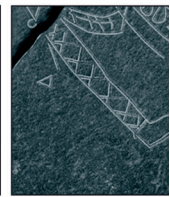
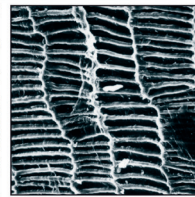
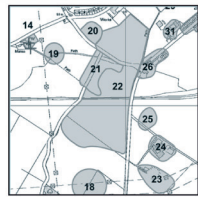


FHLE11



## FORT HOUSE, LEITH

*Archaeological evaluation*

*for City of Edinburgh Council*

*November 2011*



**HEADLAND**  
ARCHAEOLOGY (UK) Ltd





# FORT HOUSE, LEITH

## *Archaeological evaluation*

### *for City of Edinburgh Council*

*November 2011*

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Scale 1:1,250 @ A4



**Illus 1**  
Site location

# FORT HOUSE, LEITH

## Archaeological evaluation

*An evaluation was undertaken on the site of Fort House, Leith, prior to its demolition and redevelopment for housing. The work followed a desk-based assessment, walkover survey and historic building recording of the site and was undertaken by Headland Archaeology on behalf of the City of Edinburgh Council. The aim of the evaluation was to target the remains of the early 19th century extension to the fort, as shown on Kirkwood's map of 1817 and detailed on the first edition Ordnance Survey map of 1853. Sixteen trenches were excavated, located across 5 areas of the site (A to E), amounting to 4% of the area available for trenching.*

*The trenches located walls and surfaces of the Ordnance Store, stable blocks and ancillary buildings as well as the parade ground surfaces and a possible 'target' location within the parade ground, mostly concentrated towards the southern end of the site. To the north a number of concrete wall bases were found, which may relate to the latter use of the fort, which was occupied until the 1950s. In the central part of the site, within the area of the parade ground, an east-west ditch was located. This contained oyster shell as well as demolition rubble within the fill and is not shown on any of the maps of the fort. The finds suggest a latter 18th century date, perhaps contemporary with the initial building of the fort and battery to the north of the present site.*

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## 1. INTRODUCTION

This report contains the results of an evaluation carried out at Fort House, Leith (NT 2615 7662; Illus 1). Demolition work will start on the site later this year with a view to develop the site for housing. The site occupies the southern end of the historic Fort at Leith, originally built in 1780. The site is bounded to the east, south and west by the upstanding outer wall of an early 19th-century extension to the Fort, comprising barracks and a parade ground. The southern wall contains an original entrance and two guardhouses. The guardhouses and wall are Category B listed (HB 27221) and will be retained in the final development.

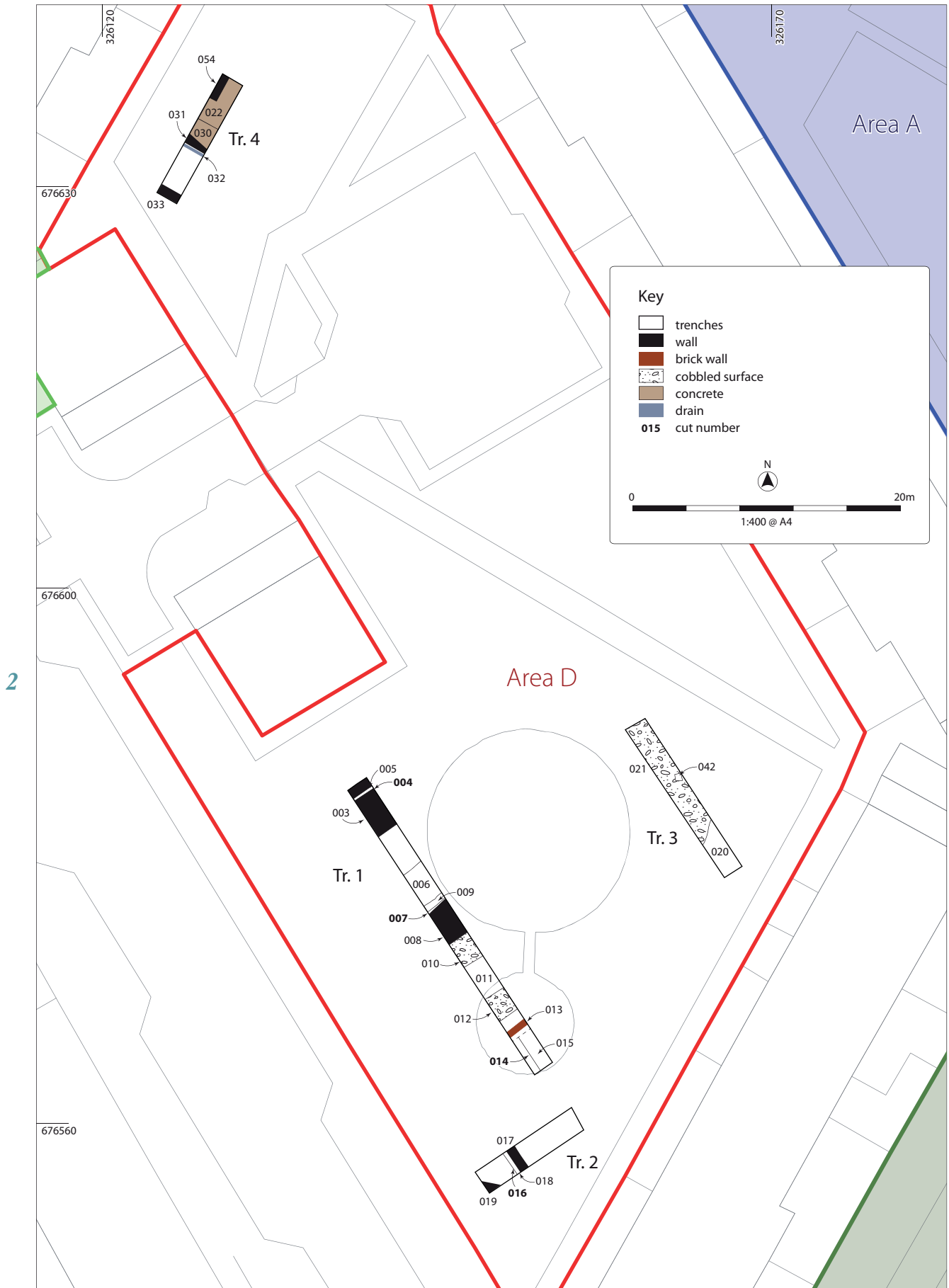
This work comprises Phase 2 of the programme of archaeological works, following Phase 1: desk-based assessment and historic building recording (Jones 2011). Phase 2 was intended to provide information on the potential for unrecorded archaeological remains and subsequently to determine the scope of further archaeological mitigation (Phase 3), if required. The work follows the specification provided by the City of

Edinburgh Council Archaeology Service (CECAS) and a Project Design submitted by Headland Archaeology Ltd and approved by CECAS.

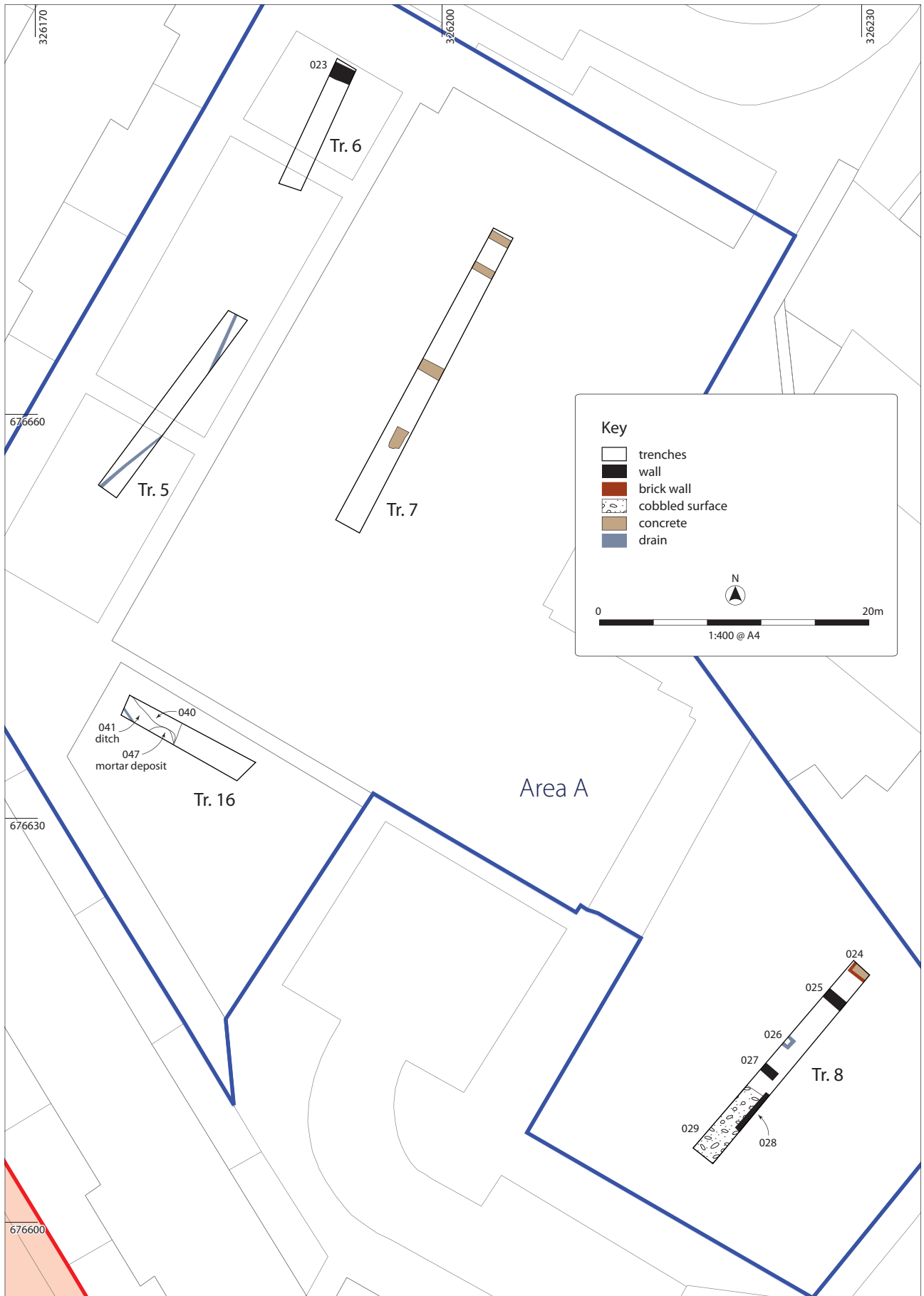
The evaluation trenches were focussed on the buildings recorded on Kirkwood's 1817 plan and detailed on the first edition Ordnance Survey map (1853). An indicative trench plan was agreed with CECAS prior to work commencing. Any subsequent variations during the course of the evaluation were agreed on site with CECAS. The evaluation was undertaken on 11th – 12th October 2011.

## 2. OBJECTIVES

The objectives of the evaluation were to determine the presence or absence of archaeological remains within the area available for trenching and to ascertain the extent, character and quality of any buried remains. This would inform further mitigation measures, if appropriate and establish their likely scope.



**Illus 2**  
Detail of trenches in Area D



3

**Illus 3**  
Detail of trenches in Area A



### 3. METHODOLOGY

The evaluation was intended to evaluate up to 10% of Areas A to E, which comprised a total area of 10,489m<sup>2</sup>. Following the walkover survey and the service information the proposed trench plan covered c.7% sample (c.370m linear x 2m wide). The proposed trench plan avoided known services (leaving a recommended minimum 10m wide corridor) and areas of hard standing where these were not in areas of fort buildings.

During the evaluation several other modifications to the trench plan were made, following discussions with CECAS, as follows.

**Area A** an additional trench was added in the southern part of the area. Trench 5 was shortened due to a CAT scan signal.

**Area B** The proposed trench (15) was shortened due to the steep slope of the mounded area; an additional trench (14) was sited to evaluate the mound area.

**Area C** trenching was reduced on the tarmac area in order to facilitate access to the car park; only one trench was excavated in the western part of the area for health and safety reasons as they were sited in front of an occupied flat.

4

**Area D** the trench across the parade ground (3) was shortened due to the location of a floodlight and waste water cover.

**Area E** The northern trench (11) was moved in order to evaluate the stable block. Due to the mounded area the southern trench (12) could not be excavated due to the steep slope so this was moved parallel to the east wall. Trench 13 was dug parallel to the flats due to the steep slope of the mounded area.

The trenching was therefore necessarily reduced to 207 linear m (x 2m wide).

Topsoil and overburden was removed using a JCB excavator with back actor fitted with a flat-bladed ditching bucket, under direct archaeological supervision. Excavation continued to the top of archaeological deposits or natural sand. Trenches were hand cleaned to define features and structures and all archaeological features were recorded. The trenches and features were recorded using a pole-mounted Trimble dGPS and tied into the National Grid and Ordnance Datum. Records were made of all trenches and unique numbers assigned to all contexts. Colour transparency and digital photographs were taken and recorded in a photographic register.

Bulk finds were collected by context. Bulk soil samples, of a minimum 10 litres were taken for environmental

processing from suitable contexts. Samples were processed in laboratory conditions using a standard floatation method (*cf.* Kenward *et al.* 1980). All plant macrofossil samples were analysed using a stereo-microscope at magnifications of x10 and up to x100 where necessary to aid identification. Identifications were confirmed using modern reference material and seed atlases including Cappers *et al.* (2006).

### 4. RESULTS

A full description of all contexts and trenches is provided in the Appendix; summary descriptions are presented here. A plan of all features is shown in Illus 1, with detailed plans of Areas A and D in Illus 2 and 3. Most trenches were excavated through grassed areas, revealing a topsoil depth of 0.4–0.6m. The topsoil [001] comprised dark greyish brown silt loam with occasional rubble and stone fragments; deeper demolition rubble deposits [045] were found in a number of the trenches. Geological subsoil deposits were revealed to be yellow brown sand [002] at a depth of 0.6–1.15m.

#### 4.1 Area D – Trenches 1–4

Trench 1 was located on an area of grass/playground in the location of the Ordnance Store as shown on the first edition Ordnance Survey map (Illus 2). A substantial N-S sandstone wall at least 2.5m wide was found at the west end of the trench (Illus 4). A possible drain had been cut [004] through this wall and had been backfilled with



**Illus 4**  
General view of Trench 1



**Illus 5**  
Wall [017], Trench 2

5

mortar and broken bricks [005]. A layer of mortar [006], possibly a bedding deposit for a floor surface was found to the east of the wall. Above this was a deposit of black ashy sand and burnt gravel [009], which also appeared to be a surface. This surface was truncated by the cut [007] for a second N-S wall [008] of sandstone, bonded with lime mortar. The western edge of the wall was clearly defined, however at the eastern edge the distinction between the wall and the paved area [010] to the east was not clear. The paved area comprised flat sandstone slabs set into a grey silt matrix and was very compact. To the east of the paved area [010] was compact clayey silt [011], possibly a clay surface or bedding layer for a floor. This appeared to be cut by a layer of grey bricks and mortar [012] within a silty matrix, forming a cobbled surface. To the east of this was an N-S modern brick wall [013], bonded with concrete mortar and 0.45m in width. At the east end of the trench deposits were removed down to the sandy subsoil at 0.8m. A possible E-W cut [014] was revealed, which was filled with dark brownish grey silty sand [015]. The sides of the cut were vertical and it was excavated to a depth of 1.3m without reaching the subsoil.

Walls [003] and [008] do not appear to correspond exactly with the walls shown on the first edition Ordnance Survey map (see Illus 1); although their size indicates they are part of the Ordnance Store. Exposure of a greater area would enable the walls and deposits in this trench to be better understood.

Trench 2 was located across the southern end of the stable block. Beneath topsoil [001] were up to 0.9m of dark brown silt with demolition rubble [045]. An E-W sandstone wall [017] 0.75m wide was found cut [016] into mottled light brown sand [046] at the base of the trench (Illus 5). The cut was backfilled with dark brown sand [018]. This wall corresponds with the wall of the stable block (see Illus 1). A NE-SW sandstone wall capped with concrete and black tar [019] was found across the south-eastern corner of the trench. A sondage was excavated into the brown sand deposits at the base of the trench [046]. These were found to be 0.23m in depth and directly overlay clean sandy subsoil [002].

Trench 3 was located on grass across the Parade Ground area. Topsoil in the trench was 0.4m in depth. Beneath



**Illus 6**

Gravel surface [021], Trench 3



**Illus 7**

Wall [033], Trench 4

6

this, the majority of the trench comprised a compact cobbled surface topped with loose gravel [021] (Illus 6). Set into this material was a hard stone or concrete pad, approximately 0.4m square, thought to be a possible 'target' location as shown on the second edition Ordnance Survey map (1878; see Jones 2011). At the east end of the trench was a compact sandstone surface [020] set into clay and similar to [010] in Trench 1. This appeared to truncate surface [021].

Trench 4 was located in the western part of the area over a building. The trench comprised 0.4m of topsoil and demolition material [001/045] above a series of walls at the south end. At the north end the trench was up to 0.9m in depth above natural sand. Two E-W walls [033] and [031] ran parallel across the trench (Illus 7). These comprised large sub-rounded cobbles set in black clayey silt. Wall [031] had been truncated by a modern brick and concrete drain [032] to the south. The north end of the trench comprised a concrete surface [022] overlying reddish gravel bedding [030]. A possible wall was noted at the north end of the trench, which corresponds with the building seen on the first edition Ordnance Survey

map (see Illus 1). The wall was only partly visible beneath [022] and so little information about its construction was visible.

## 4.2 Area A – Trenches 5–8, 16

Trench 5 was located in the Parade Ground area and contained up to 0.65m of topsoil/demolition rubble [001/045] above sandy subsoil [002] and contained only a metal pipe and a rope drain, associated with the floodlights. Trench 6 was located across the barracks and contained the same sequence as Trench 5 and was up to 0.7m in depth. At the north end of the trench was an E-W linear deposit of dark brown silt [023] with large stones, 1m in width. No clear cut was visible and the deposit was not fully excavated, however it corresponds to the north wall of the barracks as seen in Illus 1 and is thought to represent the robbed remains of this wall. Trench 7 was excavated across the basketball court in the area of the barracks. It comprised up to 0.3m of tarmac and bedding gravels [044] above 0.4–0.55m of demolition rubble [045], which overlay the sandy subsoil. Four concrete slabs were





**Illus 8**  
Wall [025], Trench 8

7

found crossing the trench at right angles; these did not appear to be structural as they were easily removed by machine.

Trench 8 was located on grass across the gun store and stable block (Illus 3). At the northern end of the trench topsoil [001] was 0.2–0.3m in depth and overlay a layer of concrete bedding chips [044] within a wire mesh. This overlay a brick and concrete structure [024] at the northern end of the trench. To the south was an E-W sandstone wall [025] 0.55m wide, with at least 2 courses surviving (Illus 8). This corresponds to the southern wall of the gun store as seen in Illus 1. A blocked brick drain [026] was found in the western section. The bricks were frogged and marked 'WINCHBURGH' and the drain had been blocked with large sandstone blocks (Illus 9). To the south of this was an E-W sandstone wall [027], with at least 2 courses. The wall was 0.6m in width and had been truncated at the eastern end. Perpendicular to wall [027] and along the eastern section was wall [028]. The wall extended for 3.6m along the edge of the trench. There was a clear 'kerb' on the western edge of the wall, which appeared to demarcate the edge of a cobbled

surface [029]. The surface was very compact and was topped with gravel; it extended to the end of the trench and lay inside the stable building. The walls relate to the north wall and an internal wall of the stable block, as shown on Illus 1.

Trench 16 was excavated in an area of grass in the area of the parade ground. The trench contained 0.3m of topsoil [001] over 0.3m of mixed demolition and rubble [045] including red gravels, over natural sand [002]. At the east end of the trench was a deposit of mortar [047], which overlay a ditch [041] (Illus 3). The ditch, approximately E-W, extended for 4m before appearing to turn to the south (Illus 2). The southern edge of the ditch sloped gradually to a rounded base; the northern edge was not exposed (Illus 10). The ditch was filled with compact sandy silt [040] with frequent charcoal and broken sandstone and occasional oyster shell. Finds from the possible ditch included pottery, clay pipe, metalwork and glass, dating to the latter half of the 18th century (see below). An environmental sample was taken from the fill of the ditch.



**Illus 9**  
Brick drain [026], Trench 8

### 4.3 Area C – Trenches 9 & 10

Trench 9 was excavated through tarmac and bedding gravels [044] 0.3m thick above a layer of demolition rubble [045], 0.3m deep. Natural sand [002] was exposed at 0.6m. No archaeological features were revealed. Trench 10 was located on grass in the area of a building adjacent to the barracks. A NE-SW sandstone wall bonded with mortar was found below 0.3m of topsoil [001]. A number of concrete slabs with a layer of sandy mortar on top were found elsewhere in the trench running parallel or perpendicular to the wall (Illus 11). The walls are not shown on either the first edition map (Illus 1) or subsequent editions (1878, 1895) and may be a later building relating to the use of the fort in the early 20th century.

### 4.4 Area E – Trenches 11–13

Trench 11 was excavated in the north-west corner of Area E in order to target the stable block. Beneath 0.35m of topsoil [001] a NE-SW stone wall, capped with concrete [048] was found at the western end of the trench (Illus 12). The cut [049] was visible on the eastern side of the wall and was filled with dark brown silt [050]. The wall corresponds to the eastern wall of the stable block (Illus 1). A second concrete wall [051] was found 2m to the east, running parallel (Illus 12). The walls coincide with the stable block wall as shown on the first edition map (Illus 1). A band of dark grey silt [052] containing glazed ceramics, moderate charcoal and clay and brick lumps was found to the east of [051]. The deposit had a clear eastern edge but the western edge was hard to define and the deposit was thought to have been water-borne rather than filling a deliberate cut. The natural at the west end of the trench comprised yellow brown sand [002] at 0.7m, becoming firmer clayey sand to the east. The eastern end of the trench was partly cut through the mounded area. Beneath the topsoil in this area was a layer of red bedding gravels [044] above 0.3–0.6+m of dark brown silt and demolition rubble [045]. Natural sand was not reached; excavation stopped at a depth of 1.2m.

8



**Illus 10**  
Ditch [040], Trench 16

Trench 12 was excavated over the location of the workshops through a high mounded area at the eastern edge of Area E. The trench contained 0.6m of topsoil over 0.6m+ of dark grey brown silt and demolition rubble [045]. The trench was excavated to a depth of 1.2m but natural sand was not reached.

Trench 13 was excavated parallel to Fort House in a flat grassed area in order to target the eastern end of the stable block. Below 0.4m of topsoil [001] was a concrete slab, which extended the entire length of the trench. The slab is assumed to be part of the structure of Fort House.

#### 4.5 Area B – Trenches 14 & 15

Trench 14 was excavated along the top of the mounded area at the western edge of Area B. Beneath the turf was mid brown silt containing demolition rubble including modern paving slabs and bricks [045]. The trench was excavated to a depth of 1.4m; natural deposits were not reached. Trench 15 was excavated in a flat grassed area at the front of Fort House, in the location of the western Ordnance Store. A 1.5m wide concrete slab, presumably related to Fort House was found at the eastern end of the trench. Beneath 0.15m of turf and topsoil [001] was a layer of mixed demolition rubble [045], which included metal, old pipes and planks of wood. Brown natural sand [002] was exposed at 0.7m at the west end of the trench.

### 5. FINDS

*Julie Franklin*

The assemblage is small numbering only 42 finds, almost all of modern date. The exception was a residual sherd of medieval pottery, in the local White Gritty Ware tradition. The sherd is clearly residual, associated as it was with sherds of 19th century stoneware ([033], Trench 4). It is possible that it represents underlying medieval activity or that it was brought in as part of make-up deposits from elsewhere.

The finds from fill [040] Trench16, suggest a date in the second half of the 18th century for the backfilling of cut [041]. The finds are all fragmentary but include white salt glazed stoneware, brown glazed red earthenware, a clay pipe stem, tile, mortar and glass fragments, metalworking waste and an iron nail. It seems likely that this deposit is contemporary with the occupation of the Fort.





The only other finds were unstratified modern pottery. Those found in Trench 3 were of early 19th century date; those from Trench 12 were of more recent 20th century origin, possibly used within the modern housing estate.

## 6. ENVIRONMENTAL SAMPLES

*Sarah-Jane Haston*

One sample was taken during the trial trench evaluation and was processed for palaeoenvironmental assessment. The assessment aims to look at what the palaeoenvironmental potential of the material is and what evidence this material is showing us for the activities which once took place at the site. The results of the sample processing are provided in Appendix 2 (Retent finds). The flint sample was found to be archaeologically sterile.

The only environmental remains recovered from this site consisted of two fragments of uncharred wood. A small number of finds were, however, recovered from the processed sample. These included ceramic finds of post-medieval pottery and clay pipe, building materials of mortar and tile, glass and glass waste, an iron nail and iron slag. A small amount of marine shell was found, with oyster (*Ostrea edulis*), identified which is typical for medieval and post-medieval urban assemblages. Unburnt mammal bone was recovered along with a smaller amount of burnt bone. The sample also contained small amounts of coal and cinders. The quantity of coal recovered compared to absence of wood charcoal suggests that it was the predominant fuel used in the area. The use of coal for fuel, within the Forth area, did not commence until the medieval period and the presence of coal and cinders in features suggest a medieval or post-medieval date. No further work is recommended

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## 7. DISCUSSION

The evaluation has demonstrated that archaeological deposits relating to the 19th century extension of Leith Fort survive in certain areas of the site. The preservation varies across the site; in some areas floor surfaces survive, while in others only the very foundations of walls are visible. The areas considered to have the greatest archaeological potential include the whole of Area D, the southern part of Area A and the north-western part of Area E. Due to the depth of deposits in the mounded areas in Areas B and E it was not possible to determine whether buildings survived beneath them.

The trenches in Area D demonstrated that substantial elements of the Ordnance Store have survived, including floor surfaces and possibly earlier cut features. The walls of such a building would have been necessarily substantial and so their survival, at a relatively shallow depth (0.4m) is not surprising. To the east, the foundations of the possible rear wall of the stable block are evident as well as a possible later

concrete wall. The outline of a building formerly attached to the southern perimeter wall is visible immediately to the south of these remains. Further evidence of the stable block was located in the north-western part of Area E. In the centre of Area D the surface of the parade ground survives, along with possible 'target' location as depicted on the second edition Ordnance Survey map. To the west further building remains, of what appear to be earlier structures survive along with later additions. Modifications of the buildings in this area can be seen on the maps of the site from 1853 onwards (see Jones 2011 for map regression).

The trenches in the northern part of Area A contained demolition deposits directly overlying natural sand, suggesting that the area was scarped following the demolition of the barracks and associated buildings of the Fort in the 1960s. Buildings on the eastern edge of the site do survive, however and the foundations of walls and surfaces relating to the stable block and the gun store were located; brick drains found also demonstrate continued use and modification of the buildings up until it went out of use. Modifications of buildings were also evident from the stone and concrete walls identified in Area C.

A possible ditch survives in the central part of the site in Area A. There is no evidence of this feature in any of the early maps of the fort or of the area from the 18th century onwards. However, the finds recovered from the fill of the ditch suggest a later 18th century date, perhaps contemporary with the initial building of the Fort and battery to the north of the site.

## 8. REFERENCES

### 8.1 Bibliography

- Cappers, RTJ, Bekker, RM & Jans, JEA 2006 *Digital seed atlas of the Netherlands*, Barkhuis Publishing and Groningen University Library, Groningen.
- Jones, E 2011 *Fort House, Leith; Desk-based Assessment and Historic Building Recording*, Headland Archaeology unpublished report.
- Kenward, HK, Hall, AR & Jones, AKG 1980 'A tested set of techniques for the extraction of plant and animal macrofossils from waterlogged archaeological deposits', *Science & Archaeology*, 22, pp. 3–15.

### 8.2 Cartography

- 1817 Kirkwood, R *This plan of the City of Edinburgh and its environs*.
- 1853 Ordnance Survey *Town Plan of Edinburgh*, Sheet 12, (Surveyed 1852), 1:1056.
- 1878 Ordnance Survey *Town Plan of Edinburgh*, Sheet 12, (Surveyed 1877), 1:1056.
- 1895 Ordnance Survey *Town Plan of Edinburgh*, I.16.16, (Surveyed 1894), 1:500.

## APPENDICES

## Appendix 1 – Site registers

*Context register*

<b>Context no.</b>	<b>Trench</b>	<b>Description</b>	<b>Dimensions (m)</b>
001	1	Dark grey silt. Topsoil.	D: 0.35
002	1	Dark yellow sand. Natural.	
003	1	N-S stone wall, flat stone slabs, rough finish, bonded with lime mortar. Stones 0.25x0.35m. Recorded in plan, courses unseen, cut not visible.	W: >2.5
004	1	Linear cut through wall [003], not excavated. Possible drain?	W: 0.4
005	1	Light brownish yellow sand and mortar with broken brick fragments. Fill of [004].	W: 0.4
006	1	Light orange brown compact lime mortar deposit.	L: 2.5
007	1	Linear cut N-S for wall [008], only visible at W edge. Not excavated.	
008	1	N-S wall of rough rounded stone bonded with lime mortar, stones 0.5x0.4–0.15x0.1m. W edge is clear but E edge not defined, adjacent to cobbled area [010].	L: 3
009	1	Black ashy sand and gravel with frequent stones, brick fragments and mortar.	W: 0.5 D: 0.1
010	1	Flat sandstone slabs and cobbles in dark grey clayey silt matrix. Paved area.	L: 3
011	1	Dark brown clayey silt with frequent charcoal flecks and occasional mortar and cobbles, smooth and compact. Clay surface/bedding?	L: 2
012	1	Angular cobbles 0.2x0.08x0.05 bonded with lime mortar within dark grey clayey silt matrix. Possible more recent surface.	L: 3
013	1	N-S brick structure, machine-made bonded with concrete mortar, bricks 0.2x0.08m. Drain/wall?	W: 0.45
014	1	Linear cut E-W with vertical sides. Not bottomed.	W: 1.7 D: > 1.3
015	1	Dark brownish grey silty sand with occasional small stones and very frequent charcoal. Fill of [014].	D: > 1.3
016	2	Linear cut E-W for wall [017].	W: 0.1
017	2	Sandstone wall, E-W bonded with lime mortar.	W: 0.7
018	2	Dark brown sand. Fill of [016].	W: 0.1
019	2	NE-SW wall, stone slabs capped with black/tar concrete.	W: 0.45
020	3	Compact clay and sandstone surface with frequent small stones and pebbles. Possibly cuts [021].	L: 3.5
021	3	Small stones and fine gravel within dark grey silt matrix, semi-compact. Gravel surface.	L: 9
022	4	Concrete surface overlying bedding material.	L: 3 D: 0.08
023	5	Linear deposit, E-W, dark brown silt with large stones, no clear cut visible. Possible remains of removed wall?	W: 0.1
024	8	L-shaped bricks, machine made forming possible drain at N end of trench. Overlain by concrete slab.	W: 0.2
025	8	Sandstone wall, E-W, bonded with lime mortar, single course visible.	W: 0.7
026	8	Frogged bricks set in square, 1 brick width forming drain 0.8m wide, at least 3 courses visible, marked "WINCHBURGH". Infilled with large sandstone blocks.	W: 0.8
027	8	Sandstone wall, E-W, truncated at E end bonded with lime mortar, 2 courses visible.	L: 1 W: 0.6



<b>Context no.</b>	<b>Trench</b>	<b>Description</b>	<b>Dimensions (m)</b>
028	8	Sandstone wall, N-S along E edge of trench, possible kerb on W side, associated with surface [029].	L: 3.6 W: 0.4+
029	8	Large flat sandstones with occasional pebbles with black gravel on top, very compact.	L: 6.5
030	4	Red broken mudstone. Bedding material for concrete [022].	L: 5.7 D: 0.14
031	4	Large sub-rounded stones, roughly E-W within dark grey clayey silt matrix. Possible remains of wall.	W: 0.5 D: 0.25
032	4	E-W modern bricks over concrete slab, truncates wall [031]. Drain/wall.	W: 0.4 D: 0.06
033	4	Large and medium stones, lying roughly flat within black clayey silt matrix, parallel to [031]. Remains of stone wall.	W: 0.8
034	NOT USED	NOT USED	
035	NOT USED	NOT USED	
036	NOT USED	NOT USED	
037	NOT USED	NOT USED	
038	NOT USED	NOT USED	
039	NOT USED	NOT USED	
040	16	Dark greyish brown sandy silt with frequent charcoal, broken sandstone and mortar and occasional oyster shell. Fill of [041].	D: 0.48
041	16	Linear cut, roughly E-W with regularly sloping sides and rounded base, possibly turns to S. Ditch.	W: 0.7 D: 0.48.
042	3	Compact stone/concrete pad, sub-square, set within [021]. Possible 'target' location as shown on 2nd edition OS map.	W: 0.4
043	all	Topsoil = [001].	D: 0.2-0.4
044	all	Bedding gravels.	D: 0.1-0.2
045	all	Demolition rubble/ grey silty sand.	D: 0.1-0.4
046	2	Mottled light brown sand. Interface above clean natural sand at 1.15m.	D: 0.23
047	16	Mortar deposit.	W: 1.2
048	11	Sandstone wall, NE-SW, bonded with lime mortar and capped with concrete.	W: 0.6
049	11	Linear cut NE-SW through natural sand.	W: 0.6
050	11	Dark brown silt. Fill of [049].	W: 0.6
051	11	Concrete wall.	W:0.6
052	11	Dark grey silt.	W: 1m D: 0.3+
053	10	NE-SW Sandstone wall, mortar bonded.	W: 0.55
054	4	N-S wall, beneath [022].	W: 0.4

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### Photographic register

Note: all directions given use North Fort Street as southern boundary of site

<b>Photo no.</b>	<b>Direction facing</b>	<b>Description</b>
FHLE11-001-210	E	Area A pre-ex
FHLE11-001-211	NE	Area A pre-ex
FHLE11-001-212	N	Area A pre-ex
FHLE11-001-214	E	General shot of Trench 1

<b>Photo no.</b>	<b>Direction facing</b>	<b>Description</b>
FHLE11-001-215	N	General shot of wall [003] and cut [004], Trench 1
FHLE11-001-216	W	Mortar deposit [006], Trench 1
FHLE11-001-217	W	Wall [008], Trench 1
FHLE11-001-218	W	Possible cobbled area [010], Trench 1
FHLE11-001-219	W	Possible cobbled area [012], Trench 1
FHLE11-001-220	S	Wall [017], Trench 2
FHLE11-001-221	SE	Wall [019], Trench 2
FHLE11-001-222	E	Sandstone deposit [020], Trench 3
FHLE11-001-223	W	Gravel surface [021], Trench 3
FHLE11-001-224	NW	Area C pre-ex
FHLE11-001-225	W	Area C pre-ex
FHLE11-001-226	N	Trench 5
FHLE11-001-227	S	Trench 6 showing possible wall base [023]
FHLE11-001-228	S	Trench 7
FHLE11-001-229	S	Trench 8 general shot showing concrete at N end
FHLE11-001-230	S	Wall [025], Trench 8
FHLE11-001-231	NW	Brick drain [026], infilled with sandstone, Trench 8
FHLE11-001-232	S	Wall [027], wall [028] and surface [029], Trench 8
FHLE11-001-233	N	Concrete surface [022], Trench 4
FHLE11-001-234	S	Wall [031], [030] and [032], Trench 4
FHLE11-001-235	S	Wall [033], Trench 4
FHLE11-001-236	E	Area E, Pre-ex
FHLE11-001-237	NE	Area E, Pre-ex
FHLE11-001-238	SE	Trench 10
FHLE11-001-239	W	Trench 9
FHLE11-001-240	SE	Trench 11
FHLE11-001-241	S	Trench 12
FHLE11-001-242	S	Trench 13
FHLE11-001-243	SW	Trench 15
FHLE11-001-244	N	Trench 14
FHLE11-001-245	E	Ditch [041], W facing section, Trench 16
FHLE11-001-247	E	Ditch [041], W facing section, detail, Trench 16

### Sample register

<b>Sample no.</b>	<b>Context no.</b>	<b>Description</b>
001	40	Fill of ditch [041]

## Trench register

<b>Trench no.</b>	<b>Area</b>	<b>Orientation</b>	<b>Location</b>	<b>Features</b>	<b>Depth(m)</b>
001	D	E-W	Ordnance Store	Walls [003], [008], mortar surface [006], cobbled area [010], [012], brick wall [013]	0.4
002	D	N-S	E stable block	Wall [016], concrete wall [019]	0.9, natural at 1.15
003	D	NE-SW	Parade ground	Surface [020], surface [021], concrete pad	0.5
004	D	NW-SE	Rectangular building	Stone wall [033], drain [032], wall [031], concrete surface [022]	0.9
005	A	NW-SE	Parade ground	Topsoil/demolition rubble over natural sand	0.65
006	A	NW-SE	Barracks	Topsoil/demolition rubble over natural sand	0.7
007	A	NW-SE	Barracks	Tarmac/bedding gravels over building rubble over natural sand. Four E-W concrete foundations.	0.85
008	A	NE-SW	E stable block/gun store.	Topsoil above loose concrete and rubble. Brick wall [024], stone walls [025], [027], [028], cobbled surface [029], brick drain [026].	0.5
009	C	E-W	Barracks	Tarmac/bedding gravels over demolition rubble and natural sand.	0.6
010	C	NW-SE	Parade ground	Topsoil over series of concrete walls.	0.4
011	E	E-W	E stable block	Topsoil over gravels and dark brown silt and rubble	0.7
012	E	NW-SE	Workshops	Topsoil 0.6m over 0.6m+ demolition rubble, natural not reached.	1.2
013	E	NW-SE	E stable block	Topsoil above concrete slab occupying whole trench.	0.4
014	B	NE-SW	1960s maze, W building	Topsoil over deep demolition deposits.	1.4
015	B	E-W	W Ordnance store	Topsoil over mixed rubble and debris and natural sand.	0.6
016	A	E-W	Parade ground	Topsoil over demolition deposits, ditch [041].	0.6



## Appendix 2 – Environmental tables

### Retent sample results

Context no.	Sample no.	Sample Vol (l)	Ceramic		Building materials		Glass		Ind. waste	Bone/shell object	Burnt bone	Unburnt bone	Shell	Uncharred plant	Cinders	Coal
			Pottery	Clay pipe	Mortar	Other	Glass	Glass waste	Fe slag	Bone object	Mammal	Mammal	Marine			
40	1	30	+	+	++	+	+	+	+	+	+	+	+	+	+	++

**Key** + = rare, ++ = occasional, +++ = common and ++++ = abundant

**NB** charcoal over 1cm is suitable for identification and AMS dating

## Appendix 3 – Finds catalogue

Trench	Context	Sample	Qty	Material	Object	Description	Spot Date	Period
3	Unstrat	-	3	Pottery (Mod)	Various	stoneware bottle rim, ironstone plate sherd, creamware bowl rim	1800–1830	Mod
4	33	-	1	Pottery (Medi)	WGW	jug rim, small abraded sherd, some olive glaze	12th–15th	Medi
4	33	-	10	Pottery (Mod)	Various	stoneware plain jar and fluted jar sherds; ironstone large vessel; unglazed red earthenware sherd	1800–1950	Mod
12	Unstrat	-	5	Pottery (Mod)	Various	modern porcelain plate sherds decorated with blue and yellow floral design; transfer printed and hand coloured plate rim in red–brown and green	1900–present	Mod
16	40	1	1	Bone Object	Fragment	possibly worked sliver of bone	-	-
16	40	1	7	Building Material	Mortar	lime mortar fragments	-	PM/Mod
16	40	1	2	CBM	Tile	fragments	-	PM/Mod
16	40	1	1	Clay Pipe	Stem	mouthpiece, unglazed	-	PM/Mod
16	40	1	3	Glass	Fragments	natural coloured	-	Mod
16	40	1	6	Industrial Waste	Iron Slag	fragments	-	-
16	40	1	1	Iron	Nail	small head, broken shaft	-	-
16	40	1	2	Pottery (Mod)	Various	fragments, of White Salt Glazed Stoneware, Brown Glazed Red Earthenware	1750–1800	Mod



## Appendix 4 – Discovery and Excavation in Scotland

<b>LOCAL AUTHORITY:</b>	City of Edinburgh Council
<b>PROJECT TITLE/SITE NAME:</b>	Fort House, Leith
<b>PROJECT CODE:</b>	FHLE11
<b>PARISH:</b>	Edinburgh
<b>NAME OF CONTRIBUTOR(S):</b>	Elizabeth Jones
<b>NAME OF ORGANISATION:</b>	Headland Archaeology (UK) Ltd
<b>TYPE(S) OF PROJECT:</b>	HBR, DBA and Evaluation
<b>NMRS NO(S):</b>	NT27NE 288
<b>SITE/MONUMENT TYPE(S):</b>	Wall, ditch, cobbled surfaces, Fort buildings
<b>SIGNIFICANT FINDS:</b>	None
<b>NGR</b>	NT 2615 7662
<b>START DATE (this season)</b>	26-09-2011
<b>END DATE (this season)</b>	12-10-2011
<b>PREVIOUS WORK (incl. DES ref.)</b>	–
<b>MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)</b>	<p>An evaluation was undertaken on the site of Fort House, Leith, prior to its demolition and redevelopment for housing. The work followed desk-based assessment, walkover survey and historic building recording of the site. The aim of the evaluation was to target the remains of the early 19th century extension to the fort, as shown on Kirkwood's map of 1817 and detailed on the first edition Ordnance Survey map of 1853. Sixteen trenches were excavated, located across 5 areas of the site (A to E), amounting to 4% of the area available for trenching.</p> <p>The trenches located walls and surfaces of the Ordnance Store, stable blocks and ancillary buildings as well as the parade ground surfaces and a possible 'target' location within the parade ground, mostly concentrated towards the southern end of the site. To the north a number of concrete wall bases were found, which may relate to the latter use of the fort, which was occupied until the 1950s. In the central part of the site, within the area of the parade ground, an east-west ditch was located. This contained oyster shell as well as demolition rubble within the fill and is not shown on any of the maps of the fort. The finds from the possible ditch indicate a latter 18th century date, suggesting that it may coincide with the construction of the initial building of the Fort and battery to the north of the present site.</p>
<b>PROPOSED FUTURE WORK:</b>	Possible mitigation excavation
<b>ARCHIVE LOCATION (intended/ deposited)</b>	Archive to be deposited at RCAHMS. Reports to be deposited at RCAHMS and CECAS.
<b>SPONSOR OR FUNDING BODY:</b>	City of Edinburgh Council
<b>CAPTION(S) FOR ILLUSTRS:</b>	Illus 1 – Detail of first edition OS map (1853) showing layout of barracks at Leith Fort. The evaluation located evidence of the walls of the stables (eastern building), the barracks (northern building) and the Ordnance Store (southern buildings). Illus 2 – View of Eastern guardhouse of Leith Fort looking south-west
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