

PRESTONPANS BATTLEFIELD PROJECT

REPORT



PROJECT 2815

carried out
on behalf of
Battle of Prestonpans 1745 Trust

GUARD

Glasgow University Archaeological Research Division

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Jacobite re-enactors at the Preston House excavation Open Day, June 2009.



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This report is one of a series published
by GUARD, Gregory Building,
Lilybank Gardens, Glasgow, G12 8QQ

PRESTONPANS BATTLEFIELD PROJECT

REPORT

PROJECT 2815

by

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and
Natasha Ferguson

This document has been prepared in accordance with GUARD standard operating procedures.

Approved by: Date: 26 February 2010
Dr John Atkinson



1.0 Executive Summary

In 2008, the Centre for Battlefield Archaeology was commissioned by the Battle of Prestonpans 1745 Trust to carry out an archaeological project focussing on the Battle of Prestonpans, fought on 21 September 1745. Funding for this work was forthcoming from the Heritage Lottery Fund as part of a grant awarded for the preparation of a management plan for the battlefield, an ultimate aim of which is to establish a visitor centre devoted to the site and the events which took place there.

The project had a number of aims, one of the most important of which was to engage the local community in the quest to learn more about the battle and its impact on the locality. This was achieved on a number of levels, with school visits, volunteer participation and public talks all playing a role. The project focussed on a number of aspects of the battle, using a variety of archaeological techniques to recover evidence for the events of 1745 and to make the first detailed assessment of the extent and condition of remains relating to the Battle of Prestonpans. The project also succeeded in raising the general public's awareness on a national scale by establishing a high profile press presence, which translated into a number of newspaper stories and television news items.

This report presents the findings of each element of the project and suggests how further work may allow the refinement of certain aspects highlighted by the fieldwork, while several new avenues of research are also suggested.

2.0 Introduction

The Battle of Prestonpans, fought on 21 September 1745, was the first battle of the Jacobite rising of 1745 and was a resounding Jacobite victory. The two armies, numbering around 2,500 men each, met on open ground to the east of Prestonpans and to the south of Cockenzie. A light tram or wagon-way used to carry coal from pits at Tranent to the port at Cockenzie ran across the battlefield. The government line was quickly turned and in the ensuing rout considerable numbers of government troops were killed, many of them after becoming trapped against the eastern wall of the park and gardens associated with Preston House.

Much of the area of the battlefield was covered with housing in the decades preceding and following the Second World War, though an important area straddling the wagon-way, today preserved as a track, still survives as open fields, as do other areas in the vicinity and some of these were subject to a metal detector survey. Evidence for the rout and associated fighting takes the form of musket balls recovered by residents from their gardens in locations such as Schaw Road. As part of the current programme of work a number of gardens were investigated using metal detectors.

The area formerly occupied by Preston House is now the location of Prestonpans Community Centre and the municipal swimming pool (the Mercat Gate Centre). Vestiges of the original Park walls can still be seen defining the perimeter of the Community Centre grounds and sports fields, though these have undoubtedly undergone various stages of repair and rebuild since 1745. The house was demolished in the 1830s after decades of service as Schaw's hospital when it was relocated to a new building on the footprint of the present community centre, known as Mary Murray's Institute, this later building was demolished in the late 1970s early 1980s.

The effort to locate physical remains of the original house and to assess the area for the presence of related archaeological remains presented the opportunity for a small scale excavation which involved members of the local community.

The results of the project will be used to inform a forthcoming management plan coordinated by the Trust, which aspires to the establishment of a heritage centre focussing on the 1745 Battle of Prestonpans and possibly other battlefields in East Lothian.

3.0 Site Location, Topography and Geology

The Battle of Prestonpans was fought to east of the village of Preston and what was then the north east of the town of Prestonpans, both of which have now been subsumed within the modern town of Prestonpans. Much of the area of interest lies at around 30 m OD on a raised beach platform, which slopes gently down to the waters of the Forth. The ground to the rear of the terrace rises to around 100

m to the south, where a ridge, topped by the town of Tranent, marks the initial location of the Jacobite army.

The coastal plain accommodates major transport links and since ancient times been an important route into and out of England. This is one of the reasons why East Lothian has through the centuries accumulated an impressive portfolio of battlefields, which include Dunbar I (1296), Pinkie (1547), and Dunbar II (1650). Today the railway runs east to west through the area of interest – in part occupying the ditch which ran along the foot of the ridge and is shown on several of the contemporary battle maps.

The underlying drift geology consists of boulder clay which is of glacial and periglacial origin while the solid geology consists of limestone & coal (British Geological Survey 1:63,600, Sheets 32 E and 33 W, Drift and Solid). The presence of coal has had a profound impact on the social history of the area and the appearance of the landscape. Coal mining was well established as an industry at the time of the battle, with one of the first railways in Britain constructed in 1722 by the York Buildings Company. This took the form of a horse drawn wagon-way which carried coal in wagons from the pits at Tranent down to the docks at Cockenzie. Various pits and ancillary facilities grew up throughout the vicinity, and include the late 18th century, early 19th century pit at Thorntree Mains (Thorntree Colliery), a location with a strong association with the battle (Colonel Gardiner is said to have been mortally wounded close by). Johnnie Cope's Hole, to the north of Thorntree Colliery, was another obvious reminder of the events of 1746, with the bridge over the railway to the south of the latter known as Gardiner's Bridge in the 19th century.

In more modern times a heap of coal washings was modified into a ski-slope, though appearing more like a pyramid this striking feature today serves as an ideal viewing platform for the battlefield. Perhaps though, the most profound impact on the landscape has been the open cast mine which took in a considerable area to the east of Cockenzie and Tranent and obliterated the Riggonhead defile, which the Jacobites used to gain access to the plain during their night manoeuvre. This area has been reinstated so effectively that to the untutored eye it appears entirely undisturbed, but in truth it has little in common with its former appearance. However, the most obvious manifestation of this industrial heritage is the coal fired power station at Cockenzie, which in the near future will be converted to gas.

4.0 Archaeological Background

The project marks the first concerted attempt to subject the battlefield to archaeological investigation. However, a number of finds related to the battle have been made in the past and useful information has been provided on these by members of the local community.

In the 1950s skeletal human remains were found in the vicinity of Thorntree Mains Farm, which at the time was a piggery. These were reported to the authorities by young boys and the bones were eventually buried with full ceremony close to the monument cairn which sits at the road junction not far to the south.

Further human remains were uncovered at the rear of a house in Polworth Terrace when an Anderson shelter was being built during the early years of the Second World War. The location is very close to the eastern wall of the parks and gardens related to Preston House and given this location they may represent the remains of a soldier, probably from the government side, who was killed during the fighting which took place during the rout – many men are reported to have become trapped against the walls in their flight to the west.

With much of Preston House and its grounds swallowed up by the building of the new Schaw's Hospital in the 1830s, only remnants of the house, previously housing the hospital (NT 3923 7405), survived by the 1920s, as noted in a visit by the Royal Commission in 1924, and by the 1970s no trace of the house was visible. Two watching briefs were carried out within the area of Preston House and its gardens in 2002 and 2003 respectively. The first, situated in the NE corner of Polwarth Park playing fields, recorded only 19th century features (Dalland 2002: 43). The second however, ahead of a swimming pool development, uncovered an organically rich buried soil containing medieval and post-medieval pottery and the footings of a sandstone wall (Mitchell 2003: 62). The function of the wall could not be established, but may potentially form part of Preston House grounds.

In 2007 metal detector surveys were carried out prior to the planting of trees to the north of the Thorntree Mains area, close to the power station and to Bankton House, where a paddock and stables were being constructed. The resulting reports state that no finds related to the battle were recovered from either exercise (Hill and Anderson 2007: 76; White 2007: 76).

Several finds of musket balls and buttons have been reported by local residents – these objects coming from the gardens of houses built in the 20th century to the east of the old village and to the west of what is believed the location of the main encounter.

In 1999 GUARD carried out the limited investigation of the wagon-way in Tranent (Lelong 1999) and the results of this work are considered further below.

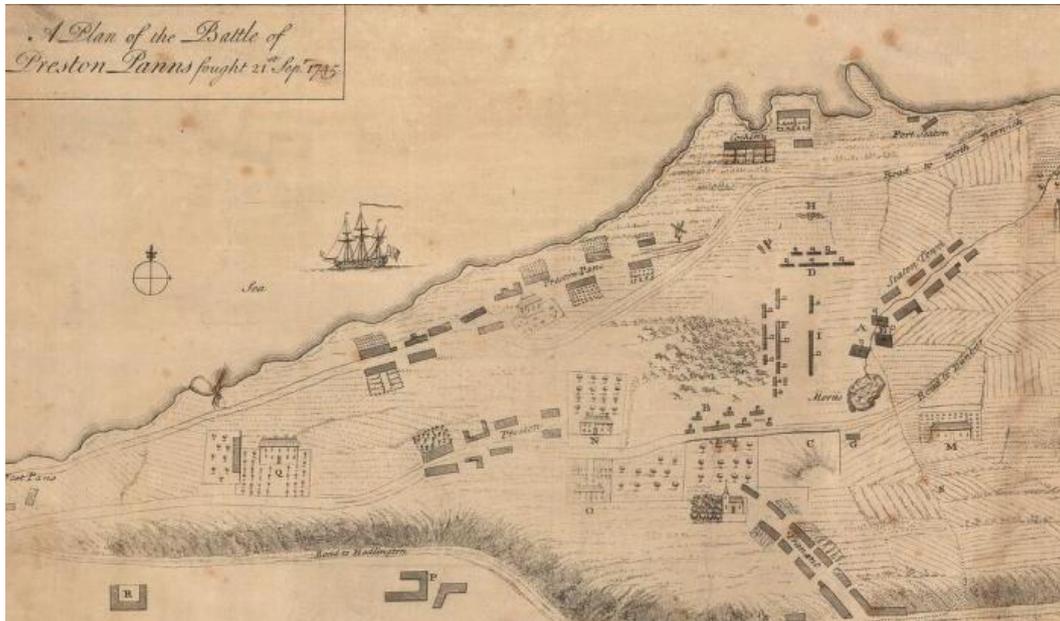


Figure 2:

Plan of the battle by an officer of the army who was present.

The Battle Maps

We are fortunate that a number of maps were drawn of the battle not long after it was fought, some of them by men who took part in it. In total there are six of these maps, all dating to 1745.

Three of these are in the national Library:

Plan of the victory at Falkirk Muir fought the afternoon of January 16th 1746, Battle of Preston September 1745. (shelf mark EMS.s.164). This map shows the Battle of Prestonpanas as an insert and is the most basic of the six, showing only a much stylised image of the landscape.

A Plan of the Battle of Tranent fought Sept. 21st 1745 (shelf mark Acc 8392). This map shows the surrounding settlements and the various locations of the government army.

Plan of the Battle of Preston 21st September 1745. By an Officer of the Army who was present (shelf mark EMS.s.90a). This map depicts the government army in flight towards Preston House (Figure 2).

A fourth map is also reputed to be by an officer who was there and was used to illustrate General Sir John Cadell's 1898 book, *Sir John Cope and the Rebellion of 1745*. A notable feature of this map is the detail with which it portrays the gardens of Preston House.

A fifth map is an insert to Clayton's 1745 *Exact Plan of His Majesty's Great Roads Through The Highlands*, which, despite its small size shows the various movements of both armies in some detail.

The last map was drawn up by Brigadier William Blakeney, who at the time of the battle was at Stirling Castle, where he was commander of the garrison. This is the only map to depict the wagon-way, and is discussed in more depth later in this report. The map was drawn to accompany a letter which described the events of the battle to Henry Pelham (held in Nottingham University shelf mark Ne C 1708/4).

The maps vary in levels of detail but most of them show the main features of the landscape, including Bankton House, Preston House and Tranent Church. The morass and the ditch which separated the two armies on the first day are also consistent features, along with the adjacent settlements of Tranent, Cockenzie, Port Seton, Preston and Prestonpanas.

On all of the maps Seton village is shown at the eastern extreme of the battlefield, with the Jacobites exiting from the morass just to the south west of the village. At the time of the battle it was quite an extensive settlement sitting to the west of Seton Palace, and probably closely associated with it. We are fortunate to have a painting dating from between 1635-40 by the Flemish artist Alexander Keirincx which depicts a view from the south across a very impressive Seton Palace to the Firth of Forth in the background. The painting also takes in the village, which is shown to consist of numerous buildings (some of these may be part of Port Seton). Interestingly, the view is taken from the high ground to the south and depicts two trackways leading down on to the road which runs east to west, and further to the west would run along the ditch at the foot of the ridge. Alas the view point is too far to the east to depict the Riggonhead defile or the battlefield.

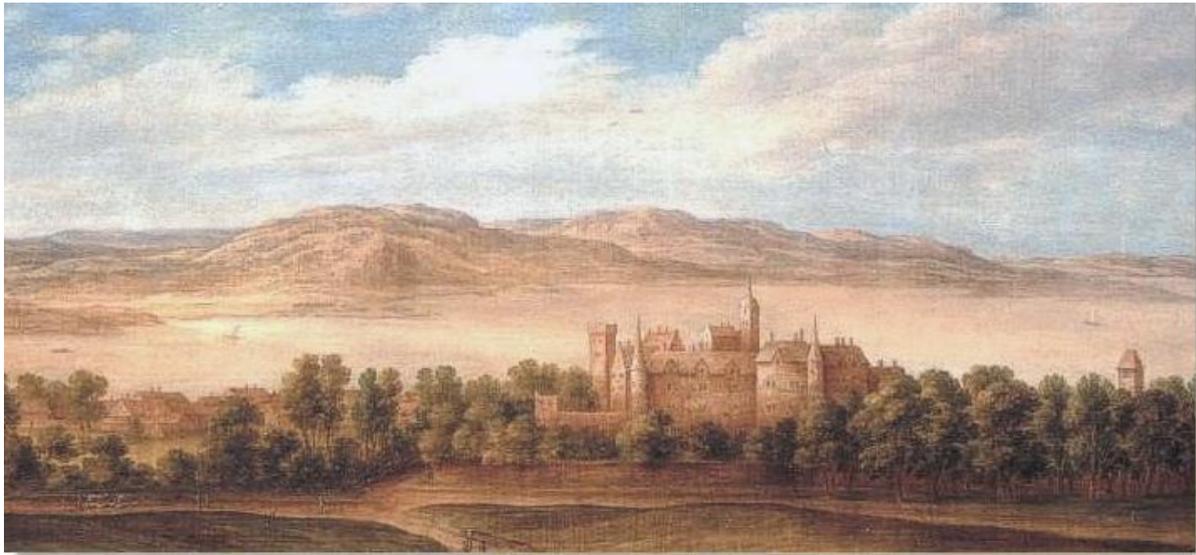


Figure 3:

1635-40 painting of Seton Palace with Seton Village to the W (left).

Despite its apparent size there is very little trace of the village in the modern landscape, in fact it seems to have almost completely disappeared well before the time of the first edition Ordnance Survey map in the mid nineteenth century. Seton Palace, ancestral home of the Seton family, was renowned as one of the finest in Scotland - James III stood on the roof to watch the return of his queen from Denmark and Mary Queen of Scots spent her last night of freedom there. However, by 1790, by which time it was owned by Lt Col Alexander MacKenzie, it had fallen into disrepair and so was demolished. The palace had been through a number of hands prior to MacKenzie's time; in 1715 the palace and estate was owned by the Winton family. However, the estate was forfeited after the 1715 Rising because of the Winton's support for the Jacobite cause and in 1719 the estates were sold to York Building Company which built the wagon-way. The palace was replaced by a slightly more modest house designed by Robert Adam, which still stands today, and was recently renovated. It may have been at this time that the village was removed, perhaps to create the impression of a more open landscape in the immediate vicinity of the house and its newly laid out gardens – there is a story relating to the eviction of an old woman at this time. She apparently put a curse on the master of the house, and Alexander MacKenzie died in 1796 (<http://castlepictures.com/setonshtml>).

Most of the maps depict the various manoeuvrings on the day before the battle, though these are limited to those of the government army, with the various probing thrusts made by the Jacobites ignored in favour of their final move down through the Riggonhead defile. Perhaps the most striking maps are those which show the government army in flight toward Preston House, with individual figures portrayed (including Figure 2 and the map used in Cadell's book).

5.0 Summary of Works

Geophysical Survey

An important objective of the Prestonpans Battlefield project was to reconstruct the landscape within which the battle was fought, with much of the terrain having suffered from modern urban and industrial development. Fortunately, as discussed above, there are a number of contemporary maps of the battle and its environs and these have played an important role in this work. Map regression was used to locate the site of Preston House, which with its associated parks and gardens represented an important feature in the 18th century landscape, and to assess its changes in form over time. It was apparent from this work that the house was located, at least in part, on land adjacent to the Prestonpans Community Centre, and so a geophysical survey was carried out in an attempt to locate buried features related to the house.

The former location of the house and gardens are today occupied by the community centre and, to the south of Preston Road, the Sports Centre and playing fields. The house was thought to have stood next to the road, which post-dates the demolition of the house, and so the geophysical survey was carried out on the open ground between the visitor centre and the road.

A number of geophysical anomalies were identified by the survey and it was those closest the road which appeared to have the greatest potential for association with the house. In order to verify the nature of these anomalies a limited programme of trial trenching evaluation was carried out.

Preston House Excavation

Between 2 and 8 June 2009 a number of anomalies resulted from the geophysical survey and were ‘ground truthed’ by the small scale investigation reported here (Figure 4). A number of features were identified, the most notable of which is a substantial robber trench, running north to south in the most easterly of the trenches (T2). It is believed that this feature relates to the robbing out of a wall at some point in the late 19th – early 20th century. Features in other trenches included deposits of demolition rubble and an area of cobbling which may relate to the courtyard of the house. Small finds included two buttons from the uniforms of the inmates of Schaw’s hospital, which was a poor school located in the house between the 1780s and the early 1830s.

As part of a community project, the excavation utilised local volunteers during the work and hosted a large number of visitors over the period of the excavation. This climaxed with an open day on Saturday 6 June which included the participation of a Jacobite re-enactment group, the Centre for Battlefield Archaeology’s 18th century cannon and the detailed tabletop model of the battle, the famous Battle Bus was also in attendance. The project also attracted considerable media attention and on Monday 8 June was filmed as part of a segment on Scottish battlefields for the BBC One Show.

Metal Detector Survey

Traditional excavation techniques, like those deployed in the investigation of Preston House, are not entirely applicable to battlefields, at least when the aim is to recover objects deposited during the battle. These are usually metal artefacts and may include items such as lead projectiles – musket balls, cannon shot etc buttons, buckles, pieces of broken weaponry, small personal possessions such as coins and any other item which may find its way into the archaeological record during the brief time over which most battles take place. These objects, which have the potential to tell us much about the events which took place in a battle, are unusual in that they exist in the upper horizon of the soil profile, very often in what is called the plough soil horizon. This makes the archaeology of battle quite unique as most archaeological finds and features are generally located in stratified deposits, such as pits, postholes, graves etc. Artefacts related to these sites, which may include prehistoric settlements, burial sites or Roman villas, only generally become liberated into the plough soil when the buried features in which they exist are subject to ploughing – for this reason the walking of ploughed fields to identify sherds of pottery and other objects has long been used as a way of identifying buried archaeological sites.

The fact that the vast majority of the archaeological remains directly related to a battle, other than graves and perhaps field fortifications, exist only as unstratified finds in this upper soil horizon makes battlefields a very fragile resource which, much more so than any other type of archaeological site, are under threat from amateur metal detectorists. Sites of conflict tend to attract detectorists largely because there is a good chance of finding objects there, though this rarely translates into the location of recovered objects

being recorded – with context being a vital piece of information if a metal artefact is to have much in the way of archaeological value.



Plate 1:

Garden survey.

Amateur metal detectorists can provide a great service to archaeologists, using their experience and skill to cover large tracts of ground in a way which archaeologists, generally new to the task would find difficult to emulate. For this reason two local metal detector clubs were recruited to assist in the metal detecting surveys which played a key role in the project. Their involvement also served to enhance the community involvement aspect of the project.

The aim was to execute a series of sample surveys across areas which are still open ground and therefore still have the potential to contain recoverable artefacts. These generally took the form of farmer's fields, though play areas and even private gardens were also included within the survey. The areas surveyed were:

Fields to East of Bankton House

The detectorists operated under the supervision of an archaeologist, sweeping along measured transects laid out in the open fields to the east of Bankton House. It was hoped that this exercise might result in the recovery of objects dropped during the rout of the government army from the battlefield or perhaps from activities related to the encampment of the Jacobite army following the battle. The absence of finds in this area may indicate that most of the action took place to the north of the ditch shown on the contemporary maps and which roughly corresponds with the line of the road and railway today.

Private Gardens (Plate 1)

Much of the ground over which the government army was pursued after the folding of their lines is today occupied by houses built in the 1920s-30s and later. Evidence for the events of 21 September 1745 can still be recovered however and several residents have reported finds of musket balls from the flower beds in their back gardens. In response to this information a limited programme of garden survey took place in May 2009, with lawns and flower beds scanned with metal detectors. This aspect of the project attracted much interest from the residents and despite a total absence of battlefield finds it was judged to be one of the most rewarding elements of the project as far as community involvement is concerned.

Other areas detected included a small area of grass beside Polworth Terrace, a strip of open ground at the Thorntree Monument and a field situated north of Tranent Church. Over 250 metal artefacts and a

number of other non-metal artefacts were recorded during this survey ranging in date from Medieval to 20th century. A piece of grapeshot previously found in a garden on Polworth Terrace was handed over by a resident and a neatly folded strip of lead, which may be battle related, was also discovered in a garden in Polworth Terrace by a member of the team.



Plate 2:

Metal detector survey of field to W of wagon-way.

Fields Either Side of the Wagon-(Plate 2)

The last area to be surveyed has traditionally been regarded as the core of the battlefield, and takes the form of two fields situated on either side of the only stretch of 18th century wagon-way which still exists as an obvious linear feature – the route now accommodating a footpath. Although occupied by pylons carrying cables away from the power station these fields enjoy the status of Scheduled Ancient Monuments. This legal protection has nothing to do with the battle or the wagon-way but has been applied because of the identification of circular cropmarks on an aerial photograph. It is thought that these marks represent a prehistoric settlement, though no excavation has ever taken place to test this. However, other prehistoric sites are known from the vicinity, with the 1994 excavation of a cropmark at nearby Fishers Road, Port Seaton, in advance of a housing estate, revealing a complex site with ditches dating to the first millennium BC ([http:// canmore.rcahms.gov.uk/en/site/54934/ details/seton+west +mains](http://canmore.rcahms.gov.uk/en/site/54934/details/seton+west+mains)).

In accordance with the Scheduled status of this area official consent was sought from Historic Scotland prior to the commencement of any survey – metal detecting is illegal in this area but it became quite apparent from local contacts that amateur metal detectorists had been active.

Metal detector survey of these two fields resulted in the recovery of four musket balls and various buttons and buckles, with most of the latter appearing to post-date the battle. Given the traditional location of the battle, astride the wagon-way these results were somewhat disappointing, though interpretation has to take into account the issues of previous metal detecting and reports of soil removal during coal processing for the power station (at least in the western field).

The next step would have been to shift the survey further to the east, across the road and into the fields around Seton West Mains farm. However, such a move was pre-empted by an informal metal detector outing by the two groups which had previously been involved in the project. This Sunday outing resulted

in the recovery of a relatively high density of artefacts related to the battle. Following preliminary analysis of this material, which in accordance to the law was surrendered to Treasure Trove, it seems highly likely that the preliminary phases of the battle took place to the east of the wagon-way and not across it.

6.0 Preston House Investigation

6.1 *Historical Background*

The origins of Preston House are a little uncertain. According to the entry for the house in the 'Inventory of Monuments and Constructions in The County of East Lothian', published by the Royal Commission On Ancient and Historical Monuments (and Constructions) of Scotland in 1924 (Plate 3), it was built some time in the late 16th century or early 17th century for Thomas Oswald. However, according to Peter McNeill's *Prestonpans and Vicinity: Historical Ecclesiastical and Traditional* (1912) it was built around 1705 as a replacement for the by then derelict Hamilton family seat of Preston Tower which is located around 200 metres to the west. The tower, built sometime in the 15th century, had an unlucky history and was twice deliberately put the torch, first by Hertford during the English invasion of 1544 and then by Cromwell in 1650. The tower was burned again in 1663, only this time by accident. According to McNeill, the new house was built by a Dr Oswald, son of Sir James Oswald and nephew of the late Sir Robert Hamilton – which is in agreement with the RCHAMS entry but as Oswald lived in the early 18th century and not the early 17th century the 1705 date would seem the more reliable (it is notable that, whereas Bankton House, then known as Olive Stob, is shown on Adair's map of 1682, Preston House is not). An early 18th century date would also fit the style of house, with extended wings, as shown in the drawing in the Commission inventory.

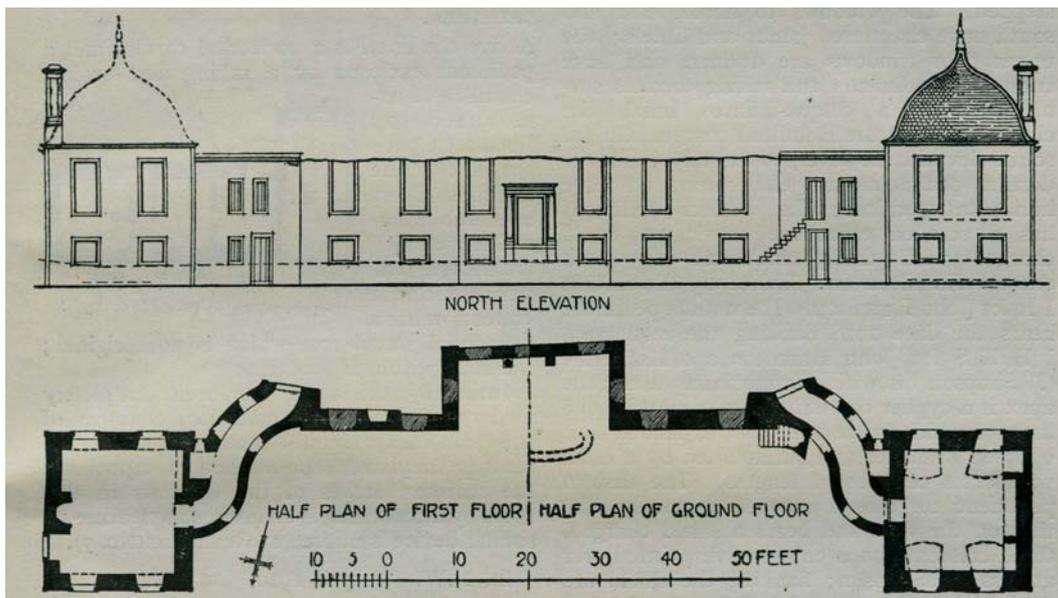


Plate 3:

RCHAMS survey of house façade 1924 (Robber trench excavated is wall on far left of plan).

By the early 18th century the Preston estate was in poor financial health and some time before 1715 the house and estate passed into the ownership of James Erskine, Lord Grange, brother of John Erskine the 6th Earl of Mar, who in 1715 led an unsuccessful Jacobite rising. James remained loyal to the Hanoverian regime in 1715, having already made rapid progress in his chosen profession – the law. After a time as a presiding judge over courts in Edinburgh he was raised to Lord Justice Clerk in 1710 and became an MP in 1734.

In the 1730s his marriage to Rachel Chiesely, better remembered as the unfortunate Lady Grange, became so embittered that in 1732 he famously had her kidnapped from her Edinburgh lodgings and spirited away to Western Isles, where she was to spend the rest of her life as a captive, for most of this time on the exposed island of Hirta in the archipelago of St. Kilda. This drastic action was taken in response to Lady Grange's continued public criticisms of her estranged husband (they separated in 1730), largely on the basis of his infidelity. However, there were also accusations of Jacobitism which were potentially very

dangerous. It does appear that in the years following the 1715 and prior to the '45 that Lord Grange began to take after his brother and lean toward supporting the exiled Stuarts. Preston House may have at this time become the venue for a series of meetings at which plots were hatched and it is traditionally believed that the abduction of his wife was carried out by a group of Highlanders under orders from Simon Fraser, Lord Lovat (Laing 1874: 724).

It was to the eastern wall of the gardens that government troops fled during the rout from the battle, which began further to the east. Eyewitness accounts suggest that men became trapped by the Jacobites against the wall and were killed trying to escape, others managed to get away through voids in the wall, which had been deliberately created by Cope's troops in order to prevent the Jacobites from turning the complex into a defensible position (Margulies 2007).

6.2 *Aims and Objectives*

The general aims of the excavation were to expose, investigate and fully record any archaeological deposits or features in the area to be opened by the trenches, and to establish the spatial and temporal relationships between them.

The specific objectives were:

- Locate possible remains of Preston House as identified by geophysical survey of the area.
- To record all archaeological features found
- To generate interest in the community about the local archaeological environment with particular focus on the battlefield.

6.3 *Methodology*

The anomalies identified through geophysical survey provided targets for small, hand cut test trenches. It was hoped that at least some of these anomalies related to buried remains left over from the demolition of Preston House. A total of four trenches were opened over the anomalies. Trench 1 was approximately 3.5 m by 2 m, Trench 2 was 4.2 m by 2 m, Trench 3 was 2 m by 1 m and Trench 4 was 2 m by 1 m. A mechanical turf stripper was used to prepare the trenches, all of which were thereafter hand dug. The topsoil was removed to the surface of the subsoil or to the first archaeological horizon. Exposed surfaces were first cleaned by hoe and then by trowel. Archaeological features were recorded in plan at a scale of 1:20 and by digital photography. Features were half sectioned and sampled in spits where appropriate. Sections were recorded by photograph, by measured drawing at a scale of 1:10 and by written description using context sheets. Trenches were then surveyed using an EDM total station and located within the National Grid. A topographic survey of the area immediately surrounding the evaluation was also carried out with the EDM total station.

6.4 *Results*

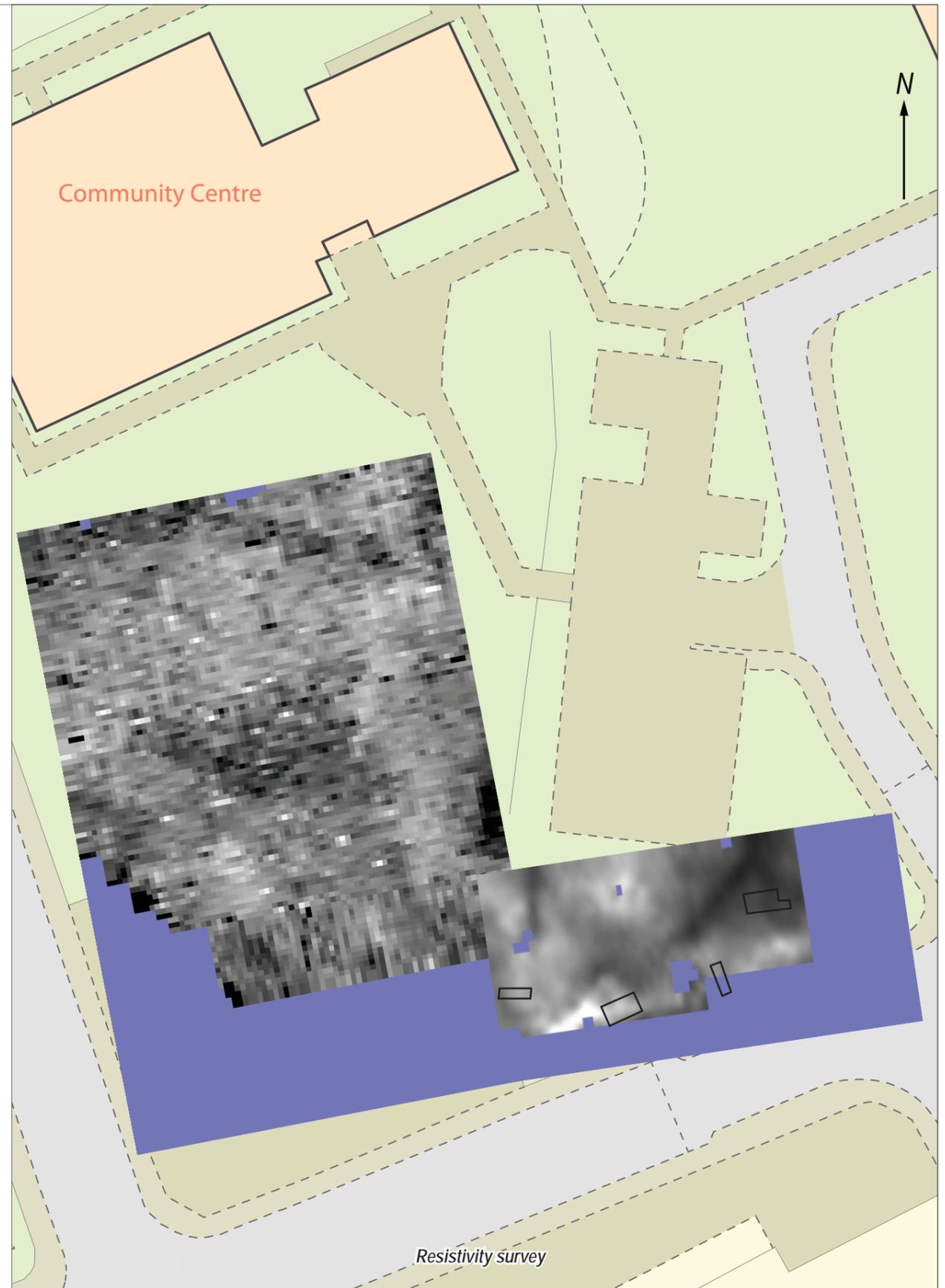
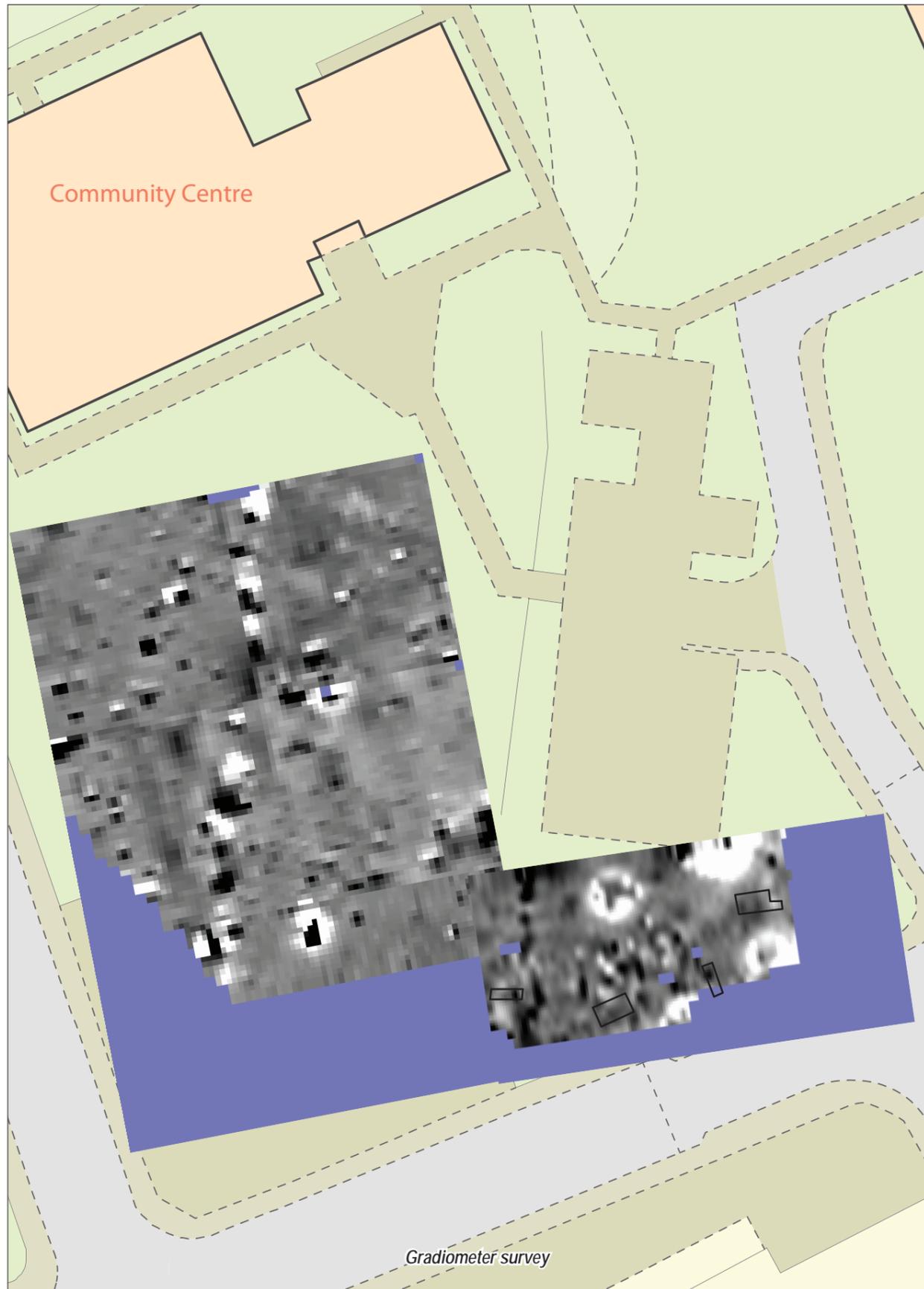
6.4.1 *Summary of the Fieldwork Results*

Geophysical Survey (Figure 4)

Resistivity and Magnetometer surveys were carried across the open, grassed areas to the front (south) of the Prestonpans Community Centre. This area had been identified through map regression work to correspond at least in part to the location of Preston House.

Excavation

The geophysical survey produced anomalies throughout the areas surveyed. Many of these may relate to the later use of the site, as garden allotments and indeed as gardens and grounds to the Schaws Hospital when it was housed in Prestonpans and when it was re-located in the new buildings in the early 19th century. These features included a pump (water) which is shown on the 1854 First Edition Ordnance Survey map.

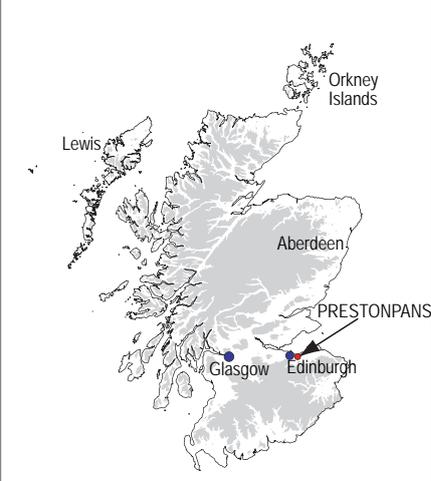


0 50 m

Figure 4: Prestonpans Community Project, Preston House geophysics results showing trench locations.

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Project 2815
 Prestonpans Community Project
 Archaeological Evaluation



Key

- Geophysics Area 1
- Geophysics Area 2



Figure 5:
 Site Location

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Plate 4:

Section through robber trench, Trench 2. Photo taken from N.

Trench 1 (Plate 4)

Located at the eastern edge of the evaluation area Trench 1 was excavated to a depth of 1.5 m, with a length of 3.5 metres and a width of 2 m. Beneath the topsoil (007), a layer of re-deposited garden soil was encountered; a legacy of the use of this land until relatively recently as garden allotments. Underlying the topsoil a series of deposits constituting made ground were exposed. A buried turf line was recognized just below (023). Beneath these upper deposits, which relate to 20th century activity, a cut (trench) (026) with gently sloping sides and oriented north to south probably represents a 'robber trench' created when the stone foundations for the original building were grubbed out for recycling – the stone probably used in many of the walls which to this day surround the site. This feature is visible on the geophysical survey as a dark line and from its location on the ground would appear to represent the eastern wall of the east wing of Preston House. This feature is cut into a natural deposit of iron oxide rich sand and gravel (024) and was c 1 m deep – though the bottom was not excavated due to health & safety issues (due to the narrowness of the trench and the height of its sides). A number of different fills (025-030) were identified within the cut. Most of them were composed of a matrix of dark brown sandy soil containing gravel and pebbles, two contained (025 & 027) contained brick and lime fragments (again providing evidence for demolition). Another deposit (030) was encountered on the edge of the cut - a very loose, brown black silty sediment. Toward the bottom of the cut, natural sediment consisting of very compact clay and sub angular stones probably represent glacial deposits.

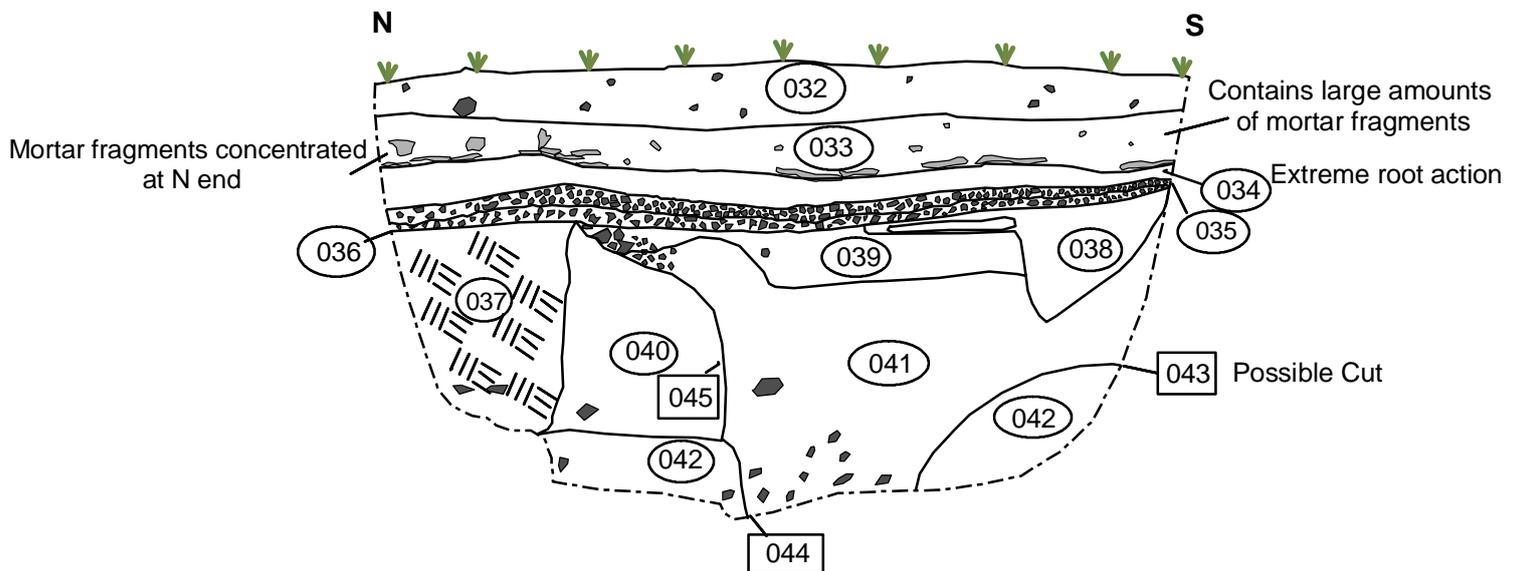
Trench 2

Was located near the modern wall and Preston road to the south and oriented east to west. The topsoil (001, 032) in Trench 2 was comparable to that in Trench 1 but a layer of re-deposited garden soil was limited to the eastern part of T2. A demolition layer containing mortar and roofing slate was encountered within the east section and could be followed along the (undrawn) north and south sections. At this upper level, a probable hard standing deposit covered almost all of Trench 2, consisting of two distinct ash like layers (004/035 and 005/036 respectively), the upper one being grey in colour, the lower one pink. Both contain small to medium sized angular stones. This might constitute pavement of a garden track or the like.

Two natural sediments could be distinguished (020/037 and 018/042). The first of these was a very compact clay with mostly small sized stones, the other being an brown/orange sand with medium to small sized pebbles.

Preston House 2815

Trench 2 West Facing Section PP09



Legend	
—	Section Text
—	Context Layers
- - -	Trench 2 Extent
■	Stones
■	Mortar

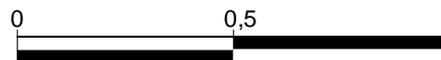


Figure 7:
West facing section

Layers 014 and 038 might be linked with each other as well since they contain similar sediment components and have the same colour. Both seem to cut into 021 and 041 respectively and appear to be another manmade feature. Three smaller sediment lenses and strips (015, 019 and 022), each containing mortar and other anthropogenic material were found along the east section. Layers 017 and 038 might constitute natural deposits whereas 040 has the appearance of being a mixture of 037 and 042 and might therefore be colluviums that originated after soil work in this area relating to horticultural activity.

The main features of Trench 2 were two cobbled areas (046 and 050) drawn in plan (T2, No 3). The upper one consisted of compact clay and silt with medium to big pebbles and was L-shaped in plan. The lower cobbled area lies directly on natural ground (048) which is the orange-brown pebbled sand already mentioned above (018/042). The medium to large sized pebbles making up the cobbled areas lie loosely in the sand and are restricted to the southern quarter of T2.

Trench 3

Trench 3 was positioned so as to provide a slot across a linear bank-like earth feature which extended to the north from a corner in the modern wall. This bank served to separate the area on which the other trenches were positioned and the larger area to the west, which was also subject to geophysical survey and onto which the bank sloped down (no trace of the bank was visible to the north of a tree which interrupted the geophysical survey in this area).

The trench was de-turfed and the topsoil removed. However, after some time spent cleaning the exposed surface the trench was abandoned as the feature did not appear to relate to anything other than 20th century activity – probably associated with the allotments. This latter suggestion was strengthened by the recovery of a corroded modern hoe-head and various pieces of modern debris such as pottery and glass sherds.

Trench 4

This trench was located to the south west of Trench 1, close to the wall which runs alongside Preston Road. It was located here in the hope of providing further evidence for the structural features suggested by the robber trench in Trench 1. Beneath the topsoil (010), which is similar to that in Trenches 1-3, was encountered a compact, ashy layer (011) similar to the demolition/hard standing layer 033 (T2), though it was not as compacted. Beneath this was a garden soil deposit (012) with a depth of some 37 cm. Below, this anthropogenic soil was the natural, orange-brown sand rich in pebbles and similar to the natural deposits in Trenches 1 & 2 (018/042).

Artefacts

The majority of artefacts recovered from the excavation related to the late 19th and early 20th century use of the site, and included pottery sherds and fragments of glass. A full list of finds is included as an appendix to this report. Perhaps the most pertinent finds were two copper alloy buttons bearing the initials JS (for James Schaw) and a number, one with '16' beneath the monogram and one with '7'. These are believed to be uniform buttons from the pupils at the school, with the numbers presumably relating to individuals. Both of the buttons have soldered eyelets on the back, though the example with the number 7 is slightly convex at the back while the other is flat. The former also bears a mark on the back: 'Best Quality London'. Another of these buttons was recovered during the metal detector survey near the wagon-way – whether this was dropped while the child was at work or play remains an unanswered question.

6.4.2 *Interpretive Issues*

The excavation at Preston House succeeded on a number of levels:

- It served to involve members of the local community in an archaeological project and engaged many more with the history of their neighbourhood.
- The excavation clarified the former location of Preston House and established the nature of the archaeological remains related to it.



Plate 5:

Possible cockade motifs in garden wall in E loan.

It is clear that the demolition of Preston House has been a fairly thorough exercise, with the robber trench in Trench 1 indicative of the grubbing out of even the foundation stones. Many of these can probably be seen in the high walls surrounding the community centre grounds and which in places may retain elements of the original park walls. Other stones may have been used to create the smaller garden walls which demarcate gardens in surrounding streets, most of which date to the 1920s or later. Of some interest here are two carved pieces of stone which are today set into a garden wall on the corner of East Loan, directly to the east of the north-west corner of the community centre grounds. The two pieces are identical and represent flower heads. Such motifs are not unusual in 18th century architectural decoration, and can be seen associated with a number of external features on gates such as those at Bothwell, which give access the Hamilton estate. However, it could be suggested that these two in particular bear a striking resemblance to cockades, the symbol of the Jacobite movement. Could it be that these symbols of sedition were associated with the nearby house, perhaps as part of a garden ornament, as the place was a meeting place for Jacobite sympathisers? However, despite much speculation (eg MaCaulay 2009) the role of Lord Grange in Jacobite plots prior to the '45 remains uncertain and so this again is a question which remains unanswered.

Much of the house was removed before the end of the 19th century and was replaced by Preston Road., which runs east to west at a point where it would have coincided with a considerable portion of the house. One of the daily visitors to the site recalled that in 1964, when he had been a small boy, the road directly opposite the excavation collapsed, at roughly the point where a pedestrian crossing exists today. At the time he was told that the collapse was due to a tunnel dug by monks. A much more probable explanation is that the collapse was caused by the subsidence of the cellars belonging to the former house. It would appear from the map research and the results of the excavation that the only elements existing on the ground associated with the community centre are the two wings, with the robbed out wall of the east wall of the east wing being the most likely candidate for the feature in Trench 1.

7.0 Metal Detector Surveys

7.1 *Metal Detector Survey*

Two phases of metal detector survey were initiated to investigate areas initially identified as the core and periphery of the battlefield. The first of these was a three day survey (27 February-1 March 2009) which focused on areas identified as peripheral to the battlefield but important to the understanding of events prior to the battle and the rout following the main engagement. Four areas were chosen for investigation.

These included an open field east of Bankton House; a small area of grass beside Polworth Terrace; a strip of open ground at the Thorntree Monument and a field situated north of Tranent Church. These areas were open agricultural fields and did not appear to have been subject to development, therefore providing an opportunity to survey potentially less impacted areas associated with the battlefield.

The next phase involved a six day metal detector survey (3-8 November 2009) focused on what has been identified as part of the 'core area' of the battlefield, as defined by the Historic Scotland Battlefields Inventory, as the most likely location for the main action. It was hoped to extend this survey to the east to include the fields around Seton West Mains, which also sit within the Inventory area, but these were first visited by a metal detector 'outing' (see below).

Both surveys were assisted by two metal detecting clubs, the Scottish Detector Club (SDC) and the Scottish Artefact Recovery Group, as well as a small group of local volunteers. The core team consisted of a supervising archaeologist, a surveyor and three student archaeologists from the Centre for Battlefield Archaeology.

The aim of the survey was to assess the archaeological potential of areas of the battlefield and to identify any distributions of battle related artefacts such as musket balls, etc. If concentrations were identified then this area would be returned to at a later date and investigated with a more intensive metal detector survey. It was decided that in order to ensure maximum coverage of the area, and as accurately as possible, it was necessary to use 5 m transects during the survey. Each metal detectorist would therefore have a five meter wide corridor to survey as fully as possible by walking up and down its length. The length of the transect varied across the survey area, but would be no more than 50 m. The location of each signal was marked by a flag which would be returned to once the transect had been completed. The signal would then be investigated by the metal detectorist, with any recovered artefact bagged and left in place to be recorded and assigned a finds number by an archaeologist or assisting volunteer. During this process the position of the find spot was recorded to sub-centimetre accuracy using a *Leica* total station and the artefact collected by the finds officer.

7.1.1 *Area A - Bankton House*

The field east of Bankton House covers an area of approximately 59038.5 m². A 50 m wide transect was set up following the fence line, formerly the wall before it was demolished, outlining the grounds of Bankton House. The corner of the fence marked the end of the transect which measured 250 m in length, therefore the area covered in this field was approximately 18550 m².

Conditions for the survey were good as the field had recently been harvested allowing for the efficient recording and recovery of finds. However, as the field was in close proximity to the railway line and recent mining, the archaeological potential was unknown with a high probability of contamination from modern material. This proved to be the case, as it became apparent that there was a high volume of modern iron objects and coke spreads which can confuse the metal detector signal. With this factor in mind it was decided to switch the machines from all metal to discriminating ferrous material. This reduced the background noise of more modern iron material and therefore the number of signals picked up by the metal detectors.

7.1.2 *Area B - Tranent Church*

This area is an octagonal shaped field north of Tranent Church, approximately 32740 m² in size. It was the intention here to survey an area as close to the church as possible in order to recover any material relating to the cannonade of the church or any skirmish activity the day before the battle. An area of approximately 7900 m² was covered using 5 m transects, within a 50 m wide corridor, which followed the curving boundary closest to the church.

Ground conditions were good as the field had just recently been ploughed and tilled allowing for efficient recovery and recording of material. Fragments of human bone and teeth were noticed in the plough soil near the Dovecot. The County Archaeologist, Bidy Simpson, was contacted on site and the information is to be added to the Sites and Monuments Record (SMR). In relation to this a geophysical survey was carried out to investigate the possible presence of burials. No anomalies consistent with graves were identified.

7.1.3 Area C - *Thorntree Monument and Playback*

As an area within the core of the battlefield and at the very edge of housing development it was important that it should be investigated. The Thorntree which stood in this location until early part of the twentieth century is closely associated with the death of Colonel Gardiner who is said to have been mortally wounded very close to it. To all appearances the site had only been partially developed with the presence of a play park and housing close by. There were north-south running field boundaries which are present in estate plans by William Ramsay Esq drawn in the 1767 and appearing in later 19th – 20th century photographs of the Thorntree which is no longer present.

This was a small area of only 1200 m² and could be covered fully in a relatively short space of time. A football pitch with an area of approximately 100 m² was not surveyed as any turf removal or divots could pose a hazard to users. Metal detectorists were again given 5 m transects to work within, or in more unevenly shaped areas it was possible to identify a section to cover. As with Bankton House, it became apparent that the ground had been remade and levelled with a layer of red ash. The metal detectors were not able to penetrate beyond 0.10 m in depth before the ground became solid. This area was abandoned and no artefacts were recovered, although a large volume of modern rubbish in the topsoil was removed and disposed of safely.

7.1.4 Area D - *Polworth Terrace*

At the cross roads of Preston Road and Polworth Terrace there is an area of grass approximately 2750 m² in size. Although not in close proximity to the core of the battlefield it is situated close to the walls of the former Preston House, an area which is now a housing estate built in the 1920s. It was not expected that this area would represent a pristine patch of ground, however there was some potential for archaeological survival of battle material related to the rout of the government army in the closing stages of the battle.

Full coverage was achievable using 5 m transects and due to the small size of the area it was possible to have the transects surveyed in a north-south direction as well as east-west. Soil conditions were good although it was decided that as this was a suburban area machines should be set from all metal to discriminating ferrous objects as it was expected that there would be a high volume of rubbish.

7.1.5 Area F & G: *Wagon-Way*

This area has been designated as part of the ‘core’ of the battlefield in Historic Scotland’s Battlefield Inventory. With modern development such as the Power Station and the expansion of Prestonpans itself, only two open fields (areas F & G) were suitable for metal detector survey in the immediate vicinity of the only obvious stretch of the wagon-way to survive, this feature long having been held to mark the location of the battle. This was a substantial area measuring approximately 103310 m², the majority of which was intensively covered in five days using the method of 5 m transects. Fifteen metal detectorists from both clubs volunteered to take part in this phase of the survey, with an average team of six each day.

A significant proportion of this area covering both fields is protected as a Scheduled Ancient Monument – due to crop marks on aerial photographs which indicate a prehistoric settlement - and is therefore protected under the Ancient Monument and Archaeological Area Act, 1979. Prior to the survey taking place Scheduled Monument Consent (SMC) was obtained from Historic Scotland in order to use metal detectors within the scheduled area. Historic Scotland requested that before survey commenced the depth of the ploughsoil was to be established to avoid any penetration of the subsoil during the recovery of artefacts present in the ploughsoil. A small trench measuring 0.50 m x 0.50 m was excavated outside the scheduled area giving a ploughsoil depth of between 0.17 m – 0.25 m in depth.

During this excavation of the test trench it was noted that the ploughsoil contained a high percentage of coke deposits. As this area is located within close proximity of the Thorntree Colliery, some level of contamination was expected. Further to this we were informed by a member of the public that the field to the west (‘Area F’) had been used from the 1960s to ‘dirty coal’ for Cockszie Power Station. This involved spreading coal onto areas of the field, mixing it with the soil and then transporting it to Cockszie, therefore not only contaminating the area but also potentially removing topsoil. This had a clear impact on the level and quality of material recovered from Area F, particularly compared to Area G (field to east) where a marked improvement in the quality of the material recovered was apparent, with fewer modern objects and an increase in earlier artefacts. A further issue in Area F, which may have had some affect on the metal detecting, was the presence of a large pylon and overhead electricity cables. Two metal detectorists reported interference from the cables which affected their signal and therefore their ability to detect effectively. Those who did have problems were moved to a position further away

from the cables. In Area G an area approximately $\frac{1}{4}$ of the field was covered in high vegetation as it had been left fallow after the harvest, therefore it was decided that this was not suitable ground to conduct the survey using metal detectors.

8.0 Metal Detecting Results

8.1 *'Core Area' of the Battlefield*

An average of 250 finds per day was recovered from Area F and Area G with a total assemblage of 1095 finds. The majority of this material was ferrous and modern, especially in Area F where there had clearly been a significant degree of contamination from local industry. As this area had been identified as the 'core' of the battlefield, it was hoped to find concentrated artefact scatters related to firing lines and the debris of hand to hand fighting in the form of lead projectiles, musket and weaponry fragments, 18th century buttons and buckles etc. However, no significant artefact distributions were uncovered that would suggest this area was the core of the battlefield. Only four lead projectiles were uncovered which were spread widely across areas F and G (Figure 8). Although a small collection it is an interesting one as three of the projectiles are of a calibre associated with a carbine and one a pistol which can all be related directly to the battle. Carabines, a shortened version of the musket, were used primarily by the dragoon regiments, who fled the field during the battle. This spread of carbine balls may provide some evidence for the direction of the dragoon's flight and therefore some indication as to the extent of the battlefield as the government lines began to break up. For these events to be occurring in this area it would suggest that the battlefield 'core' is situated further to the east than previously thought, a theory supported by the assemblage which appeared from a recent metal detecting rally or outing held on the fields of West Seton in October 2009. Other military artefacts recovered from the survey appear to be late 19th century in date with two Light Infantry buttons, two British Army general service buttons and one corroded button with a crown visible which may belong to a militia unit. A 'Royal Scots' cap badge was also recovered which may be related to the activities of the local Territorial Army unit who were associated with the Royal Scots regiment. The assemblage also included civilian buttons, buckles, lead cloth seals and items related to agriculture and the spread of midden material. One button of interest was of the same type found during excavation on the site of Preston House (Area E) which was identified as a button from the uniform of the boy's school, Schaw's Hospital which was situated close by (see above).

8.2 *The Seton West Mains Metal Detector 'Outing'* (Plate 6)

On Sunday 18 October 2009 a metal detecting club outing involving the Scottish Artefact Recovery Group (SARG) and the Scottish Detector Club (SDC) took place across five fields at Seton West Mains Farm, to the east of Prestonpans. The outing took place within the core area of the Battle of Prestonpans as defined by the Historic Scotland Battlefields Inventory (the Prestonpans entry was prepared by Tony Pollard) and was an area which had been identified as having a high - medium archaeological potential in relation to the battlefield landscape as far as this project was concerned. Given its location it was hoped to incorporate this area within the battlefield project, as a continuation of the metal detector survey described above – especially in the light of the lack of finds from that area. Several requests were therefore made by the Centre for Battlefield Archaeology, the East Lothian Council Archaeologist and Treasure Trove that the event be incorporated into the project and when this became unlikely that it at least adhere to acceptable archaeological recording standards, including the use of controlled transects or grids. The clubs preferred not to take on board this latter recommendation but did agree to record the location of finds obviously or possibly related to the battle using a hand held GPR. Natasha Ferguson of the Centre for Battlefield Archaeology attended the event as an unofficial observer and provided advice when required; the Centre also provided finds bags so that the recording of recovered artefacts could proceed effectively.

The result of several hours detecting was an impressive assemblage of military artefacts which included lead projectiles, buttons, buckles and other objects. The number and density of these objects is far higher than in any of the areas subject to metal detector survey and a basic assessment carried out for the purposes of this report suggests that this area represents the site of the initial stages of the battle, being the location where the Jacobites charged and the government line delivered fire before breaking ranks and fleeing to the west with the Jacobites in pursuit. The reasons for this conclusion are discussed below along with a consideration of the implications for our understanding of the battle.

Recording Technique

The outing took place between 10.00 – 16.30 and involved 37 participants. The majority of those participating were from SARG and SDC with a couple of visiting metal detectorists from other areas of Scotland. A base was set up at a central location at the ‘farm shop’ of Seton West Mains where there were car park and toilet facilities present. This also included a tent where participants could deposit their finds, collect materials and make enquiries.

It was clear that an effort had been made to ensure that a basic level of recording was carried out. A recording system which had been used by SARG before was implemented, and appeared to be well organised. A talk was given in the morning to ensure that all participants were clear with the recording procedure and what kind of material to keep a special look out for, particularly those of a potentially military character ie musket balls etc.

The recording technique is summarised as follows:

- The four accessible fields were given five grid references, one reference point to each corner of the field and a central reference point. Participants were provided with a map of the area with the grid references marked on it. The participants were asked to individually bag each find and write on the bag the closest grid reference to the find spot. This was carried out for any artefact not identified as being either battle related or ‘historically significant’. Using this system each grid reference point had a radius of approximately 150 m in the largest field to approximately 50 m in the smallest field.
- Any other artefact identified as being battle related or of historical interest was marked with a red dot and left on the field to be given a 10 figure grid reference using a hand held GPS. There were approximately 5 participants with a GPS to record any such artefact, this included one member of SARG who had volunteered to collect and record artefacts rather than metal detect.
- At convenient points in the day participants were asked to bring their finds to the base tent and deposit them. Each participant was allocated a large envelope with their name and club attached for identification. There was a separate bag for musket balls.

This technique was simple and seemed to be accepted by all participants on the day. There were potentially some artefacts which were not bagged and recorded at all as they were not thought to be of any interest at all and simply regarded as ‘rubbish’.

Potential Impact

An area of approximately 514,880 m² was made accessible for the outing with the largest field measuring approximately 220,000 m², the participants were also well spread across this area with a maximum of 15 seen in one field at any one time. The ground was solid due to a long period of dry weather which made progress slow for many. Some also reported spreads of coke from the coal mining process, something encountered in the project surveys, which gave many false signals and made some areas undetectable. With these factors in mind the overall impact on the general area is judged to be relatively low, though on the basis of the assemblage it is clear that the area does coincide in some way with the battle. One interesting observation was that the locations most heavily detected were influenced by their proximity to the base and facilities. As this was a social event few wandered off by themselves and mainly stuck together in a group close to the base. It was about a 10 – 15 minute walk from the car park/base to the fields furthest away - those to the north-west - and many simply did not want to walk that far.

The Assemblage

The recovered assemblage of artefacts included 32 pieces of lead shot. The majority of these are musket balls, though two sizes are present. The largest of these, of which 10 were recovered, represent musket balls fired from the Brown Bess, which has a calibre of 0.75 inches, and was the standard issue fire-arm of the government infantry. The other type, numbering 11 recovered examples, were slightly smaller and these represent shots fired by the Jacobites who were armed with a mixture of domestically produced weapons and those imported from the continent, possibly from both France and Spain. The two smallest types of bullet represent the carbines (2 examples) carried by the government dragoons and pistol balls (7 examples), which from their very small size are more likely to originate from Jacobite pistols than those used by the dragoons. Three pieces of artillery shot were recovered. Two of these are pieces of canister or cartridge shot, which is essentially a musket ball which bears the facets typical of a lead ball compacted

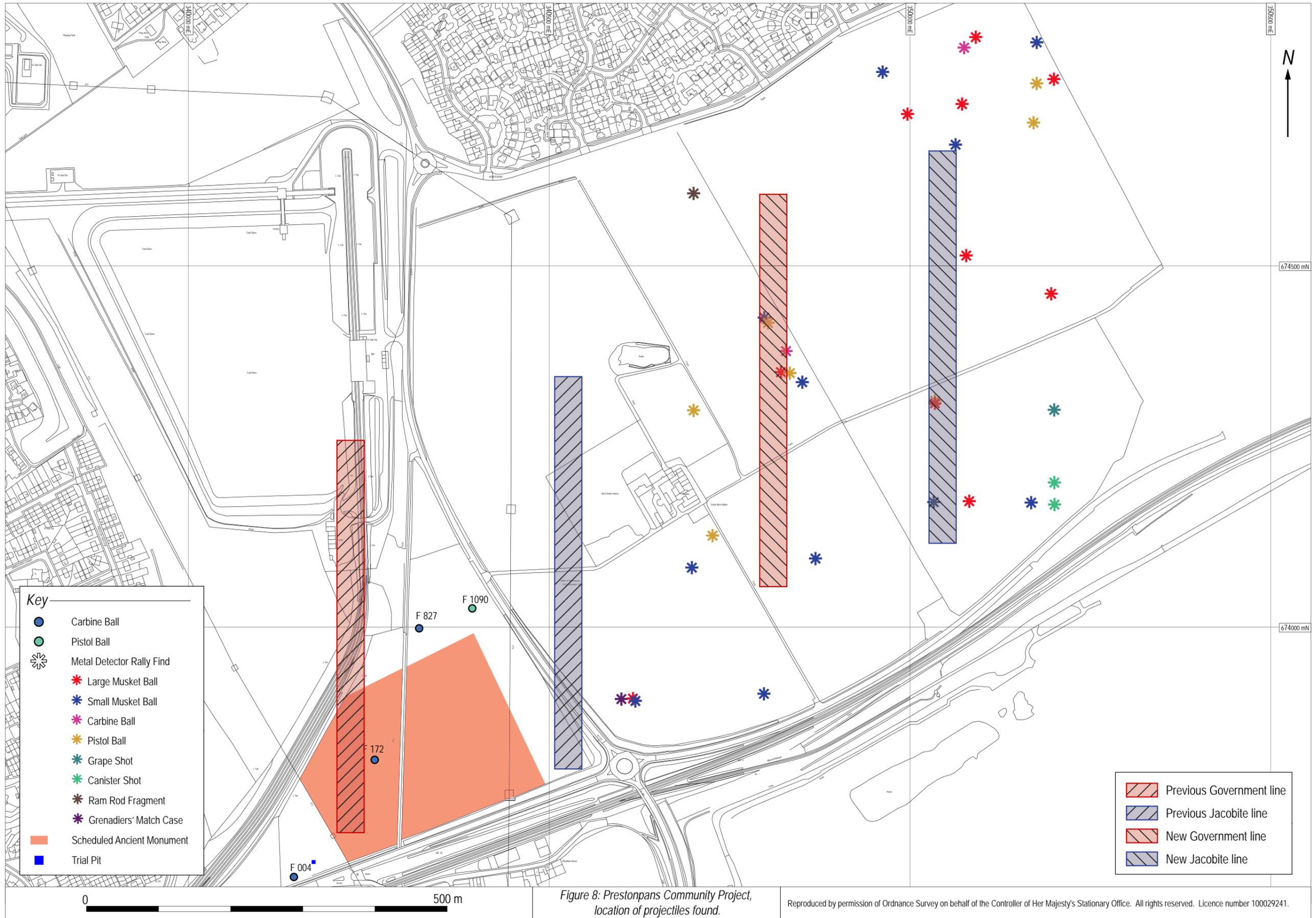


Figure 8: Prestonpans Community Project, location of projectiles found.

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against others when a multiple load is fired by a cannon. The other example is somewhat larger (5.6 oz) and represents a piece of grape shot, which again would be fired in multiples from the cannons.

A number of buttons were recovered by the detectorists. A small number of these are of type typical of those found on Jacobite period battlefields such as Killiecrankie and Culloden, and are probably Jacobite. Some of the buttons are clearly of a more 'regular' military character and represent composite copper alloy fastenings, some of which are adorned with insignia. These are likely to date from the late 18th and early 19th centuries and therefore post-date the battle.

Although there are risks inherent in trying to interpret an assemblage which has not been recovered from an ordered archaeological survey some observations can be made. The most obvious point is that the scatter is some distance away from the wagon-way, which is around 600 metres due west of the centre of the detected area. Traditionally accepted interpretations of the battle, and that held by most modern historians, is that it was fought across the wagon-way, with Cope's army deployed to the west of the line and the Jacobites forming up to the east of it after making their way down from the high ground to the south through the morass. According to this interpretation the Jacobites charged over the wagon-way to clash with the government line, which quickly turned and fled the field to the west. Prior to any further consideration of this issue however it will be necessary to more fully discuss the assemblage and the character of its distribution on the ground.

A number of later military artefacts, mainly in the form of buttons, attest to the post-1745 use of these fields, perhaps for musters and manoeuvres (the importance of an earlier battle on the same site should not be overlooked when considering this later use). There seems little doubt though that a vital element of the assemblage does appear to relate to the battle. Finds of musket balls need not necessarily indicate a battle site; they may relate to casual shooting, perhaps hunting but the number of balls and their location would strongly point against this, or to the training of troops, perhaps of militia in the late 18th or early 19th centuries. However, the nature of this assemblage is such that there seems little doubt that it relates to the 1745 battle. If the bullets did represent later training then one would expect only to find 0.75 inch calibre musket balls, as from pre-1745 to the early 19th century this was the standard weapon of the British soldier. However, it is clear that here we have not only Brown Bess bullets but also those of smaller calibre weapons. These are very much in keeping with the 0.69 inch calibre weapons provided by France and indeed Spain in the years prior to the '45 (Reid 2004: 131). Some inconsistency in this latter group may be indicative of the use of domestically manufactured muskets more normally used for personal protection and hunting by men from the Highlands.

The location of the musket balls is a further indication that this assemblage relates to the battle. Caveats regarding the nature of recovery notwithstanding, it is possible to suggest some patterning within the distribution. The greater number of the Brown Bess musket balls are located to the east of the detected fields while the smaller, Jacobite musket balls are concentrated to the west. There are exceptions but this is a definite trend within the limited number of musket balls recovered. This pattern fits very well with our understanding of the battle, and one which is reinforced by numerous eye-witness accounts - the Jacobites advanced from the east onto the government line to the west, with both sides giving fire. Thus the majority of Brown Bess musket balls would be expected to the east of the majority of Jacobite musket balls, which is exactly the pattern suggested by the recorded distribution.

There are also other factors which strongly indicate that this is the battle site – or at least the location of the main encounter prior to the rout and pursuit to the west. There are a number of pistol shot, seven in all, which on a battle site of this period are indicative of close quarter combat (Pollard 2009). Four of these are scattered across the centre of the detected fields, while a further small cluster is located in the north eastern corner of the detected area. The former group are situated within the general spread of Jacobite musket balls and when taken together this pattern may suggest that they are not far away from where the government line was positioned, with the musket balls being fired into this area from a longer distance, as the charging Jacobites approached, than the pistol balls which were fired at close range during hand-to-hand combat. Bullets of intermediate size probably represent carbine balls fired by the mounted dragoons in Cope's force – these being of around 0.66 inch calibre (Blackmore 1961: 50). These were found scattered across the site, with two found during the outing and four examples recovered by the survey in the fields on either side of the wagon-way.

Also of significance are three lead projectiles which were fired from cannon. These were found in a distinct cluster in the south eastern corner of the detected area. Two of them are canister or cartridge shot and one is a piece of lead grapeshot (both types have been recovered from Culloden). The location of these objects and their relationship to the rest of the scatter is in keeping with the firing of the

government cannon, located on the right of the government line, into the left flank of the on-coming Jacobites. The accounts tell us that six 1.5 lb galloping guns (Plate 6) were located on the right of the line, with an artillery guard of 100 men to the right of the cannon and the mortars. Due to the desertion of the gunners the cannon were touched off by Colonel Whitford, though according to his testimony at the Cope enquiry only five of the six went off (Duffy 2003: 18)). This was the only time that we know they were fired, with the guns being over-run by the Jacobites minutes later. Further metal detection along the southern edge of the fields visited during the club outing should provide further evidence for this action, as each firing of a gun launched multiple projectiles at the enemy.



Plate 6:

Model of galloper gun as used at Prestonpans.

Non-projectile artefacts were also recovered, including at least one brass cap from the end of a wooden ramrod from a Brown Bess musket (iron ramrods were a new innovation at the time). It has been suggested that a small fragment of copper/alloy, which is tubular in form and is perforated with regular lines of holes, could be the match box from the webbing of a grenadier. However, in the face of a cursory examination of these objects in photographs and drawings this is still open to some doubt – there seem to be too many perforations. Further examination of the artefact will be required before firmer conclusions can be drawn.

Even a basic examination of this assemblage has been enough to provide compelling evidence that it marks the location of the battlefield. An initial impression of the newly interpreted lines is given in Figure 8 but again this is based on the limited evidence available. It may be that the true orientation of the lines is in fact at more of a west-east angle, however slight, than is suggested by the illustration which portrays the lines running north-south, but again further refinement must await further survey in this area. Implicit within any such conclusion is the proposal that the battlefield is further to the east than is traditionally thought, with the wagon-way usually providing a demarcation between the Jacobite line to the east of it and the government line to the west. Given this shift of location, which on the basis of current evidence involves a move of around 500 metres to the east for the position of the government line when battle commenced, it is perhaps germane to consider why we came to believe that the wagon-way played such a key role in dividing the two armies prior to the Jacobite charge.

The Wagon-way

Built in 1722, by the York Building Company of London which purchased the local coal mines in 1719, the wagon-way was used to transport coal from Tranent down to Cockenzie harbour. Most of the coal was used for shipping or to heat the great pans vital in the processes of the salt industry which thrived in this area – and indeed gave the place its name. The wagon-way was initially constructed of wood and relied primarily on gravity to draw the coal laden wagons downhill to the harbour, and then horses to pull the empty wagons back up to the mines at Tranent for refilling. In 1815 the wooden track was replaced with iron rails, creating an important example of early industrial development in the area.

Only a short section (*c* 535 metres) of the wagon-way still exists in the modern landscape, where it forms a pathway between two fields to the south of the power station. Further to the south, at Tranent, buried remains were assessed through archaeological investigation by GUARD in 1999 and were found to have been severely disturbed by the laying of pipe trenches. These have cut through wagon-way deposits, particularly where trenching has followed the alignment of wagon-way to make use of loose ground for digging. A service map produced by Scottish Power also indicated that this alignment had been used for gas and electricity services on the lower ground near the power station; however it is not clear whether this refers to a reuse of pipes or fresh cuttings. Despite the disturbance caused by pipe trenches the trial trenching conducted by GUARD did uncover traces of in-situ remains, consisting of a shallow trench which packed with shale and degraded coal to provide a firm setting (ballast) for the sleepers (Lelong 1999: 45). Excavation previously carried out by Scotia Archaeology in 1995 uncovered two wheel ruts beneath the later rail bed deposits, suggesting that the wagon-way had been laid down on the path of an already existing track way (Terry 1995: 51). This may be supported by Adair's 1682 map of East Lothian which shows a track running on a similar line to the later wagon-way – however this may equally represent the coal road shown on various maps to run alongside the wagon-way (see below).

The Wagon-way and its Place on the Battlefield

Almost every modern history book which considers the battle of Prestonpans includes a map which has the government army to the west of the wagon-way and the Jacobite lines to the east (eg Thomason and Buist 1962: 69; Reid 2003: 130; Duffy 2004: 17; Marguilis 2007: Albany 2006: 448 – this latter from Tomasson and Buist). These interpretations are represented by the original positions shown in Figure 8. Map-makers contemporary to the battle have however generally paid less attention to the wagon-way, with the majority of them not showing it at all. In fact, only one contemporary map - that drawn up by Brigadier William Blakeney (Figure 3), commander of the garrison at Stirling and therefore not present at the battle, shows the wagon-way and the armies arrayed on either side of it. This map was accompanied by a letter by Blakeney to Henry Pelham (written 18 October 1745) in which he describes the event:

The draught of the several Dispositions Sir John Cope made with his Army I had from a very Intelligent Clergy man who rode over the field of Battle, and was well informed of everything that happened. In my opinion, had S[ir] John Cope placed his right at Preston panes and his left at Cockenzie his Foot and Cannon on the right and left, and the Dragoons in the Center, he certainly would have defeated the Rebels, for they never could have surprised him, nor make him alter his Disposition so often as he did; besides, it is a maxim in the art of War, not to place Horse on any Wing of an Army that is near woods or Inclosures, from whence they may be annoyed by Infantry without being able to offend them.

The clergyman referred to in Blakeney's letter is likely to have been either Dr Alexander Carlyle, who was the son of Rev. William Carlyle, the minister at Prestonpans, or indeed his father. Carlyle junior was to become the minister at Inveresk in 1748 but was not a clergyman at the time of the battle. He had volunteered for the Edinburgh militia and was lodging at a house in Prestonpans, - his parents being very keen that he stay out of harms way. He spent much of the day before the battle watching the movements of the Jacobite army to the south from the steeple of Prestonpans church, but he did not have such a good vantage point when the battle took place the following morning. After being woken by the sound of the guns firing he rushed to his father's house to find that his father had been up the steeple and had observed the battle from there. Carlyle junior witnessed only the passage of fleeing government troops and pursuing Jacobites. Although not a witness the battle itself, he did provide an account in his extensive autobiography, no doubt informed by his father's observations:

The rebel army had before day marched in three divisions, one of which went straight down the wagon-way to attack our cannon, the other two crossed the Morass near Seaton House; one of which marched north towards Port-seaton, where the field is broadest, to attack our

rear, but over-marched themselves, and fell in with a few companies that were guarding the baggage in a small enclosure near Cockenzie, and took the whole. The main body marched west through the plains, and just at the break of day attacked our army. After firing once, they run on with their broadswords, and our people fled (1910: 152).

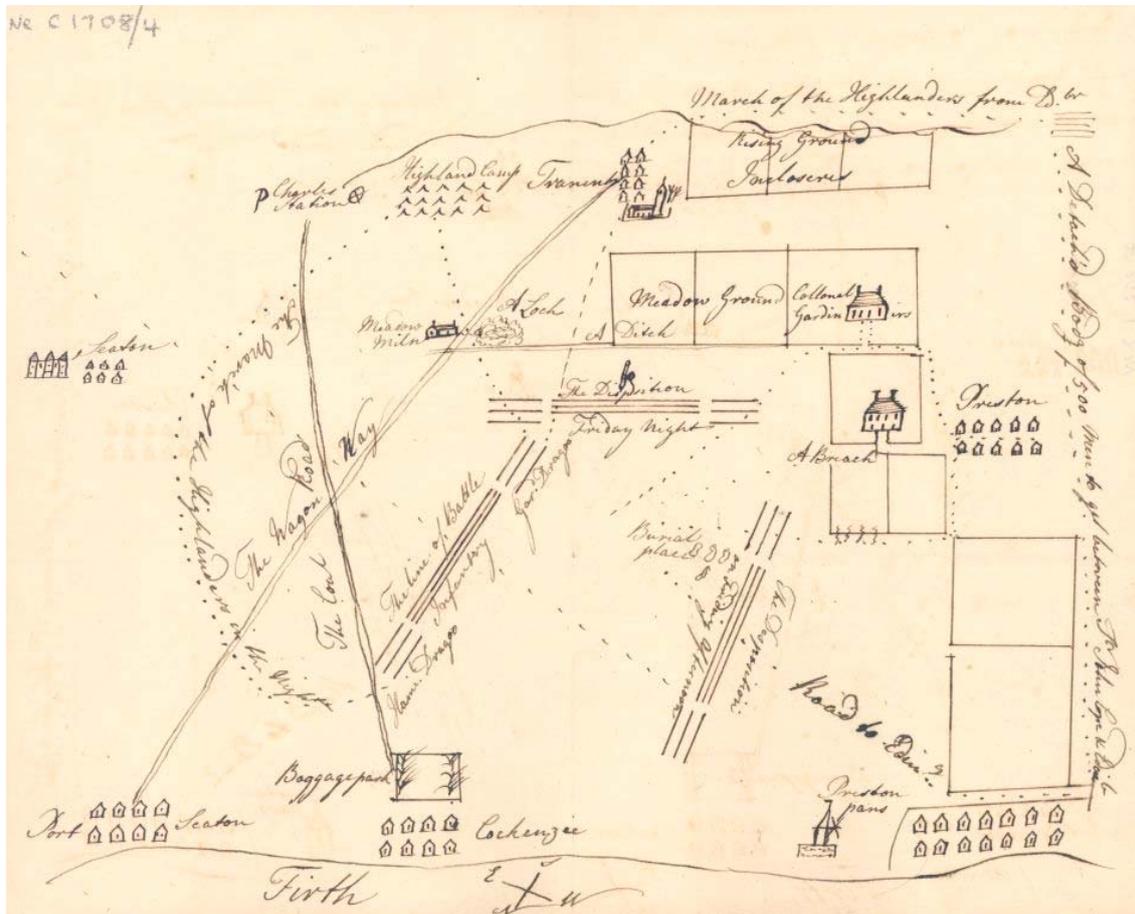


Figure 9:

Blakeney's 1745 map of battle showing wagon-way and the coal road.

Blakeney's claim that Alexander Carlyle was well informed must then be tempered by the fact that was not an actual eye witness, at least to the initial encounter. This becomes very clear in his inaccurate statement that a Jacobite division 'went straight down the wagon-way to attack our cannon'. As the wagon-way runs down hill from Tranent going 'straight down' it would suggest that the Jacobites charged down it from their position on the hill, while others crossed the morass – he is certainly not inferring that the Jacobites charged across the wagon-way as suggested by Blakeney's map (despite some great pieces of detail such as the buildings at Meadow Mill the map does contain a number of errors – for instance, he has the wagon-way leading to Port Seaton rather than Cockenzie). Dr Alexander Carlyle is the only person, presumably along with his father, among the many who provided accounts of the battle at the time to make any reference to such a manoeuvre. Many of these accounts came from men who fought in the battle and were later called as witnesses to the enquiry into the behaviour of Cope and his senior officers. Not a single one of these testimonies makes any mention of the wagon-way, either as a point of attack for the Jacobites or as a landscape feature present on the battlefield. The Cope enquiry (Anon 1749) includes numerous descriptions of the battlefield and so perhaps Cope's own description will suffice to give a flavour of the whole:

The field is about a mile in length, and three quarters of a mile in breadth. It is bounded on the east by Seaton, on the west by Preston, on the north by the sea, Cockenny lying on the shore about the middle of it, and on the south-side towards Tranent. It is guarded on the west-end by the park walls of Preston, and from thence eastward to Seaton by a morass, with a deep ditch between the plain and it, through which there were two very narrow cart-ways. On

the south of these park-walls of Preston, there is a defile leading by Colonel Gardener's house; from whence there is a road leading to the village of Preston; and on the north of them there is another defile leading to the same village, by Mr Erskine of Grange's house, and to an open field lying north and west of it, bounded on the north by the village of Preston-Pans, lying to the Sea-shore. *In this field there is no ditch except that of the Morass, nor a bush, Hollow-way, nor marsh.* There is not in the whole of the ground between Edinburgh and Dunbar, a better spot for both horse and foot to act upon. (Anon 1749: 37-8).

There is no mention of the wagon-way among the many landscape features noted here and Cope goes to some length to paint a picture of an open plain, which very importantly is good for the use of both infantry and cavalry. Surely placing a feature as obvious as the wagon-way between himself and enemy could only inhibit the movement of his cavalry? However, this is assuming that the wagon-way, where it crosses the plain after coming down the hill at Tranent, was a noteworthy feature, could it be that here the wagon-way represented nothing more than a set of wooden rails lying on the surface of the ground? This however seems unlikely, as the rails would need to be bedded on some form of ballast, which would create a raised bank running across the ground from north to south. Certainly today the stretch of wagon-way which survives as a footpath is a raised feature with the fields on either side sitting at a lower altitude (see section on wagon-way below).

There seems little doubt however that the government army stood to the west of the wagon-way during the course of 20 September, the day before the battle. Throughout that day Cope ordered his army through various dispositions and these were thoroughly described by Lord Loudon as part of his evidence to the enquiry.

Initially, Cope drew his army up 'with his right to the sea, a little westward of Cockenny, and his left on the Morass. In this position the artillery was to be divided and the baggage was some distance in the rear.' Following the movement of the Jacobites up the hill to the south Cope, 'changed his situation, and made his front towards them, with Mr Erskine of Grange's (Preston House) walls a little to the right, and his left towards Seaton, with the morass and ditch in his front; the artillery were posted on the left, and the baggage was moved towards Cockenny.' In this position the government army forced back a movement by the Jacobites into the churchyard at Tranent and down a hollow-way which led to the back of Gardener's House (Bankton) – dislodging those in the churchyard with cannon fire. Then, towards evening the Jacobites split their force again, with one part marching off the hill to the west, near where they had climbed up, and the other along the top of the hill to the east, where they apparently hoped to reach the plain via Seaton. Given that the enemy were moving to attack from both the west and the east Cope, 'ordered the baggage, which then stood in his way, to be mov'd to the east of Cockenny, and mov'd his troops backwards, and placed his right towards Cockenny, and his left towards Seaton'. This last move would appear to have put his entire army to the east of the wagon-way. However, with the move made the Jacobites once again change their dispositions and they regrouped back on the hill near Tranent. Accordingly, for the last time that day, Cope moved his men again, arranging them once again with the front toward the ditch to the south, the right toward Preston and the left toward Seaton, though they were, 'a little more to the east than the situation had been in the day (138)'.

During the night the Jacobites moved 'down to Seaton, to come in on the east-end of the plain, to attack us on our left flank'. As the Jacobites debouched onto the plain after finding their way through the morass, Cope quickly responded by moving his line, 'he wheel'd the whole foot to the left by platoons, and marched them straight down to Cockenny, and made his front to the east with Cockenny on his left, and the houses on the road side on his right' (139). It was in this position that Cope's army faced the Jacobite attack, coming in from the east near Seaton. The houses to which he refers must be those at Meadow-Mill, which was a small settlement which grew up along to the south of the morass, where the watercourse was modified to power a mill, and to the east of the wagon-way – his previous disposition had brought him closer to this point as he was a 'little more to the east' than he had previously been ie with his right flank close to the walls of Preston House. Given that the right was here and the left of the line was stretched toward Cockenny (Cockenzie) this would place the government line to the east of the wagon-way and not to the west of it, as shown on Blakeney's map and its modern imitators. Such a position is entirely in keeping with the majority of the contemporary battle maps, which do not show the wagon-way but portray both armies arrayed north to south to the west of Seaton. This general absence of the wagon-way on the contemporary battle maps, other than that drawn by Blakeney, may suggest that this feature was not held to have played a role in the battle, whereas those features which were deemed to have done so, such as watercourses, enclosure walls and areas of marsh are all clearly shown.

The wagon-way may however have had some influence on the alignment of the government troops at this point. It is likely that Cope and his officers would not want the wagon-way, which ran from the south-west off the hill to the north-east to Cockenzie, to cut as a diagonal across their line and so would have formed up their men some distance to the east of the wagon-way but there perhaps mirroring its alignment. Putting the line to the west of the wagon-way at this point would have put an obstacle between them and the enemy and thus have prevented effective use of the cavalry, the importance of which was stressed throughout the inquiry testimonies (as it happened thought the horse were among the first to flee the field).

Cadell, in the book (1898) he hoped would resuscitate Cope's tarnished reputation, also drew on Loudon's testimony to propose that the line was forward of the wagon-way, but to the west of the coal road which itself lay to the east of the wagon-way (Cadell, *ibid*: 221). The coal road is shown running on a roughly parallel course to the east of the wagon-way on Wade's map from the 1750s (there is a distinct red spot between these two features on this map and it may be that this was intended to show the site of the battle). Today, a fossilised portion of the coal road appears to be represented by the B6371 which for part of its course runs directly beside the surviving portion of the wagon-way. However, on the first edition OS map from 1850 a continuation of this old coal road further to the north, where it ran into Cockenzie, is strongly suggested by a hedge line which continues on the same line as the road but on the western side of the wagon-way. This portion of the coal road fell out of use some time between the mid 18th and mid 19th centuries, possibly due to the increased efficiency of the wagon-way brought about by the laying of iron rails in 1815. However, its line seems to have been retained as a field boundary and possibly as a narrow track. This crossing of the wagon-way and the coal road is shown by Blakeney on his map, although as previously mentioned he erroneously has the wagon-way terminating at Port Seaton rather than Cockenzie. The hedge itself had disappeared by the time of the 1894 Ordnance Survey map and the majority of the fields across which the hedge ran were later to be consumed by the development of Cockenzie and the building of the power station. Despite this, the recognition of the correlation of the hedge with the old coal road may give us a good idea of where Cope's baggage park was, as it appears to have been located beside this road somewhere quite close to Cockenzie (at least it is shown as such on Blakeney's map but as argued above this is not reliable in all aspects. It is also shown as being located in an enclosure known as Warren Park on an annotated First edition OS map in the National Map Library). Despite this modern development there are still open fields and other unoccupied areas along the route of the old road/hedge line and these may merit metal detector survey in an attempt to locate the baggage park. Warren Park may be under the northern edge of the coal store associated with the power station but it perhaps extended into what are still open fields to the north of the store.

Prior to his reference to the wagon-way, Cadell makes certain assumptions about Cope's disposition the previous day, stating that he had 'his left resting on the tram or wagon way and his right extending westward towards Lord Grange's park wall (Cadell, *ibid*: 200). He quotes the evidence given by Whiteford, Talbot, Severn Leslie and others at the enquiry as the basis for this claim but in fact none of them makes any mention of the wagon-way, merely the park walls to the west.

A closer examination of the historiography of the battle may shed some light on this later obsession with the wagon-way. It has already been suggested that this originates with Blakeney's map and Carlyle's account. These appear to have gone on to form the basis for the battle map which appears in John Home's 1802 work, 'The History of the Rebellion in the year of 1745'. The influence of Blakeney's map is suggested by the representation of the wagon-way on Home's map which is also shown erroneously to terminate at Port Seaton rather than Cockenzie. This 1802 map is the first published version to show the two armies arrayed either side of the wagon-way and would appear to have provided a touch stone for all of those to follow. Notable here is Tomasson and Buist's influential work 'Battles of the '45', which was first published in 1962 and which also shows the Jacobites to the east and Cope to the west of the wagon-way. They have however corrected the error with the route, taking it to Cockenzie rather than Port Seaton. Another example of this 'hand-me-down' approach to the mapping of battlefields can be seen in their map of Culloden in the same volume, which includes many of the errors shown on Home's 1802 map of the event (Pollard 2009: 4).

Cadell proposed that Cope's line sat between the coal road and the wagon-way (above), though it could be argued that the road itself would make the ideal location for the final disposition. The road would provide firm footing and also serve to guide the army into position as it wheeled around by the left in the dark. Reid has suggested that the wagon-way operated in the same way (2004) but again this suggestion is heavily based on earlier historians finding a central role for the feature.

Metal Detector Evidence

The location of the wagon-way between the two lines, and therefore in the middle of the battlefield is cast into further doubt by the distribution pattern provided by artefacts related to the battle and located through the use of metal detectors. The survey of the two fields on either side of the wagon-way recovered some battlefield artefacts but not in the quantities which had been expected. However, this may in part be due to a number of factors not related to the battle. The field to the west of the wagon-way was heavily contaminated with coke fragments and it has been suggested that this area was used to dirty coal prior to its use in the power station – a process which involved mixing soil with coal. This process may well have removed not only soil from the field but also metal objects suspended within it. Artefacts were found in slightly higher densities in the field on the other side of the wagon-way, though an area here was undetectable due to high vegetation. These caveats notwithstanding, the amount of material recovered was surprisingly low and obviously casts some doubt on the long held belief that this area represents the location of the initial encounter, which saw the Jacobites charging over the wagon-way into the waiting ranks of the government army. The discovery of relatively large quantities of battle related material some distance to the east, during the metal detector club outing, has clearly added vigour to these doubts.

The apparent patterning of the Seton West Mains material, with both government and Jacobite musket balls represented, militates against any suggestion that these bullets represent over-shots from the government line. The relatively long distances involved also make this highly unlikely – the closest concentration of generally Jacobite musket balls being well over 400 metres to the east of the wagon-way, with the more easterly finds, which are generally government musket balls, being in excess of 800 metres away (the Brown Bess having an effective range of about 100 metres and an absolute range of around 200-300 metres). The discovery of pistol balls in the same area adds further credence to the idea that the initial encounter happened around 300 metres or more to the east of the wagon-way – as these weapons had a very short range and were only fired at close quarters. It is important however to remember that at this stage the conclusions which can be drawn from the results of the metal detector outing are limited. It is vital that further survey takes place across this area to establish a more complete picture.

However, prior to this further survey it seems reasonably certain that the initial stages of the battle were fought further to the east than was previously thought. This revised location is not in contradiction with the that depicted on the majority of the contemporary battle maps. Only Blakeney's map shows the wagon-way and the armies arrayed either side of it. All of the other maps show the armies located to the west of the village of Seton and some of these suggest that they were quite close to Seton and further to the east of Tranent church than would be the case if the armies were either side of the wagon-way. This location would allow for the Jacobites to debouch from the morass via the Riggonhead defile and then to deploy immediately to the north, extending their line to attack the government army to west. This point of entry was probably in the vicinity of Seton Bridge, which is just to the south east of Seton Farm (not to be confused with Seton West Mains) which corresponds to the western edge of the no longer present village of Seaton. This location is immediately to the south of the eastern edge of the battlefield artefact scatter (as represented by government shot). A government position on the other side of the wagon-way would have put a considerable distance (well over a kilometre) between the two armies and probably necessitated the Jacobites to move further to the west before commencing their charge.

Perhaps most importantly though, it makes greater tactical sense for Cope's army to make its final position on the eastern side of the wagon-way. Although Carlyle appears to have got it wrong when he claimed that a portion of the Jacobite army attacked down the wagon-way he is right to point out that this was a potentially viable route off the ridge and across the ditch behind which the government troops were positioned. The coal road to the east of the wagon-way would provide a further and probably even more attractive route off the ridge – it wasn't encumbered with tracks and sleepers. Cope would have been foolish in the extreme to leave these entry points onto the plain uncovered by his line. It may be that the shift to the west which took place later on during the day before the battle, when the army was oriented east to west, may have been a recognition of the potential threats posed to Cope's left flank by these routes. Such a move would have forced the Jacobites to find a way of getting down off the ridge further to the east, which in turn would require them to get across the morass, rather than just the ditch – this is what the route via the Riggonhead defile allowed them to do. Cadell (1898) was very dismissive of the various Jacobite moves on the day before the battle, choosing to regard them as evidence for indecisiveness. However, just the opposite interpretation can be made. All of the various manoeuvrings made by the Jacobites on the 21st, both to the west and east of Tranent, can be seen as probing exercises

designed to identify the best route of attack, and as the outcome of the battle when it finally came, early in the morning of the 21st, attests, these operations were to result in overwhelming success.

If by the end of the first day Cope's line, which was facing up slope toward Tranent, extended across both the wagon-way and the coal road, and therefore effectively blocking both of these potential weak spots, then it makes sense that a wheel to the left, pivoting on the left flank, on the morning of the 21st, would bring the line not just to the east of the wagon-way but also the east of the coal road. This hypothesis sits very comfortably not with just the majority of contemporary maps but also with the location suggested by the metal detector finds around Seton West Mains (it also happens to correspond to the location of the crossed swords denoting a battlefield on the Ordnance Survey maps).

It is perhaps important to note that, likely as it appears at the moment, the shift of the battle to east does not reduce the importance of the wagon-way within the story of the battle or the contemporary landscape. Indeed, on the basis of this revised understanding, which could be said to put the initial encounter on the 'wrong side of the tracks', it was not just the Jacobites who ran across the wagon-way, but also the government army, though at the time it was in disorder and being pursued by the Jacobites. What this new interpretation does is not really to move the battlefield at all, it merely extends it several hundred metres to the east. What this implies is that the pursuit, back to the park walls of Preston House and beyond, was longer than previously thought and also, and this is perhaps the most important point, that the site of initial contact is actually very well preserved. A further implication given this extended distance is that the battle would have lasted slightly longer than was previously thought, though no accurate timings are available.

8.3 *'Peripheral Areas'*

Overall, the results in terms of identifying areas of activity surrounding the battle such as related skirmishes; the cannonade at Tranent Church or evidence of the rout by Preston and Bankton House were inconclusive. Over 250 metal artefacts and a number of other non-metal artefacts were recorded during this survey ranging in date from the medieval period to early 20th century. No artefacts clearly related to the battle or any other related battle events ie skirmish or rout, were recovered from the metal detector survey. However, on the second day of the survey at Polworth Terrace we were given a piece of grape shot found in a garden close by and a 4lb cannon ball reputedly to be found near the 'Red burn' beside Preston Tower. The cannon ball can be discounted as a battle artefact, there being no 4lb guns used in the action. The grape shot on the other hand is identical to the example found during the Seton West Mains outing, where it lay close to a smaller piece of canister shot. Why a piece of grapeshot should be present this far west is a mystery; did the Jacobites turn the captured guns on the fleeing enemy; or did they practice the use of these new acquisitions in the days after the battle? Also a mystery is what the Jacobites did with these six guns, and also the cohorn mortars they captured during the battle.

The 1.5lb galloper gun was a light-weight field piece, the gun essentially mounted on a two wheeled cart (Plate 6) rather than a gun carriage, which could then be pulled by a single saddle horse. Although these guns were highly mobile it is unclear how effective they were in combat – unlike the standard carriage, the cart with its long shafts did not ideally lend itself to effective deployment of the gun for firing. Manoeuvrability was however something which the Jacobite army placed great store in, and was one of the reasons for their success right up to the battle of Culloden. There are however no known accounts of the use to which the Jacobites put these guns after the battle, it is possible that they were taken along on the march to Derby but at the moment this is purely conjectural. This is a question which would merit further research – Christopher Duffy believes he has traced some of the government 3lb guns used at Culloden to Fort Cumberland and a similar piece of detective work may turn up the Prestonpans gallopers.

The majority of the material recovered from all areas was 19th century and post-19th century, with only a small collection of artefacts potentially dating to the post medieval period or earlier. Bankton House was representative of this with a large quantity of iron material and some 19th century buttons, coins and earlier cloth seals. The site at the Thorntree produced no results as the ground had subsequently been remade and so the survey in this area was abandoned.

Polworth Terrace unexpectedly produced the most representative material in the form of lead fragments which were found in the north-west corner of the site in a concentrated distribution. One of the lead fragments [107] looked to be the remnants of small scale lead smelting using a crucible. The lead fragment was bowl – shaped as if it had taken the form of the crucible itself. A similar artefact was found on the battlefield of Killiecrankie along with other lead fragments which looked to be waste material. A a

neatly folded strip of lead [111] was found in a garden in Polworth Terrace in close proximity to the site. Folded lead strips have been recovered from a number of battlefield sites and have now formed part of a distinctive battlefield assemblage. As these finds were made on land that has been subjected to disturbance due to the building of the housing estate in the 1920s, it is not possible to link the two in one activity. However the location of the concentrated lead and lead waste material is within an area where the Hanoverian army would have camped the night before the battle. It is possible therefore that this lead concentration is a preserved remnant of camp activity and the last minute manufacture of ammunition. Also found in this small area were mid 20th century coins, including a small 'hoard' of six coins found stacked together in a roll and may have been held in a small bag or purse when dropped. It is possible that this assemblage represents an event such as a gala day or fair that may have been held on this grassy area.

At Tranent Church it was expected to find material more representative of an area which has been in use for centuries for agriculture, early industry and worship. The finds were certainly more varied in this area and included a number of buttons, coins and buckles. One coin was a rose farthing in good condition and dating to the reign of Charles I. There were two possible musket balls, however on closer inspection they appeared to be much later bullets of the 19th century owing to their small size. A small amount of worn human bone and two teeth were found on the surface near the Dovecot. The bone appears to be antiquated in date and due to the concentration of bone, possibly from an inhumation which has been disturbed by the plough. In light of this a geophysical survey was carried out in this area in an attempt to identify evidence of burials, but none was recovered.

9.0 Working Within the Community

As a community project a major aspect has been to involve the local community as much as possible at every level including historical and folklore research and field work. Community involvement and interest in the project has varied considerably throughout the project. Volunteer forms were filled out in September by those who initially had an interest in taking part, however out of the twenty-four people who filled in the forms only a group of approximately ten people have consistently responded to any calls for volunteers. There was a good response for the metal detector survey with nine volunteers, but this was reduced to only two volunteers during the week of excavation. Those who volunteered for field work assisted archaeologists in a number of tasks including excavation, recording and recovery of artefacts; operating survey equipment under the guidance of the surveyor. Volunteers have been enthusiastic throughout the project and their assistance was very much appreciated.

Garden Survey

The potential to recover battlefield artefacts from gardens situated close to the battlefield was identified during the project open day in November. A small collection of musket balls, and 18th – 19th century buttons were handed in by Mrs J Aitken, a resident of Schaw's Road and were found during the construction of an extension at the back of the house. Throughout the project we had been informed of a number of findings in gardens by the local community. The garden survey took place on Saturday 30 May and concentrated in two areas around Schaw's Road and Polworth Terrace. Interest in participating in the garden survey was initially generated by Mrs Aitken who was able to provide a list of addresses. Further to this a leaflet drop of Polworth Terrace was also carried out requesting residents to get in touch to have their gardens surveyed, particularly as battle related artefacts had previously been found there also. Out of the 10 addresses received from the vicinity of Schaw's Road 5 responded, but from Polworth Terrace only 3 people responded from drop of approximately 50 leaflets. The garden survey was assisted by two volunteer metal detectorists from the Scottish Detector Club (SDC) and two archaeologists were present.

A limited assemblage of artefacts were recovered from the gardens, with the majority having no finds at all except modern rubbish such as ring pulls which was an expected result. One find of interest was recovered at 23 Schaw Road, a late 18th – 19th century two piece button with an anagram of three letters in old script.

Perhaps the most significant result of the garden survey was the successful encouragement of community involvement within the project. Residents who participated in the survey included a number of children who were able to record and recover artefacts in their own back garden, a particularly successful element of the exercise. There was also the opportunity to talk to more people about their experiences living in and around the battlefield. One gentleman living in Polworth Terrace had found what was said to be the

remains of Hanoverian soldiers near Thorntree Mains Farm, along with other artefacts including fragments of a musket and a sword which were later to be buried underneath the battle memorial cairn in the 1950s.

Excavation Open Day – Saturday 6 June 2009

As part of a programme of excavation at Preston House an Open Day was organised to allow the local community to visit the site and learn more about the archaeology of their local area. Also present was a group of Jacobite re-enactors and the Centre for Battlefield Archaeology's own 1 ½ lb cannon with crew. The open day was very successful and despite frequent showers the turn out was good with approximately 75 visitors. Visitors were offered tours of the site and a closer look at artefacts which had been excavated throughout the week.



Plate 7:

Pupils drawing artefacts at Preston Lodge High School.

School Visits (Plate 7)

Perhaps the most successful element of the community project has been the involvement of the local secondary schools, Preston Lodge High School and Ross High in Tranent, in a series of artefact workshops. Schools are the core of the community and it is vitally important to get young people involved and aware of the historical environment around them, especially as Preston Lodge High School is built on the site of the battlefield. The workshops were primarily designed for younger students from S1 – S3 and for those who require learning support. They were artefact based and involved pupils analysing an object found on an 18th century battlefield using a specially designed worksheet. Pupils described and drew their artefacts and recorded them by measuring, weighing and photographing them. After the workshops pupils had a good understanding of archaeology in general, but more specifically the archaeology of their local battlefield. One workshop - 'Recording a Graveyard' - took place at Prestongrange Kirk and involved recording a group of gravestones which were contemporary with the battle. This workshop included pupils who required learning support and so the aim of the session was to engage them in an exercise which allowed them to use their skills and approach new ideas in a different learning environment outside the classroom.

Overall, ten workshops took place in February 2009, with one session at Ross High and nine at Preston Lodge, ie four classes each day and including the 'Recording a Graveyard' session at Prestongrange Kirk. It has been estimated that over two hundred pupils in Prestonpans and Tranent have had the opportunity to take part in these workshops and learn about the archaeology of the battlefield and have experienced close contact with battlefield material which may lie under their feet. The workshops have been very beneficial and have evidently sparked interest in their local archaeological and historical environment.

Details of the workshops, and other elements of the project, were presented at the Scottish Community Archaeology Conference held at Queen Margaret University, Musselburgh in May 2009, and an article relating to these workshops appeared in an edition of the Times Educational Supplement Scotland (TESS).

10.0 Conclusions and Recommendations

The Prestonpans Project has successfully involved the local community in a programme of fieldwork which has made a profound contribution to our understanding of the battle and its place in the landscape. Although though the metal detector club outing which resulted in the recovery of battle artefacts from fields around Seton West Mains Farm was not officially part of the project it is unlikely to have been as successful as it was (in the way that artefacts were recorded) if it were not for the project and the attention which it has focussed on the battlefield. Those fields would have been investigated as part of the project, especially in the light of the disappointing levels of recovery from the fields immediately to the west, but the outing intervened. However, project staff did all they could to ensure that no information was lost, with Natasha Ferguson attending the event in order to offer advice and to observe events (the groups involved must be also given credit for implementing the recording system used on the day). The interpretation of the recovered assemblage included as part of this report has established beyond reasonable doubt that the location of the initial encounter between the two armies, which took place early in the morning of 21 September 1745, has been identified, around Seton West Mains Farm and for this the project can take some credit.

While the Prestonpans project has thus far provided much new information on the archaeological remains relating to the battle, and the landscape within which it took, it is clear that more fieldwork is merited. Perhaps most obvious here is the need for a thorough metal detector survey of the fields around Seton West Mains Farm, where the detectorist outing has brought to light evidence of the opening stages of the battle. Up until now however communication with the landowner has not been possible and so no permissions for this survey to take place have been obtained. Some survey will take place prior to the digging of a gas pipeline which will run through the western perimeter of this land on its way to the power station; however it is unlikely that this will cover the entire area of the four large fields. A full list of possible avenues of further fieldwork and research is provided below:

Potential Areas of Further Work

- 1) Thorough metal detector survey of fields around Seton West Mains Farm – this is essential to provide further insight into the tantalising collection of artefacts recovered during the detector outing.
- 2) Metal detector survey of fields still existing on line of old coal road – this may shed light on the location of the government army's baggage camp and on the nature of the contemporary landscape in general.
- 3) Metal detector survey of fields to west of Bankton House – local contacts have described finds of musket balls coming from the fields to the west of the house and garden. This material may relate to the retreat of Cope's army, which is known to have used a road here (Johnny Cope's road) to escape pursuing Jacobites. Concentrations of musket balls may suggest that a fighting retreat was made for a longer distance than previously thought.
- 4) Geophysical survey of area between Seton House Castle and Seton Farm – to locate buildings relating to Seton village. The area previously occupied by the village is still open ground and fields and so the potential for extensive remains surviving below ground is good.
- 5) Excavation at Seton village - this site provides a rare opportunity to investigate the lifestyles of people living and working on the battlefield at the time of the battle – there is potential here for a major excavation project.

- 6) Further historical research – there is interesting potential in areas such as establishing what happened to the galloper guns after the battle.

11.0 Acknowledgements

The Prestonpans project was part of a community initiative and the most fulsome thanks are offered to those local residents who gave up their time to take part. The open day attracted a large number of visitors, due in no small part to the participation of a group of Edinburgh-based Jacobite re-enactors led by Duncan Wallace, the Glasgow University cannon, fielded by Alan Birkbeck and his team from ‘Birbeck’s Battery’. The Baron also rolled up in the now famous Battle Bus. Anne Pool at East Lothian Council and Biddy Simpson and Andrew Robertson of the council’s archaeology service provided vital assistance at the project design stage and during the excavation at Preston house. Andrew Ralton, for his assistance and provision of maps.

Scottish Detector Club - Jerry Moriarty, Jackie Lihne, Gerald McAleer, Carol Murphy, George Dickens, Malcolm Moyes, Alastair Hackett, Bob Wilson, Barry Mair, Sandy Lyon.

Scottish Artefact Recovery Group - Andy Sneddon, Andy Leach, Gordon Innes, Lesley Sleith, Tony Mead, Thomas Romeo, Thomas Ferguson, Robert Mitchell, Chas McDonald, Dougie Bott, Jamie Cook, Allan Vint, Graham Sutherland.

Volunteers - Dianne Laing, John Studholme, Zoe Inglis.

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13.0 Appendices

13.1 *List of Contexts*

<i>Area</i>	<i>Context</i>	<i>Description</i>	<i>Interpretation/ Relationships</i>
T2	001	Turf and Topsoil c 15 cm depth from surface	Topsoil
T2	002	Rubble deposit/construction layer beneath topsoil. Dominated by slate fragments with iron pyrites and lime mortar. Spread high up in profile and concentrated in north-east corner of trench. Sits on top of re-deposited subsoil/garden soil	Fill
T2	003	Subsoil. 19 cm depth beneath base of turf/topsoil—south face of trench. Friable, grey though presence of mortar fragments.	Subsoil
T2	004	Grey ash—concentrated on natural half of trench with mortar and coal fragments. Stones mostly confined to S. edge of spread. Sub-angular fragments of stone.	Surface/Hard-Standing
T2	005	Pink ash—fine ash relatively stone free against S. edge of grey ash. Bordered to south by organic soil (context 006).	Surface/Hard-standing
T2	006	Brown sandy loam subsoil south of context 005	Subsoil
T1	007	Turf and Topsoil 9cm deep	Topsoil
T1	008	Re-deposited subsoil—heavily intermixed with lime fragments, stone and brick fragments. (0.28 m to base from surface, 0.23 m from base of 007). Very hard packed. Sits on top of similar soil deposit but less in way of inclusions.	Garden's soil?
T1	009	Lower deposit of topsoil—'b' horizon	Topsoil
T4	010	Medium compact topsoil, medium grey brown in colour, sandy with occasional small sub-angular stones. Context is 0.18 m thick with no truncation or contamination.	Topsoil
T4	011	Hard compacted layer, light to medium grey in colour. Ashy with small sub-angular stones. Context is 0.16 m thick with no truncation or contamination. Slopes down S. toward wall and road.	Subsoil, possible demolition layer?
T4	012	Loosely compacted layer, medium brown in colour. Loamy with regular small sub-angular stones. Layer is 37cm thick.	Garden's soil?
T4	013	Loosely compacted layer, brown/orange in colour. Sand with occasional sub-angular stones. Extent is unclear.	Subsoil
T2	014	Slightly hard compacted layer, dark grey in colour. Clayish sand with animal bones, medium and small stone inclusions. Truncated by context 015. Finds included bits of animal bone and fragments of pottery	Fill
T2	015	Loosely compacted, brownish pink in colour. Clayish sand with small stone inclusions. 1 cm thick and 80cm wide.	Surface/hard-standing
T2	016	Medium compact dark brown clayish sand (less clay than 014). 0.10 m thick and 1.60 m wide. Quite similar composition and colour as context 014 and 017.	Layer

<i>Area</i>	<i>Context</i>	<i>Description</i>	<i>Interpretation/ Relationships</i>
T2	017	Medium compact, grey, slightly clayish sand with small stone inclusions (10cm thick and 1 m wide).	Layer
T2	018	Loose, reddish brown sand with small sub-angular stones and shell. Extent is 0.20 m thick and 0.60 m wide.	Layer
T2	019	Loose white sand. Extent is 0.02 m thick and 0.20 m wide	Layer
T2	020	Hard compacted layer with loose areas filled with small stones. Light brown clay. Extent is 0.40 m thick and 0.80 m wide	Layer
T2	021	Medium compacted reddish brown sand with slight clay. Spread of small to medium sized stones throughout. Quite similar composition and colour as contexts 020 and 018. Extent is 0.50 m thick and 1.60 m wide	Layer
T2	022	Loose white sand, similar to context 019	Fill
T1	023	Buried turf line—dark black organic sandy loam with small pebbles. Extent is 0.08 m thick and 1.3m wide	Buried turf line
T1	024	Very compact orangey brown sandy gravel with inclusions of small rounded pebbles at 1% and some larger stones. Context has been truncated by cut 026 creating a ditch or trench. Extent in trench covers 1.67 m and is 0.45 m thick.	Natural
T1	025	Very compact silt/sand, dark brown in colour. Inclusions include pebbles, roots and larger stones. Thickness is 0.45 m and 1.10 in extent. Evidence of bioturbation (roots).	Upper deposit (fill) of linear trench/pit
T1	026	Cut into natural orange/brown gravelly sand (024) on west side. Cut into clay and stones on E side. Rectangular in plan with defined corners. Cut is linear in feature. Approx. 1.0 m in depth. Feature not bottomed. Break of slop at top and base is relatively gentle. N/S orientation. Fill numbers 025, 027 and 028.	Robber trench related to grubbing out of wall foundations. From geophysics seems to be part of a square structure. Possibly east wall of the east wing of Preston House c 1745
T1	027	Very compact fill, dark brown in colour. Fill in east side of pit 026—gravelly deposit, including lime and brick fragments in dark gritty matrix. Extent is 0.5 m thick and 0.4 m in extent. Evidence of bioturbation (roots).	Fill of robber trench cut by 026.
T1	028	Mix of dark loamy soil, clay and fine dark gravel—some sub-angular stones, bottom—west side of pit 026. Thickness is 0.45 m and the fill extends to the bottom corner of the ditch/trench and is 0.48 m at its thickest point.	Fill of cut 026
T1	029	Compact dark brown soil composed of silty clay with some sand. Shaley gravel inclusions and a mixture of small rounded pebbles. Thickness of 0.70 m and 0.17 m in extent.	Cut into by pit 026 or part of fill tipped into it—same as 020.
T1	030	Very loose and friable dry brown/black loamy soil, peels away from clay edge 031 readily. Relatively stone free—tipped down E. side of pit 026.	Deposit on the edge of the robbed out foundation trench.

<i>Area</i>	<i>Context</i>	<i>Description</i>	<i>Interpretation/ Relationships</i>
T1	031	Extremely compacted clay deposit with sub-angular stones. Dark brown/orange in colour. Extent is 0.70 m. Truncated by 026.	Natural?
T2	032	Turf and topsoil 0.14 m in depth	Topsoil
T2	033	Compact mortar layer, loose soil intermixed. White sand including inclusions of topsoil, slate and mortar. Extent is 0.10 m thick and 2.0 m wide.	Fill
T2	034	Loose dark brown silty sand dominated by roots. Extent is 0.10 m thick and 2.0 m wide	Subsoil
T2	035	Loose ashy grey layer, sandy with mortar and coal fragments. 0.05 m thick and 2 m wide.	Deposit
T2	036	Very loose brownish pink sand. No stones, some loose rocks.	Surface/ Hard Standing
T2	037	Hard compact dark brown/orange clay with small to medium sub-angular stones. Extent is 0.50 m thick and 0.40 m wide	Deposit
T2	038	Medium compacted dark brown/black sand with small stone inclusions. Thin pink layer of medium compact sand at top of layer. Extent is 0.30 m thick and 0.70 m wide.	Deposit
T2	039	Medium compacted (less than compact that 038) greyish brown silty sand with white mortar fragments and small stones. Extent is 0.15 m thick and 1.10 m wide.	Deposit
T2	040	Medium compacted medium brown/orange clay sand with small stones and pebbles. Extent is 0.40 m thick and 0.50 cm wide.	Fill of cut 045
T2	041	Loose to medium compacted brown sandy clay, filled with stones and a few roots. Extent is 0.60 thick and 1.30 m wide.	Fill of cut 049
T2	042	Loose brown/orange sand with small pebbles. The entire extent of fill 042 is split in the middle by fill 041. The extent of the fill is 0.30 m thick and 0.40 m wide.	Fill of cut 043 and cut 043
T2	043	Cut is curvilinear in shape. Cut is orientated N/S. Relatively 0.75 m in length. Fill number 042.	Possible Cut
T2	044	Cut is rectangular in shape. Orientated to the N/S. Relatively 0.40 m in length. Fill number 042	Cut
T2	045	Cut is square-like in shape with defined corners. Break of slope at top of cut begins at N side and is quite shallow as it progresses S it become much more steep. Relatively 0.40 m in length. Fill number is 040.	Cut
T2	046	Stone clay bonded structure. Medium sized sub-angular stones. L-shaped in plan. Height in trench is 0.10 m, width is 0.90 m, and length is 1.10 m. NS orientation with a corner heading towards E. Possibly truncated by later cut at S. end of trench	Structure Possible clay and stone lining for wall feature where the feature may have been robbed out, leaving behind a z-shaped trench.

<i>Area</i>	<i>Context</i>	<i>Description</i>	<i>Interpretation/ Relationships</i>
T2	048	Natural soil layer. Compact orange/brown sand with pebble inclusions	Natural
T2	049	In plan, z-shaped, from south end rising diagonally to the NE then N to the E. 2 corners, one cutting into west, and one protruding corner to the E. North end is .43m, 0.50 m S. end, long slope is 1.20 m. Gentle break of slope, flat base onto natural. N-S orientation with a dog leg to the W. Filled by context 41.	Cut Robber trench cut to remove underlying stones. Possible secondary cut to the W, slanting into NS orientating trench.
T2	050	Structure formed by medium sized rounded stones forming a cobbled surface. Linear feature heading into S end of trench. Length is 0.60 m, continues into E and W ends of trench. Width of surface is 1.0 m, continues into S end of trench. Orientation is EW. Truncated by possible secondary cut 051	Structure
T2	051	Possible secondary cut that truncates context 050.	Possible secondary cut.

13.2 *List of Finds*

<i>Area</i>	<i>Find No</i>	<i>Context No</i>	<i>No of Pieces</i>	<i>Material</i>	<i>Description</i>
T1			5	Pottery	Post Medieval, 3 rim, 2 body: orange core, ext glazed cream, orange unglazed
T1			16	Pottery	Post Medieval, 2 rim, 14 body, Core grey, int & ext glazed cream
T1			3	Pottery	Post Medieval, 3 rim, Core grey, int and ext glazed grey
T1			6	Pottery	Post Medieval, 1 handle 5 body, green yellow, brown glazed
T1			6	ceramic	Modern, 2 rim and 4 body core grey, white brown glazed with decoration
T1			2	Pottery	16 th /17 th cent. 2 body one grey, one yellow both brown salt glazed
T1			1	Ceramic	20 th cent. Handle white
T1			3	Pottery	Post Medieval, body parts
T1			1	Pottery	Post Medieval rim
T1			2	Pottery	Post medieval rim
T1			1	Pottery	Post medieval, body, core grey, int & ext yellow glazed, one with small flower decoration
T1			6	Glass	Modern, bottle, pale & transparent
T1			5	Glass	Post Medieval window pale & transparent
T1			2	Glass	Modern pale & transparent, thick walled
T1			3	Glass	Post Medieval, unknown metallic shining
T1			2	Glass	Industrial, unknown, dark green
T1			4	Mortar	Post medieval, building material, white
T1			8	Slate	Unknown, roofing, shingles, prob. Worked
T1			4	Plastic	20 th cent or later
T1			4	Clay	3 unknown, 1 clay pipe
T1			8	Iron	Post Medieval, 1 flat piece, 3 nails, 1 possible fastener, 1 possible arrow head, 2 possible container lid. Heavily corroded
T1			1	Tooth	Deer or swine

<i>Area</i>	<i>Find No</i>	<i>Context No</i>	<i>No of Pieces</i>	<i>Material</i>	<i>Description</i>
T1			3	Bone	Long-bone
T1			1	Ivory	Small round button with two holes
T1			1	Unknown	Small capsule like dark grey object
T1			2	Iron	Nail
T1			1	Clay	Bottle stop
T1			1	Pottery	Bottom section, brown glazed
T1			1	Pottery	Plate fragment, white, orange interior
T1			2	Pottery	Body, white with purple stamps
T1			1	Clay	Unknown, banana shaped with groove
T1			1	Slate	Roofing? Small rectangular
T1			1	Sandstone	Brick shaped, yellow
T1			3	Brick	Post Medieval brick, orange, angular
T2			1	Sandstone	Small chunk
T2			3	Bone	2 possible skull fragments, 1 finger like bone
T2			2	Slate	Roofing?
T2			3	Pottery	Body, orange and white
T2			14	Brick	Construction debris, orange, angular
T2			14	Pottery	Post Medieval, 2 rim, 12 body core grey, int white, ext glazed cream
T2			1	Pottery	Post Medieval, Body, core orange dark brown glazed
T2			1	Ceramic	Post Medieval, Base of egg cup? White, foot ring, part of vessel
T2			4	Pottery	Modern, 1 rim 3 body core grey, int white, ext. yellow
T2			4	Pottery	Modern core grey, int white, ext blue.
T2			4	Pottery	Post medieval, body, core orange int yellow, cream decorations.
T2			3	Brick	Post medieval, orange, angular
T2			1	Pottery	Post medieval, body, yellow, ext salt glazed brown
T2			2	Pottery	Post medieval body, core orange, 1 black-orange, other orange
T2			1	Sandstone	Small, sandy in colour
T2			7	Slag	Porous, light
T2			1	Mortar	White, compact
T2			3	Iron	Nail, corroded
T2			2	Iron	Pin, long, corroded
T2			2	Iron	unknown
T2			8	Glass	Modern wine bottle fragment, green
T2			1	Glass	18 th /19 th c wine bottle bottom fragment, dark green
T2			8	Glass	Post medieval, pal transparent
T2			1	Plastic	Modern, 'Robb Brothers' dark grey bottle stop
T2			1	Copper	Two pence coin
T2			1	Stone	Pyramid shaped with hollow bottom, brown
T2			8	Shell	Oyster
T2			2	Bone	1 ball of humorous, 1 unknown, chopped cattle bone?
T2			8	Bone	Fragments of bone
T3			4	Ceramic	Drainage piping, unglazed, orange
T3			15	Pottery	Post Medieval, 2 rim, 13 body, Core orange, int white-cream glazed, ext orange unglazed
T3			1	Pottery	Post medieval, Body, White-grey coloured
T3			6	Pottery	Post Medieval, Body Core orange, int brow, ext dark brown glazed, 1 grooved piece
T3			8	Pottery	Post medieval 1 bottom, 1 rim, 6 body, core orange, int and ext orange unglazed

<i>Area</i>	<i>Find No</i>	<i>Context No</i>	<i>No of Pieces</i>	<i>Material</i>	<i>Description</i>
T3			4	Ceramic	Drainage piping, orange
T3			14	Pottery	Modern, body, core grey, int and ext cream
T3			4	Ceramic	Modern, 2 rim, 1 bottom, 1 body, white
T3			2	Pottery	Post Medieval, bottom section, core grey, int white, ext blue decoration
T3			1	Pottery	Post medieval, body, core grey, int green glazed, ext brown glazed
T3			1	Glass	Marble, small
T3			31	Glass	Pale coloured, varying sizing
T3			3	Glass	Modern, body, 1 green, 2 brown, all transparent
T3			3	Glass	Window, semi-transparent
T3			1	Brick	Post medieval, orange, angular
T3			1	Stone	Worked
T3			1	Clay	Clay pipe, core grey-white, blue painted
T3			6	Shell	Oyster and snail
T3			1	Metal	Industrial/modern, lead and iron
T3			3	Iron	Modern, weir, tangled fragment
T3			8	Iron	Industrial, nails, 2 grooved
T3			1	Iron	Brooch? Bow in middle
T3			1	Iron	Flat small fragment
T3			13	Bone	1 chicken femur, 3 rib, 1 poss blade fragment, 1 long-bone, rest?
T3			1	Wood	Twig, round, length
T3			1	Copper alloy	Post Medieval belt fastener? Flat, v-shaped and hollowed
T3			1	Iron	Post medieval, small and flat
T3			1	Iron, wood	Head of hoe, heavily corroded
T3			1	Metal	Modern bottle cap, with imprint, rounded
T3			1	Slate	Roofing?
T3			1	Iron	Similar in appearance to a dentist's hook, heavily corroded
T3			2	Shell	Oyster
T3			2	Pottery	Post medieval, orange, body fragments
T2			1	Pottery	Medieval? Rim of large food vessel, beige, unglazed, big rim, 3 stepped profile
T1			7	glass	Metallic, oily, rainbow coloured shimmering glass
T1			2	Metal	Unknown

13.3 *List of Drawings*

<i>Area</i>	<i>Drawing No</i>	<i>Sheet No</i>	<i>Subject</i>	<i>Contexts</i>	<i>Scale</i>
T2	1	1	Plan of Trench 2 after cleaning	-	1:20
T2	2	1	E Facing Section of Trench 2	-	1:10
T2	3	1	Plan of Trench 2	-	1:20
T2	4	1	W Facing Section of Trench 2	-	1:10

13.4 *List of Photographs*

<i>Area</i>	<i>Frame</i>	<i>Context No</i>	<i>Subject</i>	<i>Taken From</i>
T2	4832	004/005	West Half of Trench 2	N
T2	4833	004/005/006	East Half of Trench 2	N
T2	4834	001-006	Trench 2	E
T2	4835	001/002/003	E half of Trench 2, demolition layer	S
T2	4835	001/002/003	W half of Trench 2, demolition layer	S
T2	4837	001/002/003	E half of Trench 2 , demolition layer	W

<i>Area</i>	<i>Frame</i>	<i>Context No</i>	<i>Subject</i>	<i>Taken From</i>
T2	4891	-	Trench 2	S
T2	4892	-	Trench 2	S
T2	4939	001 – 021	E facing section	E
T2	4942	001-021	E facing section	E
T2	4981	032-051	E trench of Trench 2	N
T2	4984	032-051	E trench of Trench 2	S
T2	4985	032-051	E trench of Trench 2	W
T2	5040	032-043	W facing section	W

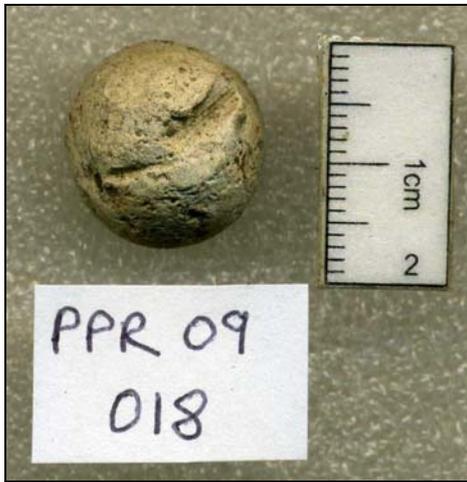
13.5 *Artefact Images*

Artefacts recovered from a metal detecting outing organised by SARG and SDC on 18 October 2009, in fields at Seton West Mains, an area which had been identified as part of the core area of the battlefield by the Historic Scotland Battlefield Inventory. The images have been divided into six categories of small musket balls; large musket balls; pistol balls; carbine balls; artillery projectiles and battle related artefacts. Two size based categories of musket ball were identified within the assemblage, large and small. A similar pattern was recognised within the Culloden, 1746 battlefield assemblage in which the large projectiles were identified as those fired from a Long Land Pattern musket, commonly known as the ‘Brown Bess’ which were used by the government (British) army. The small projectiles balls were identified by their calibre as fired from a smaller bore French musket with which the Jacobite army was largely supplied with.

Large Musket Balls

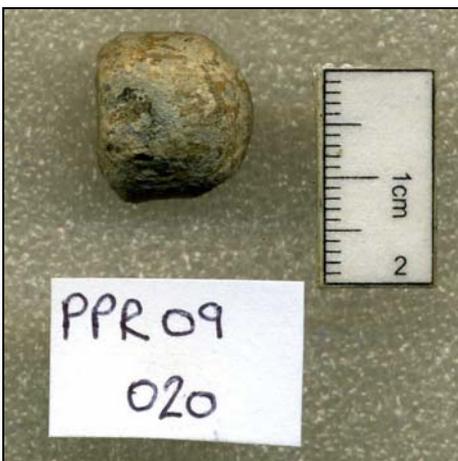
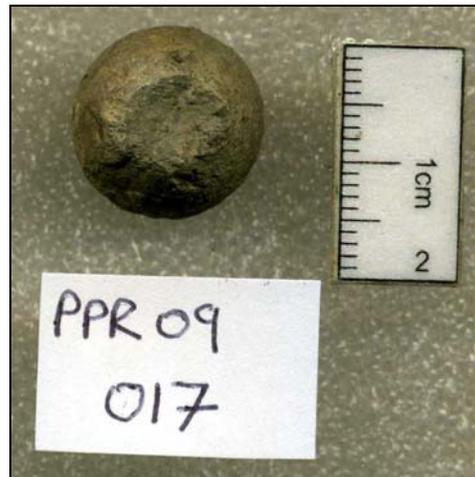
Those identified as ‘large musket balls’ have a diameter between 0.68in (17.5 mm) and 0.71in (18.2 mm) and weigh between 1.1 oz (30g), with only two weighing 1.2 oz (34g) and 1.3 oz (36g).

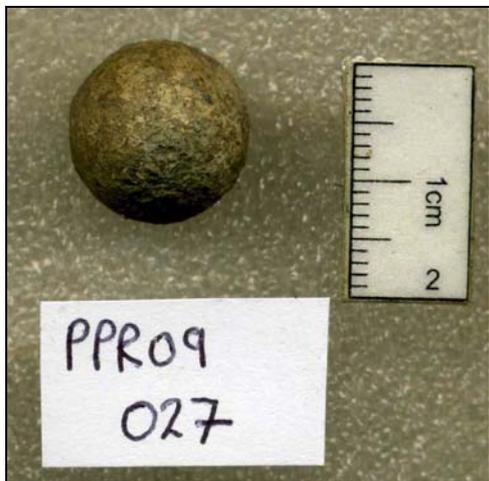




Small Musket Balls

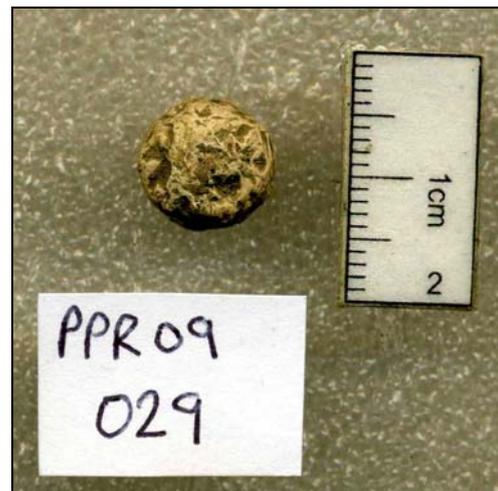
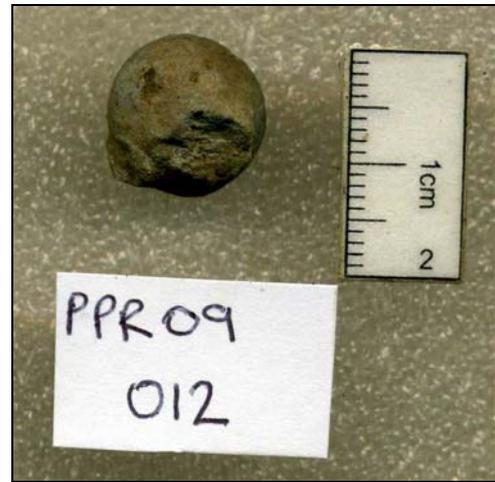
Those identified as 'small musket balls' have a diameter between 060in (15.4 mm) and 0.66in (16.5 mm) and weigh between 0.8oz (22g) and 1oz (28g).





Pistol Balls

The diameter ranges between 0.41in (9.5 mm) and 0.56in (14.1 mm) and they weigh between 0.2oz (6g) and 0.6oz (16g).



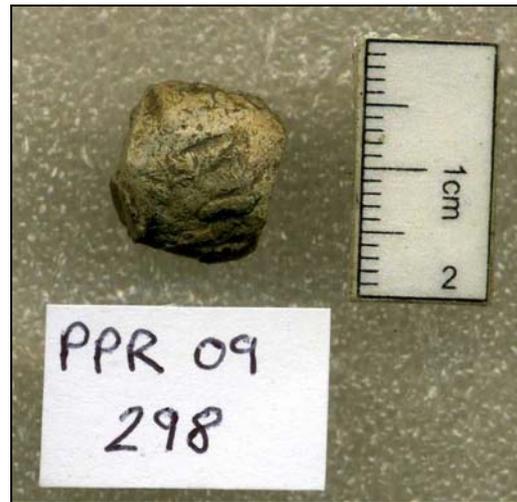


Carbine Balls or Large Pistol Balls



Artillery Projectiles

Find No 571 represents a piece of grapeshot and Find No 298 canister shot possibly fired from Government 1 ½ lb field guns in the opening stages of the battle. The artillery was only used once during the battle as the gun crews fled on sight of the Jacobite army.



Battle Related Artefacts

A number of artefacts which definitely or possibly related to the battle were recovered along with the projectiles illustrated above. Find 250 is one of the tubes situated beneath the barrel of a Brown Bess musket which would have accommodated the wooden ramrod. Find 219 is the metal cap from the end of a ramrod. Find 175 may represent the copper alloy matchbox which would be attached to a grenadier's webbing – this has yet to be confirmed. Also recovered were a number of buckles and buttons which are not illustrated here.



13.5 *Project Design (2008)*

Non Technical Summary

This design sets out a scheme to effect the archaeological investigation of the site of the battle of Prestonpans fought between government and Jacobite forces on 21 September 1745. The project will involve a multi-faceted programme of field survey, encompassing metal detecting and geophysical survey possibly followed by trial excavation of anomalies relevant to the aims and objectives of the project. This Heritage Lottery assisted project will include active participation on the part of the local community, including school groups and local metal detectorists.

Introduction

The battle of Prestonpans was the first battle of the last Jacobite rising of 1745. Fought on 21 September 1745 it was a resounding Jacobite victory and was to stand in stark contrast with the final defeat of the Stuart cause at Culloden on 16 April 1746. Unlike Culloden the battlefield at Prestonpans has suffered through urbanisation, being in any case originally set within an industrialised landscape, a factor which gives it added historical interest.

The Prestonpans Battlefield Archaeological Project is a result of collaboration between the Centre for Battlefield Archaeology at the University of Glasgow and the Battle of Prestonpans Battlefield Trust. The results of the project will be used to inform a forthcoming management plan coordinated by the Trust in working toward the establishment of a heritage centre focussing on this and perhaps other battlefields in East Lothian. In addition to providing much needed information on the battle and the landscape in which it was fought and important aim of the project is to involve members of the local community in the various components of the fieldwork, indeed in some circumstances to the extent of investigating their own back gardens for traces of the battle.

The project represents the first attempt to study the battle of Prestonpans using the same archaeological techniques which have provided much information on other battle sites such as Culloden and Killiecrankie. It is hoped that a project methodology which integrates, documentary research, topographic survey, metal detector survey, geophysics and possibly excavation will not only provide information on the extent to which sites associated with the battle survive within the patchwork of development and landscape change but also further our knowledge of the events of the battle, which although relatively well recorded in contemporary maps and eye witness accounts may yet hold some surprises for the military historian. The project is also interested in the nature of the social landscape in which the battle was fought and will integrate the study of sites related to the settlement and industry of the time.

Site Location and Description

The battlefield of Prestonpans is located on the eastern fringes of the town of Prestonpans, on the coastal plain which to the south gives way to a ridge of high ground upon which the neighbouring town of Tranent is located. In 1746 Prestonpans was a small village located to the west of Preston House and its associated gardens. The core of this settlement can still be seen today in the shape of the older houses which fringe Preston Road. The oldest surviving structure in the town is Preston Tower, first constructed by the Hamiltons in the 14th century. It was no stranger to conflict, having been put to the torch in 1544 by the earl of Hereford and 1650 by Oliver Cromwell. The nearby Mercat Cross dates from the 1617 and is widely regarded as the finest example of its type still to occupy its original location. The town's earliest industry was salt production, hence the 'pans' place name. However, pottery production, brewing and coal extraction were also to play a part in the town's post medieval development.

The impact of the coal industry is very apparent within the modern landscape, with the coal fired power station at Cockenzie dominating the skyline. Coal pits and open cast mining have played a role and a large open cast mine was located to the immediate east of the village, with the site now reinstated to something akin to its original appearance, though obviously any evidence of the pre-industrial landscape, which included the site of Seton Castle, has been lost. To the south of the power station a spoil heap of coal washings has been sculpted into something akin to a pyramid, initially intended for use as a ski slope (it is marked as such on the Ordnance Survey map). More recently however it has been used as a viewing

platform for the battlefield, with a series of display panels positioned on the summit. To the west of the pyramid is Bankton House, the home Colonel Gardiner who was killed in the battle and who is memorialised by the monument at the bottom of the garden. The house was converted into flats some years ago but still retains more of its original character than Preston House which was located immediately to the north, the last vestiges of which were removed in the later part of the twentieth century when the local swimming pool and community centre were built on the site.

Historical Background

The last Jacobite rising, popularly known as ‘the ‘45’, was initially scheduled to take place in 1744, when it was to coincide with a French led invasion of Britain. This operation was, however, aborted after storms wrecked part of the fleet almost before it could leave port. Taking the matter in his own hands, Charles Edward Stuart, the Young Pretender to his detractors and Bonnie Prince Charlie to his supporters, landed in Scotland on the 25 July 1745, and initiated a Jacobite rising that quickly grew to pose a major threat to the Hanoverian regime. The rising benefited from the demands made on the British army in its continental war against France as part of the War of the Austrian Succession. Initially, it was the Highland clans which gathered under the Jacobite colours and this army marched south to occupy Edinburgh, its numbers growing all the while. The government army in Scotland, under Sir John Cope, comprised around 3,000 men and was tasked with nipping the insurrection in the bud. Having failed to intercept the highly mobile Jacobites in their march south, Cope transported his troops south by sea from Aberdeen to Dunbar. Edinburgh fell to the Jacobites, without any fighting, and they then marched eastward along the coast to confront Cope.

Cope’s army landed at Dunbar on 17 and 18 September and marched on 19 September to camp west of Haddington. On 20 September, on receiving news of the Jacobite army approaching from the west, it marched to counter them, deploying in a cornfield to the west of Seton. This gave Cope control over the main coastal route running east from Edinburgh. Rather than attempt a frontal assault on such a well deployed enemy, the Jacobites marched around to the south. They thus advanced to deploy on a hill to the west of Tranent. This forced the government army to redeploy, closer to Preston and facing south. However, on reaching their position on the high ground the Jacobites found that a marsh (Tranent meadow) lay between the two armies, and so the initial plan to launch a frontal assault from this position was abandoned. In the meantime, a Jacobite detachment marched to the north and deployed in Tranent church yard, closer to the government position. Cope responded with his artillery which fired several roundshot at them.

To force the battle on their terms, the Jacobites descended the hill early on the morning of 21 September and marched east and then north, negotiating the marsh. They appeared in three columns immediately to the west of Seton at about 5 am and deployed in two lines. Cope had some prior warning of this move from his scouts and so deployed once more to counter them, bringing his army round to face eastward. But in the early morning mist the Jacobites deployed too far to the north and left a wide gap in their frontage which resulted in both armies outflanking the left of the other.

An attack by government cavalry on the right was repulsed and in their flight they carried with them the artillerymen who had managed to fire just one round at the charging Jacobites before abandoning their pieces. At this, significant numbers of the largely untested government troops on both flanks broke and fled, even before they came to hand-to-hand fighting, and in so doing they disordered some of their reserves. Though some of the Jacobite forces pursued the fleeing troops the majority seem to have turned on the government infantry’s now exposed right flank. The charging Jacobites received a volley from the government troops, but this did little to break their momentum and after firing their own muskets, which they then threw down, they ran forward with drawn swords. What remained of the government battle formation was immediately broken, with just a few units offering any further resistance. Within no more than ten minutes the Jacobites were in control of the field and had captured both the baggage and artillery. While Cope managed to retreat with some of his infantry, by a lane beside Bankton House, large numbers of his army were captured. Cope reached Berwick with only about 450 troops.

Archaeological Potential

Although parts of the battlefield have been lost to urban development, both in the town of Prestonpans and the village of Tranent to the south, and also to coal extraction, there are areas which retain good archaeological potential.

The core of the battlefield, although surrounded by former open cast coal extraction sites to the north and east and settlement to the west has reasonable archaeological potential as it appears in part to have survived relatively unscathed, though the still open location is traversed by roads and in the nineteenth century accommodated pit heads. The battle was fought within an industrialized landscape, with a number of coal pits supported by a wagon way which ran down the hill from the south to the harbour at Cockenzie. The Jacobites charged across this feature in the battle and its route can still be traced across the landscape today.

This area corresponds to the traditional site of burials and elements of these may also exist on the site, a portion of which enjoys protection as a scheduled ancient monument due to the presence of prehistoric crop marks. North-west of this area, in what was previously was the farm holding of Thorntree Mains (NT 401 745), there are references in local histories and folklore relating to burials of those killed during the battle. This includes the ‘Thorntree’, which existed until the mid 20th century and said to mark the location where Col. Gardiner was severely wounded during the battle. In the late 18th century human remains were uncovered by workmen during drainage works in the area. According to M’Neill, “the clothes covering the remains were so well preserved they could distinguish Royalist from rebel” (1883, 130). There may be an interesting link between these burials and the placename ‘Johnnie Cope’s Hole’ which is marked on the 1st edition OS map.

The recently modified Bankton House and its grounds are still to be seen to the west of the battle site, the area to the east, over which part of the rout may have taken place, is today occupied by football pitches. These playing fields may still have the potential to retain battle archaeology beneath them, though this survival depends on the extent of the landscaping operations necessitated in the creation of the pitches. To the SW and SE, there are still areas of open farmland across which troops may have moved during the lead up to and following the battle.

Tranent churchyard is still extant and retains some of its eighteenth century character, despite the church being demolished and rebuilt in the early nineteenth century. The area to the north of the churchyard remains as farmland and has the potential to accommodate battle archaeology, particularly in relation to the bombardment of the churchyard and the Jacobites within by government artillery on the day before the battle.

Map Evidence

Prestonpans is fortunate to have a number of highly detailed maps that show the location of the battle, and these are supported by some equally informative eyewitness accounts. Despite what at first sight may appear to be extensive modern development in the area, some of the contemporary features, such as Bankton House (then known as Olive Stab and shown as such on Adair’s 1682 map of East Lothian and on Roy’s map of the 1750s), and the churchyard at Tranent are still to be seen, while the line of the wagon-way can still be traced.

The Jacobite line was positioned roughly N-S to the west of Seton, where the marshy ground was negotiated. A number of the secondary accounts mention the wagon-way, to the west of which the government line was formed in the face of the Jacobite attack. Although this may be the case, the feature is not mentioned in many of the eyewitness accounts (see below), though it does appear on at least one of the contemporary battle maps (that by Blakeney). The wagon-way, which was first built in 1722, can be traced on Roy’s map from the 1750s, which shows it running from the pit head at Coalhill to the SW of Tranent and running down to the north to the harbour at Cockenzie. The route can still be traced on the ground today, at least in places. The core of the battlefield is located to the north of the modern railway on open ground to the east of modern Prestonpans and south of Cockenzie and Port Seton, where it has up until now managed to avoid being subsumed beneath settlements which have grown so much since 1745.

A nineteenth century map, based on the 1st Ed OS map, shows the battle lines marked in relation to the wagon way, though the government line may follow it a little too closely rather than being some distance further to the west as was probably the case. This map shows a farm called Thorntree Mains behind the government centre, which is named after the famous Hawthorn tree under which Gardiner was said to

have been killed. This farm no longer exists as it was buried beneath coal workings at some point in the late nineteenth to early twentieth centuries. Interestingly, there is a pit marked ‘Johnnie Cope’s Hole’ to the north of this farm and another marked ‘Thorntree colliery’ to the south. The thorn tree, marked on the first edition OS map (NT 3399 6742), was still standing in the 1899, though by that time was reinforced with iron rods and bands (Hannah 2003). By the 1920s, stumps could still be seen but the tree itself was dead. There are reports of burials in ‘Thorntree Field’ and the memorial cairn raised in 1932 is said to be 400 yards and 35 degrees west of north from where the tree originally stood, which would again place it in the area of coal workings to the north and possibly in an area to the south of this area of disturbance in still open land.

Graves relating to the battle are recorded in the area of the Thorntree Field, apparently a short distance behind the government army initial deployment, discovered at the end of the eighteenth century, when this field was being drained. The reports refer to a number of bodies with well-preserved clothing, a little NE of the farm steading at Thorntree Mains (NMRS). The source of the human remains reported to have been buried next to the cairn monument in 1950 is uncertain.

Bankton House, although now converted to flats, is still standing to the SW of the battlefield with the nineteenth century memorial to Gardiner in the grounds to the north of the house. Johnnie Cope’s Road runs to the south along the west side of the garden. Preston House sat to the north of Bankton House within its own grounds, which according to one of the 1745 maps (Seaton’s) were incredibly ornate. In 1789, the house opened as Schaw’s Hospital, a school for boys (Hopkins 2004, 55). In 1832, the school moved to new premises just to the north of the old house and the old hospital is marked as a long, two winged building on the 1st Ed OS map. The house was eventually demolished, possibly as late as the 1970s, and the ground is now occupied by Prestonpans Community Centre.

The coal wagon-way ran across the battlefield in 1745, but was first constructed in 1722 by the York Building Company and was still in use in the twentieth century. Today, it can still in part be traced as a trackway running through fields to the north of the main railway line and to the west of Tranent.

Previous Archaeological Work

A series of developer –led archaeological investigations, including metal detector survey, have been carried out across the area of what is regarded to be the core area of the battlefield between Prestonpans and Cockenzie Power Station (NT 404 744). Other sites which play a key role in understanding the battlefield landscape, including the grounds of Preston House, Bankton House and the Cockenzie Waggonway, have also been investigated by partial excavation through watching briefs or survey ahead of development.

Core Area of Battlefield

In 2007 CFA carried out a desk based assessment and metal detector survey ahead of a ‘Community Woodland’ plantation. The area metal detected (NT 3989 7482) had been previously identified, through research carried out in preparation for a Gazetteer of Scottish battlefields, as the core area of the battlefield. Although some artefacts dating to the 17th and 18th century were recovered from the survey, they were not identified as being related to the battle itself (Hill and Anderson 2007, 76). An evaluation of this material may be necessary to establish whether this assemblage does contain signature artefacts of conflict.

Preston House and Bankton House

With much of Preston House and its grounds swallowed up by the building of Schaw’s Hospital in the 1830s, only remnants of Preston House (NT 3923 7405) survived by the 1920s, as noted in a visit by the Royal Commission in 1924, and by the 1970s no trace of the house was visible. Two watching briefs were carried out within the area of Preston House and its gardens in 2002 and 2003 respectively. The first, situated in the NE corner of Polwarth Park playing fields, recorded only 19th century features (Dalland 2002, 43). The second however, ahead of a swimming pool development, uncovered an organically rich buried soil containing medieval and post-medieval pottery and the footings of a sandstone wall (Mitchell 2003, 62). The function of the wall could not be established, but may potentially form part of Preston House grounds.

Bankton House was destroyed by fire in 1852, however enough of the building survived to be subsequently reused as a farmhouse for a short period. Until its recent refurbishment into modern apartments the building was again ruinous from the mid-20th century. Although the building itself has

undergone internal changes, it has been externally restored. The grounds of Bankton House and its boundaries appear to be extant with only limited modification. A watching brief and metal detector survey was undertaken in 2007 in a paddock within the vicinity of Bankton House (NT 39395 73705), but no archaeologically significant features or finds were uncovered (White 2007, 76).

Cockenzie/Tranent Waggonway

The Cockenzie/Tranent waggon way was constructed for transporting coal to the coast and was present in the 1745AD landscape and may have played some role in the action. Although potentially out with the core area of the battlefield it is important to note that the remains of the wagon way are extant with well preserved features uncovered during excavation. Two archaeological investigations of the wagon way have taken place; in advance the A1 construction in 1995 (NT 405 736) and proposed housing development near Tranent Mains in 1999 (NT 407 734) and 2001 (NT 409 733). The latter investigations were carried out by machine cut evaluation trenches which in areas cut across the waggon way itself. In both cases deposits were uncovered relating to the initial construction of the rail bed with later 19th and 20th rail-bed deposits and material on top (Lelong 1999, 32; Dunbar 2001, 37).

Project Aims and Objectives

The aims of the current fieldwork are:

- To assess the extent to which the battlefield of 1745 survives within the modern landscape, with development having in places had a profound effect on areas of the site.
- To place the battle within its contemporary context – relocating elements of the landscape, including buildings known to have been present at the time of the battle
- To use these results to assess the viability of a community based project which would involve the fuller excavation of identified archaeological features. This project would involve a small core team of professional archaeologists, archaeological students and members of the local community, including school children in a possibly long term project based around the vicinity of Prestonpans.

The aims and objectives are described in more detail below, with reference to each specific area of investigation.

Areas of interest

Preston House, lay to the north of Bankton House and included a walled garden - outlined in red in Fig. 1. Eyewitness accounts and contemporary maps attest to government soldiers fleeing the field to this location before becoming trapped by the eastern wall of the garden with many of them being killed there.

The area of house is today occupied by the community centre, though the open ground around the modern buildings may accommodate buried remains of the earlier house and related features. Geophysical survey will be carried out in order to test this hypothesis.

Tranent Church

The church yard, which overlook the government positions to the north, was occupied by a piquet of Jacobite troops who were dislodged by cannon fire from the governments light artillery pieces. The church was rebuilt in the early nineteenth century but the cemetery seems to occupy the same ground. A dovecot shown on an drawing of the original church is still standing. The sloping ground to the north of the church yard appears relatively undisturbed open farm land and will be subject to metal detector survey in an attempt to identify any evidence for the small action which preceded the battle (area marked in purple in Fig. 1).

Area of the Main Action

There can be little doubt that the western edge of the battlefield has been subsumed beneath late twentieth century housing. On the eastern edge of this development is a children's play park in which a standing stone marks the nearby former location of the famous thorn tree, close to which Colonel Gardiner received his fatal wound during the battle. The ground adjacent to the play park, to the east, is occupied by rough open ground (green on Fig. 1) on the fringes of the coal storage area attached to the

power station to the north. This area was once occupied by Thorntree farm, which was demolished at some point after the 1960s (it appears on the 1960 update of the OS map). Although not of interest itself, - it wasn't built until the 19th century - but burials are reported to have come from close to the farm, possibly from this open area of ground. The presence of thick, reedy grass makes metal detector and geophysical survey problematic here but it may be possible to organise some limited mowing/strimming to permit a search for the burial site and the location of related battlefield debris.

The area with perhaps the highest potential to provide meaningful patterns of battle related material are the two fields to the east and south of the areas discussed above (red on Fig. 1). These arable fields accommodate two ring works identified aerial photographs and have thus been designated a scheduled ancient monument. This designation will hopefully have dissuaded metal detectorists from removing material from these fields.

Areas outside of the scheduled area described above may also prove of archaeological interest and where possible will also be subject to metal detector survey. These areas include the fields to the east of the area described above, in the vicinity of Seaton Mains Farm. It is likely that the Jacobites charged through these fields and therefore may contain evidence for the battle in the form of objects dropped and shots fired, the latter most likely to take the form of government musketry and cannon fire. This area has been incorporated within the battlefield core defined by Historic Scotland's Battlefield Inventory (the Prestonpans was compiled by Tony Pollard).

Rout of Government Army

The position of the main action on the field, prior to the total rout of the government line, is likely to have occurred along the western fringe of the battlefield core (green and red areas on Fig. 1). From here the accounts and indeed the contemporary maps (see front cover) describe the army fleeing westward, toward Preston House. Here they became trapped against the eastern wall of the house grounds and many of them were killed there. This area of the field, including the grounds of Preston House, has been taken up by modern development – houses and the community centre etc. However, small pockets of undeveloped ground do survive, in the form of private gardens attached to the houses. It is therefore intended as part of the project's community aspect to encourage local residents to participate in the archaeological investigation of their own lines, primarily through metal detector survey. A programme of leafleting has already taken place in the relevant streets and at last one person has thus far come forward and attested to finding musket balls in their garden.

Project Methodology

Historical Research

A thorough search for relevant documentation is currently underway and has succeeded in identifying a rich variety of written accounts and contemporary maps. These resources will play a vital role in providing the project with a historical framework possibly providing further questions which can be answered archaeologically.

Topographic Survey

A detailed topographic survey will not play a role in the current phase of work – although any trenches and their attendant features will be surveyed using a full station EDM will be used in conjunction with a data logger for this task – as would any metal detector finds locations (see below).

Trial Trenching Evaluation

This would only be undertaken in the light of geophysical anomalies suggestive of archaeological features related to the battle, these features may relate to those of the former site of Preston House. A full revised project design will be prepared before any such works. It should be noted here that at the moment it is not intended to carry out any geophysical survey of the area protected as an ancient scheduled monument.

Metal Detector Survey

Systematic metal detector survey will take place in the areas of interest as noted in section 6 and as colour coded on the map of the area provided below (Fig 1). As unique archaeological landscapes battlefields

require a distinct and specialised multi-disciplinary approach to their investigation. Battlefields are highly mobile events which may spread over an extensive area of the landscape and last only a matter of hours, and in the case of Prestonpans perhaps even minutes. Compared with other archaeological features such as settlements or monuments, battles as transient events leave a unique archaeological signature in the form of artefact scatters which are held in the topsoil. 18th century battlefields such as Prestonpans will leave behind a significant volume of debris including artefacts such as musket balls, cannon balls, case shot, buttons, buckles and other more personal items dropped or torn off during the fray. Traditional archaeological methods such as excavation are not suitable to record or recover these artefact scatters. As the vast majority of the assemblage is made of metals such as lead, iron and Cu alloys a systematic metal detector survey is the most appropriate technique.

This artefactual material can therefore be recovered from the topsoil using an intensive systematic metal detector survey. Locating these surveys is not a random process but requires a detailed assessment of documentary sources, including contemporary maps and battle plans; primary documents such as eye-witness accounts and reports; and secondary source material. Through the examination of this source material a number of potential areas may be identified for more intensive investigation through geophysics supported by limited excavation if necessary, or a systematic metal detector survey. This process of identifying key areas of investigation allows the archaeologist to effectively achieve the main aims of the survey which are to;

- Assess the potential for surviving archaeological material related to the battle and identify any threats that may affect its survival;
- Locate if possible the core area of the battlefield as identified by material recovered from the metal detector survey;
- To locate specific actions within the wider choreography of the battle eg location of artillery bombardment of church.
- Identify through metal detector survey the extent of the battlefield and its associated archaeology in order to advise future planning developments;
- Establish the character of the 17th century landscape and the extent of any associated buried remains.

The overall achievement of these aims is only possible through a system of accurate recording of find spot data and detailed analysis of the field data in post-excitation.

Once an area has been selected a system of grids will be set up to cover the area, dividing it up into 20 m x 20 m squares (this will obviously not be relevant to the survey of small garden plots). To ensure that 100% of the ground is covered each metal detectorist is assigned a grid square in which to survey. They will walk this square in narrow transects and then mark every signal they get with a flag. It is only after they have finished detecting the square that they return to each flag, potentially indicating an artefact, and excavate it. Once each artefact is recovered (this involves only a small plug of earth which is then replaced) from the ground it is bagged and then marked again with the flag. An archaeologist on the team will then record the location of each artefact using a Total Station (survey equipment capable of recording the position of an artefact to sub-centimetre accuracy) and assign it a unique number.

The survey will have minimal aesthetic impact and no damage to underlying deposits will be incurred as many of the artefacts are present in the topsoil and no deeper than 10 – 30cm below the surface. Any turf lifted will be as small plugs of earth which are then replaced as quickly as possible.

Education and Outreach

A key aim of the project is to encourage the participation of the local community from Prestonpans and the surrounding area. The project looks to involve a wide demographic rather than simply focusing on those who are physically able to assist in field work, or who have an interest in archaeology and local history to begin with. Community participation must therefore reflect the various levels of interest and ability, with the aim of actively engaging people regardless of age or background.

The aims of the education and outreach aspect of the project are:

- to generate interest in the community about the local archaeological environment with particular focus on the battlefield.

- to develop an awareness in the local community of their local battlefield heritage.
- to encourage members of the local community to become involved in the project itself by volunteering to assist in the survey and excavation of the battlefield, or in the latter stages the processing of artefacts.
- to provide an opportunity for members of the local community to develop new skills using archaeology as a basis.

The project will run a series of Open days throughout the investigation, the first being the 22nd November 2008. The aim of the first open day is to introduce the project as well as ensuring the local community are aware of the project and how they can assist in it. They will also allow members of the local community to become involved by providing information about the area that may be of interest to the research of the battlefield eg artefacts, development of the town, folklore etc.

Local primary and secondary schools will also be encouraged to participate in the project. Archaeology is a discipline which incorporates well the key principles of 'A Curriculum for Excellence', enabling children to develop the key skills to become successful learners and confident individuals. Archaeology allows children to take the skills learnt in the classroom eg literacy and numeracy and apply them in a new environment outside the classroom. Regular contact with schools in the area has been established with the aim of involving groups of children in the project at varying stages.

Report Preparation and Contents

A report detailing the results of the investigation will be submitted to the East Lothian Archaeological Service and the Battle of Prestonpans Battlefield Trust within two months of completion of fieldwork.

The report will take the form of a Data Structure Report as specified by Historic Scotland. The report will include a full descriptive text that will characterise the date and extent of any archaeological deposits. It will also include plans at an appropriate scale showing trenches and archiving lists of all finds, samples, field drawings and photographs

This report will include an assessment of the viability of a longer term community project and provide an outline project proposal/design and a post-excavation design for material recovered during the evaluation. The report will also highlight areas of the site where high quality archaeological remains were found which may be suitable for protection and preservation.

A summary of the project results will be submitted to *Discovery and Excavation in Scotland*. Should the results merit then a fuller report on the project will be submitted as paper to a relevant journal, such as the *Journal for Conflict Archaeology*.

Archive

The archive for the project will be submitted to the National Monuments Records for Scotland within three months of completion of the fieldwork. Copies will also be deposited with the East Lothian Council Archaeology Service.

Finds Disposal

All artefacts recovered will be declared to the Treasure Trove Advisory Panel in accordance with Scots Law. All artefacts will be temporarily stored by GUARD until a decision has been made by the panel.

Timetable

The main part of the survey will take place over winter and early spring 2008-9. Some elements will be dependent on the cycle of sowing and planting in arable fields (which include the area protected as a scheduled ancient monument which was ploughed in late September 2008). Fieldwork will be completed by mid April 2009, though elements such as garden investigations may continue into summer 2009.

Personnel & Liaison

The project will be directed by Dr Tony Pollard (Director of the Centre for Battlefield Archaeology, University of Glasgow). The project's education and outreach officer will be Natasha Ferguson (administrator of the Centre for Battlefield Archaeology). The team will include two experienced field archaeologists from GUARD – no volunteers will be used at this stage of the project.

Monitoring

The GUARD project manager will liaise with the East Lothian Council Archaeology Service in all points relevant to the proper conduct of the project and in particular will give immediate notification of any artefact or archaeological discovery of extraordinary significance.

Health & safety and Insurance

GUARD, operating through the University of Glasgow, adhere to the guidelines and standards prescribed for archaeological fieldwork set down in the Institute of Field Archaeologists approved Health and Safety in Field Archaeology document, prepared under the aegis of the Standing Conference of Archaeological Unit Managers. It is standard GUARD policy, prior to any fieldwork project commencing, to conduct a risk assessment and to prepare a project safety plan, the prescriptions of which will be strictly followed for the duration of all archaeological fieldwork. Copies of the resultant project safety plan and of GUARD's Fieldwork Safety Policy Statement may be viewed upon request.