal article, “*The Archaeology of Historic Battlefields: A History and Theoretical Development in Conflict Archaeology*” (Scott and McFeaters 2011) is recommended.

Identifying the actual origins of battlefield archaeology is dependent on whether one wishes to focus on the initial amateur interests of relic collecting from battlefield sites or the later professional development of the subject from a sub-discipline into mainstream archaeology. Certain individuals from the 18th and 19th centuries have explored the physical landscapes of battlefields. William Hutton’s search for evidence of battle on the field of Bosworth in 1788 (Pollard 2009) and Edward Fitzgerald’s investigation of the battlefield landscape of Naseby in 1842 (Foard 1995; Harrington 2004; Scott 2010; Sutherland 2005; (Wright 1889, 105), within which he recorded place names, artefact locations and even excavated a mass grave. These were not mere relic hunts to populate a mantel piece, instead both appear to have realised the potential of drawing together historical sources and available material evidence from the field to gain a fuller understanding of the battle itself.

This pioneering approach by Hutton, and in particular Fitzgerald, geared towards the understanding of battlefields appears to have been an anomaly in the history of the subject, as interest in the physical remains of battlefields, in the UK at least, did not

resurface again until the early 1970s. This was in part due to the lack of recognition of battlefields, and other sites of conflict, as archaeological landscapes and a poor understanding, or even acknowledgement, of the artefact distributions which so often characterise them. Therefore much of the early recovery of artefacts from battlefields across the UK was carried out by metal detectorists with varying abilities and motivations (Foard 1995, 19) and not through systematic investigation by archaeologists. Despite this, good work was being done by isolated groups of metal detectorists before archaeologists were on the scene. For example in 1979 a Captain Scott, stationed at an MOD ammunition depot on the site of the WTK battlefield of Edgehill, Warwickshire, recovered a large assemblage of lead projectiles, etc, by metal detecting fields earmarked for a base extension (Pollard 2003, 111). Each artefact was accurately plotted on an OS map which helped form the basis of later archaeological work undertaken by Pollard in 2003 and Foard in 2005 (Foard 2005; Pollard 2009, 183). Foard's later research on the battlefield of Naseby in 1995, credited as being the first publication of archaeological material from a UK battlefield (Sutherland 2005), was also based on the initial work of innovative metal detectorists who had carried out intensive surveys of the area (Foard 1995, 19); a parallel which can perhaps be drawn to work carried out by MdCW and his team in Tywardreath, Cornwall and a metal detectorist working on the battlefield of Sedgemoor, Somerset (Chapter Seven).

In the USA, professional archaeology projects on battlefields such as the Little Bighorn and American Civil War forts were, although in isolation, using metal detectors from the 1950s to recover artefact distributions (Scott and McFeaters 2011, 6). However, possibly due to the ill feeling felt towards metal detectorists during the 1970s or the lack of insight into the potential of the metal detector as a tool, the first systematic archaeological study of a battlefield in the UK, on the battlefield of Marston Moor, did not use metal detectors and instead adopted a field walking approach. Between 1973 and 1979 several thousand lead projectiles and hundreds of other signature artefacts of conflict were recovered and mapped across an area of 10kmsq (Harrington 2004, 84). The efficient recovery of artefacts was later facilitated through the assistance of local metal detectorists led by Paul Roberts. This project fundamentally re-shaped the interpretation of the battle, offering new insights into how both armies moved and fought across the landscape. Unfortunately, as the archaeological results were not published by Newman and Roberts until 2003, the project failed to make the necessary impact by demonstrating the potential of battlefield archaeology.

The ground-breaking approach of Scott and Fox at the Battle of Little BigHorn in 1984, which emphasised a systematic methodology and the importance of recording spatial data in association with artefact locations (Scott, et al 1989), greatly influenced the first real burgeoning of battlefield archaeology as an archaeological discipline in the UK. The mid 1990s were marked by projects such as the Towton Battlefield Archaeological Survey Project by Tim Sutherland with the assistance of metal detectorist Simon Richardson in 1996 (Fiorato et al 2000); as well as the founding of the Battlefields Trust in 1992 and the formation of the English Heritage Register of Historic Battlefields in 1994, both in response to the realisation that threats such as rapid urban expansion were causing irreversible damage to battlefield landscapes (Foard 1995a). This momentum continued in 2000 with the first *Fields of Conflict* conference held in Glasgow which aimed to provide an academic platform for current research in the field (Freeman and Pollard 2000). 2000 also saw the first archaeological investigation of a battlefield in Scotland which took place at Culloden as part of the *Two Men in a Trench* television series presented by Tony Pollard and Neil Oliver. With a remit to investigate the battlefields of Britain, this pioneering series not only placed battlefield archaeology in the public spotlight, it highlighted the important contribution made by skilled metal detectorists to the success of a battlefield projects. This relationship, born out of a mutual respect, continued across a number of projects on battlefields across Scotland including Prestonpans (Pollard and Ferguson 2009), Sherrifmuir (2006) and numerous seasons at Culloden (2000 – 2006). Uniquely, Pollard ensured that for the first time metal detectorists working on commercial projects e.g. Sherrifmuir, were paid a wage equivalent to that of an archaeologist carrying out the same tasks (Pollard 2009, 188).

A significant number of archaeological projects have been carried out by both professional and amateur groups on sites of conflict across the UK, many of which have been initiated or supported by the Battlefields Trust or the Centre for Battlefield Archaeology, based in the University of Glasgow. An overview of archaeological projects conducted on battlefields with the assistance of metal detectorists will be provided in Chapters Four and Five which outline the extent of metal detecting activity on sites of conflict in the UK.

1.6 Conclusion

Despite an appearance of being at the forefront of changing attitudes towards metal detectorists, battlefield archaeologists are still unusually polarised in nature when it comes to discussing metal detecting and its interaction with battlefield landscapes. For example many archaeologists working within this field will actively engage metal detectorists in projects and rely on their experience to recover artefacts, but yet condemn their activities and the hobby in general with the same breath. Much of this inconsistency is due to the very real perception that metal detecting still offers a significant threat to protection of battlefield landscapes, regardless of the contribution made by numerous responsible detectorists. However, this thesis will aim to explore the role of hobbyist metal detecting within battlefield archaeology, with an equal focus on both the negative and positive contributions of the hobby as a whole. The purpose of this paper is not to divide the hobby in two as the process of impacting or contributing are not mutually exclusive. Instead it will aim to consider the nature and extent of hobbyist metal detecting on UK battlefields and understand the motivations behind such activity with the aim of challenging, rather than changing, attitudes towards metal detecting and battlefield archaeology.

Chapter Two

Legislation, metal detecting and sites of conflict

2.1 Introduction

The rise in popularity of metal detecting as a hobby from the 1960s onwards saw a dramatic increase in the volume of discovered material which could be classed as ‘treasure trove’ (Bland 2005, 441). This upward trend has necessitated the review of heritage laws, as well as the formation of guidelines and schemes to support treasure laws in the UK and to encourage reporting and recording. As archaeological landscapes fundamentally defined by scatters of battle-related artefacts held within the topsoil, battlefields and other sites of conflict are vulnerable to the unsolicited removal of material by metal detectorists. Therefore the legal framework to manage portable antiquities in the UK is of direct relevance to the activity of hobbyist metal detecting, as well as the effective management of archaeological landscapes such as battlefields.

The first half of this chapter will outline the laws, guidelines and schemes in relation to metal detecting in general and then more specifically to battlefields and other sites of conflict, with a review of their effectiveness in providing legal protection and guidance for all parties involved. To better understand the legal position of the UK, and its ability to effectively manage metal detecting and battlefield heritage, comparisons will be drawn with other countries in Europe and with the USA.

2.2 Legislation dealing with portable antiquities in the UK

As the hobby of metal detecting grew in popularity it was clear that the fundamental principles of the ‘ancient’ treasure trove law were no longer adequate to handle the large number of portable antiquities now being recovered. Therefore it was necessary to develop a new, more flexible, legal framework capable of dealing with this unprecedented influx of archaeological material discovered by members of the public. The UK is far from united in terms of laws regarding heritage and metal detecting. England, Wales and Northern

Ireland apply the *Treasure Act 1996* initiated in 1997, and updated in 2003, to replace the ancient common law of Treasure Trove. In Scotland, where common law forms the basis of Scots law, no changes were made to the current Treasure Trove system which has been in operation since the early 19th-century (Curtis 2007, 343).

The exact origin of Treasure Trove is unknown but it is thought to have existed in the early medieval period and to have been introduced with the arrival of the Anglo-Saxons. Throughout the medieval and post-medieval period the law was used predominately to raise revenue for the crown. It was not until the 19th century that the law of Treasure Trove was utilised to for the purpose of bequeathing antiquities for the benefit of the nation, although this was to have more flexibility in Scotland than its counterpart in England and Wales. For example in Scotland the Scots law of '*bona vacantia*' allowed a hoard of medieval coins in 1808 to become the first ever recorded 'treasure trove' item in Scotland. This hoard was subsequently gifted for the benefit of the nation to the Edinburgh Museum of the Society of Antiquarians of Scotland (now National Museums Scotland) by the Baron of the Exchequer (Savile 2002, 786). In England, however, the artefacts of the Sutton Hoo burial excavated in 1939 could not be made 'treasure trove' as the associated grave goods had not been buried with the intention of recovery and therefore could not be claimed by the Crown. The artefacts, regarded for their outstanding national importance, were donated to the British Museum by the legal holder of the collection, the landowner (Palmer 1981, 180).

With a particular focus on metal detecting activities, the next sections will provide a detailed summary of the laws governing 'treasure' and 'portable antiquities' in Scotland, Northern Ireland, England and Wales. As the Isle of Man and the Channel Islands are Crown Dependencies and therefore not technically, part of the UK or European Union, they have not been included within this study.

2.2.1 Treasure Trove in Scotland

The Treasure Trove law in Scotland is grounded within the Scots common laws of *bona vacantia*, or ownerless goods. This in turn has its foundation in the 'core maxim' of Scots law that states *quod nullius est fit domini Regis*, or that which belongs to nobody becomes our Lord the King's [Queen's]; the finder and the landowner, therefore, have no rights to ownership of any found archaeological object. This common law allows for any object or coin recovered from the ground in Scotland to be claimed by the Crown on behalf of the

nation if it is deemed to be of cultural significance. As there are no restrictions on age or composition of the object, with the exception of Victorian objects and modern coins which do not require reporting, there is the capacity to claim a wide range of material culture representing Scotland's past (TTU 2012¹¹).

When a portable antiquity or assemblage is found by a member of the public it must be declared to the Treasure Trove Unit based in the National Museums Scotland in Edinburgh, within reasonable time. The artefact or assemblage is assessed by the Unit to establish its cultural significance and to decide whether it should be claimed as Treasure Trove, or disclaimed and returned to the finder after recording. All cases recommended to be claimed as Treasure Trove by the Unit, including advice on object valuations and museum allocations, are reviewed by the Scottish Archaeological Finds and Assemblages Panel (SAFAP). The panel, representing a cross-section of expertise from across the heritage sector, meets three times a year. Once the cases are evaluated and approved by SAFAP this advice is passed to the Queen's and Lord Treasurer's Remembrancer (QLTR) who holds overall responsibility for any decisions taken within Treasure Trove. After an object or assemblage has been claimed as Treasure Trove and successfully allocated to a museum the finder will receive an ex gratia payment based on the current market value of the object (Savile 2009, 88). The landowner does not have any right to payment, but the practice by many finders is to divide the amount in order to maintain good relations. If the object is not claimed then it will be returned to the finder with a certificate in which the Crown relinquishes all rights of ownership to the object. The Treasure Trove process is also responsible for claiming and allocating archaeological assemblages recovered through research and developer-led projects, however ex-gratia payments are not applicable in this context (Crown Office 2008, 9¹²).

The Treasure Trove Unit is based within the National Museum of Scotland in Edinburgh, which allows access to specialist advice from a range of experts based within the department of Scottish History and Archaeology. The Unit is currently operated by two members of staff¹³, both of whom have a working background within archaeology and with metal detectorists. The role of the Unit is to engage with the public and to act as the first point of contact for the reporting of finds. The Unit is also responsible for researching

¹¹ Treasure Trove leaflet: Treasure Trove in Scotland: A guide to the Treasure Trove system

¹² Treasure Trove in Scotland: Code of Practice -
<http://www.scotland.gov.uk/Publications/2008/12/04114930/0>

¹³ The author was appointed Treasure Trove Unit Officer in November 2011

and processing these finds through the Treasure Trove process and for advising SAFAP and the QLTR on cases to be considered for claiming as Treasure Trove. The Unit also works closely with museums and commercial archaeology units to ensure that archaeological objects and assemblages are successfully processed and allocated. Community outreach has been a particular focus of the Unit in recent years with an increase in find's days at local museums, together with lectures to societies and metal detecting clubs and attendance at metal detecting rallies; all of which are aimed to encourage reporting and promote awareness of the Treasure Trove system. The success of the outreach programme has been reflected in a near 100% increase in reported finds with approximately 2045 finds in 2011-2012 (Crown Office 2012, 12¹⁴).

2.2.2 Treasure Act of 1996 in England, Wales and Northern Ireland

The *Treasure Act 1996* is more complex in terms of defining 'Treasure', with parameters placed on the precious metal content by weight, age and number of objects in the same 'find', in other words objects found together or in association with an object regarded as Treasure. The *Treasure Act* is primarily based on metallic objects that contain at least 10% by weight of precious metal and are over 300 years old. Coins too may be claimed as Treasure if they are over 300 years old and contain the same percentage of precious metal. Coins which do not have this precious metal content must be part of a group of at least 10 i.e. a hoard, ritual/votive deposit or lost purses. An object which does not have precious metal content may only be defined as Treasure if it was found in the same place or forms an integral part of the find, e.g. ceramic pot used as container for a hoard of coins, or if it is designated by the Secretary of State to be of outstanding historical, archaeological or cultural importance (DCMS 1997, 2.1). An amendment to the Act was made in 2003 to include groups of two or more prehistoric metallic objects, such as bronze or early iron artefacts which had originally been omitted from the initial *Treasure Act* but are clearly of cultural significance and well deserving of the classification of treasure (DCMS 1997, 4.1.1¹⁵)

Anyone finding an object that they suspect is Treasure must report the object to the district coroner, either directly or via a Finds Liaison Officer or Local Authority Archaeologist within fourteen days; failure to declare treasure can result in a fine or

¹⁴ Treasure Trove Annual Report 2011/12:
<http://www.treasuretrovescotland.co.uk/downloads/annualreport1112.pdf>

¹⁵ Department of Culture, Media and Sport: *The Treasure Act 1996*

imprisonment. Changes to the Coroners and Justice Act are currently in progress, which will see the creation of a national coroner for treasure. The amendments aim to reduce pressure on local coroners, allowing them to focus on more key responsibilities such as investigating deaths. Only one person in the UK to date has so far been prosecuted under the Treasure Act. In February 2010, a woman from Ludlow, Shropshire, was fined and given a three month conditional discharge for not declaring a French silver piedfort (West Mercia Police 2010¹⁶). As with Treasure Trove law in Scotland, all treasure finds are assessed by a selected group of specialists, the Treasure Valuation Committee (TVC), on behalf of the Secretary of State. The TVC will assess the ‘market value’ of the treasure which takes into consideration the cultural significance of the object and the current marketplace if recent sales of comparative material have been made. Further to this an external valuator, usually within the antiques trade, will provide an independent assessment of the object to ensure continuity. The TVC will then advise the Secretary of State of the decided ‘market value’ and the amount to be rewarded to the finder, the landowner or both. Usually the reward is shared with the landowner if the finder receives a payment (Bland 2005, 443).

2.2.2.1 The Portable Antiquities Scheme

The *Treasure Act*'s focus on precious metal content leaves a large volume of cultural material which is not defined as treasure and therefore cannot be claimed by the state for the benefit of the nation. This places a reliance on the volunteering of information from finders on what cultural objects are being discovered across the UK which would otherwise be lost in private collections or sold on the open market. A prominent example is the Crosby Garret Roman cavalry helmet found in Cumbria by a metal detectorist in May 2010. As the helmet was composed of bronze it did not qualify as Treasure under the current Act and therefore could remain in private ownership. The helmet was sold at Christie's auction house in October 2010 for £2million to a private bidder, despite efforts by the Tullie House museum in Carlisle to match the bid after months of fundraising (Kennedy 2010). The Portable Antiquities Scheme (PAS) was introduced in 1997 to encourage the reporting of non – treasure artefacts by members of the public providing ‘a proactive and comprehensive mechanism for systematically recording finds for the public benefit’ (Resource 2003, 4).

¹⁶ <http://www.westmercia.police.uk/news/news-articles/ludlow-woman-admits-failing-to-report-treasure-first-case-of-its-kind-in-the-country.html>

Central to the scheme is the network of 37 Finds Liaison Officers (FLO) and six Finds Advisers situated across England and Wales. The FLO acts as an interface between the general public and the archaeological community, access to which may have seemed remote to many. The FLOs record non – treasure objects brought in by members of the public, as well as providing guidance on the Treasure Act, finds identification and recording techniques (Bland 2009, 70). As material culture specialists, Finds Advisers, based in museums and universities, provide support and advice on the vast range of material which enters into the system. Finds Advisers also offer academic vigour to the scheme by ensuring a consistent level of expertise in finds identification and research through FLO training, database assessments, and the dissemination of data with regular publishing.

With hundreds of finds reported to FLOs each day the scheme now holds an extensive volume of data of cultural heritage across England and Wales, all of which is made available to Historic Environment Records (HERs). The database is a valuable resource containing over 500,000 artefacts with the majority accompanied by a photograph and detailed description. Updated each day, the database is accessible through the PAS website which features a comprehensive online version forming what has been described as ‘a virtual museum collection of small finds from England and Wales’ (Clark 2008, 12). Those using PAS data for research may apply for special access to the database, providing a greater level of detail for each find, including findspot co-ordinates and the name of the finder, as well as the ability to download this data for analysis. In the year 2011-2012 339 projects, from undergraduate research to major funded projects, were utilising data generated by PAS (PAS website 2012¹⁷).

The role of the FLO and PAS as a whole is not only to record finds but to build awareness of cultural heritage. This role includes forming relationships with groups such as hobbyist metal detectorists who, outside professional archaeologists and the heritage sector, have the most interaction with cultural objects. Maintaining regular contact and communication with metal detectorists is therefore not only an exercise in public relations but also necessary in retaining a valuable source of information on recovered material. With over 158,088 objects recorded with PAS in 2009/10 (Lewis 2010) the potential loss or downsizing of this scheme would clearly have an impact on our ever growing

¹⁷ <http://finds.org.uk/research>

understanding of material culture across England and Wales in which the PAS has been instrumental in facilitating.

2.3 Heritage laws and metal detecting in the UK

In the UK metal detectorists enjoy relative freedom to engage with their hobby, unlike in the majority of European countries, where the activity of metal detecting is often strictly prohibited by law as outlined in the *European Convention on the Protection of the Archaeological Heritage, Article 3 (iii)* (COE 2012¹⁸). There are however a number of laws in the UK which either directly, or indirectly affect metal detecting, ranging from heritage legislation to access laws. As with many laws in the UK, there are certain variations, particularly in Northern Ireland, which has distinct access laws and restrictions on metal detecting activity. These variations shall be dealt with in a separate sub-section to avoid complication.

In certain sensitive areas metal detecting and the removal of archaeological objects is restricted. These restrictions not only included places protected for their cultural importance, but also for their natural and scientific importance, where the activity of metal detecting may cause irreparable damage such as digging, trampling and human disturbance of wildlife. Metal detecting within protected places such as Sites of Special Scientific Interest requires written consent from Natural England and Scottish Natural Heritage, as does any detecting on sites of historic or archaeological interest on land in Higher Level Stewardship, a scheme operated by Natural England¹⁹ (DEFRA 2005, 54). In Scotland, similar agri-environmental programmes have been developed by the Scottish Government as Rural Stewardship Schemes which encompass both environmental and archaeological factors (Scottish Government 2006). The use of metal detectors is also restricted in areas described by the Country and Rights of Way Act 2000 of England and Wales as ‘open country’. These are natural areas undisturbed by cultivation and which have been recently mapped by Natural England (Natural England 2008). There does not appear to be any legal restriction in Scotland referring to ‘open country’ which is not defined by Scots access law, however advice to metal detectorists is given within the Scottish Outdoor Access Code referring to protected heritage sites (Scottish Natural Heritage 2004).

¹⁸ <http://conventions.coe.int/Treaty/en/Treaties/Html/143.htm>

¹⁹ Natural England operates under the Department for Environment, Food and Rural Affairs

It is the policy of governmental and other national bodies to prohibit metal detecting on land within their ownership without prior consent. This includes National Parks, protected by local authority by-laws; property owned by the Ministry of Defence; Crown Estates, (which includes much of the foreshore surrounding the UK), and land owned by the charitable organisation the National Trust (NT) and the National Trust for Scotland (NTS) (National Trust 2010²²). Controls on metal detecting on both NT and NTS properties, the largest landowners in the UK, have now been relaxed in view of recent changes to treasure laws and the creation of the Portable Antiquities Scheme. Both the NT and the NTS operate a policy to consider granting licenses for controlled metal detecting, although this refers more accurately to archaeological projects rather than hobbyist activity (Thackray 2001, 26). The Crown Estates have also relaxed their restrictions and no longer charge ‘non-commercial’ metal detectorists for a permit to encourage access to the foreshore²³. Property under the guardianship of the heritage sector, i.e. English Heritage, Historic Scotland and Cadw, is subject to very strict controls on metal detecting. However, as the majority of their sites and monuments are of national importance they are protected by a separate piece of legislation, the *Ancient Monuments and Archaeological Areas Act, 1979*.

The *Ancient Monuments and Archaeological Areas Act, 1979* is the most robust piece of legislation geared to the protection of cultural heritage in the UK. The Act protects archaeological sites and monuments by defining ‘Scheduled Areas’ and ‘Areas of Archaeological Importance’ (in England this includes the historic cities of Canterbury, Chester, Exeter, Hereford and York; there are none in Scotland). Scheduling provides protection for monuments which are recognised by the Secretary of State under the guidance of heritage bodies such as Historic Scotland and English Heritage. The criteria for scheduling an archaeological site include considering factors of social, historic and archaeological importance, as well as being of significance to the nation (MCM&S²⁴ 1979, 1(1)). The Act protects the monument or area from a range of activities that may cause modification, damage or destruction such as intensive ploughing, digging and building works, etc. (MCM&S 1979, 2 (1)). Significantly, a recent amendment to the 1979 Act, Section 61 (7) (d) now extends the definition of a monument within the Act to include, “any site comprising any thing, or group of things, that evidences previous human

²² http://www.nationaltrust.org.uk/main/md_policy-2.doc

²³ <http://www.thecrownestate.co.uk/metal-detecting>

²⁴ Ministry of Culture, Media and Sport

activity”. As outlined in a 2011 report detailing the Scottish Historic Environment Policy, this allows for the scheduling of any “coherent groups of artefacts of national importance”, i.e. artefact scatters (Historic Scotland 2011, 92). With this amendment in place there is the potential, as part of future battlefield management plans, to consider scheduling as an option to protect battlefield landscapes which are characterised by distributions of artefacts.

Metal detecting on a scheduled site, or ‘protected place’ i.e. any non-scheduled place under the guardianship of the Secretary of State or Local Authorities, may be considered as two separate offences under the Act. The first is the use of a metal detector on a scheduled site without scheduled monument consent (SMC) (MCM&S 1979, 42(1), and the second is to remove any archaeological objects ‘by use of a metal detector’, also regarded as damage to that monument (MCM&S 1979, 42(3)). Prohibiting the use of a metal detectors and the removal of any object, regardless of whether it is contemporary with the site, is deemed necessary as substantial damage could potentially occur through indiscriminate digging of archaeological layers. Unfortunately, this legislation does not protect such sites from the illicit use of metal detectors, or as it has been tagged ‘nighthawking’. At present the term ‘nighthawking’ has been defined by a recent report on Nighthawking report by Oxford Archaeology as ‘the illegal search for and removal of portable antiquities from the ground by criminals using metal detectors, without the permission of landowners, or on prohibited land such as Scheduled Monuments’ (Oxford Archaeology 2009, 10). In Scotland, as landowners have no ownership rights to archaeological objects, the theft of an artefact is therefore from the Crown and would include a ‘wider category’ of objects than in the rest of the UK (Campbell and Thomas 2012²⁵).

Consent to metal detect on scheduled areas may be granted (Scheduled Monument Consent) by heritage bodies e.g. English Heritage, a responsibility which was transferred to the heritage sector through the *National Heritage Act 1983*. In many instances a systematic metal detecting survey is the most effective and least destructive method to collect data of artefact distributions suspended in the plough-soil. A decision to grant SMC may be based on factors such as necessary archaeological intervention due to threats from erosion; if archaeological research is justified to further understand the site, or if local utility works are necessary, e.g. water and gas pipes. Excluding Northern Ireland, this is the closest step in accordance with measures set by the *European Convention on the*

²⁵ <http://traffickingculture.org/terminology/nighthawking/>

Protection of the Archaeological Heritage (revised 1992)²⁶, or as it is more widely known, the Valletta Convention. The convention was approved by the UK government in 2000 with elements of the convention absorbed into heritage policy. However, it was felt that legislation already existing in the UK, such as the implementation of the *Ancient Monuments and Archaeological Areas Act 1979*, planning policy and treasure laws throughout the UK, were adequate to fulfil the requirements of the convention (Young 2001, 1). Stipulations within the convention which refer to the requirement of ‘prior authorisation of the use of metal detectors and other detection equipment or process for archaeological investigation’ (ECPAH 1992²⁷, A.3.iii) was enforced by many European countries, including the Republic of Ireland. However this was done not to isolate the practice of metal detecting, but to include it within a wider approach, outlined in article 3 of the convention, to ‘preserve archaeological heritage’, and ‘to ensure archaeological investigation and prospecting are undertaken in a scientific manner’ (ECPAH 1992, A.3). In the UK hobbyist metal detectorists strongly opposed any attempts to license metal detecting on sites other than ‘protected places’ throughout the 1970s and 80s (Addyman 2009). Although it is interesting to note that until 1980 the use of a metal detector in the UK required a license under section one of the *Wireless Telegraphy Act, 1949*, which was later amended as a result of lobbying by the rapidly growing metal detecting community (Thomas 2009, 163).

The protection of property is fundamental in UK law. Those engaging in metal detecting as a hobby must be aware of such laws which, although not in direct relation to the activity, may have serious consequences for the individual if they are breached. In England and Wales the *Theft Act, 1968* makes it a criminal offence to remove any object from the ground without the permission of the landowner. This includes any archaeological objects regardless of whether they are from a Scheduled Monument or not. In civil law, trespassing on property is entering land without the consent of the landowner, and although not a criminal offence resulting in prosecution, the landowner has the right to sue for compensation, particularly if any property has been damaged. Both activities may also be described as ‘nighthawking’. The *Theft Act, 1968* or common laws relating to trespass do not apply in Scotland; however, metal detecting without the consent of a landowner is considered as ‘nighthawking’, particularly if damage to property is incurred.

²⁶ <http://heritagelaw.org/European-International-Conventions>

²⁷ *European Convention on the Protection of the Archaeological Heritage*

If theft of an object has occurred, either as material removed without the landowner's permission or as undeclared 'treasure', in England and Wales this object will be classed as 'tainted' which is described under the *Dealing in Cultural Object Offences Act, 2003* as a cultural object that has been illegally removed or excavated, or is of dubious provenance (DCOA 2003, 2). The definition for 'dealing' in cultural objects is wide ranging and includes not only the buying and selling of objects, but also the borrowing, lending or accepting of such material, whether or not they know the object to be 'tainted' (DCOA 2003, 3). The Act does not extend to Scotland, therefore any cultural object crossing the border from Scotland into England without permission from the Crown Office after 2003 is classified as 'tainted' as it has been illegally exported; current research is evaluating the impact of such legislation on the illicit trafficking of cultural objects in the UK (MacKenzie and Green 2009²⁸). This has both negative and positive repercussions in Scotland. Whilst it does give more power to retain cultural objects in Scotland, recovered by both professional archaeologists and hobbyist metal detectorist, anecdotal evidence suggests that a minority of metal detectorists are falsely declaring archaeological objects found in Scotland as being found in England in order to avoid reporting them to the Treasure Trove Unit (Campbell pers. comm. 2010).

2.3.1 Northern Ireland

The law regarding portable antiquities in Northern Ireland is very different from that of the rest of the UK, having more in common with the law in the Republic of Ireland and the Valletta convention by discouraging the deliberate searching of archaeological objects (Kelly 1994). The law, covered by the Historic Monuments Act, 1971 and the Historic Monuments and Archaeological Objects (Northern Ireland) Order, 1995 is not a recent addition in light of the Valletta convention, having been in place since the original Ancient Monuments Act of 1926 (Hurl 2009, 99). The Order of 1995 refers directly to the use of metal detectors in terms of 'protected places', as with the Ancient Monuments and Archaeological Areas Act, 1979 in the rest of the UK. However, the significant difference is that in the rest of the UK it is a criminal offence to *use* a metal detector on a 'protected place', in Northern Ireland it is simply to be in *possession* of a metal detector (HMAO 1995, 29(1)). More generally, in areas not designated as 'protected places' there are further restrictions, although not directly related to metal detecting. Section 41 of the Order states that a person shall be guilty of an offence if any person 'excavates in or under any land for

²⁸ http://traffickingculture.org/wp-content/uploads/2012/07/10_08.pdf

the purpose of searching generally for archaeological objects' without a license (HMAO 1995, 41(1), therefore making the activity of metal detecting an illegal process without a license resulting in a fine (NIEHS 2010)³⁰. In some circles this may be regarded as a progressive legislative template for the protection of the archaeological record, which should be adopted in the UK in order to bring it closer to fulfilling the agreements made during the Valletta Convention. Certainly, if such licensing were to be introduced it would have a significant impact on the population of metal detectorists in the UK, with an added level of bureaucracy in the obtaining of a license. Would these constraints reduce metal detecting activity, or would the move to a comparably more draconian legislation from the status quo only serve to malign responsible metal detecting resulting in a decrease in volume of reported material? It is clear that despite these restrictions in Northern Ireland metal detecting does still occur with active metal detecting clubs, however, it is not clear how many metal detectorists obtain a license or report material to the relevant authorities (Hurl 2009, 102).

2.4 Guidance and support available for metal detecting in the UK

There is an abundance of published material available providing legal and heritage management advice to those using a metal detector, including hobbyist metal detectorists and archaeologists. Much of this advice is available online and includes information on heritage laws, responsible metal detecting practice, recording, labelling and conserving recovered artefacts, artefact identification, together with links to other sites and relevant publications.

English Heritage and Historic Scotland have published their own more specific guidance notes relating to metal detecting and the recovery of archaeological objects. As the '*Code of practice for responsible metal detecting*' refers primarily to England and Wales, Historic Scotland published a guidance leaflet entitled '*Metal Detecting, Yes or No?*' (2009), which provides advice for hobbyist metal detectorists, landowners and land managers on the legal framework surrounding metal detecting and scheduled sites and monuments in Scotland. Brief references are made to the differences in Treasure Trove law in Scotland and that all finds must be declared, however this is not the main focus. In terms of the recovery of archaeological objects English Heritage published a technical guidance

³⁰ http://www.ni-environment.gov.uk/detecting_leaflet.pdf

note on portable antiquities, *Our Portable Past*, to clarify their policy on the collection and recording of artefacts by both professional and amateur groups. This policy covers excavation, field walking and metal detecting within archaeological projects, making clear to distinguish this from hobby metal detecting, referring to the *Code of Practice* as an adequate source of information for such parties (English Heritage 2006, 2). Although not directly related to metal detecting or the recovery of metallic archaeological objects, the English Heritage publication *Managing Lithic Scatters* provides guidance on dealing with artefact scatters (English Heritage 2000); advice that may easily be transferred to dealing with scatters of battle-related material. What this publication demonstrates is that material suspended in the plough-soil may not necessarily represent unstratified or unstructured material and can be recorded in detail.

Both the Treasure Trove Unit and Portable Antiquities Scheme have published leaflets advising members of the public with regards to the finding of archaeological objects. The Treasure Trove Unit leaflet, *Treasure Trove in Scotland: A guide the Treasure Trove system* provides a summary of Treasure Trove laws, together with the processes involved in claiming archaeological objects. As any archaeological object in Scotland may be claimed as Treasure Trove the leaflet has emphasised categories of artefacts which should and which should not be reported to TTU. Similarly, the PAS leaflet: *Advice for Finders of Archaeological Objects, Including Treasure*³¹, provides legal summaries and an outline of the aims and objects of PAS. This leaflet, however, is more directly targeted at the metal detecting community with advice on recording, treatment of finds and land access permissions.

The Code of Practice for Responsible Metal Detecting in England and Wales (CPRMD) is an example of numerous bodies within the heritage, environmental and museum sectors working alongside the main representative bodies of the metal detecting community³² to produce a document which provides detailed, yet digestible, advice on - current legislation; minimising disturbance to archaeology and the environment; recording practices and the reporting of found material to the relevant bodies (CPRMD 2003³³). The launch of the code in 2003 was a watershed in the promotion of shared aims and responsibilities between metal detectorists and archaeologists and came to be used as a

³¹ <http://finds.org.uk/documents/advice.pdf>

³² National Council for Metal Detecting (NCMD) and the Federation of Independent Metal Detectorists (FID)

³³ Code of Practice: <http://www.ncmd.co.uk/docs/CofP1.pdf>

primary reference point for ‘responsible’ detecting. The NCMD and the FID still refer to their ‘codes of conduct’ which, although containing many of the same elements as the ‘code of practice’, are there to maintain the individuality of club membership.

Interestingly, both have chosen not to include the need to record artefacts within their code, with only the NCMD’s referring to the Treasure Act, 1996 (FID 1996; NCMD 2000).

In 2009 the Council for British Archaeology (CBA) recognised the need for more structured information on one of the more contentious activities of metal detecting; the rally. As with the Code of Practice, all relevant bodies were invited to contribute. As many large scale rallies may expect to attract hundreds of metal detectorists, all of whom are removing artefacts, the fundamental aim of the guidance note is to encourage close co-operation with FLOs to ensure an adequate level of recording takes place during the event. Guidance is provided on recording techniques; resources required for recording; legislation and a reminder of what it is to be a ‘responsible’ detectorist as outlined in the *Code of Practice*. Since official talks began on the guidance note in 2009 no deal has yet be brokered on the wording of the document, with agencies such as Natural England and the metal detecting body of the NCMD remaining unhappy with the process. The CBA have also recently launched Introduction to Standards and Guidance in Archaeological Practice (ISGAP) a guidance document targeted at community archaeology to ensure high standards in archaeological practice for community-led projects³⁴.

In a similar vein the British Archaeology Jobs Resource (BAJR), which is a private initiative rather than a credited heritage body, has published two field survey and metal detecting guides for the use of both professionals and amateurs, including metal detectorists). The first is titled, ‘*A Short Guide to Field Survey, Field Walking and Metal Detecting*’ aims to help those engaging in field work record accurately in the field, with guidelines on methods of survey and reporting finds (Connolly 2006, 10). In relation to battlefields the online booklet *Battlefield Archaeology: A Guide to the Archaeology of Conflict* was designed to build awareness of the archaeology of sites of conflict and appropriate methods of investigation (Sutherland 2005, 1). The Battlefields Trust, a charity set up to act as a lobbying group to protect battlefield heritage, have also published their policies regarding metal detecting within archaeological survey on battlefields. The policy focuses less on technique and more on the quality and reliability of the metal detectorists engaged to assist with the project. Use of terms such as ‘*bona fide* detectorists’ and their

³⁴ ISGAP: www.isgap.org.uk/

willingness to ‘abide’ by the Trusts policies and agreements (Foard 2006, 1.2), are perhaps less in the spirit of mutual co-operation than adopted by other bodies in the heritage sector. With regards to the identification of battle-related material Foard has also produced a guidance note on lead projectiles which is available online and has been observed in circulation on the metal detecting forum UKDetectornet. This note highlights the range of lead projectiles that may be encountered on a site of conflict and what data may be gathered from detailed analysis of the morphology. The note also advises that if more than 50 lead projectiles are found in one area, accompanied by other battle-related objects, the assemblage should be brought to the attention of the Battlefields Trust for further advice (Foard 2009, 3). However, it should be noted that this is only relevant in England and Wales as any discoveries of material in Scotland must be brought to the attention of the Treasure Trove Unit.

2.5 Legal outline and structures for the management and protection of battlefields, and other fields of conflict in the UK

In 2008 a draft bill was introduced which aimed to untangle the web of legislation surrounding the protection of heritage in England and Wales. The proposals of the *Heritage Protection Bill* restructured the need for listing, scheduling and registering by bringing together historic buildings, archaeological sites and monuments and historic places under the auspices of one heritage register (Mascall 2008). Battlefields would therefore no longer be present within English Heritage Historic Battlefields register, but would, along with parks, gardens and World Heritage Sites be included in the new Heritage Register under the category of ‘heritage open spaces’ (Hewitson 2008, 13). However, despite inclusion within a collective register, ‘heritage open spaces’ would not be included under the banner of Heritage Asset Consent unlike other categories within the Heritage Register and therefore would not be afforded any greater protection than the current battlefield register (Mascall 2008). Although the draft bill was swiftly shelved due to the financial constraints of the recession, it is clear from initial proposals that the *Heritage Protection Bill* would have done little more than maintain the status quo. Therefore in terms of battlefield heritage it would have represented a missed opportunity to ensure the future protection of nationally significant landscapes. In Scotland the formation of Scottish Historic Environment Policy (SHEP) as a way of consolidating government policy and providing a more structured framework for heritage management on sites such as

battlefields (Historic Scotland 2009), has so far proven to be a progressive approach and one which the Heritage Protection Bill in England and Wales might hope to emulate.

2.5.1 Registering battlefields

In the UK there is no specific statutory protection for battlefields (Pollard and Banks 2010, 415 & 439). Whilst elements of a battlefield may be afforded protection with existing heritage laws, e.g. scheduling of the Jacobite defensive structures at the Battle of Glenshiel (1719), Highland (McSween 2001), the remaining battlefield landscape is left vulnerable. The protection of battlefields in the UK is based primarily on the planning system, with information on their form, extent and condition within the archaeological record and what threats may affect their survival, directed to planning authorities. This advice is funded and managed through the government heritage bodies in the form of an English Heritage *Register of Historic Battlefields* and the Historic Scotland *Inventory of Historic Battlefields*. Similar registers have recently been introduced in Wales by Cadw, and in the Republic of Ireland with the Irish Battlefields Project, which will include key battlefields from both sides of the border (Rubicon Heritage 2012³⁵).

2.5.2 English Heritage Historic Battlefield Register

The *Register of Historic Battlefields* in England was first produced in 1995 in response to growing concerns that nationally important battlefields were under continual pressure from increasing development. Threats, such as the rapid expansion of suburban areas and changes in agricultural practices, were significantly altering the landscape and with them came the irreversible damage to battlefield heritage. There also came the realisation that battlefield landscapes were an important resource and every effort should be made to conserve and enhance this valuable heritage asset before it disappeared completely (Freeman 2001; Sutherland 2005a). The aim of the register is to act as a trigger within the planning process to highlight potential threats to the battlefield to ensure that, ideally, suitable mitigating factors are taken into consideration before planning consent is granted. This action may not halt any development or threat completely, however, the register does provide a framework of information and advice to all those involved in the process, including landowners, developers, and archaeologists. The overriding purpose of the

³⁵ <http://www.rubiconheritage.com/our-projects/conflict-archaeology/irish-battlefields-project/>

register is therefore to ensure that the historic importance and archaeological potential of the site is recognised.

There are currently forty-three battlefields listed in the register. The list was compiled by a panel of military historians and heritage managers each following strict criteria to establish not only the national importance of the engagement, but also that it may be defined historically and physically in the landscape. The battle must therefore have reliable documentary sources, be geographically definable, prove to be significant in terms of military tactics engaged and have either a political impact, or involve someone of particular historical importance. The extent of the battlefield is defined by references in source material and elements of surviving historic terrain which retains the character of the battlefield landscape, for example - hedges, lanes or buildings (English Heritage 1995). The extent of the battlefield is then outlined within the report as a red boundary on an OS map. This red boundary will only encompass an area believed to have been the core area of fighting and will not include the locations of initial skirmishes, baggage trains, encampments or the direction of a rout unless forming a vital part of the battlefield landscape. The register provides, as Foard suggests, 'an impression of certainty' (2008, 261) which may not always be appropriate to meet the management needs of a dynamic resource.

There are many shortcomings to the register, and as the understanding of battlefields as archaeological landscapes has developed, deficiencies in the system have become ever more apparent. Ultimately, the key issue is that the register is out of sync with current practice regarding battlefield heritage management. Its rigid format is significantly biased towards the perspective of the military historian, with a significant focus on documentary evidence, as well as political and biographical prowess. There is a keen awareness of the importance of historic terrain and preserving key landscape features, however, this is more concerned with aesthetic loss rather than the archaeological potential or sensitivity. Foard admits that some battlefields 'may have an archaeological potential which outweighs their military or political significance' (2008, 261), but have not been included within the register because of the quality of the written source material.

Archaeological investigations, and in some cases the activities of responsible metal detecting, serve to increase our understanding of battlefields and in many cases will alter the traditional perception of its form and extent. In recent years a panel of experts, drawn from military history, archaeology and heritage management, have made a significant

effort to review existing cases within the Register and to add new battlefields to the list. Under the current system individuals and groups are able to nominate battlefields for inclusion in the register. One case currently under consideration of the panel is the Battle of Lostwithiel (1644); a nomination greatly supported by the work undertaken by the Tywardreath Battlefield Project (Chapter Six) and the Cornwall Battlefield Project³⁷ to highlight the archaeological and historical importance of the battlefield landscape.

It is also important to note the existence of the *Heritage at Risk Register* which includes registered battlefields, ‘deemed to be at risk of loss of historic significance’ (English Heritage 2012)³⁸. This loss may be incurred through increased or inappropriate development, particularly in suburban areas, intensive agriculture and the unrecorded removal of battle-related artefacts through metal detecting. The purpose of the register is to highlight this risk and to encourage more effective controls and management policies with the aim of reducing the risk and ensuring this heritage is not lost completely. Battlefields currently listed within the register include the Battle of Stamford Bridge (1066) and Battle of Towton (1461), the latter of which is identified as being at risk from ‘unauthorised metal detecting’ (English Heritage 2012, 102)³⁹.

2.5.3 Historic Scotland Inventory of Historic Battlefields

The Inventory of Historic Battlefields in Scotland may, to some extent, be regarded as an ‘upgrade’ of the English register, having taken advantage of the substantial time lapse since the publishing of the register to observe and rectify previous criticisms to enhance management strategies and format settings. The inventory is built within the framework of Scotland’s Historic Environment Policy (SHEP), which aims to provide ‘strategic policy’ and structured advice to those making the decisions at grassroots level working within heritage management (SHEP 2009, 10). There are still many similarities between the Inventory and the English Register, as it is bound within the same remit of collating battlefields of national significance; the ability to define them historically and geographically, and the protection provided by available legislation surrounding the planning process. However, a fundamental difference is the awareness and understanding

³⁷ Managed by the Cornwall Archaeology Society

³⁸ <http://www.english-heritage.org.uk/content/imported-docs/f-j/har-criteria-for-inclusion.pdf>

³⁹ <http://www.english-heritage.org.uk/content/publications/publicationsNew/heritage-at-risk/priority-har-sites-2012/national-priority-sites-har-2012.pdf>

of the archaeological environment which forms the very backbone in the formation of this policy. Phrases such as ‘battlefields have value for the physical remains and the artefacts they contain (2009, 10), and sections relating to the ‘archaeological potential’ of the battlefield, refer not only to more prominent features such as associated earthworks or burials, but also artefact scatters (2009, 25), which are fundamental to understanding the extent and character of the battlefield landscape. Aspects of the wider battlefield landscape recognised as key to the understanding of military strategy and tactics, such as initial skirmishes, lines of sight, routes of approach and retreat, as well as positions of encampments and baggage trains, have also been encompassed within the Inventory boundary area (Historic Scotland 2011, 84); an approach that is conducive to the effective management of battlefield landscapes.

The Inventory was released in 2011 and is currently compiled of thirty-nine historic battlefields ranging in date from the Battle of Dunbar I (1296) to the Battle of Culloden (1746) (Historic Scotland 2013⁴⁰). The success of the Inventory in its capacity to manage battlefield landscapes within a modern environment as part of the planning system has been effective, with planning authorities also encouraged to develop policies for the management of non-Inventory sites (2011, 47). However, whilst care and conservation of historic battlefields lies at the heart of the Inventory, out-with the planning system it lacks the ability to manage other activities that may be considered equally as damaging to their survival, namely hobbyist metal detecting. This is illustrated by the case studies observing hobbyist metal detecting activity on the battlefield of Prestonpans (Chapter Eight), where advice issued by the East Lothian Archaeology Service not to hold a metal detecting rally on the site within the Inventory boundary was ignored by hobbyist metal detectorists and landowners respectively. The issue of managing or restricting hobbyist metal detecting activity will be discussed in more detail within the conclusion.

2.6 Comparison of legal frameworks relating to battlefields and metal detecting in Europe and the USA

The majority of countries in Europe have adopted no-tolerance style legislation on the searching for archaeological objects (COE 2012, Article 3 (iii)⁴¹); Heritage Law 2012⁴²).

⁴⁰ <http://www.historic-scotland.gov.uk/index/heritage/battlefields/battlefieldsunderconsideration.htm>

⁴¹ <http://conventions.coe.int/Treaty/en/Treaties/Html/143.htm>

This includes metal detecting, which is regarded more openly as a threat to national heritage than a harmless past-time. Although many of the laws restricting the search for archaeological objects were already in place before the *Valletta Convention*, a suite of new amendments from the late 1970s and 1980s were developed to consolidate already present heritage laws and to adapt to new threats of development and an increasing interest in metal detecting.

There are varying levels of restrictions on metal detecting in Europe, some of which do not refer directly to the activity but restrict the search and removal of archaeological objects, such as in Switzerland and Germany; however, the latter does not include artefacts beyond the Middle Ages. Metal detecting in countries such as Denmark, Luxembourg, Spain and Portugal require a permit or Government authorisation at ministerial level. Sweden, France and Malta maintain the strictest laws in Europe by not only prohibiting the use of metal detectors for the search of archaeological objects, but also implementing restrictions on the sales of detection equipment (SNHB 2012, 7). For example, in Malta the importing of highly sensitive metal detectors has been banned to protect archaeological sites (NCMD 2012⁴³), and in France any sales of metal detectors must refer to *Article One of Law Number 89 – 900*, which outlines the prevention of their use on French soil. Poland has only recently, in 2003, introduced stricter controls on heritage management with the *Protection and Care of Historical Monuments Act*. Metal detecting has increased dramatically in Poland since the 1990s with many sites across the nation becoming ‘extensively plundered’ by metal detectorists, including many early medieval sites, cemeteries and the 18th century battlefield of Maciejowice (Kobyliński and Szpanowski 2009, 18).

Interest in battlefield archaeology, including the archaeology of the First and Second World Wars, is growing in Europe with a number of archaeological projects developing in countries such as Germany and Spain. Attempts have been made by various groups, such as European Studies of Terrains of Conflict (ESTOC), to highlight the necessity of creating an overall legal framework for the protection of battlefields in Europe, however no agreement as so far been made. Although strict laws on metal detecting exist across Europe, battlefields are still targeted in many areas where concentrations of material exist, particularly on large Napoleonic or Thirty Years War sites

⁴² www.heritagelaw.org

⁴³ <http://www.ncmd.co.uk/law.html#MALTA>

such as Waterloo, Belgium, as noted by the rise in sales of musket balls from this battlefield on eBay.

2.6.1 Metal Detecting and Battlefields in the USA

The trauma of warfare on home soil has instilled a reverence towards battlefield heritage in the USA. The American attitude towards battlefields is that of sacred space, hallowed ground and the final resting place for the thousands of citizens who sacrificed their lives to protect their freedom and beliefs. The sheer brutality inflicted during the American Civil War of the 1860s has become particularly embedded within the national psyche, not least due to the relative contemporariness of these events which are separated by only a few generations (Sellars 2005).

A fundamental difference between battlefield heritage management between the USA and Europe is the ability, and the desire, to preserve large tracts of battlefield landscape, protecting it within the boundaries of a National or State park for the benefit of the public. The development of military parks began during the Civil War in the aftermath of Gettysburg in 1863. Devastated by the carnage left in the wake of the battle, local landowner, David McConaughty, bought with his own funds land on the battlefield to bury the dead and to preserve pockets where important engagements took place. McConaughty was forward thinking in his belief that preserving the battlefield landscape would do more as a memorial than the cold stone of a monument. He wrote:

‘...there is no more fitting and expressive memorial of the heroic valour and signal triumphs of our army...than the battlefield itself, with its natural and artificial defences, preserved and perpetuated in the exact form they presented during the battle’ (Sellars 2005, 24).

Larger military cemeteries, as well as private and co-operative land purchase schemes similar to Gettysburg, sprang up across the USA. Some are still active today, such as the Association of American Civil War Sites, and continue to purchase battlefield acreage and donate it to the state (Greene 1990). In the 1890s the US War Department created officially recognised military parks which included the battles of Antietam, Vicksburg, Shiloh, Chickamauga, Chattanooga and Gettysburg, later to be transferred to the jurisdiction of the National Park Service in 1933 (Sellars 2005, 47). Yet many of the 18th century battlefields of the Seven Years War (French and Indian War) or the War of

Independence, although vitally important in American history, did not survive with many destroyed by modern development - including the battlefields of Bunker Hill, Massachusetts and Brandywine, Pennsylvania. The key to the preservation of the battlefields of the American Civil War appears to have been the speed at which the land was purchased and commemorated, something not within the ability of 18th-century veterans, many of whom were in an unfamiliar land. However, one should not be complacent regarding the preservation of Civil War sites, as one report produced by the Civil War Sites Advisory Commission in 1993 stated that 60% of Civil War battlefields were in danger of being 'lost or fragmented by development' (CWSAC 1993).

In the later decades of the 20th century the ability of State departments to purchase land became less viable with increasing land values and decreasing federal budgets. However, the need to protect battlefield landscapes continued to be recognised as a vital national responsibility (NPS 1990). This saw the creation of the American Battlefield Protection Program (also known as the *American Battlefield Protection Act, 1996*), providing a significant boost to the funding available for the protection and management of battlefield heritage. The American Battlefield Protection Program takes into account many aspects of heritage resource management including the planning process, land management and education programs (NPS 2010⁴⁴) and has been fundamental to the preservation of battlefields across the US.

The creation of the military parks, and later the National Parks which encompassed a variety of conflicts from the 17th – 19th centuries, brought with it strict controls on the preservation of the battlefield landscape and the archaeology within it. This ensures the landscape, mainly agricultural, retains the character of the contemporary setting of the battlefield, including field systems, tree lines and any buildings or roadways that may have been present. Structures or earthworks built and used during the battle are especially important as they are key features marking the positions of the engagement. These are usually marked with replica cannons, marker points and interpretative panels to inform and engage those visiting the site, the key purpose of the military parks. In the 1890s, when many of the first parks were formed, it was recognised that the removal of 'battlefield relics' would be an issue, although the sale of 'relics' had been occurring to some degree as early as 1865 (Bannerman 1973). Those visiting the battlefield would want a souvenir to mark their journey, something to tie them to that place; a pilgrim's badge. This was

⁴⁴ <http://www.nps.gov/history/hps/abpp/>

regarded very much as theft, and possibly to a higher degree the desecration of a sacred space. Observing a battlefield as a 'war grave' has only recently been adopted on one battlefield in the UK, the Battle of Culloden (1746), where visitors are reminded to respect their surroundings (NTS 2012⁴⁵; BBC 2009⁴⁶).

Metal detecting, as it is on any federal property, is therefore banned on military parks. Restrictions are harsh, to such a degree that anyone found with such a device, even if locked in their vehicle, will immediately be arrested. If found to have removed material illicitly, the penalty may include up to a year in jail and a fine of \$20,000 under the *Archaeological Resources Protection Act, 1979*. Despite strict controls on metal detecting in military parks, illicit detecting on protected battlefields still occurs with '340 significant looting incidents reported each year from US National Parks, including military parks' (Keen 2008)⁴⁷. For example in Vicksburg National Military Park, local newspapers reported that 'relic hunters stole America's heritage' leaving more than 100 holes on the site⁴⁸ (Bryant 2007). At Fredericksburg and Spotsylvania National Military Park at least eight metal detectorist have been sentenced since 2007 for removing artefacts from both battlefields (NPS 2009)⁴⁹, with one man caught at Spotsylvania with bullets and Confederate buckles jailed for two years (Dennen 2007⁵⁰). Even the iconic battlefield of Gettysburg has been targeted for Civil War artefacts a risk worth taking if an individual Confederate buckle or button could make \$3,300 and \$200 respectively (Slattery 2004⁵²).

Outside the protection of the parks there are few laws protecting archaeological objects, except for cultural material belonging to native peoples. There are no treasure laws in the USA, with all removed material belonging to the landowner. Restrictions on the removal of archaeological objects refer only to state or federal property under the *Antiquities Act of 1906*. Therefore battlefield areas outside the protection of a military park, and smaller scale conflicts or encampments are open to the hobby of 'civil war bullet

⁴⁵ http://www.nts.org.uk/Culloden/Learning/book_risk.php

⁴⁶ http://news.bbc.co.uk/1/hi/scotland/highlands_and_islands/8150288.stm

⁴⁷ http://www.usatoday.com/news/nation/2008-01023looting_N.htm

⁴⁸ <http://www.vicksburgpost.com/articles/2007/05/12/news/news01.prt> (27 November 2009)

⁴⁹ <http://www.nps.gov/frsp/parknews/relic.htm> (27 November 2009)

⁵⁰ <http://fredericksburg.com/News/FLS/2007/> (27 November 2009)

⁵² <http://www.nathpro.org/News/NAGPRA/News-NAGPRA45.html>

collecting⁵³. Upwards of 800 cartridges were legally removed from the fringes of the protected battlefield area of Little Bighorn to be sold as souvenirs (Schulte 2006⁵⁴). Large scale rallies, such as the Grand National Relic Shootout, or a ‘relic hunt’ held near the Battle of Fredericksburg (Dennen 2006), have removed hundreds of bullets, buckles and buttons legally and without any need to record or facility to declare them.

It is perhaps unsurprising that the attitude to metal detecting in the USA is different to that of the UK. Many are regarded openly in the archaeological community as looters, even the terms ‘relic hunters’ or ‘artefact collectors’, widely used by metal detectorists themselves, would likely be seen as litigious in the UK where metal detecting as a hobby is more acceptable. Regardless of this, Scott has acknowledged that battlefield archaeology began in the USA from a result of ‘private interest in artefact collecting and archaeological investigation of battlefield sites’ (Scott and McFeaters 2009, 6). Between the hobbyist ‘relic hunter’ and the professional archaeologist, the potential of the surviving archaeological resource on battlefield sites was realised. The association between metal detecting and looting deterred many archaeologists from using the tool itself for fear of demeaning the profession to nothing more than relic hunting, as well as actively encouraging the hobby. However, despite this, hundreds of archaeological investigations have taken place since the 1970s on various battlefield sites and military parks across the US, many with the assistance of local metal detectorist groups and with great success (Scott and Connor 1998).

2.7 Conclusion

The protection of battlefield landscapes in the UK, through policy frameworks such as the English Heritage Register and the Historic Scotland Inventory of Historic Battlefields, is primarily geared towards the planning system, ensuring that these nationally significant sites can be managed and conserved effectively within in a development focused environment. Whilst local authorities may have the ability to mitigate development on battlefield landscapes, other less visible, but no less destructive, activities such as hobbyist metal detecting are more challenging to manage under current heritage legislation. However, as outlined in this chapter there are several options with which to protect battlefields and other sites of conflict across the UK from such activity. As referred to

⁵³ <http://metal-detecting.net/?p=516> (25 September 2009)

⁵⁴ <http://sfgate.com/cgi-bin/article.cgi?f=/c/a/2006/04/30MNGPJIFPRF1.dtl>

earlier, in terms of a legislative approach there is the potential under a recent amendment of the 1979 Act which allows for the scheduling of nationally significant artefact scatters. Previously, some battlefields may have been afforded partial protection if elements of the landscape were already safeguarded by scheduled areas, even if this protection was not related to the battlefield itself. For example, a key area of the Battle of Philiphaugh was recently scheduled to protect underlying cropmarks potentially indicating the presence of a medieval settlement (Ferguson 2011). Regardless of the motivation of scheduling this site, metal detecting is now prohibited in this area which will reduce the impact on any surviving scatters of battle-related material.

However, whether or not scheduling battle-related artefact scatters may be considered as an appropriate or sustainable measure of protection is currently under debate. Although this strategy would effectively require individual to apply for consent to metal detect in these areas, there are significant caveats related to scheduling artefact scatters associated with battlefields and other sites of conflict. The first challenge relates to defining the extent of the artefact scatter. When conducting an archaeological investigation of a battlefield, or other site of conflict, characterised by scatters of artefacts, the ability to define and analyse this distribution requires the removal of the object from the ground. Therefore, the distribution map created through this investigation reflects a pattern which no longer physically exists within the archaeological record; the primary reason why unsolicited metal detecting activity has the potential to be so destructive to the conservation of sites of conflict. With this in consideration is it viable to schedule an area to protect the potential presence of artefact scatters, particularly if this site is known to be under threat from erosion by activities such as metal detecting? The issue of defining the extent of the artefact scatter remains, as unlike upstanding features or cropmarks where the limit of the site can to some degree be identified confidently, the same cannot be said of battle-related distributions which do not share the same level of visibility. In this case should the entire battlefield landscape, as defined by the Inventory or Register boundary, be scheduled to ensure the protection of any underlying archaeology from metal detecting, or else restrict scheduling of known scatters of material as identified through small scale sampling strategies or even previous metal detecting activity? The latter strategy would risk creating conservation islands which would no longer be representative of underlying archaeology. Both scenarios would potentially result in some scheduled areas covering an extensive area of land, which for the purposes of restricting a recreational activity, may be regarded as excessive and ultimately unsustainable strategy.

One exception to this rule is the siege site, which in comparison to other sites of conflict may be regarded in more consolidated terms, with a 'fixed' location usually in association with substantial surface remains, either as castles, fortified manors or traces of defensive structures (Harrington 2004). The ability to protect surrounding archaeological distributions associated with a siege may appear more manageable and less random, with a definable location in the landscape to act as a focal point. As with many other archaeological sites of this type, scheduling may play a significant role in protecting associated archaeology located in the topsoil, but may also help facilitate other management programmes such as Environmental Stewardship to provide wider protection out-with the limits of scheduling, as can be seen in the example of a siege site at Moreton Corbet (Foard 2008).

As previously suggested, in certain circumstances an alternative approach to legislation should be considered as a more sustainable method to managing or restricting hobbyist metal detecting activity on battlefields and other sites of conflict. Important stakeholders in this equation are landowners and land-managers who are often actively engaged in maintaining and monitoring the historic environment. This may include introducing schemes similar to the Higher Level Stewardship, which includes restrictions on metal detecting, and the Rural Stewardship Scheme in Scotland. Such schemes encourage landowners to alter land management practices on land identified as archaeologically sensitive, thereby slowing the rate of erosion amplified by intense farming activities such as ploughing (Natural England 2010; Scottish Office 2005). In England and Wales the potential of agri-environmental schemes has been recognised for the management of buried archaeology present in a fragile state, for example flint scatters (English Heritage 2000, 5). The inclusion of battlefields in agri-environmental schemes has so far been adopted in some cases in England. For example, Natural England have agreed to extend the Higher Level Stewardship agreement at Fenn Lane Farm, Leicestershire to include the newly discovered archaeological landscape of the Battle of Bosworth (Kumar 2010⁵⁸). Brief reference has also been made by English Heritage for the inclusion of the landscape of the Battle of Sedgemoor as part of the Somerset Levels Target Area for Environmental Stewardship enrolment plan⁵⁹.

⁵⁸ http://www.naturalengland.org.uk/regions/east_midlands/press_releases/2010/190210.aspx

⁵⁹ http://www.naturalengland.org.uk/regions/south_west/press_releases/2009/190209.aspx

In many cases it is the landowner who has the ability to introduce restrictions on activities they feel are detrimental to the sustainable management of the land in their care. For example, the National Trust and National Trust for Scotland's no metal detecting policy on their properties have been important in protecting nationally significant battlefields such as Culloden, which has already been negatively impacted to some degree by hobbyist metal detecting in the past (see Chapter Four). In Scotland the Treasure Trove Unit are currently working with Estate managers to encourage the adoption of a land access agreement between the Estate and hobbyist metal detectorists. In recent years Estates have been keen to increase public access for recreation, which in some areas have included metal detecting, but in turn this has led to concerns regarding the potential damage to archaeology in their stewardship and in particular battlefield landscapes. For example, the Bowhill Estate in the Scottish Borders wishes to restrict all metal detecting activity on areas of the battlefield of Philiphaugh within their ownership. The access agreement is not a legal document, but serves to highlight the responsibilities of the individual engaging in metal detecting activity, such as accurate recording and reporting all finds to the Treasure Trove Unit. If the landowner feels that this agreement has not been fulfilled then they have the right to deny access to their land for the purposes of metal detecting activity. This is supported by the *Land Reform (Scotland) Act 2003* and outlined in the Scottish Outdoor Access Code, in which an individual only has access rights if they exercise them responsibly (SNH 2012, 7⁶⁰)

In England and Wales, where there are legislative controls for landowners to restrict access in the form of trespass law and the *Theft Act, 1968*, the Battle of Towton Archaeology Project has developed an alternative approach to dealing with the high levels of unsolicited metal detecting activity which were having a serious impact on the archaeological integrity of the battlefield. The project, under the leadership of archaeologist Tim Sutherland, has negotiated a co-operative agreement with local landowners who manage areas of the battlefield; as reported at the *6th Fields of Conflict Conference*, Osnabruck, Germany in 2011⁶¹. Under this agreement the landowners have agreed not to allow metal detecting on their land unless as part of an archaeological survey and to press charges if an unauthorised metal detectorist is observed. The success of this initiative is primarily due to its proactive approach which encourages local community stewardship. This co-operative agreement represents a progressive and sustainable model

⁶⁰ Scottish Outdoor Access Code: <http://www.snh.gov.uk/docs/A309336.pdf>

⁶¹ <http://www.fieldsofconflict2011.uni-osnabrueck.de/abstracts/Sutherland.pdf>

for the protection of sites of conflict in the UK where legislation appears deficient. Finding an appropriate solution to managing or restricting hobbyist metal detecting, through either a legislative or policy-driven framework, is a challenging process and one which is dependent on a mutual interest in our battlefield heritage.

Chapter Three

Methodology and Ethical Considerations

3.1 Introduction

This chapter provides an overview of the methodology engaged to collect and analyse various data sources in order to assess the potential contribution and impact of metal detecting on sites of conflict in the UK. The first section of this chapter deals with the ethical considerations of collecting data for this research. Much of this focuses on the ethical issues of consent and confidentiality when collecting and using data from individuals and groups within the metal detecting community. This section also outlines any issues involved in relation to online sources, such as *eBay* and online chat rooms where personal information may be displayed. It also discusses the issues surrounding the collection of data for this research, particularly within an ethnographic framework.

The second half of this chapter outlines the main sources of data utilised for this research and the methodology engaged in data collection from each source. Four data sources are accessible online and include three databases of archaeological material: the Historic Environment Record (HER), Portable Antiquities Scheme (PAS) and the Treasure Trove Unit (TTU), as well as the auction website *eBay* which may be used as a platform to buy and sell, although not exclusively, archaeological objects. A fifth source of data was collected from the archaeological and metal detecting communities, including interviews and access to private collections of material. The chapter then concludes with a brief reflection on the methodology engaged for this research.

3.2 Research ethics

Contact with the metal detecting community was a vital element of this research, not only to access collection of archaeological material, but also to consider their interactions with the material; the sites they detect, and their relationships with other metal detectorists and archaeologists. Therefore as a significant proportion of data collection for this research has involved contact with human subjects, it was necessary to address a number of ethical considerations to ensure any aspect of this research did not breach ethical policy contained

within the University of Glasgow's research ethics framework and as outlined by the Economic & Social Research Council (ESRC).

Methods of data collection included visits to individual metal detectorists and metal detector groups. It also involved the monitoring of the auction website eBay and the communication, when possible, with sellers. Ethical considerations required for this research includes procedures for consent; measures taken to ensure confidentiality; privacy and data protection, and importantly balance.

3.2.1 Consent and confidentiality

The consent of contributors and the protection of their privacy were of high priority when conducting this research, particularly as at this stage it is not clear how widely such data will be disseminated in future or how it will be interpreted by other parties (Murphy and Dingwall 2001, 341). Before consent to participate could be requested it was necessary to ensure that those contacted were made aware of all aspects of this research, including questions relating to the potential impacts of metal detecting to battlefield heritage, as this may have a bearing on their decision to contribute. A brief abstract of the research aims and links to the author's research profile page, situated within the department's website was provided⁶². Consent to participate was primarily granted or declined via an email to the author's University email address provided during initial contact.

3.2.2 Information held within databases

Levels of consent and confidentiality varied depending on the type of data collected and if personal details of contributors are involved. Two data types have been identified: data collected from online databases such as the PAS which are held within the public domain and regarded as 'research ready', and data collected primarily for this research from sources such as eBay which require modification. All data sets, including *eBay*, were transferred onto a tailored database for analysis. Personal details such as names of finders were available on the PAS database, and if this information was not required for further contact it was removed. Although data collected from *eBay* is in principle held within the

⁶²

<http://www.gla.ac.uk/schools/humanities/research/archaeologyresearch/battlefieldarchaeology/currenresearch/doctoralresearch/natashaferguson/>

public domain, it is not held for the purpose of research, therefore the seller's identity or any other personal details must be protected unless consent is given. The personal details of the seller are protected by use of a username supplied by *eBay*, however, this may still be regarded identifiable information and so will remain anonymous in publication to avoid any unnecessary harm to the seller's profile. (Murphy and Dingwall 2001, 341). In accordance with the Data Protection Act and the University's ethical policy, all personal details of contributors held within the database or email system were deleted and thus will not be passed on to a third party, or used in any other way which does not relate to this particular study.

3.2.3 Data extracted from internet forums

An ethical grey area of data collection involves information observed in internet forums maintained by metal detecting organisations such as the UKDetectorNet. Access to such forums requires registration and this was completed by the author using, as with *eBay*, a 'visible' username which was selected so as not to hide an identity as a researcher. The issue of whether it is appropriate to use information from forums has been discussed with colleagues engaged in ethnographic research. The conclusion was made that as this information is held within the public domain it may be used as long as any personal information associated with the postings is kept anonymous. It should be noted however that the author has had personal communication such as emails and letters posted onto forums by contributors without prior consent, something which would be deemed unacceptable if roles were reversed.

3.2.4 Seeking contributor approval

When consent for involvement was given, and indeed reinforced by continued participation, it cannot be assumed that contributors will be content with the conclusions that have been drawn, particularly towards an aspect of their lives which they regard as being 'leisure time'. This is potentially difficult situation is described Murphy and Dingwall's paper 'Ethics of Ethnography,

‘Given the conditions of intimacy that are in prolonged periods of fieldwork, this sociological stance may be experienced as betrayal or rejection by contributors who expect researchers to affirm or endorse their version’ (2001, 342).

Ethical guidelines may dictate that any contributors within this category should be able to read and comment on any writings involving them, however Ellen asks if contributors should have the right to check publications and if it in fact has the negative effect of stifling research (1984, 149). Owing to the nature of this research and some of the case studies, in particular that of Prestonpans, or to some extent Tywardreath, where some difficult conclusions must be drawn, contributor feedback may have the result of producing artificial or alternative narratives. Consent to take part in research and to use any associated data may be withdrawn by contributors at any point, therefore a balance must be met to ensure fairness without compromising the quality of research. Access to any writings will be made available if requested, however offers to preview draft versions of sections were only made available to individuals involved in case studies in order to ensure details of their situation have been correctly interpreted. All work conducted by contributors, including distribution maps and images have been fully credited.

3.3 Ethnographic techniques and issues

Archaeology is the focus of this research, however, it was recognised that an awareness of ethnographic techniques and theoretical frameworks was necessary in order to effectively engage *with contributors and to collect meaningful data and interpret results. An understanding of ethnographic frameworks has provided much needed guidance in recognising and overcoming issues associated with gaining access to groups and individuals, as well as the conflicting roles of the researcher and contributor. This next section outlines some of the techniques and issues that have been highlighted in the study of ethnographic techniques. It also poses the question of whether it is possible for an archaeologist to conduct any form of ethnographic research within the metal detecting community.*

3.3.1 Gaining access: gatekeepers and social capital

Entering into a community to conduct research is a difficult process. This is especially true when attempting to access the metal detecting community, as historically, the relationship

between archaeologists and metal detectorists has been contentious, and continues to be so in many quarters. How does a researcher break down such barriers and gain access to a potentially unwilling community, particularly when criticisms of their hobby are to be made? One must accept some groups or individuals will not be accessible, but there are those who only require gentle persuasion or a demonstration of trust and respect. As an archaeologist conducting ethnographic research within the metal detecting community, individuals identified by ethnographers as gatekeepers (Rock 2001; O'Reilly 2005) have proven to be invaluable in achieving that much needed foot in the door. Gatekeepers are usually respected members within the community who may provide the opportunity of access and cooperation by endorsing the researcher's actions and therefore encouraging other members to participate (Rock 2001, 34). The gatekeeper may also be active in introducing the researcher to key individuals, or offer in depth knowledge of certain subjects or situations.

Examples of gatekeepers within this research have included MdCW of the Tywardreath case study (Chapter Six) who has been active for many years within the metal detecting community, including internet forums. Other gatekeepers have included committee members of the Scottish metal detecting clubs SARG and SDC, for example, the President of the SARG has invited the author to several club meetings and a talk was given to the SDC club, as organised by the Secretary (see Chapter Eight). As initial contact was established in a familiar and comfortable environment with the approval of club leaders, members felt more willing to communicate with the author and maintain contact.

The utilisation of social capital has also been an important factor in forming relationships with metal detectorists and involves forming networks and sharing 'common values with other members of these networks' (Field 2008, 158). An effective network should be regarded as a valuable resource and be mutually benefiting to all those contributing within it. In this research social capital may be gained by offering to identify artefacts or sharing information such as articles or reports. A good example of established social capital networks has been with SARG and the SDC, who have on a number of occasions worked on projects led by the Centre for Battlefield Archaeology, although not without event as is demonstrated in the case study involving Prestonpans (see Chapter Eight). Both clubs have gained perceived social capital by working with archaeologists and therefore presenting themselves as a responsible club, which they felt was an important aspect to their identity. Through this the author has gained greater access to the clubs and a developed a closer working relationship to the individuals within it.

3.3.2 Questionnaires

Questionnaires were initially sent to selected *eBay* sellers (the number of emails through the eBay system was restricted to only four enquires within 48 hours) and posted on the UKDetectorNet forum, although this was in the form of more general questions rather than a set format. This method was unsuccessful, as the majority of questionnaires were not answered and a significant proportion of replies were themed on the overriding suspicion that any data collected will be used either to ban metal detecting or to bring the hobby into disrepute (see appendix of anonymous email). This attitude, prevalent with even the most accepting groups and individuals, has either slowed the process of data collection or halted it altogether. It is an issue which has been recognised elsewhere. For example, when conducting doctoral research exploring the relationship between archaeologists and metal detectorists, Thomas reflected in her thesis that when distributing questionnaires to metal detecting clubs it was important that ‘the location of the researcher in a Cultural and Heritage Studies centre, rather than an archaeology department, was emphasised’ (Thomas 2009, 79). Furthermore, one of the reasons she gives for a low return in questionnaires was a possible ‘statement of continued mistrust and antagonism’ (Thomas 2009 78). The recent Nighthawking survey conducted in 2007/08 by Oxford Archaeology on behalf of English Heritage has further provoked the situation with many metal detectorists now wary about answering questionnaires (Thomas 2011 pers. comm.). Both Thomas’s results and the Nighthawking survey have provided supporting evidence to why the use of questionnaires within this research for *eBay* sellers was discontinued, as the majority of respondents either did not return, or were dismissive or hostile in their answer.

3.3.3 Issues of identity and balance

The identity of the author, as an archaeologist, university researcher and female, has played a significant role in the ability to effectively communicate with contributors and collect meaningful data from them. Gender and age cannot be ignored as a limiting factor when dealing primarily with male social groups, generally of a more senior age range. In many cases this was only an issue when making initial contact, and could be resolved once the author demonstrated background knowledge and sincerity. No one refused to work with the author, however, misogynist comments and sexual references were common when dealing with groups or clubs; although generally in a tone that may be regarded by some as

humorous. It can be assumed that such a reception would not be given to a male researcher, regardless of age.

As already discussed in the first chapter, archaeologists and metal detectorist have shared an atmosphere of mutual mistrust, and although official paths of reconciliation have been made, walls of resistance still very much exist. This was very much in mind when beginning this research and as Murphy and Dingwall explain it can induce a need to hide any aspects of identity which may be regarded as controversial:

“...researchers reluctance to disclose arose from concerns that their identities would make them unacceptable to potential contributors and compromise their field work” (2001, 343)

The temptation therefore is to conceal elements of a less acceptable identity to enhance data collection. However, this action serves only to taint data, making it unusable for research as it was gained by false means, breaching both trust and basic ethical standards. But how possible is it to be completely open with contributors when details of research will inevitably be hidden unconsciously, when it will affect results, cause confusion or if aims and questions change throughout the study? This dilemma is identified by ethnographers as ‘covert’ and ‘overt’ research (O’Reilly 2005; Murphy and Dingwall 2001; Ellen 1984), in which research is either conducted with complete transparency at every stage, or else without the full consent or knowledge of contributors. The latter may sound contradictory to ethical guidelines, however Ellen provides a reassuring disclaimer that the ethnographer is ‘never off duty’ and therefore it is impossible for such research to be entirely ‘overt’ at all times (1984, 145). This research involved longer term communication with contributors involved in case studies and it is not always possible, or conducive to the building of relations to have research aims and objectives at the forefront of each interaction, with O’Reilly suggesting that ‘settling into a semi-overt role’ (2005, 87) is acceptable.

The ability to be ‘overt’ with short term contributors is a simpler process than dealing with longer term contributors. As already mentioned, short term contributors may be sent a brief abstract summarising the research, from which they can make a decision about contributing. With longer term contributors it is important not to become complacent and assume clarity on each side, as even when relations are good, confusion about the purpose of the research and their role within in it are to be expected. For example, both case study contributors in Tywardreath and in Sedgemoor began to ask the author where

they should be detecting next, with references to their own work as ‘your project’, although it had been made clear that the author was only observing their activities, not directing them. Such cases may be resolved with further confirmation and reassurance. This was, however, made easier by the fact that these contributors represent a contribution, not an impact to battlefield archaeology. The latter has its own more complex issues as reflected in the temporary breakdown of communication with the metal detecting clubs SARG and SDC after their activities on the Battle of Prestonpans were heavily criticised by the author (Pollard and Ferguson 2009).

3.4 Data Sources and Data Collection

This section outlines the methodology engaged in the collection and analysis of data from archaeological projects, private collections; and archaeological material from the Treasure Trove Unit and the online databases of the PAS and the HER. Due to the nature of *eBay*, an alternative approach was required to ensure the quality of the data, as unlike the PAS and HER databases, it is not designed to hold archaeological material for the purpose of research. Therefore an extended section outlining the *eBay* monitoring programme, including the effective locating of data using the website search engines, and the processing of each lot through set criteria to evaluate its suitability to be recorded. This section also addresses the caveats associated with this process and how research frameworks were designed to overcome potential issues.

3.4.1 Archaeological Data from Projects and Private Collections

Sourcing data associated with sites of conflict in the UK out-with databases and other online sources has been a difficult process, more so in relation to data from private collections owned by individual metal detectorists than archaeological projects. Project-based research data is generally more visible and may be tracked down with access to published material and grey literature; searches of the HER; information from heritage organisations such as the Battlefields Trust; contacts with colleagues; attendance at conferences; and the media, including emailing lists and internet searches. The author also has access to a large volume of material recovered during archaeological surveys of battlefields, conducted, with the assistance of metal detectorists, by the Centre for Battlefield Archaeology. This is compared to the visibility of private collections which are unlikely to be published by the finder, unless part of a metal detecting club which may

print newsletters or send articles to magazines. Exceptional collections, such as Tywardreath, may attract the attention of the local or national media (Times 2010), but this is a relatively rare occurrence.

3.4.1.1 Media

Media sources, including newspapers, magazines, the internet and online forums have increasingly become an important resource in assessing the level of metal detecting activity on sites of conflict across the UK, especially as interest in the hobby has developed since the discovery of the Staffordshire Hoard (Pitts 2009) and an assemblage of Iron Age gold torcs in Stirlingshire in 2009 (NMS 2012⁶⁴).

There are a wealth of media sources connected with the hobby of metal detecting, including specialised magazines, websites and internet forums. Organisations such as the National Council for Metal Detecting (NCMD), the Federation of Detectorists (FID), the UKDetectorNet and the United Kingdom Detector Finds Database (UKDFD) all provide links to clubs and forums, as well as information regarding rallies and other related activities. Regular and systematic searches of metal detecting literature and online material, including internet forums, were made over the course of this research to look for any references to sites of conflict or collections of battlefield related material. More mainstream sources include the metal detecting magazines, *The Searcher* and *Treasure Hunting*, and more recently available is an online newsletter produced by UKDetectorNet. All three publish contributions representing a range of artefact discoveries, news and perspectives from across the metal detecting community. For other less visible sources ‘Google Alerts’ provided a useful filter to search for relevant material using search terms such as “metal detecting and battlefield” or “battlefield archaeology and metal detecting”. Of particular interest were occasions when the assistance of metal detecting clubs had been engaged by archaeological projects to carry out investigations of battlefield sites. As they were more likely to appear in local newspapers or on club websites, the ‘Google Alert’ system was effective in highlighting them.

Alternatively, this research took advantage of the media as a powerful communication tool to draw the attention of potential contributors, including individuals who are out with the network of clubs and other related organisations. The author wrote a

⁶⁴ http://www.nms.ac.uk/our_museums/national_museum/past_exhibitions/iron_age_gold.aspx

series of articles for the metal detecting magazine *The Searcher*, the UKDetectorNet newsletter, and a post on the UKDetectorNet forum detailing the research and providing advice on accurately recording material from sites of conflict, and highlighting the importance of their context. At this point the response was mixed, with no replies from the magazines and a more dismissive attitude from the forum, to the point that many more hostile posts were removed by the administrator to avoid offence. A more positive result was achieved when the author co-wrote two articles for *The Searcher* with MdcW, based on the results of his work at Tywardreath, with several metal detectorists responding and wishing to take part in the research. His role as ‘gatekeeper’ has also played a key role in relaying information from the metal detecting forums.

3.4.1.2 Club visits

Visiting metal detecting clubs presented an excellent opportunity to engage with metal detectorists and to discuss aspects of the research in more detail. Regular visits were made to the Scottish clubs SARG and SDC, and members were encouraged by the club committee to bring along any battle related finds to be recorded. Club visits were also an opportunity to demonstrate the importance of recording battlefield heritage and how to recognise archaeological signatures relating to the potential presence of a site of conflict. Both clubs were also keen to take part in archaeological surveys conducted by the Centre for Battlefield Archaeology and to gain experience of working within a methodological framework (Sleith pers. comm. 2010). The talks and collaborative work was a positive experience and did appear to generate more awareness of battlefield material and the necessity to record it accurately. However, it is not clear if this advice had been put into practice, as is demonstrated in aspects of the Prestonpans case study and the number of unrecorded artefacts, such as cannonballs, shown to the author on club visits. Nevertheless, significant inroads have been made and changing attitudes to this material should be regarded as a gradual process.

3.4.2 Analysis of assemblages from archaeological projects and private collections

The analysis of assemblages from archaeological projects and private collections is similar in its methodological approach. In terms of private collections, the analysis of raw data is more likely as the potential of the assemblage may not have been recognised by the owner. Private collections may be recorded in three ways: the collection is loaned to the author for

a period of time to conduct the analysis, as was the case for Tywardreath and Sedgemoor; a process of rapid recording on site or at a club, for example at a club visit to SARG, or the owner may send photographs of the collection and provide a brief description of where it was found and the nature of its discovery.

In order to successfully achieve the aims set out in this research it was felt necessary to record each assemblage as accurately as possible to gain accurate assessment of the contribution or impact to the site of conflict in question. Therefore all individual artefacts from assemblages encountered were measured, weighed, described and interpreted, and then inputted into a database. Each artefact is also recorded by scanning, which produces a high quality digital image of the object. This has proven to be a fast and effective method of creating a detailed visual record of the assemblage. A camera and stand were used to photograph artefacts out-with the confines of the lab. Site locations, and where possible co-ordinates, were also included within the database which was then added to a GIS programme to map the distribution of metal detecting activity across the UK.

3.5 Using eBay as a data resource

Since October 2006, the auction website *eBay* was the subject of a two-year programme of regular monitoring. The aim of monitoring *eBay* was to tap into a relatively unused resource of data and use it as a mechanism to highlight and potentially identify previously unknown sites of conflict. The programme was designed to gauge the volume of material removed from sites of conflict and to identify any sites which may be at risk from excessive detecting, thus posing a threat to battlefield heritage management in the UK. This involved the daily search and logging of lots including military artefacts, such as musket balls and military buttons, which have been discovered in the UK by metal detectorists and subsequently sold on *eBay*.

The auction website *eBay* was initiated by entrepreneur Pierre Omidyar. Launched in the USA in 1995, the website was designed to provide a central market place for individuals and small businesses to sell a variety of goods and services. *eBay* first appeared in the UK in 1999 and has become the largest online market place with approximately 14 million active users buying and selling a vast range of items from cars and computers to ancient coins and cannon balls.

The sale of antiquities on *eBay* is not a recent occurrence, and as a subject matter has sparked ethical concern regarding the trade in antiquities (Montalbano 2007). The quantity of antiquities open to bidding on *eBay* is vast, covering a range of periods and originating from a diversity of sites around the world. From an archaeological perspective, the ease at which sellers are able to trade their objects apparently unhindered is of concern, as is the apparent lack for the need of detailed information of the objects origins. For the majority of such sales the details of their provenance, the methods of their discovery, and their subsequent journey to the open market are unclear and rarely disclosed, prompting disquiet by what appears to be the unrestricted and unmonitored sale of cultural heritage at the click of a mouse (Bland 2009, 68).

In 2006, the sale of such material on *eBay* came under the scrutiny of the Portable Antiquities Scheme, who had become concerned by the level of artefacts on sale which could be classified as treasure under the jurisdiction of the Treasure Act of 1996. A study was therefore commissioned to monitor the sale of these artefacts on *eBay*, highlighting illegal sales and reporting cases to the relevant authorities when appropriate (Lewis and Costin 2007). This study demonstrated the need for practical guidelines to ensure *eBay* users, both buyers and sellers, were aware of current laws and practice, including the Dealing in Cultural Object Act since 2003. After lobbying by the PAS, the British Museum and other heritage agencies, eBay now provides extensive, if not slightly embedded, advice regarding treasure laws and other legislation relating to the selling and buying of cultural objects originating from the UK. *eBay* have recently extended this policy with a series of recommendations listed in a newly produced '*Antiquities Buying Guide*'⁶⁵. Sellers are now advised to provide as much information as possible about any archaeological object they are selling and should, if requested, be able to prove with appropriate certification i.e. Crown Disclaimer, that any potential treasure item has not been claimed under UK treasure laws. Further to this, non-treasure items must also be sold with relevant information regarding their provenance and in England and Wales sellers must demonstrate that the object has been recorded with the PAS, with reference to its unique record number⁶⁶.

This technique of promoting awareness has been successful in reducing the number of treasure items being bought and sold illegally. However, with an average of six hundred lots of antiquities originating from the United Kingdom each day (Lewis 2007, 24), few of

⁶⁵ '*Antiquities Buying Guide*': <http://pages.ebay.co.uk/buy/guides/antiquities/>

⁶⁶ 'Artefacts, Antiques, Cultural Items and Grave Related items': <http://pages.ebay.co.uk/help/policies/artifacts.html>

which may be classed as ‘treasure’; an issue still clearly presents itself. The sale of artefacts originating from Scotland and Northern Ireland on *eBay* on the other hand is not as acute as in the rest of the UK. In Scotland any object removed from the ground may be regarded as treasure under Treasure Trove law, and in Northern Ireland a license is required to excavate any material from the ground⁶⁷. Therefore any object suspected of originating from Scotland or Northern Ireland may be identified and investigated further. However, where ‘provenience’ is not available or has been fabricated, very little may be achieved.

An issue arising from the *eBay* phenomenon has been the expansion of the antiquities market and its accessibility to a wider demographic. This accessibility alters the face of the ‘dealer’ to include those who have no experience in the antiquities trade and importantly have never before been considered as dealers in cultural material, with the result that they can no longer be easily categorised as ‘looters’ or ‘treasure hunters’. This has particular relevance to metal detectorists in the UK who, as a non-professional group, come into contact with a significant volume of cultural material, much of which has very little perceived monetary value and rarely qualifies under Treasure laws in England and Wales. For many of the artefact lots featured on *eBay*, some of which contain large quantities of uncleaned metallic artefacts such as buckles and buttons, the selling point is not to own something valuable, but to “own the past”. The historical significance and cultural value is therefore recognised to some level, if only as a selling point. Material debris from battlefields, skirmishes, sieges and encampments are within this ‘class’ of artefacts on *eBay* which, although may be classed as ‘low grade’ such as items made of lead, are often sold for higher prices because of their historical connections. One example includes a seller who claims to have over five hundred musket balls in stock, also stating:

‘Made in the 1600s during the First Civil War (1642 – 1651), these are genuine lead musket balls. Own a piece of British History’ (*eBay* vendor 2008).

This is an issue which has also been recognised across the Atlantic with what has been described as the ‘looting and related trafficking’ affecting Civil War battlefields in the eastern states of America (McManamon and Morton 2000: 264).

⁶⁷ As outlined in Chapter 2

With the majority of research based on monitoring illicit excavation focusing on high profile ‘treasure’, it is important to acknowledge that a very different class of cultural material is at risk, which although may not be precious metal, is as equally an important part of our archaeological heritage, with significant ramifications to battlefield heritage.

3.5.1 eBay Format

The role of *eBay* is to provide a safe and accessible online auction in which items may be bought and sold by members of the public using a system of bidding. Buyers and sellers must be enrolled as members to create a username which becomes their *eBay* ‘identity’. This *eBay* ‘identity’ allows the *eBay* user to remain anonymous in selling and purchasing, it may also be used to communicate with other members through the website messaging system without revealing any personal details. The anonymity of sellers on *eBay* has brought with it certain advantages and disadvantages to the logistics of this research, as it allows sellers to provide details of their finds whilst remaining anonymous if they choose to do so, perhaps providing an incentive to be more forthcoming with information. However, the disadvantage is that sellers may initially only be contacted through the *eBay* messaging system, and only when they have lots on sale and remain registered with *eBay*. Furthermore only four enquires per 48 hours could be made through the messaging system until it was blocked, therefore it was necessary to be selective of the sellers to contact making the ability to investigate some lots further problematic without alternative contact details.

Two types of seller were identified during monitoring: the individual and the larger more commercial ‘*eBay shops*’ which transact as in a business environment, selling their own merchandise or on behalf of other sellers and non-*eBay* members. There are a number of ‘shops’ operating as antiquity dealers on *eBay* selling artefacts of varying types and quality from Celtic gold rings to flint hand axes. The source for many of these artefacts is unknown and it is likely that the majority have passed hands so regularly and over an extended period of time that the original context has either become increasingly unreliable or lost altogether. An increasing quantity of ‘*eBay shops*’ are now also selling metal detector finds on behalf of detectorists who have either offered the artefacts for sale or have tried to sell the items as *eBay* sellers but were unsuccessful. This is an important aspect to be aware of when monitoring signature artefact sales, particularly when looking for unusual quantities of musket balls which may indicate the presence of a site such as a battlefield, as there is a high probability that musket balls originating from a number of

locations and contexts have been grouped together, representing only a random collection from numerous metal detecting excursions. An example of this is represented by the activities of an *eBay* shop, from which a large quantity of musket balls were being sold as individual lots of 20 musket balls, along with the seller's note:

'I have around 200 musket balls for sale, all different shapes and sizes, a great History present for someone!' (eBay seller 2008).

When the seller was contacted it was revealed they had been recovered from numerous locations around Norfolk, and not necessarily all from metal detectorists (eBay seller pers. comm.).

Although the monitoring of '*eBay shops*' will continue, the decision was made not to include data from '*eBay shops*', due to the difficulties associated with investigating the lots further, as the link between the artefacts and the original finder has been broken, making it more problematic to determine whether finds such as musket balls have originated from sites of conflict, rather than simply representing other activities such as hunting, casual loss and even re-enactment. There is also a risk in the repetition of data if lots, which have already been recorded, but not sold, are then passed on to antiquity dealers.

This seemingly unlimited range of items available are organised into selling categories, which are then further divided into sub-categories. For example the overall category of *Antiques* may be divided into nineteen sub-categories including *Antiquities*, *Manuscripts*, *Periods/Styles* and *Furniture*. Sub-categories may again be sub-divided, with *Antiquities* classed by broad geographical region e.g. *British* and period e.g. *Roman*. Alternatively, items may be found using the *Finder* search application which allows users to narrow their searches to *Type*, *Colour* or *Culture* in the *Antiquities Finder*, or by simply browsing through the categories using the thumbnail photograph and lot titles as a guide. Signature artefacts of conflict, particularly those recovered by metal detectorists, are spread across a number of categories and sub-categories depending on the interpretation of the seller. Therefore artefacts such as musket balls or military buttons may be found in *Antiquities*, under the sub-category of *British* and *Other Antiquities*, or in *Collectables*, under the sub-category of *Militaria*. The choice of the seller between antiquities and collectable is an interesting aspect and may be indicative of the way in which different metal detectorists view and interact with such artefacts.

Each lot is contained and presented within its own page, either using the set *eBay* layout or a personally designed arrangement. The information contained within the page may vary considerably, however, a title providing a brief and accurate description of the item, along with a photograph, are recommended in the '*Seller's Checklist*' provided by eBay for first time seller. Other information which appears automatically includes the seller's username, the item's present location, item ID (a unique number assigned to each lot), bidding information and links to contact the seller. It is also possible to view the other items the seller has on offer, which is often useful to gain a wider aspect of the seller and gauge the volume of other material on sale.

3.5.2 Data selection

The systematic monitoring and recording of *eBay* data is a complicated process due to the arbitrary nature of *eBay* data. Not only is the data inconsistent, it can be unpredictable and at times repetitive, with the reappearance of unsold items and sellers boosting the saleability and legitimacy of lots with links to historical sites. With this in mind it was important that the recording of data was set within a clear, yet flexible, research framework to ensure the effective selection of data which remains within the boundaries of the research aims. Therefore, not all data was suitable for inclusion within the logbook and database, even if the lot contains items such as musket balls, cannonballs or military buttons.

It is advisable to allow time to become familiar with the *eBay* environment, using this experience to formulate criteria in which to scrutinise the data for selection, and to avoid basing the collection on a series of assumptions to avoid distortion of the data. Some have already been touched on including potentially false historical associations with assemblages and issues with '*eBay shops*' data. Other inferences affecting the data may include the assumption that artefacts, unless otherwise stated in the description, have been recovered from the ground by a metal detectorist, or metal detector. Artefacts such as musket balls may also be discovered, although rarely, through field walking or by random in disturbed ground. It is also possible that they have never become part of the archaeological record but remained as family collectables or chance finds, such as the small pouch of musket balls found behind the beam of a barn and recently sold on *eBay* (May 2008).

3.5.3 Data recording

The most important information collected during the monitoring process includes geographical/site location, historical information, types of artefact and volume of artefacts on sale. This information is ascertained as accurately as possible from elements within the lot site page including the seller's username; the item ID; the photograph of the artefact and any detail contained within the item description. The actual recording of data, as opposed to the selection, is relatively simple to ensure consistency. The data is initially recorded by hand in a logbook under the headings of *Find Type*, *Number*, *Origin*, *Username* and *Note*. Also recorded is the photograph accompanying each lot which is stored in monthly folders and is referenced to the entry in the logbook (Table 1).

11/12/07					
Find Type	No.	Origin	Username	Note	
Musket ball	10	Newbury, Berkshire	mybigboots357	Found using a metal detector on land said to be the location of the English Civil War battle.	
Powder Cap	1				
Cannon ball	1	Preston	happygolightly	Uncovered near Preston with a metal detector	
Musket balls	25	Norfolk	jeffandjill	Found on farmland in Norfolk	
Musket ball	7	(London)	badger40	Location unknown	
Pistol ball	3				

Table 1: Example of logbook to record sales of battle-related objects featured on eBay

There are three stages of searching, depending on the level of accuracy required to find lots which may act as signatures of conflict or military activity. The first method is to input pre-allocated key words into the website search engine, using key words which best describes the artefacts, or words commonly used to describe them by *eBay* sellers. In the first instance it is necessary to use specific key words referring to particular artefacts such as musket ball, cannon ball, military button, military badge, powder-flask top and powder measure to effectively sort these artefacts from thousands of other military related but non-

artefact items. This creates a list of lots which can be easily browsed, using the titles and thumbnails as a guide and is the most effective method in locating metal detector assemblages of musket balls, cannon balls and military buttons, or combinations of the three. The next stage is to search more generally within the categories and sub-categories to locate lots which have been missed using key words, for example the sub-category *Militaria* is sub-divided into periods including, *Ancient/Medieval*, *Early Modern* and *19th century* which can be scanned for more random metal detecting finds such as caltrops or early mortar shell fragments.

Throughout the scanning process there are certain lots which are immediately discounted in the first phase of the search. These include artefacts which are not signatures of conflict or military activity and do not appear to have come from an archaeological context. For example, replicas, collectables and museum items; artefacts that have been ‘packaged’ and sold individually; artefacts from Europe and N. America; musket balls from shipwrecks and artefacts sold from eBay antiquity shops. The next phase considers lots containing signature artefacts and which category they should be placed under when recorded in the log book depending on the level of information provided by the seller. If the lot contains signature artefacts, but no further information, then the *artefact type*, *number of artefacts* and *seller username* is logged along with the item location in brackets, as shown in Table. 1, to indicate that the origin of the artefacts is unknown at this point. Similar lots with no geographical or historical information may simply say ‘*metal detecting finds*’, in this case the *no. of artefacts* is important in assessing the volume of artefacts on sale with potential to be investigated at a later date. However, if their origin or method of discovery is not evident then it may be deleted from the log. Elements of information contained within lots may be stronger than others and will contribute to different aspects of the research as demonstrated in Table. 1. The first entry is an example of a positive lot providing key information about the artefacts, site location, site type and method of discovery. The second entry provides less accurate information, however it was recovered by metal detector and cannon balls are unusual finds. The third entry provides very general geographical information and there is no evidence that ‘farmland’ constitutes the same site, but the number of musket balls is significant and will therefore be recorded. All three entries will be investigated further by contacting the seller, until then they are included within the database and used in basic analysis.

Data from the logbook were regularly inputted into a database along with additional information required for the subsequent analysis of the data, this includes the region (e.g.

South East England), Portable Antiquities Scheme Region (e.g. Kent), and associated Finds Liaison Officer. If a reference is made to a particular site e.g. the Battle of Newbury (1st) then a Sites and Monuments record number and OS co-ordinates may also be included if the data is required for the creation of distribution maps using GIS. The database also allows for the expansion of data included within the logbook so that it may be queried effectively. For example, the first entry in Table. 1 may be divided across the following headings; *Site Type*: Battlefield; *Period*: 17th Century; *Campaign*: First English Civil War.

Further tailoring of the database is required to ensure the data is suitable for effective analysis and transfer into programmes such as GIS. This involves the inclusion of spatial data including regional, county and where possible grid reference co-ordinates. Also included are data referring to the PAS such as the corresponding FLO for each area represented within the database.

3.6 Historic Environment Record

The Historic Environment Record (HER) provides a current record of historic sites, monuments, find spots and archaeological activities for each county in England and Wales and Local Authority areas in Scotland. Records may be searched through Heritage Gateway, an online database resource developed in collaboration between English Heritage, ALGAO and the IHBC, which was designed to provide overall coverage of both national and local records by drawing together individual county HER databases. At present only 50% of English county HERs are included within Heritage Gateway, which currently includes approximately 42 counties. The other 50% not included within this resource presumably do not have the facilities to digitise their HER or make it available out with an internal network. However, despite their absence Heritage Gateway remains a valuable source of data.

As well as Heritage Gateway, the Archaeological Data Service, facilitated by the University of York, provides another valuable online digital resource. The primary search engine is ARCHSearch which combines Historic Environment Records together with access to excavation reports and project archives i.e. grey literature facilitated by OASIS (Online Access to the Index of Archaeological Indexes). Simple search terms such as ‘battlefield’ may be used to generate a list of results including HER data, archaeological

events i.e. watching briefs, monuments and objects. The inclusion of grey literature access is valuable, however to avoid gaps in data it is necessary to use the ADS database in tandem with Heritage Gateway to ensure full coverage of available data, a process which is supported by mutual linking between sites.

In Scotland the HER is located on the RCAHMS resource database, which includes CANMORE the main archive of sites and monuments in Scotland, or PASTMAP which is an interactive mapping version of the main database. A small number of Local Authorities have not yet made their HER available online within the RCAHMS database, however, information provided by the National Monuments Record is often sufficient in providing adequate data.

3.7 Treasure Trove in Scotland

The purpose of the Treasure Trove system is to protect archaeological objects considered to be of cultural significance and to preserve them in museums across Scotland for the benefit of the nation. Under Scots law Treasure Trove may include any object with no parameters set on age or material. Establishing the significance of the object, or assemblage, is therefore the responsibility of staff working within the Treasure Trove Unit and members of the Scottish Archaeological Finds and Assemblages Panel (SAFAP). Approximately 95% of chance finds reported to Treasure Trove have been discovered by hobbyist metal detectorists. A high proportion of this material is not considered to be of cultural significance and therefore is not claimed as Treasure Trove. This ‘disclaimed’ material is then returned to the finder with a certificate in which the Crown formally disclaims title of ownership.

The official body of material recorded by the Treasure Trove Unit (TTU) was only available to access as an internal database and as archived paper records, therefore only limited information regarding cases could be gathered. In terms of collecting and collating meaningful data from the TTU it is necessary for this research to focus on records from the last 10 years of Treasure Trove due to the quality of the TTU archive beyond this period. As no military or battle-related material appears to have been claimed as Treasure Trove before 2001 any information relating to reports of such material would therefore be contained within the disclaimed archive. Unfortunately, compared to claimed cases, which are accompanied by detailed specialist reports, information relating to disclaimed material

is minimal unless deemed to be of potential interest for future research. Furthermore, tracking down specific information beyond 2001 becomes problematic as the majority of this data is contained within a paper archive that does not appear to have a consistent index with which to search for cases. The bulk of digital archive before 2005 is contained on mini-discs and CDs, and it is only since 2011 that a searchable database, containing both claimed and disclaimed cases from 2007, has been in operation⁶⁸. One may argue that the purpose of the TTU is to focus on material that may potentially be claimed as Treasure Trove. Therefore detailed records of less significant material is unnecessary; unless of course attitudes towards what may be deemed as ‘culturally significant’ shifts, as we have seen with battle-related material in both archaeological and metal detecting communities in the UK.

Data extracted from the TTU was inputted into a separate database. Associated files such as case notes and images were provided by the TTU Manager, Stuart Campbell, who has been of invaluable service to this research and has made every effort to provide as much data as possible. It should also be noted that the nature of data collection within TTU is assemblage orientated, rather than an object specific approach as favoured by the PAS database. The ability to view an assemblage as a whole allows for the identification of categories of material that may be characteristic to a particular period or relate to specific site activity. In relation to battle-related material this is crucial in identifying previously unknown sites of conflict. For example, late 18th century muster sites that may be recognised by a variety of signature artefacts other than musket balls, such as military buttons, sword belt terminals, and other fragments of military accoutrements.

3.8 Portable Antiquities Scheme database as a national resource

A detailed summary of the PAS and its role as a national resource to record non-treasure finds made by members of the public was provided in Chapter Two. This section therefore focuses on the database element of the scheme, which represents the core output of the PAS. As an online database all artefacts recorded by the PAS may be viewed by the public and, depending on the level of access made available, records containing details of find spots and finders can easily be downloaded for research purposes. A major upgrade of

⁶⁸ This was created by the author when she joined the Treasure Trove Unit as a staff member in November 2011.

the system has now been completed creating an improved user friendly interface, with additional features such as the presentation of spatial data using a Google mapping application. All artefacts contained within the database have been found by members of the public, whether using a metal detector or simply digging in the garden. The ability to access and analyse information relating to battlefield material which would under normal circumstances not exist beyond private collections of material identifies this database as an important resource for research.

3.8.1 PAS database format

A major outcome of the database redesign has been the development of a ‘personal interface’ allowing the public to interact directly with the database rather than just exclusively by PAS employees. This new format aims to encourage a more co-operative atmosphere within the process of recording and declaring recovered artefacts. Regular recorders with PAS, the majority of whom are metal detectorists contributing 85% of all records (PAS 2007, 275), now have more control and access to information at each stage of the recording and analysis process. This is a factor which has been a source of frustration for many metal detectorists in the past, who chose instead to record with the metal detectorist run database UK Detector Finds Database (UKDFD) for this reason (Thomas 2009, 309-310⁶⁹). Those with approved registered access may now upload their own records to the database, or alternatively keep track of their finds uploaded by the FLO. This system allows finders to access and display their own data, including a facility to produce a distribution map of personal finds. Whilst records uploaded by the finder still require verification by FLOs and Finds Advisors this system of self-management is an inclusive process and one that offers the finder an option to make a greater level of contribution to the archaeological record.

The author obtained higher level access, which is offered to those conducting academic research which requires detailed information including grid reference co-ordinates for finds spots; detailed recorder notes; site descriptions and finder details. This may all be downloaded in *Excel spreadsheet* format which can then be imported into tailored databases or GIS programs. There are several options for undertaking a search of

⁶⁹ Established in 2006, the UKDFD is as an independent online facility allowing metal detectorists to record, identify and display their non-treasure finds. The UKDFD has emerged as an alternative online platform for the recording of non-treasure finds, although the founders of the UKDFD have refuted claims by the PAS that the database was created for those who did not wish to record with the Portable Antiquities Scheme (Brun 2009; Pett 2009).

the database depending on the specifications of the type of data required such as artefact group, spatial data, temporal data, or a combination of multiple factors e.g. musket balls recovered from Cornwall. Consistency is maintained with the use of a *controlled vocabulary*, this also ensures that all relevant objects within the database are viewed even if variations in the descriptive title are present, as discussed below.

3.8.2 Data selection

Data for download from the PAS database has been selected using the *controlled vocabulary* feature within the *Object Type* field of the *Advanced Search* section. Earlier attempts to select data using this feature were complicated by numerous versions of object titles which would result in some records being omitted from searches. For example *musket ball* could be expressed within the field as *MUSKET BALL*, *musket ball*, *MUSKET BALLS* or *musket shot* which would give alternating results. Bandolier caps could also be represented by *powder cap*, *Powder Charge Cap*, *Powder Cap Charger* or *Powder charger caps*. This dichotomy of search terms has now been cleared from the database glossary and a drop down menu has been added to the search field to minimise errors, including those caused by lower and upper case letters, increasing the efficiency of the search. Errors in identification still exist within the database, for example, terms relating to bandolier caps may still be represented as powder measures or Weapon and Ammunition Container. Twenty-nine search terms have been selected from the controlled vocabulary that potentially relate to sites of conflict, these include: *Ammunition*; *Armour*; *Armour and Weapons*; *Arrowhead*; *Bullet*; *Bullet Mould*; *Canister (Shot)*; *Cannon*; *Cannon ball*; *Cartridge*; *Pistol*; *Powder Flask*; *Powder Measure*; *Firearm*; *Flintlock Musket*; *Flintlock Pistol*; *Grenade*; *Gunflint*; *Hand Gun*; *Helmet*; *Horse Armour*; *Military Standard*; *Musket*; *Musket Ball*; *Sword*; *Weapon*; *Weapon and Ammunition Container*. However, a decision was taken to focus on musket balls as an artefact group relating to sites of conflict as were more identifiable within the database as an assemblage of material, as compared to the other objects which were more likely to appear as individual objects. With this method it would also be a simpler process to check whether an ‘assemblage of musket balls’ had any other artefacts associated with it, such as ‘powder flask caps’.

Records relating to each term are filtered and appear as a list displaying basic information such as image thumbnails, object type, find number, period and county of origin. At the bottom of each search page it is possible to select a format to download the data for the entire artefact group e.g. musket balls. CSV (Comma Separated Values) is

selected for download as it is compatible with *Excel Spreadsheets*. Once downloaded the data appears as a series of set values which have been inputted by the FLO and Finds Advisors relating to the artefact itself and details of its discovery. Initial downloaded spreadsheets contain over one hundred fields of information, the majority of which have no relation to the artefact in question or this research and are therefore deleted to avoid complication. Edited spreadsheets contain data relating to the following headings:

<i>ID</i>	identification number of artefact record
<i>Old find ID</i>	original identification number before update of system
<i>Unique ID</i>	identification number unique to this artefact
<i>Object type</i>	term to describe the artefact e.g. musket ball
<i>Classification</i>	term to define the category of the artefact e.g. carbine
<i>Diameter</i>	measurements relating to the dimensions of the artefact
<i>Quantity</i>	number of artefacts contained within this record if referring to an assemblage
<i>Other ref</i>	refers to museum acquisition numbers where applicable
<i>Description</i>	characteristics of artefact which define its form
<i>Recorder</i>	name of the individual who created the record
<i>Institution</i>	refers to the institution to which the record creator belongs e.g. PAS
<i>Primary Material</i>	identifying the material the artefact is composed of
<i>Preservation</i>	note on the condition of the artefact
<i>Finder</i>	name of the individual who found the artefact
<i>Identifier</i>	name of individual who identified the artefact
<i>County</i>	identifies the county to which the artefact was found e.g. Hampshire
<i>Parish</i>	identifies the parish to which the artefact was found e.g. Overton
<i>District</i>	identifies the council district to which the artefact was found e.g. Winchester
<i>Grid Reference</i>	Ordnance Survey grid reference of artefact Findspot
<i>Easting & Northing</i>	Two columns providing 12 figure grid reference for GIS input
<i>Address</i>	Address within closest proximity
<i>Find spot description</i>	Additional information relating to the findspot

3.8.3 Issues relating to the PAS database

Consistency relating to the quantity and quality of data available for each record fluctuates considerably as artefacts are identified and recorded by various FLOs and Finds Advisors across England and Wales. The recording of musket balls within the PAS database is a good example of how layers of detail may be stripped to the point data provided becomes close to worthless. The level of findspot accuracy recorded within the database ranges from a 10-figure grid reference to Parish level, although the majority are provided with an arbitrary 6-figure grid references which is accurate to only 100msq². One could argue that this is a ‘better than nothing’ approach providing at least some information. However, it is also important to reflect on the loss of data this approach represents, particularly with regards to large volumes of lead projectiles as featured within the database, and whether simply reporting this material without adequately recording it should be considered a positive contribution or negative impact to battlefield archaeology.

Perhaps a more frustrating issue is the object specific approach of the database which only allows for the recording of individual objects, making the process of identifying assemblages of material problematic. For example, 64 musket balls were recovered by one individual from the battlefield of Marston Moor and each one was recorded with a 10 figure grid reference (PAS ID: SWYOR-3F2B87). As each musket ball has its own spatial data it is appropriate to provide each one with an individual record, however, it is also important to highlight that each artefact forms part of a wider assemblage of material; a perspective not presented within the PAS database.

When recording larger assemblages of artefacts such as musket balls, which may appear ubiquitous and of little intrinsic or research value, the methodology engaged appears to be to take a representative sample, recording or photographing only one and providing a general catch all description. Some records however are detailed and the pressures faced by PAS staff on time and resources must also be taken into serious consideration. Of greatest concern, however, are instances where assemblages of military related material are not considered to be significant and therefore not worth either reporting or recording in detail, an issue which will be discussed in a case study relating to the skirmish site of Tywardreath, Cornwall (see Chapter Six).

3.9 Conclusion

The chapter has provided an overview of the methodology engaged in gathering data for this research from a range of sources, including research focused archaeological databases and the auction website *eBay* primarily designed for buying and selling. Another valuable source of information was the hobbyist metal detecting community. Contact with individuals and the handling of potentially personal data required a robust ethical framework and consideration of the aims and objectives of this research. Maintaining communication with such individuals involved in the hobby required a flexible approach focused on building relationships and trust; an aim with varying levels of success.

Whilst considering the ethical nature of this research was necessary to ensure data collection and interpretation remained within the bounds of a moral framework, it also provided an opportunity for further reading into sociological studies. Such readings enhanced the author's awareness of certain factors that may affect the process of data collection, for example, the author's identity as an archaeologist and in some contexts a young female. Other research, including Stebbins' social theory of 'serious leisure' (1992), have provided a strong theoretical framework to further understand the motivations of hobbyist metal detecting and how this influences their interaction with archaeological record; an aspect discussed in more detail within Chapter Eight.

Chapter Four

Assessing the extent of metal detecting on sites of conflict in Scotland

4.1 Introduction

Chapters Four and Five aim to assess the extent of hobbyist metal detecting activity on sites of conflict across the UK and whether it is possible to identify previously unknown sites of conflict through such activity. This element of the study is dependent on recognising key characteristics of conflict within assemblages, such as signature artefacts and the volume of material present, together with a close analysis of information gleaned from the finders and historical sources where available. A further aim of both chapters is to assess the extent to which hobbyist metal detectorists have been engaged in archaeological projects, both developer-led and research. This is an important aspect to consider as it acts as an indicator to establish the level of interest and awareness of battlefield archaeology within the metal detecting community.

To ensure coverage is as extensive as possible a variety of sources have been engaged, the process of which has been outlined in detail within Chapter Three – *Methodology and Ethical Considerations*. Due to the variance in Treasure laws across the UK, as well as differences in cultural, political and regional approaches to archaeology and metal detecting as a whole, it was appropriate to deal with Scotland and England & Wales as separate chapters. As the dataset from Northern Ireland was small it was decided to subsume this data within other sections across Chapter Five where it could provide more appropriate comment than in an individual section. Both chapters primarily followed the same lines of enquiry. For example, eBay data, Historic Environment Record data, together with any associated grey literature, were gathered consistently across the UK, which could be accessed through the Archaeological Data Service (ADS) and ARCHSearch. It was, however, important to cross-reference this data with information contained within the RCAHMS *Canmore* database to ensure full coverage of Scotland.

Data recovered from the Treasure Trove Unit and the Portable Antiquities Scheme remained the key source of data relating to material recovered by hobbyist metal detectorists. Achieving a consistent approach towards data collection, however, was challenging as they do not share the same objectives or processes for recording archaeological objects and assemblages. For example, as data within the Portable Antiquities Scheme database is object focused previously unknown sites of conflict were identified primarily through the volume of musket balls recovered from the site. However, as the Treasure Trove system is more focused towards assemblages rather than recording individual artefacts, it was possible to be site specific and consider other objects forming part of the assemblage.

A more subjective, but no less productive line of enquiry was through ‘Alternative Sources’, which included contacts with metal detectorist through email correspondence or club visits; media sources such as metal detecting magazines; and metal detecting forums. Face to face contact with hobbyist metal detectorists took place more frequently in Scotland than in England & Wales due to the author’s involvement in several archaeology projects involving metal detectorists and her ability to travel to club meetings. However, it was possible to achieve a balance with contacts elsewhere in the UK by ensuring consistent email and telephone correspondence was maintained.

This chapter will focus on data collected from sources in Scotland (Fig. 3), which will include the Treasure Trove Unit; the Historic Environment Record, as supported by the RCAHMS database CANMORE; and communications with hobbyist metal detectorist across Scotland.

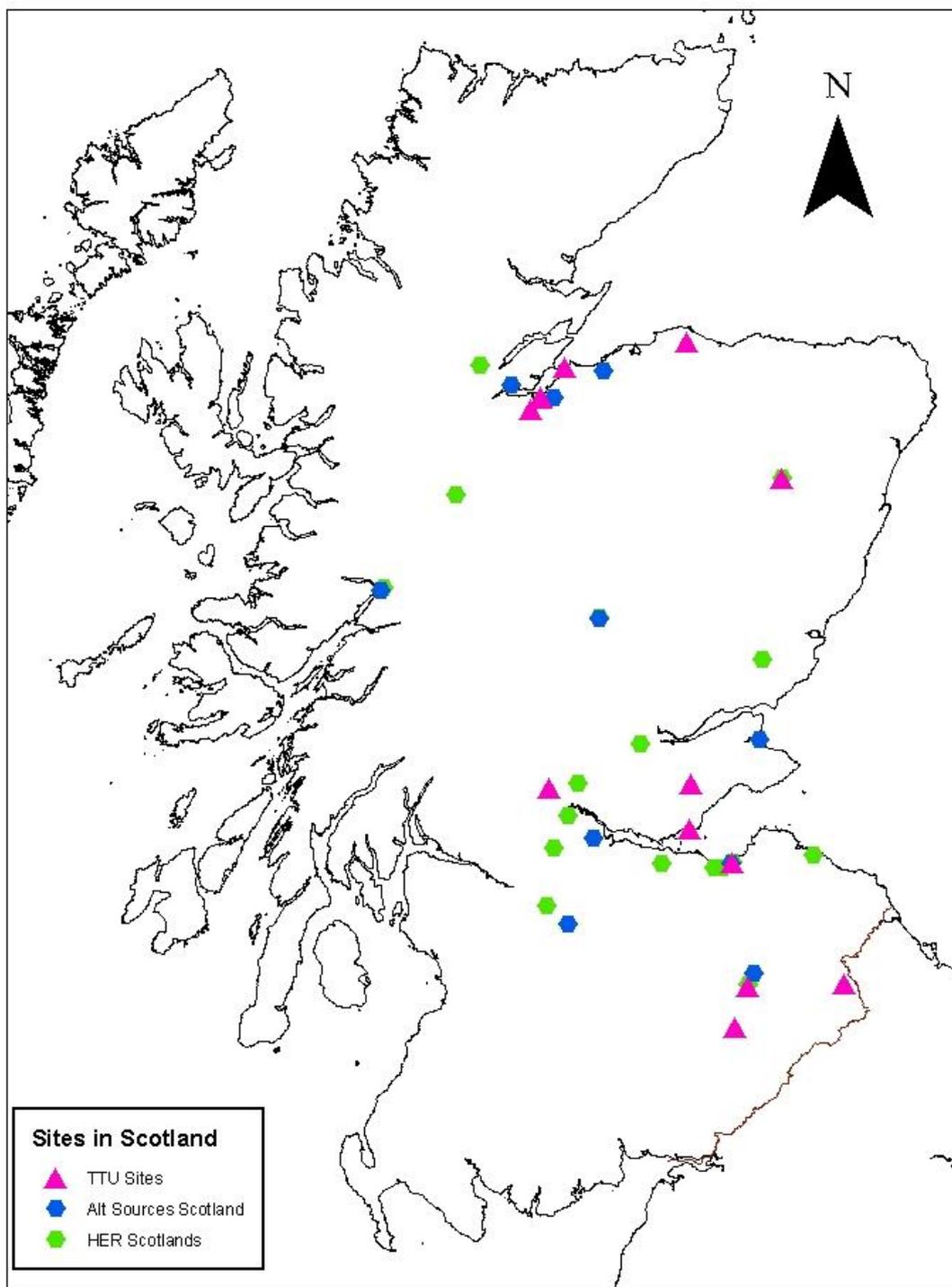


Figure 3: SOC conflict in Scotland with metal detecting activity and source of information. HER sites in Scotland primarily relate to both research and developer-led archaeology projects

4.2 The extent of metal detecting on sites of conflict in Scotland and the role of the Treasure Trove Unit

There has been a dramatic shift in attitude towards military-related material within the TTU and certain quarters of the metal detecting community in Scotland over the last decade has in part been due to the research interests of Stuart Campbell, now Head of TTU. His interest in the material culture of 18th – 19th century military in Scotland encouraged several metal detectorists to report their finds of musket balls, cannon balls and other associated objects to the TTU; before it would have been assumed that TTU had no interest in this material, even if recovered from a battlefield or representing a substantial assemblage of material. This not only saw military and battle-related material being recorded in detail within the Treasure Trove process, but also saw the identification of previously unknown sites of conflict and assemblages claimed as Treasure Trove. The volume of cases of reported military or battle-related material is relatively small at 25, which includes recovered assemblages from *battlefields*, *known sites of conflict* and *previously unknown sites of conflict*.

4.2.1 Known sites of conflict - Battlefields

Three battlefields are recorded, these being the battles of Alford (1645), Aberdeenshire, Philiphaugh (1645), Scottish Borders and Prestonpans (1745), East Lothian. At Alford one finder has reported three assemblages of musket balls totalling 19, and this represents the first known assemblage of battle-related material to be recovered from the battlefield. As the first assemblage was posted to the Unit loose in an envelope advice on recording and bagging the musket balls individually was provided, however, this was unfortunately not heeded with only two 6 figure national grid references provided to represent the whole assemblage. Communication with the finder is still open and he has been advised not to continue metal detecting in this area without the necessary recording guidelines. As the extent of the battlefield has yet to be identified archaeologically, this assemblage provides an important indicator to the location of this battlefield and may inform any future investigations of the site. Two musket balls, one of which may represent canister shot, have been reported from the battlefield of Philiphaugh. The reporting of these finds was a direct result of the Battle of Philiphaugh Community Project as the finder had assisted in the metal detecting survey (Ferguson 2012). However, whilst the reporting of this material

to TTU may appear to demonstrate that the project was successful in promoting good practice, it also highlights that metal detecting activity is still on-going within the boundary area despite raising awareness of its archaeological sensitivity.

Nine cases, representing a cross-section of a characteristic 18th century battle-related assemblage, are associated with the Battle of Prestonpans including lead projectiles, a cannon ball and various fragments of weaponry and kit. These cases represent two events which have taken place on the battlefield since 2009, the first of which was a rally organised in October 2009 as a ‘joint outing’ by the SDC and SARG (as discussed in detail in Chapter 8); the second was a smaller club outing, again involving members of both clubs. As outlined in Chapter Five the Treasure Trove Unit advised the QLTR that all battle-related artefacts recovered from the battlefield should be claimed. This is due not only to the recognition of the battlefield as a site of national significance within the Historic Scotland Inventory of Battlefields (Historic Scotland 2012), but also to ensure the integrity of an already existing assemblage of battle-related material. This assemblage was recovered during an archaeological investigation of the site and allocated to East Lothian Museum Service.

4.2.3 *Known sites of conflict – previously undiscovered archaeologically*

Two cases represent material recovered from known, but previously undiscovered sites of conflict. They include a 17th century WTK siege of Spynie Palace, Moray, during the Campaigns of the Marquis of Montrose, together with an extensive assemblage of material associated with 200 years of military activity in the surrounds of Fort George, Highland. Spynie Palace, situated near Elgin, was the seat of the Bishops of Moray from the 12th to the 17th centuries. The site itself is compact but represents many phases of activity over the centuries including a complex blend of religious and defensive structures characterising the turbulent nature of religion in Scotland from the 15th century onwards. The bulk of the assemblage, primarily recovered from fields to the south of the Palace, reflects domestic and religious activity taking place on the site in the form of coinage, communion or pauper tokens and fragments of window leading, some with fragments of stained glass still embedded. However, within the assemblage was a significant volume of lead projectiles, including a piece of grapeshot. The majority of projectiles had been found within the vicinity of the defensive wall protecting the southern side of the Palace (Fig. 4). This concentration of lead projectiles clearly represents a significant conflict event and

most likely relates to a failed siege of the Palace by Lord Lewis Gordon in 1645. The palace had been defended by a small group of Covenanters from the nearby town of Elgin, which had recently been burned to the ground by Montrose on return from his victory at Auldearn (Lewis and Pringle 2002, 9). Metal detecting is on-going at this site, however, the individual involved is experienced and has ensured to record all battle-related finds as accurately as possible.



Figure 4: Sketch map depicting concentrations of lead projectiles recovered from Spynie Palace, Elgin, Moray. Map produced by finder using Google earth.

Over the last 10 years a local metal detectorist has been intensively metal detecting several fields to the south east of Fort George, Ardersier, Highland. Within these fields he has recovered over 3000 artefacts, producing a fascinating cross section of military life of the Fort in the 18th and 19th centuries (Plate 4). This included a firing range, with evidence of ammunition trials represented by unusual bullet types among the large volumes of musket balls, such as an early version of an Enfield round. The assemblage also provided a profile of domestic life within the Fort ranging from the rank and file to the officer classes represented by fragments of iron skillets to high status glass ware, together with toy soldiers showing some evidence for the presence of children. He has also recovered a significant number of military buttons relating to the Militia and Volunteer regiments raised with the threat of French invasion in the late 18th century. The volume and variety of buttons present on the site underlined the importance of Fort George as a muster point for training and the deployment of troops overseas (Campbell 2010)



Plate 4: Selection of 18th-19th century military objects recovered near Fort George, Ardersier, Highland. Sword scabbards and belt hanger (top left), frog clips for sword and bayonet scabbards, military badges, 'Regiment of the Isles' Militia button. Image reproduced by permission of the Crown Office.

4.2.4 *Previously unknown sites of conflict*

Eight cases reported to the TTU have been categorised as previously unknown sites of conflict. Three assemblages under this category appear to represent 17th century skirmish activity, while the remaining five are more likely to relate to later 18th –early 19th century activity and the raising of local Militia and Volunteer regiments. The first group includes a close distribution of musket and pistol balls in a field adjacent to Doune Castle, Stirling; an assemblage of 14 lead projectiles from Thirlestane Tower, Scottish Borders; and a similar sized assemblage of musket balls from a medieval tower house at Kirkton, Dumfries and Galloway. The recovery of assemblages of battle-related objects found within the vicinity of these sites is not unexpected. As defensive structures they may have been subject to numerous attacks over the course of their history, either due to their strategic importance or the turbulent nature of the surrounding environment such as the borderlands. Identifying individual conflict events may not therefore be possible. However in the case of Doune Castle, the positions of the projectiles have been recorded accurately

enough to produce an artefact distribution which suggests a skirmish within the vicinity of the Castle rather than an attack on the structure itself. The site is situated to the south of the castle in a field on the opposite bank of the River Teith (Plate 5). The high volume of pistol balls within the assemblage suggests a fleeting skirmish involving cavalry and may represent activity associated with the Civil War, or the subsequent Glencairn's Rising which saw a Royalist rebellion against Cromwell in 1653 in this area. Alternatively, the skirmish may be related to later Jacobite activity, although the nature of the morphology of the projectiles does suggest a mid-17th century date for the assemblage.



Plate 5: View of field adjacent to Doune Castle, Stirling, location of a recently recorded scatter of pistol balls. Image reproduced by permission of Jen Novotny.

The second group includes two firing ranges or training areas, with one at Robertson, Scottish Borders and another at Burntisland, Fife, together with two muster points or encampments in the Inverness area at Beechwood Farm and Torbrek. The fifth site at Wester Balgeddie, Fife is more difficult to identify as the assemblage consists primarily of musket balls. However, due to the high number of projectiles and the consistency of the bore it is likely this assemblage represents later training activity than a 17th century skirmish, but this can only be suggested through the absence of any other dateable material. At Robertson one metal detectorist has recovered approximately 80 musket balls from one area west of Milsington (Plate 6). From the farm at Milsington a trackway leads westwards along a ridge to an area of more level ground. It is here that the majority of the musket balls were found, and according to the finder within an area of 5

sqm. The accessibility to the site by track and the concentration of the distribution suggests that this is a firing range, possibly to train a local Volunteer unit in the late 18th and 19th century. It is possible the landowner, Scott of Milsington, may have sponsored the unit and therefore allowed them to train on his estate (landowner pers comm). The sites at Beechwood Farm and Knocknagael Farm, Torbreck are situated in close proximity to the mid-18th century military roads of Caulfield and Wade respectively. Both sites were identified through certain signature artefacts within the assemblage which were characteristic of late 18th – early 19th century military uniform and equipment, although the potential of Beechwood is tenuous as all that has been recovered to date is a Fort William Volunteers shoulder belt plate, together with several musket balls. At Torbreck the evidence is stronger with an assemblage including a fitting from a sword belt in the shape of a lion's head; a fragment of helmet chain chin strap; a belt plate and several military buttons, including one of the North Fencibles. All were found in a relatively small area north of Knoacknagael Farm and along the line of Wade's military road, now the Essich Road. In his research of the site, Campbell has noted that the location is approximately 15 miles from Fort George, Ardersier; the average day march for the 18th century soldier (Campbell 2012, pers.comm.). Mackay-Scobie in his history of the Reay Fencibles identifies the route taken from Perth when the Fencibles were to be quartered at Fort George in 1795 (1914, 77). The final leg of this journey followed the military road from Carrbridge to Dulsie, and from there on to Fort George; both stages were approximately 15 miles in length (MacKay-Scobie). It is possible therefore that this assemblage represents the site of an encampment for soldiers on their way to or from Fort George. This site in particular demonstrates the potential for further research into the movement of 18th century military within the Scottish landscape.



Plate 6: An assemblage of musket balls found in a dense concentration near Milsington Farm, Scottish Borders. Image taken by the author.

4.3 Historic Environment Record and Archaeological projects & evaluations

Data for this section has been drawn from the Historical Environment Record (HER) via the RCAHMS Canmore database and the Archaeological Data Service (ADS), together with a desk based survey of grey literature, academic books and journals, conference papers, media and online sources and professional contacts through the Centre for Battlefield Archaeology. Data contained within the HER focuses on what is referred to as ‘events’, i.e. archaeological projects and evaluations. Unlike the HER for England and Wales there was no data related to the finds made by members of the public, therefore information relating to metal detecting activity has been combined to form one section.

Owing to the success of battlefield projects such as the Culloden archaeological survey in 2005 (Pollard 2005), a burgeoning awareness of battlefields as sensitive archaeological landscapes has continued to develop within the heritage sector of Scotland. Local authorities across Scotland are now expected to consider battlefields and other sites of conflict within the planning process, something which is currently supported by Government policy guidance from Historic Scotland in the form of a SHEP, and includes

an Inventory of Battlefields in Scotland (see Chapter Two for more details on SHEP). The HER of Scotland now contains several examples of metal detecting survey being engaged to evaluate a site ahead of development, although it is not clear in many of these cases whether the metal detecting itself was carried out by hobbyist volunteers or the archaeologists themselves. Battlefields in East Lothian, including Pinkie (1547), Prestonpans (1745), and to a lesser degree Dunbar (1650) have received particular attention with numerous phases of investigation taking place over a short period of time. As a high profile site potentially covering an extensive area, the Battle of Bannockburn has also been subject to several phases of work at various locations. Even ancient battles and smaller skirmishes, sites with little archaeological potential, have been recognised and investigated ahead of development. Two such sites are in close proximity to the Battle of Nechtansmere (650AD) identified for housing development, and an area close to the traditional location of a 15th century clan battle named Blar na Pairc, Strathpeffer, Highland which was to see the construction of a forestry access track.

Under the banner of GUARD, the Centre for Battlefield Archaeology carried out a number of projects on battlefields in Scotland, including three community based projects at: Fort William & Inverlochy (1645), Prestonpans (1745) and Philiphaugh (1645); a developer-led project at Sheriffmuir (1715); a major research project at Culloden (1746), together with Bannockburn (1314) and Killiecrankie (1689), the latter of which were part of the BBC Two series *Two Men in a Trench*. Recruiting skilled volunteers to assist in the metal detecting survey is important to the success of these projects with local metal detecting clubs generally providing a reliable source of willing volunteers with relatively high levels of skill and experience. This proved successful at Culloden with both phases of the investigation assisted by members of the Inverness based club, the Highland Historical Search Society (HHSS). Due to their experience following a battlefield archaeology methodology and the successful working relationship which had been developed, key members of this team were invited to return to assist with the evaluation of Sheriffmuir (Pollard 2006). In terms of community based projects it was felt necessary to encourage local participation which saw varying degrees of success. With no local club at Fort William it was difficult to attain an experienced team, however, they were enthusiastic and did learn from the experience. At Philiphaugh, although there was no club from which to focus recruitment, local volunteers were plentiful in number and had the necessary skills and experience to contribute to the success of the project. At Prestonpans the majority of the volunteer force was drawn from two large clubs in the Central Belt, the Scottish Detecting Club (SDC) and the Scottish Artefact Recovery Group (SARG) (see Chapter

Eight). Approximately 50 people from the two clubs volunteered to participate in the project and many travelled a distance to be there. Although their participation was appreciated there was a sense that the community spirit of the project had been lost, as subsequent events explored in Chapter Five may support.

As established metal detecting clubs within the central belt, the SDC and SARG have played a prominent role in the investigation of battlefields in Scotland, assisting in both developer-led and research projects for several commercial based units. SARG and the SDC have both worked independently within GUARD projects, with the SDC participating in the Killiecrankie survey of 2002 and SARG assisting a developer-led evaluation at Milton Bog on the battlefield of Bannockburn in March 2007. Individuals from SARG have also assisted with research projects, including a CBA postgraduate MLitt project based on the Battle of Kilsyth (1645), and a project led by the University of Aberdeen to investigate the potential location of the Roman battle Mons Graupius.

SARG and the SDC have also assisted several other battlefield surveys in the central belt led by other commercially based units: including an evaluation of a possible Cromwellian skirmish site called the 'Field of the Flashes' located in close proximity to Edinburgh Airport and assisted by SDC in 2004; a brief project on the battlefield of Prestonpans within the vicinity of the Thorntree by CFA in 2007; an evaluation of the battlefield of Bothwell Bridge, South Lanarkshire (1679) in July 2006, and several phases of work on the Battle of Pinkie, East Lothian (1547) between 2005 and 2008. The project at Bothwell Bridge was a developer-led evaluation directed by the field unit AOC Archaeology Group and involved members of SARG in the metal detector survey. The survey was successful in recovering three musket balls, a copper dirk pommel and a rolled lead strip (WOSAS 2006, ID53210), however the use of four 10m linear trenches, 'placed at a slight angle through the firing line', (WOSAS 2006, ID 3458) was an unnecessarily destructive method involving disturbance to the topsoil. This is particularly redundant if the aim was to further recover and record battlefield material in the topsoil, a technique which will now be problematic to repeat in this area.

On the battlefield of Pinkie various archaeological evaluations were carried out in response to building projects focused on four adjacent fields on the eastern side of the battlefield south of Wallyford. Between 2005 and 2008 six phases of work was conducted by three separate field units, including East Lothian County Council in 2005 and 2006 with combined effort from SDC and SARG; CFA in 2006, 2007 and 2008 with the assistance of

SDC; and in 2007 AOC carried out a two day survey covering 15 hectares, with members of SARG making up the metal detecting team. However, rather than engaging a consistent method of metal detecting across the site, each unit engaged a unique and ultimately contrasting methodology, resulting in data that was essentially meaningless in the wider context of the battlefield landscape as none of artefact distributions could be compared or understood together as a coherent dataset. A detailed critique of methodologies engaged by archaeological field units inexperienced in battlefield archaeology remains outside the limits of this research. The close association of hobbyist metal detecting clubs within such methodologies, however, is a relevant factor and one that may have serious ramifications to battlefield heritage and will be discussed further in Chapter Six.

4.4 eBay Data

Data gathered from eBay in relation to sites of conflict in Scotland was minor in comparison to England and Wales. Only six lots in total were identified, with only one making reference to a particular battlefield: the Battle of Pinkie, East Lothian with a lot of 5 musket balls. One seller had recovered a small number of musket balls from two sites, namely Millport, Isle of Cumbrae and Skaebost, Isle of Skye. No reference to any potential site of conflict is suggested, such as a firing range or skirmish site, although Millport does have a military barracks which may have a connection. As these lots represent a very small assemblage of projectiles, none of which appear to have been recorded, it is therefore unlikely that these lots have the potential to highlight a previously unknown site of conflict; in short they have only been included within the database because they have originated from Scotland. This is also the case for the lot of iron objects from Stirling. Although identified as 'iron caltrops' it is clear from the accompanying photograph that they do not share the characteristics of caltrops, but are instead iron spheres with numerous protrusions. Rather than caltrops they appear to be similar to 19th century canister shot, an object more familiar on the battlefields of the American Civil War than in Scotland; their provenance is therefore in doubt. The largest lot had 12 musket balls which were described as being found from 'around Scotland' and did not make any reference to any sites of conflict.

No reference to Treasure Trove was made within any of the lot descriptions and there is no suggestion that any of the assemblages had been reported to the Unit and issued a certificate which disclaimed the Crown's title over the objects. Without a 'disclaim certificate' title remains with the Crown, therefore the sale of these lots on eBay is illegal.

The low number of lots on *eBay* originating from Scotland is little doubt influenced by Treasure Trove laws and the requirement to report all recovered material to the Unit. However, another factor that should be considered is the comparative volume of sites of conflict in England & Wales and the existing population of active metal detectorists, who not only recover this material, but are in turn willing to sell it. The positive and negative impacts of the Treasure Trove system, in comparison to the legal system in England & Wales will be discussed in subsequent chapters.

4.5 *Alternative sources*

In comparison to the volume of assemblages reported to Treasure Trove 11 assemblages of battle-related material have been identified through alternative sources i.e. through references in the media and contacts with metal detectorists, demonstrating the need to continue highlighting the potential significance of such material. The existence of these assemblages has been tracked down through various sources including club visits, contact via projects, media, responses to information requests via the media, and word of mouth.

From 2008 through to 2009 three visits were made to Scottish Artefact Recovery Group club meetings, based in Bonnybridge, Falkirk and one visit to the Scottish Detector Club, Edinburgh. The aim of the visits was to gather information relating to metal detecting activity on sites of conflict, identify material indicating the potential presence of a previously unknown site of conflict, and to raise awareness of battlefield archaeology, as well as encouraging members to record battle-related material accurately and report it to TTU. The success of the club visits was mixed. Members were friendly and forthcoming with information, however, some were not clear why this material was potentially significant and therefore did not initially come forward. One example was a large assemblage of musket balls, possibly numbering over 50, recovered in a field near Bankhead, East Lothian. This assemblage is significant as it is located in close proximity to the Battle of Prestonpans and the section of Johnnie Cope's Road known as the Roupin', said to be the route taken by General Cope after his army was routed. Unfortunately it was not possible to see this assemblage, or confirm exactly where it was found as it was not recorded or retained after its discovery. Other material highlighting potentially unknown sites of conflict brought forward during the meetings included a small assemblage of musket balls from a possible Napoleonic firing range near St Andrews, Fife; two cannon balls found near Carron, Falkirk; and two 17th century cannon balls at Dalserf, South Lanarkshire. The latter two cases are interesting as the cannonballs from Carron were

found in relatively close proximity to the Carron Company iron foundry, which in the mid-18th century produced guns for the Royal Navy, including the infamous carronade. It is possible these cannonballs are related to the site through the manufacturing of munitions. The second case from Dalsersf is also interesting as the cannonballs are very small in size and are therefore likely to have been fired from a small and easily portable field gun such as a Robinet. This area of South Lanarkshire is closely associated with the later 17th century conflict in Scotland known as ‘The Killing Times’, a period when Covenanters were renounced by Charles II and subsequently persecuted. With the Battle of Bothwell Bridge only 8 miles to the north it is possible these cannonballs represent one of the numerous attacks and skirmishes taking place in this area in the late 17th century.

Contacts made with metal detectorists through community projects directed by the author and the Centre for Battlefield Archaeology proved to be another interesting source of information with evidence of two potential sites of conflict brought to the attention of the author. During the Fort William and Inverlochy Community Project the author was informed of a possible skirmish site on the outskirts of Fort William where approximately 20 musket balls had been recovered (Pollard 2007). The site was located to the south of the town centre on an area of steep and wooded ground. The projectiles had been recovered either side of a small waterfall or spring and due to the rocky nature of the surrounding environment their form was severely impacted. This was an unusual site, particularly as it was near vertical in places making it difficult to search for and recover the projectiles. The potential use of the spring as a water source could be important to the interpretation of this site as it may represent the scene of an ambush or skirmish, possibly during the Jacobite siege of the Fort. Unfortunately this is conjecture as there is no further evidence at present to support this theory.

The second site was highlighted by two metal detectorists who had assisted the Battle of Philiphaugh Community Project. They had uncovered a significant volume of musket and pistol balls in an area known as The Rink, situated 5 miles north of Selkirk on the banks of the River Tweed. It is possible this assemblage represents a skirmish which occurred prior to the Battle of Philiphaugh between scouts of the Royalist and Covenanter armies. It is recorded in historical accounts of the battle that a party of Royalist scouts were surprised by a squadron of Covenanter cavalry as they approached Selkirk from the North the night before the battle. There is potential for further investigation on both sites as not only will they contribute a great deal to current research, they are also of great interest to locally (Craig-Brown 1886).

In the 1970s two rallies were organised by the Dundee Club on the battles of Killiecrankie, Perth and Kinross, and Culloden, Highland. A two part article recounting the rallies was published within the metal detecting magazine *Treasure Hunter* in 2005 by one of the club members who had attended the event. The article was entitled '*Detector Surveys of Battlefield Sites*' with part one attempting to provide a summary of what one might expect to find on both modern and ancient battlefields and the caveats involved in doing so successfully. Part two is accompanied by the subtitle '*How we have tried to track them down*', which included several Early Medieval battlefields in Fife and Angus. The final section of this article was of the greatest interest as it provided greater detail of what had been recovered during the rallies at Killiecrankie and Culloden. According to Smith approximately 60 metal detectorists attended the rally at Killiecrankie and were delighted to find, 'a great many musket balls and cannon ball fragments', as well as other objects including buttons and horseshoes. A similar volume of material is also reported to have been found at Culloden, but these artefacts are said to have been handed in to the curator of the National Trust for Scotland museum on the battlefield (Smith 2005, 58). The volume of battle-related material removed from both battlefields during these events is unknown, although individuals the author has spoken to who also attended the rallies did refer to 'buckets full of musket balls' after their trip to Killiecrankie, with some members returning to the site in subsequent years (Anon pers. comm. 2012).

Metal detectorists were also given the opportunity to respond to an article written by the author in *The Searcher* magazine (Ferguson 2009). The article aimed to raise awareness about battlefield archaeology, using the site at Tywardreath, Cornwall as a case study (see Chapter Five), as well as requesting information from readers regarding similar sites they may have discovered across the UK. Two metal detectorists from Scotland responded to the request, including an individual who had metal detected on the Battle of Lostwithiel, Cornwall. He informed the author that he had been metal detecting on Killiecrankie when on holiday in Scotland but had found nothing of interest there. It is perhaps necessary to qualify this statement by referring to his account of his experience metal detecting on the battlefield of Lostwithiel where he found, 'nothing but musket balls'. The second individual based in Redcastle, Highland reported to have found a significant quantity of musket balls and military buttons which he believed to be related to late 18th and 19th century activity in the area including a firing range for training.

In 2008 the author visited the site of the Battle of Auldearn, Highland to attend an event to unveil a new memorial stone to commemorate the battle. During this visit the

author was approached by a gentleman who had been given 5 musket balls from a friend metal detecting on the battlefield at Montrose's Hollow. He had suggested that this was the site of Montrose's camp, but this could not be confirmed. Further attempts to contact this individual have been unsuccessful and it is unknown if he has continued to metal detect in the area.

4.6 Conclusion

Since 2011 there has been a significant increase in the number of potential sites of conflict reported to the Treasure Trove Unit in Scotland, a number of which could not be included within this thesis due to time constraints. The author's position within the Treasure Trove Unit has been an advantage and has allowed for the opportunity to promote the importance of recording and reporting potential battle-related assemblages, as well as raising awareness of battlefield heritage in Scotland more generally. This has had varying degrees of success with a number of metal detectorists keen to report assemblages of lead projectiles and other signature artefacts initially thought to be of little interest. Metal detecting on battlefields, however, has the potential to become an issue, particularly with a notable increase in the number of metal detecting rallies held in Scotland. Metal detecting 'outings' are still taking place on the Battle of Prestonpans, East Lothian with much of the material recovered reported to the Unit, but not recorded accurately. Metal detecting activity on the battlefield of Prestonpans, as well as on the Battle of Philiphaugh will be explored in more depth within a case study (Chapter Eight). In October 2012 the author was aware of three rallies which promoted the existence of a battlefield within the rally search area to attract attendees. A rally held near Harlaw, Aberdeenshire organised by the '*Doric Diggers*' highlights the historical significance of the area when advertising the rally on their website:

'This dig is steeped in history, this site is very large (around 130 acres of stubble on the outskirts of Inverurie) and is next to a field of the supposed battle site of Harlaw which was one of the bloodiest battles in Scottish history, also not far from two other battles, the battle of Barra and the battle of Inverurie' (Doric Diggers 2012⁷⁰).

Interestingly, two of the rallies, held at Methven, Perth & Kinross and Kinblethmont, Angus aimed to find evidence of the battle and therefore potentially make a positive contribution towards our understanding of these sites. There was also a notable effort to

⁷⁰ www.doricdiggers.com: last viewed 30 September 2012

promote responsible metal detecting by encouraging participants to record and report their finds to the Treasure Trove Unit (Plate 7).



Plate 7: Posters set up in the base tent during the Battle of Methven Rally encouraging participants to record and report their finds. Image taken by the author.

Two notable features of this dataset from is the high level of reporting and relatively low activity on known sites of conflict. Furthermore, there is a significant absence of archaeological objects on sale on *eBay*; a possible reflection of Treasure Trove laws in Scotland. Another interesting feature is the prominence of metal detectorists assisting in research and developer-led projects, an aspect explored further within Chapter Eight. Whilst this is a generally positive picture it is one that has the potential to alter significantly in the absence of support from bodies such as the Treasure Trove Unit, or durable battlefield heritage management strategies. Further analysis of this data, together

with a comparison with the England and Wales dataset (Chapter Five), will be discussed in Chapter Nine.

Chapter Five

Assessing the extent of hobbyist metal detecting on sites of conflict in England & Wales

5.1 Introduction

Following on from Chapter Four this chapter will focus on data recovered from sources relating to England and Wales, with some elements covering activity in Northern Ireland. Similarly to Chapter Four this chapter will include data gathered from official databases collated from the Historic Environment Record (HER) and the Archaeological Data Service (ADS) to identify developer-led activity on sites of conflict (Fig. 5). It has been possible within the England and Wales HER, unlike in Scotland, to identify the activities of hobbyist metal detectorists as in some cases details of site discoveries have been recorded, albeit in varying levels of detail; the most prominent example being the Tywardreath, Cornwall skirmish site as discovered by an individual referred to as MdCW (Chapter Six). The Portable Antiquities Scheme (PAS) database will also be a key feature of this chapter as it represents an important, if not the primary, source of data for the recording of archaeological objects recovered by hobbyist metal detectorists in England & Wales. Data gathered from the metal detecting forum UKDetectornet also represents an important source of data. The forum not only produced a wealth of information relating to activity on sites of conflict, but also reflected attitudes towards such sites and their associated material culture.

The first section of this chapter will cover data from the Portable Antiquities Scheme. It will then move on to focus on the significant body of eBay data collected from England and Wales. The next section will provide a summary of data recovered from the Historic Environment Record and the Archaeological Data Service, which will include details of metal detecting activity within developer-led archaeology projects on sites of conflict. The final section of this chapter will cover alternative sources of data such as the metal detecting forms, media and communications with hobbyist metal detectorists.

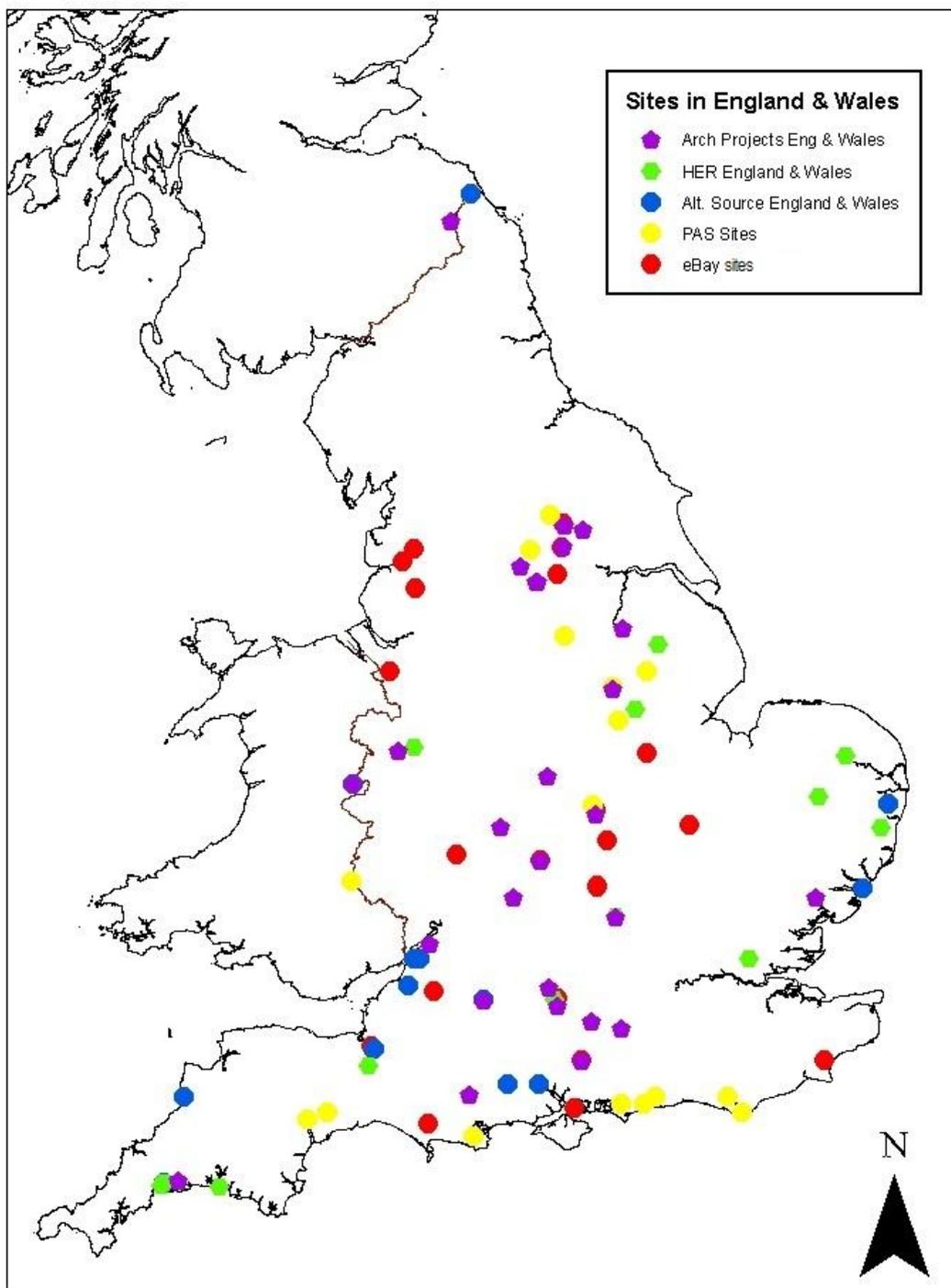


Figure 5: Sites of conflict highlighted as having metal detecting activity in England and Wales.

5.2 Portable Antiquities Scheme

As the author was able to obtain a high level of access to the Portable Antiquities Scheme database, it was possible to filter and download specific streams of data relating to categories of artefacts recorded with the scheme. The aim of accessing this data was to establish whether it was possible to highlight the extent of metal detecting activity of sites of conflict in the UK within this dataset, as well as assessing the volume of material removed from such sites. The latter aim regarding volume of material could be addressed by utilising the various search terms outlined in the methodology chapter. However, due to the nature of the dataset, which focuses on recording an artefact as an individual entity, rather than recognising the importance of identifying assemblages of material, it was necessary to select a specific category of artefact which could best reflect metal detecting activity on conflict sites. It was therefore decided to select musket balls as a suitable signature of conflict, as not only are they found on all sites of conflict (depending on period), in significant volumes they may be used to identify previously unknown sites. The following data has been split into three sections: the first section will highlight known sites of conflict referenced within the database e.g. Battle of Nantwich; the second set of data represents potential sites identified by having over 10 entries relating to one area e.g. Mile Pond Farm which has 30; the third set of sites have been highlighted by significant volumes of musket balls, in this case over 30 musket balls from one site e.g. 48 musket balls from Meanwood Ridge, Leeds. The results are presented in the following sections.

5.2.1 Sites of Conflict highlighted within the PAS database – Battlefields

Four battlefields, all dating to the English Civil War, were highlighted within the database, these include the Battles of Nantwich (1644), Montgomery (1644), Marston Moor (1644) and Naseby (1645). A common factor linking each battlefield within this dataset, excluding Montgomery, are metal detecting rallies. Within this database two rallies have been noted on Nantwich, the Battle of Nantwich Rally, with 45 musket balls, which took place in August 2007 and the Combermere Abbey Metal Detectorist Rally, with 7 musket balls, which took place in close proximity to the battlefield. Two other rallies include one which took place on the battlefield of Marston Moor organised by the NCMD, with 54 musket balls recorded; and a Central Searchers Rally which recorded five musket

balls ‘near the site of the Civil War battle site of Naseby’. The number of finders recording musket balls with the PAS at these rallies ranges from four to twenty-nine at Combermere Abbey and Nantwich respectively, to simply ‘various finders’ as noted within the Marston Moor records. Individual metal detectorists are also a feature of this dataset, although once the data has been distilled from individual artefact entries the number of finders actually declaring these artefacts is relatively low. For example 65 entries are related to the battle of Marston Moor, however 64 of these entries represents only one person as each musket ball has been recorded individually. With regards to the battle of Montgomery, as two sets of musket balls found by a local metal detectorist have been ‘reported as one assemblage’ (CPAT-354BE7) an attempt has been made by the FLO to highlight this.

5.2.2 Siege sites

Three English Civil War siege sites have been identified within the dataset and include the sites of Newark Castle, Corfe Castle and at Grafton Regis. Records within the database relating to the siege of Newark include two assemblages of 9 musket balls found by two metal detectorists, ‘close to the civil war earthworks’ (DENO-4315C2). At Grafton Regis an assemblage of 9 lead projectiles, 5 of which are possibly pistol balls according to the sizes noted, were found by two detectorists. The description within the record states that the projectiles were found, ‘near Grafton Regis, a site of a Civil War siege and it is possible that these musket shot relate to the battle’ (NARC-BBD9F6). There are five entries relating to Corfe Castle representing five musket balls found by participants of the Norden/Corfe Castle Minelab Owners Rally which took place over the weekend of the 15th September 2007.

5.2.3 Skirmish sites

There is only one reference to a skirmish site within the database. This relates to two assemblages of projectiles, totalling 32 musket balls, found by one metal detectorist in an area situated within close proximity to a Civil War skirmish site at Anston Bridge, South Yorkshire (DENO-F41956).

5.2.3.1 Potential sites of conflict – over 10 entries within database

Six sites with over 10 entries and potentially representing previously unknown sites of conflict have been identified within the database. Three of these sites have below 20

musket balls and are therefore, depending of course on the pattern of their distribution, likely to be either minor sites or simply background noise i.e. the result of hunting activity. The latter three, however, are of interest and include Escot House, Devon with 36 musket balls; Mile Pond Farm, Chichester with 30 musket balls and 67 musket balls from a metal detecting rally on the Firlie Estate, East Sussex.

5.2.3.2 Potential sites of conflict – assemblage of over 30 musket balls identified

Five sites of interest have been highlighted as having a significant assemblage of musket balls from one site and therefore, as above, may represent a previously unknown site of conflict. This includes a site at Meanwood Ridge, Leeds where an individual metal detectorist in the area recovered 48 musket balls. Furthermore, the database notes that, ‘many other examples have been located by the finder’ (SWYOR-C67902); 54 musket balls recovered during a NMCD rally at Mouleverer with Happerton, Harrogate; 72 musket balls from Monkerton Lane, Exeter which have been found ‘from one field over time’ (DEV-4C15B5); and 128 musket balls from Birling Manor Farm, East Sussex taken from a ‘much larger collection from the same farm’ (SUSS-F78016). The contents of this ‘larger collection’, however, have not been referenced within this record. Although perhaps not as significant in terms of volume of artefacts, but perhaps more interesting in terms of content, is an assemblage from Montgomeryshire recovered by the same individual metal detecting on the battlefield of Montgomery. Here 34 musket balls were found in ‘association with buttons of the Montgomeryshire Yeomanry’ (CPAT-33E881), which may also be seen within the database. This additional information suggests this site may represent an area for training or muster for local militia units and may therefore require further investigation.

5.3 eBay data

This section will present data recovered from a programme of *eBay* monitoring which took place over a period of two years from October 2006 – December 2008. *eBay* presents an alternative source of data that may potentially be used to highlight the volume of artefact material removed from sites of conflict in the UK, and in turn offer an insight into the extent of metal detecting activity on such sites. The monitoring of *eBay* was successful, producing an unexpectedly wide range of sites and a significant body of over 3600 signature artefacts recorded. Overall the dataset contains 414 separate entries and features

154 individuals identified by their username, highlighting the presence of metal detecting activity on approximately 112 sites across the UK, representing both known and previously unknown sites of conflict. Caveats associated with the process of gathering data from *eBay* and its general validity have been discussed extensively within the methodology chapter. The data will be presented under the following section headings: *volume and range of signature artefacts; sites of conflict; identifying previously unknown sites of conflict; regional extent of metal detecting activity on sites of conflict.*

5.3.1 Volume and range of signature artefacts

A significant volume and range of signature artefacts have been identified in the dataset with approximately 3634 artefacts recorded over a two year period, including key signatures of conflict or conflict related activity i.e. material such as cannon balls, lead powder caps, military buttons and modern bullets (Fig. 6). These artefacts appear in lots on a semi-regular basis and usually in association with musket balls. However, other more unique artefacts monitored on *eBay*, which appeared only once include: a hammer from an early percussion musket, and what was described as a ‘Yorkist Archers Badge’ reportedly recovered from the Battle of Towton, 1461. When mixed assemblages were presented as a lot on *eBay*, it was possible to identify other artefacts such as gunflints, clay pipes, buttons and buckles in the photograph provided, which allowed for a more rounded impression of the site as a whole. The vast majority of artefacts monitored on *eBay* were musket balls, which made up 95% of the overall total with just over 3450 recorded (Fig. 7). This figure excludes 800 musket balls recorded from a lot originating from Colchester, which were removed from the overall total as it was an unusually large example that would have served only to skew the dataset (Fig. 8). The author was also not able to establish from this particular seller whether this lot represented one site or multiple sites across the UK; the latter is certainly more likely. The volume of cannonballs, which are relatively rare artefacts to uncover, was unexpected with 32 examples recorded. A logical explanation may be that as recognisable objects, and in some contexts iconic objects, cannonballs are ultimately more sellable and are therefore more likely to be sold at auction.

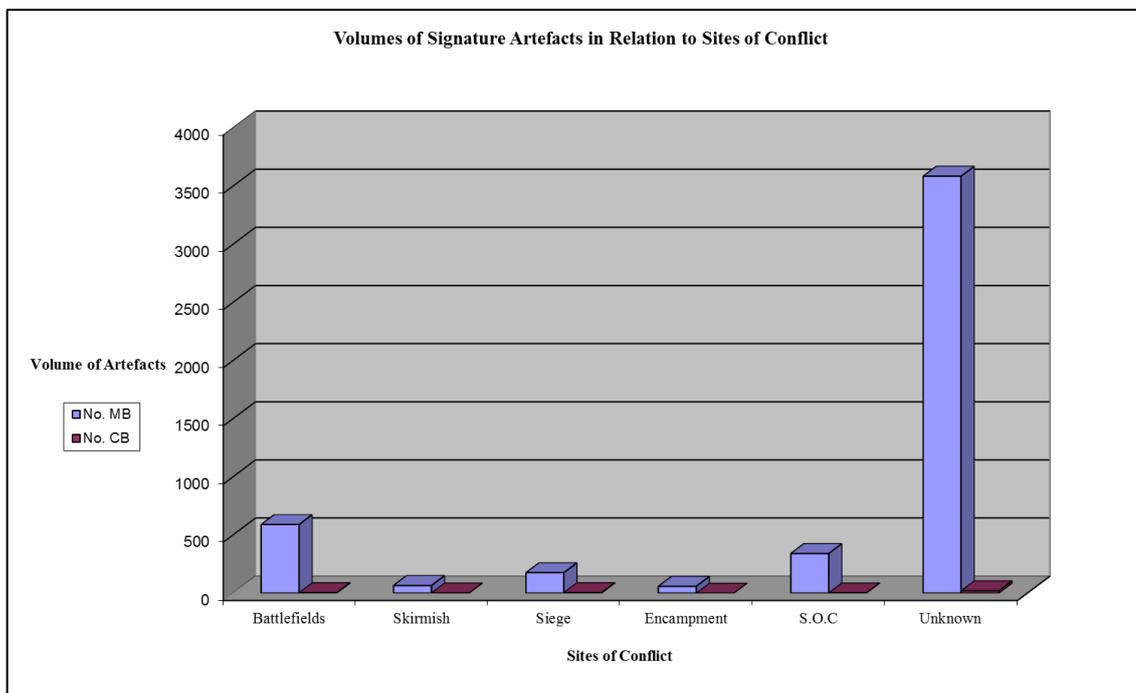


Figure 6: Volume of signature artefacts in relation to sites of conflict monitored on eBay

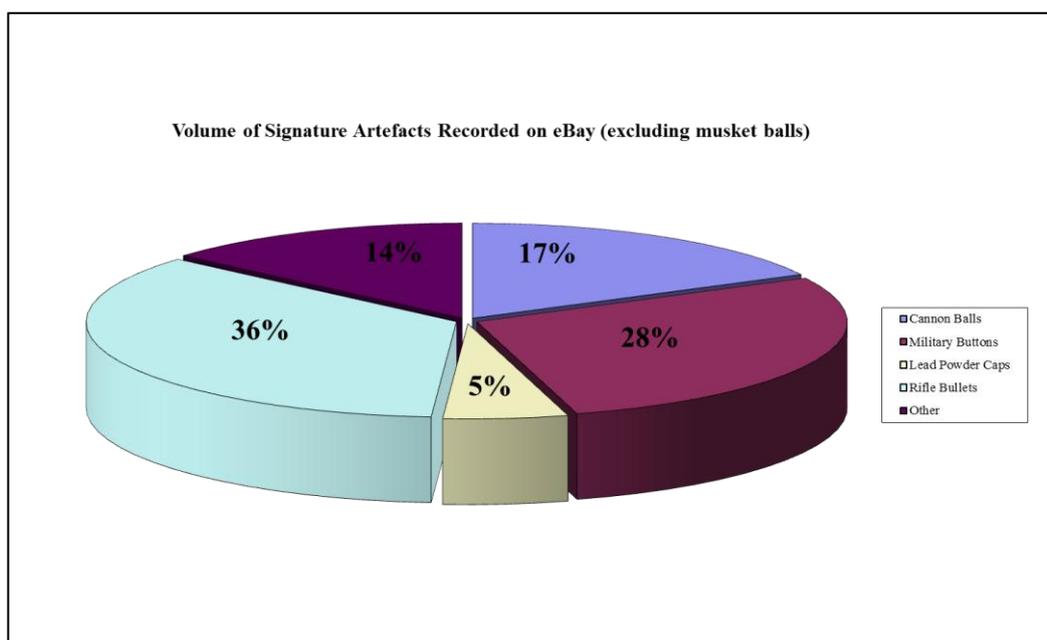


Figure 7: Volume of signature artefacts recorded on eBay during two year monitoring programme excluding musket balls which make up 95% of the dataset

5.3.2 Sites of conflict - Battlefields

Fourteen battlefields and one rebellion are referenced within the dataset, ranging in date from the Battle of Towton (1461) to the Battle of Sedgemoor (1685), Somerset, with the

majority, 10 overall, dating to the War of the Three Kingdoms. The extent of metal detecting activity appears to be primarily concentrated in England, and in particular South East England, where battlefields such as the 1st Battle of Newbury, West Berkshire (1643) and the Battle of Cheriton (1644) appear to have been extensively metal detected. Lots of musket balls attributed to Newbury (1643) appeared consistently across a two-year period with approximately 237 projectiles sold by at least four individuals. The Midlands, East and West, has also been highlighted as an area of high activity with the battlefields of Edgehill (1642), Naesby (1645), and Worcester (1651) identified. Northern Ireland is also represented in the dataset by the battlefields of Benburb (1646) and Ballynahinch, Co. Down (1798).

Perhaps not strictly defined as a battlefield, the Kett's Rebellion is one of the more interesting sites of conflict featured within the *eBay* data set. The revolt, led by local landowner Robert Kett, was in response to land enclosure and took place near the city of Norwich in July 1549. The Crown forces of the young Edward VI, which are said to have been mostly composed of foreign mercenaries, were sent to the city to crush the rebellion. There are a number of sites around Norwich associated with the rebellion, including Kett's Hill and Mousehold Heath where the rebels gathered and encamped. The location of the battlefield is unknown, however, the placename Kett's Meadow and Dussindale is associated with the battle, which are now partially suburbanised. The assemblage itself contains approximately 50 musket balls, however the seller has stipulated that the assemblage was recovered in the 1970s and so possibly before the area was developed. The firearm in the mid-16th century was not yet in common use, with the bill, bow and sword still retaining precedence on the battlefield. Therefore the size of the assemblage is of interest, particularly if it does relate to this event, as the only real 16th century comparative in terms of material and scale is the Battle of Pinkie, 1547 (Slack 1984).

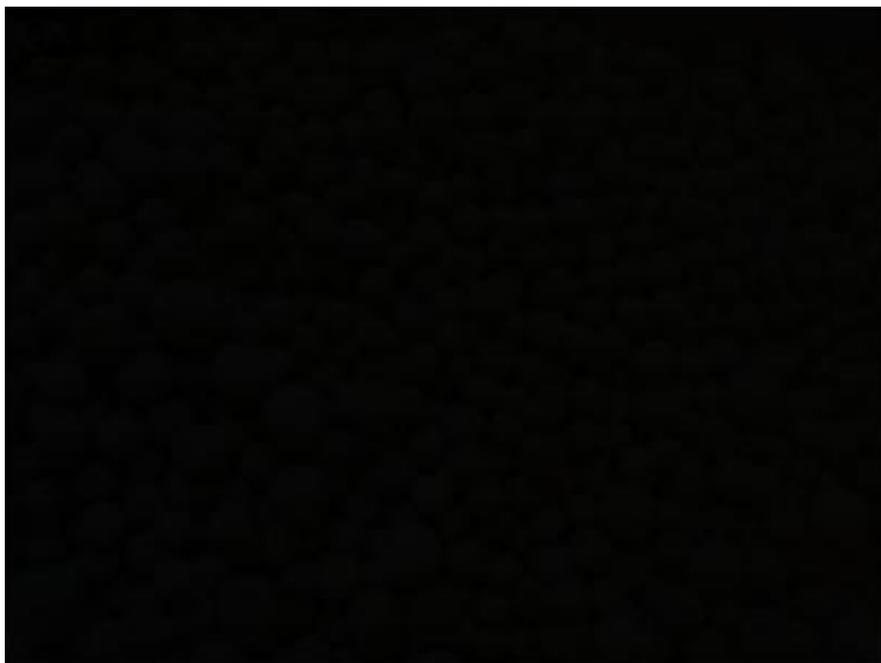


Figure 8: eBay lot selling 800 musket balls said to originate from the Colchester area

5.3.2.1 Sites of Conflict – Siege sites

Overall eight siege sites were highlighted on *eBay*, including two towns; two manor houses and four castles, of particular interest are the sites of Newark (1646), Pontefract (1644), Basing House (1644-45) and Denbigh (1646). Both Newark and Pontefract have appeared regularly on *eBay*, with over 183 musket balls from three sellers identified in association with the sieges of Newark Castle, together with 57 musket balls, also from three sellers, originating from Pontefract Castle and its environs. References to siege sites are primarily associated with upstanding structures such as castles, manor houses, and civil war earthworks, elements of the site are more likely to be protected by scheduling or local authority by-laws if present within suburban areas or parkland. An example of a scheduled siege site includes Basing House, Hampshire, a manor house besieged by Cromwell in 1645. Despite this protection four cannon balls said to have been, ‘extracted from the site’ appeared on *eBay* as four single lots over a period of several months. There is no real evidence to suggest that the cannonballs did originate from the scheduled area, however, the description at least suggests they were found in close proximity to it. The assemblage of thirty musket balls associated with the Siege of Denbigh provides an interesting insight into the nature of *eBay* data and how accurately it is able to reflect metal detecting activity, if at all (Fig. 9). Denbigh was one of a small collection of sites in which the author was able to retrieve feedback from the seller. The feedback made clear that the collection of 30

musket balls sold represented only a fraction of the assemblage actually recovered from Denbigh Castle, as according to the seller he regularly came home after a day of metal detecting with a ‘bucket full of musket balls’ and had simply selected handfuls at random to sell as lots to get rid of them (Anon pers. comm. 2010).

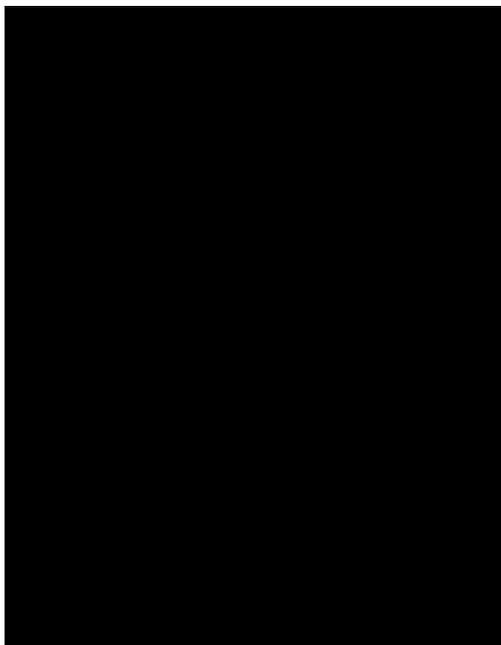


Figure 9: eBay lot selling musket balls on the siege site of Denbigh Castle

5.3.2.2 Skirmish sites

Skirmish sites are difficult to identify within the *eBay* dataset, as archaeologically they tend to be small in size and ephemeral in nature in comparison to battlefields or siege sites. Therefore they are less likely to be well known sites and may either be uncovered by accident, or remain unrecognised. This is especially true if the skirmish is situated on a multi-period site, resulting in any conflict related artefacts simply representing frustrating background noise, a scenario MdCW admitted to when he first began metal detecting at Tywardreath (pers. comm. 2008). The skirmish sites featured within this dataset have been selected due to references made by the seller when describing the lot e.g. ‘Fields in Kent with English Civil War skirmish activity’ (Fig. 10). Six skirmish sites have therefore been identified, with four dating to the WTK; and two dating to the late 17th century, including a skirmish associated with the opening stages of the Battle of Sedgemoor, Somerset. The largest assemblages of musket balls came from a site in Adlington, Cheshire where 15 were recovered from a ‘civil war skirmish in 1643’, and from Gosport where 26 musket

balls were found on the shoreline, where according to the seller both armies of the WTK fired shots at each other from opposing sides of the harbour.

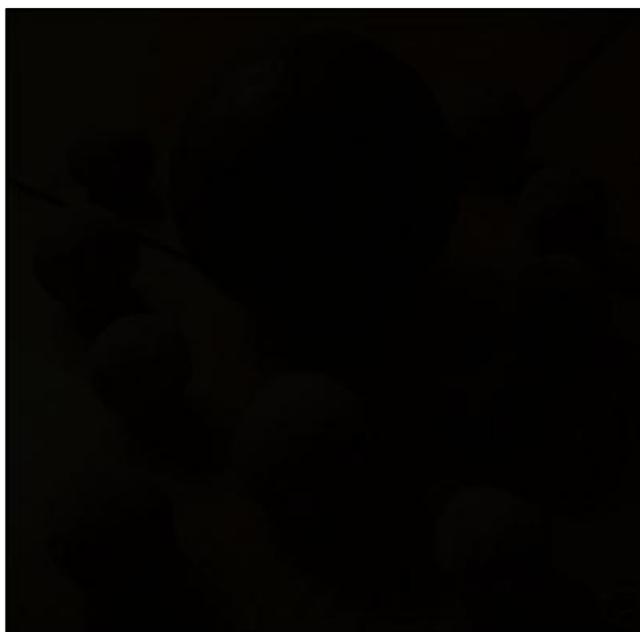


Figure 10: eBay lot of musket balls and a cannon ball described as ‘Fields in Kent with English Civil War activity’

5.3.2.3 *Encampments*

The number of sites related to military encampments was unexpected, as like skirmish sites, they are often difficult to identify if the resulting assemblage of artefacts is not recognised as important by the metal detectorist. A common factor linking the majority of lots identified as encampment sites is the mixed nature of the assemblages featured, as together with musket balls the assemblages often include buckles, buttons, coins and clay pipes. Seven sites have been highlighted with four dating to the WTK and three to the Napoleonic era. A site of the civil war period situated somewhere between Preston and Lancaster is of interest as the seller has noted it is, ‘believed to be where Cromwell’s troops encamped overnight on their march to Lancaster’ (Fig. 11). The nature of the encampments discovery is unknown, however, the description suggests the seller has to some extent researched the site and may have more related material in his private collection. Of the Napoleonic sites, Romney Marsh is perhaps the best known as an extensive encampment situated on flat land on the Kent coast. Here musket balls, military buttons and Georgian coins have been recovered and produced as lots by two sellers. Another site is situated on the outskirts of Godmanchester, Cambridgeshire where a large

assemblage of rifle bullets and military buttons, representing a variety of military units including Militia and Volunteers, have been recovered. This site has also been identified by the seller as a practice firing range and may serve a similar function as the site at Fort George, Highland which acted as a muster site and training ground for regular and non-regular units.



Figure 11: eBay lot of musket balls, buttons, buckles and clay pipes described as a site 'believed to be where Cromwell's troops encamped overnight on their march to Lancaster'

5.3.2.4 Firing ranges

Three sites have been identified as firing ranges, including a site at Pontefract, Kent and the recently referenced site at Godmanchester, which may also be an encampment or muster site (Fig. 11). The site in Kent was described as an, 'old army practice range' and is represented by one lot of 16 musket balls recovered from a local beach. The third site, situated in fields near Pontefract Castle, has been described as a 'possible practice range'. The date of this site is unclear, nor is the origin of the suggestion that it is a 'practice range'. However, considering the site is in close proximity to Pontefract Castle, which was besieged on several occasions throughout the civil war, it is perhaps more likely this assemblage of 10 musket balls are related to that activity.



Figure 12: eBay lot of military buttons recovered from a possible 19th century encampment and firing range near Godmanchester, Cambridgeshire

5.3.2.5 Identifying previously unknown sites of conflict

The ability to identify possible unknown sites of conflict very much relies on information regarding the context of the artefact or assemblage's discovery. Depending on the level of detail provided by the seller this can range from a descriptive note specifying a particular event e.g. '*Civil War skirmish in 1643*', to the name of the county the artefacts may have been found in, e.g. '*Norfolk*'. Although in the case of lots observed on *eBay* the majority of sellers provided no information relating the location of the discovery, or any other kind of descriptive note. Within other, more reliable, data sources such as the PAS database or the HER, if there is a lack of geographic data it can to some degree be assumed, unless otherwise stated, that the artefacts were found from the same site allowing one to focus on the volume and type of material contained within the assemblage. This, however, cannot be assumed from the *eBay* dataset as a number of lots are composed of musket balls originating from a variety of sites. This is demonstrated by the following examples: a lot of 12 musket balls, '*Found from across England and River Thames*'; approximately 50 - 100 musket balls recovered from '*Norfolk and Suffolk*'; and 75 musket balls possibly originating from the Durham area. It is likely in this regard that the seller wishes to reduce their private collection of artefacts, which may have accumulated over many years of metal detecting. Therefore, data relating to the volume of artefacts has the potential to be misleading, particularly when attempting to identify possible new sites. With this in consideration it is necessary to concentrate on lots accompanied by a descriptive note, but in turn do not overtly reference a particular site or site type i.e. skirmish, as these have already been flagged in the relevant tables. Although this data may not provide clear

evidence of a potentially new site, it will certainly serve to highlight possible areas where further investigation may prove productive in recovering evidence of past conflict.

Four entries have been selected from the dataset that have the highest potential of indicating the presence of a previously unknown site of conflict. Two entries originate from the area surrounding Pontefract, a town in Yorkshire that was the focus of intensive activity with Pontefract Castle enduring three sieges throughout the period of civil war until its final surrender in 1649. According to the seller, the first potential assemblage of musket balls was reportedly recovered from fields on the outskirts of Pontefract, however, it is not stated whether these field are connected. It is therefore possible that as a siege town, which saw prolonged conflict over several years, Pontefract holds a higher volume of projectiles compared to other sites of conflict. Furthermore, if the assemblage has been recovered from random fields on the outskirts of the town there is greater likelihood that an assemblage may represent various conflict events rather than one. The same principle may be applied to other large-scale siege sites that experienced extensive and drawn out occupation and conflict, such as Newark, Denbigh and Chichester. The second site situated five miles from Pontefract perhaps offers more potential in terms of the location, as it appears to be isolated from any other larger conflict, yet in an area where one would expect the presence of skirmishing along routes of communication between key strategic towns. The size of the assemblage, at 35 musket balls, is also large enough to draw attention as a potential site of conflict. The same may be inferred of the assemblage of 25 musket balls and a bandolier cap recovered from 'farmland in Kent'. Although the seller's description may suggest that this collection of projectiles was found randomly across Kent, there is a possibility that it may represent one site. This is due to the fact that the same seller identified a substantial assemblage of material as belonging to an 18th encampment in Kent, and therefore he may adopt a more targeted approach to metal detecting sites. The fourth potential site featured consistently on *eBay* with more than 21 lots containing approximately 15 cannonballs and over 70 musket balls. This is a deliberately conservative figure, as it was clear that over time some lots were being resold on various occasions. The unusually large number of cannonballs was a significant factor in highlighting the entry. However, the seller has provided no description or information relating to the location of the site. It was therefore decided to attempt to contact the seller through *eBay*, the process of which is explained in Chapter Three - Methodology. In a brief email the seller replied that all the artefacts had been found in one field, 'which was used for shooting practise by Parliamentary forces during the Civil War' (Anon, April 2007).

5.4 Historic Environment Record

Twenty-three sites are featured within the HER in England and Wales, with ten relating to metal detecting as part of an archaeological project or developer led evaluation on a site of conflict, and thirteen relating to the activities of hobbyist metal detectorists; this section will focus on the latter.

Of the ten sites investigated as part of an archaeological survey, all but one are known sites of conflict dating to the WTK, including three battlefields, three siege sites and three skirmish sites, as discussed in the next section. Of the 12 sites associated with the activities of hobbyist metal detectorists only one is identified as a known site of conflict; a civil war skirmish site at Waddington, Lincolnshire (HER 63302) where a Royalist cavalry squadron was taken by surprise by three units of Parliamentarian cavalry in 1644. Two sites, at Quarrendon, Buckinghamshire and Tywardreath, Cornwall are situated within close proximity to civil war battlefields and may either represent peripheral activity associated with the battle, such as skirmishing and routing, or more significantly, provide valuable information relating to the location and extent of the battlefield. Similar to the extensive assemblage of material recovered from Tywardreath (see case study Chapter Five), the site at Quarrendon, is characterised by a ‘considerable quantity of lead shot’ found within the vicinity of civil war earthworks close to the battlefield of Aylesbury, 1642. The metal detectorist responsible for recovering this assemblage also assisted in a metal detector survey which formed part of a developer led evaluation, directed by Wessex Archaeology in 2007. The metal detecting survey covered an area of ground called Weedon Hill, which is situated in close proximity to the civil war earthworks of Quarrendon, and recovered approximately 25 lead projectiles (Wessex Archaeology 2007).

The remaining nine sites featured within the HER appear to potentially represent previously unknown sites of conflict. These sites are characterised by significant concentrations of lead projectiles, together with other signature artefacts, such as powder box caps, and 17th century coins, buckles and buttons. Many of the sites listed provide a limited description of what has been recovered. For example, the entry for Childerditch Wood records that ‘musket balls’ had been uncovered through metal detecting in the woods, but gives no detail to the nature of the discovery, or the quantity or distribution of this assemblage. There are, however, several interesting entries which may indicate

potentially significant sites. These include a possible skirmish site at Quidenham, Norfolk where ‘large quantities of lead musket balls’ were recovered from former parkland, and over 80 musket balls and pistol balls, together with other 16th - 17th century material, found whilst metal detecting north-east of Syston Village, Lincolnshire. At Inswork Point, Cornwall musket balls and cannon balls, a comparatively rare find, were recovered from farmland between Inswork Point and Sango. Interestingly, according to the landowner, such artefacts are a common find in this area. As well as battlefields and skirmish sites, other site types are represented in the HER, including a possible encampment and 18th – 19th century firing range. Little detail is provided about the possible 17th century encampment at Ercall Hall, Shropshire, however the assemblage of musket balls and quantities of lead smelting debris are suggestive of a camp activity. The next site, intriguingly associated with the placename Deadman’s Corner, has been identified in the HER as a potential Napoleonic firing range situated near the town of Yoxford, Suffolk.

5.5 Archaeological Projects and evaluations involving metal detector survey on sites of conflict

Data for this section has been retrieved from a number of sources, including the HER and OASIS data from the ADS online resource, academic books and journals, conference papers, excavation reports, internet searches e.g. Battlefields Trust website, and finally from contacts within the academic and metal detecting communities. Thirty-three projects and evaluations, covering both research and commercial interests, have been identified on twenty-seven sites, the majority of which take place on ‘previously known’ sites of conflict, such as battlefield and siege sites. They also range in date from the medieval period e.g. the Viking Battle of Fulford, 1066 (Jones 2011) to the early modern period and the Battle of Sedgemoor, 1685 (Pollard and Oliver 2004; Place 2009). Perhaps an exception to this are the only ‘previously unknown’ sites included in this section, these being a possible 17th century skirmish site at Blandford, Dorset, which is also the site of a 18th – 19th century encampment, together with a small assemblage of musket balls at Welford Park which may be a result of skirmish activity associated with the 2nd Battle of Newbury. The Blandford site, certainly the more interesting of the two, is currently under investigation by Dominic Cooper from the University of Southampton. It is interesting to also note that this investigation was initiated due to the discovery of a 17th century assemblage of signature artefacts, including lead projectiles, within the local museum

which had been found and donated by a group of metal detectorists working in the area (Plate 8). Cooper catalogued this material and began a programme of geophysics and metal detecting survey on the site (Cooper pers. comm 2010).



Plate 8: Assemblage of pistol balls recovered by metal detectorists near Blandford, Dorset. Image reproduced by permission of Dominic Cooper

Of the twenty-seven sites featured, nine have been investigated through developer-led evaluation; thirteen through research projects and five have been investigated by both developer-led and research projects, or in some cases by developer-led evaluations which has a research outcome i.e. results published within an academic forum. Considering the developer-led evaluations first, eight of the battlefields investigated are listed within the English Heritage Battlefield Register, including Marston Moor, Newbury and Sedgemoor (English Heritage 1995); therefore demonstrating the importance of the register within the planning process. Three sites are associated with scheduled ancient monuments, including Sandal Castle, Farnham Castle, and the civil war earthworks at Aylesbury. With regards to the latter site it appears that the metal detectorist involved in works at Quarrendon, referenced in the previous section, has been assisting investigating archaeologists in their metal detector surveys. No relevant battlefield artefacts, however, were recovered during metal detector survey of the battlefields of Adwalton Moor, Braddock Down (Cole 1999) and Gainsborough; leading Pre-Construct Archaeology to conclude that the Battle of Gainsborough took place elsewhere (Allen 2002, 6).

Of the research projects listed, several have been integral to the development of conflict archaeology and the practice of investigating battlefields in the UK. Furthermore, projects such as the investigations on the battlefield of Towton (Sutherland and Schmidt 2003) and sites associated with the *Two Men and a Trench* series were at the forefront of developing links with metal detectorists in the UK and integrating them within the archaeological process. The Battle of Naseby has also been subject to two important research projects involving metal detectorists: from Foard's (1995) re-assessment of an extensive distribution of battle related artefacts recovered by Peter Young in the 1970s and featured in his history of the battlefield (Young 1985), to the Naseby Battlefield Project supported by the Battlefields Trust and directed by Mark Marix-Evans.⁷¹ The latter project is typical of a number of research initiatives that have appeared since 2000, which are primarily community driven and often assisted by the Battlefields Trust such as battlefields of Edgehill, Stow-on-Wold, Cheriton and several investigations at Flodden⁷² (Pollard & Oliver 2002; Burgess 2012). The prevalence of such community projects demonstrates a growing awareness of the importance of battlefield heritage and the role it may play in shaping the historical identity of a local community. Of interest to this research are community battlefield projects that have been initiated due to the activities of local metal detectorists. Examples include an investigation by Devizes Heritage Group of the Battle of Roundway Down, the catalyst of which was a significant assemblage of musket balls uncovered by a local metal detectorist in the 1970s. Another important example, also the subject of a case study within this research, is the Tywardreath Battlefield Project, which now enjoys significant local community backing and includes an annual re-enactment, together with plans to house battle artefacts in a small village museum.

In terms of methodology engaged, eight evaluations have used metal detector survey in conjunction with other investigative techniques, including excavation, geophysics, test-pitting and watching brief. However, as many as seven evaluations appear to have used metal detector survey as a primary means of investigation. This may reflect a growing acceptance within mainstream archaeology of metal detectors as an effective tool for investigation, certainly in Scotland there has been an increase in the stipulation of MD survey in briefs provided by local authorities – a direct result of recent heritage policy, SHEP. On the other hand, in reality it may simply reflect commercial units adopting a

⁷¹ Naseby Battlefield Project: www.naseby.com

⁷² Flodden 1513 project: www.flodden.net

methodology, in this case metal detector survey, which, because it has a close association with battlefield archaeology, appears to be appropriate. This is often done, however, without a full understanding of how to conduct it effectively in the field.

5.6 Alternative sources

5.6.1 *Metal detecting forums*

Contact with the wider metal detecting community, other than those who had participated in archaeological projects and community projects, was initially made through the UKDN metal detecting forum. A brief statement outlining the research and what it aimed to achieve were posted on the forum, together with an invitation for interested parties to respond. The author made all attempts to ensure that her research aims and identity as an archaeology student working within the Centre for Battlefield Archaeology were transparent and traceable i.e. links to the author's research profile on the Centre's website. It was also made clear that any information provided would be kept confidential and in line with the University's Research Ethics Framework. Forum members were asked to assist with this research by providing any information they may have in relation to their experiences of coming into contact with battle-related artefacts, ranging from chance discovery to active searching for battlefield material. Questions included: have you ever come across scatters of musket balls and other related material (a list of signature artefacts was provided) when metal detecting? Have you ever actively searched for battle related material on a site of conflict, and if so, what did you hope to find? The questioning deliberately avoided a questionnaire like structure in attempt to encourage more forum members to respond, particularly those who may find such enquires intimidating or intrusive. The latter was an important factor, as it was felt that within this particular community more open questioning would allow forum members to bring forth information to a level they felt comfortable with and therefore encourage a level of trust.

Unfortunately this initial attempt to engage with the forum was unsuccessful as several members questioned the validity of the suggestion that distributions of lead projectiles may be significant, as in their view musket balls were a common find with little value. It is the author's opinion that certain elements of her identity as an archaeologist, young and female, may have played a role in negative reception of this initial

communication. This is explored to some level in Chapter Three. The discussion was discontinued by the administrator as some content was viewed to be both unhelpful and verging on offensive; it has since been deleted from the forum archive. The decision was taken not to continue contributing to this particular discussion until another strategy could be formulated. Instead, the research profile remained on the forum, together with the author's contact details for any member to comment out with the forum if they had any information to impart. This approach worked well and over time communication with the author increased resulting in two previously unknown sites being identified: a possible skirmish site in Testwood, Southamptonshire and an encampment/skirmish site in Buckinghamshire (Fig. 13).

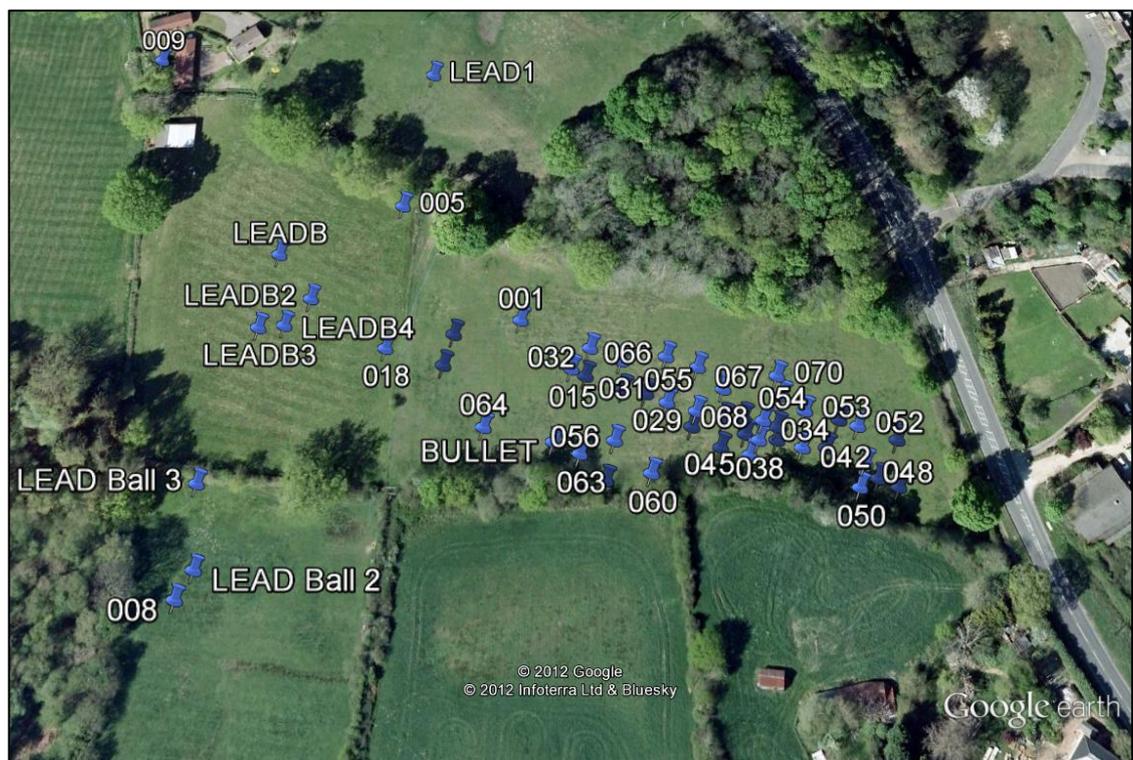


Figure 13: Scatter of musket balls recorded at Testwood, Southamptonshire by a local metal detectorist using a hand-held GPS device. Distribution map created by finder using Google earth.

The site in Testwood consists of approximately 60 musket and pistol balls all of which have been recorded by a hand-held GPS unit and the data inputted into Google earth. The artefact distribution shows a relatively close concentration across three fields bound by thick hedges, with the majority of the projectiles found in one large rectangular field. Unfortunately, the finder has not been able to locate the assemblage or any associated images so it is not possible to date this site, although it is likely to relate to ECW skirmish activity. The second site in Buckinghamshire is extensive and has been intensively metal detected by a local metal detectorist. Whilst there appears to be no

written historical record of this site, there is a local tradition of the presence of an encampment during the WTK, which initially attracted the metal detectorist to this area. Although the character of this assemblage does suggest the potential of an encampment, the large volume of projectiles which also form part of the assemblage is unusual for this type of site, being more characteristic of skirmish activity (Plate 9). Our ability to interpret the site, however, is limited as the finder stopped recording the projectiles as this would have in his opinion taken up too much time. We must therefore rely on the material present and if any distribution patterns can be deciphered from his rough descriptions of where he found the projectiles. One interesting detail which supports the potential of major skirmish activity or cavalry attack was his description of finding close concentrations of pistol balls in one field. The finder had made the link between pistol balls and cavalry, but as he was focused on finding material related to an encampment he had interpreted this scatter as representing a horse paddock rather than any kind of skirmish activity. This presents a good example of the need for a basic understanding of archaeological principles to identify and interpret sites.



Plate 9: Assemblage of artefacts found at the site of a possible WTK encampment in Buckinghamshire, including musket balls, buttons and a toy pistol. Image reproduced by permission of the finder.

The above represent the only sites from which information could be gathered in any detail, however the forum did produce a wealth of other information, not only relating to the level of detecting activity on sites of conflict but also how these sites and their

associated material are regarded and valued. For example four battlefields were referred to within the forum, including a member's account of their experiences during the Crewe and Nantwich Rally which took place in 2008 and included an area of the English Civil War battlefield of Nantwich. The forum member goes on to write, 'I had a musket ball for my troubles, and unusually the FLO was taking pics of these on account of it being a battle site' (UKDN forum August 2008). The other three battlefields are not named within the forum but are interesting posts as they reflect a varying opinion towards metal detecting on battlefield sites. The first from March 2008 has high expectations of what he may find stating that, 'someone may have buried all their dosh when the fighting kicked off'. The second post from November 2011 suggests that his two new fields, which contain an English Civil War battlefield, will be a, 'jolly healthy prospect'. The third post from December 2008, demonstrates an awareness of the English Heritage Register for Battlefields, possibly generated by discussions within the forum. Here he asks whether metal detecting is 'banned' on registered battlefields as it is with scheduled ancient monuments. Although the tone post may be interpreted as negative, perhaps by the use of the word 'banned', his decision to seek advice is a positive step that should be encouraged further.

Discussion topics often reflected the current attitudes of members towards sites of conflict and their associated material culture. Topics relating to identifying battle-related artefacts and battlefield archaeology in general began to gradually increase since 2008, including titles such as, '*Finds from Musket Ball field*', '*Biting the bullet...literally*', '*Musket balls, bullets, shells, etc*', '*Cannonball?*, and '*Musket balls?*'. The author regarded such posts as an opportunity to build awareness of the importance of battlefield archaeology by offering advice and identifying finds, as well as promoting her research. Such advice was taken well, but there was very little return on the level of information provided by the forum with few wishing to comment on any potential scatters they had come across or battlefields they had metal detected. One comment, although jovial in nature and perhaps forgetting that the author had access to the forum, suggested that information was readily being withheld, stating that, 'I think Natasha may have a shock if she knew just how many musket shot we have all probably unearthed between us over the years!!!' (UKDN Forum July 2008). This was joined by other less than encouraging topic posts including, '*I need your musket balls for my charity update*', a request for members to send 'any spare musket balls' for a 'guess how many in the jar' competition at a local event (UKDN Forum Feb 2009), and the use of the phrase 'detecting debris' to describe musket and pistol balls (UKDN Forum July 2009).

Despite this, the attitude towards such material has become increasingly positive, even if information was not forthcoming. Much of this is due to the encouragement of several forum members, in particular Peter Twinn, site administrator, and archaeologist Peter McCrone, who have been very active in promoting good recording practice in general. Both advised several metal detectorists to contact the author regarding the finds they had made, the most significant of which resulted in the identification of an extensive English Civil War landscape of conflict at Tywardreath, Cornwall. As will be demonstrated in the next section the site at Tywardreath also proved to be a very useful case study; a real world example which successfully highlighted the potential presence of previously unknown sites of conflict and illustrated what could be achieved if lead projectile distributions are accurately recorded. The Tywardreath site is referenced on several occasions by both the author and the forum members mentioned above. In particular are two informative posts entitled, '*Battlefield Archaeology, Muskets & Balls*' (UKDN Forum Sept. 2011) and '*Protection for Battlefields*' (UKDN March 2011), provide a link to *The Searcher* magazine article about the site written by the author (discussed in the next section), together with links to sites such as the Battlefields Trust.

Lead projectiles as finds appear regularly in discussions, with small numbers of musket balls, or 'mussies', presented as part of a typical assemblage. Not all posts containing references to musket balls are relevant and including them all within the dataset would be futile. However, fourteen posts, excluding Tywardreath, have been identified as significant, containing meaningful data relating activity on sites of conflict and the potential discovery of previously unknown sites. The posts also provide some indication of the volume of conflict related material recovered, the majority of which represents unrecorded removal. Details regarding site location are rarely mentioned within the forum, primarily to protect the site from unwanted visitors and as a courtesy to the landowner, therefore such information was provided at the discretion of the finder. In the absence of more accurate site location details and to ensure the integrity, as well as the essence, of the information provided by the forum members, the data has been presented as quotations from the forum post. Protecting the anonymity of each forum member is essential, therefore only the date of posting, and not the individual's username (which already serves an anonymity function within the forum), or discussion title, have been provided as a reference. For analysis the posts have been divided into three categories which generally represent the data provided. They are: 'activity on site of conflict' (ASoC); potentially unknown site of conflict' (PUSoC); and 'volume of battle related artefacts recovered'.

The ability to assess the level of activity on sites of conflict and the volume of battle related material removed from such sites is limited due to the conjectured nature of information provided within forum posts. It is not possible, for example, to establish quantifiable data in relation to volume of material from statements such as, ‘probably have 100 musket balls’. The value in this information is, however, in gaining an understanding of the nature of activity on sites of conflict and how metal detectorists engage and interact with conflict related sites and artefacts, from the personal perspective of the finder. For example, the main focus within the majority of posts appears to be artefact based rather than site based, with an emphasis on the volume of material recovered from any given place. This may be reflected as both a positive and negative experience, with one member describing a field ‘littered’ with musket balls being a ‘musket ball collectors dream’ (Feb 2011). In another post a finder expresses his frustration with a site he has metal detected for many years because it was producing, ‘1000s of mussie balls and I do mean thousands’, and that he was now, ‘cheesed off with them’ (UKDN Forum Sep 2011). There is some recognition in this post that concentrations of artefacts such as musket balls may indicate a potential site, with the finder suggesting the site may have been a civil war skirmish; yet this often remains secondary to the notion of collecting artefacts. An interesting example of this is a post from January 2012 in which the finder reports to have metal detected, ‘on a campsite of the Royalist army’ with approximately 400 – 500 lead projectiles and other artefacts recovered. When asked by the author for more information about the site and if recording was taking place the finder responded by saying that he had initially begun to record find-spots at the request of his FLO because he had found more than 50 lead projectiles. However, according to the finder a mutual decision was taken to cease recording individual find-spots due to, ‘the number of musket balls coming off’ (UKDN Forum February 2012). It is clear from the volume of projectiles recovered and descriptions provided by the finder of pistol ball concentrations that this site is composed of complex artefact distributions, possibly resulting from multi-phase activity i.e. several phases of encampment, enemy raids, skirmishes, etc. But, without accurate recording it will not be possible to engage any further with an interpretation of the site, except to say that it was potentially significant particularly as so few 17th century encampments have been archaeologically recorded.

5.6.2 Media

The beneficial effect of a ‘gate keeper’ to engage with the metal detecting community in the form of MdCW and the Tywardreath site was again used to optimum effect with an

articles in the magazine *The Searcher* in 2009 and another by the author in 2010 (Ferguson 2010). The first article was written by metal detectorist MdCW who gave an account of his experiences of metal detecting in Tywardreath and his discovery of a previously unknown skirmish site. The author followed up this article in a subsequent issue with a historical summary of the history of the site, together with an overview of the archaeology and its significance to our understanding of 17th century warfare. The overriding theme of the article was to present a real world example of good practice and what can be achieved, whilst underlining the importance of recording archaeological objects. If the article failed to generate much response it had the potential to raise awareness of such sites and the need to record them accurately. In total three people contacted the author as a result of the article with information regarding potential sites of conflict and metal detecting activity on battlefields. They include: activity at Castle Dore and the Battle of Stratton & Bude; a possible firing range at West Park, Hampshire; and a skirmish site at Shadingfield, Suffolk.

The first contact referred specifically to the site at Castle Dore stating that he had ‘found this site 20 years ago’ and that he had reported his finds to the Truro museum and the British Museum, but according to the contact they showed little interest in his ‘discovery’. To prove his claim he sent the author a map of Lostwithiel and the surrounding area including Castle Dore, however, it was clear from the map that the contact was referring to the battlefield of Lostwithiel on the Castle Dore ridge and not the site at Tywardreath. This contact had recovered approximately 50 lead projectiles from the site and an area close to Fowey. Unfortunately he had not recorded the positions of any of the artefacts recovered and had not photographed or retained the assemblage. It is also unclear what type of material he was looking for on the battlefield as in an accompanying letter with the map he wrote ‘all I found were musket balls’. He has also claimed to have metal detected on the battlefields of Stratton & Bude, Wiltshire and the Killiecrankie (1689), Perth and Kinross although it is not able to remember what he had found on these sites. The second possible site is located within a private estate called West Park, Hampshire and was discovered by the gamekeeper who had been metal detecting in the area. The potential significance of the site was recognised by the finder’s brother who contacted the author. His brother had noted two distinctive features from the recovered assemblage: each of the 34 musket balls consistently measured approximately 15.9mm in diameter; and the distribution of the projectiles followed a distinctive pattern with all being found at the base of a low hill in a strip measuring approximately 30m. From this information he interpreted the site as a possible firing range most likely dating to the late

18th century to train the newly established Volunteer Regiments raised during the threat of French Invasion.

The final site was discovered by metal detectorist whilst exploring fields close to the village Church of Shadingfield, Suffolk. The village is closely associated with the WTK, with two of Cromwell's men said to be buried in the churchyard and the Church itself said to have been damaged by cannon fire as highlighted by patches of redbrick repair on the bell tower. Whilst metal detecting he noticed that the field north of the church was 'littered with musket balls and items I believe to be powder flasks' (Anon pers.comm. 2009), he had also recovered a fragment of trigger guard and a rowel spur (Plate 10). Due to the potential significance of the site the author advised this individual on recording practices and recommended he report his finds to the PAS. He took this advice on board stating in a later email, 'I will invest in a GPS and record and store my finds better after harvest next year. I didn't realise it might be significant when I started finding all the musket balls!' Although enthusiastic to record his finds, he was reluctant to report them to the PAS due to the distance he would have to travel to visit his FLO based in Bury St Edmonds. The author suggested sending images to the FLO of the assemblage but it is not clear whether this advice has been acted on.



Plate 10: Selection of objects found in a field near Shadingfield, Suffolk by a local metal detectorist providing evidence of a possible skirmish as suggested by local history. The assemblage includes musket balls (top left), powder-box caps (top right) and fragment of trigger guard (bottom). Images reproduced by permission of the finder.

5.6.3 Associate contacts

Several sites have been brought to the attention of the author through various contacts made during the course of this research and through the author's professional relations. They include: four previously unknown sites discovered by a South Gloucestershire based metal detectorist and a possible skirmish activity related to the failed Dutch Invasion at Languard Fort (1667), Suffolk.

The South Gloucestershire based metal detectorist has been a strong advocator of responsible metal detecting and has worked hard to build good relations with the PAS and archaeologists in general. He has a keen interest in archaeology and has recently completed

and undergraduate degree at the University of Bristol, together with experience as an excavator on various archaeological projects. Contact with this individual was first made via Dr Suzie Thomas who had interviewed him as part of her own doctoral research. He provided details of four potential sites of conflict in South Gloucestershire: a scatter of 20 musket balls at Clifton Downs near Bristol; a possible firing range at Yewtree Farm, Thornbury where 25-30 musket balls were found in close proximity to a natural bank; a scatter of 20-25 pistol shot spread across a field at Lodge Farm, Cowhill; and approximately 50 musket and pistol balls, together with other signature artefacts, believed to be associated with a Civil War skirmish fought on the 23 September 1645 close to the town of Berkeley. He identifies the first three sites as ‘firing ranges’: whilst this may be a suitable interpretation for the site at Yewtree Farm with the natural bank matching the topographical characteristics of firing ranges, it is likely the other two sites represent skirmish activity, and in the case of Lodge Farm cavalry activity as suggested by the high volume of pistol balls.

The metal detectorist based in Suffolk contacted MdCW through the UKDN forum to ask his advice about finding battle-related material; MdCW subsequently put him in touch with the author. This individual had recently recovered two cannon balls, several musket balls and 17th century artefacts from fields in close proximity to Landguard Fort near Felixstowe, Suffolk (Plate 11). He had bagged each artefact individually and noted on the bag the date and a grid reference, although he did not initially do this with musket balls until advised to do so by the author. The majority of his finds were reported to the PAS, again with the exception of the musket balls, however these are now being considered as an important part of the assemblage. The 17th century elements of the assemblage, including the cannon balls and projectiles, suggests this site may have been a result of skirmish activity linked to the infamous Dutch Invasion of 1667 which saw nearly 1600 Dutch soldiers land on the Suffolk coast in an attempt to take Landguard Fort. The Dutch were eventually repelled by the garrison within the fort, together with the Suffolk Militia and the support from the Navy. He is keen to carry on researching the site and aims to set up a project, an initiative which has gained the support of the local museum and archaeological society. The author is providing advice on project designs and methodological approaches to ensure the project is both successful and carried out to a high standard.



Plate 11: Assemblage of material found in fields close to Landguard Fort, Suffolk some of which may relate to the Dutch Invasion of 1666. Includes musket balls, cannonball and other 17th-18th century military material such as military buttons. Image reproduced by permission of the finder.

5.7 Conclusion

In comparison to the dataset originating from Scotland the level of hobbyist metal detecting activity on known sites of conflict, together with the potential volume of previously unknown sites of conflict discovered through this activity, is significantly higher. In terms of known sites of conflict metal detecting activity has been observed on approximately 21 battlefields, 11 siege sites and 10 skirmish sites. With regards to unknown sites of conflict, including skirmish sites, firing ranges and encampments, approximately 39 sites have been identified within the dataset. This high volume of battle-related material is particularly marked in datasets such as *eBay*, where approximately 159

entries referring to a site of conflict were recorded compared to only 4 entries observed from Scotland. Whilst differences in Treasure Trove laws may impact on these figures, it is important to note that the lower population of metal detectorists, as well as the nature of the archaeological record in Scotland, will also have a strong influence. These factors must be taken into account when attempting to analyse the level of metal detecting activity across the United Kingdom.

The PAS and HER databases have represented valuable sources of data to track metal detecting activity on known sites of conflict, as well as the potential identification of previously unknown sites of conflict through references to assemblages of battle-related material. Although the presence of this dataset suggests that battle-related material is being recorded and reported in England and Wales, when compared to the volume of data on eBay or the number of sites referenced on the UKDN forum, the level of unrecorded and unreported material remains significantly high. However, this must also be weighed against the number of community-led archaeology projects to promote battlefield landscapes in England and Wales, many of which have been initiated through the activities of local metal detectorists. Further analysis of this dataset and the Scotland dataset (Chapter Four) will be presented in Chapter Nine, together with a more detailed discussion of the results.

Chapter Six

Case study one: ‘They beat them from hedge to hedge’ – a previously unknown English Civil War skirmish in Tywardreath, Cornwall

6.1 Introduction

In July of 2008 the author was contacted by a metal detectorist based in Cornwall, referred to in this research as Metal Detectorist Cornwall (MdCW), with information regarding an assemblage of artefacts he had recovered in fields surrounding the village of Tywardreath, Cornwall (Fig. 14). The significance of the assemblage quickly became apparent, as at the time of writing it included over 2000 artefacts, the vast majority of which were clear signatures of mid-17th century warfare including musket balls, cannon balls, bandolier caps and contemporary buckles and buttons. Crucially, MdCW had from an early stage individually recorded and bagged each artefact using a GPS. In addition he inputted the coordinates into a Google Earth programme to create a distribution map which shows the wide spread of material across several fields. As each artefact was individually bagged and numbered it is possible to cross reference the location data with the material, a link which unfortunately is rarely made by many metal detectorists. Over the last three years MdCW has continued to investigate the area, recently extending his search to fields surrounding the English Civil War battlefield at Castle Dore (Battle of Lostwithiel, 1644) with the assistance of a carefully selected team of other metal detectorists from Cornwall. MdCW’s work, which he has named the Tywardreath Battlefield Project (TBP), has attracted interest from other parties including the Cornwall Archaeological Society (CAS) and has received much local support. This case study will therefore provide an overview of the TBP, a summary evaluation of the assemblage collected near Tywardreath and its contribution to our knowledge of English Civil War archaeology. It will also include a profile of MdCW to provide some background of his own experiences with metal detecting, as well as his motivations to engage with the hobby. It will also aim to provide some context to his mixed, often turbulent, relationship with both the archaeological and metal detecting communities.

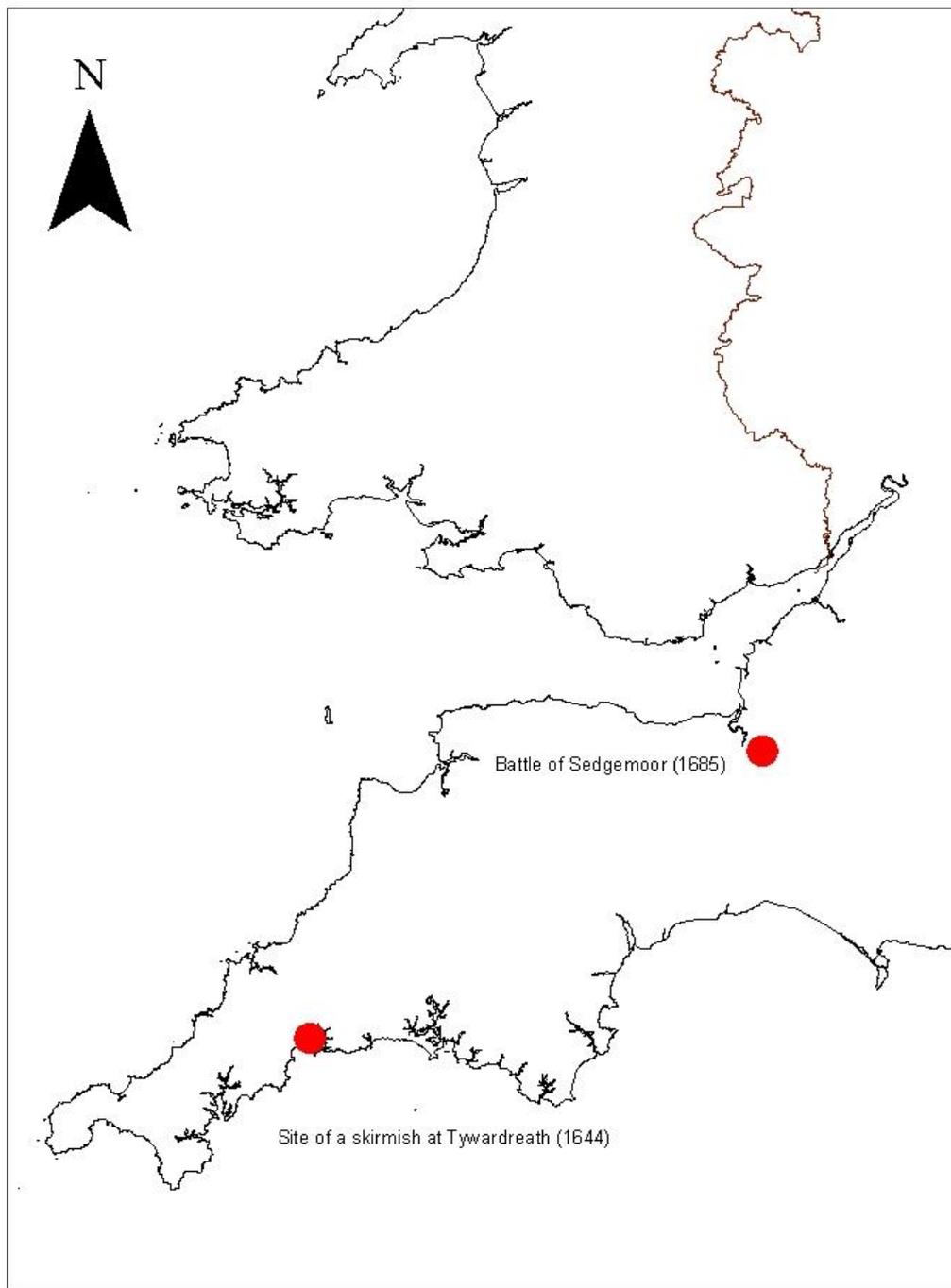


Figure 14: Location map of site - Tywardreath, Cornwall

6.2 Metal detectorist background

Initial contact was made with Mdcw through the metal detecting forum UKDetectorNet after he posted images of artefacts he had recently recovered, accompanied by a distribution map of plotted finds from the site. Mdcw was requesting identification of the material, the majority of which were musket balls and bandolier caps, and comments on site interpretation. He was advised by a member of the forum, archaeologist Peter McCrone who was aware of this research, to contact the author for identification of the artefacts and assistance with interpretation. Over the following weeks and months this contact was of a positive nature; Mdcw engaged in correspondence and sent regular updates of distribution maps and images of recent finds, thus demonstrating a willingness to contribute to the research.

Mdcw has claimed his primary motivation for metal detecting was not the finding of individual artefacts, but an interest in what those artefacts can say about the history of his local area. Although he will occasionally detect in other areas of Cornwall, he prefers to concentrate on one area at a time. This awareness of the importance of the archaeological record and his ability to methodically investigate a selected area of the landscape must in part be due to his previous experience within the subject of archaeology. He attended adult learning courses in archaeology and history at the University of Bath in the 1970s, and assisted archaeologists at the University by carrying out metal detector sweeps prior to excavations of Roman sites situated outside Bath. Mdcw claims proudly to be one of the first metal detecting hobbyists in the UK, developing an interest in the activity in the early 1960s after a short period in the army. Mdcw's first contact with a metal detector was as a soldier based in Germany in the 1960s. During a period of recovery after breaking his leg, he was given a metal detector to pass the time and used it to find coins and scrap metal around the base. After leaving the army, Mdcw found a similar model in an ex-army supply shop and continued his interest by detecting near his home.

Mdcw appreciated the time and interest invested by the author, which included sending written material regarding archaeology, artefact identification, two site visits, and a talk to the local community in June 2010. However, despite the development of a positive working relationship, communication with Mdcw was by no means straightforward. As the relationship progressed it became evident that Mdcw has had mixed relations with the archaeological community, leading to a general lack of trust and

respect for many archaeological institutions and individuals. In some rare cases this sense of suspicion was directed at the author, much of which was due to the author's professional associations with particular archaeologists Mdcw mistrusted. This however, is based on negative personal experiences rather than following a set view point of a collective experience shared by a large number of those who engage in metal detecting.

The latter is an important point, as Mdcw is critical of the metal detecting community and those who he feels are damaging the archaeological record by not recording their finds. In keeping with his independent outlook, Mdcw is not a member of a metal detecting club. He is, however, an active voice in the metal detecting community, on forums and within metal detecting magazines, using his direct style of communication to offer an interesting, if controversial, view of the relationship between metal detectorists and archaeologists. His approach towards certain members of the archaeological and metal detecting communities, which at times may be described as antagonistic, particularly in relation to the site at Tywardreath, has resulted in some friction which will be discussed in a later section.

6.3 The site, its discovery and current work

Mdcw began detecting in farmland towards the southern fringes of Tywardreath after receiving permission in late 2006 and 2007 from the local landowner (Fig. 15) (Plate 12). Although Mdcw is keen to stress that he is interested in all aspects of Tywardreath's history, including prehistory, an initial attraction to metal detect in this area was its close proximity to St Mdcw Priory, an medieval pilgrimage site dating to the 12th century. After walking the fields prior to metal detecting, as will be described in an outline of his methodology, and finding a good spread of material, Mdcw was confident that this area would produce some interesting finds. He was however disappointed to find 10 musket balls on his first day of detecting, considering them to be a 'nuisance' find. After a period of three weeks Mdcw had found approximately 60 musket balls and two powder caps amongst an assemblage of medieval finds relating to the Priory and pilgrimage, including a rare Bishop's seal subsequently donated to the Royal Cornwall Museum (Mdcw 2009, 20).

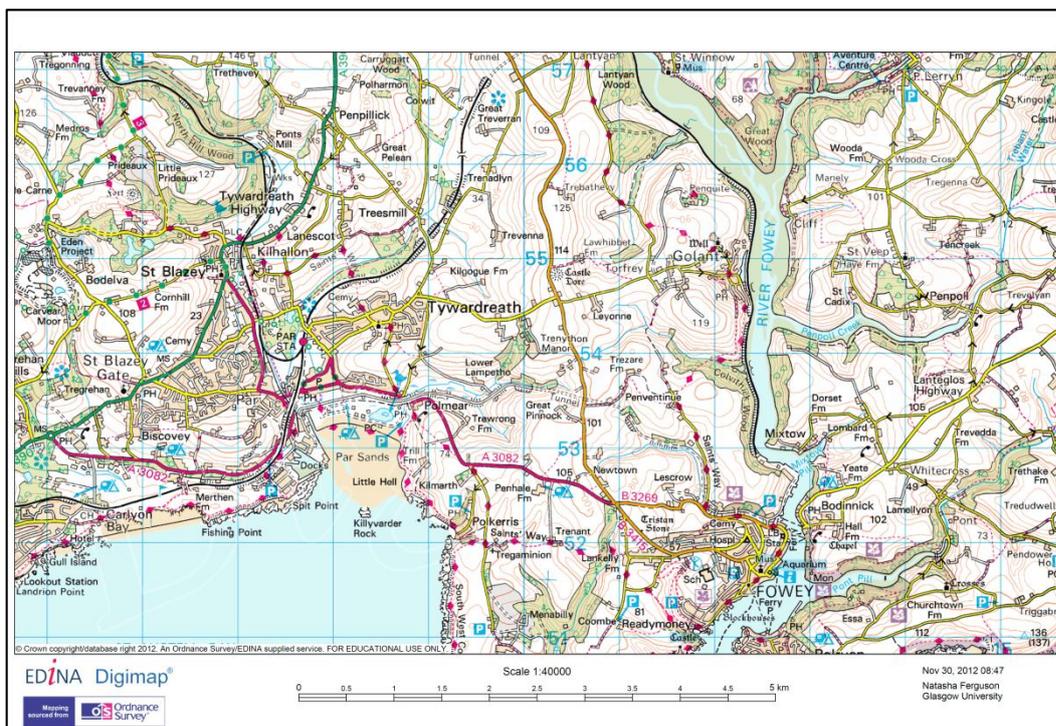


Figure 15: Map of the Tywardreath area. Note Castle Dore at the centre of the map and the road running north-south. Reproduced by permission of the Ordnance Survey.

The finding of 60 musket balls marked an important turning point in the future of the site, as until this point MdcW had not recorded their findspots, being unaware of their significance. Potentially, MdcW could have continued to metal detect without recording the musket balls or other related material, concentrating instead on artefacts portraying a more recognisable representation of Tywardreath's past. This would have resulted in hundreds of musket balls destined for scrap or handed out to landowners, their context lost and with it a substantial archaeological site. Fortunately, MdcW had the foresight to realise that this was an unusual concentration of artefacts. His quick action resulted in only a small impact on the site as a whole. MdcW then began to contact the relevant authorities to report his findings and to seek advice on how to continue, including his regional FLO and Local Authority Archaeologist (LAA) This was however to be a disappointing experience for MdcW, which will be outlined in a subsequent section.



Plate 12: View looking south-west towards Tywardreath and St Austell Bay. Large volume of lead projectiles recovered in this area. Image taken by the author.

6.3.1 Methodology

The fields MdCW has been investigating are for much of the year used for growing maize, due to the favourable climate and south facing aspect. Although planting of the fields appears to be staggered, this limits MdCW to approximately five months of metal detecting in a year over winter and spring. Before MdCW begins metal detecting he will spend time field walking new areas to look for artefacts on the surface to give him an indication of what he may find with the metal detector. Many metal detectorists are aware of surface finds when detecting and will often collect ‘eyes only’ material, however, this technique of engaging in field walking prior to detecting appears to be unique to MdCW. At Tywardreath there is an abundance of pottery sherds lying exposed in the ploughsoil, much of it being medieval green glazed-ware, together with flint blades; indicating continual settlement of the area from prehistory.

When MdCW began his metal detecting he was selective about which artefacts he recorded. At this early stage he did not record musket balls or any other related material because he had not recognised their importance:

‘At that time I had always considered musket balls to be a ‘nuisance’ find and they usually ended up in the scrap bin or given to the landowners. However, by the end of my first day I had collected over ten. Yet I still didn’t think anything about the importance of the finds and failed to record them’ (MdCW 2009).

MdCW estimates that around 60 musket balls and a small number of powder caps were not recorded in the first field he detected. This lack of recording is very much regretted by MdCW and he stresses to point out that if he had known the importance of this material in relation to the rest of the site he would have had a very different perspective towards recording artefacts such as musket balls. MdCW began to individually record each artefact after he was advised to do so by the LAA; he was however, according to MdCW, not given any further advice on how best to proceed.

In the second phase of metal detecting, MdCW initiated a more systematic approach to ensure that each field was covered as thoroughly as possible, now being aware of the presence of a potential site. MdCW detected the fields in long transects running north to south and then east to west ensuring that the position of the last transect of the day was clearly marked with a post, which became the starting point for the next day. Aware of the potential inaccuracies of his hand-held GPS device, MdCW checked its accuracy each day at a fixed position in the landscape. If the readings were deemed to be inadequate then a series of measurements would be taken using tapes and off-sets from the hedge line to support each questionable co-ordinate.

MdCW ensured that every artefact was individually bagged and assigned a unique finds number and field identification code, for example 'F1' for field one (Plate 13). This data was logged in the field and then inputted into Google Earth using the ‘add placemark’ function. Google Earth is a simple, yet accessible mapping package and the ‘add placemark’ function allows users to add layers of spatial data to a map simply by entering in co-ordinates and other descriptive information into a data sheet. A findspot, holding a variety of data including artefact type and description, is then generated, eventually creating a distribution map. The data can be queried if artefact types are separated into individual layers as they are inputted, which MdCW has had the foresight to do. An advantage of using this method was the ability to send the author updated distribution maps

on a regular basis, allowing for his progress to be easily followed. There are disadvantages in using Google, for example, spatial data is not easily transferred to any other program, the only option being an image overlay which is difficult to scale. Furthermore, a list or catalogue of the findspot information cannot be generated unlike professional GIS packages, nor can this data be transferred as each findspot is held within an individual data sheet. Therefore this data cannot be correlated with other spatial information without returning to the raw data gathered in MdCW's field log, which was not regularly updated.



Plate 13: Artefacts recovered from the site are individually bagged and numbered. Image taken by the author.

6.3.2 Tywardreath Battlefield Project and Castle Dore

The TBP was initiated by MdCW in 2009, as the boundaries of his work began to expand. This has included a wider area of survey in the vicinity of Tywardreath in an attempt to identify the extent of the artefact scatter and its relation to the battlefield located on the ridge of Castle Dore. By placing his work under the umbrella of a project name, MdCW has achieved two things; greater visibility within the community and an enhanced sense of legitimacy. As interest grew and encounters with other parties, such as the local

council and CAS, increased MdCW became aware that as a lone voice he had little power to ensure his work was recognised. As an individual he could be easily swept aside or incorporated into a wider scheme, but as a project, even if initially he was the only member, this would be a more difficult task. This perceived cohesion of the TBP has given MdCW some influence in terms of generating local support in order to gain access to land, as well as sourcing funding from local businesses and politicians with the aim of creating a small museum to display the artefacts (Plate 14).



Plate 14: The Tywardreath Battlefield Project team at an outreach event in 2010 to promote the project and discuss their results with the Tywardreath community. Image taken by the author.

The TBP currently has a team of approximately four people, all of whom are local metal detectorists. MdCW has been careful in selecting members of his metal detecting team, not just for their level of skill but for their ability and willingness to follow the methodology he has established. MdCW admits that there are certain individuals within his team who refuse to work with archaeologists and have in the past shown no interest in recording their finds. Whether or not MdCW has been a good influence by demonstrating what may be achieved through good practice is not clear; nonetheless, the results of their work in the surrounds of Tywardreath have been impressive. MdCW made the decision to

investigate the area of Castle Dore, the site of the Battle of Lostwithiel, in late 2009 in response to reports that some metal detecting activity had taken place in recent years, possibly by individuals within his team prior to them joining. Another reason given, of great concern to the author, was the revelation that MdCW had taken the project in this direction on the request and advice of the author, which was not the case. Although MdCW's work in Tywardreath was of high quality, it was not within the interests of the author to expressly support a new programme of intensive metal detecting on an established battlefield without a formal archaeological project. A review of correspondence with MdCW was undertaken and an in depth discussion conducted to re-establish the role of the author within this project and the aims of her research. Although distanced from any decision making within the project, the author has provided some advice on survey practice and recording techniques.

MdCW and his team have continued with their survey at Castle Dore, using closely spaced transects to cover as close to 100% of the ground as possible. Recently MdCW joined forces with two local archaeologists working for a commercial unit in Cornwall who have offered their services on a voluntary basis, including a small geophysical survey to test the potential location of mass graves. MdCW hopes in the future to secure a small amount of funding for a total station and operator to record the assemblage at Castle Dore and elsewhere more accurately. It is the intention of MdCW and the TBP to continue metal detecting until at least 2014, with the overall aim of publishing the results with the assistance of the author.

6.3.3 *External involvement*

Since the discovery of the site at Tywardreath there has been, as MdCW states, a marked change in his attitude towards the archaeological community. In reference to local authority archaeologists, local museum curators and Finds Liaison Officers (FLOs) of the Portable Antiquities Scheme, MdCW has used words and phrases such as 'disappointed', 'reluctant', 'discouraged', 'rejected', 'not listening' and 'why should I?' in his correspondence with the author. MdCW was surprised by the apparent lack of interest from the LAA and the FLO for Cornwall despite the high number of battle related artefacts he had accumulated and its relatively close proximity to a known 17th-century battlefield. Communication with the FLO for Cornwall was brief, and for MdCW discouraging. After recovering approximately 100 musket balls MdCW voluntarily declared his finds to his

regional FLO based in Truro. However, according to Mdcw he was informed by the FLO that, 'they (PAS) do not usually record musket balls but if I did want to come and see her only to bring a representative sample'. This situation now appears to have changed and discussions between the author and the FLO have served to underline the importance of assemblages such as at Tywardreath. Despite these inroads Mdcw still refuses to pass on any of this data to the PAS for entry into the database. It is, however, referenced within the Historic Environment Register.

The initial response from the LAA was positive and Mdcw was encouraged to expand his coverage to adjacent fields as a potential connection to the site of the Battle of Lostwithiel at nearby Castle Dore was recognised by the archaeologist. Mdcw was also given advice about accurately recording each individual artefact, rather than by field, and was requested to write a brief report on his findings. Subsequent to this correspondence, contact with the LAA became less frequent despite evidence that the site was rapidly increasing in size. His request for finds bags from the LAA was also denied as he was told that 'it was his hobby and he would have to supply it himself'. Communication ceased when the LAA contacted the Battlefields Trust for specialist advice. Although Mdcw was copied into emails, this correspondence concerned Mdcw because there was little or no reference to his involvement at any stage, he therefore felt less in control and side-lined by the authorities. It was Mdcw's belief that this had been done because of an element of jealousy that he had found this site rather than the LAA himself. In support of the LAA he did follow procedure by requesting advice from the Battlefields Trust, a recognised authority with dedicated archaeological Project Officer⁷³. Inclusion within this correspondence also offered Mdcw the opportunity to comment. Furthermore, the request for a site report was also within the bounds of his responsibility in order to establish the archaeological significance of the site. Without the proper support, however, many metal detectorists in Mdcw's position would have viewed this not only as a daunting prospect, but also out with the bounds of the hobby and their enjoyment of it; a concept discussed in more detail within Chapter 8 and a section relating to 'serious leisure'.

As Mdcw's work has developed into the TBP, interest has grown from the local community and archaeologists, in particular the CAS which decided independently to carry out a survey of conflict in Cornwall with support from the Battlefields Trust. Mdcw was invited to participate in this project by assisting with metal detecting of selected sites and

⁷³ Correct at the time of writing.

by contributing information from his own work regarding Tywardreath. MdCW, however, has decided on a number of occasions not to participate in this project. This may be due to involvement of certain individuals such as the LAA and the FLO, or as is more likely, because MdCW is concerned that he will lose control of this work and does not trust the CAS to fully recognise his input. Disconcertingly, MdCW has also mentioned another reason which is the wish to protect the author's interests in the research data. Whilst thoughtful, this has raised many issues regarding the author's role in the project and the ability to be an observer rather than participator, as highlighted within Chapter Three – Methodology and ethical considerations.

6.4 Site analysis and interpretation

This section will aim to provide a brief analysis and interpretation of a representative sample of the assemblage recovered by MdCW in the fields surrounding Tywardreath. Key to understanding this material is an analysis of the artefact distribution data provided by MdCW. This data will allow for a greater understanding of the material in a wider landscape context and the relationship between artefact scatters. Another important element is the rich source of historical material, both primary and secondary, which has provided a fascinating insight into English Civil War activity surrounding Tywardreath. As the assemblage is still growing this sample now represents a relatively small proportion of the collection. Due to time restraints on research and distances involved, this sample remains an appropriate size to meet the aims of this particular research agenda, which is to assess the potential significance of MdCW's contribution to battlefield archaeology. However, MdCW has provided regular updates of his recent work, including access to his Google Earth account to view an ever expanding artefact distribution and images of significant artefacts recently brought to light.

6.4.1 *Historical background*

Cornwall, in the mid-17th century, was considered by the rest of England as a foreign land. Bound by its ancient laws and alien tongue, the Cornish were regarded as nothing more than 'poor, rough and boorish' by those beyond the River Tamar (Stoyle 2005, 34). The Cornish maintained a distinct cultural identity and fierce independence which was fuelled by a strong desire to preserve what was left of the Celtic tradition. As a predominately Catholic society the Cornish believed the Church of England to represent the last vestiges

of the Celtic Christian tradition, something which Charles I heavily exploited in his capacity as Royal protector and defender of the true faith. Thousands flocked to join the Royalist cause, although many Cornishmen were driven by the simple instinct to expel the foreign invaders from their land rather than blind devotion to the Church and King (Stoyle 2005, 50). To the godly Parliamentarians the Cornish represented everything they despised, believing they deserved to be punished for their wicked 'popish' ways. As Essex moved through this hostile Cornish landscape, he turned a blind eye to the thievery and rapine unleashed on the local populace by his soldiers. This brutality, however, was not forgotten: the Cornish townsfolk were 'roused to savage anger', stripping naked and viciously beating hundreds of prisoners as they were led through the streets of Lostwithiel in the aftermath of the campaign (Ede-Borrett 2004, 47).

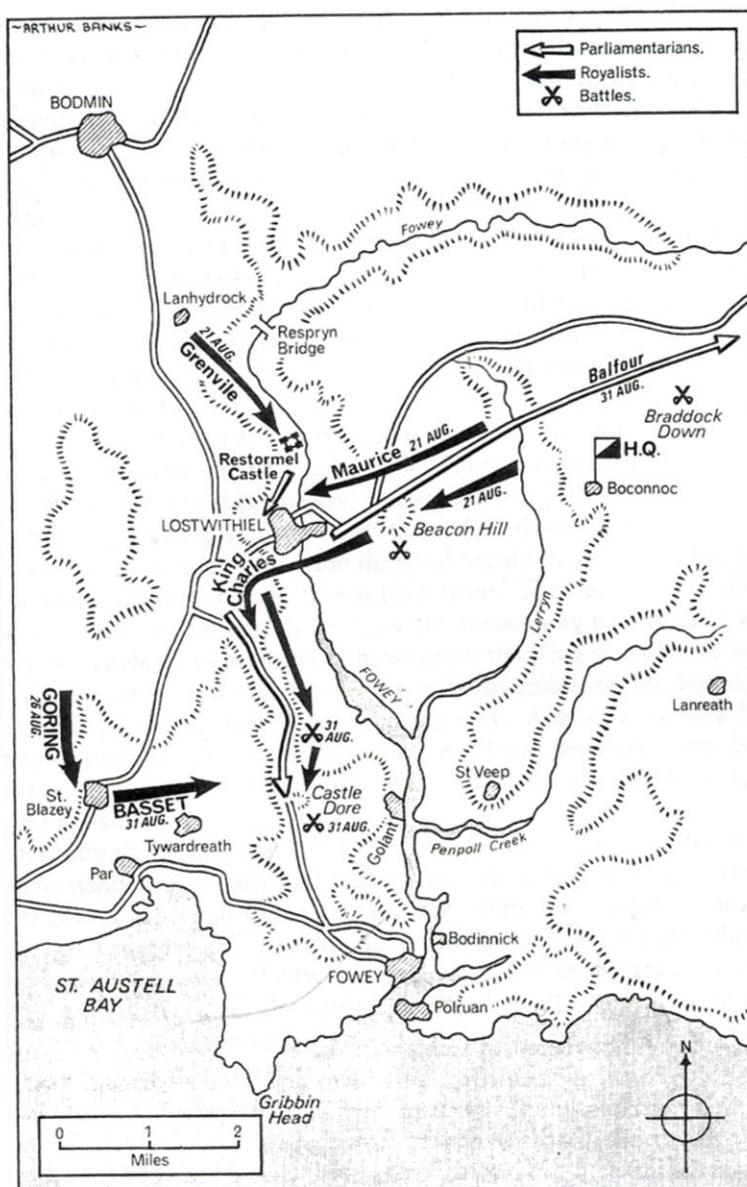


Figure 16: Map outlining the main engagements leading to the Battle of Lostwithiel. Note the movement of Basset's troops from St Blazey. Reproduced after Holmes 1989.

In the summer of 1644 Essex moved his army southwards in an attempt to gain control of the west and its valuable resources of tin and lead for Parliament. The Lostwithiel Campaign was a disaster for Essex as he continually failed to take the initiative resulting in the loss of many of his key positions, including the high ground surrounding Lostwithiel and access to the port of Fowey (Fig. 16). The King continued to pressure Essex, expertly deploying General Lord Goring and Major General Basset with most of the Royalist horse and 1500 foot to 'stop provisions at St Blazey', which ensured Essex had no access to supply by sea nor room to scavenge for food on land (Coate 1933, 146). This strategy took advantage of particularly wet and stormy weather of July and August which saw rotting crops and few sources of food to feed the starving populace, never mind the additional hungry mouths of locust-like armies. As Essex's army was pushed further south

his ability to gather supplies of food and ammunition were becoming severely limited, with much of his army confined within the town of Lostwithiel. Essex was in desperate shape, writing on the 27 August 1644:

‘Our duty here is so great that if the enemy do not draw off or we recur succour speedily, we shall be put to great extremities, spending much ammunition and match, which we cannot afford’ (Essex 1644).

By 30th August Essex realised the hopelessness of the situation and the next day withdrew his army from Lostwithiel in an attempt to evacuate by sea using a flotilla of boats waiting at the small ports of Polkerris, Menelbilly and Golant; similar in nature to a 17th century Dunkirk. Staying on the high ground, using the ancient road between Lostwithiel and Fowey, the Parliamentary army moved southward in a disorderly retreat, forced by heavy rain and mud-soaked roads to leave most of their supplies behind them. As the Royalist officer Richard Symonds accounts in his diary:

‘the enemy had left a cartload of muskets, besides many more in the dirt a little higher, 5 pieces of cannon in several places, 2 of them being very long ones’ (Symonds 1644, 63).

The Royalists were in hot pursuit, fighting a running battle along the ridge way and skirmishing at every opportunity with the rear guard of the Parliamentary army. The Parliamentarians responded by taking advantage of the thick earth and stone hedges which transected the ridge, using them as ready-made ramparts with the foot lying ‘close under the hedges which are all cannon proof’ (Symonds 1644, 64), and therefore being able to return fire under a degree of protective cover. Despite the resolve of the Parliamentary rear guard, this could serve only to buy time for the retreating army as the full force of the Royalist horse and foot pushed them along the ridge way ‘beating them from hedge to hedge’ and ‘killing a great many of them’ (Symonds 1644, 63). Reaching the end of the ridge, Essex and his army occupied the Iron Age hillfort of Castle Dore, utilising its circular earthworks as redoubts to hold artillery at the Parliamentary centre (Plate 15). In this position Essex defended his only routes of escape, which included the roads leading eastward to Golant and westward to Tywardreath and the ports of Polkerris and Menabilly (Coate 1933, 149). Essex and the King engaged in a series of attacks and counter attacks, including a charge by Major-General Bassett’s cavalry and foot on the Parliamentary left flank, having arrived in the direction of St Blazey (Fig. 16). This charge was broken by a Captain Reynolds who pushed the Royalists back over several fields, until they were dispersed by another wave of Royalist horse (Holmes 1989, 61). The fighting continued

over many hours, until cracks began to show in the Parliamentary command. In the early hours of the next morning Essex escaped alone by boat to Plymouth leaving his broken army in the field. As word spread of his hasty departure the army eventually began to crumble away. The first to abscond was Colonel Weare's regiment on the right flank, leaving the road to Golant exposed. General Skippon was charged with surrendering to the King and did so in good order, with his officers allowed to retain their weapons as they were escorted from Cornwall. This was a shrewd rather than merciful move by Charles, as taking prisoners in a land of few resources would not have been an economical approach (Purkiss 2007, 366).



Plate 15: View from Castle Dore looking north along the ridge towards Lostwithiel. Here the Parliamentarian army made their last stand after being pursued by the Royalist army. Image taken by the author.

6.4.2 *Analysis of the artefact assemblage*

This section will provide a summary analysis of a representative sample of the artefact assemblage recovered from eight fields situated towards the south and south-west fringes of Tywardreath village, recovered in the period of 2007-2009 by MdCW. This will include

an interpretation of the artefact distribution, as well as a summary analysis of diagnostic material identified within the assemblage.

6.4.2.1 Lead projectiles

Within the assemblage 485 lead projectiles were identified, comprised of 392 musket balls (81%); 46 pistol balls (9%); 36 projectiles identified as potential carbine balls (7%); 2 identified as slugs (0.5%) and 9 19th-20th century (2%). In 1628 the Council of War introduced regulations on bore size, in other words the number of bullets produced from one pound (16 ounces) of lead, for particular types of firearm in an attempt to standardise production. The Council specified that pistols and carbines should be of *twenty-four* bore, calivers and arquebuses *seventeen* bore and muskets *twelve* bore (Blackmore 1961, 24). However, this level of consistency is not reflected in the lead projectile assemblage as there appears to be a diverse assortment of bore sizes ranging from tiny hail or buckshot at *one-hundred-ten* bore, weighing 0.1 oz (4g), to large *eleven* bore balls, weighing 1.5oz (40g). In the mid - 17th century an array of firearms of various shapes, lengths and bores were available throughout the British Isles, and although many were manufactured by British gun makers, a significant proportion are likely to have been imported from the continent (Edwards 1998, 239). Whilst it is possible to identify particular peaks within the data that may provide some indication of the presence of certain firearm groupings, the ability to closely identify the type of weapon each projectile was fired from is a difficult process and one open to a degree of inference (Fig. 17).

Accordingly, data relating to the lead projectile assemblage has been divided into four parts based on the broad range of bore sizes stipulated by the Council of War and the size of bullet which could reasonably be fired from each firearm: i.e. pistols; pistols and carbines; calivers, arquebuses, bastard muskets; and the full bore musket (Fig. 17). The bulk of lead projectiles appear to range in size between *twenty-two* and *fifteen* bore, with a peak at *eighteen* bore. Outwith this grouping there is a smaller peak at *thirty-two* bore. Larger projectiles are poorly represented within the assemblage: with only a small proportion are greater than *fourteen* bore and only 12 musket balls appear to be *twelve* bore.

The dataset suggests mobility was a significant factor, as there is a trend towards smaller and lighter firearms such as the pistol and the carbine, suggesting the presence of cavalry in the field. Carbines, as a cavalry firearm, were more ubiquitous in the Royalist army, occasionally in preference to the pistol, and although less prevalent in the

Parliamentarian army they were employed by the Earl of Essex's cavalry (Blackmore 1990, 50). The arquebus, a shorter lighter version of the full bore musket, was also used by light cavalry or dragoons (Edwards 1998, 236). A new lighter pattern musket, possibly referred to as a caliver, which did not require the use of a fork rest for stability was introduced to infantry in the later stages of the war (Roberts 2002, 60). The musket ball assemblage may therefore reflect favour towards this lighter type of firearm on account its suitability for skirmishing, particularly in landscapes such as Cornwall.

Comparison of this data with other assemblages from what are perceived to be more fixed conflicts is necessary to establish whether larger full bore muskets are more

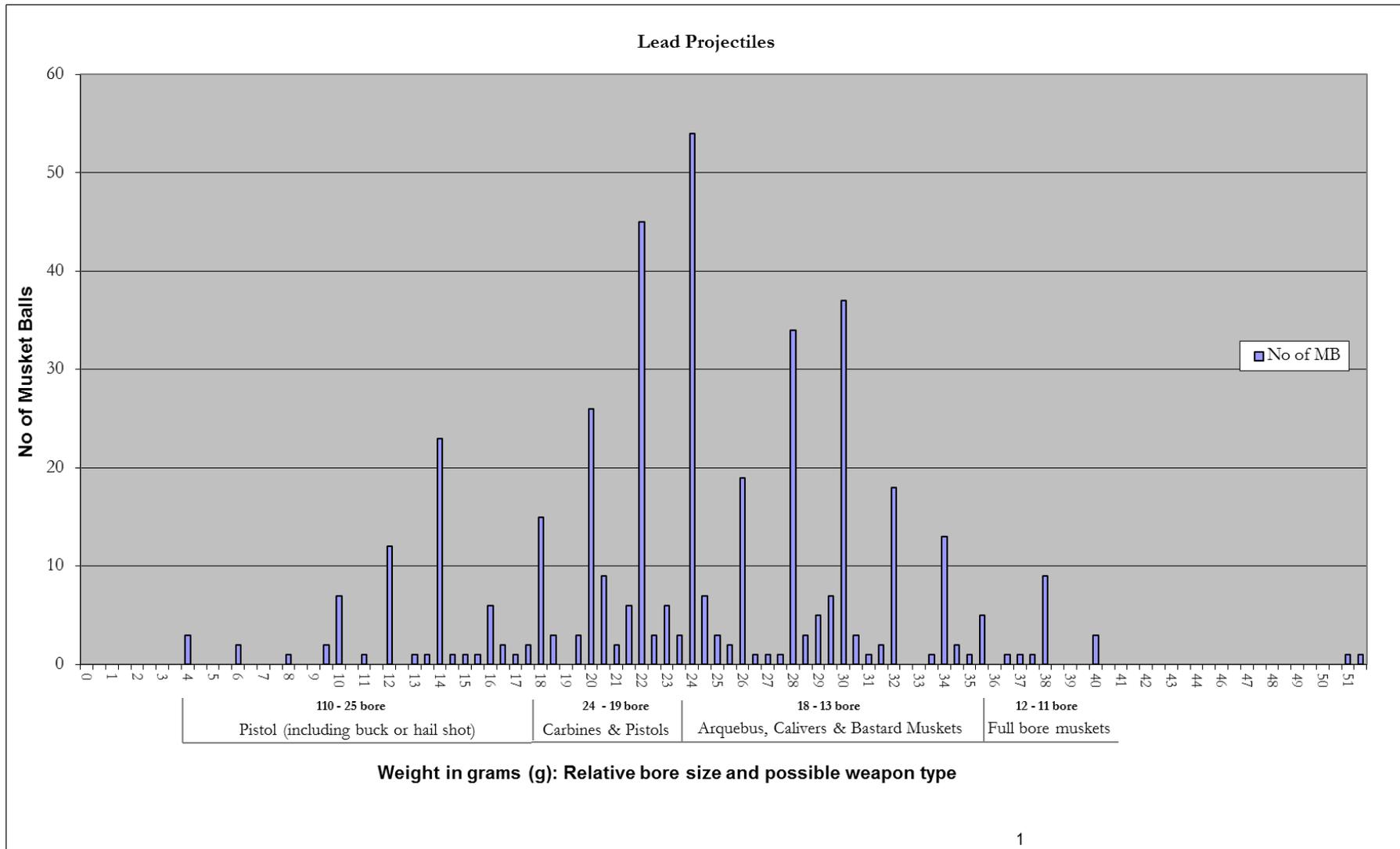


Figure 17: Graph depicting range of lead projectiles recovered from the site at Tywardreath, Cornwall

abundant within these assemblages or if they were in fact less established than has been traditionally accepted. This evidence will be discussed further in conjunction with a more detailed analysis of the lead projectiles and patterns identified within the artefact distribution.

6.4.2.2 Diagnostic analysis of lead projectile and artillery assemblage

This section will summarise a diagnostic analysis of the lead projectile assemblage which has served to highlight the diversity of this particular collection and the contribution it can make to our understanding of 17th-century warfare. Several features have been brought to light which have provided a fascinating insight into the nature of the fighting at Tywardreath, including the type of troops and artillery engaged, the quality of ammunition supplies and attempts at modification of the bullets.

In such an enclosed landscape the role of cavalry and artillery are likely to be minimal, except in smaller units and at a more local level (Ede-Borrett 2004, 33). The engagement of cavalry at Tywardreath is suggested by the presence of pistol and carbine balls within the assemblage, although this can also represent the activity of infantry officers using pistols in close quarter fighting. Evidence which provides further support for cavalry activity at Tywardreath may be found in the presence of pistol balls with prominent sprues, six of which were recovered from the site (Plate 16). This feature has been identified by Mandzy as an attachment for an early form of paper cartridge (Mandzy 2009). They have been found in other 17th-century assemblages including the Thirty Year War battles of Lutzen (Schrüger pers. comm.) and Zboriv (Mandzy 2009), as well as an English Civil War skirmish at Blandford, Dorset. Unlike modern forms of cartridge, the ball is external to the cartridge and the extended sprue used as a point in which to bind the two together with string. This early form of paper cartridge is likely to have been used by Cavalry whom would not wish to be burdened by clattering bandoliers on horseback. Ease of loading would also have been an important factor. The majority of these pistol balls appear in close proximity to each other in Field 1, apart from two in Field 2 and 8 and may indicate the movement of one body of horse.



Plate 16: Pistol balls with extended sprues possibly to attach an early form of paper cartridge. Image taken by the author.

Artillery appears to play only a small role within the Tywardreath assemblage as only one cannon ball features within it (Plate 17). It is made of iron and is small in size, measuring only 38.2mm (1.52in) in diameter and weighing only 230g (8.1oz). This size suggests a light, manoeuvrable field artillery piece called a Robinet (Henry 2005, 9), which would have been suitable for use in a landscape bisected by thick hedges and narrow lanes. Another small lead cannon ball features amongst a collection of projectiles and other items including several bandolier caps, given to MdcW by a local landowner who had recovered the items over many years whilst working his land. Other types of artillery projectile are not apparent within this assemblage, although there are two possible candidates for canister shot. The first is a musket ball sized object made of iron and the second is a cylindrical lead object which is similar to other types recovered from the battlefield of Edgehill (Pollard and Oliver 2004)



Plate 17: Small iron cannonball recovered from the site (left) and a possible piece of canister shot as suggested by comparisons with the Edgehill (1642) assemblage. Image taken by the author.

The efficient manufacture and supply of ammunition is of key importance to the success of any army. By the end of the Lostwithiel Campaign supplies of ‘ball and match’ were becoming dangerously low and soldiers may have relied on their own sources of lead and casting materials to ensure they had enough stocks to use against the enemy. The quality of projectile casting within this assemblage is particularly poor with evidence of casting mistakes and misshapen bullets appearing frequently (Plate 18). Examples include deformed bullets due to air bubbles forming because the lead has been poured at too high a temperature, together with unfinished and poorly cast balls where the two halves of the mould are offset. A significant number of musket balls were either egg-shaped or a shape similar to that of a bulging disc. This feature, previously attributed to impact damage, appears to have been the result of casting in a makeshift mould, possibly of stone or an organic material such as wood. The shallow morphology of the projectiles suggests that the moulds had not been carved deep enough or suitably defined at the edges to create the spherical shape of a musket ball. Two musket balls may also raise questions about the quality of the lead used for casting. Both are unusual in terms of their weight and colour suggesting the use of substandard lead to cast them. One example is a large musket ball with a diameter of 18.9mm (0.73in) but weighs only 24g (0.8oz) and also has a number of dark inclusions embedded within it as if they are part of the structure, possibly to add bulk if lead levels are low.



Plate 18: Examples of poor casting where air pockets have formed causing collapse of structure (left) or visible holes (right). Image taken by the author.

Several balls within the assemblage appear to have some degree of modification including slicing, cutting and the addition of other materials to the body of the projectile (Plate 19). Evidence of slicing comes in the form of two fragments of lead which appear to be evenly cut quarters of a musket ball. The musket balls may have been cut in such a way to ensure the pieces spread when fired causing severe damage to the target. This has been recognised as late as the mid-18th century in an assemblage relating to the battlefields of Culloden and Monmouth (Pollard 2009; Silvich 2005). Other examples include thin grooves that run the entire circumference of the ball. These grooves may have been cut for the simple purpose of making the ball tumble in the air, or perhaps in order to accommodate wire and therefore increasing its capacity to cause damage to the target. Another type of modification may also be seen in a musket ball which has incorporated within its body an iron object, possibly a nail. It is not clear whether it has been hammered into the ball or included during casting, but does appear to be a deliberate inclusion.

Teeth-marks have been identified on six musket balls, although it is not clear whether they are a result of human or animal action, i.e. pigs or rodents which has been recorded within other assemblages (Silvich 2005; Harding 2012, 77). There are several explanations for teeth-marks on musket balls: to activate saliva if water is unavailable; boredom; modification the ball as mentioned above; or as a consequence of holding projectiles in ones mouth during battle, as was recommended in 17th century drill books to save the musketeer time in the cumbersome process of re-loading (Hughes 1977).



Plate 19: Evidence of modification - cut groove (top left), an embedded nail (top right) and a quartered pistol ball (bottom left). Musket ball with teeth marks may represent modification. Image taken by the author.

6.4.2.3 Signature artefacts

The most common signature artefact within this assemblage are objects associated with musket firing, including bandoleer caps, powder flask nozzles and two halves of a squashed brass container which may represent the remains of a powder flask (Plate 20). A bandoleer is a leather belt worn by the musketeer, from which is suspended a number of wooden containers, individually referred to as boxes, holding measures of powder and a bag of musket balls (Blackmore 1990, 72). Two small strips of folded or rolled lead have been identified as possible lead rations kept individually by soldiers to cast their own supply of musket balls. Examples of folded lead strips have been recovered from sites dating from the 17th-18th century, including the English Civil War Battle of Edgehill (1642)

the Sieges of Newark (1643 – 1646) and the Battle of Sedgemoor (1685). Although not present within this sample MdCW has provided the author with images of other signature artefacts including a fragment of a trigger guard.



Plate 20: Lead powder-box cap (top row), a powder-flask nozzle (bottom left) and a rolled strip of lead (bottom right). Image taken by the author.

6.4.2.4 Buttons and Buckles

Personal objects such as buckles and buttons are an important part of the assemblage, although only a small selection of artefacts from the assemblage was characteristic of 17th-century material, with the rest representing the 18th and 19th centuries (Bailey 2004). Some of this later activity is of interest in terms of later military activity. For example approximately six buttons had Royal Artillery insignia – a shield showing three cannon crowned by three cannonballs – dating from 1785-1802 (Wilkinson-Latham 2006, 68). The

origin of these buttons is unclear but it is likely to represent some form of training or coastal artillery defence to reduce the risk of invasion during the Napoleonic Wars. In comparison to the buttons, the buckle assemblage was far more diverse, with several examples potentially dating to the 17th century (Plate 21). The author identified seven types of buckle within the sample, dating within the range of 1350-1650 for simple types and a range of 1500-1650 for more complex forms (Egan 2005, 48; Egan and Pritchard 1991, 50).



Plate 21: Buckle (left) and button (right) c. 17th century. Image taken by the author.

6.4.3 *Artefact distribution*

The ability to understand this assemblage is reliant on the accurate recording of the find-spot data so that each artefact may be understood within the context of its position in the landscape and its relationship to other artefacts within the scatter. However, it is important to note that interpretation will be limited within certain parameters: the accuracy offered by hand-held GPS-device, the subsequent plotting of this data on Google Earth, and finally the fields MdCW was able to access. An attempt has been made by the author to present the Google Earth distributions in a clearer, more comprehensive format in a style closer to that of a GIS package (Fig. 18). Whilst it was possible to differentiate between the main types of artefacts i.e. lead projectiles, cannon balls and powder caps, as the author only had secondary access to this data it was not possible to highlight sub-categories such as musket balls, pistol balls or carbine balls.



Figure 18: Distribution map of Tywardreath artefact scatter recorded and plotted on Google earth by Mdcw.

The distribution map created by Mdcw extends beyond the artefact sample made available to the author for analysis. Therefore it is possible to understand this data within a wider landscape context, including areas to the northeast of Tywardreath and the battlefield of Castle Dore itself. The main body of material recovered by Mdcw is situated in four fields directly south of the village of Tywardreath and in two larger fields positioned further south shaped by two curving lanes, Tywardreath Hill Lane and Polpey Lane. As previously mentioned, both lanes meet at the point of the pre-19th century coastline, creating a distinctive feature in the landscape. In these fields the distribution is less concentrated but with a clear bias towards the line of hedges running to the side of Tywardreath Hill Lane: few artefacts are plotted further east towards Polpey Lane. To the east of Tywardreath village, the distribution continues to spread northeast in a wide scatter which covers approximately thirteen fields, with significant concentrations of material either side of the Castle Dore Road. Modern expansion of Tywardreath has clearly had an impact, creating a gap within the northwest portion of the artefact distribution as indicated by the dense concentration of artefacts that still exist on the fringes of the 20th-century housing estate. This extensive artefact distribution stretching from Polmear to beyond the

Castle Dore Road is now connected by only one field to the southeast corner of the housing estate; therefore if expansion was to continue the site would subsequently be divided in two.

Numerous contemporary accounts refer to the difficulty of the Cornish terrain, describing the ‘steepness of the hill and deepness of the wayes’ (after Ede-Borrett 2004, 107)⁷⁴, as well as the stout earth and stone Cornish hedges, many of which still survive, forming an ‘enclosed country’ (Mercurius Aulicus 1644)⁷⁵. Symonds describes the hedges as ‘cannon prooffe’ and having ‘no avenues wider than one or in some places two horses can approach at a time’ (Symonds 1644, 64). This landscape would undoubtedly have influenced the mode of fighting, with restricted mobility affecting the deployment of horse, foot and artillery, as well as the vital supply of food and ammunition transported by baggage train. In such circumstances, successful commanders were required to be tactically flexible, turning initial limitations of terrain to their advantage by utilising smaller units of infantry and cavalry to engage in skirmishing and ambush rather than open warfare (Roberts 2003, 48). The influence of the landscape on military tactics is potentially reflected within the archaeological assemblage of material at Tywardreath. Two possible patterns present themselves. The first sits within the main body of material situated in the four fields south of the village and is defined by a series of ‘Cornish hedges’ running north-south. Here the pattern of distribution is closely associated with the line of the hedges, with dense accumulations of material respecting the field boundaries and becoming less concentrated towards the centre of the fields (Fig. 19). Whilst one must be cautious in this interpretation, ensuring to consider influencing factors such as soil distribution from plough action in the formation of these accumulations, the author believes this pattern of material provides strong evidence of a running fight, with bodies of foot making use of the substantial hedges as ready-made defensive breastworks to give fire with some degree of protection. There is clear movement within this assemblage, with each side advancing or retreating to the next set of hedges, inevitably attempting to cross the open ground of the fields as quickly as possible. This method of fighting is well documented in contemporary sources of this campaign with references to the Parliamentarian foot lying ‘so close under the hedges’ (Symonds 1644, 64) for protection and then being ‘forced to fight from hedge to hedge’ (Mercurius Aulicus 1644), as the Royalists pushed them along the ridge from Lostwithiel.

⁷⁴ The Copie of a Letter of a Parliamentary Officer, Sept. 9th 1644

⁷⁵ Sept 7th 1644



Figure 19: Artefact distribution south of Tywardreath with east-west ridge running down towards St Austell Bay. Note the concentration of material along the hedge lines. Produced by finder using Google Earth.

Moving northwards there is a second pattern of material which appears to traverse the Castle Dore Road, with a bias in concentration towards northern fields and the road to Treemill (Fig. 20). The Castle Dore Road runs eastward into Tywardreath and westward onto the ridge of the ring fort and the site of battlefield. In such a restricted landscape troop movements were dependent on the narrow roads and lanes that contoured the landscape. The strategic necessity of the roads is illustrated in a letter from Essex to Sir Philip Stapleton. Here he describes his withdrawal from Lostwithiel to reach the coast being severely hindered as the roads were, ‘so extreme foul with excessive rain’ (after Ede-Borrett 2004, 103).⁷⁶ As the roads provided the only means of efficient communication, control of the routeways was of paramount importance to any military commander wishing to exert control over the enemy. This assemblage potentially represents an attempt at maintaining control of this landscape as the site lies at a cross-road, with routes running

⁷⁶ The Earl of Essex’s letter to Sir Philip Stapleton, Sept. 7th 1644

west to St Blazey, south to Polkerris and Menebilly, east to the high ground of Castle Dore and into Golant, and finally north to Lostwithiel. All are ports and routeways that were essential to the supply of the Parliamentarian army. Therefore this may have been an attempt by the Royalist army to starve out Essex's army, as an anonymous Parliamentarian officer accounts:

‘On Tuesday 27th August, the Enemy, having drawn themselves off the day before about 3000 horse and foot, that partie marched towards a place called Blazey Bridge, about three miles from Lesithiel, which they did to stop the passage of provision from Milly-Billy (Menibilly) Bay, if they could, from coming to my Lord General; for be taking it, my Lord could not have provisions, but by breaking through them’ (Parliamentary officer, after Ede-Borrett, 2004, 107).

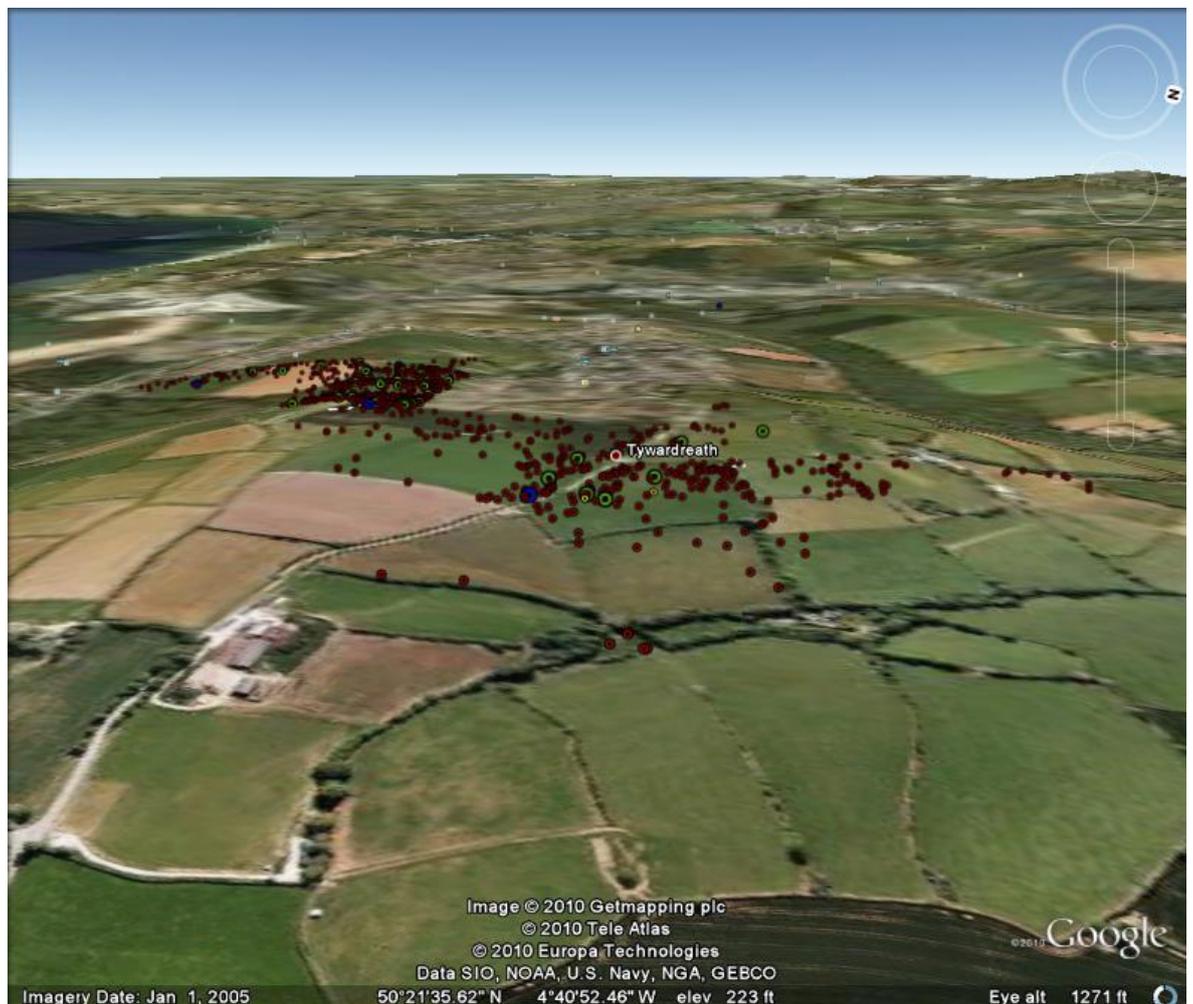


Figure 20: View of the second artefact distribution pattern from the east (Castle Dore). Note the scatter of material traversing the road. Produced by the finder using Google Earth

Skirmishing with the enemy certainly seems to have been almost constant throughout the Lostwithiel Campaign, as the same Parliamentary officer continues to describe the intensity of the situation:

‘After our horse and foot made good at Blazey bridge many dayes, Defended themselves against so many numerous companies of the Kings forces for almost 20 daies, in continuall skirmishing’ (Parliamentary officer, after Ede-Borrett, 2004, 107).

It is also interesting to note also that Dawson’s 1804 map depicts this area as less enclosed than surrounding fields (Fig. 21). Perhaps the openness of this area and its situation on high ground was a factor in its selection as an effective position, possibly as a road block, where horse and foot could be deployed. Does this body of material, stretching from the Castle Dore Road down along Tywardreath Hill to the former coastline at Polmear therefore represent an attempt to ‘break though’ the Royalist lines, resulting in a skirmish and rout across fields and hedges down to the sea? Here the interpretive quandary presents itself: what is the direction of travel? The volume of lead projectiles recovered from this area certainly suggests intensive fighting, but where does the skirmish originate? The topography and the patterning of lead projectiles on the Castle Dore Road would favour the fighting to have run down the ridge in the direction of the sea, as perhaps represented by the trickle of material running along the edges of Tywardreath Hill Lane. Contemporary sources suggest greater activity towards St Blazey, suggesting the action may have begun at the bottom of the ridge which encompasses Tywardreath to the southeast. One must however consider that the geographical scales of this landscape are relatively compact and in an unfamiliar landscape certain landmarks will be used continually to describe more general areas.

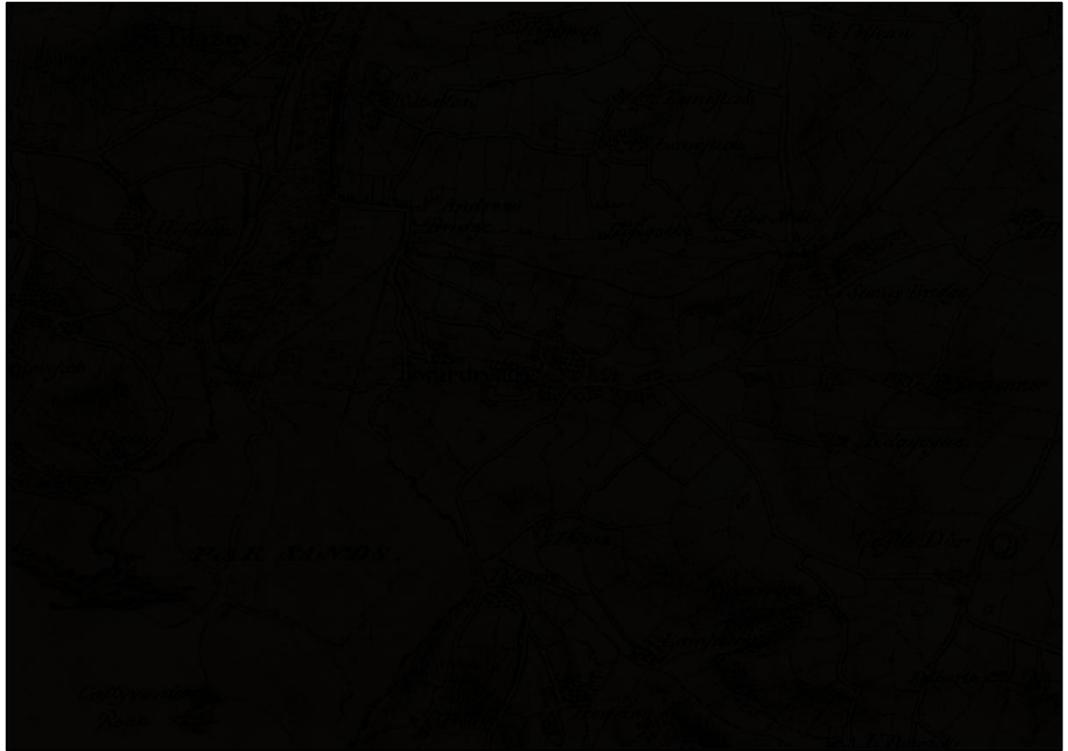


Figure 21: Dawson's 1804 map depicting the landscape of Tywardreath

There is, however, an alternative interpretation: that this assemblage represents an action which occurred as part of the Battle of Lostwithiel. The assemblages of the Castle Dore battlefield and Tywardreath are closely connected in the landscape by the downward sloping topography of the Tywardreath ridge and more directly by the Castle Dore Road which partially follows this ridge as it sweeps northwards to Castle Dore. As detailed in the historical background, Essex withdrew his army from Lostwithiel on 31st August in an attempt to reach to the coast. They were hotly pursued by the Royalists southward along the ridge until they reached Castle Dore. Here Essex made a stand, managing to hold his position against waves of Royalist horse and foot. Sometime into the battle Major-General Bassett arrived with his cavalry and foot from the direction of St Blazey and attacked Essex's left flank. Essex successfully counter-attacked with a *tertia* of approximately 1,500 men (Ede-Borrett 2004, 41). In a letter Essex recounts the action, clearly one of the few successes of the battle.

'I took two troops out of the Plymouth Horse that were on the St Blazey side, and Collonel Butler took a hundred musqueteers, and Captain Floyd, all of my regiments, and with the

two troops fell upon three or four of the Enemies regiments, and their horse, beat them back two or three Closes' (after Ede-Borrett 2004, 103)⁷⁷

As Major-General Bassett was in St Blazey, speed was of the essence if he was to make any impact on the battlefield. From St Blazey it is therefore possible that Bassett utilised the road network to its full potential using the Castle Dore Road, which runs through Tywardreath itself, as the most direct route to the action. We know that Essex sent troops of horse and infantry to halt Bassett's approach, but could this have occurred as far along the road as Tywardreath? Visibility westward along the ridge from Castle Dore down into Tywardreath is relatively clear; therefore it is very possible that Bassett's advance had been noted in time to pre-empt the attack and buffer the left flank from a fresh Royalist advance (Plate 22). As described by Essex, the Royalists were pushed back over several fields in this engagement. Could this explain the heavy skirmishing between the field enclosures south of Tywardreath village? If Essex was aware of Bassett's advance would he have had the luxury of sending a force to meet him given the strength of the Royalist position?



Plate 22: View looking south-west from Castle Dore towards the ridge and the village of Tywardreath. Image taken by the author.

⁷⁷ Letter from the Earl of Essex to Sir Philip Stapleton Sept. 7th 1644

Resolving this issue of interpretation is dependent on further archaeological survey in order to establish whether an archaeological connection between the Tywardreath and Castle Dore assemblages exists. The current gap is a result of restricted access to fields owned by Cornwall County Council (Fig 22). It is not clear if MdCW has officially requested permission to metal detect on this land. However, given local authority by-laws regarding detecting on council property and MdCW's intermittent contact with the LAA, access may require negotiation. Further archaeological survey is also required to establish the extent of the artefact distribution as it is not clear where the boundaries lie, particularly westward beyond Tywardreath Hill and towards St Blazey. This will become a particularly significant heritage management issue as development continues to expand in this area, especially as this remains a relatively unknown site. Over the next three years MdCW hopes to continue with the Tywardreath Battlefield Project and extend the survey area to include more fields surrounding Castle Dore and north along the ridge towards Lostwithiel.

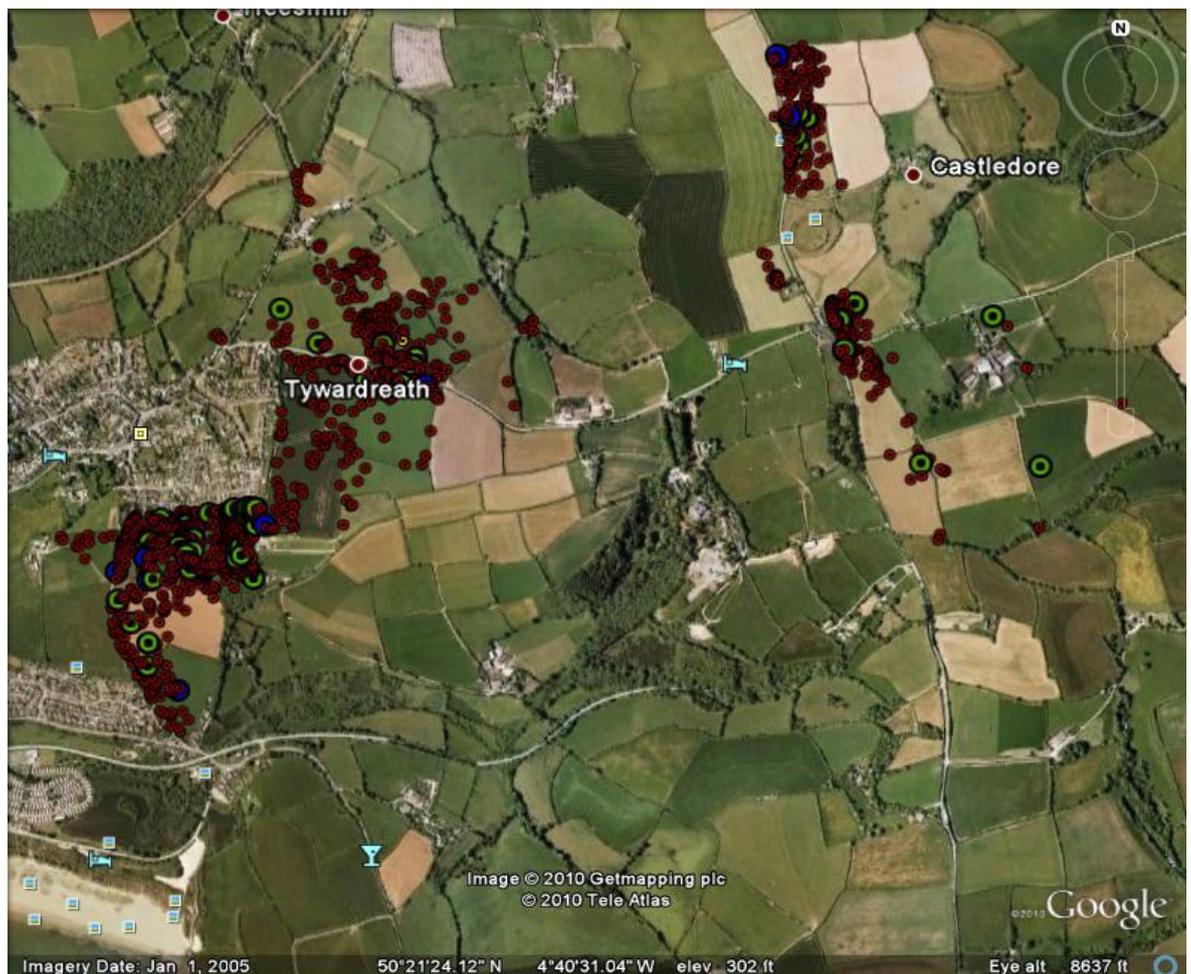


Figure 22: Overall view of MdCW activity including recent activity on the battlefield of Lostwithiel (Castle Dore). Produced by the finder using Google Earth.

6.5 Conclusion

This work by MdCW has demonstrated that Tywardreath was very much at the centre of the later stages of the Lostwithiel Campaign of 1644. As the Royalist army continued to strengthen their grip over the Parliamentarians, constricting them into a smaller and smaller area of the landscape, the people of Tywardreath too would have experienced the misery and desperation faced by those soldiers trying to survive in a strange and hostile land. With food and fodder in short supply and it is very possible that the population of Tywardreath would have suffered considerably, enduring constant forays from both armies, friendly or not, for whatever resources were available. Although the discovery of this site has provided a fascinating insight into the military activity surrounding the Lostwithiel Campaign, the true importance of this assemblage lies in highlighting the scale of the fighting across this landscape. It demonstrates that the conflict was not restricted to an isolated ridge of Castle Dore but moved close into the surrounding hamlets and villages, placing Tywardreath very much at the centre of the conflict. There is little doubt therefore that the assemblage at Tywardreath, recovered and recorded by MdCW, represents a significant contribution to our understanding of English Civil War activity in Cornwall and its impact on the local population.



Plate 23: Members of the local community discussing the recent discovery at an event held in Tywardreath. Image taken by the author.

The contribution of MdCW has extended beyond recovering and recording this assemblage of material. His efforts to develop the Tywardreath Battlefield Project, as well as his work with the Cornwall Battlefield Project and the local community of Tywardreath to promote the battlefield, have been significant achievements (Plate 23). He has recognised the potential of his discovery for community development and benefit; this is something that will hopefully be realised with the creation of a local museum to house the collection, the primary aim of MdCW over the last three years. However, his work is not immune to criticism. His shift in attention from the skirmish at Tywardreath to the ridge of Castle Dore and the site of the battlefield proper (Lostwithiel) was a challenging phase in relations between the author and MdCW. Whilst his methodology was satisfactory, it still represented activity on a known battlefield out with an archaeological framework. At this point the ability to define his activity as primarily a positive contribution for the discovery of a new site of conflict became less clear as his potential to negatively impact a known battlefield increased. This point, in the context of other examples, will be explored further within the discussion of Chapter Nine.

Chapter Seven

Case Study Two: Metal detecting activity identifying previously unrecorded artefact scatters relating to the Battle of Sedgemoor, Somerset (1685)

7.1 Introduction

The Battle of Sedgemoor, fought on the fens of Somerset in 1685, is best known as the last pitched battle to take place on English soil (Fig. 23). However, to focus solely on this infamous historical stamp is to do this battle an injustice. This is a battle of political intrigue and rebellion, as well as one of both tactical and technological military advancement. One must also remember that this was a battle fought in the bleakest conditions, as both armies not only had to contend with the darkness of night, but also a thick fog which shrouded the battlefield, reducing visibility and testing the skills of those navigating the moor. Significantly, this is a battle which remains well preserved in the archaeological record as will be demonstrated throughout this case study.

In 2002 an archaeological survey of the Battle of Sedgemoor took place as part of the BBC TV series *Two Men in a Trench*, led by the Centre for Battlefield Archaeology (CBA) Director Dr Tony Pollard. As part of the team was a group of volunteer metal detectorists, including a local metal detectorist who had a keen interest in the battle and is referred to within this research as Metal detectorist Sedgemoor (MdSM). MdSM began metal detecting on the battlefield in 2000, but rather than focus on the core of the battlefield close to the village of Westonzoyland, MdSM decided to concentrate on the route of the rebel army situated further to the north (Plate 24). Using David Chandler's '*Sedgemoor 1685*' (1999) as a guide, MdSM carefully investigated each field and recorded every artefact he recovered.



Plate 24: View looking north over the battlefield. Note pylon in background situated in the centre of Field 9. Image taken by the author.

Over a period of ten years MdSM has recovered and recorded a significant volume of material from the battlefield, including important examples of canister shot and evidence of practices such as double loading. Another significant outcome of this work has been to establish the extent of the battlefield and the nature of the rout about which very little was known. This case study will therefore provide a profile of MdSM and his involvement in the battlefield of Sedgemoor. This will include a reflection on his relationship with the site and metal detecting in general, as well as an overview of the methodology engaged and the results it has achieved. The latter will be explored through analysis of the artefacts recovered and their distribution in the landscape as recorded by MdSM.

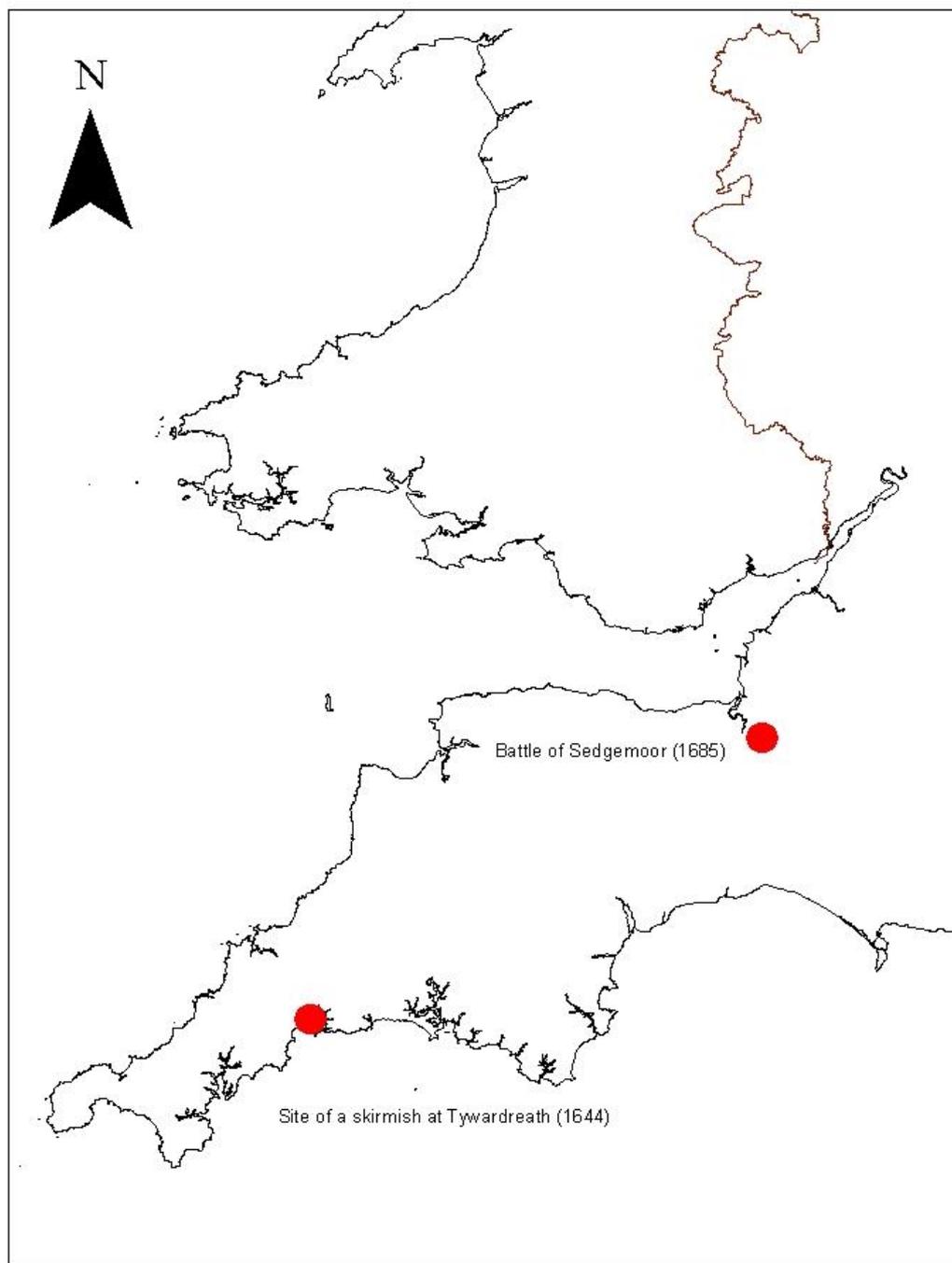


Figure 23: Location of the Battle of Sedgemoor (1685), Somerset

7.2 Metal detectorist background

MdSM was first drawn to metal detecting and the Battle of Sedgemoor as a young man in the 1970s. Using a very basic machine called a *tr. c. scope* he detected on two fields within the battlefield, finding a handful of musket balls, a pistol ball and a grenade fragment. MdSM does admit that he did not have permission from the landowner to detect on these fields, however, he stresses that it was a case of being a naive youth and that he would never consider doing such a thing again. Despite his early bounty of battle artefacts, MdSM became frustrated with metal detecting and soon lost interest in his new-found hobby. Much of this was to do with the quality of his metal detector, which at this point was not able to discriminate between ferrous and non-ferrous signals, resulting in time spent ‘digging up too much rubbish’.

MdSM’s interest was reignited when in 1999 he watched ‘*Blood Red Roses*’, a Channel Four production documenting an archaeological project carried out on the medieval Battle of Towton (Fiorato et al 2008). The documentary featured a metal detectorist, Simon Richardson, who worked closely with the team to conduct a metal detector survey of the battlefield. Inspired by what he had seen, MdSM decided to do his own survey of Sedgemoor, concentrating on the rout of the Rebel army and Wade’s Stand in order to avoid areas where metal detectorists had previously been active. Using battle maps produced in Chandler’s (1999) book ‘*Sedgemoor, 1685*’ as a guide, MdSM worked out which locations would be best to detect. Armed with a new metal detector, a *5mx c.scope*, and permission from the landowner, MdSM set out to find evidence of the rout, beginning his search in fields northwest of the main battlefield area. He also detected in an area along the road leading to Westonzoyland from Bridgwater where Royal cannon were placed to protect the route into the village.

After 34 hours of metal detecting over 10 acres of land, MdSM took his finds to Taunton museum to have them recorded by his local Finds Liaison Officer, with whom he had built a good working relationship, even receiving a brief mention in the PAS Annual Report of 2001/02 – 2003/03 (Resource 2003). MdSM’s first encounter with his FLO highlighted an important problem with his metal detecting survey; he was not recording or individually bagging his finds. He therefore made sure to bring a notebook and some bags on his next trips to the battlefield. However, MdSM had not understood the importance of connecting the artefact with its position in the landscape. Therefore although each artefact

had been individually bagged and their position recorded, he had no referencing system or finds numbers in place resulting in the loss of this spatial information.

An important turning point came in 2003 when he was invited to join a team of metal detectorists surveying the battlefield as part of the BBC television series *'Two Men in a Trench'* (Pollard and Oliver 2004). MdSM thoroughly enjoyed his experience which included six days of intensive metal detector survey across the battlefield. During this time MdSM fostered links with Dr Tony Pollard, University of Glasgow who had become interested in his work. In a later visit to the battlefield, Dr Pollard provided MdSM with some advice regarding his recording technique, encouraging him to adopt a basic referencing system and create a distribution map of his finds. MdSM took to this with great dedication, producing a detailed map of the artefact scatter he had recovered. On the commencement of this research, Dr Pollard recommended MdSM as a suitable candidate for the present case study. In subsequent years therefore, the author has kept in regular communication and has provided advice on recording and interpretation when requested.

MdSM prefers to work on a solitary basis and does not regard himself as part of any 'metal detecting community'. He is not a member of a club and, as far as the author is aware, has no interest in contributing to, or engaging with, other metal detectorists through online forums, etc. He is also critical of other metal detectorists who do not demonstrate the same care and commitment to recording the past, particularly in relation to rallies, commenting:

'I have never been to metal detecting rallies, I don't like the way people run over the fields trying to find the most valuable item going, and with a chance of selling their finds'

It is fair to conclude that MdSM does not fit the mould of a 'typical' metal detectorist, as his motivation is not driven by a passion for metal detecting as a hobby, but by his interest in the battlefield itself. MdSM has focused his metal detecting career solely on Sedgemoor where he continues to have a clear view of what he wants to achieve. When asked why he metal detects, MdSM answered:

'Detecting for me is about the history and what I can put in to it, not for personal greed. I have spent hundreds of hours now only detecting on the battle of Sedgemoor, it is a vast space and should keep me going for years to come' (MdSM pers. comm. 2011)

There are of course other driving factors influencing his motivations and decisions,

perhaps less acknowledged by MdSM himself. His decision to concentrate on the rout and 'Wade's Stand' is perhaps influenced by his character as a 'solitary' detectorist. Situated on the northern periphery of the battlefield, MdSM can remain at a good distance from the main road and beyond the limits of other 'treasure hunting' detectorists, as he describes them.

MdSM has been dependant on metal detecting to keep him active as he has for many years been recovering from a long period of illness. Detecting the battlefield has acted as a kind of occupational therapy, providing a much need distraction and helping to regain his confidence. An excellent example of this has been his visits to local primary schools, where he brings artefacts recovered from the battlefield into the classroom allowing the children to handle them, ask questions and learn more about their local history.

7.3 The site and current work

Though significant modifications have occurred over the last 300 years as the landscape still retains something of its original character as many features, albeit in an altered form, still exist today. The battlefield is located on the Somerset Levels, within an area defined as Kings Sedgemoor. The town of Bridgwater is situated 3 miles to the east, with the village of Westonzoyland forming the southern boundary of the site and the location of the Royal camp during the battle. The edges of the battlefield are defined by two water courses: to the north is the Moor Drove Rhyne, formerly the Lang Moor Rhyne, and to the west is the substantial Kings Sedgemoor Drain, known pre-improvement as the Black Ditch (Plate 25).



Plate 25: Area of MdSM's metal detecting activity. View looking south-east over Chedzoy New Cut. Image taken by the author.

This area of wet fenland is very flat except for a few patches of higher land on which sit small settlements such as Westonzoyland or Penzoy. Some of these dryer islands, reaching only metres above the saturated alluvium, were utilised for the cultivation of crops such as corn, as was the case in fields south of Chedzoy as documented by the Rev. Andrew Paschall in the late 1680s in the form of a written account accompanied by a detailed map of the action (Fig.25). This is an ancient landscape with evidence of activity from the Iron Age and beyond, possibly when the fens were dryer (Pollard and Oliver 2004, 161). Attempts to reclaim the land from fen have occurred since medieval times. In 1791 an Act of Parliament modernised this process by fully enclosing Kings Sedgemoor and cutting substantial drains and ditches, together with expanding existing drains including Kings Sedgemoor Drain (Foard 2003b, 9). After these improvements, the battlefield resembled a chess board, with field boundaries defined by these drainage ditches forming straight lines and sharp angles across the landscape (Fig 24). Drainage resulted in key features such as the Bussex Rhyne, a shallow water course which played havoc with the Rebel forces, disappearing in the landscape, visible only in aerial photographs or as a shallow depression in the ground. The considerable excavation

required to enclose and drain the moor will no doubt have had an impact on the archaeological remains of the battlefield, not only in terms of damage from excavation but potentially also from displacement if soil from ditch cutting, possibly containing artefacts, was dumped in other areas across the site (Foard 2003a, 37).

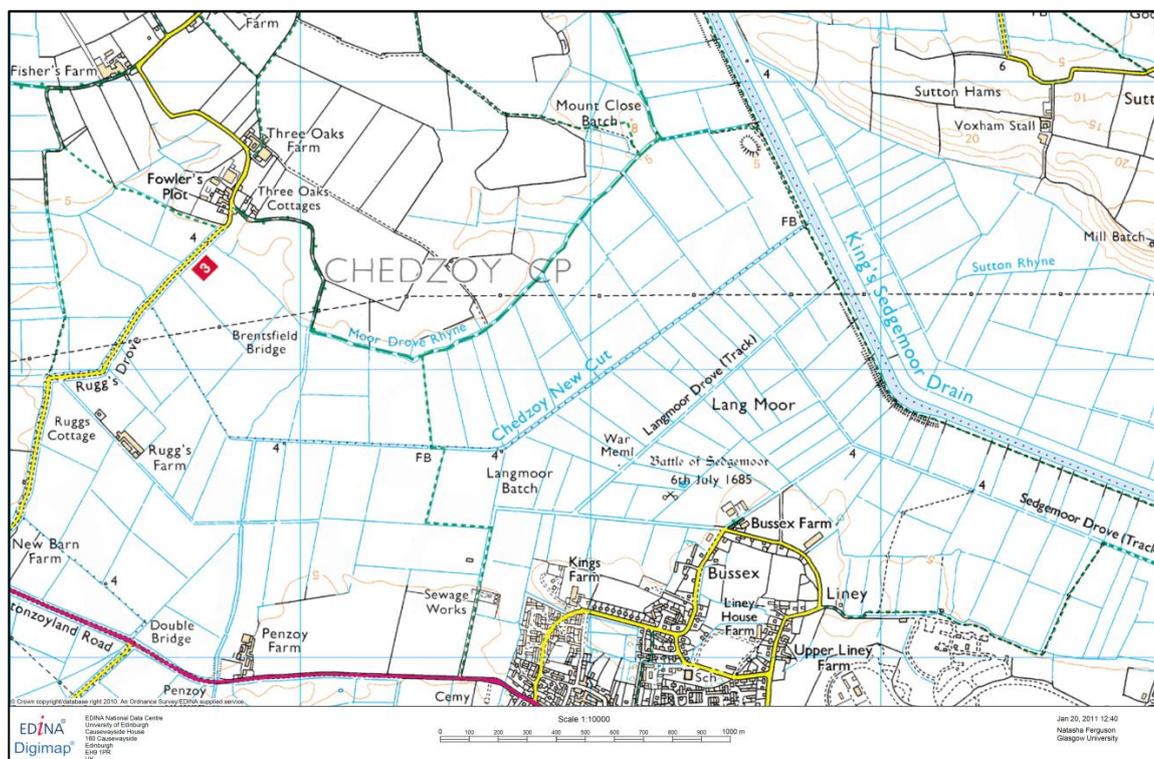


Figure 24: Map of the Battle of Sedgemoor and area of MdSM metal detecting activity situated in fields north of Chedzoy New Cut. Reproduced with permission of the Ordnance Survey.

MdSM's work has concentrated on four rectangular fields situated between the Chedzoy New Cut to the south and the Moor Drove Rhyne to the north (Fig.24). The field boundaries are defined by a narrow drain on each side. Three of the fields, F8, F9 and F10 are further subdivided into either two or three parts. In these fields MdSM has recorded a significant volume of material potentially relating to the rout of the Rebel army. More specifically MdSM believes he has found the location of Major Wade's last stand with his Red Regiment, the only body of Rebel Foot said to have made an orderly retreat from the battlefield. It is possible that MdSM has also recovered evidence of the retreat of the Rebel Horse under Grey and Artillery activity related to the Royal infantry advance, all of which will be discussed in a subsequent analysis section.

MdSM's current metal detecting activity has moved north of these fields and over the Moor Drove Rhyne to investigate the potential presence of material in an area

identified as the cornfield on Paschall's map. Here Paschall indicates the 'flight and pursuit' of the Rebels and where there was '42 killed' (Fig. 25). MdSM has also voiced plans to locate the position of mass graves here and in other areas of the battlefield. However, this can only be achieved to a superficial level without archaeological supervision or adequate resources.

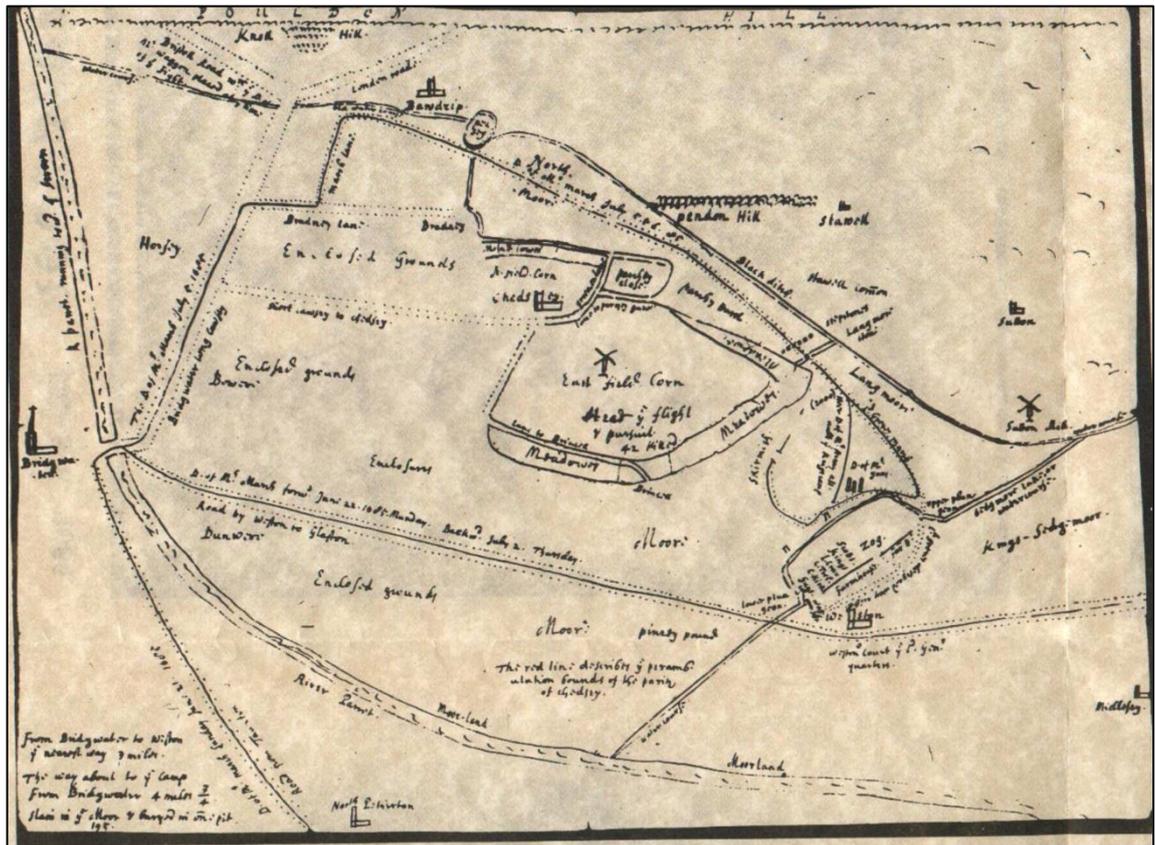


Figure 25: Paschall's map of the battlefield c.1680s-1690s. Note '42 killed here' written in the centre of the map with the enclosure. Reproduced after Young and Adair 1979.

7.4 Methodology

After a short period of uncertainty regarding artefact recording, MdSM engaged a more robust recording methodology and now ensures that each artefact is individually bagged and given a unique find number (Plate 26). Rather than employing the use of a hand-held GPS device for recording, MdSM prefers to use a self-developed system of pacing in transects to record and plot artefact positions. Before metal detecting a new field MdSM will begin in the top corner and will count the number paces to the other side of the field, usually moving from west to east as this is the shortest distance. He will then divide the total pace count by four, for example, 200 paces will divide into four sections of 50 paces

and uses stakes to mark the beginning of each new section for the length of the transect. This serves to break up the transect, making it easier to keep track of his position along it, as well as ensuring he does not deviate off track by using the last post as a guide. As he moves along the transect and comes to each marking post he will do a sweep on either side of it to a 5ft span and then pick it up from the left hand side and move it to his right hand side. When he comes back in the opposite direction he will do the same thing, but this time from right to left, moving gradually until survey of the field has been completed. To record artefact locations MdSM will take note the transect he is on; the transect section and the number of paces along the section. He will then later use this data to plot a distribution map. In recent years MdSM has tried using a metre-wheel rather than pacing in an attempt to improve accuracy, but this was soon abandoned as he found his pacing to be more consistent.

There are several advantages, as well as disadvantages, to using this methodology. There are advantages in terms of coverage and consistency as this method ensures MdSM covers as much ground as possible, which has been further improved by the purchase of an expensive Minelab Explorer XS fitted with a 14inch wide coiltek (search head). His familiarity with the methodology and his systematic approach does deliver a consistency that cannot be replicated by the use of a hand-held GPS, which along with an inbuilt error may deviate in accuracy between 3m-15m across a day of survey. One significant issue with this methodology is the ability to rectify the artefact scatters within the Ordnance Survey maps, as attempts to do so by the author have been unsuccessful. However, this should not detract from the accuracy of the scatters themselves and the spatial relationships between each artefact. As one can see from the distribution maps created by MdSM, it is possible to make meaningful interpretations of the data, a credit to his painstaking attention to detail. Over the last 10 years MdSM has spent several hundred hours detecting this area of the battlefield and has been able to achieve near 100% ground coverage which helps to support the interpretation of 'negative areas' within the distribution pattern.



Plate 26: The process of recording and individually bagging artefacts recovered from the battlefield. Image taken by the author.

7.5 External involvement

Although MdSM prefers not to engage with the metal detecting community he has not remained completely isolated and has been involved with other external groups in relation to the archaeology of the battlefield. The most consistent of these connections has been with the FLO of the Portable Antiquities Scheme, based in Taunton Museum, with whom he has developed a productive relationship. Throughout his time on Sedgemoor, MdSM has recorded artefacts with the PAS, though in recent years this has only included more unusual finds such as an ornate bronze clasp and a trigger guard, rather than the more ubiquitous lead projectiles. His work has also appeared in the PAS 2001/02-2002/03 annual report (Resource 2003, 48) and was identified as an example of good practice. There are plans to include a small assemblage of MdSM's recovered musket balls and canister shot within a display about the battle in the newly refurbished Taunton Museum, which was due to open in the summer of 2011.

This relationship with Taunton Museum has extended to include involvement in other investigations of the battlefield. As well as *Two Men in a Trench*, MdSM assisted the archaeological field unit Context One in a two phase developer-led evaluation ahead of a sewage pipeline development which transected the western area of the battlefield core, just south of the fields MdSM has been working in. MdSM engaged well with the metal detecting team, led by Dr Glenn Foard, and contributed some of his knowledge of the site to help with the interpretation of the assemblage recovered (Foard 2009, 21).

Less positive experiences have been encounters with other metal detectorists on the battlefield, who MdSM refers to with unreserved scorn as ‘treasure hunters’:

‘Over the years I have seen a handful of treasure hunters go out to try and find souvenirs on Sedgemoor but they don’t last long as these fields are vast, they give up when they don’t find very much’.

MdSM has had several encounters with metal detectorists who he says have done damage to the battlefield as they, ‘don’t care about recording or filling in holes they have dug’. He estimates that between 2007 and 2009, at least seven metal detectorists have visited the battlefield and that approximately 500 musket balls have been removed without being recorded and placed in pockets, plastic tubs and even buckets. MdSM even recounted observing one regularly visiting detectorist recovering a significant number of musket balls from the Memorial Field area of the battlefield, only to place them in a spaghetti jar. He is said to have later used them at a charity function for a ‘guess how many in the jar’ competition. Indeed on one visit by the author to the battlefield with MdSM, a metal detectorist was observed within the vicinity of the Memorial Field. When approached to enquire what he was looking for, he replied that he was looking for ‘musket balls, but especially a cannon ball’ (Anon 25 April 2009).

It is important to acknowledge at this point to work of another metal detectorist, who for a period of 20 years from the 1980s, sporadically metal detected areas of the battlefield. Like MdSM, this individual recorded and plotted his finds on a distribution map and made this information available to both the *Two Men in a Trench* project and subsequently the Context One investigations of the battlefield. It is not clear what his methodology was, but it does not appear to have been as consistent or systematic as MdSM’s approach, for example, it is believed he did not individually bag and number his finds. This individual was also not local to the area, traveling long distance to reach the site

and consequently taking any recovered artefacts from the battlefield with him. This assemblage of battle-related material is believed to remain in his private collection, however, it was not possible to contact this individual or access it for analysis.

7.6 Site analysis and interpretation

This section will provide an overall analysis of the site and will include a brief historical background, together with an analysis of the recovered assemblage and its distribution across the survey area.

7.6.1 *Historical background*

As the Duke of Monmouth's ship docked in the port of Lyme Regis, Dorset, the south-west prepared for the turmoil of rebellion against their King, James II. Monmouth, the illegitimate but favoured son of Charles II, intended to overthrow his uncle by taking advantage of the growing resentment surrounding James and his sympathies towards the Catholic faith. Fearful of 'popish' power returning to England, many God-fearing Protestants of the south-west rallied to Monmouth's cause. Monmouth skirted across Devon, Somerset and Gloucestershire, bringing his Rebel army as far north as Bath (Whiles 1985). He finally came to rest in the walled town of Bridgwater, where he planned to prepare for siege. The town's people, although initially supportive of Monmouth, would not risk the destructive force of siege warfare on their town and refused to allow the Duke to continue with his plans. Now outstaying his welcome, Monmouth required a change in tack. Seeing that the Royal army, who had continually shadowed the Rebel forces, had encamped at Westonzoyland on the fringes of the moor, Monmouth decided to take the offensive and attempt a surprise night attack on the Royal camp (Fig. 26).

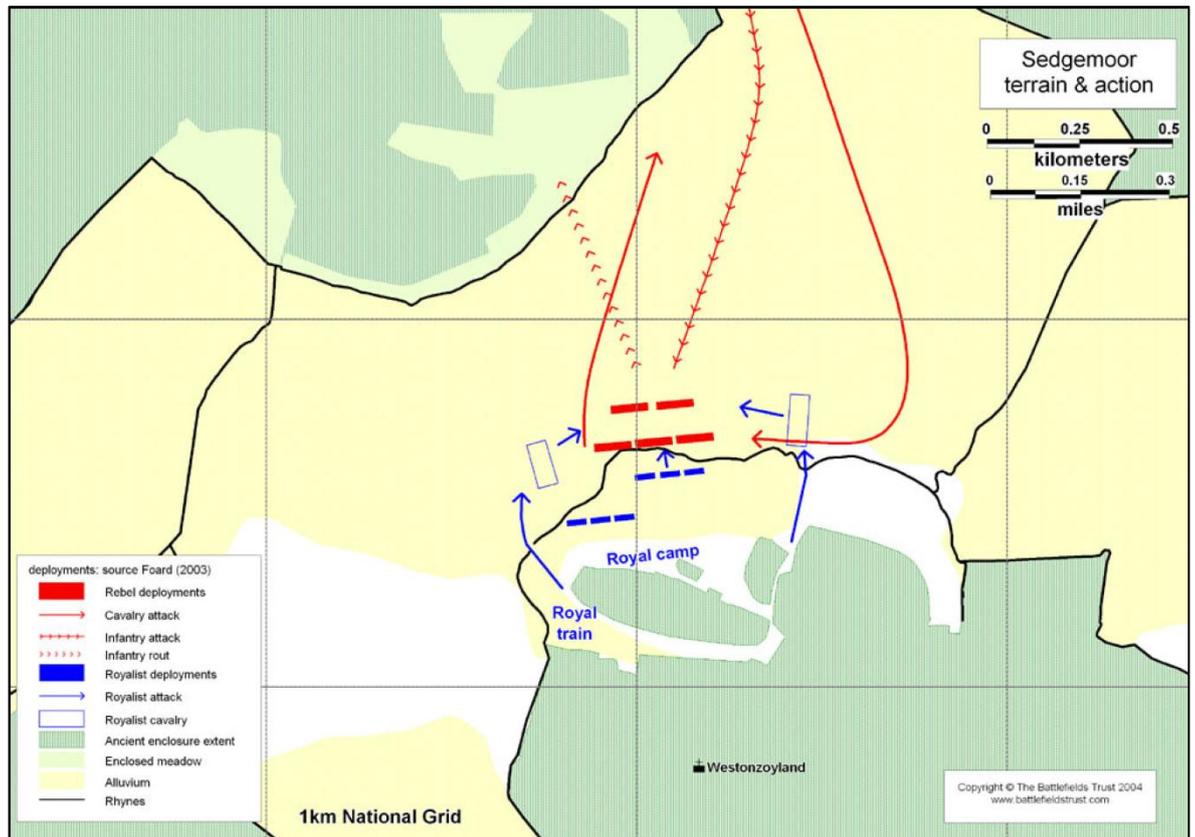


Figure 26: Map depicting the main events of the battle. Reproduced by permission of The Battlefields Trust.

Local sources had suggested that the Royalists had not entrenched themselves into their position, digging no ditches or trenches to protect their seemingly vulnerable front which faced onto the moor. The Royal army, however, had selected their position wisely, using the natural feature of the Bussex Rhyne, a shallow but wide water course that encircled the camp to the north, west and east. With only two dry crossing points, the Upper and Lower Plungeons located at opposite ends, the Bussex Rhyne provided an excellent defensive feature with which to slow an attack. Whether or not Monmouth was aware of the Rhyne and had underestimated its effectiveness, or was actually unaware of its existence, it certainly played an important role in the failure of the Rebel army to penetrate the camp.

Leaving the security of Bridgwater, Monmouth and his army made their way northwards along the Bristol Road with the aim of skirting off to the east and down the narrow lanes and trackways towards Bradney and Peasey Farm. They would then head south, following the Black Ditch and entering the moor via the Langmoor stone. Marching in column the Rebel army must have stretched over several kilometres, winding their way past isolated hamlets and farmsteads, keeping deathly quiet as they made their way through

the thick fog and the night. Although squadrons of Royalist Horse were actively patrolling the landscape, they failed to acknowledge the approach of the Rebels. However, as the Rebels reached the Langmoor Stone, which in the gloom had taken longer to locate despite the use of a local guide, a pistol shot rang out of the gloom, alerting the Royalist camp to their presence. Monmouth had lost his surprise, but not yet his advantage. The key now was to ensure his soldiers, the majority of whom had only weeks of training, were able to cross the 1.5km quickly whilst remaining in formation. Monmouth sent forward his Horse, commanded by Lord Grey, to attack the camp entering by the Upper Plungeon and put it in disorder before his infantry arrived. Grey set forth, but they were soon to be in disarray. Missing the Upper Plungeon, Grey and engaging a body of Royalist Horse returning from patrol, Grey and his horse rode westwards along the Rhyne in an attempt to find a point of entry. He was met with musket fire from the battalions of Royal infantry who had formed their position on the other side of the Rhyne. On the far right flank was Dumbarton's Regiment, together with the 1st and 2nd (Coldstream) Guards. Scattered by enemy fire, Grey's Horse retreated and in doing so ran head long into his own infantry, unnerving them almost to the point of collapse.

Wade with his Red Regiment, together with the Yellow and Green Regiments commanded by Colonels Mathews and Holmes, were finally able to reach the Bussex Rhyne and in some resemblance of good order. As Wade drew up his Regiment he appears to have misjudged his position, coming to a standstill too far to the east, with the other Rebel Regiments falling into line on his left. This concentrated much of the rebel fire, including that of their three cannon loaded with canister and round shot, onto Dumbarton's Royal Scots. But rather than return fire, the Dumbarton's and Guards were ordered to stand firm and allow the Rebels to exhaust their ammunition. With the Rebels running low on fire power, Wade had missed his opportunity to advance as his soldiers would not cross the unknown watery depths of the Rhyne, despite his best efforts to persuade them. Here the tables turned and the full might of the Royal army came crashing down upon the Rebels. The Royal Artillery was drawn up, with one battery placed in front of the Dumbarton's to disable the Rebel cannon and another battery placed ahead of the 2nd Guards, where they 'made great lanes among the rebels' (Paschall, reproduced in Tincey 2005) and 'did very considerable execution' (Drummer, reproduced in Tincey 2005). As dawn broke, the plight of the Rebels became apparent. With no cavalry to support them the Royal commander Faversham ordered his Horse and Foot over the Rhyne to break and pursue the Rebels. As the Cavalry streamed from the Upper and Lower Plungeons, the infantry, with

the Grenadier companies in the vanguard to clear the way, marched across the shallow water to engage the enemy:

‘The Rebels by this tyme being very uneasie, our foot and canon firing on their front while our horse charged them on both sides’ (Sackville and Stopford-Sackville 1904).

Much of the work appears to have been done by the Royal Horse who cut through the broken ranks of the Rebel infantry as they ran for the cover of the cornfields to the north. On the Royalists right flank the Blue Regiment, still reeling from their encounter with Grey’s Horse, managed to repel several charges by the Royal cavalry but were eventually routed, as were the Yellow and Green regiments in the centre who had over the course of the battle merged into one block of infantry. The left flank, held by Wade, succeeded in holding what he describes as a ‘disorderly retreat to a ditch a great way behind us’, where he was ‘charged by a party of Horse and Dragoons, and routed: above one hundred and fifty getting over the ditch’ (Wade, reproduced in Tincey 2005; Chandler 1999, 70). This ditch was the Langmore Rhine, the water course they had crossed hours before by way of the Langmore Stone.

The closing stages of the battle, involving the resistance of Wade’s regiment and their subsequent rout along with the Yellow and Green’s, are of special interest to this case study and relate to the material recovered by MdSM in the fields just south of the Langmoor Rhyne (Moor Drove Rhyne). Although this is a well-documented battle with several eyewitness accounts, there are a number questions drawn from the archaeology which are not addressed in contemporary sources. One in particular relates to the presence of canister shot far beyond the range of the Bussex Rhyne. Was the artillery advanced with the Royal infantry as they crossed the Rhyne? Or did they capture the Rebel cannon as it was left abandoned in the field? Furthermore, how much resistance did the Rebels give? Did they flee or did many more than Wade’s regiment make an attempt to stand and fight?

7.6.2 Analysis of artefact assemblage

This section will provide an overview of the assemblage recovered by MdSM, including an analysis of the artefacts, with particular attention to the lead projectiles, and their distribution across the site. Where appropriate, this analysis will also make reference to the results of two other projects conducted on the site by Context One (Foard 2009) and by

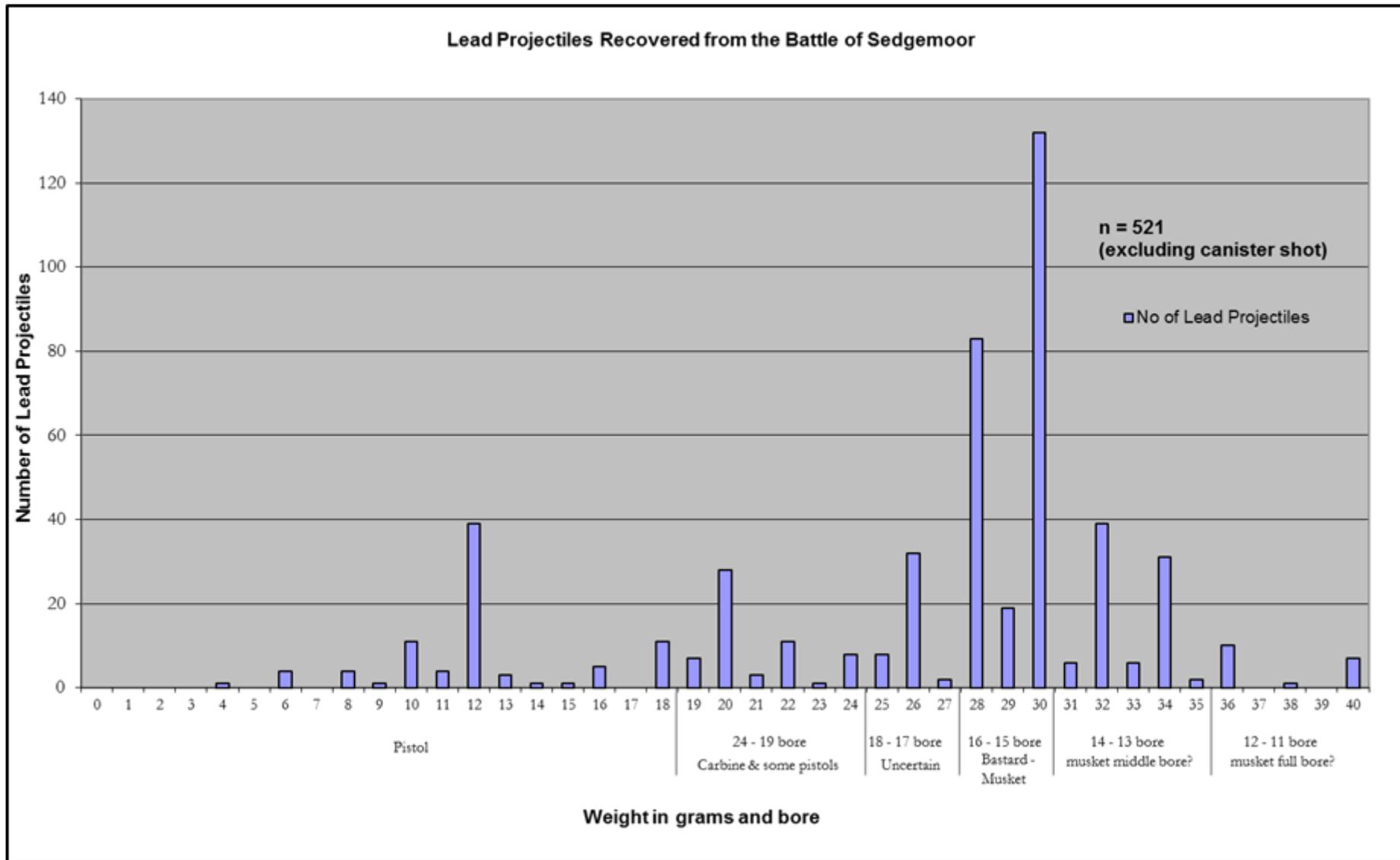


Figure 27: Graph showing range of lead projectiles recovered from battlefield

GUARD as part of the Two Men in a Trench series (Pollard and Oliver 2003). Overall 577 lead projectiles were recovered: these include musket balls (66%), pistol balls (18%), carbine balls (5%), canister shot (6%), hail/buckshot (2%) and slugs (1%), and a small unidentifiable group of projectiles (3%) (Fig. 27). In comparison to earlier assemblages of the mid-17th century, this collection of projectiles are generally more standardised by size and production technique, and although most bore sizes are represented, there is a clear definition between weapon type preferences. The most abundant musket ball weight, making up 42% of the lead projectile assemblage (excluding canister shot), was 30g (1.1oz) or 15 bore, followed closely by 28g (1oz) or 16 bore. This is referred to by Foard (2009) as a ‘bastard musket’, although it is not clear where this reference originates, or if the term was used beyond the reforms of firearm production after 1660 (Blackmore 1964, 29). Pistol and carbine balls make up a significant proportion of the assemblage highlighting the predominate role both Cavalry and Dragoons played in this engagement. Two key pistol and carbine sizes have been identified at a weight of 12g (0.4oz) or 38 bore for pistol and 20g (0.7) or 23 bore for carbines. A substantial volume of canister shot was recovered on the southern periphery of the survey area. As the majority of the canister shot had either been severely distorted by impact or fused with other shot, it was not possible at this stage to provide an estimation of their original weight or bore. This is also the case for several other projectiles which appear to have ‘fused’ together, for example some hail shot, pistol balls and slugs. These will be discussed separately as they provide rare examples of unusual ballistic events occurring on the battlefield, possibly as a result of double loading.

The Battle of Sedgemoor occurred during a transition period of firearm technology that saw interesting developments in the reliability and effectiveness of muskets, pistols and carbines. Advancing firearm technology brought with it an evolution in military tactics and a phasing out of outmoded units within the infantry, such as the pike block. At Sedgemoor this ratio had reduced dramatically to one pikeman for every two musketeers (Tincey 2005, 22). Progression had been made in the production of the flintlock, or snaphaunce, musket with the aim of issuing it across the infantry rather than restricting it to Cavalry, Dragoons and specialist units such as the Grenadier companies. Despite these changes the matchlock musket was still broadly in use by 1685, although it benefited from modifications to the lock plate resulting in the priming pan becoming integral to the lock rather than attached to the barrel as in older versions (Blackmore 1961, 30). Tincey goes as far to argue that fewer flintlocks were issued to regiments present at Sedgemoor than previously interpreted, with some companies, such as the Guards and Dumbarton’s re-equipped with 28 matchlock muskets and only 12 snaphaunce muskets on their return from

Tangier in 1684 (2005, 23). Cavalry and Dragoons were equipped with a set of two pistols or carbine which were used primarily as a short-range weapon to break lines of infantry, with the sword remaining the most effective weapon for close-quarter action (Hughes 1997, 13).

7.6.2.1 Diagnostic analysis of lead projectile assemblage

This section will provide a summary of results of diagnostic analysis carried out on the lead projectile assemblage recovered by MdSM. Analysis has been supported by useful comparisons with two other assemblages originating from the battlefield: the Context One assemblage, conducted by Dr Glenn Foard, and an assemblage recovered by GUARD/TMT which was catalogued by the author. The analytical report of the Context One material has been particularly useful to this research because the two assemblages are spatially linked, as represented by a scatter of canister shot covering both areas and there exist a number of direct diagnostic comparisons between the two groups of material.

A key characteristic of this assemblage is the distinctively small proportion of projectiles presenting signs of impact damage in the form of flattening, spreading, gouges and grooves. Of those that do show evidence of impact, the majority are represented by a compression of the projectile shape to form slightly flattened surfaces with rounded edges (Plate 27). This may be due to the soft peaty soils of Sedgemoor which, compared to other environments such as Tywardreath, are capable of absorbing much of the impact and therefore reducing damage to the projectile. This analysis has observed two other forms of deformation relating to firing, including banding and evidence of double loading, which have also been observed by Foard within the Context One assemblage.



Plate 27: Impacted musket balls with smooth rounded edges. Image taken by the author.

Banding is a diagnostic feature described as a flattened strip or band situated at the equator of the projectile (Plate 28). This feature has been interpreted as a result of the ball expanding within the barrel of the musket as it is fired, particularly if the ball is a close fit. As the ball expands, the surface grazes the sides of the barrel sometimes leaving thin grooves, and in more extreme circumstances creating a compressed appearance. Seventeen distinctive examples of banding have been identified, with F7/G4/005 and F10/036 representing particularly good examples.



Plate 28: Two musket balls with distinctive banding marks at the equator. Image taken by the author.

Evidence of double loading is more problematic to identify as it may be misinterpreted as other forms of impact deformation, although twelve examples have been identified in this assemblage (Plate 29). Double loading can be recognised in two forms: as two musket or pistol balls fired together, or an individual projectile fired together with smaller hail/buckshot. This first event is identified by a circular depression on one hemisphere which may be accompanied by creasing around the periphery, as for example on F7/G34/055 and F7/G43/161. This feature occurs as the bullet closest to the breech, which will be travelling faster, hits the lower hemisphere of the second ball and creates a compression (Foard 2009, 20). A very rare example of double loading can be seen in F10/P3/017 where it appears the first ball has fused with the secondary ball. This may have happened as a result of the secondary ball being of a larger calibre and therefore not able to leave the barrel as quickly as the first. Note, in support of this, evidence of banding on the secondary ball as it has expanded in the barrel due to pressure exerted from below. The second type of double loading include examples of a pistol ball fired with hailshot, for example as represented by F8/T/0052, and particularly in F7/G34/059 where the smaller hailshot have left hexagonal facets or impressions on one side of the ball as they were fired together. An almost identical example of F7/G34/059 has been identified by Foard within his analysis (Foard 2009, 22).



Plate 29: Examples of double loading (top row) and inclusion of hail-shot (bottom row). Image taken by the author.

Other examples of hailshot have been recovered elsewhere on the battlefield and usually in close association with pistol balls (Plate 30). Two more unusual examples of hailshot come in the form of F8/T/042 and F10/009 which appear to represent a fused cluster of hailshot with smooth rounded sides as if it has taken the shape of the barrel when fired. It is not clear how this feature has formed but it is unlikely to have had the desired impact and may have damaged the pistol when fired.

Further unusual examples of projectile types represented at Sedgemoor include F8/B/095, two pistol balls connected by a central cylindrical piece referred to as bar shot. Fired from a pistol, the shape of this projectile would result in an unstable trajectory causing it to do particular damage to the target; slugs have a similar effect. The slugs

recovered from Sedgemoor are cuboid in shape and appear to have originally been musket balls hammered into shape. According to Foard, who did not identify any amongst the Context One assemblage, they are usually found when cavalry engage with infantry (Foard 2009, 14), which fits well within the context of the rout and Wade's stand.



Plate 30: Fused hailshot (left) and possible bar-shot or slug (right). Image taken by the author.

7.6.2.2 Artillery projectiles

Canister shot is a simple and effective form of artillery projectile, consisting of a canister or tin containing a proportion of loose musket balls which is fired from a cannon (Plate 31). Canister shot is most effective at close range to either repel an attack, or as is possibly the case at Sedgemoor to break stubborn bodies of infantry (Hughes 1997, 35). Thirty-four pieces of canister shot were recorded at Sedgemoor, the majority of which were recovered from the south-western corner of F8. All pieces display typical features of canister shot which is characterised by heavy distortion in the form of multiple facets with well-defined edges caused when the projectiles collide in mid-air once they have been fired. Ten pieces within the assemblage represent a very rare and unusual ballistic event as several of the fired projectiles have fused together in pairs. Furthermore, within this grouping four pieces have a smooth curvilinear outer edge. Foard has also noted the presence of several pieces of fused canister shot, some of which also exhibit a similar curvilinear pattern, although he refers to them as 'welded' (Foard 2009, 18). This is inaccurate as welding

refers to a process where a secondary metal is used to join two pieces together. In this case the projectiles have fused together under intense pressure and heat, although it is not clear if this process occurs in the barrel or as the projectiles are airborne. The latter is an important point in terms of the origin of the curvilinear feature which has appeared in both assemblages. This analysis has suggested that when the curve is completed the circumference correlates closely to the calibre of a 3lb Falcon. Foard, however, is cautious; while he agrees that it may be possible to estimate the bore of the fired artillery piece using this diagnostic feature, recent ballistic experiments conducted by Foard revealed a potential disparity between the bore of the artillery piece and the curve replicated during tests (Foard 2009, 18). The full results and interpretation of this experiment, however, have not yet been published.



Plate 31: Examples of fused canister shot recovered from the battlefield. Image taken by the author.

7.6.2.3 Signature Artefacts

A small group of signature artefacts were recovered from the battlefield, including three lead powder-box caps, together with a good example of a powder flask nozzle (Plate 32). MdSM also recorded an ornate example of a 17th-century brass trigger guard (Plate 33). The guard is delicate and attached to the stock of the musket by a screw, the terminal end of which is completed by a fleur de lis; it is therefore likely to have been a personal

firearm, possibly belonging to a rebel, rather than the more robust military-issued matchlock musket.



Plate 32: Lead powder-box camps and a powder-flask nozzle. Image taken by the author.



Plate 33: Trigger guard with fleur di lis terminal c.17th-century. Image taken by the author.

7.6.2.4 Personal artefacts

A number of personal items such as buttons and buckles were recorded from the site, all of which date closely to the 17th century. One intriguing personal item found by MdSM is described on the PAS database as a ‘copper-alloy hooked mount with traces of an iron rivet’ (SOMDOR-D9A3E7 Mount) (Plate 34). The mount is lozenge-shaped with v-shaped notched terminals and is decorated by hand-incised lines forming an s-shaped pattern,

possibly a snake, which could represent a family crest. Although it is not possible to relate any of the more personal items to the events of the battle, such high quality buttons, buckles and mounts are unlikely to have been dropped by cattle grazers on the moor and therefore may provide an interesting social history of those who fought in the battle.



Plate 34: Copper alloy mount with incised decoration c. 17th-18th century. Image taken by the author.

7.6.3 *Artefact distribution*

As detailed in the methodology section, MdSM has employed a basic, but practical, system for recording the position of each artefact to create a distribution map of finds. The only issue is that the distribution plots have been created independent of Ordnance Survey maps, therefore some accuracy may be lost in an attempt to calibrate the plots within one. There is an advantage in that the field system does take the form of a grid in the landscape and MdSM has noted certain landscape features such as field boundaries, gates and pylon positions, which make it possible to tie it in to the landscape with some degree of accuracy (Fig. 28).

The plots created by MdSM highlight some very interesting artefact distributions, with evidence of distinctive patterning across three fields which may represent the movement of Infantry and Horse as the Rebel army were routed. In order to provide a detailed analysis of the distribution, several potential patterns or concentrations of material

have been identified, some of which combine to represent a larger event (Fig. 29). Each will be described and analysed, either individually or as a group, and then brought together to provide an overall interpretation of the artefact distribution.



Figure 28: Ariel view of area of investigation highlighted in red. Note the pylon situated at the centre of Field 9 which acted as an anchor point to rectify distribution map. Reproduced from Google earth.

Battle of Sedgemoor 1685

Distribution of Lead Projectiles

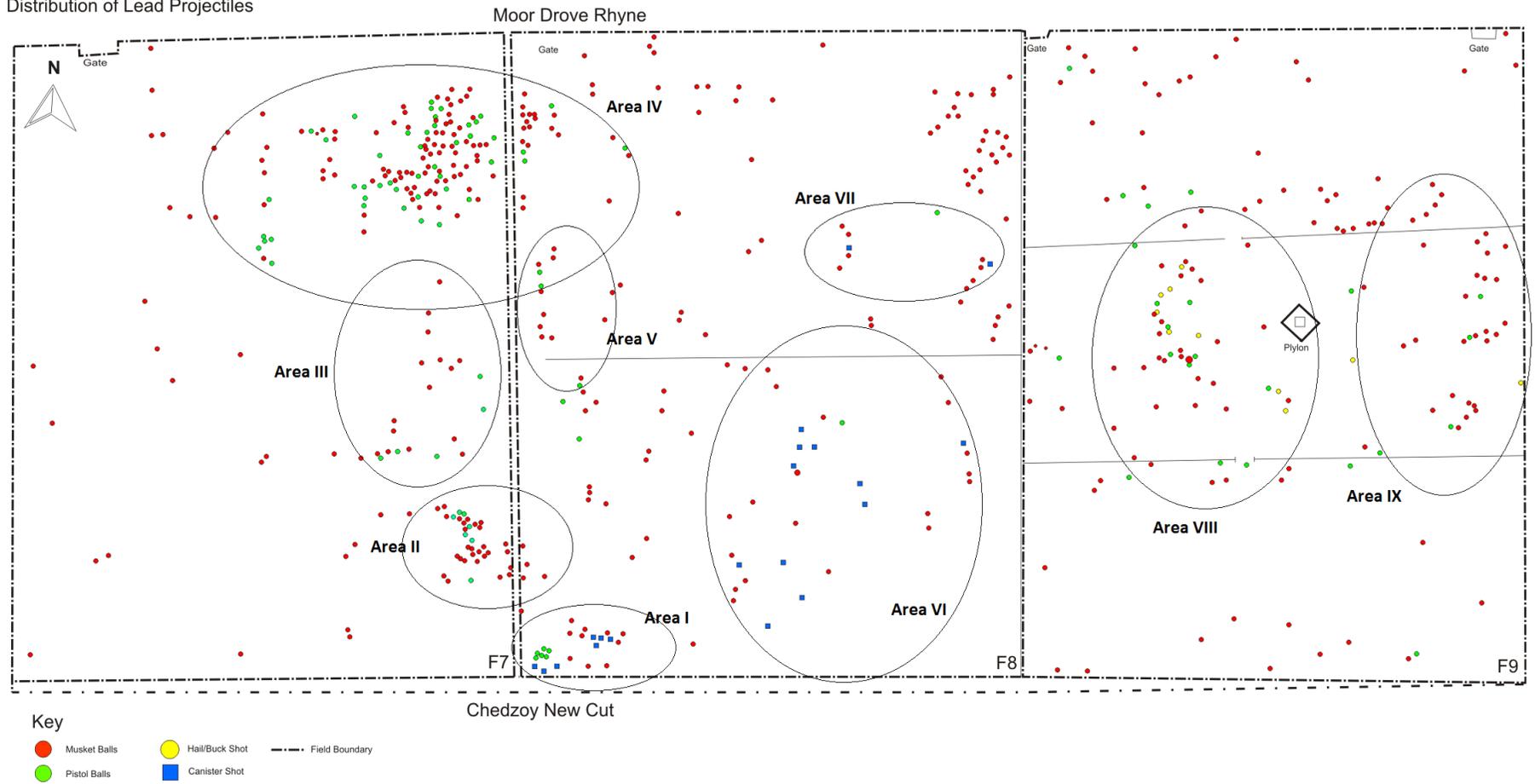


Figure 29: Distribution map of artefact scatter relating to Wade’s route as recovered and plotted by MdSM. Map produced by author

7.6.3.1 Patterns I & VI – Canister shot

Pattern I appears as a small but dense concentration of material situated in the south-westerly corner of Field 8. This concentration is composed of musket balls, pistol balls and canister shot; the latter two groupings are of the greatest interest. The pistol shot appears as a tight cluster, almost separate from the other projectiles recorded, and may represent an event involving a small body of cavalry. The canister shot appears as two groups of material, one containing three and the other four, situated in close proximity and in what may be described as a linear trajectory heading northeast. This north-easterly pattern of canister shot is found in other areas of Field 8 as identified in VI. Here small groups and individual canister shot have been recorded amongst a loose spread of musket balls. Although more widely spread than *I*, there does appear to be an indication of a north-easterly direction. This is further supported by an investigation carried out by Context One, ahead of a pipeline development in fields directly south of Field 7 and 8 (Fig. 30): concentrations of canister shot recovered, some of which were partially recorded by GUARD in 2003, also appear to follow a north-easterly trajectory (Foard 2009, 12). One concentration of canister in particular is situated within close proximity to *I* and is likely to form part of the same assemblage, with the lower portion representing the initial burst from the cannon. An important point to note is the substantial proportion of ‘fused’ canister shot in *I*, some of which appears to have been shaped by the circumference of the barrel. ‘Fused’ shot in VI appears as frequently, but is more widely scattered.

As both Patterns *I* & *VI* contain fused canister shot and appear to follow the same north-east trajectory, forming a narrow oval shape as it extends across Field 8 (Birkbeck pers. comm. 2008), it is likely to represent the same body of canister shot fired from one cannon, rather than two separate firing events. The presence of canister shot in Field 8 may be explained as an attempt to break the Rebels, particularly Wade’s regiment on the Royal left. Here Drummer records that six guns were brought forward to the front line with three advanced ‘in the front of the King’s first battalion’, and fired upon them until the Rebels ‘throwing down their armes, fell into rout and confusion’ (Drummer reproduced in Chandler 2005, 129). The canister shot however is situated well beyond the Bussex Rhyne, out of range for this type of artillery projectile, which is approximately 150m (Foard 2009). Is it possible therefore that some artillery was advanced over the Bussex Rhyne to engage stubborn blocks of Rebel infantry? Or might the Rebel artillery have been captured and

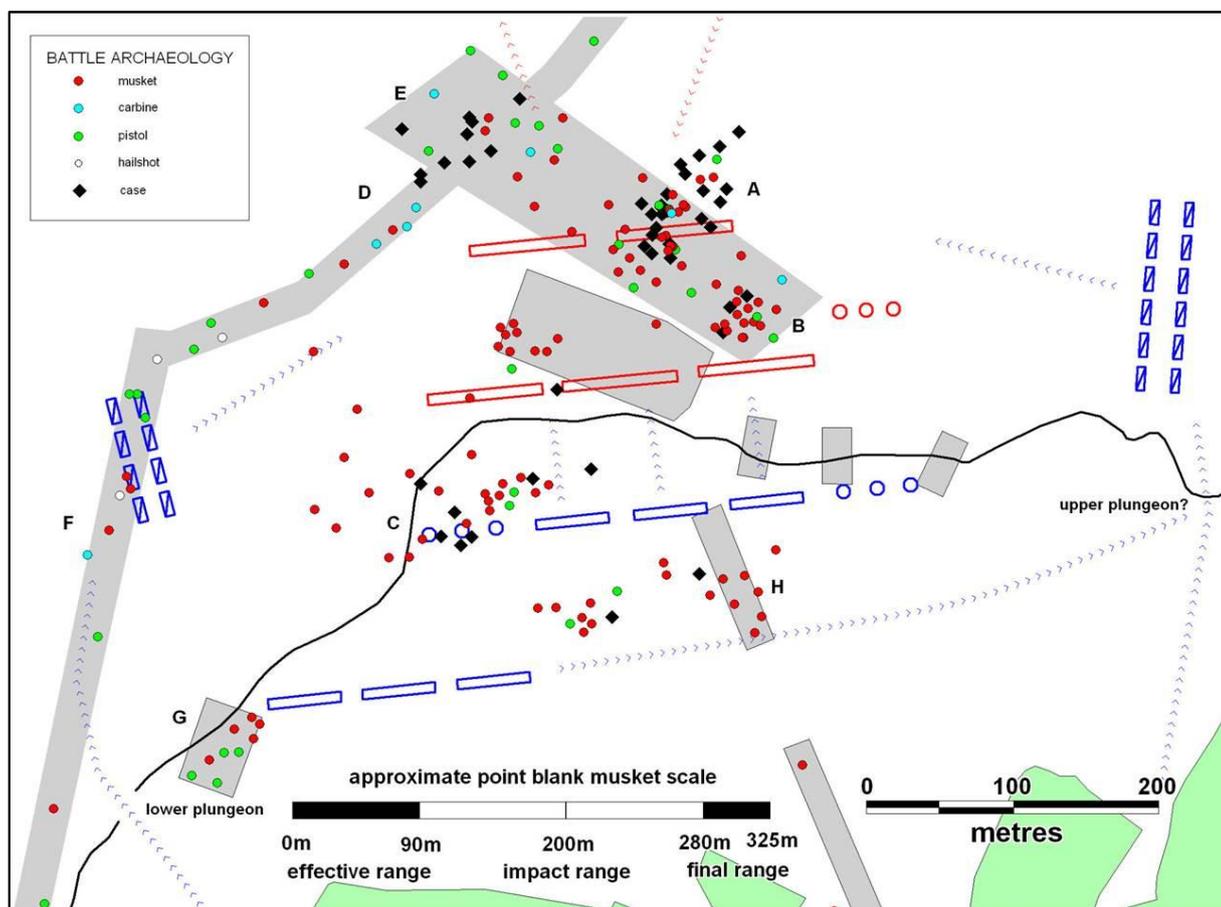


Figure 30: Distribution map representing data recovered during systematic metal detector survey ahead of a sewerage development represented by the grey areas. Note the scatter of canister shot (referred to as case) at E located in close proximity to scatter identified within this case study (after Foard 2009, 12). Reproduced by permission of Context One Archaeological Services Ltd.

turned against them? An official report of the campaign goes as far to record the capturing of the Rebel artillery, although not what happened in the aftermath:

‘Captain Littleton having beaten them from their cannon, which our foot perceiving ran eagerly to possess themselves of it, while the Rebels ran after the rest of their foot’ (Sackville and Stopford-Sackville 1904, 18).

7.6.3.2 Patterns II, III, IV & V – resistance and rout

Three patterns have been identified which may represent what has come to be known as ‘Wade’s stand’. Here Major Wade successfully managed to withdraw his regiment from the field, deflecting advances from Royal Horse and Foot. In the distribution there appears to be three main phases of this withdrawal, beginning with Pattern II - a dense cluster of musket balls and pistol balls situated on the south east edge of Field 7. Within this assemblage there is a distinctive line of pistol balls which run north - south through its

centre. Does this represent a body of Royal Horse breaking through the lines of the Rebel infantry? Heading northwards, Pattern III is composed of two scatters of musket balls and pistol balls either side of the modern field drain forming the field boundary between Fields 7 and 8. The scatters have a linear character running north - south and in Field 7 the pistol balls are found along the edge of the scatter as if encircling it. This linear distribution appears to connect the denser bodies of material at II & IV, suggesting it possibly represents a retreat once the first position was lost.

Pattern IV is the largest body of material and is situated in the north-east corner of Field 7 with some spilling over to Field 8, although this has been disturbed by the cutting of the modern field drain. This is a thick concentration of musket and pistol balls representing what must have been intense fighting between the Rebel infantry and Royal Horse. As Paschall describes, 'some of the Horse and Dragoons fell in with them until they gott of off the moore into the enclosures (Chedzoy cornfields)' (Paschall reproduced in Chandler 2005, 116). This is reflected in the presence of pistol balls deep within the mix of projectiles, indicating the Royal Horse 'fell in with them' breaking the last vestiges of Wade's red regiment.

7.6.3.3 Patterns VIII & IX – possible engagement of Royal Horse from the right

Two opposing scatters of material have been identified in the centre of Field 9. Both assemblages, which appear either side of the modern pylon, are linear in character, running north - south and contain both musket and pistol balls. There are two potential interpretations for this distribution of artefacts; the first focuses on the north - south linear pattern of the two scatters which is similar in character to patterns represented in fields 7 & 8 and fits with the movement of the Rebels to fields in the north. The second interpretation rotates this view by 90° to an east - west perspective. The latter would suggest two opposing lines, possibly representing the engagement of Rebel infantry with Royal Horse coming from the east. The position of this scatter is perhaps too far north to represent the first engagement of Horse and Dragoons with the Blue Regiment, but it may relate to a response by more consolidated elements of the routed Yellow and Green Regiments to oncoming Horse from the right. A loose trail of musket balls further to the north interspersed with pistol balls suggests this resistance was broken and the Rebels further pursued to the Langmoor Rhyne, with another possible attempt to keep the Horse at bay seen in two diagonal lines of musket balls in the north-east corner of F8.

7.6.3.4 Distribution summary

Movement is a key factor within this distribution. To the west in Field 7 Wade's Stand can be seen in three stages of resistance and rout, with the effective role of Royalist Artillery and Cavalry clearly represented in deadly showers of canister shot and dense concentrations of pistol ball. The wider rout of the Rebels is clearly represented within this distribution, with the eye drawn to scatters of musket balls running in long thin lines heading northwards across the site, especially in field 8 where they are most visible. Here the Royal Horse would have moved swiftly across the moor, targeting small isolated pockets of Rebel soldiers left exposed and unprotected. Further towards the east, larger groups of Rebels may have survived longer than expected, offering resistance to the Royal Horse as close as 100m from the Langmoor Rhyne. It is therefore possible that many more escaped over the Rhyne than previously thought, although as Paschall depicts in his map of the battle the safety of the cornfields were an illusion as the pursuit continued, killing 42 more rebels, with a number of the dead remaining hidden until revealed by the next harvest (Chandler 1999, 73). MdSM has progressed into this area in an attempt to identify material related to events within the cornfield, although at present few artefacts have been recovered.

7.7 Conclusion

Metal detecting activity on the Battle of Sedgemoor is clearly an issue, with a large volume of battle-related material removed from the core of the battlefield on an annual basis, as witnessed by MdSM first hand. What differentiates MdSM from this type of unsolicited activity is his commitment to investigating and understanding the battlefield itself rather than a focus on finding souvenirs with a bloody past.

MdSM's work has made an important contribution to our understanding of this site, not only in terms of extending the known boundaries of the archaeological landscape, but also in the recovery of unusual lead projectile forms such as fused canister shot and evidence of double loading. Whilst it may be argued that his activity on a known battlefield had a greater potential to impact on the archaeological integrity of the site, MdSM's decision to move away from the core of the battlefield and to concentrate on a relatively unknown area, which saw the rout of Wade's regiment, represents a clearer investigative focus. His methodology may have been ad hoc and not without its difficulties in terms of

accuracy, reflected in the author's attempts to rectify his distribution maps within Ordnance Survey data. However, despite this his ability to focus on one area, to cover it intensively and to maintain a consistent methodology ensured the artefact scatters he recorded reflected the underlying archaeology. This may be demonstrated by comparing MdSM's work with another distribution map recorded during a developer-led evaluation which took place directly south of his area. Here a cluster of canister-shot, representing artillery action by the Royalists on the other side of the Bussex Rhyne, recorded by both MdSM and Foard, clearly corresponded.

Another important element of MdSM's contribution to battlefield archaeology has been his continual presence on the site and his ability to monitor the activity of other less responsible metal detectorists. As a local to the area he has adopted the battlefield as an important part of his heritage, a message he has tried to spread by visiting schools and engaging with community events. This sense of stewardship perhaps represents one of his most significant contributions towards the archaeological landscape of this battlefield, an aspect discussed further in Chapter Nine.

Chapter Eight

Assessing the contribution of metal detecting clubs and non-affiliated hobbyist metal detectorists in two battlefield projects in Scotland

8.1 Introduction

Between 2009 and 2011 the author directed and co-directed two community projects on battlefields in Scotland in her capacity as a research assistant within the Centre for Battlefield Archaeology, University of Glasgow (Fig. 31). Both projects involved working closely with hobbyist metal detectorists from a range of backgrounds, including metal detecting clubs and individuals who engaged with the hobby but were not affiliated to any club or society. This gave the author access to a cross-section of the hobby, providing a unique perspective on their relationship with sites of conflict and their attitudes towards battlefield archaeology as a whole. This case study therefore aims to profile the activities of two metal detecting clubs based in the central belt of Scotland and a group of non-affiliated individual metal detectorists based in the Scottish Borders. Both groups volunteered to assist in community projects directed by the author: members of the Scottish Artefact Recovery Group (SARG) and the Scottish Detector Club (SDC) took part in a systematic metal detector survey of the battlefield of Prestonpans, East Lothian in 2008; and individuals from the Scottish Borders assisted with a survey of the battlefield of Philiphaugh, near Selkirk, Scottish Borders in 2011. This case study will look to explore the dynamics and motivations of each group, as well as their attitudes towards battlefields and their management as archaeological sites. Although much of this case study will reflect the experiences of the author, significant elements of the study are based on data drawn from various sources, including personal communications with club members and individuals, communication through club meetings and correspondence, as well as information gathered from club websites and magazines.

The first part of this chapter will profile the activities of the SDC and SARG and then provide a more detailed account of their contribution to the Battle of Prestonpans

Community Project. It will then consider the clubs' subsequent relationship with the battlefield, including the organisation of a 'Joint Outing' or rally on the site which involved the recovery of battle-related material. The second part of the chapter will not focus on individual metal detectorist from the Scottish Borders, but will instead profile them collectively within the context of the Battle of Philiphaugh Community Project. This will aim to consider their relationship with the battlefield and the nature of their activity prior to the project, as well as reflecting on their changing attitudes to battlefield archaeology after the project has been completed. The final section will draw these strands together to compare and contrast the experiences of hobbyist metal detectorists within a club environment and those who are outside it, in order to further understand the nature of hobbyist metal detecting activity and its relationship with battlefield archaeology.

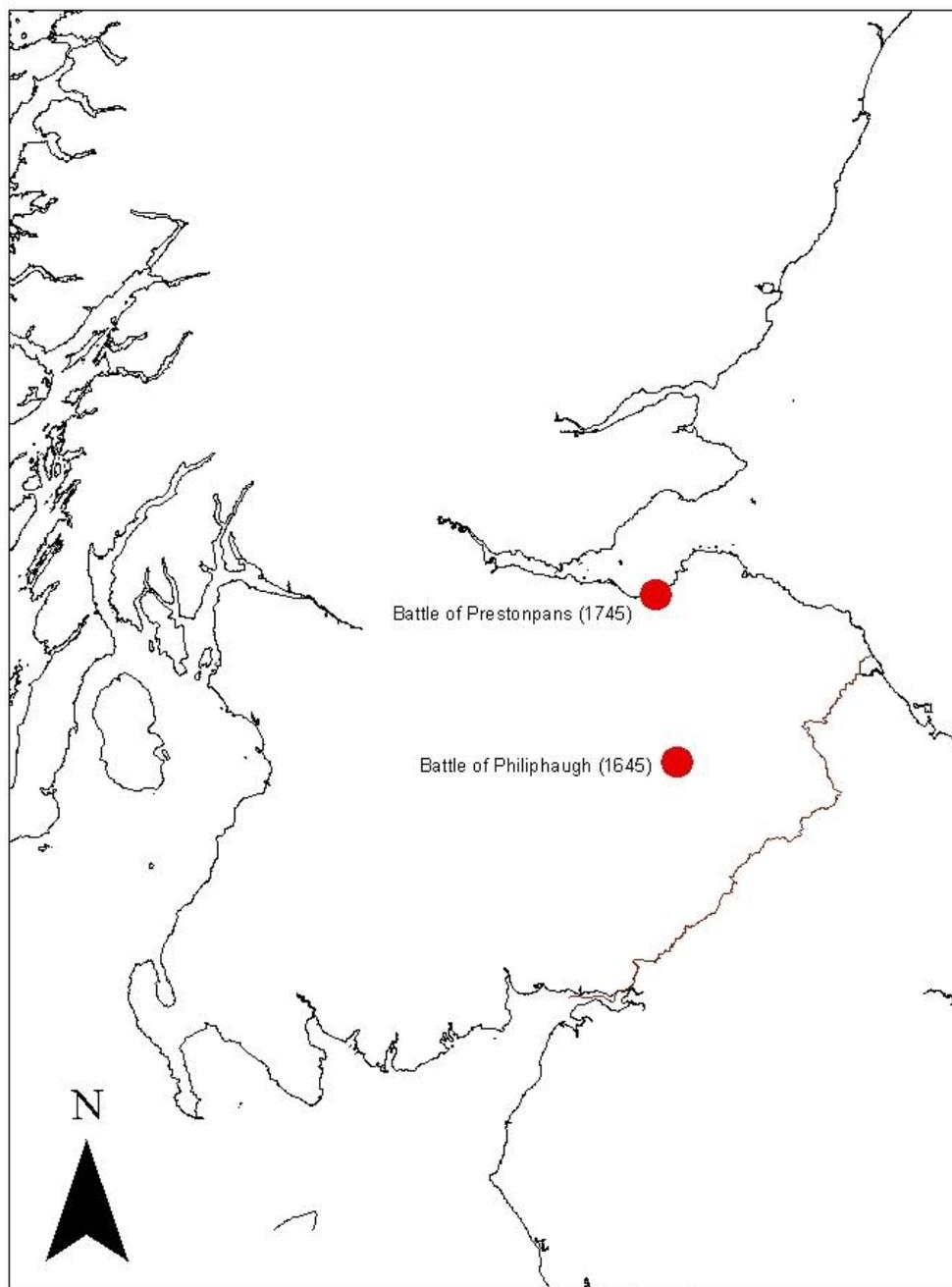


Figure 31: Map depicting locations of battlefields featured in this case study

8.2 Club backgrounds: the Scottish Detector Club and Scottish Artefact Recovery Group

The Scottish Detector Club (SDC) and the Scottish Artefact Recovery Group (SARG) are two of the most prominent metal detecting clubs in Scotland. Based in Edinburgh the SDC draws their membership primarily from the east coast, from Fife, the Lothians and into the Scottish Borders. SARG is more centrally located, attracting members from west and central Scotland, including the Glasgow area, Stirling and Lanarkshire. Together the clubs dominate the central belt, a presence that may be observed when tracking metal detecting involvement within developer-led archaeology in Scotland (see Chapter Four). In addition to this are their associations with the National Council for Metal Detecting (NCMD), with leading figures from both clubs representing the Scottish division of the Council. In their capacity as NCMD representatives the SDC and SARG have requested annual meetings with the QLTR (see Chapter Two on Treasure Trove in Scotland) on matters relating to metal detecting at Treasure Trove. Acting as representatives for their clubs and the wider body of the NCMD, the meetings were a response to claims by certain metal detectorists that they had not been treated fairly by the Treasure Trove system, particularly in relation to valuations of objects claimed as Treasure Trove. It can be argued that the simple act of organising such meetings with an official body like the QLTR brings with it a degree of status and legitimacy to their hobby; whether or not the club representatives achieve an outcome from discussions is irrelevant. Although they may arguably present themselves as the most influential clubs in Scotland, they have had certain competition from online forums or ‘clubs’ such as Detecting Scotland, Scottish Detecting, or Toddy’s Forum, although a number of metal detectorists appear to have multiple memberships.

The personality and identity of the club may be explored in the club website, often reflected through affiliations to other clubs, websites, forums and bodies. Both clubs wish to project the identity of a responsible metal detecting club and one which sits within an established community of detectorists. Interestingly however, subtle differences in their outlook as metal detectorists can be recognised. For example, the SDC, the longer established of the two, expresses a more conservative attitude, as although links to the National Council for Metal Detecting, Treasure Trove Scotland and ‘Metal Detecting and the Law’ are present, they sit amongst links to Roger’s Relic Forum and the UK Detector Finds Database. The latter represent a rather more contentious relationship between a small selection of metal detectorists and the Portable Antiquities Scheme, as previously

discussed in Chapter Two. SARG, on the other hand, portray a more liberal image by making clear reference to their NCMD affiliation on the front page and only providing links to Treasure Trove and the PAS. They even shy away from the overt use of the term metal detecting by calling themselves an ‘Artefact Recovery’ group, as opposed to a ‘Detector Club’ like their more traditional colleagues. Both clubs are also keen to demonstrate that their hobby has relevance in everyday society by offering a free ‘search and recovery’ service to those who have lost objects ranging from wedding rings to expensive agricultural equipment; the latter category goes some way in securing land permissions for club outings.

It is important to consider the background of each club, including their origins, motivations, activities and importantly the key figures within the club who influence it. The next section will therefore outline the history of each club and profile a selection of influential figures in more detail.

8.2.1 Scottish Detector Club

Established in 1977, the Scottish Detector Club holds the proud title of being ‘Scotland’s oldest detecting club’. Based in Edinburgh, the club has a membership of approximately 39⁷⁸ metal detectorists from across Scotland, a good proportion of whom attend the monthly meetings. Occasionally, the club will invite guest speakers to meetings to give talks on a variety of subjects relating to history and archaeology. This has included the author, who was asked to present a talk on the results of the Prestonpans project. This talk was well received and the audience were found to be friendly and receptive to the ideas presented. Those not able to make meetings are kept up to date with club activities via ‘*The Turner*’, a quarterly published newsletter distributed to club members and other interested parties. Many of the club’s activities are focused on Edinburgh and the east of Scotland, with club outings in East Lothian, Fife and the Scottish Borders.

The club is actively involved in promoting the hobby of metal detecting by attending events such as agricultural shows to raise awareness within the rural community. Building links with farmers and landowners helps to secure permission to access land to metal detect for club outings. Once established this relationship can prove valuable to many clubs, particularly if the land has historical associations. The SDC have also attended

⁷⁸ Membership number estimated in 2010

archaeology events, including the 2009 Scottish Community Archaeology Conference, held in Queen Margaret University, Edinburgh. Here the SDC had a stall exhibiting artefacts they had recovered in the local area and poster displays of their recent activities including working with archaeologists. The exhibit included a plastic box containing an unknown quantity of musket balls and a small iron cannon ball. The majority of musket balls were said to have originated from a variety of sites, however a small quantity (not separated from the rest) and the cannon ball had been recovered from the Battle of Marston Moor by one of the club members who had taken part in the rally of 2003 (SDC Secretary, pers. comm. 2009).

Several members of the club move easily between metal detecting and archaeological communities, with a number volunteering to take part in various community-led excavations and other heritage focused events. In many circles the SDC is regarded as the ‘face’ of responsible metal detecting in Scotland, with club members prominently appearing within the Historic Scotland publication ‘Metal Detecting, Yes or No?’ (Historic Scotland 2009). This experience of working with archaeologists has put the club at the forefront of communications with bodies such as local authority archaeological services, Historic Scotland and the Treasure Trove Unit. In negotiations regarding metal detecting on the battlefield of Prestonpans, it was senior members of the SDC who took the lead in establishing methodologies and recording practices for the ‘joint-outing’.

8.2.2 Scottish Artefact Recovery Group

Initiated in 2003, the Scottish Artefact Recovery Group is a relatively new club within the metal detecting community of Scotland. The founding member of SARG, Colin ‘Toddy’ Irvine, recognised that the dividing line between clubs on the eastern and western coasts of Scotland had created a gap in the central belt meaning that some metal detectorists had to travel great distances to make club meetings. Firmly based in central Scotland, SARG aimed to bridge this gap and bring together detectorists who were ‘mostly searching on their own’. SARG has over 40 members, with several reputedly on a waiting list to join. Club meetings are held monthly, with members also attending organised weekend club digs in central Scotland and rallies across the border in England.

There is a real sense that SARG is image aware and efforts have been made to present themselves as a progressive club. This is reflected in a more balanced ratio of men to women, it has for example a female Chair, and the age range of club members, which on

average is at least 10-15 years younger than the SDC. As with the SDC, acquiring land permissions for outings is crucial to keeping the club alive. A novel approach to this problem has been to emphasise the historical and archaeological context of their hobby by offering landowners the ‘chance to uncover your farm’s history’. This opportunity is further enhanced by the presentation of a full report to the landowner detailing what was found; an attractive proposition to any landowner and one that suggests a responsible attitude towards the past. The author has been invited to several club meetings to talk to club members about battlefield archaeology and to view any potential battle-related artefacts they had recovered. The club was very welcoming, with a number of members eager to share their finds and discuss their experiences and ideas about recording and archaeology in general. This openness towards archaeologists candidly appears on the front page of its website stating that, ‘a few members work along with archaeologists on survey and rescue projects’ (SARG 2010).

Much of this activity is organised by the club Chair, who invests a great deal of time managing the club. The club Chair plays a fundamental role in negotiating with landowners and those within the heritage sector. The Chair has also encouraged members to participate in projects to gain, ‘archaeological survey experience’ and ‘recording skills’. In the presence of the author, the Chair has been keen to promote SARG as a responsible metal detecting club which aims to continue fostering links within the archaeological community. This was demonstrated in 2010 when one metal detectorist’s application for membership was declined, on the basis of evidence from forum posts that he had been looting sites in Malta (SARG Chair pers. comm. 2010).

8.3 Battle of Prestonpans Community Archaeology Project

In 2008, the Battle of Prestonpans 1745 Heritage Trust commissioned the Centre for Battlefield Archaeology to design and direct a community project which focused on the archaeological landscape of the battlefield of Prestonpans (Fig. 32). The project was supported by the Heritage Lottery Fund and was part of a wider management plan for the battlefield with the aim of establishing a world-class visitor centre, together with battlefield trails and interpretive panels. The battlefield itself has been severely impacted over the last 100 years with increasing industrial activity related to coal extraction, such as substantial

open cast mining, and the development of Cockenzie Power Station. Urban development has also been a key factor with new housing estates expanding further into the battlefield core since the 1930s (Pollard and Ferguson 2009, 7). The aim of the project was therefore to identify the archaeological extent of the battlefield and assess the survival of its archaeological landscape within a community engagement framework. The results of this project would then be utilised to inform strategies for effective heritage management in the future and to promote the historical importance of the battlefield locally and nationally.

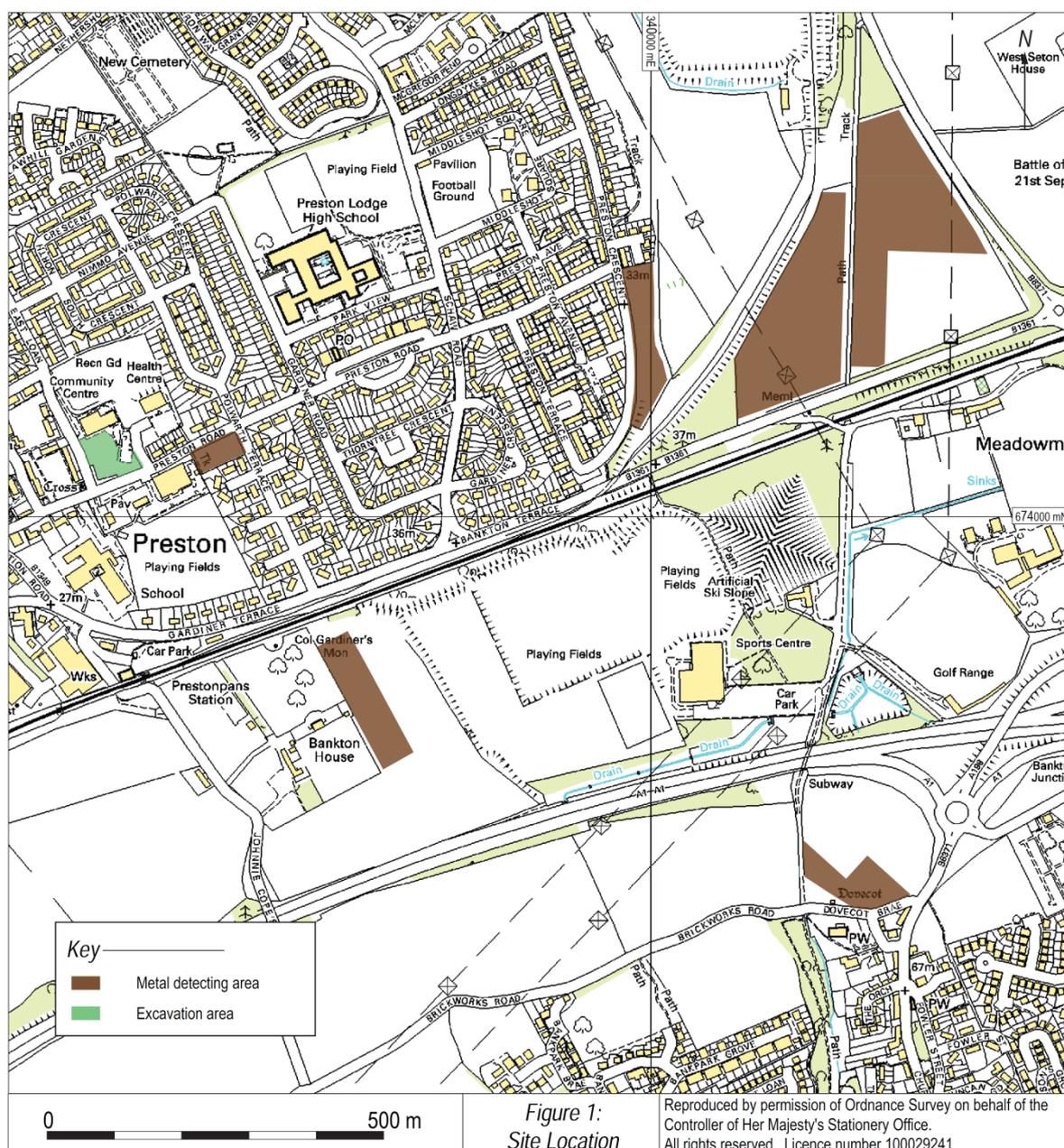


Figure 32: Map showing the areas investigated during the Battle of Prestonpans Community Archaeology Project in 2009. Map reproduced from final report (Pollard and Ferguson 2009)

8.3.1 *Involvement of the SDC and SARG in the project*

The project initiated three phases of metal detecting survey. The first was a three-day survey in February 2009 within areas considered to be the periphery of the battlefield in an attempt to locate potential evidence of events prior to the battle and of the rout following the main engagement. The second was a small-scale survey of gardens belonging to local residents who reported to have found battle-related artefacts including musket balls, a piece grapeshot and a folded lead strip whilst gardening. The third phase was a six-day survey which began in November 2009 and focused on an area considered to be the likely location of the main action within the core area of the battlefield. This area was situated in two fields on either side of the coal wagonway, a key feature of the battlefield landscape first built in the early 18th-century. This phase of survey aimed to assess the archaeological potential of the area and to identify distributions of signature artefacts, such as lead projectiles and other associated 18th-century material.

The project engaged a systematic metal detector survey using evenly spaced transects which aimed to ensure maximum ground coverage in order to identify potential artefact distributions. Once artefacts were recovered they were bagged, numbered and recorded to sub-centimetre accuracy using a Total Station or differential GPS (see definition of systematic metal detector survey in Chapter One) (Plate 35). Each phase of metal detector survey covered a substantial area of ground and therefore required a significant body of volunteer metal detectorists to carry out the work. A decision was taken to recruit volunteers from SARG and SDC who were in a position to offer a reliable source of experienced assistance. In 2009 the author, who was directing field work, was in regular contact with SARG and had recently engaged in correspondence with the SDC. As both clubs were based in the central belt, with several members living within at least a 25 mile radius of the site, it was deemed to be a natural step to involve the clubs in this project. Furthermore, a good working relationship had developed between SARG and the author throughout the course of her research. This project therefore provided an opportunity to enhance this relationship and to develop a similar link with the SDC, which had the potential of being mutually beneficial to all parties. Fundamentally, it was regarded as a unique opportunity to raise awareness of battlefield archaeology in Scotland.



Plate 35: Surveyor Fiona Jackson (GUARD Archaeology Ltd records findspots of recovered during the metal detector survey to sub-centimetre accuracy using a Total Station. Image taken by the author.

As a community project rather than developer-led evaluation, much of the survey work was scheduled to include weekends to ensure a diverse range of volunteers could participate, although because of the scale of the project and the area to be covered a week-day work was also required (Plate 36). Week-day volunteers, including metal detectorists, were difficult to recruit resulting in smaller, but perhaps more manageable, teams and a skewed demographic towards older retired metal detectorists. Weekends were very different, with an over-abundance of volunteer detectorists from both clubs. This resulted in the need to restrict numbers in order to ensure adequate archaeological supervision; this therefore meant that some metal detectorists had to be turned away. Restricting numbers was a difficult decision and did require negotiation with the club representatives. This was partly resolved by a rotation system over the Saturday and Sunday to give those keen to take part the opportunity to do so, but still the decision did cause some degree of tension. From their perspective, it was in their best interest to be seen to encourage as many people as possible to participate within an archaeological project and, as the SARG Chair put it, to give them the ‘experience’ of working with archaeologists and within a survey methodology (pers. comm. 2009). Denying club members this ‘experience’ may have been interpreted as a slight to their best efforts to engage with the project.

Concerns were voiced by some members of the detecting team who did not understand the logic of locating surveys in suburban areas or areas that had the potential for industrial contamination. Frustration was expressed by some detectorists at the lack of quality finds in these areas, or in some places the lack of finds altogether. The need to test these areas and assess their archaeological potential was explained in detail. It was also explained that areas devoid of artefacts are as important as areas containing dense concentrations of material as this may also represent areas where no fighting took place. It may also reflect the archaeological survival of the battlefield, particularly in areas impacted by industry. Wherever possible advice and suggestions were taken on board and it must be stressed that, despite some underlying tensions, the majority of those who assisted in the metal detector survey were friendly, worked hard and were keen to contribute to the project. Much of the perceived negativity generated within the project can be better understood when considered in the correct context, which is that metal detecting is a hobby and recreational activity with personal goals and ambition, as opposed to archaeology with professional aims and responsibilities; this aspect will be discussed in more detail later in this chapter.



Plate 36: Volunteer metal detectorists engage in systematic survey of the battlefield. Each flag marks a signal or a recovered artefact which is left in a finds bag until its position can be recorded. Image taken by the author.

Although the results of the archaeological investigation indicated that little of the battlefield survived, due to industrial development and contamination, the working relationship that had developed between the volunteer metal detectorists and the archaeologists was deemed to have been successful. It was felt that the project had succeeded in building awareness of battlefield archaeology and its importance within these clubs, with club members leaving the project better informed about responsible practice. Some months later, however, this picture was transformed as the author was informed of the clubs intention to jointly organise a rally or outing on an area forming part of the battlefield, an area the project was planning to investigate, with the assistance of the clubs, later that year.

8.3.2 Club metal detecting activity external to the project – the joint-club outing

The ‘joint outing’ took place on 18 October 2009 in an area composed of five large fields surrounding the farm of West Seton Mains, situated east of the wagon way and north of the former Blindwells open cast mine. It involved 37 members of the SDC, SARG and ‘guests’ from the Dreghorn Metal Detecting Club based in Ayrshire. It was stressed by the club organisers that the ‘outing’ was primarily a social gathering and participants would therefore be free to metal detect the fields randomly and at their leisure.

As an archaeological project on the battlefield was on-going, a project which both clubs had at this point been actively involved in, it was felt necessary to question the appropriateness of staging such an event with the organisers. To encourage the ‘outing’ organisers to reach an informed and responsible decision about holding the event, the author sent a series of links to online documents relating to the Historic Scotland Inventory of Battlefields, which in 2009 could be found publicly on the UK Battlefield Resource Centre website (the full Inventory now appears on the Historic Scotland website) (Fig. 33). This information included a synopsis of the battle and a map detailing the boundary of the core of the battlefield landscape, identifying it as an area of high to moderate archaeological significance and an area under severe pressure from development (Foard and Partida 2005)⁷⁹. The organisers took this information on board, but decided to continue

⁷⁹ This document represents a draft report produced by The Battlefields Trust and commissioned by Historic Scotland as part of initial proposals to introduce an Inventory of Battlefields in Scotland.

plans for the 'outing'. They further commented that a significant level of metal detecting had already taken place on the site since the 1970s and therefore the event should be viewed as a 'salvage operation', not only to limit damage to the site from past metal detecting, but to limit the impact of 'incursions' by individual metal detectorists in the future (SDC member. pers. comm. October 2009).

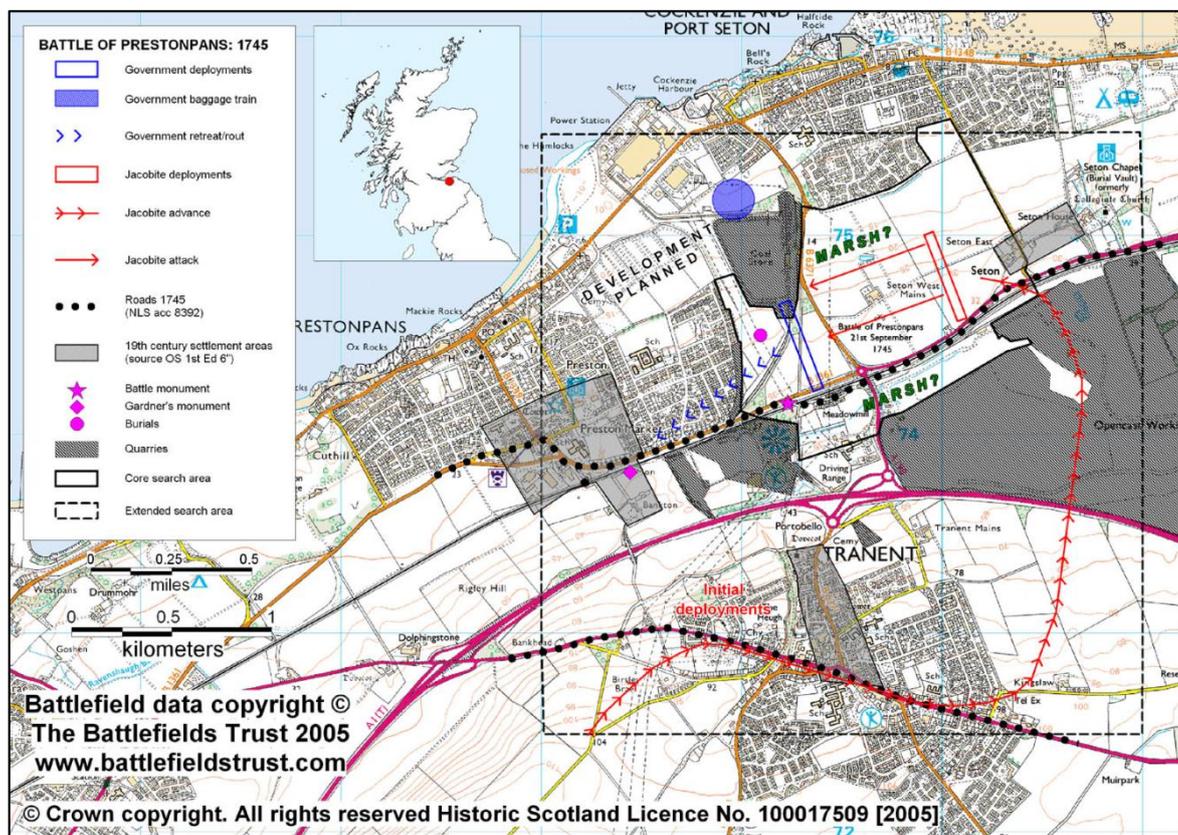


Figure 33: Map provided to metal detecting clubs prior to the 'joint-outing' highlighting the core area of the battlefield. Historic Scotland Inventory battle maps are now available on the HS website. Reproduced with permission of the Battlefields Trust.

Once it was clear that this 'outing' was to take place, East Lothian Council Archaeology Service, the body responsible for heritage management in the area, attempted to apply the same system of requirements that would be expected of a developer-led archaeology project carrying out an evaluation in the same area, as a landscape identified within the HS Inventory of Historic Battlefields. Here they would be obliged under SHEP to follow certain guidelines regarding the archaeological record. Under this system participants were expected to follow transects spaced at 1.5m intervals, rather than being free to roam the area at will, and all artefacts were to be recorded to sub-centimetre accuracy using a Total Station. The metal detecting clubs were to be responsible for the hiring of survey equipment and professional archaeological surveyors to operate it, an expense well beyond the budget of the clubs.

The purpose of this action was to reinforce the importance of the site as an archaeologically sensitive landscape and to emphasise the metal detecting community's responsibility towards it. This did not have the desired effect of discouraging the event, serving instead to antagonise the organisers and making further negotiation regarding recording difficult. The Centre for Battlefield Archaeology (CBA) raised concerns regarding the implementation of such a system and the ability of the clubs to attain it without external support from either East Lothian Council (ELC) or the Treasure Trove Unit (TTU). The 'outing' organisers did request support from the CBA and TTU to help record finds to the requirements of ELC, but as no funding was available it was not possible for either organisation to assist in terms of providing survey equipment or staff to operate it. The CBA did provide finds bags and the offer of advice if required. There was also a sense that the CBA and TTU should, certainly in an official capacity, distance itself from this event, as to support it might have been interpreted as condoning or encouraging metal detecting on battlefields. Furthermore, it had the potential to undermine on-going work by the CBA to promote the battlefield of Prestonpans as an archaeologically important landscape.

As the Inventory of Battlefields could not offer any statutory protection to the battlefield and permission to access the land had been granted by the landowner, ELC had no powers to stop the event or to implement any recording requirements. The only legal requirement of the 'outing' was that all finds had to be declared to TTU once they had been recovered. The clubs continued to stress that this 'outing' was a social event rather than an archaeological survey and that any restrictions on the activities of paying participants⁸⁰ such as asking them to record everything they found, would be unfair. This argument was based on the premise that large-scale recording was too time consuming and would in consequence reduce the enjoyment of the day. However, after continued negotiation the outing organisers did agree to engage a basic methodology in the recording of recovered artefacts.

This methodology involved identifying each field with a letter, A-E, and then assigning each field with five 6-figure grid references, one located in the centre of the field with the remaining four located in each corner. Participants were given a copy of this map and asked to bag all their finds, except those later than the Victorian period, and to record

⁸⁰ Participants pay a fee to attend a rally to cover costs such as administration. Payments may also be made to the landowner for use of his/her land. Although a number of rallies are run as a profit making exercise, donations to charity are common.

the position of their finds by referencing the nearest co-ordinate as featured on the map (Fig. 34). This provides an approximate accuracy for each findspot of between 100-1000 metres sq. As recognisable battle-related artefacts musket balls were recorded individually and to 10-figures using a hand-held GPS device (Plate 37). On finding a musket ball, participants were asked to leave it in place and flag its position to allow a volunteer to record it. A base, in the form of a marquee, was set up at the centrally located meeting point (farm shop and car park), to allow 'outing' participants to deposit their recovered artefacts in individually-assigned envelopes. The purpose of the named envelopes was to ensure that once the artefacts had been declared to TTU the finder could be identified. This is necessary to ensure that if objects were to be claimed as Treasure Trove the finder could receive any potential *ex-gratia* payment once the objects had been allocated to a museum. It also ensured that any objects not claimed as Treasure Trove could be returned to the finder. It is important to note in the first instance that the author attended the rally as an observer and was generally impressed by the level of effort the organisers had put into recording artefacts, albeit reluctantly in the initial phase of negotiations (Pollard and Ferguson 2009).

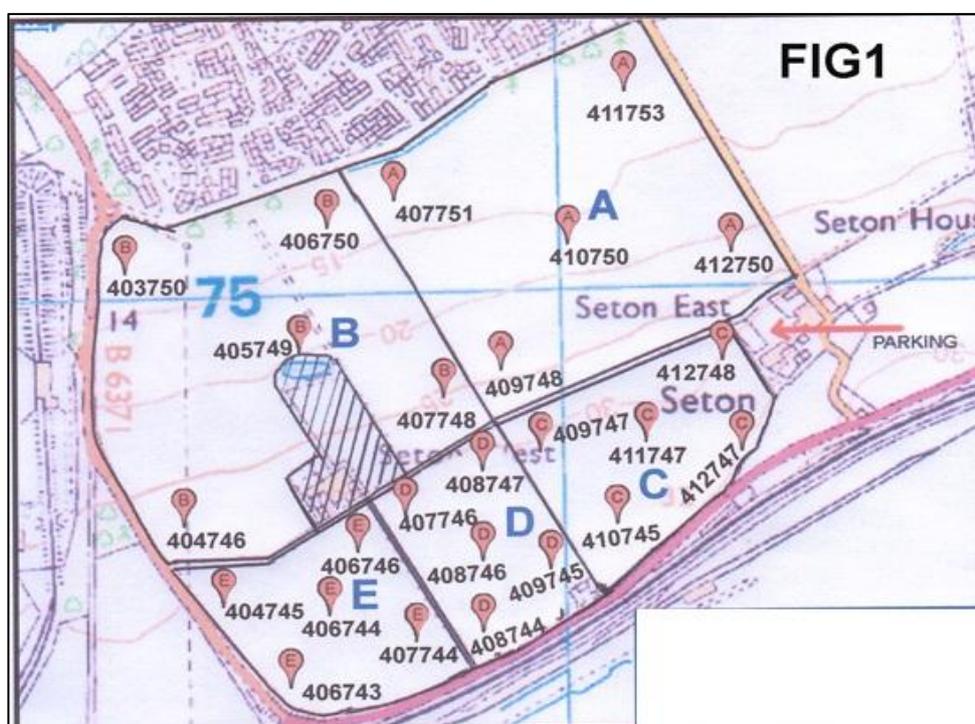


Figure 34: Map of area provided to participants during the 'joint-outing' to aid recording of find-spots. Image produced within 'joint outing' using Google maps (SDC and SARG 2009). The author has blanked reference to contact telephone numbers and 'FIG 1' forms part of the image.

After the ‘joint-outing’ a report was written by club organisers to summarise the results of the event. It stated that 223 artefacts were recovered, including 20 coins, 45 buttons, 26 musket balls and 2 pistol balls; all of which were reported to the Treasure Trove Unit (SDC and SARG 2009, 1). The report concluded that:

‘with the exception of the high proportion of musket balls and the few military buttons, the vast majority of the finds from this outing were pieces of metallic detritus which were no different from what would be expected from any average fields..... There were no ‘hot spots’ identifiable that might justify a more detailed survey or archaeological excavation, and it is considered unlikely that further metal detecting surveys of this area will produce a significantly different pattern of results unless a very intensive large-scale survey is undertaken’ (SDC and SARG 2009, 2).

Therefore, in the opinion of the report’s authors, the ‘joint outing’ produced no significant material and did not highlight any patterns of distribution that would potentially represent battle-related activity. However, their interpretation of the assemblage and its distribution contains fundamental misconceptions relating to the nature of battlefield archaeology.



Plate 37: Member of SDC metal detecting club recording find-spots of recovered musket balls with a hand-held GPS device. Image taken by the author.

When the assemblage was analysed by the author and Stuart Campbell of TTU a number of significant battle related objects were identified, including: the brass top of a ram-rod; a ram-rod holder; a copper-alloy flint holder; the fragment of a trigger guard from a pistol; a possible Grenadier match case; a piece of canister shot, and a piece of grapeshot

(Plate 39). All were recorded with a 6 figure grid reference which places an object anywhere within 500 metres sq. In contrast, all objects recovered within archaeological surveys directed by the author are recorded to sub-centimetre accuracy. Furthermore, the significance of the artefact distribution, including potential lines of engagement which pushed the location of the battlefield 500m further to the East, had been misinterpreted as meaningless scatters of material by the organisers (Pollard and Ferguson 2009, 54) (Fig. 35). Although many of the objects had not been recorded accurately, they had been individually bagged and without this precaution much of this information could very easily have been lost completely.



Plate 38: Metal detectorist participating in the 'joint-outing' finds a musket ball. Image taken by the author.



Plate 39: Battle-related artefacts recovered during the 'joint-outing'. Unfortunately they were not recognised as significant to the battle and were therefore not recorded accurately. These objects have now been claimed as Treasure Trove and allocated to the East Lothian Museum Service. Reproduced by permission of the Crown Office.

In November 2009, three weeks after the 'joint outing', the Battle of Prestonpans Archaeology Project continued to the next stage of investigation with a six-day metal detector survey conducted on either side of the wagon way, which was assisted by 23 metal detectorists from the SDC and SARG. The 'joint-outing' was not discussed in detail, although the author was shown a distribution map of the musket balls that been recovered during the outing and the potential of 'interesting' concentrations of projectiles was briefly discussed. The author was also asked to identify some objects that had been recovered from the site, including a 19th century Regiment of Foot button; an artefact not placed within the finders assigned envelope and therefore not reported to TTU. Although not relevant to the archaeology of the battlefield it highlighted the potential that other artefacts had not been reported as requested. As the author had been present at the 'outing' it was perhaps felt unnecessary to discuss the events further until a report had been produced by Treasure Trove. In December 2009 and June 2010 the author visited both the SDC and SARG respectively to present the results of the project. This included the results of the analysis of the material recovered during the 'outing'. The opportunity was taken, using

the 'joint-club outing' as an example, to diplomatically demonstrate the importance of recording all artefacts on the battlefield.



Figure 35: Distribution map of lead projectiles and other battle-related artefacts recovered during the 'joint-club outing'. Map produced for the final report of the Battle of Prestonpans Community Project to demonstrate likely location of the battlefield 500m to the east (Pollard and Ferguson 2009)

8.3.3 Recent metal detecting activity on the battlefield

Metal detecting activity involving members of SARG and the SDC have continued on the battlefield and although they have been small in size relative to the 'joint outing' they have uncovered further significant battle-related material. To the author's knowledge, four events have taken place since June 2010 after the author had visited the clubs to present the findings of the project: one in proximity to Bankton House and two in the fields surrounding West Seton Mains Farm, the location of the 'joint outing' and what is now believed to be the core of the battlefield. This material was reported to TTU and has now been subsequently claimed and allocated to the East Lothian Museum Service. Together with approximately 15 musket balls, the metal detectorists also recovered a lead seal marked with a the Royal cypher GR II, which has tentatively been identified as a box lid seal, and a 1.5lb cannon ball. The cannon ball is significant as its find-spot correlates with

historical evidence in relation to the size and positioning of the Government artillery on the right flank, together with findings of grapeshot and canister shot found during the ‘joint outing’ and identified by the author. The significance of this cannonball can also be measured in the rarity of this find, particularly as the artillery played only a brief role in the battle. However, the volume and variation of artillery projectiles recovered from the battlefield has created a body of evidence suggesting a more robust firing sequence than had been previously conveyed by contemporary accounts (Ferguson 2012⁸¹). The most recent activity on the battlefield took place in October 2012 during which a piece of grapeshot and three musket balls were recovered. Unfortunately, the grapeshot had been recorded to the accuracy of a 4-figure NGR (with 10000 metres sq.) and the musket balls were not reported until the author reiterated to the finder the potential significance of the objects during a TTU outreach event. With this latest activity in mind it is unclear whether the clubs who continue to metal detecting here fully understand the significance of this battlefield or the damage their activity, through the unrecorded removal of battle-related material, is having on the archaeological integrity of the site.

8.4 Non-affiliated hobbyist metal detectorists - The Battle of Philiphaugh Project

The Battle of Philiphaugh Community project was a LEADER funded initiative commissioned by the Philiphaugh Estate to enhance the local economy and promote the area as an attractive destination for tourists coming to the Scottish Borders (Fig. 36). The battlefield became the focal point of this project with the results of the archaeological investigation channelled into the creation of a battlefield path system, interpretive panels and guided walks. The archaeological investigation began in 2011 and as a community-driven project support from local volunteers was vitally important to its success. A call for volunteers was well received, including by a significant number of metal detectorists based in the local area who were keen to participate in the programme of systematic metal detector survey due to take place throughout the year. As there was an emphasis on local volunteer support, the only condition placed on the recruitment of volunteer metal detectorists was that they were to be based in the Scottish Borders. The author was keen to act on lessons learned during the Prestonpans project by ensuring that the majority of

⁸¹ Unpublished Treasure Trove case-sheets produced by Unit staff to advise SAFAP and QLTR when claiming objects for Treasure Trove.

volunteers were local in order to generate a sense of stewardship towards the battlefield, even if this resulted in a lack of experienced volunteer metal detectorists. Therefore, when a representative from SARG contacted the project offering their experienced assistance, as their members had worked on a number of battlefield projects, this was rejected as their request for travel expenses for those living out-with the area was not in keeping with the spirit of the project. Club members living in the local area were welcome to attend, but this invitation was not responded to. Individual members of the SDC and Detecting Scotland (online club) were able to participate in the survey as several lived within the catchment area of the project.

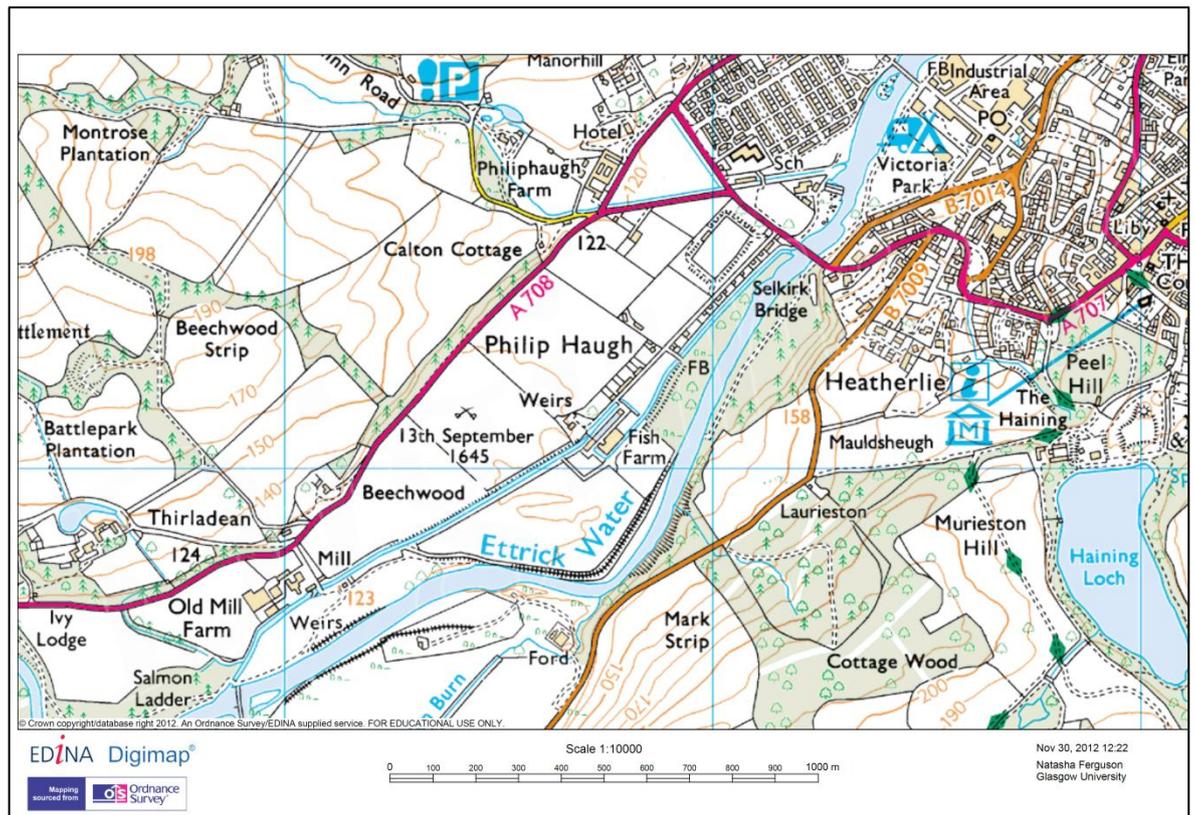


Figure 36: Map showing location of the battlefield of Philiphaugh, Scottish Borders. Produced by permission of the Ordnance Survey.

The majority of metal detectorists who formed the core of the metal detecting team, in other words those who consistently participated throughout the project were not affiliated to any club or organisation, numbered approximately five individuals with at least 10 others who were only able to commit to on average three days overall. With the exception of two volunteers who had recently taken up metal detecting after they had retired, all were experienced and had on average been involved in the hobby for 10 or more years. Prior to the commencement of the project all volunteers, including artefact recording assistants, were asked to attend a volunteer workshop. The workshop outlined the aims of the project and ensured that all participating volunteers were aware of their role within it. It was

fundamentally an opportunity meet the team, exchange ideas and answer any questions. All volunteers were given a handbook produced by the author, which gave a summary of battlefield archaeology, as well as details of the methodological approach to be engaged and the characteristics of 17th-century battle-related material. As it was intended that this handbook have a legacy beyond the project, details were also given regarding responsible recording practices and the sensitivity of artefact distributions in the ploughsoil. The project not only involved intensive metal detecting survey (Plate 40), but also a week of excavation to establish the archaeological nature of a ditch feature which had the potential to form part of the battlefield landscape. The core metal detecting team were also keen to contribute to this part of the project, assisting with excavation, trench surveying and scanning the spoil heaps for missed metal artefacts, a practice which recovered two musket balls and a 17th century coin. The metal detectorists also engaged with other elements of the project including an artefact processing workshop and an open evening.

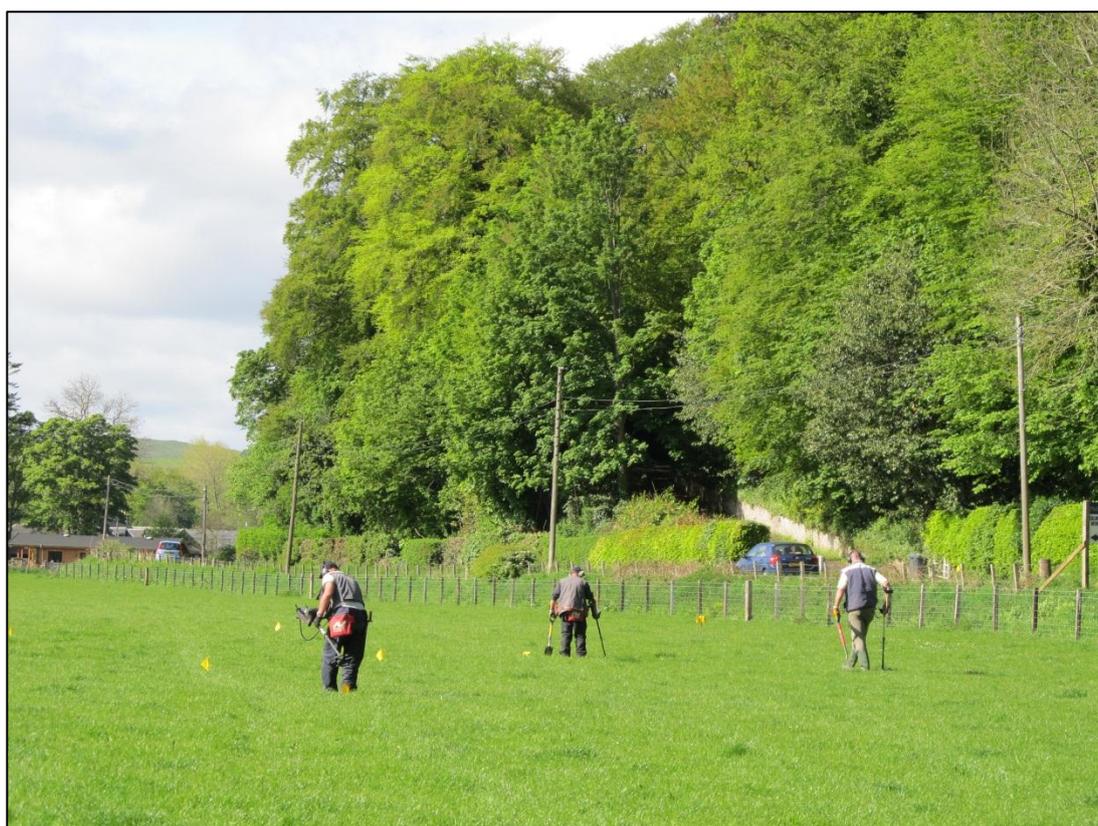


Plate 40: Volunteer metal detectorists engaging in systematic survey of the battlefield

As locals who had grown up in Selkirk and its surrounds, the volunteers had built up good relationships with local landowners in the area and so had access to a range of sites. The only area out of bounds is the Bowhill Estate, part of Buccleuch Estates, where metal detecting is prohibited. When asked if they would join a club, the volunteers expressed no

interest in doing so as they preferred to metal detect in pairs with a small group of friends. Metal detecting also did not appear to be their main recreational activity, and often a choice was made within the same group of friends to go fishing instead, particularly if the weather was favourable. This did not mean that they were any less committed to the activity once they were engaged with it, as they demonstrated a broad knowledge of artefacts and a keen interest in local history. One member of the team had earlier in the year found a Roman eagle-head mount and a Middle Bronze Age flanged axehead, both of which were claimed as Treasure Trove and allocated to local museums. Their activity on the battlefield prior to the project was also of great interest, particularly as this had significant ramifications to the project.

8.4.1 Metal detecting activity on the battlefield prior to the project

The large number of individuals who were engaged in metal detecting in this area was surprising as there had been no indication prior to the project that such a significant number of metal detectorists were active in the area. As well as the five core members, at least ten other individuals either participated at least once in the project or dropped by. Only once the project had begun did it become clear that in reality metal detecting activity was high across the battlefield and had been since the early 1980s. Within initial desk-based assessments prior to the archaeological investigation of the battlefield and in discussions with the Estate it was suggested that metal detecting activity was low, undertaken by with only one individual participating in the activity, he being the Philiphaugh Estate gamekeeper. The Estate gamekeeper had concentrated on the area, now re-developed as football pitches, in close proximity to a ditch potentially used by the Royalist army during the battle as suggested by the results of the project's excavation there. The gamekeeper was reluctant to speak to the author, however after several months of working within the estate he agreed to meet to discuss his findings. Unfortunately, he was unable to remember much of what he had found and no longer had the assemblage, except for a few musket balls, a scabbard chape and a buckle which were broadly contemporary with the battle (Plate 41). He recalled finding approximately 50 musket balls in this area over a 20 year period; in the author's opinion this was a conservative estimate.



Plate 41: An assemblage of battle-related material recovered by the Philiphaugh Estate game-keeper. This represents the material not discarded by the game-keeper.

Over the course of the project at least five people reported to the author that they had metal detected on the site on a number of occasions and had found significant quantities of lead projectiles and other potentially battle-related objects. Of these five, at least three knew of other people who had also metal detected there or had stories of similar activity on the site covering a twenty-year period. Anecdotal evidence was the key source of information, for example one metal detectorist recounted having found a cannonball in the field close to the cricket pavilion but had thrown it away because at that time he had not realised its significance. Another told the author that he remembered seeing a metal detectorist in the late 1990s intensively detect one field for a period of 10 days and is said to have found a dagger. Much of the focus appears to have been the discovery of Roman or Medieval material; an Early Historic settlement identified through aerial photography has recently been scheduled by Historic Scotland on the site. In this search for objects of a higher intrinsic value, no doubt artefacts such as musket balls quickly became regarded as background noise and potentially discarded.

A small group of individuals who had metal detected on the site said they could remember approximately where they had found concentrations of material, but had not recorded individual find spots for each artefact. Only one individual had kept his finds from the battlefield, mostly musket and pistol balls, separated from other artefacts he had found across the Borders. His collection comprised of approximately 50 musket balls and

25 pistol balls. To accompany this assemblage he had produced a sketch map showing roughly where he had found concentrations of projectiles (Fig. 37); much of this area was concentrated in a band within the field known as Garden Haugh and inside the recently Scheduled Area. It is interesting to note that this assemblage was mostly composed of musket balls, rather than pistol balls as had been found with the archaeological survey (Plate 42). If correct this would match historical accounts of the battle which indicate that the Irish musketeers were located on the left flank of the Royalist army. Furthermore, the sketch map accompanying the assemblage, together with the gamekeeper's report, may provide the only evidence for an artefact scatter to identify the core of the battlefield. To assist the project the material was incorporated into the wider project assemblage and one finder assisted in its analysis during an artefact workshop organised as a community event for volunteers.

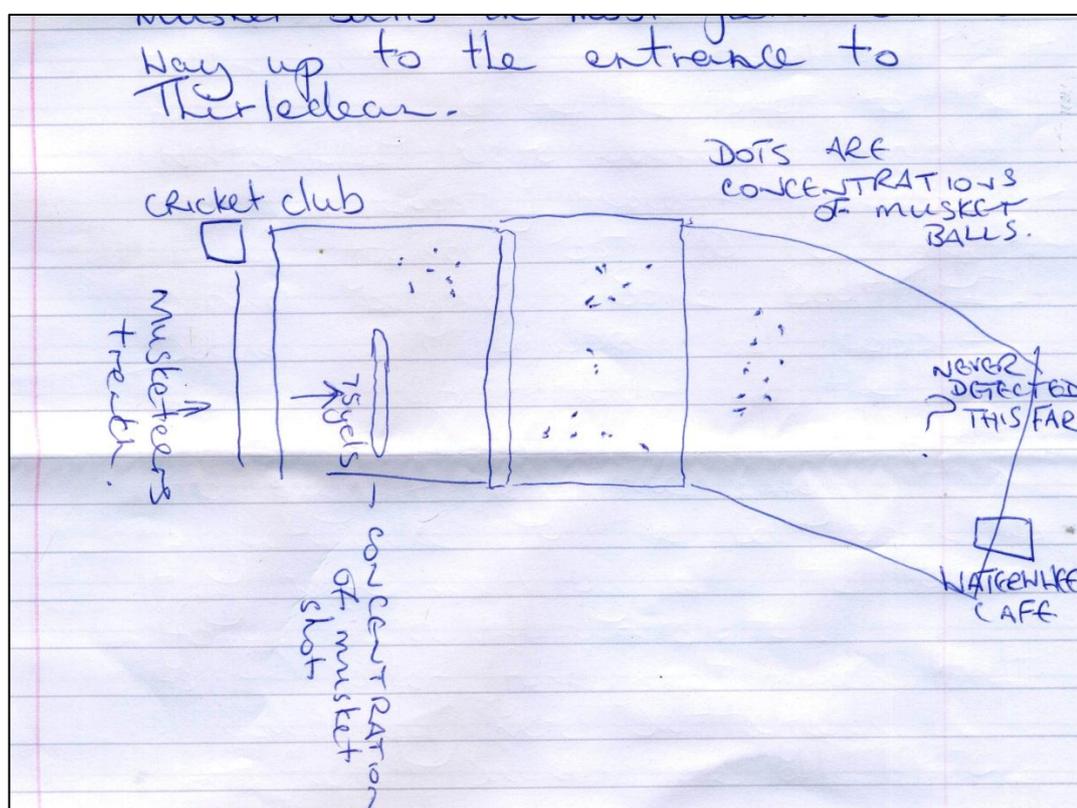


Figure 37: Sketch map produced by local metal detectorist who had recovered a significant assemblage of lead projectiles from the battlefield. Note area highlighted as 'concentrations of musket shot'



Plate 42: An assemblage of musket balls recovered by local metal detectorist. Their spatial distribution, although not recorded, is represented by the sketch map

8.4.2 *Metal detecting activity post-project*

Perhaps the most perplexing factor in this case is the role of the Philiphaugh Estate in allowing metal detector access to the battlefield and in turn failing to keep track of how many metal detectorists had recovered material from the site. Although the project report recommended that access should be prohibited, or at least restricted to those who were capable of accurately recording and reporting their finds, it is not clear whether this advice has been acted upon by the landowner. The project was at least successful in raising awareness of the importance of the battlefield within the local metal detecting community. In February 2012, two metal detectorists who had formed a core part of the metal detecting team during the project contacted the author at the Treasure Trove Unit to report two lead projectiles they had found to the south-west of the battlefield near the Waterwheel Café. One appeared to be a piece of canister shot as suggested by the characteristic dimples which mottled its surface. These finds were interesting as they were found beyond the limits of the project investigation but within the boundary of the battlefield as defined by the Historic Scotland Inventory. It is possible these projectiles represented activity related to the rout of the Royalist army through the Ettrick Valley. The pair had made some

attempt at recording the artefacts by plotting their find-spots on an aerial photograph, but they had not been individually bagged. It is unclear why they were metal detecting in this area, but both insisted that they were not looking specifically for battle-related material believing they were out-with the main area of the battlefield.

8.5 Serious Leisure: Understanding the nature of hobbyist metal detecting activity

Both case studies, representing the activity of metal detecting clubs and non-affiliated hobbyist metal detectorists within two projects, Prestonpans and Philiphaugh, have presented examples of hobbyist metal detecting behaviour; but what are the motivations that drive this behaviour and the decisions behind the actions that are taken? How does this affect the archaeologist's ability to work with hobbyist metal detectorists within battlefield projects? What guidelines should be put in place to ensure a mutually beneficial experience? In order to understand the actions of hobbyist metal detectorists and the motivations that drive them it is important to understand the activity itself. This section will consider the identity of hobbyist metal detectorists and their role within archaeological projects as skilled volunteers.

Serious leisure, a sociological theory devised by Stebbins (1992) to recognise leisure pursuits as a personal expression of identity and self-fulfilment, provides an interesting theoretical framework within which to further understand metal detecting as a hobby and leisure activity. Serious leisure is defined as:

‘...the systematic pursuit of an amateur, hobbyist, or volunteer activity that is sufficiently substantial and interesting for the participant to find a career there in the acquisition and expression of special skills and knowledge’ (Stebbins 1992, 3).

Stebbins goes on to suggest that those who participate in a serious leisure are not engaging in a relaxing or benign activity, but one which involves perseverance, personal effort and durable benefits such as self enhancement and social interaction. The effort, time and skills involved in such an activity develops a unique ethos amongst participants as they interact with each other, often within a restricted social sphere, by sharing a common interest (Stebbins 1992, 6). Serious leisure is therefore ‘identity intensive’ (Gillespie et al 2002, 286), as many participants may identify more closely with their chosen hobby than any other aspect of their lives, such as work or personal attachments. Metal detecting fits

well within the framework of serious leisure as it highlights a number of key characteristics which form the basis of this activity, such as perseverance, social interaction and the development of a skill set. One other aspect of serious leisure, and one that is particularly relevant within metal detecting, is that fun and enjoyment are not always necessary factors. Metal detectorists often experience frustration and disappointment when they fail to find artefacts of 'worth', perhaps due to their lack of proficiency in the use of their metal detectors or their ability to select 'quality' land to detect. They may have to travel long distances, or endure the wet and cold simply to 'get away' from real world commitments. Social interaction brings with it complex group politics and the potential for stresses incurred by friction between participants (Gillespie et al 2002, 298). Stress and anxiety may also be experienced when organising club activities, outings and rallies, particularly when dealing with external agencies such as archaeologists or national heritage organisations. This stress is perhaps reflected in a comment on the SDC website stating that, 'club members put their skills to good use in battle site surveys, sometimes under extremely difficult conditions' (SDC website 2011).

Within the environment of an archaeological project we should perhaps consider metal detectorists outside their identity as hobbyists and view them as 'skilled' volunteers, therefore recognising the personal commitment which has led to the development of such skills and the sense of identity it brings to the individual. Those who took part in such projects were expected, like any other project member, not only to work within the framework of the project but also follow supervisory instruction. As with any other community project it is difficult to impose such margins on volunteers, unless necessary for health and safety, as this erodes the essence of community engagement and increases the likelihood of a diminishing workforce. This may not be an issue with volunteers who have had no experience in archaeology and therefore rely on guidance and supervision to ensure their experience is productive and enjoyable. Skilled volunteers such as metal detectorists, however, require a different approach, as when assisting in metal detector survey within battlefield projects they are often required to adapt, and in many cases alter, current modes of practice, modes which are defined within a recreational or hobbyist environment and are therefore personal to the individual. Such adaptations may be a potential cause of conflict if it is not understood or accepted why such adaptations are necessary, particularly as it must be done within an environment they feel they are already familiar with, in other words, recovering artefacts suspended in the ploughsoil. This adaptation also requires moving from an object focused mind-set, a common aspect within the hobby as discussed in Chapter Nine, to an approach which must consider the wider

spatial context of artefacts forming a pattern of distribution. The need for archaeological supervision, a robust methodological framework and accurate recording may be regarded as restrictive and unnecessary, especially as many metal detectorists feel that they can achieve the same, if not improved, results without it. This idea can be further compounded if the project aims are not adequately explained or if members of the metal detecting team feel excluded from the decision-making process. Although in some circumstances, for example developer-led projects such as Sheriffmuir, incorporating metal detectorists as fully paid members of the archaeological team can be mutually beneficial, as not only does it fairly represent the level of input by the metal detectorists, it also ensures a level of contractual control on the side of the archaeologists (Pollard 2009, 188). At a more personal level there may also be the perception that their recreational activity has been transformed beyond their control into something unrecognisable as a hobby and importantly, a source of enjoyment into which is invested time and effort. Essentially, both archaeologists and metal detectorists are interacting with the same resource, but with contrasting aims, motivations and methods. The ability, therefore, to achieve effective mutual co-operation is dependent on a shared appreciation of the knowledge and skills each party can contribute; this is a balance often requiring constant mitigation and compromise.

8.6 The importance of developing a sense of stewardship in battlefield heritage management

Drawing on the points highlighted within the ‘serious leisure’ framework to consider the activity of metal detecting and its social dimensions, it is clear that very different experiences were had by the metal detectorists participating within each project. Whilst the Philiphaugh metal detectorists evidently gained from the experience and developed a sense of stewardship for the battlefield, in comparison, relationships with the Prestonpans metal detectorists deteriorated and they appeared to make little connection with the site itself, except arguably as another potential location to metal detect. This ‘experience’, together with the decisions made by the metal detectorists in relation to their interactions with the battlefield after the project may be underpinned by two factors: how each group identifies with the hobby, and the motivations behind taking part in archaeological projects.

As highlighted by Gillespie et al (2002, 286), hobbies or leisure pursuits such as metal detecting have a propensity to be 'identity intensive' with metal detecting clubs, such as SARG and the SDC, encouraging this sense of identity by allowing members to exclusively share in a unique ethos. Members therefore not only strongly identify with their hobby but also the club that supports them, which may be expressed by wearing club badges, attending club events on a regular basis or maintaining collective ideas and attitudes. Although dealing with clubs in the initial stages of the Prestonpans project was beneficial in terms of recruiting teams of experienced metal detectorists, this working relationship became problematic as their 'collective identity' began to consume and dominate the identity of the project itself. Control over the metal detecting team could easily be lost, as taking part in the project and following the direction of the archaeologists was primarily influenced by the club representatives. Therefore ensuring volunteers turned up each day was very much reliant on maintaining goodwill with the club leaders, a reliance which at times had the potential to act as a lever during discussions regarding methodological practice or travel expenses.

This may be reflected further in the clubs' wider motivations to take part in the project as it can be argued that in order to maintain an image as responsible metal detectorists it is necessary to engage with archaeologists. Gaining experience in archaeological survey may therefore be regarded as the primary motivation for participating in projects. Whilst this may be regarded as a well-intentioned aim with the potential for boosting links between metal detectorists and archaeologists, in fact it had the opposite effect as considerable pressure was placed on the author to ensure as many club members as possible were given the opportunity to participate; attempts to reduce the number of volunteers were regarded as a personal slight against the best efforts of the clubs to engage in project. As previously mentioned this resulted in the creation of a rota system with the majority of metal detectorists only taking part for one day meaning the development of a team spirit was difficult to foster. This may be acceptable within a community environment if large volumes of people living in the area wish to experience their local heritage, however in this circumstance the focus was placed on 'training' club members rather than engaging in community archaeology.

In comparison the level of community engagement within the Philiphaugh project was high and although the majority of hobbyist metal detectorists taking part had been responsible for a considerable negative impact on the archaeological integrity of battlefield there has been a noticeable reversal in attitude towards their previous activity. One key

difference observed between the club members and the non-affiliated metal detectorists was that the latter group did not appear to regard metal detecting as an integral part of their identity but rather as an activity enjoyed together with fishing and other seasonally-influenced social pursuits. Instead, as members of the local community, their identity was more closely embedded within the local landscape which included the battlefield. Their motivations were therefore more keenly driven by a desire to engage with their local battlefield heritage and to contribute to the community as reflected in their engagement in other aspects of the project other than metal detecting. Therefore fostering a sense of stewardship throughout the project was a natural process as the local metal detectorists became more familiar with the fragility of the underlying archaeology, which has so far ensured a greater deal of protection for the battlefield. In contrast, as only one member of the metal detecting team at Prestonpans lived in the local area, few participants felt any real connection to the battlefield. Without this enduring sense of stewardship the battlefield remained nothing more than a resource with which to engage their hobby with enjoyment being the main focus, as demonstrated by the organisation of the joint outing and other smaller events. Furthermore, as the clubs had adopted an identity-intensive attitude, any criticism relating to their activity on the battlefield by heritage bodies such as Historic Scotland or the East Lothian Archaeological Service were regarded as a personal attack on their hobby rather than an attempt to mitigate any further damage to an archaeological site of national importance.



Figure 38: Results of systematic metal detector survey. The significantly low volume of battle-related objects recovered during the project, compared to the volume of unrecorded material recovered by local metal detectorists, suggests the archaeological integrity of the battlefield has been severely impacted. Map produced for Battle of Philiphaugh Archaeology Project: Final Report (Ferguson 2011).

8.7 Conclusion

The decision taken by SDC and SARG to organise a ‘joint outing’ on an area of the Prestonpans battlefield identified as having high archaeological potential and to ignore the advice of heritage bodies and specialists should be regarded as irresponsible, particularly as such activity has continued. It was also a perplexing decision, as their participation in the community project, which was still on-going at the time of the outing, should have had a positive influence on their attitudes towards the heritage management process. The metal detecting clubs insistence that the outing as a recreational event and their objection to recording of find-spots because it would hinder the enjoyment of their activity is telling and demonstrates a detachment between their hobby and the underlying archaeological objects they are searching for. This is the main contrast observed between club members and individual non-affiliated metal detectorists. At Philiphaugh, whilst the significant damage to the archaeological integrity of the battlefield through the activities of local metal detectorist over a sustained period cannot be ignored (Fig. 38), it should be noted

that after working within the project there was a notable change in attitude and practice. Whereas at Prestonpans, there was a constant push against as if it represented not only a change in practice, but a change in ideology. As an identity-intensive activity, could incorporating archaeological attitudes or techniques such as accurate recording be regarded as corrosive to their identity as hobbyist metal detectorists?

In conclusion although it may be difficult to track the activities of non-affiliated hobbyist metal detectorists, or in turn measure the scale of their negative impact out-with an archaeological investigation. The Philiphaugh project has shown that such individuals are more connected to the sites they are metal detecting than the activity itself – something which has been observed on other sites such as Tywardreath (Chapter Six) and Sedgemoor (Chapter Seven) where activity is concentrated in one area. Experience also suggests that they are more open to change once it is realised their current mode of practice is having an adverse effect on the archaeological character of the battlefield. In contrast, metal detecting clubs such as SARG and SDC appear entrenched within an identity shaped by their hobby. The primary focus of the clubs is to engage in metal detecting, often at the expense of the archaeology which may be regarded little more than as a recreational resource in which to facilitate their hobby. As demonstrated at Prestonpans, not only in the form of the ‘joint outing’ but also continued activity on the site, a more robust heritage management plan is required for battlefields in the UK and one that recognises the potential impact of metal detecting activity.

Significant lessons have been learned from the author’s experiences of directing and co-directing these projects, in particular the engagement of hobbyist metal detectorists not only as skilled volunteers, but as stakeholders within the community. The importance of engaging local metal detectorists as volunteers within community projects cannot be underestimated as this may not only have an impact on the success of a project, but may also have serious ramifications for future heritage management of battlefields in the UK. Developing national strategies for the protection of battlefields as archaeological landscapes, such as the Historic Scotland Inventory of Battlefields, is fundamental. However, fostering local connections and developing a sense of stewardship with those who are most likely to have an impact on this heritage must also form a vital part of this strategy. This not only includes metal detectorists, but also landowners who, as we have seen in the case of the battlefields of Prestonpans and in particular Philiphaugh, have a profound responsibility to ensure metal detecting activity is either banned or restricted to those who can demonstrate a responsible attitude to recording and reporting.

Chapter Nine

Discussion: Assessing the negative impact and positive contribution of hobbyist metal detecting to battlefield archaeology

9.1 Introduction

The aim of this study has primarily been to understand the role of hobbyist metal detecting within battlefield archaeology and to highlight the positive contribution and negative impact of this activity. Through a series of case studies and collated datasets the preceding chapters have provided an assessment of the nature and extent of hobbyist metal detecting activity on sites of conflict across the UK. Whilst highlighting the potential contribution of the hobby through participation in archaeological projects and the potential identification of previously unknown sites of conflict, this study has also addressed the potential impact of this activity by assessing the level of activity on sites of conflict and the scale of unrecorded removal of battle-related material. The latter has aimed to form an accurate impression of the current state of preservation of battlefield heritage, and importantly, identify sites potentially at risk. In turn this analysis has significant ramifications for our ability to conduct research on sites of conflict and maintain confidence that data produced during survey is a true representation of the existing archaeological landscape.

Gathering this evidence, however, represents only one stage in the process as we must also use this data to consider the nature of this activity in order to produce appropriate and durable heritage management plans for the future. Although it may be less problematic in broad terms to define what we recognise as a positive contribution or negative impact i.e. accurate recording and reporting against wholesale removal of battle-related material, this does not adequately describe or explain activity observed within the dataset. A more detailed framework is required in order to truly understand the dynamics and complexities of this activity, particularly in relation to that which impacts negatively and, which, as will be discussed subsequent sections, may be defined by several key characteristics. The ability to identify and target specific activity as opposed to loosely categorising metal detecting activity as having either positive contribution or negative impact allows for a

balance to be struck between recognising the right of those to conduct responsible metal detecting as a hobby and the need to protect battlefields as archaeologically sensitive landscapes.

The first half of this chapter will aim to provide an analysis of data presented within Chapters Four and Five which focused on the extent of metal detecting, together with the case studies examined within Chapters Six, Seven and Eight which provided a more detailed perspective on the nature of metal detecting as a hobby. The aim of this analysis will be to assess data relating to the extent of metal detecting activity on sites of conflict across the UK. This will determine how widespread metal detecting activity on sites of conflict is, as well as identifying any sites potentially at risk. It will also look to assess the volume of previously unknown sites of conflict potentially identified by metal detecting activity and to establish whether this constitutes a contribution or an impact to battlefield archaeology. The results of this analysis will feed into the final discussion relating to the potential impact of such activity on conflict-related research and the heritage management of battlefields in the UK, as well how we define positively contributing and negatively impacting hobbyist metal detecting activity drawing on observations made within the dataset.

9.2 Assessing the extent of hobbyist metal detecting activity on sites of conflict in the UK

9.2.1 Scotland

In Scotland overall 25 sites of conflict have been identified in the dataset, including 8 battlefields, one siege site, together with 12 other sites which have been preliminarily identified as skirmish sites, encampments, firing ranges and military training sites; these represent previously unknown sites of conflict (Fig. 39). Regionally, Highland has the most site activity with six sites featured, including three battlefields. This is followed closely by the Scottish Borders with four sites, including one battlefield. The majority of sites featured in the dataset have been identified through reporting to the Treasure Trove Unit. The remaining sites, with the exception of one musket ball logged on *eBay* said to have been recovered from the Battle of Pinkie (1547), East Lothian, have been identified through communications with individual metal detectorists or archaeologists. Two battlefields, Philiphaugh (1645), Scottish Borders and Culloden (1746), Highland appear in

both datasets, although with regards to Philiphaugh this relates to two metal detectorists beginning to report their finds of battle-related material to TTU. However, in terms of identifying sites with the highest levels of unrecorded removal of material, Philiphaugh certainly features prominently with over 100 musket balls known to have been removed from the site as detailed in Chapter Six. The battlefields of Culloden and Killiecrankie (1689), Perth and Kinross have also experienced large scale unrecorded removal as highlighted by an article in the *Treasure Hunter* magazine which recounts two rallies on the sites in the 1970s (Smith 2005).

Within the dataset 16 sites have been identified as previously unknown sites of conflict which, considering the relatively small size of the dataset, is a significant volume of potentially new sites (Fig. 39). Of particular interest are potential skirmish sites such as at The Rink, Scottish Borders or the Roupin' Steps, East Lothian. The presence of these assemblages serve to increase our understanding of the wider landscape of conflict associated with the battlefields of Philiphaugh and Prestonpans respectively, probably representing initial engagements or evidence of routing in the aftermath of battle. Furthermore, assemblages recovered from sites such as Fort George, Highland and the marching camp at Torbreck, Highland have not only significantly broadened our knowledge of late 18th - 19th century military material culture, but in turn our ability to identify such sites. For example, during analysis of an assemblage recovered during a developer-led investigation of the Battle of Pinkie the author identified 18th-19th century military material similar to that found near Fort George, Highland by a local metal detectorist, therefore potentially indicating the presence of later military activity. Further research of the area revealed the presence of a barracks to quarter approximately 1000 soldiers from 1798 – 1814, as depicted on Hay's 1824 map of Musselburgh (Hay 1824; Ferguson 2009a report).

Overall, although reporting of battle-related assemblages is relatively good, with half of the sites within the dataset reported through the Treasure Trove Unit, the level of recording of this material is poor with only a third of sites recorded to any accuracy. For example, musket balls recovered from an area within the vicinity of the Battle of Alford, Aberdeenshire arrived at the Unit loose in a padded envelope. It was only once the finder was pressed for details regarding the find-spot that he provided a 6-figure grid reference. However, this one reference was to cover an assemblage of 19 projectiles and therefore was virtually useless beyond identifying the field where the objects had been recovered. The same is true of an assemblage of 59 musket balls from Milsington Farm, Scottish

Borders which arrived in a plastic vitamin jar. Although the finder had recorded other objects from the site representing late 18th century military activity, he assumed the musket balls would not be of interest and therefore did not record or report them until asked to do so. Unfortunately, approximately 20 musket balls had already been given away before he reported them. With the exception a small number of sites, including Fort George, Highland, Doune Castle, Stirling and Balgeddie, Fife, this is the general condition of assemblages of battle-related material reported to the Unit; quantities of lead projectiles presented in a box or plastic bag together with a variety of other objects. The assemblages associated with the three sites referred to above have been individually recorded and bagged. Although it is important to note that the individual metal detecting at Fort George began a programme of selective recording and reporting due to the large volume of some categories of objects such as musket balls and some military button types, a practice which has been discouraged by the Unit. At Spynie Palace, Moray all objects with the exception of some groups of lead projectiles had been recorded and individually bagged. The finder was able to produce a rough sketch map indicating where he had found concentrations of lead projectiles. These concentrations correspond closely to the fortification, similar to a demi-bastion, which protects the south facing side of the Palace. However, after communicating with the Unit and realising the potential significance of the lead projectiles, in highlighting the presence of a siege in 1644, these artefacts are now being recorded to the same standard.

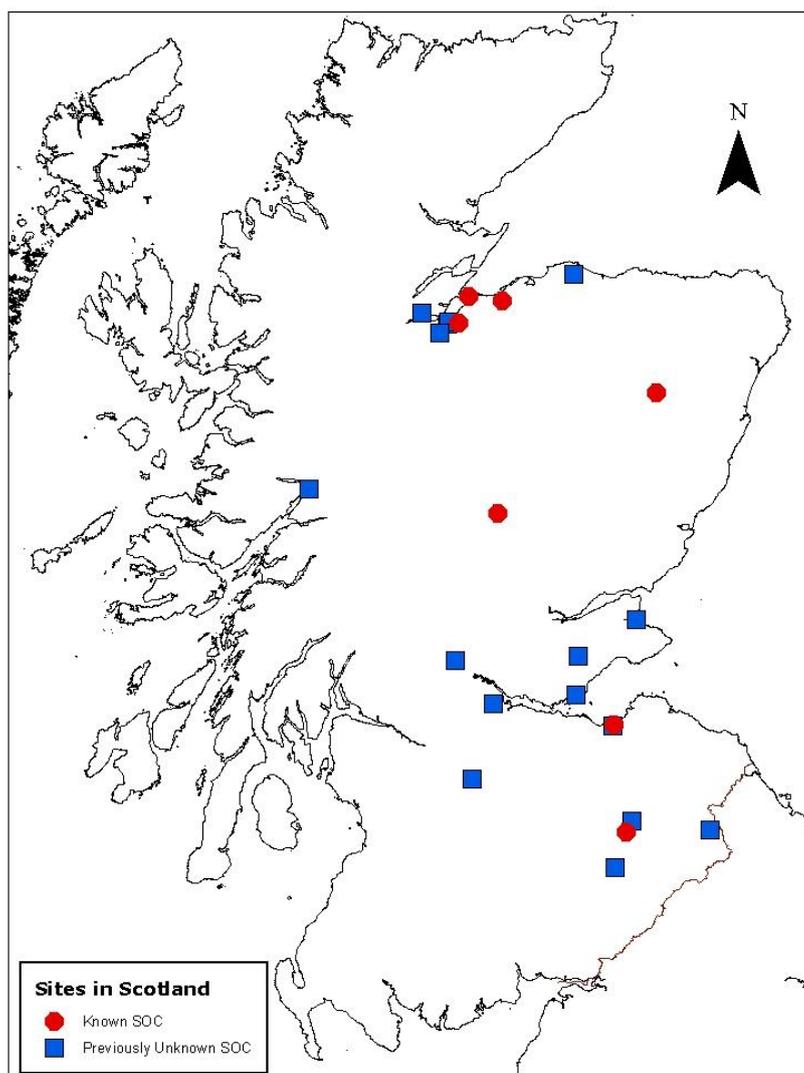


Figure 39: Map depicting the extent of metal detecting activity in Scotland on known sites of conflict and the potential discovery previously unknown sites of conflict

9.2.2 England & Wales

9.2.2.1 Battlefields

Altogether 18 battlefields have been highlighted within the dataset as having some form of hobbyist metal detecting activity (Fig. 40). The majority of battlefields featured within the dataset date to the English Civil War, with the exception of two: the Battle of Sedgemoor (1685) and the lesser known Kett's Rebellion of 1549, which for the purposes of this study has been classified as a battlefield. The sites are relatively evenly spread regionally across England & Wales with a small concentration in the South West of England numbering five

sites, followed marginally by the South East, East Midlands and North West with three sites. One site, the Battle of Montgomery (1644) was the only Welsh site. It should be noted however that although the South West has a higher proportion of activity it also has the highest levels recording and reporting of battle-related material with the battles of Lostwithiel, Cornwall, Sedgemoor, Somerset and Roundway Down (1643), Wilshire each associated with an assemblage of recorded material. The first two sites were further explored through two case studies presented in Chapters Four and Five and will be referred to throughout this chapter. Roundway Down is also interesting as it represents an early attempt of recording in 1975-77 by a local metal detectorist who recovered an assemblage of approximately 99 lead projectiles, 14 cannon balls and a small volume of other signature artefacts. Although not recorded to a high standard, the assemblage was retained and accompanied with sketch maps and notebooks and it has been possible to conduct further archaeological investigation of the site; a project which is currently being developed by the Devises Heritage Group as a community-led venture (Carter 2011). By way of contrast, three battlefields noted in the South East appear to have high levels of non-recording. Using the *eBay* dataset as an indicator of the scale of unrecorded removal the Battle of Newbury is highlighted as having the highest volume of unrecorded removal of battle related material in the UK standing at 237 projectiles, although further reports of activity gathered from communications with *eBay* sellers indicates this total is likely to be significantly higher. Likewise, the Battle of Worcester (1651), Worcestershire also has a high volume of unrecorded material with 67 projectiles logged on *eBay*. The Battles of Cheriton (1644), Edgehill (1642), Marston Moor (1644) and the Kett's Rebellion closely follow with between 30 – 50 projectiles recorded. In comparison, the assemblage recorded by MdSM at Sedgemoor currently numbers 583 projectiles, which gives some indication to the potential impact this volume of unrecorded removal may have on the archaeological integrity of the battlefield.

At this point grey areas in the data occur as although a high volume of battle-related material has been removed unrecorded from the following battlefields, they have been reported to the PAS and included within the HER, or both. These include the battles of Aylesbury, Montgomery, Nantwich (1644) and Naseby (1645). With regards to Aylesbury, the existence of an assemblage recovered by a metal detectorist from the battlefield was recorded within the HER. This in turn prompted a metal detector survey in close proximity to the battlefield conducted by Wessex Archaeology ahead of development (WA 2007). Material recovered from the remaining three battlefields was reported to the PAS, with the latter two reported by multiple finders during a rally where FLOs of PAS

were in attendance. This includes the Battle of Nantwich Rally held in 2007, where 45 musket balls were reported. Individual findspots for the musket balls are provided, however they have been approximated to a six figure grid reference which places the findspot anywhere within 10, 000 sq. metres. Aside from the three battlefields noted in the South West, evidence of metal detectorists recording material recovered from battlefields is very low. Only one other case of recording is highlighted in the PAS database and is represented by 64 musket balls from the Battle of Marston Moor recorded by one individual using a 10 figure grid reference for each find.

9.2.2.2 Other known sites of conflict

The range of sites of conflict other than battlefields featured in the dataset was unexpected, particularly sites such as potential encampments or firing ranges which have not received the same attention in the public eye as battlefields. Within the dataset metal detecting activity on 7 siege sites, 12 skirmish sites, 9 encampment sites, 5 firing ranges and 14 unclassified sites of conflict have been identified. With the exception of the siege sites, an English Civil War skirmish at Anston Bridge, S. Yorkshire (PAS: DENO-F41956) and three 18th - 19th century encampment sites at Romney Marsh, Kent Blandford, Dorset and Dorchester, Dorset (Houlding 1981) the rest of the sites featured in the dataset have been categorised as ‘previously unknown sites of conflict’: meaning that no archaeological material or historical reference indicating the presence or location of the site has, to the author’s knowledge, so far been highlighted. Regionally, the South East of England has the highest level of activity with 17 sites, followed by 11 sites in the South West and 7 from the West Midlands and Yorkshire & Humber.

Activity on known sites of conflict is relatively low with 14 sites identified within the dataset (Fig. 40). As previously mentioned, the majority of these sites are English Civil War siege sites, the most prominent in the dataset being Chichester, Sussex with 46 musket balls identified, Pontefract Castle, West Yorkshire with 43 musket balls and Denbigh Castle, Powys with 30 musket balls; all three of which were logged during eBay monitoring. Newark Castle has also been highlighted as having a significant volume of unrecorded material removed, with 12 logged from eBay and 18 reported by two metal detectorists to the PAS. Another assemblage of material from a siege site reported to PAS includes Corfe Castle with artefacts recovered as a result of a rally which took place there in 2007. Similarly, a relatively small volume of unrecorded material in the form of late 18th – 19th century buttons and musket balls, 25 artefacts in total, have been removed from the

encampments at Romney Marsh and Dorchester. However, as with all other sites featured on eBay, it is possible that this represents only a small proportion of objects specially selected for sale. Nevertheless, the *eBay* dataset remains an important indicator of the presence and scale of metal detecting activity and unrecorded removal on sites of conflict. Overall, the data suggests that recording and reporting of recovered material from these sites is poor. Of the small volume of material reported to PAS the artefacts do not appear to have been individually recorded, but instead are provided with an arbitrary 6-figure grid reference. This includes two sets of 9 musket balls recovered ‘close to the civil war siege works’ at Newark (DENO-454ED2), which should be considered as part of a wider assemblage of material associated with the Siege of Newark.

In total, 41 sites have been highlighted as ‘previously unknown sites of conflict’ within the dataset (Fig. 40) the majority of which have not been classified as any specific site type but have been identified by the volume of material they appear to be associated with. An example of this is a case from Colchester in which a collection of 800 musket balls was logged from one lot to be sold on *eBay* in 2007. It is unlikely this assemblage originated from one site of conflict in the Colchester area, but instead represents the unrecorded removal from multiple sites in the area, which is also of great concern as there is no way to quantify this impact beyond its weight in lead. If we are to view this data in terms of regional metal detecting activity on sites of conflict the South East again features prominently with 13 sites and an approximate volume of 997 conflict-related artefacts. Considering this figure in context, the evidence suggests that only 10% of this material has been recorded to any accuracy and only 22% reported to PAS. The South West and the East of England also have a high proportion of sites with eight and six featured respectively, although the South West has a significantly higher proportion of recording and reporting. Here six sites of conflict are associated with assemblages of material that have been accurately recorded using 10 figure grid references and reported to either PAS or an archaeologist⁸². This includes the extensive site at (see Chapter Six) and three potential skirmish sites located by a South Gloucestershire based metal detectorist.

The remaining two sites in this region, potentially representing skirmish activity, have been highlighted within the PAS database due to the significant volume of material

⁸² It should be noted that in discussions with the finders the author was told that in these cases, as with several others, attempts were made by the finders to report their assemblages to PAS. However they were either told that reporting was not necessary or that only a representative sample would be recorded i.e. one. These sites do not appear to exist within the PAS database.

recovered from the sites. For example 72 musket balls recovered from one field at Monkerton Lane, Pinhoe which lies on the outskirts of Exeter, Devon (DEV-4C15B5). The volume of material is likely to indicate the presence of a site of conflict, an association recognised by the two finders who reported the assemblage to PAS. However, their ingenuity has only gone so far as none of the artefacts have been individually recorded, but again have been given an arbitrary 6-figure grid reference. It is interesting to note also that the potential of a previously unknown archaeological site has not been highlighted within the database, or indeed flagged with the HER as no corresponding record appears to exist. There are 5 other similar sites recorded in the PAS database, including 128 musket balls reported during a rally at Birlington Manor Farm, East Sussex (South East region) which forms part of 'larger collection from the same farm' (SUSS-F78016) and 54 musket balls from Allerton Mauleverer, North Yorkshire (YORYMB781). The latter assemblage was reported to PAS during an NCMD rally held in September 2000. Interestingly, the location of the rally is in close proximity to the Battle of Marston Moor and may therefore represent skirmish activity associated with this event.

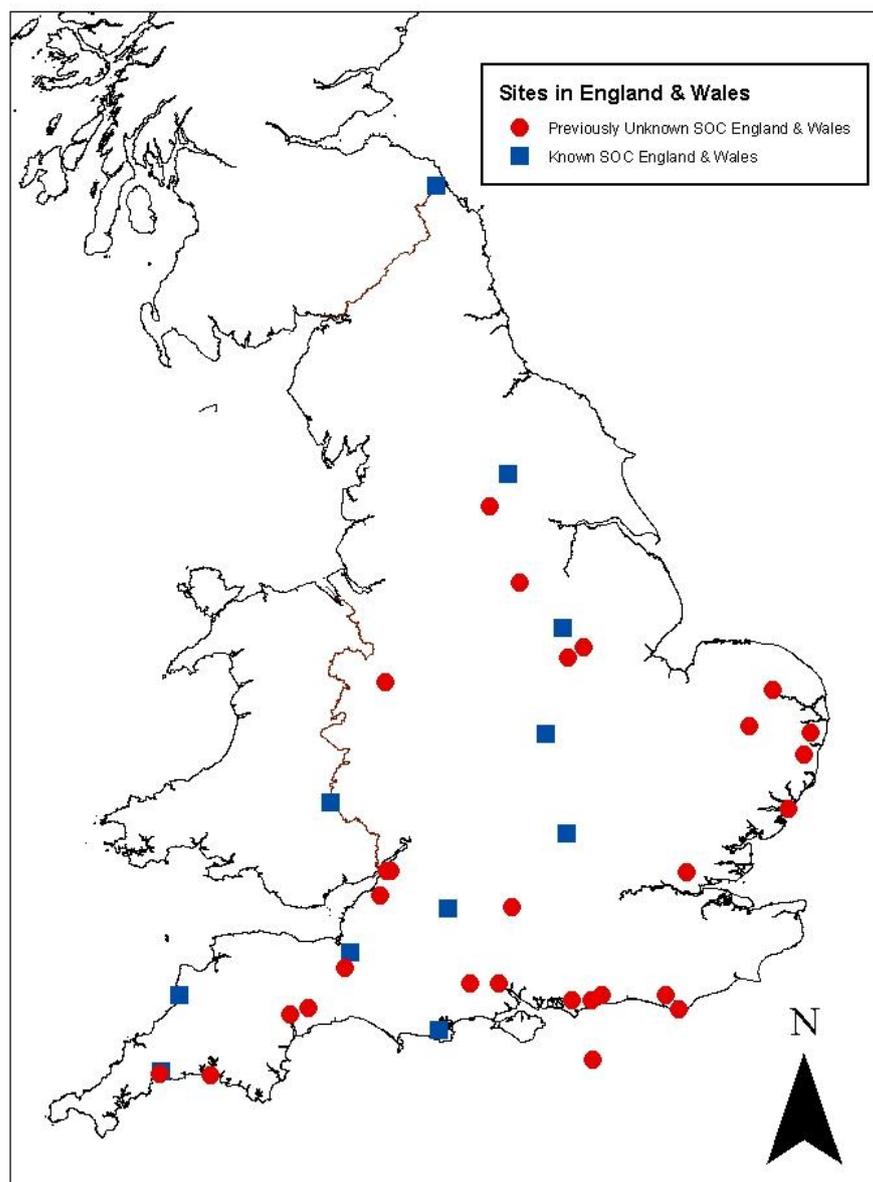


Figure 40: Map depicting extent of metal detecting activity in England and Wales on known sites of conflict and the potential discovery of previously unknown sites of conflict

9.2.3 Data summary

There is clearly some recognition of the potential significance of battle-related material, simply due to the fact that reporting of this material does take place, if not across the board. However, in spite of this, recording conflict-related material accurately and recognising that each artefact is linked within a pattern of distribution continues to be overlooked and remains a low priority when metal detectorists engage with their hobby.

We must therefore reflect on whether assemblages that have been reported, but not recorded to any accuracy, can hold any true archaeological value.

One striking feature of the dataset is the very low level of *eBay* data from Scotland in comparison to England & Wales. Considering the *eBay* dataset in its entirety, which included 414 entries in total, only 1.5% originated from Scotland. It is not possible to draw a direct comparison between the datasets as there is a considerably higher population of metal detectorists in England and Wales than in Scotland, with an estimated population between 15, 500 and 16, 500 000 in England and Wales (Thomas 2012, 59), as compared to approximately 500 to 1000 in Scotland (Campbell 2012 pers. comm.). Furthermore the volume of sites of conflict will be greater with areas seeing more intensive and prolonged conflict during the 17th century. However, what affect has the legal system of Treasure Trove in Scotland had, if any, on sales of artefacts from *eBay*? Any individual selling artefacts recovered from Scotland without evidence that they have been disclaimed as Treasure Trove is liable for prosecution, which may have served to act as a significant deterrent. However, it should also be noted that very few artefacts of any kind, even material known to have been disclaimed, appeared on *eBay* with less than a handful of objects each year. Does this reflect a different attitude within the metal detecting community in Scotland to artefacts? Is this attitude influenced by the focus within Treasure Trove law on the cultural significance of an object rather than its intrinsic value as with the Treasure Act in England and Wales?

Although it may not be possible to accurately reflect on this question from this particular dataset, evidence suggests that a perception of intrinsic value can be identified as an influential factor in the decision making process of the hobbyist metal detectorist; is this recovered object worth retaining, recording or reporting? As the vast majority of battle-related objects hold no intrinsic value per se i.e. functional pieces composed of base metal, it is vitally important to build awareness of the archaeological significance of these objects and assemblages. This aspect, together with other points highlighted from the dataset including the value of unrecorded data, will be discussed in section 9.4.3.

9.3 Defining the nature of impacting and contributing metal detecting activity of sites of conflict

The basis of this research has been to assess the positive contribution and negative impact of hobbyist metal detecting, however, this process has not been straightforward. As research progressed, and as may be reflected in the discussion points raised in the previous section, it became clear that activities considered as representing a positive contribution or a negative impact were not mutually exclusive and therefore could not be easily categorised. This has made the ability to define contributing and impacting metal detecting activity problematic as it uncovers a number of grey areas which blurs the lines between positive and negative metal detecting activity.

At this stage it is necessary to reflect more closely on the individual actions of the hobbyist metal detectorist rather than viewing the data at face value. Here, the value of drawing on case studies to explore further the nature of this activity becomes apparent as they are effective in illustrating the complex relationship between hobbyist metal detecting and conflict archaeology. Therefore, by combining an analysis of the dataset with the experiences of hobbyist metal detectorists drawn from the case studies it is possible to identify key characteristics that provide a framework from which to understand the nature of hobbyist metal detecting. Within this framework certain attributes of metal detecting activity are identified which may represent either a positive contribution or a negative impact. An important feature of this framework is that it accepts that attributes may be combined to form grey areas as highlighted by the questions above. The next section will discuss the attributes of hobbyist metal detecting activity identified as having a negative impact to battlefield archaeology, before moving on to discussing activity representing a positive contribution.

9.3.1 Identifying attributes of hobbyist metal detecting activity representing a negative impact to battlefield archaeology

During the course of her research the author has identified four key attributes observed within hobbyist metal detecting which contribute a negative impact to battlefield heritage. They are: a lack of awareness or recognition of the significance of artefact scatters and the spatial relationships which define them; not recognising certain artefacts as potential

signatures of conflict; deliberate searching, i.e. relic hunting, for battle-related artefacts, including rallies; and when battle related material is considered as background noise in the search for objects of more 'intrinsic value'. In order to illustrate the nature of these attributes we shall draw on examples highlighted within Chapter Four and three case studies featured in Chapters Five and Six to illustrate these points; the battles of Sedgemoor (1685) in Somerset, Prestonpans (1745), East Lothian and Philiphaugh (1645), Scottish Borders.

9.3.1.1 Recognising the significance of artefact scatters

There is little doubt that the unrecorded removal of artefacts from sites of conflict lies at the heart of impacting activity. The wholesale removal of artefacts from sites of conflict by metal detecting activity results in the gradual erosion of the artefact scatters which define the archaeological character of the battlefield. A box full of musket balls may indicate that some form of military activity has occurred in the area (Plate 43), however, without the corresponding distribution map detailing the position of each artefact that box of musket balls holds relatively little archaeological value. This is a picture recognised across many battlefields in the UK, including the Battle of Sedgemoor. Here MdSM has had several encounters with metal detectorists who he refers to in detrimental terms as 'treasure hunters'. This is due to the damage he believes they have done to the battlefield because, as he states, they 'don't care about recording or filling in holes they have dug' (MdSM pers. comm. 2009). He estimates that between 2007 and 2009, at least seven metal detectorists have visited the battlefield and that approximately 500 musket balls have been removed unrecorded and placed in pockets, plastic tubs and even buckets. He has even observed one regular visitor recovering a significant number of musket balls from a core area of the battlefield only to later place them in a spaghetti jar. He is said to have later used them at a charity function for a 'guess how many in the jar' competition.



Plate 43: A box containing musket balls, a cannonball and several powder-box caps found in Cornwall. Typical assemblage observed by the author when viewing private collections of artefacts recovered from sites of conflict by metal detectorists

In the vast majority of cases, this activity should not be viewed universally as malicious damage but simply as a failure to recognise that an artefact held within the ploughsoil may be spatially interconnected with other artefacts. This apparent lack of awareness of the presence of artefact scatters may be due in part to the fact that battlefields are not predominately visible within the landscape, unlike many archaeological sites which are defined by upstanding remains. Therefore unlike removing stones from a chambered cairn, removing artefacts from a battlefield can be difficult to quantify if it is not visually apparent as an impact. Added to this is a focus within hobbyist metal detecting on the *individual artefact* rather than considering the potential of it forming part of a *wider assemblage* of material. The rationale behind artefacts as isolated finds may stem from the assumption, also shared by many archaeologists, that the ploughsoil represents a turbulent environment in which artefacts are highly mobile and therefore should be considered as ‘stray finds’; in this scenario logic dictates that the object itself must hold more value than the find spot. This impression of the ploughsoil as a rolling ocean is inaccurate, as although movement does occur, research carried out within the ploughsoil horizon has demonstrated that the movement of artefacts is more likely to be vertical than horizontal, a result further compounded by the successful analysis of battle-related artefact distributions (Haselgrove 1985; Pollard 2009, 194).

9.3.1.2 Recognising the material culture of conflict

Battlefields, and other sites of conflict, are further put at risk when battle-related artefacts are not recognised as significant objects, particularly if the artefacts have the potential to mark the presence of previously unknown sites of conflict. The perception of musket balls as ‘common finds’ may be true to some extent as the odd musket ball may often form part of the average metal detecting assemblage, but when does ‘common’ become ‘significant’? As Foard notes within a guidance document produced on behalf of the Battlefields Trust for the recording of lead projectiles:

‘metal detecting finds of more than a handful of bullets may represent the first information to identify and accurately locate such sites. It is therefore suggested that where approximately 50 or more bullets are reported from any one site, and with any collection which is accompanied by one or more powder box caps, the Battlefields Trust be asked to advise on the discovery’ (Foard 2009, 3).

Although this guidance is valuable in highlighting archaeological interest in scatters of battle-related objects, especially to metal detectorists⁸³, the figure of ‘approximately 50’ is misleading as in the author’s experience far fewer battle-related objects are required to highlight the presence of a site. The point of discovery rests on the diligence of the finder to recognise the significance of an artefact scatter, and not an arbitrary volume of specific artefacts. For instance, the author directed a small metal detector survey on an area due to be excavated as part of an archaeological investigation at Forteviot, Perth & Kinross⁸⁴. Within an area of 1600msq the survey recovered 10 musket balls and 5 modern Enfield bullets; a high volume considering the size of the area surveyed (Campbell 2010). However, the significance of the scatter was dismissed by one volunteer metal detectorist simply because they were in his opinion ‘commonly found’.

In the context of the battlefield, artefacts such as musket balls, pistol balls and cannonballs may be readily recognised as conflict-related artefacts and as we have seen may be highly valued as such. However, what archaeologists consider as ‘signature artefacts’ expands beyond the lead projectile and may include a range of objects including fragments of weaponry, broken accoutrements and clothing fasteners. Such objects are

⁸³ The author has seen it posted and discussed on a number of occasions within metal detector forums.

⁸⁴ As it was a scheduled area, although unrelated to the battlefield, Historic Scotland requested that a metal detector survey take place prior to excavation to recover any potential artefacts in the topsoil. This demonstrates the progressive attitude, not only towards the use of metal detectors within archaeological survey, but also towards the importance of archaeology contained within the ploughsoil.

often small and unassuming and can easily be cast aside as meaningless if not identified as battle-related. An example of this occurred during a rally which took place on the site of the Battle of Prestonpans as presented in Chapter Eight where fragments of musket and other 18th century military accoutrements were not recognised and therefore not recorded accurately (Pollard and Ferguson 2009, 54). This case represents an important example in supporting the argument for discouraging metal detecting on sites of conflict, as although the lead projectiles were recovered there is still a risk that important signature artefacts will be disregarded or misidentified.

9.3.1.3 Rallies and Relic collection

Organised metal detecting rallies represent a significant threat to battlefield heritage. With numbers of participating metal detectorists ranging between 30 to 500 and all searching within a relatively small area, they have the capacity to remove large volumes of unrecorded artefacts. Several rallies have taken place on battlefields in the UK over the last 10 years, including Marston Moor, Newbury, Nantwich (Foard 2008, 242) and another close to the site of the Battle of Naseby at Kettering, Northamptonshire as recorded within the Portable Antiquities Scheme (PAS) database⁸⁵. Overall there have been few rallies in Scotland, although the trend is growing with battlefields becoming a worrying focus of attention. For example, recent events on battlefields include a rally within the vicinity of Methven (1306), Perth & Kinross in 2012; Bannockburn (1314), Stirlingshire in 2007; and at Prestonpans (1746), East Lothian, the impact of which has been discussed above. One rally organised by the Doric Diggers in September 2012 near the medieval Battle of Harlow (1411), and two other 18th century battlefields in Aberdeenshire was regarded as a promotional tool to attract attendees. In the 1970s two rallies were organised by the Dundee Club on the battles of Killiecrankie, Perth and Kinross, and Culloden, Highland. At Killiecrankie, approximately 60 metal detectorists who were delighted to find, ‘a great many musket balls and cannon ball fragments’, as well as other objects including buttons and horseshoes (Smith 2005, 58).

Musket balls, as spherical lead pieces, may not be considered of any value in isolation. In some circumstances, however, their historical link to a famous conflict will make battle-related objects desirable as collectable items as we have seen from the ready sales of projectiles on eBay. Indeed on one visit by the author to the Battle of Sedgemoor,

⁸⁵ Find ID: NARC-D8D492

a metal detectorist was spotted within the vicinity of the Memorial Field. When approached to enquire what he was doing, he replied that he was looking for, ‘musket balls, but especially a cannon ball’ (Anon 25 April 2009). This issue has been ever present in the US where Civil War relics are in demand, with some ‘relic hunters’ prepared to risk heavy fines and even a jail sentence to recover artefacts from battlefields protected by National Park status (Keen 2009; Ferguson 2012)⁸⁶. Dealers in Civil War relics may also be found in significant numbers selling their goods on the edge of the battlefield for those who wish to purchase a souvenir of their visit, although this had been an issue long before the arrival of metal detectors (Bannerman 1973). Even in the 19th century, as it is in the 21st century, this practice was regarded very much as theft, and possibly to a higher degree the desecration of a sacred space. In the UK the discovery of the Staffordshire Hoard in 2009 combined with an economic recession profiled metal detecting as an opportunity to ‘get rich quick’, with articles about the hobby even appearing in the *Financial Times*. Here battlefields are included as potential sites, together with hillforts, deserted villages and Roman towns (Watson 2008). Perhaps more concerning was a *Daily Record* article which highlighted the Battle of Culloden on a map entitled ‘*Where to dig up a fortune in Scotland*’ (McQueen 2009, 21). In this light not only is an increase in activity on sites of conflict a potential threat, but with it an expectation that objects of more intrinsic value than lead bullets are waiting to be discovered on battlefields across the country.

9.3.1.4 Battlefield material as ‘background noise’

Battle-related artefacts may evoke the imagination with their potentially gruesome history, but for others they may be regarded as a ‘nuisance’ if occurring in large numbers. For example a metal detectorist searching in the vicinity of Denbigh Castle, besieged in 1646, declared that, ‘coming home with a bucket full of musket balls was a day wasted’ (Anon eBay interview 2010). Another metal detectorist complains on a forum that one field he regularly searches on has ‘produced 1000s of mussie balls and I do mean thousands...cheesed off with them’ (Anon 2011). Both have ignored the possibility that finding large volumes of musket balls may be significant; clearly he was focused in his search for artefacts with greater ‘intrinsic value’ which in this case was medieval objects, a problem shared by other sites of conflict which form part of multi-period sites. The Battle of Philiphaugh for example shares the landscape with an Early Historic settlement and a possible Roman site which together form a ‘honey trap’ for metal detectorists. The battle-

⁸⁶ http://www.usatoday.com/news/nation/2008-01023looting_N.htm

related material therefore becomes ‘background noise’, or hedge-fodder as the author has often heard musket balls referred to because they are not considered worth keeping after a day’s metal detecting. This was certainly a contributing factor to the significant erosion of the battlefield archaeology at Philiphaugh as artefacts of Roman and Early Historic origin had been found on the site, including a gold ring (Canmore ID: 75181). An area of the battlefield is now scheduled to protect the underlying remains of an Early Historic settlement identified through aerial photography (Plate 44).



Plate 44: Signs erected by Historic Scotland at the request of the Philiphaugh Estate to highlight this area as a scheduled monument. As well as location of an Early Historic settlement it is also the core area of the battlefield.

9.4 What is the contribution of hobbyist metal detecting to battlefield archaeology?

In consideration of the attributes and examples discussed in the previous section, is it possible to identify factors which may be described as a positive contribution, particularly as the destructive nature of hobbyist metal detecting activity and the damage caused to sites of conflict across the UK is evidenced in the examples outlined above? It is clear that the accurate recording and reporting of battle-related material is a primary factor and one

that underpins what we may understand to be a positive contribution of hobbyist metal detecting; a simple point, and yet neglecting to carry out these necessary tasks forms the core of each negatively impacting attribute identified in the previous section.

The latter point will form the basis of the main discussion as it is necessary in establishing parameters to identify what may be considered a positive contribution as opposed to a negative impact; an area which has proven challenging to define. For example, whilst this research has identified a number of individual metal detectorists who may be lauded for their contribution to our understanding of the archaeology of conflict, at the same time, many aspects of their activity may also be regarded as having a negative impact. Using examples drawn from the dataset and the experiences of individuals highlighted within the case studies, together with comparisons of other contributions hobbyist metal detecting has made to archaeology in general, this section will aim to explore what may be considered a positive contribution to battlefield archaeology.

9.4.1 *Considering the wider contribution of hobbyist metal detecting to archaeology*

Before discussing further the positive contribution of hobbyist metal detecting activity to battlefield archaeology it is necessary to reflect on the nature of positively contributing metal detecting activity elsewhere within archaeology and what is considered a contribution within the archaeological sector as a whole. Perhaps the most widely recognised contribution of metal detecting to archaeology over the last 30 years has been the significant increase in the volume of artefactual data available for research. Prior to the advent of metal detecting as a popular activity material culture specialists were restricted to a small body of data originating from archaeological excavation and chance finds. The increased volume of artefact data, together with the discoveries of new types and forms, has allowed archaeologists to better understand artefact typologies and their distribution across the UK; ranging from re-interpretations of social organisation in pre-Roman Britain through Iron Age coinage, to new insights into medieval society generated by an expanding corpus of material culture (Dobinson and Denison 1995, 40; Hinton 2005). This contribution has primarily relied on the reporting of artefacts to archaeologists and museums, a process that has been greatly enhanced in the last decade through the creation of the Portable Antiquities Scheme in England and Wales and the development of the Treasure Trove Unit in Scotland.

The common theme of this positive contribution is the object specific nature of the research focus. Although an accurate findspot and its relation to other artefacts within an assemblage are important to provide some archaeological context, there is a general acceptance within archaeological circles that the vast majority of responsibly recovered artefacts found within the plough-soil are unstratified and may be regarded as stray finds (Hinton 2005; Freeman 2001, 5). A detailed ‘micro-provenance’ i.e. within 100m², therefore, is not generally considered necessary to create a regional distribution of artefacts such as Roman coins or medieval strap-ends (Dobinson and Denison 1995, 41)⁸⁷. However, it is also recognised that the recovery of concentrations of material by metal detectorists has the potential to identify previously unknown archaeological sites. For example, new areas of the Viking winter camp at Torskey, Lincolnshire have been identified through analysis of reported metal detecting finds (Richards et al 2012⁸⁸). Here the increasing use of hand-held GPS devices to provide 10 figure grid-references has been useful, but there is little sense within the archaeological community that it is essential. In contrast, whilst the identification of concentrations of material and the study of individual objects is important to the understanding of sites of conflict, it is the spatial context within a wider distribution of artefacts which is essential to the interpretation of the site as a whole. As demonstrated in an earlier section considering the negative impacts of metal detecting activity, damage occurs through a lack of understanding of the composition of sites of conflict and the necessity to accurately record each individual artefact within that distribution. Does this mean therefore that any assemblage not recorded to a high level of accuracy should not be considered anything other than a negative impact?

9.4.2 Identifying the positive contribution of hobbyist metal detecting to battlefield archaeology

When attempting to define the limits of what may be considered a positive or negative activity it is important not to undermine the contribution that hobbyist metal detecting has made to battlefield archaeology. As already explored in the case studies of Chapters Six and Seven the work of MdSM at Sedgemoor, Somerset and MdCW at Tywardreath, Cornwall have clearly benefited our understanding of the archaeology of conflict. This is

⁸⁷ The author would accept that this is not the case for all artefact studies were a detailed findspot is necessary.

⁸⁸ <http://www.york.ac.uk/archaeology/research/current-projects/torksey/#tab-1>

not only due to the discovery of previously unknown sites or areas of conflict, or the range of material recovered, but primarily because of the quality of the data produced and our ability to draw meaningful archaeological interpretation from it.

In other areas of the UK we may also see similar contributions. For instance, the majority of the sites identified as ‘previously unknown’ relate to military activity in the late 18th and early 19th century and the formation of Militia and Volunteer Units to curb the threat of French invasion during the Napoleonic wars. The material recovered, including military buttons, buckles, fragments of equipment and accoutrements, as well as a range of lead projectiles representing continual developments in firearm technology has the potential to fuel further research into this period of history. Such discoveries have demonstrated that it is possible to identify previously unknown sites such as muster points, encampments and firing ranges through assemblages of recovered material, for example Knocknagael, Highland and Milsington, Scottish Borders.

Sites such as Fort George, near Ardersier, Highland, recorded by a local metal detectorist, has also made a valuable contribution to research. Due to the volume of military-related material produced by the site, as well as detailed recording, it is possible to identify stages of development in military technology and kit, for example early prototypes of bullet for the Enfield rifle found within an area identified as a firing range. It is also possible to identify patterns such as common breakages, for example fragments of ramrod holder. This element of the musket appears to continually fail and break off; a pattern that may also be observed when comparing this material with a battle-related assemblage recovered from the Battle of Culloden, Highland (Pollard 2009; Ferguson 2010 catalogue). Furthermore, research carried out on the corpus of military buttons of Militia and Voluntary Units has highlighted these objects as an important, but often neglected, area of material culture with their use of imagery, symbols, and even manufacture, providing a fascinating social history of the Volunteer movement in Scotland (Campbell 2012).

In England and Wales approximately forty-one previously unknown sites of conflict were identified through data sources such as the Portable Antiquities Scheme and monitoring of *eBay*. The range of sites identified, from WTK siege sites to Napoleonic-era firing ranges is extensive and not only demonstrates that these sites have the potential to exist and survive, but also that they may be recognised through their archaeological signature. There are some notable examples of positive contributions to battlefield archaeology: the discovery of a potential skirmish site at Landguard Fort related to a Dutch

Invasion in 1666; an English Civil War skirmish at Shadingfield; and evidence of the 16th century Kett's rebellion against the Crown in Norfolk.

9.4.2.1 Observations on positively contributing metal detecting activity

Interestingly, this research observed several common traits shared by hobbyist metal detectorists recognised as making a consistent positive contribution to battlefield archaeology i.e. accurately recording and reporting their finds. Firstly, there is a tendency to focus their metal detecting activity within their local area and to intensively investigate one site at a time. For example, MdSM lives locally to the battlefield of Sedgemoor and has been metal detecting there for approximately 8 years. Likewise, MdCW is local to the St Austell bay area and has spent nearly 5 years investigating the skirmish site field by field. In Scotland, this is a notable pattern within the Treasure Trove Unit database with the small number of metal detectorists active on sites of conflict concentrating on no more than three sites. For example, the metal detectorist at Fort George has focused his attention on sites in his local area Knocknagael, Highland. Similarly, the Moray based metal detectorist has primarily reported assemblages from two sites in Moray: Burghead⁸⁹ and Spynie Palace, the latter the site of a 17th century siege.

Another common factor is their close working relationship with archaeologists. Of the metal detectorists featured in the previous paragraph all have participated in archaeological projects on battlefields, with the exception of the Moray based individual who has worked on other sites with the National Museum of Scotland. The majority of these projects have been directed by the Centre for Battlefield Archaeology, University of Glasgow, although both MdSM and the Fort George metal detectorist have assisted in developer-led projects on Sedgemoor and Fort Augustus, Highland respectively. Two metal detectorists, MdCW of Tywardreath and the individual at Landguard Fort, Suffolk have taken the extra step of setting up their own community based projects. MdCW has been successful in gaining the support of the local community and has worked closely with the Cornwall Archaeology Society to maintain the momentum of further research. At Landguard Fort a community-led project appears to be in its initial stages of development.

⁸⁹ Burghead, Moray is a previously unknown Early Medieval site and not a site of conflict. This individual has been working closely with Dr Fraser Hunter of NMS and his recent finds have prompted a series of archaeological excavations on the site.

As has been illustrated in the case studies and examples featured within this thesis, hobbyist metal detectorists working within archaeological projects has the potential to be a mutually beneficial process. If approached appropriately, and in awareness of factors highlighted within the ‘serious leisure’ framework (Ferguson 2013; Stebbins 1992), archaeologists can hope to recruit a skilled and experienced team to recover battle-related artefacts during systematic survey. Equally, working closely with archaeologists provides the metal detectorist with the opportunity to gain experience of recording practices, as well as developing an understanding of the underlying archaeology they encounter (Plate 45).

Whilst these represent contributions to our understanding of conflict the dataset and case studies generated by this research has also highlighted issues in defining what may be considered a positive contribution or a negative impact. This may be seen frequently within data produced by PAS and by *eBay*, where although previously unknown sites have been identified, but not recorded accurately. Here we must question how meaningful this data is and what benefit it is to the research of sites of conflict and what approach is required in terms of their heritage management.



Plate 45: Discussing survey strategy with local metal detectorists as part of the Battle of Philiphaugh Archaeology Project. Involving local metal detectorists at each stage in the project was encouraged to develop new skills and understand the importance of the archaeological landscape of the battlefield.

9.4.3 Defining the parameters of what may be considered a positive contribution of hobbyist metal detecting to battlefield archaeology

Within this process it is important to delineate the parameters of what may be considered a positive contribution, as opposed to a negative impact. For example, in terms of known sites such as battlefields, can hobbyist metal detecting be considered a positive contribution if the recovered artefacts are recorded and reported, but not to a high level of accuracy? For example, a cross on a map or a hand-drawn sketch to identify distributions such as the hand drawn sketch produced by a metal detectorist at Philiphaugh (see Chapter Eight). In this case, although the sketch more accurately represented the severe level impact on the integrity of the site, it was useful to establish that battle-related material had been found in that area due to the low recovery during survey (Ferguson 2012). The decision to report this information to the project director and to volunteer to assist with the metal detector survey may also be regarded as a positive contribution.

In terms of maintaining standards within the heritage sector, can the 45 musket balls recorded to a 6 figure grid-reference by the PAS during the Battle of Nantwich rally in 2007 be regarded as a positive contribution if the findspots were only accurate to within 100m? Here there is awareness that lead projectiles from a battlefield ‘should’ be recorded but there is clearly a lack of understanding of why this important. However, perhaps this was enough to generate interest in this material and to raise awareness of its significance as suggested by one post on the UKDN forum recounting the rally , ‘I had a musket ball for my troubles, and unusually the FLO was taking pics of these on account of it being a battle site’ (Anon August 2007). On the other hand, can the identification of previously unknown sites of conflict be considered a contribution if none of the artefacts were recorded, or is it sufficient to know the site exists even if the level of impact on the archaeological integrity of the site is high? Certainly the range of sites of conflict identified during the monitoring of *eBay*, from skirmish sites to firing ranges, suggests that there is a larger body of unrecognised sites across the UK which requires further research and protection. Although, as the majority of the material represents unrecorded removal, to what extent this research would be successful is unclear.

Establishing such parameters provides a suitable benchmark from which to gauge positively contributing hobbyist metal detector activity. This in turn allows one to assess

the level of appropriate action when faced with balancing hobbyist metal detecting activity and effective heritage management of sites of conflict. Compromise and context are both necessary factors in managing the expectations of appropriate recording and reporting. Setting the bar too high in terms of accurate recording, for example insisting on sub-centimetre accuracy when recording findspots, is unattainable for the vast majority of hobbyist metal detectorists resulting in resistance rather than co-operation; as demonstrated in the organisation of the joint metal detecting ‘outing’ on the Battle of Prestonpans (see Chapter Eight). However, in the context of known sites of conflict this level of recording is essential. Endorsing a lower standard of recording in a ‘better than nothing’ approach may achieve a minimum standard of recording to 100m or more, which although relatively useful in the initial identification of previously unknown sites of conflict, is not adequate for producing meaningful data in the longer term. Anything less than a 10-figure grid reference is liable to have a negative impact on the archaeological integrity of a site of conflict; accuracy achievable with the use of hand-held GPS device or plotting using offsets; as demonstrated by one individual featured on the PAS database recorded 64 musket balls from the Battle of Marston Moor using a 10-figure grid reference (PAS ID: SWYOR-3F2B87). However, if reported early and the archaeological potential is recognised, advice and support should be offered from the relevant bodies e.g. PAS and the Treasure Trove Unit, to ensure such sites are accurately recorded to reduce the potential of negative impact.

9.4.4 Transforming negatively impacting metal detecting activity into positive contribution

As has been demonstrated in several examples throughout this research negatively impacting activity is rarely intentional and should not be regarded endemic feature of hobbyist metal detecting. In many circumstances it is possible to transform a negative impact into a positive contribution with a greater awareness of their actions often proving to be the key to this transformation, as Foard acknowledges:

‘The metal detector is a very valuable archaeological tool, but like many tools it can be used in a constructive or destructive manner, depending on the intentions and the knowledge of the user’ (Foard 1995, 19).

The ‘intentions and knowledge of the user’ is an important factor in identifying metal detecting activity that represents a positive contribution to battlefield archaeology.

Here we must recognise that often intentions are well meaning and that knowledge is built on experience. Negatively impacting activity is therefore likely to occur at some stage in the career of a hobbyist metal detectorist; an aspect also reflected in attempts to investigate sites of conflict by some archaeologists which has resulted in severe impact due to a lack of understanding of their archaeological composition and the methodology required to recover material appropriately. This position is encapsulated by the early experiences of the metal detectorists at the heart of the two main case studies explored within this thesis. Both individuals have contributed significantly to battlefield archaeology, with MdSM mapping the rout of the Rebel army at Sedgemoor, and MdCW discovering a previously unknown skirmish site which has greatly increased our understanding of the English Civil War in Cornwall. However, when MDCW first began to metal detect the area he managed to recover a significant volume of lead projectiles before recognising the assemblage potentially represented a site of conflict. Similarly, on the battlefield of Sedgemoor, MdSM did not initially understand the connection between the individual artefact and its spatial context. Therefore the artefacts were not individually bagged and so did not correspond spatially to the distribution plots he had created.

Other examples include a skirmish site at Shadingfield, Suffolk and at a larger scale metal detecting activity on the battlefield of Philiphaugh as outlined in Chapter Eight. In both cases the metal detectorists involved did not recognise the potential of what they had discovered until coming into contact with archaeologists. At Shadingfield the individual concerned became aware of his potentially impacting activity after reading the author's article in *The Searcher* magazine (Ferguson 2010). Concerned by his potential role in damaging the site he contacted the author requesting advice on how to investigate the site correctly and responsibly. He has subsequently bought a hand-held GPS device and is now reporting his finds to PAS. With regards to the severe erosion of the archaeological integrity of battle-related distributions on the battlefield of Philiphaugh, it was the metal detectorists involvement within the project and the development of their understanding of the site as an archaeological landscape which positively transformed their attitude and subsequent activity. Their actions in seeking advice, gaining new skills in recording, and ultimately recognising the potential of their discovery have transformed activity previously considered a negative impact into a positive contribution; something that may be achieved by the majority of hobbyist metal detectorists with an interest in the past.

9.5 Conclusion

This chapter has attempted draw together themes explored throughout this research, including data assessing the extent of metal detecting activity in Chapters Four and Five, as well as the nature of this activity through a series of case-studies as presented in Chapters Six, Seven, Eight, for more detailed discussion. The aim of this discussion was to identify, and further understand, the negative impact and positive contribution of hobbyist metal detecting to battlefield archaeology.

During analysis of this data it was possible to identify attributes that may characterise negatively impacting and positively contributing metal detecting activity. The former activity could be defined under four categories: *recognising the significance of artefact scatters*; *recognising the material culture of conflict*; *rallies and relic collection*; and *battlefield material as background noise*. The categories serve to highlight the diverse nature of negatively impacting activity, as well as providing a structure with which to illustrate, and importantly, understand modes of behaviour within hobbyist metal detecting which has led to the severe damage of sites of conflict. The evidence presented in this research clearly points to one factor which fundamentally underpins this negatively impacting activity: that being the unrecorded removal of battle-related material. In each case the removal of battle-related objects from their spatial context, together with the failure to recognise the significance of this context and the object itself, has resulted in the degradation of artefact distributions and with it the archaeological integrity of sites of conflict across the UK.

The ability to define what may be regarded as a positive contribution was more challenging, as this generated a discussion on what may be understood as the production of 'meaningful data', with questions such as: if an assemblage is reported but not recorded can this still be regarded as a positive contribution? However, there were certain characteristics which had been consistently observed amongst a group of individuals that may be described as having a positive contribution to our understanding of sites of conflict. These include: experience of having worked closely with archaeologists, either as volunteers or as paid members of team; concentrating on either one site, or a small number of sites, usually in the local area, and maintaining an interest in understanding its archaeological and historical value; and finally, recognising at an early stage the importance of accurate recording and reporting of artefacts and encouraging others to follow the same process. The latter point is of particular importance as the main discussion

outlining the parameters for what constitutes a positive contribution established that accurate recording and reporting formed the basis of any contributing activity. Fundamentally, without the production of meaningful data in the form of findspots or individually identifiable artefacts this activity can only result in a negative impact to the archaeological integrity of artefact distributions which define a site of conflict, even if the discovery of material represents the discovery of a previously unknown site of conflict.

Taking into consideration examples presented throughout the discussion it is possible to transform negatively impacting behaviour by highlighting the potentially destructive nature of the activity and promoting an awareness of the fragility of sites of conflict. It is, however, also necessary for those responsible for the care and management of the historic environment to take the lead in encouraging hobbyist metal detectorists to develop core skills, such as accurate recording and reporting. With this in mind, the discussion concluded that negatively impacting activity is not necessarily an endemic feature of hobbyist metal detecting. However, whilst knowledge and understanding are key factors in reducing the level of negative impact of metal detecting, the support of other measures under a legislative or policy driven framework must be considered where it is deemed necessary to offer further protection to sites of conflict. An example of where this may be effective is the Battle of Prestonpans, East Lothian, where continual efforts to reduce what can be considered negatively impacting metal detecting activity have failed. As discussed in Chapter Two this may include, where appropriate, the scheduling of sites of conflict as defined by their archaeological remains, including artefact scatters; conservation management strategies directed by local authorities which identify metal detecting activity as damaging to the archaeological integrity of sites of conflict; or else the development of voluntary schemes such as land access agreements. Ultimately, it is clear that a mutual effort is required to ensure that sites of conflict are recognised in the UK as not only archaeologically fragile, but nationally significant heritage landscapes.

Chapter Ten

Conclusion

10.1 Introduction

This thesis has assessed the positive contribution and negative impact of hobbyist metal detecting on battlefield archaeology in the UK, which required analysis of the nature and extent of hobbyist metal detecting activity. Whilst the datasets gathered from a variety of sources may highlight the extent of hobbyist metal detecting activity, it was also important to understand the nature of this activity and the motivations of those who engage with the hobby. In order to achieve this, three case studies were selected for closer investigation, which highlighted themes identified within the dataset including: the discovery of a previously unknown site of conflict, metal detecting activity on a known site of conflict, and activity that represents a negative impact to the survival of battlefield archaeology.

The remaining sections of this chapter will consider the main concluding points in relation to research questions posed at the beginning of the thesis and throughout the main discussion in Chapter Nine. It will also aim to reflect on recommendations and suggestions for future research; avenues that could not effectively be explored within the remit of this thesis. There are two areas which this research may contribute recommendations: firstly the heritage management of sites of conflict, and secondly, understanding the nature of hobbyist metal detecting activity in relation to battlefield archaeology. This includes considering questions such as: is it possible to reduce the negative impact of metal detecting on the archaeology of site of conflict, and if so, what solutions are available? Should metal detecting be restricted on battlefields? What are the ramifications of allowing hobbyist metal detectorists to participate in archaeological investigations, both research and developer-led? Is there a need within the heritage sector to develop a more consistent methodological approach towards the investigation of sites of conflict in order to avoid a contradiction, which in turn has the potential to send a confused message to the metal detecting community regarding the importance of battlefield heritage?

10.2 Answering the research questions

This section aims to review research questions presented at the beginning of the thesis in Chapter One and how each has been considered, and answered, within this research.

1. What is the extent of hobbyist metal detecting activity on sites of conflict in the UK and what form does it take? Is it mostly conducted by individuals, groups or clubs? Are rallies a regular occurrence on battlefield landscapes?

The extent of hobbyist metal detecting activity was assessed drawing data from number of sources including datasets produced by heritage bodies such as the HER, PAS and TTU, data gathered during a two-year monitoring programme of the auction website eBay, and alternative sources such as the media, online metal detecting forums and communications with metal detectorists. Part of the analysis included the construction of a distribution map, which provides a spatial representation of the combined datasets. This serves to highlight concentrations of activity, for example in areas such as the South-East of England and in the East Midlands, and the Central Belt and Highland areas, particularly near Inverness, in Scotland, as presented in Chapters Four and Five and discussed in detail section 9.2 of Chapter Nine.

In terms of assessing how this activity was conducted, i.e. by individuals, groups or clubs, whilst it was possible to glean some of this information from the dataset, it was also necessary to explore the nature of hobbyist metal detecting activity at a greater depth through a series of case-studies, Chapters Six, Seven and Eight. Evidence from this research suggests that metal detecting activity on sites of conflict is conducted primarily by individuals as demonstrated by the Tywardreath, Cornwall and Sedgemoor, Somerset case-studies. Although it was possible to identify individual metal detectorists within the England and Wales dataset through eBay, PAS, media sources and online forums, it was more difficult to track the activities of individuals or small groups who did not report or are not members of metal detecting clubs. For example, the activities of an individual metal detecting near Shadingfield, Suffolk may have gone unnoticed if he had not contacted the author after reading an article about her research in *The Searcher* magazine.

In Scotland, whilst this process may be made easier by the author's various contacts with metal detectorists through Treasure Trove, various archaeological projects and club

meetings, tracking the activities of ‘non-affiliated’ individuals is still problematic. For example, at Philiphaugh, Scottish Borders, the battlefield was regularly metal detected by individuals and small groups from the local area. However, this activity was not observed until the Battle of Philiphaugh Community Project was active in the area.

Metal detecting rallies are a significant concern to the heritage management of battlefields and have been identified in Chapter Nine (section 9.3.1.3) as an attribute of negatively impacting activity within hobbyist metal detecting activity. As has been observed through the PAS dataset, media references and posts in online forums, whilst there have been several rallies on battlefields in the UK over the last 10 years, in comparison to the level of activity of individual metal detectorists observed across the UK, they appear to be less of a consistent threat to battlefield heritage. Although large-scale rallies will have some level of negative impact on battlefield heritage, there is a higher probability that archaeologists will be present at an organised event. This presence may either be in the form of the PAS, TTU or a local authority archaeologist to record recovered material or make observations. However, the benefit of an archaeological presence at such events may be called into question if material is not recorded to any level of accuracy, as with the Battle of Nantwich Rally where find-spots of musket balls were recorded to a 6 figure-grid reference or less. In Scotland, although metal detecting rallies are less prevalent there has been a recent rise of rallies taking place on battlefield sites, including the battles of Bannockburn, Stirlingshire in 2007, Prestonpans, East Lothian, over the course of 2009-2012, Methven, Perth & Kinross in 2012, and two battlefields near Harlaw, Aberdeenshire also in 2012. In terms of assessing the level of metal detecting activity on battlefields in Scotland, if one considers the relatively low population of metal detectorists in Scotland as compared to England this level of activity, especially in the form of rallies, can be regarded as significantly high; a factor that must be considered within battlefield heritage management plans. In her capacity as Treasure Trove Unit Officer the author now regularly attends metal detecting rallies, in particular those located on battlefields, in Scotland to assist participants with recording find-spots and to ensure material recovered is reported to TTU.

2. Does the activity of metal detecting negatively impact in any way the archaeology of sites of conflict and to the understanding of battlefield heritage? Is metal detecting a risk to the conservation of battlefield heritage in the UK?

Drawing evidence from the datasets and case-studies it was possible to identify four main attributes of hobbyist metal detecting activity that may be considered a negative impact to battlefield archaeology, which are: '*recognising the significance of artefact scatters*', '*recognising the material culture of conflict*', *rallies and relic collection*, and *battlefield material as background noise*'. All four have been discussed in detail within Chapter Nine (9.3.1.1-4). Within this discussion it was concluded that the unrecorded removal and non-reporting of battle-related objects from sites of conflict was the common factor which underpinned each attribute. Case-studies formed an important part of this analysis, as did the ability to compare datasets such as *eBay* and PAS; the latter suggesting that a higher volume of battle-related material was in circulation on *eBay* than had been reported to PAS over the same two-year period (see Chapter Five). Although the presence of material featured on *eBay* may have highlighted the possible existence of previously unknown sites of conflict, with further analysis it became clear that the vast majority of these assemblages more accurately represented the loss of battlefield heritage through unrecorded removal and non-reporting. However, battle-related material recorded within the PAS database was also under scrutiny as although this represented reported material, and with it the responsible actions of the metal detectorist, the data itself often had little value. This is primarily due to factors such as the metal detectorist not recording individual findspots, as well as the FLO recording a representative sample of lead projectiles either due to time constraints or not recognising the potential significance of such assemblages. Furthermore, the object specific nature of the database is not conducive to highlighting the presence of battle-related assemblages, as it is difficult, if not impossible, to confidently link signature artefacts such as musket balls and powder caps to the same assemblage; in turn making it difficult to monitor levels of negatively impacting metal detecting activity on one site.

The unrecorded removal of battle-related objects from sites of conflict is a significant risk to the conservation of battlefield heritage. As suggested by evidence presented in Chapter Five, and discussed in Chapter Nine, sites such as the Battle of Newbury, West Berkshire and the Siege of Pontefract, West Yorkshire have been highlighted as having very high levels of metal detecting activity as represented by significant volumes of battle-related material removed from these sites unrecorded each year. The impact of this activity to the conservation of battlefield heritage can be illustrated by the Battle of Philiphaugh case study presented in Chapter Eight. Here the wholesale removal of battle-related material by local metal detectorists over a 30-year period has resulted in the erosion of artefact distributions representing the archaeological footprint of the battle. This activity undermined the integrity of the underlying archaeology to the point

that an archaeological investigation of the battlefield in 2011 was not able to recover enough meaningful data to interpret the site (Ferguson 2011). With high levels of metal detecting activity identified on battlefields such as Newbury and Worcester, it is highly likely that a similar, if not greater, degree of impact has occurred, seriously compromising the nature of future archaeological research on these sites.

3. Can metal detecting make a positive contribution to battlefield archaeology? What is the nature of this contribution?

The positive contribution of hobbyist metal detecting has been considered throughout this thesis through case-studies and analysis of data presented in Chapters Four and Five. Themes representing positively contributing activity include: the participation of hobbyist metal detectorists within archaeological projects, the discovery of previously unknown sites of conflict and activity that extends our knowledge of known sites of conflict. The latter themes have been explored in Chapter Six – Tywardreath, Cornwall and Chapter Seven – the Battle of Sedgemoor, Cornwall respectively. This involved profiling the work of two hobbyist metal detectorists and conducting a detailed analysis of the battle-related assemblages they had recovered. Within the dataset it was also possible to identify other examples of positive contributions to battlefield archaeology, such as the discovery of several 18th-19th century military sites in the north of Scotland, which has not only highlighted their existence within the archaeological record, it has also produced a corpus of associated material culture for further study.

As discussed in Chapter Nine, the basis of any positive contribution to our understanding of sites of conflict is primarily dependant on accurate recording and reporting. However, evidence drawn from this research suggests that whilst hobbyist metal detecting activity may have a negative impact, it is possible to transform this potentially destructive activity into a positive contribution if steps are taken to promote awareness of the fragile nature of sites of conflict and encourage responsible practice; the benefits of which are reflected in the achievements of the metal detectorists featured in Chapters Six and Seven, and to some extent Chapter Eight.

4. What are hobbyist metal detectorists attitudes to the archaeology of battlefields and what is their motivation to metal detect on them?

As this research developed, elements of this question moved out-with the limits of the thesis and the experience of the author, as in order to answer this question fully it would

have required introducing a methodology more firmly based within a sociological framework, for example, more detailed questionnaires or surveys; a direction which would have steered this research away from its main objective. Thomas' recent work on the relationship between metal detecting and archaeology has also been important in providing a sociological perspective to this research (Thomas 2009; 2009b; 2012).

It was necessary, however, when assessing the nature of hobbyist metal detecting to consider the motivations that drive such individuals to engage in this activity and how this may affect our ability to effectively manage battlefield heritage. The case studies presented in Chapters Six and Seven discuss the motivations of two individuals to metal detect on sites of conflict: answers range from a keen interest in local history to an activity which acts as a kind of occupational therapy to overcome a long-term illness, as is the case for MdSM at Sedgemoor. Chapter Eight explores this concept in more detail by discussing observations made of two groups, metal detecting clubs and individuals described as 'non-affiliated' metal detectorists. Here the theory of 'serious leisure' (Stebbins 1992) was applied to act as a framework to further understand the motivations of the metal detectorists featured in the study, as well as their relationship archaeologists and archaeology in general. The results of this study suggested that as a hobby, metal detecting is a recreational activity which is 'identify intensive'. Conflict arises when metal detectorists are expected, or required, to make changes to their current mode of practice e.g. record findspots, which may be regarded as unnecessary or reducing time spent on their hobby. In other words, is a perception that their hobby is being transformed beyond their control, into something that may be unrecognisable as a source of enjoyment or leisure; a concept that may inform the working relationship between archaeologists and metal detectorists.

10.3 Recommendations and suggestions for future research

The heritage management of battlefields, and other sites of conflict, as well as the relationship between hobbyist metal detectorists and battlefield archaeology have been key themes within this research. Using these themes as a broad framework, this section will outline recommendations and suggestions for future research based on the results of analysis, discussion and observations made throughout this research.

10.3.1 Heritage management of battlefields in the UK with regards to hobbyist metal detecting activity

1. *Managing hobbyist metal detecting on sites of conflict, in particular battlefields listed within the English Heritage Register of Battlefields and the Historic Scotland Inventory of Historic Battlefields.*

This research has produced evidence to suggest that hobbyist metal detecting activity has had a significant negative impact on the archaeological integrity of a battlefield, and other sites of conflict, through the un-recorded removal of battle-related artefacts. For example, battlefields such as Newbury, West Berkshire (Chapter Five) and Philiphaugh, Scottish Borders (Chapter Eight), both of which are designated battlefields, have been significantly impacted by this activity. Furthermore, as demonstrated in a case-study relating to the Battle of Prestonpans (Chapter Eight), whilst the archaeological potential of a battlefield may be highlighted for planning purposes within the Register or Inventory, the lack of statutory protection leaves the heritage sector with no power to prevent, or restrict, activities that may be deemed harmful to the survival of the archaeological record, such as metal detecting rallies. The primary purpose of the Register and the Inventory is to highlight battlefields as important national heritage sites within the planning process to avoid inappropriate or potentially damaging development without mitigation. However, allowing for the erosion of the archaeological fabric of these sites through metal detecting activity not only undermines their status as part of the historic environment, but also sends a confused message to the metal detecting community on how we should value and protect this heritage.

On the basis of evidence presented within the thesis it is necessary to manage more effectively metal detecting activity on designated battlefields, either through statutory regulations to restrict activity completely or through conservation management plans with the scope to monitor activity and set appropriate guidelines for responsible practice. The former may include the scheduling of designated battlefields, and if necessary other sites of conflict defined in the archaeological record as artefact scatters. Although any metal detecting activity on a designated battlefield, or site of conflict, would effectively be illegal under this strategy without prior consent, there are a number of caveats associated with scheduling sites of conflict, as explored in Chapter Two; including the ability to define the area for protection and the extensive coverage required to schedule an entire battlefield if using the designation boundary as a guide. The latter strategy would also not be

appropriate for battlefields such as Prestonpans, where the Inventory boundary encompasses built areas such as Tranent and Prestonpans, and a re-filled open-cast mine, in order to take into account key landscape features and troop positions at different stages of the conflict. Scheduling these areas would be unnecessary as no artefact scatters, or other form of battle-related archaeology survives, except perhaps in small unidentified pockets. Therefore a more targeted approach is required and in this case focused on fields surrounding the farm of Seton West Mains, where the existence of battle-related scatters has been identified, as has the presence of negatively impacting metal detecting activity.

Although scheduling has the legislative ability to protect the archaeological character of battlefield landscapes from metal detecting activity, in some areas it may be necessary to consider other options which either act as a support to scheduling, or else represent an alternative where such a strategy is regarded as inappropriate. Another, perhaps more sustainable option, are conservation management plans which have the potential to offer a long term strategy for the protection of battlefield landscapes. Such plans are already in existence in England as supported by Historic Environment Local Management (HELM⁹⁰). For example, in 2010 Leicestershire council commissioned a heritage and conservation plan for the Battle of Bosworth (1460) in light of archaeological evidence (Leicestershire Council 2010⁹¹), and in 2013 Northampton Borough Council announced plans to develop a plan to conserve the Battle of Northampton⁹², partly as a result of lobbying by the Battlefields Trust⁹³. In Scotland local authorities are encouraged to develop and implement tailored management plans for designated battlefields within their areas through SHEP (Historic Scotland 2011, 57). However, whether Historic Scotland or Local Authorities should be responsible for the funding, developing and updating management plans for designated battlefields is currently under consideration.

Regardless of who may be responsible for their implementation, it is important that the management plans expand their current remit to recognise that other factors, other than development, have the ability to negatively impact and change the historic environment. With this in mind, management plans should consider hobbyist metal detecting and where necessary recommend that this activity should be monitored, and if possible, restricted

⁹⁰ <http://www.helm.org.uk/>

⁹¹ www.leics.gov.uk/bbheritageconservationplan.doc

⁹² <http://www.battlefieldstrust.com/news.asp?NewsArticleID=81&Refresh=11%2F05%2F2013+11%3A36%3A06>

⁹³ <http://www.landuse.co.uk/news/2013-01-28-luc-appointed-develop-conservation-management-plan-historic-battlefield-site>

through co-operative schemes with landowners as demonstrated on the battlefield of Towton (Chapter Two). This strategy may be supported by other bodies within the heritage sector, such as the Treasure Trove Unit who are in a position to provide feedback to Local Authorities on metal detecting activity through reported material recovered from designated battlefields and other sites of conflict in Scotland. The Unit is also operating a policy that any battle-related assemblages recovered by metal detectorists from designated battlefields should be claimed as Treasure Trove and therefore preserved for the nation by being allocated to local museums. This also allows the Unit to recommend reducing an ex gratia award if it is felt that the actions of the finder was not considered to be responsible practice. For example, in 2013 the ex gratia award for five finders was reduced by 50% as they had not adequately recorded the findspots for musket balls recovered from the Battle of Prestonpans. The earlier point relating to landowner co-operative schemes, or land access agreements (Chapter Two), highlights the role of the local community in acting as stewards of the historic environment; a role management plans have the potential to develop through the encouragement of community projects and enhancing sites through interpretation e.g. pathways and information panels. It is anticipated that by promoting awareness of the fragility of battlefields, and other sites of conflict, at both a local and national level, activities that may threaten their survival such as hobbyist metal detecting will no longer considered as acceptable.

2. Recommending the assistance of local hobbyist metal detectorists within research and developer-led projects

The skills of an experienced metal detectorist are of great benefit to the investigation of battlefields, with their ability to efficiently locate and recover artefacts suspended in the plough-soil, as demonstrated in numerous projects presented in Chapter One (1.5.1 – *A brief history of battlefield archaeology and the use of metal detecting*). However, in recent years a number of commercial archaeology units conducting developer-led evaluations on battlefields have opted to use field archaeologists who have not been trained to use metal detectors; a skill which may take a number of years to develop. The reduced skill of the operator calls into question the value of results produced during systematic metal detecting survey; are they able to ensure that a representative sample of archaeological objects was recovered? For example, in April 2011 the author assisted a developer-led evaluation of an area marked for housing near Musselburgh, East Lothian. As the area was in close proximity to the Battle of Pinkie (1547) and within the bounds of the HS Inventory area, a systematic metal detecting survey was requested by the Local Authority Archaeologist.

The author provided names of local metal detectorists to assist with the survey. However, the archaeological unit decided that using non-unit personnel during the evaluation would infringe a confidentiality agreement with the developer, therefore only unit staff would be utilised. Although this is an understandable position to take within a commercial environment, it is the author's opinion that this viewpoint undermined the quality of the survey. As the only 'experienced' user of a metal detector it was necessary for the author to provide some basic tutorials in the use of the equipment, some of which was of poor quality. The author also acted as an unofficial quality control, as whilst she was able to locate and recover a range of objects including copper-alloy buttons, coins and lead bullets, the rest of the team consistently recovered large iron objects which produced a 'loud' signal.

There are two options available: the first is to encourage units to engage with hobbyist metal detectorists and to utilise their unique skill set when conducting systematic survey on sites of conflict. As discussed in Chapter Eight, any working relationship must be mutually beneficial and based on a professional framework; in other words, individuals are paid equally for their skilled contribution, which in turn requires the ability to comply to certain working conditions set within a professional environment. The second option is to train archaeologists in the use of metal detectors to the same competency as would be expected of any other equipment used within an archaeological investigation. This is a viable option, and one that would offer units more flexibility in terms of conducting developer-led investigations. There is suitable demand from commercial units for metal detector training, which could be offered by archaeologists already skilled in their use, or by hobbyists themselves. This will require in-depth consultation with commercial units and local authorities.

3. Encourage a consistent methodological approach to the archaeological investigation of battlefields.

Following on from the previous recommendation, it has also been observed that a myriad of methodologies adopted by various field units to investigate battlefields within a developer-lead environment, much of which has been fuelled by a fundamental lack of understanding of the nature of this unique archaeology landscape. This has led to confusion surrounding the importance of scatters of battle-related material in the topsoil and what level of accuracy is deemed appropriate for their recovery and recording. In turn, this lack of consensus amongst archaeologists has sent a mixed message towards the metal detecting

community regarding the significance of battlefield heritage and their responsibilities towards it. For example, between 2006 and 2008 at least four developer-led evaluations have been initiated in an area situated towards the eastern side of the Battle of Pinkie, just south of Wallyford and Barbachlaw Farm (AOC 2008, 101). The evaluations were conducted by three units, all of whom used different methodologies and to varying levels of standard; this included the use of 10m spaced transects and a methodology similar to field walking where the metal detectorist was asked to leave all recovered artefacts at the end of each transect rather than record individual find-spots. The metal detecting clubs SARG and SDC assisted with the survey. Their involvement in these evaluations became problematic as when the metal detecting clubs assisted the author during the Battle of Prestonpans Community Archaeology Project they did not understand why accurate recording of find-spots was necessary if other archaeologist did not follow the same standards. In Scotland Historic Scotland are currently consulting on plans to provide guidance notes to planning authorities on suitable methodological approaches for the investigation of sites of conflict.

4. Promote accurate recording with the use of a hand-held GPS device

Promoting awareness of the importance of battlefield archaeology within the metal detecting community remains the most enduring approach to protecting the survival of battlefield heritage. Whilst it may not be possible to reduce metal detecting activity on sites of conflict it is important to ensure that any recovered material is accurately recorded. Hand-held GPS devices may be purchased for approximately £80⁹⁴, which compared to the average price of a metal detector ranging from £400 - £1500⁹⁵, this may be regarded as relatively small purchase. As discussed in Chapter Nine the unrecorded removal of battle-related objects underpins negatively impacting activity. Furthermore, this research has also questioned whether it is possible to regard find-spots or assemblages of battle-related material recorded to less than a 10-figure grid reference as a positive contribution. The Treasure Trove Unit has published advice on the accurate recording of find-spots, including advising the use of hand-held GPS devices as part of the ‘metal detecting kit’ (TTU 2012⁹⁶).

⁹⁴ Source: amazon.co.uk and currys.co.uk

⁹⁵ Source: <http://www.uk-metal-detectors.co.uk/>

⁹⁶ http://www.treasuretrovescotland.co.uk/Information_for/detectorists.html

10.3.2 Suggestions for future research

Further research is required on several points highlighted throughout this research, including the practical implications of protecting sites of conflict through statutory measures such as scheduling, or through conservation management plans. Another area was establishing appropriate methodologies for the archaeological investigation of sites of conflict, and the involvement of hobbyist metal detectorists within this methodology. Whilst this research can highlight the need to consider such strategies there is not adequate space within the thesis itself to develop them further beyond suggested approaches. However, it is hoped that this research will be considered when developing such strategies. The next part of this section will consider other suggestions for future research that have arisen in the course of this thesis.

1. *Research on the archaeological nature of other sites of conflict, such as encampments*

This research involved assessing assemblages of conflict-related material from a range of sites of conflict. Although signature material from sites such as battlefields and skirmish sites, particularly from the 17th-18th century, may be recognised and compared with an already existing corpus of material, the archaeological character of sites such as encampments have not been widely researched. There is scope for further investigation of 17th century encampments, an example of which has been uncovered near Blandford, Dorset (Cooper 2011 pers. comm.). In Scotland there is potential for further research into 18th-19th military muster sites and their associated material culture, evidence of which has been uncovered by the activities of metal detectorists.

2. *Further research into the applications of ‘serious leisure’ to understand hobbyist metal detecting activity*

There is scope to explore further the applications of ‘serious leisure’ to understanding hobbyist metal detecting activity, particularly within a battlefield heritage management context. This theoretical framework may also be applied to the process of developing positive relationships between archaeologists and metal detectorists.

10.4 Final conclusions

As demonstrated throughout this thesis, hobbyist metal detectorists have made a valuable contribution to the development of battlefield archaeology as a discipline, in some cases recognising the potential of scatters of conflict-related material long before archaeologists came on the scene. However, although the discovery of previously unknown sites may be regarded as a contribution, we cannot afford to be complacent when dealing with the issue of irresponsible metal detecting activity on battlefield sites. As demonstrated by activity on sites such as Philiphaugh and Sedgemoor, as well as the battlefield of Newbury which may now be regarded as a 'site at risk', the indiscriminate removal of artefacts has caused irreparable damage to the archaeological fabric of these battlefields; sites we consider to be of national importance.

This research has identified that accurate recording and regular reporting are the key factors in defining the difference between a positive contribution and negative impact. Whilst this may seem an obvious point it remains the most significant issue when identifying factors that may be regarded as having a negative impact on the survival of battlefield heritage. Changing attitudes and practices through collaborative work is a far more rewarding and durable process and should be regarded as an opportunity to inform and engage with metal detectorists to encourage a greater level of understanding of the fragile nature of battlefields as archaeological sites. Therefore encouraging mutual co-operation, accurate recording and consistent reporting within hobbyist metal detecting should ideally be the primary focus of those concerned with the heritage management of sites of conflict. In maintaining this approach it may be possible to transform a negative impact into a positive contribution; a strategy which represents the most enduring path to ensure the survival of battlefield heritage.

Appendix One

Data tables relating to metal detecting activity on sites of conflict in Scotland

Table 2: Metal detecting activity identified within Treasure Trove Unit dataset

SITE NAME	LOCATION	SITE TYPE	PERIOD	PARTIES INVOLVED	DESCRIPTION	ARTEFACTS FOUND
Alford	Alford, Highland	Battlefield	WTK (1645)	Individual MD	Sent to TTU loose in padded envelope	Small assemblage of lead projectiles recovered from field to the south of Alford
Beechwood Farm	Inverness, Highland	Encampment	18-19th century	Individual MD	Possible encampment	4 x military buttons; 6 musket balls; 2 Snider-Enfield bullets; Fort William volunteers shoulder plate
Blairdrummond Estate	Doune, Stirling	Skirmish	WTK	Individual MD	Possible skirmish related to Doune Castle	99 lead projectiles and 17th century coins. Majority are pistol balls
Burntisland	Burntisland, Fife	Firing Range	18th-19th century	Individual MD	Using Black Rocks for target practice by local Volunteer and Militia units	50 + lead projectiles
Fort George	Ardersier, Highland	Training ground/Fort	18th-19th century	Individual MD	Represents activity related to the Fort and training of Militia and Volunteer Units	Substantial metal detecting assemblage. Over 2000 military objects c. 18th - 19th century
Inshes Wood; Retail Park; Nairn Road	Inverness, Highland	SOC	18-19th century	Individual MD	Situated close to Caufield's military	Lead projectiles

					road.	
Knocknagael Farm	Inverness, Highland	Encampment	18th-19th century	Multiple metal detecting outings	Temporary encampment/training ground situated approximately 15 miles (day march) from Fort George	18th - 19th century military buttons; helmet chain; belt plate; belt fixing. 15 musket balls
Milsington	Roberton, Scottish Borders	Firing Range	18th-19th century	Individual MD	Possible firing range to train local volunteers. Musket balls recovered in dense concentration.	85 musket balls; 19th century military badge
Philphaugh	Selkirk, Scottish Borders	Battlefield	WTK (1645)	Individual MD	Reported to TTU after Battle of Philphaugh Archaeology Project	Musket ball and canister shot
Prestonpans	Prestonpans, East Lothian	Battlefield	Jacobite Rising (1746)	Multiple metal detecting rallies/outings	Represents approximately 6 rallies/outings organised by metal detecting clubs SDC and SARG	31 lead projectiles including musket balls and pistol balls; cannonball, canister shot and grapeshot; multiple signature artefacts including weaponry fragments
Spynie Palace	Elgin, Moray	Siege	WTK (1644)	Individual MD	Represents activity related to a siege in 1644	Metal detecting assemblage including 61 lead projectiles and grapeshot
Thirlestane Tower	Ettrick, Scottish Borders	Skirmish	Unknown	Individual MD	Possible skirmish activity related to the Tower. Unknown date.	14 musket balls.

Wester Balgeddie	Glenrothes, Fife	SOC	Unknown	Individual MD	Large volume of musket balls recovered from a relatively small area. All bagged and recorded and may relate to training area	50 + musket balls
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Table 3: Research and developer-led projects engaging metal detecting survey on sites of conflict in Scotland highlighted within HER

SITE NAME	LOCATION	SITE TYPE	PERIOD	PARTIES INVOLVED	DESCRIPTION	ARTEFACTS FOUND
Alford	Alford	Battlefield	WTK (1645)	AOC Archaeology	Evaluation ahead of development	No battle-related assemblage recovered
Bannockburn	St Ninians	Battlefield	WOI (1314)	Headland Archaeology	Metal detecting evaluation undertaken in 2007 ahead of development on an area thought to be the core of the battlefield	Modern metal objects
Bannockburn	Bannockburn High School	Battlefield	WOI (1314)	Headland Archaeology	Metal detecting survey prior to the development of the High School in 2007	No battle-related assemblage recovered
Bannockburn	Ladywell Park	Battlefield	WOI (1314)	GUARD	Metal detecting survey prior to the expansion of the cemetery in 2007	18th - 20th century artefacts

Bannockburn	Bannockburn	Skirmish	WOI (1314)	GUARD	Assemblage recovered during investigation of the Battle of Bannockburn site as part of TMT series. Possible relation to 18th century Jacobite skirmish activity in area	Assemblage of lead projectiles
Barbachlaw (Pinkie)	Wallyford, East Lothian	Battlefield	Rough Wooing (1547)	East Lothian Council	Metal detecting evaluation undertaken in 2005 - 2006 ahead of development	Diverse assemblage ranging from medieval to modern
Barbachlaw (Pinkie)	Wallyford, East Lothian	Battlefield	Rough Wooing (1547)	AOC	Involvement of SARG in metal detector survey which took place April - July 2007	Various lead projectiles and 18th - 19th century objects
Blar na Pairce	Strathpeffer, Highland	Clan battle/skirmish	1491	C. Dagg	Evaluation ahead of a forestry track adjacent to the traditional site of the battle fought in the late 15th century. http://her.highland.gov.uk/hbsmrg/atewayhighland/DataFiles/Library/LinkFiles/190458.pdf	None
Bothwell Bridge	Bothwell, South Lanarkshire	Battlefield	Covenanter (1679)	AOC Archaeology	Metal detector survey conducted prior to potential housing development. SARG assisting.	Assemblage of musket balls and other objects
Culloden	Culloden Moor, Highland	Battlefield	Jacobite Rising (1746)	GUARD	Metal detecting survey as part of TMT series in 2003 and assisted by the HHSS	Lead projectiles and other signature artefacts

Culloden	Culloden Moor, Highland	Battlefield	Jacobite Rising (1746)	GUARD	Metal detecting survey as part of an investigation to reassess the archaeological landscape of the battlefield for new NTS interpretive centre. Project assisted by HHSS	Lead projectiles and other signature artefacts
Dunbar	Brandsmill, East Lothian	Battlefield	WTK (1650)	CFA	Metal detector survey ahead of a stable development in 2007	None
Field of the Flashes	Ingliston, Edinburgh	Battlefield	WTK	R Murdoch	Metal detector survey with the assistance of SDC on the site of a possible Cromwellian battlefield in 2004. Part of the Edinburgh Airport park and ride development	17th century coins and several lead projectiles
Fort Augustus	Fort Augustus, Highland	Fort	18th century		Metal detector survey assisted by Eric Soane	
Forteviot	Forteviot, Perth and Kinross	Possible practice range	18th-19th century	CBA	Metal detector survey ahead of topsoil removal on a scheduled area. Part of the SERF project	Enfield rounds dating to 19th century
Inverlochy	Fort William, Highland	Battlefield	WTK (1645)	GUARD	Three day systematic metal detector survey as part of the Fort William and Inverlochy Archaeology Project	Two musket balls and various metal objects
Killiecrankie	Killiecrankie, Perth and Kinross	Battlefield	Williamite Wars/Jacobite (1689)	GUARD	Metal detecting survey as part of TMT series in 2003 and assisted by SDC	Lead projectiles; fragment of grenade; other signature artefacts

Kilsyth	Kilsyth, North Lanarkshire	Battlefield	WTK (1645)	CBA	Metal detector survey conducted as part of a Mlitt research dissertation. Assisted by SARG	Various lead projectiles
Nechtansmere	Dunnichen, Angus	Battlefield	Early Historic (685AD)	SUAT Ltd	Evaluation and metal detector survey undertaken in 2006 adjacent to the traditional site of the battlefield	18 - 19th century objects
Philiphaugh	Selkirk, Scottish Borders	Battlefield	WTK	Centre for Battlefield Archaeology	Metal detecting survey assisted by metal detectorists from the local area.	Lead projectiles and other signature artefacts
Pinkie (Barbachlaw)	Wallyford, East Lothian	Battlefield	Rough Wooing (1547)	CFA	Evaluation ahead of development	Various lead projectiles and unidentified objects
Pinkie (Newcraighall)	Newcraighall, East Lothian	Battlefield	Rough Wooing (1547)	GUARD Archaeology Ltd	Metal detecting survey ahead of housing development on edge of the Battle of Pinkie. Metal detecting conducted by archaeologists.	One lead projectile and various other modern artefacts.
Prestonpans	Bankton House	Battlefield	Jacobite Rising (1745)	CFA Archaeology	Metal detector survey during the construction of a septic tank in 2009	None
Prestonpans (CL)	Community Links	Battlefield	Jacobite Rising (1745)	CFA	Metal detecting evaluation undertaken in 2007 on the proposed site of a community woodland	17th - 19th century objects

Sheriffmuir	Dunblane, Stirling	Battlefield	Jacobite Rising (1715)	GUARD	Metal detector survey as part of the Beauly to Denny power line in 2006. Metal detectorists selected from HHSS	Various lead projectiles and other battle-related artefacts
Sheriffmuir	Dunblane, Stirling	Battlefield	Jacobite Rising (1715)	Northlight Archaeology	Metal detecting survey continuing from earlier phase of work for Beauly to Denny Pylons. Metal detecting conducted by archaeologists.	Currently undergoing post excavation

Table 4: Data relating to metal detecting activity on sites of conflict in Scotland identified from alternative sources

SITE NAME	LOCATION	SITE TYPE	PERIOD	PARTIES INVOLVED	DESCRIPTION	ARTEFACTS FOUND
Culloden	Inverness, Highland	Battlefield	Jacobite Rising (1746)	Dundee Metal detecting club	Rally in 1980s with approximately 30 - 50 participants. Reported in Treasure Hunting magazine	Various lead projectiles and battle-related objects
Bankhead	Tranent, East Lothian	Skirmish	Jacobite Rising (1746)	Individual MD	Close proximity to the Roupin' Steps on Johnnie Copes Road with possible relation to the Battle of Prestonpans	50+ lead projectiles
Cauldhame Farm	Carron, Falkirk	Unknown	18th-19th century	SARG club outing	SARG metal detecting in an area close to the Carron Valley iron foundry. Found two cannon balls in the field close to the foundry	2 cannon balls
St Andrews	St Andrews, Fife	Firing Range	18th-19th century	Individual MD	Possible training activity using remoteness of area and sand dunes as stops	Musket balls and Snider-Enfield bullets
Redcastle	Milton, Highland	Firing Range	18th-19th century	Individual MD	Assemblage possibly related to military activity or training in the area of the castle	Musket balls, Enfield bullets and military buttons

Fort William	Fort William, Highland	Skirmish	Jacobite Rising (1746)	Individual MD	Steep area next to stream. Soldiers sourcing water for the Fort? Trim track behind Swimming Pool. Local MD working with Fort William Archaeology Project	10 musket balls
Auldearn	Auldearn, Highland	Battlefield	WTK (1645)	Individual MD	Musket balls found near Montrose's Hollow by a local metal detectorist	5 musket balls
Killiecrankie	Killiecrankie, Perth & kinross	Battlefield	Jacobite/Williamite (1689)	Dundee Metal detecting club	Metal detecting rally in 1980s with approximately 50 participants. Reported in Treasure Hunting magazine. Other activity observed on site.	50 + musket balls and other battle-related objects
Dalserf	Hamilton, South Lanarkshire	Skirmish	Covenanter	Individual MD	Possible Covenanter activity in the parish of Dalserf	Two iron cannon balls and musket ball
The Rink	Selkirk, Scottish Borders	Skirmish	WTK	Individual MD	Metal detecting in an area called the The Rink, presence of a tower house. Said to be a skirmish between Montrose's Royalist forces and the approaching Covenanters before the battle of Philiphaugh	20 + musket balls

Appendix Two

Data tables relating to metal detecting activity on sites of conflict in England and Wales

Table 5: Research and developer-led archaeology projects engaging metal detector survey on sites of conflict in the UK

SITE NAME	LOCATION	SITE TYPE	PERIOD	PARTIES INVOLVED	DESCRIPTION OF WORKS	ARTEFACTS FOUND	NOTE
Adwalton Moor	Bradford, West Yorkshire	Battlefield	ECW (1643)	West Yorkshire Archaeology Service	Test-pitting and metal detector survey of a site within the battlefield of Adwalton Moor (1642)	Recorded no significant archaeological activity.	The site location is land at Cross Lane, Drighlington
Aylesbury	Aylesbury, Buckinghamshire	Skirmish	ECW (1642)	Wessex Archaeology and Portable Antiquities Scheme	In 2006 a hastily organised detector survey of the fields round Holman Bridge, Aylesbury in advance of housing.	Musket balls and pistol balls	Reports provided.
Basing House	Basingstoke, Hampshire	Siege	ECW (1644)	MA thesis - University of Winchester	Metal detecting survey and geophysics to locate remains of the civil war siege-works	Canister shot and various 17th century artefacts	Two phases of excavation were also carried out as part of a separate project

Blandford	Blandford, Dorset	Encampment	ECW	Dominic Barker, University of Southampton and local metal detectorists	Analysis an assemblage within the museum recovered by metal detectorists	Musket balls, pistol balls and cannon balls	Initiated a programme of geophysics and metal detecting survey on the site
Bosworth	Bosworth, Leicestershire	Battlefield	War of the Roses (1485)	Battle of Bosworth Archaeology Project – G. Foard	A metal detector survey of a possible site of the Battle of Bosworth. Recovered a rare coin of Henry VIII and two Tudor-style cannon balls.	Lead projectiles and other rare 15 th century artefacts	
Braddock Down	Lanreath, Cornwall	Battlefield	ECW (1643)	Cornwall Archaeological Unit	An archaeological assessment of the archaeological and historical sites within Braddock Down.	No artefacts recovered	
Cheriton	Cheriton, Winchester	Battlefield	ECW (1644)	Cheriton Archaeology Project, James Bonsal	Metal Detecting Survey	Musket Balls, pistol balls, bandolier caps and buckles	Results of the project published as an article within the Journal of Conflict Archaeology
Edgehill	Kineton, Warwickshire	Battlefield	ECW (1642)	GUARD/ Two Men in a Trench.	Excavation and metal detector survey.	Musket balls, Pistol Balls, Various 17 th century artefacts	

Edgehill	Kineton, Warwickshire	Battlefield	ECW (1642)	The Battlefields Trust	Metal detecting survey as part of a local community project initiative from 2004- 2006	Various projectiles and 17th century artefacts	
Edgehill, (Diana Lodge Paddocks)	Kineton, Warwickshire	Battlefield	ECW (1642)	Warwickshire Museum Field	Third MD survey in the area. Archaeological Metal Detector Survey at Diana Lodge Paddocks, Little Kineton, Warwickshire	1 Musket Ball	Evaluation took place in 2007
Farnham Park	Farnham, Surrey	Skirmish/Siege	ECW	Surrey Archaeological Society	Monitoring of path improvements and ditch cleaning operations. Musket and pistol balls found are thought to relate to a military attack made on Farnham Castle during the Civil War.	Musket & Pistol Balls	
Flodden	Northumberland	Battlefield	1513	GUARD/Two Men in a Trench	Metal detector survey and excavation	Lead Projectiles	
Flodden	Northumberland	Battlefield	1513	Battlefield's Trust & Foard, G.	Metal detector survey	Lead projectiles	
Fulford	York, Yorkshire	Battlefield	Viking/Early Medieval (1066)	Archaeological Consultancy Ltd	Metal detector survey carried out by as part of an evaluation on Germany Beck (Area G)	Unknown	

Fulford	York, Yorkshire	Battlefield	Viking/Early Medieval (1066)	Fulford Archaeology Project	Metal detector survey to identify the battle. Over 50 metal detectorists participated.	Various Iron Objects	
Gainsborough	Gainsborough, Lincolnshire	Battlefield/Skirmish	ECW (1643)	Pre-construct Archaeology	A metal detector survey was carried out on land off Foxby Lane (approx SK 829 887).	No artefacts recovered.	Concluded that the battle probably took place elsewhere, possibly closer to Gainsborough.
Gill House Farm, Long Marston	Yorkshire	Battlefield	ECW (1644)	Sutherland, T	Archaeological watching brief and metal detector evaluation ahead of building development in 2005 on the battlefield of Marston Moor	Musket balls	Report published in Journal of Conflict Archaeology (Vol. 5)
Montgomery	Montgomery, Powys	Battlefield	ECW (1644)	Metal detecting on the battlefield. Artefacts reported to the Clwyd-Powys Archaeological Trust	Various slugs and dumbbells.	Clwyd-Powys Archaeological Trust active on the battlefield and in good communications with the metal detectorists	Montgomery
Naseby	Northamptonshire	Battlefield	ECW (1645)	The Naseby Battlefield Project & The Battlefield's Trust	Metal Detector Survey	Various lead projectiles and 17 th century artefacts	http://www.naseby.com

Nelme's Paddock	Berkeley, South Gloucestershire	Skirmish	ECW	University of Bristol	Excavation and MD Survey	Musket balls and pistol balls	Skirmish fought on the 23/9/1645
Newark-on-Trent	Nottinghamshire	Siege	ECW (1646)	GUARD/Two Men in a Trench	Trial trenching of the site of the Scottish camp and metal detecting survey	Various 17 th century artefacts	
Newbury	Wash Common, West Berkshire	Battlefield	ECW (1643)	Wessex Metal Detecting Association. Metal detector survey at Blossom's Field, Wash Common	Coins, tokens, buttons, musket balls	Thames Water Works.	Artefacts possibly relating to the 1 st Battle of Newbury.
Newbury	Wash Common, West Berkshire	Battlefield	ECW (1643)	MD survey of a new waterworks site.	Unknwon	Thames Water Works.	Sabin D & Donaldson, KSurvey/Report No 241. Archaeological Surveys 2008
High Woods Country Park	Colchester, Essex	Siege/Fort	ECW	Colchester Archaeological Group and Colchester Metal Detecting club.	MD survey within High Woods Country Park in Colchester	85 Musket balls, powder caps, lead sheet and casting waste	An earthwork fortification built by the Parliamentary forces in the Colchester

Roundway Down	Wiltshire	Battlefield	ECW (1643)	Devizes Heritage in co-ordination with multiple experts and stakeholders including local metal detectorists	Programme of metal detecting survey in preparation.		Significant assemblage of artefacts, including MB & CB was recovered by a metal detectorist between 1975-1977
Sandal Castle	Wakefield, Yorkshire	Siege	ECW (1644/45)	CS Archaeology	Watching brief and metal detecting survey recorded a probable post-medieval ditch	Musket ball	Accession no: 2008.2. Information from OASIS Online Form.
Sedgemoor	Westonzoyland, Somerset	Battlefield	Monmouth Rebellion (1685)	GUARD/Two Men in a Trench	Excavation and MD Survey. Successful in recovering signature artefacts relating to the battle.	Musket balls, Pistol balls Various 17th century artefacts	Metal Detecting continued by J. Pettet
Sedgemoor	Westonzoyland, Somerset	Battlefield	Monmouth Rebellion (1685)	Context One/G. Foard	MD survey evaluating a corridor of land ahead of a sewage pipeline running through the battlefield	Musket balls, pistol balls, canister shot	Site report. J. Pettet contributed to metal detecting team.
Shrewsbury	Shrewsbury, Shropshire	Battlefield	Medieval (1403)	Mike Griffiths & Associates	Metal detector survey was carried out in advance of construction of a new access road at Battlefield Farm.	No finds associated with the 15 th century recovered.	November 2007,

Stow-on-the-Wold	Gloucestershire	Battlefield	ECW (1646)	Battlefield's Trust & Local Community	Project in preparation.		Project proposed in May 2010
Tanworth in Arden	Stratford on Avon, Warwickshire	Possible battlefield	Medieval or Post Medieval		The possible site of a battlefield identified from an excavation of human and horse skeletons with swords and cannon balls. It dates to either the Medieval or Post Medieval period and is located in Tanworth parish.	Human remains Cannon balls	Not clear whether metal detectorists are involved. Included due to unique nature of site.
Towton	Yorkshire	Battlefield	Wars of the Roses (1461)	Towton Archaeological Project	Extensive metal detector survey and excavation	Significant assemblage of 15 th century artefacts related to the battle	Blood Red Roses
Welford Park	West Berkshire	Skirmish	ECW	Unknown	Artefacts found around a ditch north of Highwood Copse during survey work. Items may relate to ECW, in particular skirmishes connected to 2nd Battle of Newbury.	3 musket balls, horseshoe and billhook	A discovery was reported in 2006 of a Civil War halberd at c SU39954 72826

Table 6: Metal detecting activity on sites of conflict referenced within HER of England and Wales

SITE NAME	LOCATION	SITE TYPE	PERIOD	PARTIES INVOLVED	DESCRIPTION OF WORKS	ARTEFACTS FOUND	HER NOTE
Castle Dore	Castle Dore, Cornwall	Battlefield	ECW (1644)	Excavation with reports of local metal detecting	Found during the excavation of Castle Dore, and cannon balls have been found in various parts of the area.	Civil War relics	Sheppard notes that some of these remain with their finder, Mrs Watts of Trees Mill
Childerditch Wood	Brentwood, Essex	Unknown	18 th - 19 th century	Individual MD	Metal detecting in Childerditch Woods.	Musket balls	Southend Museum
Costessey	Norwich, Norfolk	Unknown	Unknown	Individual MD	Possible skirmish site uncovered through metal detecting in 2003.	30 Musket balls	Found in limited area of riverbank.
Deadman's Corner	Yoxford, Suffolk	Identified by HER as a firing range	Possibly Napoleonic	Individual MD	Metal detector finds.	33 Musket balls	Possibly musket range, possibly Napoleonic. Note name of location.
Enborne	Enborne, West Berkshire	Unknown	Unknown	Individual MD	Found through metal detecting	Musket balls and powder measures, 18th century material	WWII military items including some from Women's Land Army.
Ercall Hall	Telford, Shropshire	Encampment	ECW	Individual MD	Found by metal detector in 1983	Musket balls and lead smelting debris	
Insworke Point	Millbrook, Cornwall	Unknown	Unknown	Individual MD	Found between Sango & Insworke point.	Cannon balls Musket balls	The owner of Insworke farm says that finds like these are very common

North Curry	Taunton, Devon	Unknown	Unknown	Individual MD	Metal detectorists in fields to the south of Stony Head.	2 Musket Balls, buckles and buttons	They are in the possession of the farmer.
Quarrendon	Ayesbury Vale, Buckinghamshire	Skirmish/battlefield	ECW	Individual MD	Considerable quantity of lead shot found by metal detectorist near the Quarrendon earthworks. Light shot nearer to earthworks. Heavier shot found further away.	Musket balls with various other signature artefacts	Location in close proximity to Battle of Ayesbury 1642
Quidenham	Breckland, Norfolk	Possible skirmish	Unknown	Archaeological club/Metal Detecting club	1985-1986. Found in fieldwalking and metal detecting on former parkland.	Large quantities lead musket balls.	
Syston	South Kesteven, Lincolnshire	Unknown	Unknown		Recovered by D. Baker while metal detecting north east of Syston village, near Six Acre Plantation.	40 musket balls, 40 pistol balls and 16th -17th century coins.	
Tywardreath	Tywardreath, Cornwall	Previously unknown skirmish	ECW	Individual Metal detectorist	Found by metal detecting south of Tywardreath	Over 1000 Musket balls and various other signature artefacts	Selected as case study. Within close proximity to the Battle of Lostwithiel, 1644.
Waddington	North Kesteven. Lincolnshire	Known skirmish site	ECW	Individual metal detectorist	The location of the skirmish is unrecorded but see record 63302 for a concentration of musket balls in Waddington.	Concentration of Musket balls	Small skirmish on 12 January 1644. Royalist cavalry from Newark caught by surprise three units of Parliamentarian cavalry resting in Waddington and Harmston.

Sandal Castle	Wakefield	Siege	ECW	Watching brief and metal detecting survey recorded a probable post-medieval ditch and a single lead shot. Accession no: 2008.2. Information from OASIS Online Form.	Signature assemblage
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Table 7: Evidence of metal detecting activity on sites of conflict as gathered from alternative sources

SITE NAME	LOCATION	SITE TYPE	PERIOD	DESCRIPTION OF WORKS	ARTEFACTS FOUND	NOTE
Berwick upon Tweed	Northumberland	Encampment	WTK	Metal detecting recovered various 17 th century signature artefacts	Muskets balls and various 17th-century artefacts	Media: Individual identified through posted video on Youtube of metal detecting the site
Castle Dore	Lostwithiel, Cornwall	Skirmish/battlefield	WTK	Metal Detecting at Tywardreath and Castle Dore in 1980s. Same individual metal detected on the battlefields of Stratton (1643), and Killiecrankie (1689).	Recovered numerous projectiles and 17 th century artefacts	Contact: Individual contacted the author after reading article in The Searcher magazine published in August 2009.
Clifton Down	Bristol	Possible firing range	ECW	Area opposite the official residence of the Lord Mayor.	Approximately 20 MB	Contact: Individual contacted author through mutual associate and UKND forum.
Landguard Fort	Felixstowe, Suffolk	Fortification and site of skirmish/battle	Dutch invasion of 1667	Metal detecting a small field in Felixstowe within close proximity to the Fort	Musket balls and various 17th-century artefacts	Contact: Individual contacted the author through communications with J. Andrews at Tywardreath
Lodge Farm	Cowhill, S. Gloucestershire	Possible skirmish	ECW	Scatter of pistol shot across the field.	Scatter of 20 -24 pistol shot spread over a good size field	Contact: Individual contacted author through mutual associate and UKND forum.

Montgomery	Montgomery, Powys	Battlefield	ECW	Metal detecting on the battlefield. Artefacts reported to the Clwyd-Powys Archaeological Trust	Various slugs and dumbbells.	Clwyd-Powys Archaeological Trust active on the battlefield and in good communications with the metal detectorists
Roundway Down	Wiltshire	ECW	Battlefield	Significant assemblage of artefacts was recovered by a metal detectorist between 1975 - 1977	99 musket balls and 12 cannon balls	Contact: A project on the battlefield is now in preparation by Devizes Heritage
Sedgemoor	Westonzoyland, Somerset	Battlefield	Monmouth Rebellion 17th century (1685)	Extensive metal detecting across the battlefield. All finds recorded and plotted in a distribution	Approximately 600 – 800 lead projectiles	Contact: Subject of a case study within this research
Shadingfield	Suffolk	Possible skirmish, previously unknown	ECW	Metal detecting on a medieval common within the village. Local	50 musket balls, trigger guard and various 17th century artefacts	Media: Individual contacted the author after reading article in The Searcher magazine published in August 2009.
Stratton	Bude, Cornwall	Battlefield	ECW	Metal detecting on the battlefield. Same individual metal detected on the battlefields of Castle Dore (Lostwithiel) and Killiecrankie (1689)	Musket balls	Media: Individual contacted the author after reading article in The Searcher magazine published in August 2009.
Testwood/Calmore	Testwood, Southamptonshire	Possible skirmish	ECW	Found during metal detecting in fields between the villages of Testwood and Calmore.	Approximately 200 musket balls. 60 recorded using a GPS	Forum: Individual responded to a post on the UKDN forum.

West Park Estate	Fordingbridge, Hants	Possible firing range	18 th – 19 th century	Metal detected by gamekeeper on the estate. Assemblage found at base of low hill. Finder suspects there may have been a Yeomanry unit training within the estate as landowners were Generals.	Approximately 30 musket balls	Media: Individual contacted author possibly after reading article in The Searcher magazine published in August 2009.
Yewtree Farm	Thornbury, S. Gloucestershire	Possible firing range	ECW	Projectiles found in and around natural bank within an old orchard.	Approx. 25 - 30 MB at the end of a garden	Contact: Individual contacted author through mutual associate and UKND forum.

Table 8: Portable Antiquities Scheme dataset highlighting metal detecting activity on sites of conflict

Site Name	Site Type	Location	Quantity of MB	No. Finders	Note
Anston Bridge	Skirmish	Todwick, South Yorkshire	32	1 finder	There is a skirmish site at Anston Bridge, close by.
Belvoir Castle	Siege	Melton, Leicestershire	7	7 finders	n/a
Birling Manor Farm,	Possible skirmish	Wealden, East Sussex	128	1 finder	n/a
Corfe Castle	Siege	Purbeck, Dorset	5	5 finders	Finds from Norden/Corfe Castle Minelab Owners Rally 15th -16th September 2007
Donyland Hall	Multi-period	Colchester, Essex	369	1 finder	Found in soil dredged from the moat of Donyland Hall

Drove Lane	Possible skirmish	Yapton, West Sussex	16	1 finder	n/a
Escot House	Possible skirmish	Ottery St Mary, Devon	36	1 finder	n/a
Field A'	Possible skirmish	Copmanthorpe, North Yorkshire	18	1 finder	n/a
Firlie Estate	Possible skirmish	Firlie, East Sussex	67	32 finders	Unknown metal detecting rally (Eastbourne and District Metal Detector Club)
Grafton Regis	Siege	South Northamptonshire	9	2 finders	The musket shot were found near Grafton Regis, a site of a Civil War siege
Guilsfield	18th-19th century practice site	Guilsfield, Powys	34	1 finder	Found in association with Montgomeryshire Yeomanry buttons
Marston Moor	Battlefield	Allterton Mauleverer with Hopperton, North Yorkshire	54	various	Finds made at NCMD rally and find-spots recorded
Marston Moor	Battlefield	Long Marston, North Yorkshire	64	1 finder	Individual find-spots recorded with 10-figure grid reference
Meanwood Ridge	Possible skirmish	Leeds, West Yorkshire	48	1 finder	Many other musket balls have been located in this area by finder
Mile Pond Farm	Possible skirmish	Appledram, West Sussex	30	1 finder	n/a
Monkerton Lane	Possible skirmish	Pinhoe, Devon	72	2 finders	n/a

Montgomery	Battlefield	Montgomery, POWYS	33	2 finders	Reported as one assemblage with bar shot and carbine ball. Found at two approx locations which match suggested location of battle
Nantwich	Battlefield	Crewe and Nantwich	1	1 finder	Site of the Battle of Nantwich
Nantwich	Battlefield	Crewe and Nantwich	45	29 finders	Battle of Nantwich Rally August 2007 H1 (area divided into sections)
Nantwich	Battlefield	Crewe and Nantwich	7	4 finders	Combermere Abbey Metal Detectorist Rally
Naseby	Battlefield	Sibbertoft, Northamptonshire	5	3 finders	Recorded at a Central Searchers rally near English Civil War battlefield of Naseby
Newark	Siege	Newark, Nottinghamshire	29	6 finders	Close to civil war earthworks
Warningcamp	Possible skirmish	Warningcamp, West Sussex	10	1 finder	n/a

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