# Burdiehouse Extension Phase 3, Edinburgh, Archaeological Works: Updated Data Structure Report

AOC Project: 25356 / 24994 Planning Ref: 19/02616/FUL

November 2020





# Burdiehouse Extension Phase 3, Edinburgh, Archaeological Works:

# **Updated Data Structure Report**

On Behalf of: Barratt Homes Ltd

National Grid Reference (NGR): NT 27892 67218

AOC Project No: PX 25356 / FW 24994

Planning Ref: 19/02616/FUL

OASIS No: 1-386364

Prepared by: Steven Watt

Illustration by: Sam O'Leary

Date: November 2020

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

Author: Steven Watt Date: November 2020

Approved by: Rob Engl Date: November 2020

Draft/Final Report Stage: Draft Date: November 2020

**Enquiries to:** AOC Archaeology Group

**Edgefield Industrial Estate** 

Edgefield Road Loanhead EH20 9SY

Tel. 0131 440 3593 Fax. 0131 440 3422

e-mail. admin@aocarchaeology.com



www.aocarchaeology.com

# **Contents**

			Page		
		rations			
List	of Plate	25	3		
List	of Appe	endices	3		
Sur	nmary		4		
1	INTRODUCTION				
	1.1	Background	5		
	1.2	Location			
	1.3	Archaeological Background (Taken from Headland Archaeology DBA Jan 2019)	5		
2	OBJECTIVES				
3	METH	METHODOLOGY			
4	RESULTS 1				
5	CONCLUSION14				
6	REFERENCES				
		1: TRENCH DESCRIPTIONS			
API	PENDIX 2	2: DIGITAL PHOTOGRAPHIC REGISTER	21		
API	PENDIX :	3: FINDS REGISTER	22		
API	PENDIX 4	4: METAL OBJECTS REPORT	25		
API	PENDIX !	5: 'Discovery and Excavation in Scotland' Report	30		

#### **List of Illustrations**

Figure 1: Site location Figure 2: Trench location

### **List of Plates**

Plate 1 View of saplings in the north

Plate 2 General view of trench

Plate 3 Views of made ground in trench 10(left) and Trench 11(right)

Plate 4 Obverse face of Egyptian 10 Para of the Sultan Abdulaziz (SF001)

Plate 5 Reverse of Egyptian 10 Para of the Sultan Abdulaziz (SF001)

Plate 6 Obverse face of military badge (SF 036)

Plate 7 Enamelled button (SF 104)

Plate 8 Fragment of cast decorative fence or railing embellishment (SF012)

Plate 9 Small axe head or hatchet head (SF045)

# **List of Appendices**

Appendix 1: Trench Descriptions Appendix 2: Photographic Record

Appendix 3: Finds Register

Appendix 4: Metal Objects Report

Appendix 5: Discovery and Excavation in Scotland Report

#### Summary

A programme of archaeological works was required by Barratt Homes Ltd ahead of the extension to an existing residential development, Burdiehouse (Phase 3).

The works consisted of a metal detecting survey and 10% evaluation of of the 8.3ha area, equating to 4,200 linear metres of trenching.

Due to onsite restrictions, trenching was severely restricted, with a total of 1,900 linear metres achieved. Trenching revealed a possible quarry bowl or natural hollow filled with red blaize material to depths of 2m. No further significant archaeological material was recovered during the excavation.

The metal detecting survey revealed numerous objects typically associated with 19th/20th-century farming and industrial activity. However, three copper alloy coins, one inscribed with Arabic script and three buttons were recovered.

Subsequent assessment and analysis has established that the metal finds probably reflect accidental losses and/or were associated with farming/industrial activity.

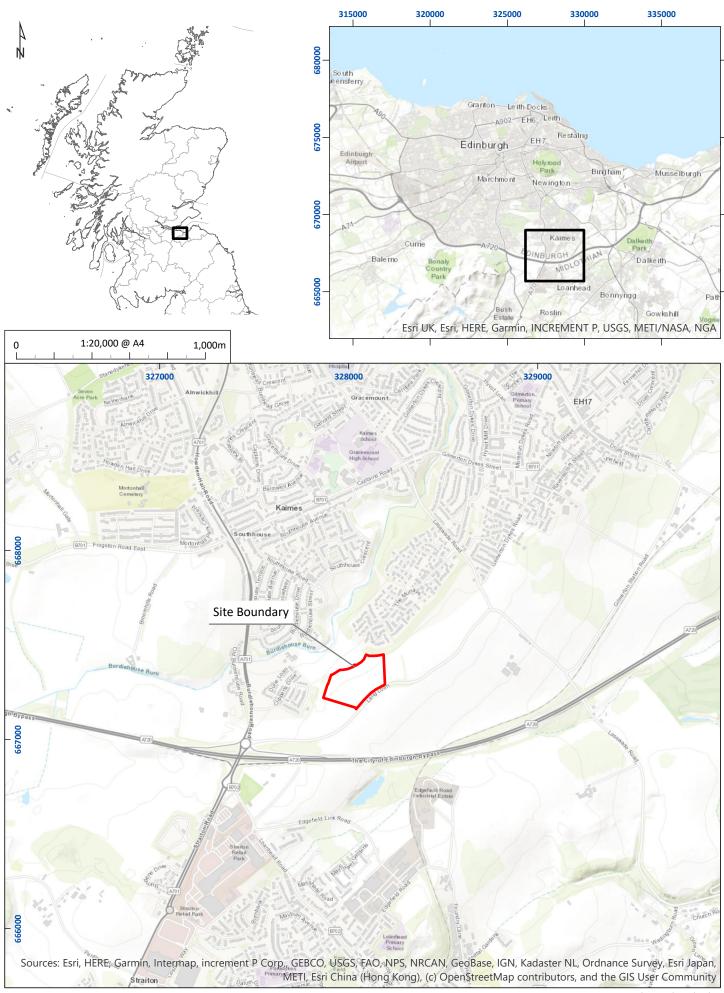


Figure 1: Site location plan

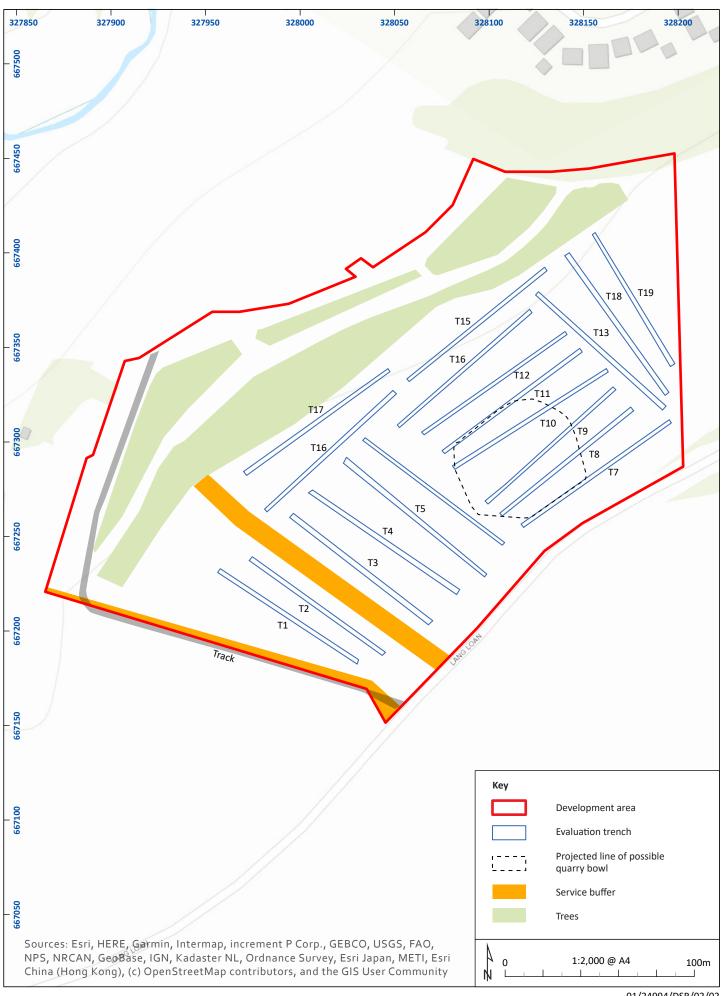


Figure 2: Trench location plan

01/24994/DSR/02/02

#### 1 INTRODUCTION

#### 1.1 Background

- 1.1.1 A programme of archaeological works consisting of an archaeological evaluation and metal detecting survey was required in advance of a proposed residential development (Phase 3) on land situated 100m east of 53 Burdiehouse Road, Burdiehouse Mains, Edinburgh (plan ref 19/02616/FUL). The site lies within the administrative area of the City of Edinburgh Council, which is advised on archaeological matters by the City of Edinburgh Council Archaeology Service (CECAS). The archaeological works were conducted in accordance with the principles as set out in Scottish Planning Policy (2014) and Planning and Archaeology 2/2011 (2011) and consist of an archaeological evaluation.
- 1.1.2 These works adhered to the *Written Scheme of Investigation* (AOC 2019) detailing the methodology of the works.
- 1.1.3 This Updated DSR represents the final stages of the works, detailing the results of the post-excavation programme on the metal detecting finds as set out in the Post-Excavation Research Design (PERD) (AOC 2020).

#### 1.2 Location

1.2. The proposed development area comprises an area set within open fields on the southern edge of the City of Edinburgh. The site is ca. 8.3 hectares in size and is bounded by Lang Loan, a minor road, which follows the crest of a ridge overlooking the city of Edinburgh to the north.

# 1.3 Archaeological Background (Taken from Headland Archaeology Desk Based Aassessment January 2019)

- 1.3.1 Archaeological investigations across Lang Loan Ridge and to the north of Burdiehouse have produced evidence for activity and occupation dating back to the Neolithic. In 2013 an archaeological evaluation conducted by headland Archaeology on an area to the north of the current site revealed a Neolithic flint tool. Similarly, investigations by GUARD Archaeology to the east at West Edge Lang Loan revealed the remains of a Bronze Age Palisaded Enclosure and ditch.
- 1.3.2 A possible cropmark (HA8) which has been added to the record by the Royal Commission on Ancient and Historic Monuments Scotland (RCAHMS, now Historic Environment Scotland since 2010. It is recorded as a possible enclosure and appears on aerial photographs as a partial rectangular feature. It is possible that this is the remains of a prehistoric enclosure; however, without further investigation this cannot be confirmed.

#### 1.3.3 Medieval and post-medieval

1.3.3.1 The earliest cartographic evidence shows Burdiehouse (HA2) as 'Burdeaux', a settlement on the banks of the Burdiehouse Burn on Adair's map of Midlothian c.1682. There is a tradition that this was a corruption of Bordeaux and that it suggested some connection with France, possibly the presence of a settlement of

French weavers brought to Scotland by Mary, Queen of Scots (Cant 1987, 2). However, Harris (1996, 126-7) writes that it is in fact derived from 'Barde' or 'Borde', meaning bank, rim, or border and that it refers to the location above the banks of the burn.

- 1.3.3.2 The fermtoun of Burdiehouse (HA2) straddles Burdiehouse Burn on the Military Survey of Scotland (Plate 1, 1747-55) and appears to be in the same location as that occupied today, centred on a crossing of the burn outside and to the west of the application area. The extent of Burdiehouse as it appeared in 1855 is shown on Figure 1.
- 1.3.3.3 The farmhouse and steading of Burdiehouse Mains (HA1) to the north west of the Site are both Category B-listed buildings (under a single number, LB28160). The farmstead is first mapped in 1816 (Knox, Plate 2). The present layout appears to be like that shown on the 1<sup>st</sup> Edition OS map of 1855 ((to north west of area shown on Plates) with some modern additions and a large shed. The farmhouse is a two-storey three bay building with classical details. The steading to the rear, now separate from Burdiehouse Mains and known as 'Owl Hall' has a symmetrical courtyard layout and appears to be of a different build. The entry for the sites in the register of listed buildings states that the farmhouse was built circa 1830.
- 1.3.3.4 North Long Loan Farmstead (HA3) is adjacent to the north west of the Site. It first appears on the 1747–55 Military Survey of Scotland (Plate 1) and subsequently on the 1<sup>st</sup> Edition OS map of 1855 ((Plate 3), by which time there appears to have been a small complex of buildings of which only a single structure now survives. The extent of the farmstead as it appeared on the 1<sup>st</sup> Edition OS map of 1855 is shown on Figure 1.
- 1.3.3.5 At nearby Broomhill Road (Paton and Engl 2016) archaeological works undertaken by AOC Archaeology Group revealed the remains of an early medieval settlement dated to the 7–th centuries and a later corn drying kiln dated to the 10–12th century.

#### 1.3.4 Post-medieval Industry

- 1.3.4.1 Although the only visible surface elements of industry at Burdiehouse are lime kilns (HA5), it can be seen from cartographic evidence that there were several pits and a shale works contemporary with and adjacent to the lime works. The lime kilns and associated workings form part of a wider industrial landscape across Lang Loan ridge and extending and including Gilmerton to the east. Recent archaeological investigations in this area have revealed extensive evidence suggesting intensive industrial activity predating the industrial revolution.
- 1.3.4.2 A draw kiln at 'Bordeaux' is mentioned in the Statistical Account of 1791–99 (vol. 6, 508). The New Statistical Account of 1834–45 (vol.1, 20) goes into more detail and states that limestone was discovered near Burdiehouse around 1750 and that mining first began around 1800. This mining appears to have been carried out immediately adjacent to the existing draw kilns. The limestone deposit is described as 30 feet thick and at an angle of 45°. Numerous fossils have been recovered from the limestone deposits at Burdiehouse including a 30-foot-long fish, now preserved in the Royal Museum of Scotland. In 1822 two gins with inclined planes

were erected at Burdiehouse and this increased the output of the mine to its maximum of around one thousand bolls a week (Cant 1987, 10). By the time of the 1<sup>st</sup> Edition OS Survey (1855) the lime kilns, quarry pits, mines and a mineral railway known as the 'Pug' (Cant 1987, 10) were all present. Also visible on the 1<sup>st</sup> Edition OS map (Plate 3) was a shale works (also part of HA6), immediately adjacent to the lime works. The shale works consisted of several small structures and two distinct quarry pits.

- 1.3.4.3 By the time of the 1894 Ordnance Survey map (Plate 4), the mineral railway had been built to the immediate east of the works to serve Mortonhall Pit. Mortonhall Pit was abandoned in 1900 (http://www.scottishshale.co.uk/GazMines/Mortonhall9Mine.html, accessed 14.01.16) and it appears that Burdiehouse Quarry and the shale works ceased operation at around the same time. Processing of lime at the kilns appears to have continued up to the 1960s (Cant 1986, 10). The area (HA6) shown on Figure 1 is based on the maximum extent of the surface works as they appear on 19<sup>th</sup>- and 20<sup>th</sup>-century Ordnance Survey maps (Plates 4, 5 and and 6).
- 1.3.4.4 Upstanding remains related to the industrial works (HA6) at the site are limited. There are two small areas of partially upstanding ruined structures immediately to the east of North Long Loan Farmstead (HA3) that are very close to the site of Mortonhall Pit and are likely to be related to it. The mineral railway can no longer be traced on the ground and the quarry pits visible on early Ordnance Survey maps appear to have been backfilled.
- 1.3.4.5 There are three upstanding lime kilns (HA5) at the site of the lime works which are Category B-listed buildings (under a single number, LB28159). The kilns are large draw kilns constructed of sandstone and brick. The first reference to a kiln at Burdiehouse is in the late 18<sup>th</sup> century. By the mid-19<sup>th</sup> century all three kilns had been constructed. The three kilns have different construction styles; one is surrounded by a polygonal buttressed block with battered walls, one by a circular block with single battered buttress and the third by an oblong block with battered walls. The difference in styles probably reflect the staggered construction chronology of the kilns. They are mostly in good condition but show some signs of decay and collapse and much of the upstanding remains are covered by overgrowth. The Category B Listed Building designation of the lime kilns covers only the upstanding structures, which are entirely outside the Site.
- 1.3.4.6 In assessing the historical, archaeological, and general cultural significance of the lime kilns (HA5), the conservation plan (Holden 2013) states that as possibly one of the oldest lime kilns in Scotland these were at the forefront of the lime industry and a good example of an innovative enterprise that helped to fuel the industrial revolution and agricultural advances in Scotland. Locally the lime kilns provided building and agricultural lime that facilitated the expansion of the City of Edinburgh and agricultural development of the Lothians employing many local people over at least 150 years. The conservation plan concluded that the lime kilns had some National significance in the industrial history of Scotland and outstanding local significance. Regarding aesthetic and scenic values, the conservation plan assessed that the structure of the lime kilns provides a striking visual link to the past industrial heritage of the site. Its landscape setting is important,

particularly the view from Burdiehouse Road. It concluded that the setting was of outstanding local significance (Holden 2013, 14).



Plate 1 Approximate site location on Roy's Military Survey of Scottand, 1747-55



Plate 2. Approximate site location on Knox's Map of the Shire of Edinburgh, 1816

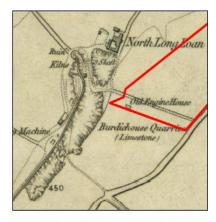


Plate 3. Site in relation to Burdiehouse industrial landscape (HA on1855 Ordnance Survey Edinburghshire VI 1:10560 (surveyed 1852)

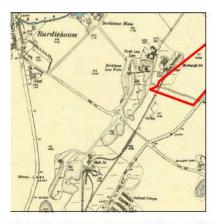


Plate 4. Site in relation to Burdiehouse industrial landscape (HA6) on 1894 Ordnance Survey Edinburghshire VII.8 1:2500 (surveyed 1892-3)



Plate 5. Site in relation to Burdiehouse industrial landscape (HA6) on1907 Ordnance Survey Edinburghshire VII.8 1:2500 (surveyed 1905)



Plate 6. 1914 Ordnance Survey Edinburghshire VII.8 1:2500 (surveyed 1912)

#### 2 **OBJECTIVES**

2.1 The objective of the archaeological works was to determine the character, extent, condition, quality, date, and significance of any sub-surface archaeological remains within the development area and, should significant archaeological deposits be discovered, to prepare a mitigation strategy compliant with Scottish Planning Policy (2014) and Planning and Archaeology 2/2011 (2011).

#### 3 **METHODOLOGY**

#### 3.1 **Metal Detecting Survey**

- The details of the metal detecting survey, laid out below, were designed to meet the requirements of CECAS 3.1.1 as detailed in the WSI (AOC 2019)
- 3.1.2 The survey was undertaken across the entire development in 2m transects.

#### 3.2 **Evaluation**

- 3.1.1 The details of the archaeological evaluation, laid out below, were designed to meet the requirements of the City of Edinburgh Council as advised by CECAS.
- 3.1.2 The development area measured 8.3 ha in total. The Council, as advised by CECAS, required that a 10% evaluation be undertaken across the entire site. This equated to a total basal trench area of ca. 8,300m<sup>2</sup> or 4,200 linear metres.
- 3.1.3 Due to onsite restrictions the trenching was severely limited to the north of the site due to soft landscaping in the form of newly planted saplings (Plate 1). A previously unknown service was also encountered to the west as well as the current farm track and overhead services. Therefore, a total 1,900m was achieved with good coverage of the available area.



Plate 1 View of saplings in the north

- 3.1.4 The excavation was undertaken in shallow units/spits until the first significant archaeological horizon or natural drift geology was reached. All machine excavations were supervised by an experienced field archaeologist.
- 3.1.5 All trial trenching was undertaken according to AOC Archaeology Group's standard operating procedures.

#### 4 **RESULTS**

#### 4.1 Metal detecting survey

- The metal detecting survey was conducted on the 15<sup>th</sup> and 16<sup>th</sup> January 2020 in overcast conditions. The 4.1.1 survey was undertaken using Makro Racer 2 and Minelab X-terra primary machines in association with Garrett pinpointers. The machines were automatically ground balanced on a setting of 65 and a high gain of 80 was employed. All identified targets were tested and recovered.
- 4.1.2 The metal detecting survey recovered 105 metal objects. Most of the objects are consistent with farming activity, with several likely associated with possible industrial activity in the area. Three copper coins were recovered, one with an Arabic inscription, along with copper alloy buttons, one of which was inscribed with an anchor. Unfortunately, no further detail could be made out. Most objects likely relate to late 19<sup>th</sup> and early 20th-century activity in the area.

#### 4.2 **Archaeological evaluation**

4.2.1 The archaeological evaluation revealed a poorly drained and improved mid-brown clay loam ranging between 0.3-0.6m in depth. Trenching occasionally revealed an underlying a subsoil of mid-brown clay silt, 0.2-0.3m depth. The underlying natural was a variable mid to pale yellow-orange silty clay with areas of pale-yellow clay and raised bedrock.



Plate 2 General view of trench

A large area of made ground consisting of red blaize and redeposited topsoil was recorded within the centre 4.2.2 of the development. This material was uncovered in Trenches 8-11, with an extent measuring approximately 35 x 30 m. Excavation revealed the infilling deposit ran to a depth of 2m. The blaize overlay a natural geology of dark grey clay with occasional stone inclusions. The area had gently sloping sides onto a relatively flat base where tested. There was no identifying material within and could represent a relatively recent backfilling event.



Plate 3 Views of Made Ground in Trench 10(left) and Trench 11 (right)

4.2.3 No further significant archaeological finds or features were recovered.

#### 4.3 Post-excavation programme

4.3.1 A post-excavation assessment was carried out on the finds recovered from the metal detection portion of the archaeological works. These post-excavation works were in accord with the Post-Excavation Research Design (AOC 2020). The assessment has been summarised below with the full report presented as Appendix 4.

#### 4.3.2 Metal finds

**Andrew Morrison** 

#### 4.3.2.1 Introduction

A metal finds assemblage comprising 107 artefacts (Mass: 10.5kg) was submitted for analysis following a recent metal-detecting survey at Burdiehouse, in Edinburgh, in advance of the extension of an existing residential development. The assemblage comprises both ferrous and non-ferrous metals (including copper alloy, lead, and white metal alloys), as well as fragments of vitrified material, coal, and coke. The assemblage is dominated by ferrous metal finds which makes up 93.5% of the total assemblage by mass (9.8kg), followed by coal and coke making up 2.7% (289.8g), lead representing 2.0% (212.5g), vitrified material at 0.7% (79.1g), copper alloy at 0.5% (59.8g), and white metal alloy at 0.4% (45.8g). The assemblage is largely made-up of post-medieval and modern farm equipment and farm-related fixtures and fittings, with a small number of domestic items, coins, and dress accessories also represented, again all likely dating to the post-medieval and modern periods. A considerable number of finds are non-classifiable, either owing to their advanced state of corrosion or damage caused by post-deposition factors; these, as well as several fixtures and fittings and other long-lived artefact types such as nails, are not considered to be closely dateable. That said, the character of the assemblage is distinctly post-medieval to modern in date with no medieval, early historic, or prehistoric artefacts identified.

#### 4.3.2.2 Copper alloy

The copper alloy assemblage is made up of 21 objects comprising three coins (SF001, 014, 075), three buttons (SF065, 081, 104), a military cap badge (SF036), a fragment of a folding pocketknife (SF068a), an

ovoid tag or keyhole cover (SF054), a brass butterfly hinge fragment (SF083), a shotgun shell casing (SF069), and two non-classifiable strap or sheet fragments (SF073, 098). The recovered identifiable copper alloy finds are all dateable to the 19th and 20th centuries, and, for the most part, likely represent the casual losses of personal items and various household items classifiable as domestic waste.

Of the three coins recovered, two are heavily worn and are completely illegible (SF014, 075), though they do survive to their full diameters (25.0mm, 27.8mm respectively) and are most likely modern in date. The third coin (SF001; plate 1 and 2), though also worn and moderately corroded, is partially legible and has been identified as an Egyptian 10 Para of the Sultan Abdulaziz, dating from between 1863-1869. This coin potentially represents a lost souvenir from a 'Grand Tour' expedition to Egypt during the second half of the 19th century, or perhaps a visitor or immigrant from abroad that brought the coin into the country with them.



Plate 4: obverse face of Egyptian 10 Para of the Sultan Abdulaziz (SF001)



Plate 5: reverse face of Egyptian 10 Para of the Sultan Abdulaziz (SF001)

The dress accessories recovered comprise three buttons and one military cap badge, all of which display moderate to heavy corrosion and date from the 19th to the 20th century. The buttons include a heavily corroded possible three-piece button with a rounded edge, inset face, and a likely loop shank (SF065), a plain flat disc-shaped button with broken shank (SF081), and a decorative square button with chamfered corners (SF104; plate 4) with a stamped raised paisley pattern and black enamel filling the recessed areas. This button likely dates to the late 19th or early 20th century, with its decorative pattern more appropriate for a coat or a dress in comparison to the undecorated buttons recovered that would have been more utilitarian in nature.



Plate 6: obverse face of military badge (SF 036)

Plate 7: enamelled button (SF 104)

The military badge (SF036; plate 3) is most likely a regimental cap badge belonging to a branch of the British military, dating from around the late 19th to 20th century. The badge is flat and circular with a crescentshaped fastener on the reverse, and though heavily corroded, a band with script encircling a possible crown is visible on the face.

#### 4.3.2.3 Lead and White Metal Alloy

Other non-ferrous metal finds recovered include three in lead and five in an unidentified white metal alloy. The lead finds comprise a fragment of flat rectangular plate with a moulded corrugated surface (SF033) likely related to agricultural activities, and two unidentifiable fragments (SF056, 105) broken and twisted postdeposition as is common for finds recovered from topsoil contexts within agricultural fields. The five white metal alloy finds recovered comprise three unidentifiable heavily distorted fragments (SF077, 092, 102), the nozzle from a Seccotine adhesive tube (SF080), and a tapering utensil handle with rounded end and biconvex section (SF099). Apart from the utensil handle and adhesive nozzle which likely date to the 20th century, the other finds are not considered to be closely dateable but are most likely associated with post-medieval and modern agricultural and domestic activities.

#### 4.3.2.4 The Ferrous metal finds

The ferrous metal assemblage is made up of 75 objects (Mass: 9.8kg) comprising agricultural and other farming related objects and equipment (Q: 7), nails and other fixtures and fittings (Q: 30), horse equipment (Q: 2) comprising a horseshoe fragment (SF053) and a possible bit junction (SF064), a small axe or hatchet head (SF045), a fragment of cast decorative fence or railing embellishment (SF012; plate 5), a grab handle (SF095), a key shank and bow fragment (SF101), and 32 heavily fragmented objects that cannot be readily identified. The ferrous metal finds all display moderate to heavy corrosion (with many completely obscured by corrosion and only visible through x-ray), likely due to the topsoil and agricultural soil buried environments from which they were retrieved. Though most of the finds are unidentifiable, with others such as nails that are long-lived types that cannot be closely dated, several finds are clearly modern in date with the overall character of the assemblage likely dating to the post-medieval and modern periods. As mentioned, most of the identifiable finds are classified as building fixtures and fittings such as nails, and other farming related objects and equipment, which may derive from demolished buildings in the area.

The only find of note within the iron assemblage is a small axehead or hatchet head (SF045; plate 6) with a rounded cutting edge and slightly rounded head that tapers-in to a constricted waist before expanding to the now partial haft. The head was fabricated from a single piece of iron, bent over on itself width-wise to form the haft with the two ends forge-welded to form the blade. Though not closely dateable, this axehead is post-medieval in date and is similar in form to other axeheads retrieved from post-medieval assemblages (see Thompson, Grew, and Schofield 1974: 97, Fig.49, 28).



cm

Plate 8: fragment of cast decorative fence or railing embellishment (SF012)

Plate 9: small axe head or hatchet head (SF045)

#### 4.3.2.5 **Summary and discussion**

Overall, the assemblage of metal finds recovered during metal-detecting at Burdiehouse represents the remains of agricultural and domestic activities, casual losses, and refuse incorporated into the ploughsoils during the post-medieval and modern periods, particularly during the 19<sup>th</sup> and 20<sup>th</sup> centuries. As the finds have no stratigraphic or spatial data associated with them, there is very little information that can be gathered from their analysis and they are of limited archaeological significance.

#### 5 CONCLUSION

- 5.1 The majority of the development area showed no signs of archaeologically significant material. While the possible borrow pit/quarry pit is significant in the industrial makeup of Edinburgh's outskirts Its location and form have been mapped and characterised.
- The assessment and analysis for the metal finds from the metal detecting have shown them to mostly be from mundane activity, casual loss etc. Examples such as the Egyptian 10 Para have been suggested to be from a 'Grand Tour', popular during the Victorian era. However, could equally be from the Anglo-Egyptian war in 1883, or derived from a visitor or immigrant from abroad who brought the coin into the country with them. Essentially there is no way to accurately know how these items have come to be in this location.

5.3 Works at Burdiehouse have successfully characterised any archaeological survival and finds in the development area, and the post-excavation analysis has shown that the artefacts recovered are probably a reflection of farming activity and accidental losses.

#### 6 **REFERENCES**

AOC Archaeology Group 2019 Burdiehouse Extension Phase 3, Edinburgh, Archaeological Works: Written Scheme of Investigation Unpublished Client Report

Headland Archaeology 2019 Burdiehouse Extension (Phase 3) City of Edinburgh, Archaeological Desk-Based AssessmentScottish Government 2014Scottish Planning Policy

Scottish Government 2011, Planning Advice Note 2/2011: Planning and Archaeology

# **Burdiehouse Extension Phase 3, Edinburgh: Data Structure Report**

**Section 2: Appendices** 

#### **APPENDIX 1: TRENCH DESCRIPTIONS**

#### Trench 1

Dimensions: 100m x 2.2m

**Excavated Orientation:** S-N

Topsoil: Mid grey-brown clay loam

Subsoil: None Significant Features: None

Ceramic and Rubble Drains Other Features: Natural Subsoil: Mid brown-orange clay

Finds: None

#### Trench 2

Dimensions: 100m x 2.2m

Excavated Orientation: S-N

Topsoil: Mid grey-brown clay loam

Subsoil: None Significant Features: None

Other Features: Ceramic and Rubble Drains Natural Subsoil: Mid brown-orange clay

Finds: None

#### Trench 3

Dimensions: 100m x 2.2m

**Excavated Orientation:** S-N

Mid grey-brown clay loam Topsoil:

Subsoil: None Significant Features: None

Other Features: Ceramic and Rubble Drains Natural Subsoil: Mid brown-orange clay

Finds: None

#### Trench 4

Dimensions: 100m x 2.2m

Excavated Orientation: S-N

Topsoil: Mid grey-brown clay loam

Subsoil: None Significant Features: None

Other Features: Ceramic and Rubble Drains Natural Subsoil: Mid brown-orange clay

Finds: None

#### Trench 5

Dimensions: 100m x 2.2m

**Excavated Orientation:** S-N

Topsoil: Mid grey-brown clay loam

Subsoil: None Significant Features: None

Other Features: Ceramic and Rubble Drains Natural Subsoil: Mid brown-orange clay

Finds: None

#### Trench 6

Dimensions: 100m x 2.2m

Excavated Orientation: S-N

Topsoil: Mid grey-brown clay loam

Subsoil: None Significant Features: None

Other Features: Ceramic and Rubble Drains Natural Subsoil: Mid brown-orange clay

Finds: None

#### Trench 7

Dimensions: 100m x 2.2m

E-W **Excavated Orientation:** 

Topsoil: Mid grey-brown clay loam

Subsoil: None Significant Features: None

Ceramic and Rubble Drains Other Features: Natural Subsoil: Mid brown-orange clay

Finds: None

#### **Trench 8**

Dimensions: 100m x 2.2m

**Excavated Orientation:** E-W

Topsoil: Mid grey-brown clay loam

Subsoil: Red Blaize Significant Features: None

Other Features: Ceramic and Rubble Drains Natural Subsoil: Mid brown-orange clay

Finds: None

#### Trench 9

100m x 2.2m Dimensions:

**Excavated Orientation:** E-W

Topsoil: Mid grey-brown clay loam

Subsoil: Red Blaize Significant Features: None

Ceramic and Rubble Drains Other Features: Natural Subsoil: Mid brown-orange clay

Finds: None

#### Trench 10

Dimensions: 100m x 2.2m

**Excavated Orientation:** E-W

Topsoil: Mid grey-brown clay loam

Subsoil: Red Blaize Significant Features: None

Other Features: Ceramic and Rubble Drains Natural Subsoil: Mid brown-orange clay

Finds: None

Trench 11

Dimensions: 100m x 2.2m

Excavated Orientation: E-W

Topsoil: Mid grey-brown clay loam

Red Blaize Subsoil: Significant Features: None

Other Features: Ceramic and Rubble Drains Natural Subsoil: Mid brown-orange clay

Finds: None

Trench 12

Dimensions: 100m x 2.2m

**Excavated Orientation:** S-N

Topsoil: Mid grey-brown clay loam

Subsoil: None Significant Features: None

Ceramic and Rubble Drains Other Features: Natural Subsoil: Mid brown-orange clay

Finds: None

Trench 13

Dimensions: 100m x 2.2m

Excavated Orientation: E-W

Topsoil: Mid grey-brown clay loam

Subsoil: None Significant Features: None

Other Features: Ceramic and Rubble Drains Natural Subsoil: Mid brown-orange clay

Finds: None

Trench 14

Dimensions: 100m x 2.2m

E-W Excavated Orientation:

Topsoil: Mid grey-brown clay loam

Subsoil: None Significant Features: None

Ceramic and Rubble Drains Other Features: Natural Subsoil: Mid brown-orange clay

Finds: None

Trench 15

100m x 2.2m Dimensions:

Excavated Orientation: S-N

Topsoil: Mid grey-brown clay loam

Subsoil: None Significant Features: None

Other Features: Ceramic and Rubble Drains Natural Subsoil: Mid brown-orange clay

Finds: None

#### Trench 16

Dimensions: 100m x 2.2m

Excavated Orientation: E-W

Topsoil: Mid grey-brown clay loam

Subsoil: None Significant Features: None

Ceramic and Rubble Drains Other Features: Natural Subsoil: Mid brown-orange clay

Finds: None

#### Trench 17

100m x 2.2m Dimensions:

**Excavated Orientation:** E-W

Topsoil: Mid grey-brown clay loam

Subsoil: None Significant Features: None

Other Features: **Ceramic and Rubble Drains** Natural Subsoil: Mid brown-orange clay

Finds: None

#### Trench 18

Dimensions: 100m x 2.2m **NW-SE Excavated Orientation:** 

Topsoil: Mid grey-brown clay loam

Subsoil: None Significant Features: None

Other Features: Ceramic and Rubble Drains Natural Subsoil: Mid brown-orange clay

Finds: None

#### Trench 19

Dimensions: 100m x 2.2m **Excavated Orientation:** NW-SE

Topsoil: Mid grey-brown clay loam

Subsoil: None Significant Features: None

Other Features: Ceramic and Rubble Drains Natural Subsoil: Mid brown-orange clay

Finds: None

### **APPENDIX 2: DIGITAL PHOTOGRAPHIC REGISTER**

Photo No.	Description	Taken From
1	Registration	-
2-6	Pre-excavation views of site	Various
7-14	Views of new trees in northern portion of site	Various
15	Views of unknown service	N
16	Post-excavation of Trench 1	S
17	Post-excavation of Trench 3	N
18	Post-excavation of Trench 4	S
19	Post-excavation of Trench 5	N
20	View of made ground in Trench 6	NW
21	Post-excavation of Trench 6	N
22	Post-excavation of Trench 7	E
23	Post-excavation of Trench 2	S
24	Post-excavation of Trench 2	S
25	Made ground Trench 8	E
26	Post-excavation of Trench 8	E
27	Made ground in Trench	S
28	Post-excavation of Trench 9	W
29	Made ground Trench 9	W
30	Post-excavation of Trench 10	W
31-33	Made ground in Trench 10	W
34	Post-excavation of Trench 11	E
35	Post-excavation of Trench 10	E
36-38	Views of made ground in Trench 11	Various
39-40	Views of made ground in Trench 10	Various
41-42	Made ground in Trench 9	Various
43-48	Views of coal seam Trench 12	E
49	Post-excavation of Trench 12	N
50	Post-excavation of Trench 13	W
51	Post-excavation of Trench 14	W
52	Post-excavation of Trench 15	E
53	Post-excavation of Trench 16	E
54-56	Post-excavation of Trench 17	Various
57	Post-excavation of Trench 18	NW
58	Post-excavation of Trench 19	NW

# **APPENDIX 3: FINDS REGISTER**

Find	Context	Material	D
No.	No.	Code	Description
1	Topsoil	Cu	Copper coin – possible Arabic text
2	Topsoil	Fe	Piece of iron pipe
3	Topsoil	Fe	Iron nail
4	Topsoil	Fe	Iron object -machinery part
5	Topsoil	Fe	Iron plate
6	Topsoil	Fe	Iron plate
7	Topsoil	Fe	Scrap iron
8	Topsoil	Fe	Iron object
9	Topsoil	Fe	Iron object
10	Topsoil	Fe	Iron plate
11	Topsoil	Fe	Iron nail
12	Topsoil	Fe	Iron object
13	Topsoil	Fe	Iron object – possible rivet from farming equipment
14	Topsoil	Cu	Copper alloy coin possibly Pre 18 <sup>th</sup> Century
15	Topsoil	Fe	Iron object – possible bracket
16	Topsoil	Fe	Iron nut – probably from farming equipment
17	Topsoil	Fe	Large iron object
18	Topsoil	Ind	Slag material
19	Topsoil	Fe	Iron object
20	Topsoil	Fe	Iron object – possibly part of tool or large binding rivet
21	Topsoil	Fe	Plough tooth
22	Topsoil	Fe	Iron object
23	Topsoil	Fe	Iron bar
24	Topsoil	Fe	Plough tooth fragment
25	Topsoil	Fe	Iron object
26	Topsoil	Fe	Large iron rivet
27	Topsoil	Ind	Slag material
28	Topsoil	Fe	Iron nail
29	Topsoil	Fe	Iron object
30	Topsoil	Fe	Iron nut
31	Topsoil	Fe	Iron nail
32	Topsoil	Fe	Iron nail
33	Topsoil	Pb	Lead object
34	Topsoil	Ind	Slag material
35	Topsoil	Ind	Slag material

36	Topsoil	Cu	Copper alloy badge or button
37	Topsoil	Fe	Iron object
38	Topsoil	Fe	Iron nail
39	Topsoil	Fe	Iron object
40	Topsoil	Fe	Iron object
41	Topsoil	Fe	Iron object
42	Topsoil	Fe	Iron plate
43	Topsoil	Fe	Iron nail
44	Topsoil	Fe	Iron rivet
45	Topsoil	Fe	Iron flat axe/hoe head
46	Topsoil	Fe	Iron object
47	Topsoil	Fe	Iron bolt
48	Topsoil	Fe	Iron object
49	Topsoil	Fe	Iron nail
50	Topsoil	Fe	Iron object
51	Topsoil	Ind	Slag material
52	Topsoil	Fe	Iron object
53	Topsoil	Fe	Iron object
54	Topsoil	Me	Oval metal plate
55	Topsoil	Fe	Iron nail
56	Topsoil	Pb	Lead object
57	Topsoil	Fe	Iron object
58	Topsoil	Fe	Iron nail
59	Topsoil	Fe	Iron rivet
60	Topsoil	Fe	Iron object
61	Topsoil	Fe	Iron object
62	Topsoil	Fe	Iron nail
63	Topsoil	Fe	Iron object
64	Topsoil	Fe	Iron object
65	Topsoil	Fe	Small metal disc
66	Topsoil	Fe	Iron nail
67	Topsoil	Fe	Scrap iron
68	Topsoil	Fe	Iron nail
69	Topsoil	Me	Shotgun cap
70	Topsoil	Fe	Iron object
71	Topsoil	Fe	Iron object
72	Topsoil	Fe	Iron object
73	Topsoil	Cu	Small copper plate
74	Topsoil	Fe	Iron object
75	Topsoil	Cu	Copper alloy coin
76	Topsoil	Fe	Iron object

#### BURDIEHOUSE PHASE 3, ARCHAEOLOGICAL WORKS: DATA STRUCTURE REPORT

77	Topsoil	Me	Unidentifiable metal object
78	Topsoil	Fe	Iron object
79	Topsoil	Fe	Iron object
80	Topsoil	Me	Metal object – 'Seccotine' Probably a glue nib
81	Topsoil	Me	Small metal disc
82	Topsoil	Fe	Iron object
83	Topsoil	Me	Metal object - modern
84	Topsoil	Fe	Iron object
85	Topsoil	Ind	Slag
86	Topsoil	Fe	Iron nail
87	Topsoil	Fe	Iron object
88	Topsoil	Fe	Iron nail
89	Topsoil	Ind	Slag
90	Topsoil	Ind	Slag
91	Topsoil	Fe	Iron object
92	Topsoil	Fe	Iron object
93	Topsoil	Ind	Slag material
94	Topsoil	Fe	Iron object
95	Topsoil	Fe	Iron object
96	Topsoil	Fe	Iron nail
97	Topsoil	Fe	Iron object
98	Topsoil	Cu	Copper object
99	Topsoil	Fe	Iron nail
100	Topsoil	Fe	Iron object
101	Topsoil	Fe	Iron object
102	Topsoil	Me	Metal strip
103	Topsoil	Fe	Iron object
104	Topsoil	Cu	Square copper button
105	Topsoil	Fe	Iron object

#### **APPENDIX 4: METAL OBJECTS REPORT**

**Andrew Morrison** 

#### **Introduction**

A metal finds assemblage comprising 107 artefacts (Mass: 10.5kg) was submitted for analysis following a recent metaldetecting survey at Burdiehouse, in Edinburgh, in advance of the extension of an existing residential development. The assemblage comprises both ferrous and non-ferrous metals (including copper alloy, lead, and white metal alloys), as well as fragments of vitrified material, coal, and coke. The assemblage is dominated by ferrous metal finds which makes up 93.5% of the total assemblage by mass (9.8kg), followed by coal and coke making up 2.7% (289.8g), lead representing 2.0% (212.5g), vitrified material at 0.7% (79.1g), copper alloy at 0.5% (59.8g), and white metal alloy at 0.4% (45.8g). The assemblage is largely made-up of post-medieval and modern farm equipment and farm-related fixtures and fittings, with a small number of domestic items, coins, and dress accessories also represented, again all likely dating to the post-medieval and modern periods. A considerable number of finds are non-classifiable, either owing to their advanced state of corrosion or damaged caused by post-deposition factors; these, as well as several fixtures and fittings and other long-lived artefact types such as nails, are not considered to be closely dateable. That said, the character of the assemblage is distinctly post-medieval to modern in date with no medieval, early historic or prehistoric artefacts identified.

#### Methodology

The finds were all examined macroscopically, with a small number of finds having been selected for x-radiography and targeted cleaning by conservation to aid in identification; a low-powered binocular microscope was also used to clarify surface details. Each object was individually examined with the aim of identifying material type, function, and date, and to produce a catalogue inventory database of the finds for archive purposes.

The metal-detected finds were submitted in bags marked with small finds numbers assigned in the field, with all finds having been recovered from a topsoil context (001).

All finds were measured using a 0-150mm Carbon Dial Caliper with 0.1mm accuracy and were weighed using a Sartorius Universal digital scale accurate to 0.1g. Several finds have been selected for full catalogue entries included within the body of this report, while a full inventory of the recovered material was recorded on an Excel spreadsheet (Appendix A).

### **Condition**

The ferrous and non-ferrous metal assemblages display varying degrees of post-deposition corrosion ranging from light corrosion, to being completely obscured by heavy corrosion and concretions. Most of the assemblage displays moderate to heavy corrosion with the object forms clearly visible, though many of the finds are heavily weathered and abraded as is to be expected from a metal-detected assemblage largely retrieved from agricultural soils.

#### Classifications

The assemblage comprises both ferrous and non-ferrous metal artefacts, including 75 iron finds, 13 in copper alloy, three in lead, and five in white metal alloy; two fragments of vitrified material were also recovered, as well as nine pieces of coal or coke. Of the 75 iron finds retrieved, the vast majority represent the remains of agricultural equipment and farming activities, with fixtures and fittings such as nails and other domestic finds also represented.

#### **The Non-ferrous metal finds**

The non-ferrous metal assemblage comprises 21 objects: 13 in copper alloy which includes coins, dress accessories and other fragments, three in lead including a corrugated plate fragment, and five in white metal alloy which includes household items and other unidentifiable fragments. Overall, the non-ferrous metals display moderate to heavy corrosion with several the finds heavily weathered and abraded as is to be expected with finds recovered from a topsoil context within agricultural lands.

#### Copper alloy

The copper alloy assemblage is made up of 21 objects comprising three coins (SF001, 014, 075), three buttons (SF065, 081, 104), a military cap badge (SF036), a fragment of a folding pocketknife (SF068a), an ovoid tag or keyhole cover (SF054), a brass butterfly hinge fragment (SF083), a shotgun shell casing (SF069), and two non-classifiable strap or sheet fragments (SF073, 098). The recovered identifiable copper alloy finds are all dateable to the 19<sup>th</sup> and 20<sup>th</sup> centuries, and, for the most part, likely represent the casual losses of personal items and various household items classifiable as domestic waste.

Of the three coins recovered, two are heavily worn and are completely illegible (SF014, 075), though they do survive to their full diameters (25.0mm, 27.8mm respectively) and are most likely modern in date. The third coin (SF001; plate 1 and 2), though also worn and moderately corroded, is partially legible and has been identified as an Egyptian 10 Para of the Sultan Abdulaziz, dating from between 1863-1869, perhaps representing a lost souvenir from a 'Grand Tour' expedition to Egypt during the second half of the 19th century.



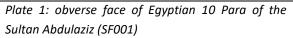




Plate 2: reverse face of Egyptian 10 Para of the Sultan Abdulaziz (SF001)

The dress accessories recovered comprise three buttons and one military cap badge, all of which display moderate to heavy corrosion and date from the 19th to the 20th century. The buttons include a heavily corroded possible threepiece button with a rounded edge, inset face, and a likely loop shank (SF065), a plain flat disc-shaped button with broken shank (SF081), and a decorative square button with chamfered corners (SF104; plate 4) with a stamped raised paisley pattern and black enamel filling the recessed areas. This button likely dates to the late 19th or early 20th century, with its decorative pattern more appropriate for a coat or a dress in comparison to the undecorated buttons recovered that would have been more utilitarian in nature.





Plate 3: obverse face of military badge (SF 036)

Plate 4: enamelled button (SF 104)

The military badge (SF036; plate 3) is most likely a regimental cap badge belonging to a branch of the British military, dating from around the late 19th to 20th century. The badge is flat and circular with a crescent-shaped fastener on the reverse, and though heavily corroded, a band with script encircling a possible crown is visible on the face.

#### Catalogue

SF001 Egyptian 10 Para of the Sultan Abdulaziz.

Moderate corrosion and moderate to heavy wear. Partially legible, though enough to allow identification. Obverse: Worn and illegible. Reverse: Partially legible with Arabic lettering translating as '...Struck in Egypt, 1277'. The exact mintage date is unclear, though 1277 in the Islamic calendar translates to 1863 to 1869. Context (001) Topsoil. Unstratified metal-detecting find. Diameter: 29.2mm, Thickness: 0.9mm, Weight: 5.14g.

#### SF036 Military cap badge.

Circular with a border panel containing script encircling a possible crown. Heavily corroded and only partially legible. Crescent-type fixture on reverse. Unit or regiment not identified. Likely 19th- 20th century. Context (001) Topsoil. Unstratified metal-detecting find. Diam: 25.1mm, Th: 1.7mm, Mass: 6.06g.

#### SF104 Enamel button.

Two-piece with a stamped square head with bevelled corners and a soldered loop shank on the reverse. Slightly convex with a concave reverse. Stamped with a raised 'paisley-like' pattern and black enamel in the recessed areas. Likely late 19th- early 20th century. Context (001) Topsoil. Unstratified metal-detecting find. W/H: 17.2mm x 17.2mm, Th: 0.9mm, Mass: 2.40g.

#### **Lead and White Metal Alloy**

Other non-ferrous metal finds recovered include three in lead and five in an unidentified white metal alloy. The lead finds comprise a fragment of flat rectangular plate with a moulded corrugated surface (SF033) likely related to agricultural activities, and two unidentifiable fragments (SF056, 105) broken and twisted post-deposition as is common for finds recovered from topsoil contexts within agricultural fields. The five white metal alloy finds recovered comprise three unidentifiable heavily distorted fragments (SF077, 092, 102), the nozzle from a Seccotine adhesive tube (SF080), and a tapering utensil handle with rounded end and biconvex section (SF099). Apart from the utensil

handle and adhesive nozzle which likely date to the 20th century, the other finds are not considered to be closely dateable but are most likely associated with post-medieval and modern agricultural and domestic activities.

#### The Ferrous metal finds

The ferrous metal assemblage is made up of 75 objects (Mass: 9.8kg) comprising agricultural and other farming related objects and equipment (Q: 7), nails and other fixtures and fittings (Q: 30), horse equipment (Q: 2) comprising a horseshoe fragment (SF053) and a possible bit junction (SF064), a small axe or hatchet head (SF045), a fragment of cast decorative fence or railing embellishment (SF012; plate 5), a grab handle (SF095), a key shank and bow fragment (SF101), and 32 heavily fragmented objects that cannot be readily identified. The ferrous metal finds all display moderate to heavy corrosion (with many completely obscured by corrosion and only visible through x-ray), likely due to the topsoil and agricultural soil buried environments from which they were retrieved. Though most of the finds are unidentifiable, with others such as nails that are long-lived types that cannot be closely dated, several finds are clearly modern in date with the overall character of the assemblage likely dating to the post-medieval and modern periods. As mentioned, most of the identifiable finds are classified as building fixtures and fittings such as nails, and other farming related objects and equipment, which may derive from demolished buildings in the area.

The only find of note within the iron assemblage is a small axe head or hatchet head (SF045; plate 6) with a rounded cutting edge and slightly rounded head that tapers-in to a constricted waist before expanding to the now partial haft. The head was fabricated from a single piece of iron, bent over on itself width-wise to form the haft with the two ends forge-welded to form the blade. Though not closely dateable, this axe-head is post-medieval in date and is similar in form to other axe-heads retrieved from post-medieval assemblages (see Thompson, Grew, and Schofield 1974: 97, Fig.49, 28).



Plate 5: fragment of cast decorative fence or railing embellishment (SF012)



Plate 6: small axe head or hatchet head (SF045)

#### Catalogue

SF045 Axe/ hatchet head.

Rounded blade and head tapering-in to a constricted waist and partial haft. Formed by folding over to create the haft and forge-welding the sandwiched blade. Likely post-medieval in date. Context (001) Topsoil. Unstratified metal-detecting find. L: 110.2mm, Blade H: 82.5mm, Blade L: 72.6mm, Blade Th: 7.4mm, Haft H: 49.5mm, Haft Th: 26.4mmTh: 10.1mm, Mass: 296.53g.

#### **Summary and Discussion**

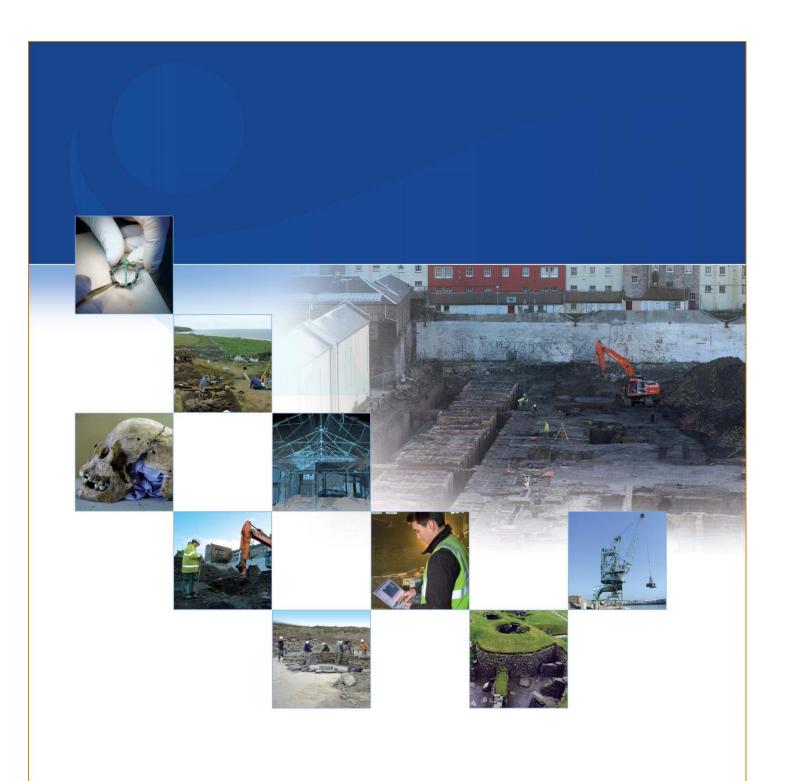
Overall, the assemblage of metal finds recovered during metal-detecting at Burdiehouse represents the remains of agricultural and domestic activities, casual losses, and refuse incorporated into the ploughsoils during the postmedieval and modern periods, particularly during the 19<sup>th</sup> and 20<sup>th</sup> centuries. As the finds have no stratigraphic or spatial data associated with them, there is very little information that can be gathered from their analysis and are of limited archaeological significance.

Bib	liogra	vda

Thompson, A, Grew, F and Schofield, J 1984 'Excavations at Aldgate, 1974', Post Medieval Archaeology 18, 1-148.

# **APPENDIX 5:** 'Discovery and Excavation in Scotland' Report

LOCAL AUTHORITY:	City of Edinburgh
PROJECT TITLE/SITE NAME	Burdiehouse Extension Phase 3
PROJECT CODE:	AOC 24994
PARISH:	Edinburgh
NAME OF CONTRIBUTOR:	Steven Watt
NAME OF ORGANISATION:	AOC Archaeology Group
TYPE(S) OF PROJECT:	Archaeological Evaluation and Metal Detecting Survey
NMRS NO(S)	None
SITE/MONUMENT TYPE(S):	N/A
SIGNIFICANT FINDS:	N/A
NGR (2 letters, 6 figures)	NT 27892 67218
START DATE (this season)	5 <sup>th</sup> February 2020
END DATE (this season)	12 <sup>th</sup> February 2020
PREVIOUS WORK (incl. DES ref.)	None
MAIN (NARRATIVE)	A programme of archaeological works was required by Barratt Homes Ltd
DESCRIPTION:	ahead of the extension to an existing residential development, Burdiehouse
(May include information from	(Phase 3).
other fields)	,
	The works consisted of a metal detecting survey and a 10% evaluation of the
	8.3ha site, equating to some 4,200 linear metres of trenching.
	8.511a site, equating to some 4,200 linear metres of trenching.
	Due to onsite restrictions, trenching was severely restricted, with a total of
	1,900 linear metres achieved. Trenching revealed a possible quarry bowl or
	natural hollow filled in with red blaize material to depths of 2m. No further
	significant archaeological material was recovered during the excavation.
	The motel detecting survey revealed numerous phiests typically associated
	The metal detecting survey revealed numerous objects typically associated
	with 19 <sup>th</sup> /20 <sup>th</sup> -century farming and industrial activity. However, thee copper
	alloy coins, one with an Arabic inscription, and three button were recovered.
	Given the paucity of archaeological material, no further works are considered
	necessary.
PROPOSED FUTURE WORK:	No
CAPTION(S) FOR ILLUSTRS:	
SPONSOR OR FUNDING BODY:	Barrett Homes Ltd
ADDRESS OF MAIN	Edgefield Road Industrial Estate, Loanhead, Midlothian, EH20 9SY
CONTRIBUTOR:	
EMAIL ADDRESS:	admin@aocarchaeology.com
ARCHIVE LOCATION	Archive to be deposited in NMRS
(intended/deposited)	
•	





AOC Archaeology Group, Edgefield Industrial Estate, Edgefield Road, Loanhead EH20 9SY tel: 0131 440 3593 | fax: 0131 440 3422 | e-mail: admin@aocarchaeology.com