

## DATA STRUCTURE REPORT OF ARCHAEOLOGICAL WORKS IN THE ROYAL MUSEUM OF SCOTLAND

## PROJECT SUMMARY SHEET

| Client | NATIONAL MUSEUMS SCOTLAND |
| :---: | :---: |
| National Grid Reference | NT 258733 |
| Address | ROYAL MUSEUM OF SCOTLAND, CHAMBERS STREET, EDINBURGH |
| Parish | EDINBURGH |
| Council | CITY OF EDINBURGH |
| Planning Ref | 06/02788/FUL |
| NMRS No | NT27SE.1872; NT27SE.3931; NT27SE.4620.0 |
| Oasis No | HEADLAND1-7874 |
| Project Manager | SIMON STRONACH |
| Text | ALISTAIR ROBERTSON |
| Illustrations | ANNA SZTROMWASSER CAROLINE NORRMAN THOMAS SMALL |
| Typesetting | CAROLINE NORRMAN |
| Fieldwork | EDWARD BAILEY <br> DR. STEVE LANCASTER ROSS MURRAY ALISTAIR ROBERTSON DR. SORINA SPANOU JÜRGENVAN WESSEL |
| Specialists |  |
| Finds Assessment <br> Environmental Assessment | JULIE FRANKLIN DAVIE MASSON DR. EMMA TETLOW DR. SCOTT TIMPANY |
| Schedule |  |
| Fieldwork <br> Report | JANUARY 2008 - MAY 2009 JUNE 2010 |

Signed off by:
Simon Stronach BSc(Hons) MIfA, Project Manager

Date:

## CONTENTS

1. INTRODUCTION ..... 1
2. ARCHAEOLOGICAL BACKGROUND ..... 1
2.1 Medieval (to 1600) ..... 1
2.2 1600-1800 ..... 5
2.3 The Royal Museum ..... 7
3. TEST PITS ..... 7
3.1 Methodology ..... 7
3.2 Results ..... 7
4. FLODDEN WALL INSPECTION ..... 7
4.1 Methodology ..... 7
4.2 Results ..... 7
5. ARCHAEOLOGICAL MONITORING OF ENABLING WORKS ..... 9
5.1 Methodology ..... 9
5.2 Results ..... 9
6. ARCHAEOLOGICAL MONITORING OF MAIN CONTRACT EXCAVATIONS ..... 9
6.1 Methodology ..... 9
6.2 Results ..... 9
6.3 Finds Summary ..... 23
6.4 Environmental Summary ..... 23
7. DISCUSSION ..... 23
8. BIBLIOGRAPHY ..... 25
APPENDICES ..... 29
Appendix 1 - Site registers ..... 31
Appendix 2 - Finds Assessment ..... 45
Appendix 3 - Paleoenvironmental sample assessment ..... 51
Appendix 4 - Test Pit Results ..... 56
Appendix 5 - Discovery Excavation Scotland entry ..... 58

## LIST OF ILLUSTRATIONS

## Illus 1

Site location vi
Illus 2
Museum plan showing areas of main contract excavation, enabling works, Flodden Wall inspection and test pits2

Illus 4
Working shot of test pit excavation 6
Illus 6
East facing shot of test pit $11 \quad 6$
Illus 5
West facing shot of wall remains in test pit 10
Illus 8
Flodden Wall in Area B
Illus 7
Flodden Wall in Area A

## Illus 9

Flodden Wall in Area C
Illus 10
East facing shot of pit 070
Illus 11
West facing shot of wall 06510

Illus12
East facing shot of vaulted basements in cellar 411

Illus 13
West facing shot of the floors of structures 1 and 2, with structure 1 in foreground12
Illus 14Vaulted basement 3 showing contrast in wall faces13
Illus 15

Southeast facing shot of wall 073 with window sill setting14
Illus 16South facing close up shot of window sill setting in wall 17314
Illus 17Elevation of vaulted cellars 1 and 215
Illus 18
East facing shot of walls 100 and 105, cut by block in cellar 15 ..... 16
Illus 19East facing shot of wall 164 in cellar 516
Illus 20Culvert structure 617
Illus 21
Blocking of culvert structure 6 ..... 17
Illus 22
Plan showing Ordnance Datum levels of natural geological deposits ..... 18
Illus 23
Plan of museum basement superimposed onto 1859 plan of Argyll Square ..... 19
Illus 25
Comparison of revealed structural features with Argyll Square buildings ..... 24
Illus 26
Gordon's map from 1647 showing approximate site location ..... 26
Illus 27
Edgar's map from 1765 showing approximate site location ..... 27
Illus 28
Industrial Museum Edinburgh, Plan from 1859 showing approximate site location ..... 28
Table A2.1
Finds Catalogue ..... 46
Table A3.1
Retent Sample Results ..... 52
Table A3.2
Flotation Sample Results ..... 55


Illus 1
Site location

# DATA STRUCTURE REPORT OF ARCHAEOLOGICAL WORKS IN THE ROYAL MUSEUM OF SCOTLAND 

by Alistair Robertson

Headland Archaeology Ltd. was commissioned to carry out a programme of archaeological works in the basement of the Royal Museum, Chambers Street, Edinburgh (Illus 1) in advance of and during redevelopment for the Royal Museum Project. The Project was designed to transform storage areas, notably the basement of the Victorian building, into public space. The archaeological works consisted of test pitting, monitoring of groundworks and recording of upstanding sections of the Flodden Wall which remain preserved in situ.

Previous excavations prior to construction of the museum's modern extension had revealed evidence of medieval activity (Ewart 1992) and 17th century map evidence showed buildings with associated gardens in the vicinity of the proposed works. In the 18th century the Trades Maiden Hospital had been relocated to the eastern side of the site and a Georgian square of buildings known as Argyll Square was constructed to the west.

Across the site, where underlying topography and later truncation allowed, buried topsoil was preserved and finds dating to the medieval and post-medieval period suggested it had been cultivated at that time. The groundworks exposed one medieval pit dated to the 15th century; and the remains were consistent with the activity revealed in the previous excavations.

Structural remains were encountered beneath the museum's basement floor in several locations. A number of walls, one incorporating a window setting, and the upstanding remains of four vaulted rooms were revealed. A comparison of their locations with the 1859 plan of Argyll Square suggested they were the remains of buildings on the southern range of the square. The vaulted rooms appeared to have served as coal stores and would be termed today 'under pavement cellars.'

The cellars were not bottomed and further archaeological deposits are likely to survive at a deeper level. These will include the basement floors of the Georgian Argyll Square buildings and possibly earlier features.

## 1. INTRODUCTION

A redevelopment of the National Museums of Scotland (the Royal Museum Project) received planning consent from the City of Edinburgh Council (reference: 06/02788/ FUL), with a planning condition attached that required a programme of archaeological works to be undertaken in accordance with a Written Scheme of Investigation. The redevelopment included two principal phases that were thought likely to have an archaeological impact:

- Enabling works to allow the creation of a stair and ramp in the west pavilion, consisting of the excavation of a c. $70 \mathrm{~m}^{2}$ area to an approximate depth of 0.5 m .
- Excavations to lower the floor of the museum basement to a maximum depth of 1.6 m below the previous floor level.
A programme of archaeological works to meet the planning condition initially incorporated a watching brief on the enabling works, excavation of test pits in the basement area to evaluate the archaeological potential of the site and recording of surviving sections of the Flodden Wall (Illus 2). This was followed by a final phase consisting of a watching brief on the main contract groundworks to lower the basement floor and the recording of any exposed archaeological deposits and historic structures.

The programme was agreed with the City of Edinburgh Council Archaeology Service (CECAS) which advises the planning authority on archaeological matters. Monitoring of the enabling works took place in January 2008, which was followed by test pitting and recording of the Flodden Wall from August to September 2008. Monitoring of the main contract excavations was carried out between November 2008 and May 2009.

## 2. ARCHAEOLOGICAL

## BACKGROUND

### 2.1 Medieval (to 1600)

The site now occupied by the Royal Museum is in an area outside and to the south of the line of the 15th century King's Wall around Edinburgh (Cullen 1988:1). The area was almost entirely enclosed within the later Flodden Wall of 1514-60. Part of the Flodden Wall can still be seen in the ground floor of the museum (NT27SE 3931) and the Royal Commission holds a number of photographs of this part of the wall taken in the 1930's (ED 12036-9).

| Key |  |
| :--- | :--- |
| $\square$ | test pits <br> enabling works <br> monitoring of main <br> excavation |
| $\square-\quad$ |  |

To the east, on the site now occupied by an Edinburgh University college, was the Kirk of St. Mary in the Fields which was founded in the 13th century and ruined in 1547 (Grant 1881: 1-3).

An extensive excavation to the immediate west of the Chamber's Street building, in advance of the modern extension, produced evidence for terracing and cultivation which predated the 16 th century (Ewart 1992). The land was apparently organized into strips, or rigs, with a series of rubbish pits along a boundary. The excavations also recorded 15th-16th century timber structures, a large brewing operation and gardens predating Gordon's bird's eye map of 1647 .

The site can be easily located on maps of the period as it is to the immediate northwest of the Potterrow Port. Maps of the city dated 1573 and 1574 (Plan of the Siege of the Castle of Edinburgh May 1573 \& Braun and Hogenburgh 1574) apparently show buildings in the vicinity of the site but are not accurate representations. Nevertheless a large building, presumably St Mary in the Fields, appears to be shown adjacent to Potterrow Port and these maps are probably accurate enough to suggest that at least some buildings existed on the site by this time. The end of the medieval period saw the construction of a new university to the east of the site, established by Royal Charter in 1582.

### 2.2 1600-1800

The mid-17th century saw the first reasonably accurate mapping of the area (Illus 26). Gordon's map of 1647 shows that the long north-south aligned gardens discovered during Ewart's excavation continued east across the site of the Victorian museum and the easternmost of these was sub-divided, forming rear gardens for a row of houses on the west side of what is now West College Street. At this time the Flodden Wall was still intact, as was the Potterrow Port. Another row of buildings is shown, somewhere close to the west side of the site. Hollar's perspective of the city dating from 1645 confirms this general arrangement.

In 1739 the Trades Maiden Hospital was moved onto the eastern side of the site. It is not clear whether it moved into a pre-existing building or one was purpose-built. Several photographs and an engraving of this building survive. They show it to have comprised three sections of varying height aligned east-west. The central part was the tallest with a centrally placed Georgian fanlight door positioned at the top of a flight of steps, visible on a postcard illustration of 1788 (Wilson). This was later converted to a window with a ground level door replacing the steps, evidenced by illustrations (Shepherd 1929) and photographs of uncertain pre-demolition date.

In the mid-18th century a new design for 15 new houses was drawn up for the lands surrounding and belonging to the hospital, although not all of the buildings appear to have been built (Adair Collection). Although this plan is undated it must have been made at some stage before 1752 when the dedicee of the plan, Sir James Campbell,
died. This plan describes the land to be used as "the Treads Maiden Hospital yeards and Bowling green".

By 1742 a single range labelled 'Argylls Square'appears on Edgar's map of Edinburgh (Illus 27), although it is possible it had not yet been completed. This would appear to have been the northern range of the Square and it probably now lies underneath present day Chambers Street. On Edgar's map much of the site covered by the Victorian Royal Museum appears to be occupied by a bowling green. Some buildings, including the Trades Maiden Hospital, are visible. One appears to be an unusual circular construction. To the east of the hospital there are buildings facing onto present West College Street (formerly Horse Wynd). These may be the same structures visible on the earliest maps here.

By 1765 there were buildings on the southern side of the square in what had previously been the bowling green, although these do not appear to have been based on the plan in the Adair collection. The southern buildings are described on Edgar's revised 1765 map as 'Campbell's New Buildings' (Illus 27). The western side of the Square is only partially defined, with what appears to be a single rectangular building constructed to the north of the circular structure noted above.

By 1778 (Lizars) the course of current Chambers Street is labelled Jamaica Street. The circular structure first noted on the 1742 map has been removed, with Argyll's Square now clearly formed by three ranges, with only an eastern one missing. Between 1784 (Kincaid) and 1804 (Ainslie) a small street marked 'Back of the City' which ran to the south of Argyll Square, along the line of the Flodden Wall, had been removed and the line now formed the boundary between the gardens of Argyll Square properties and those of a row of houses along the newly created Lothian Street. Presumably it was the Flodden Wall itself that formed this garden wall. Buildings at the northeastern corner of the block on College Street West had been replaced by 1804 with a building labelled as the 'South Tabernacle' and by 1823 (Wood) all the other buildings on the eastern range appear to have been cleared away.

Towards the end of the eighteenth century the University was completely changed with the construction of the Old College building (NT27SE 357.00) in 1789. An account of 1818 describes Argyll Square as 'a very neat small place' where the 'evening devotion of the young girls in the Trades Maiden Hospital' could be heard (Woodville 1818: 46). The girls of the hospital can be seen in a detailed oil painting of the square, from above and to the west, which was undertaken by James Ogilvie in 1846, presumably from the window of a university building. This painting is very informative in several ways. We can see that the Flodden Wall, surrounded by vegetation on both sides, was still standing to a considerable height at the rear of the hospital garden and that it continued west behind Campbell's New Building's or the southern range of Argyll's Square. Campbell's Buildings appear to have been only one storey in height, with a large number of chimney pots showing their domestic use. We can also see the form of the buildings of the western range of the Square, which are two adjacent 3 storey tenements with a narrow alley between them.


Illus 5
West facing shot of wall remains in test pit 10

Illus 6
East facing shot of test pit 11

The first Ordnance Survey large scale town map surveyed between 1849 and 1853 shows in detail the plan of buildings facing onto the square. Before the construction of the museum a new set of plans of Argyll square and the area around it (Illus 28) was carried out in November of 1859 (NAS RHP6524/29/1, 2 \& 3). This plan included sections across the area showing ground levels at the time.

### 2.3 The Royal Museum

Inspired by the Great Exhibition at the Crystal Palace in 1851 a group of Scottish enthusiasts began to agitate for a Scottish museum. In 1854 parliament granted $£ 7,000$ to buy the decaying Trades Maiden Hospital to facilitate the construction of an Industrial Museum of Scotland. Originally the design was modest (RHP 6524/49-). In 1860, after a large parliamentary grant the designers were able to purchase an additional large part of Argyll Square and thus triple the area available for the proposed museum (Yanni 1999: 101). The resulting building completed in 1888 (NT27SE 462.00) incorporates part of the Flodden Wall and had 'channeled foundations' (Yanni 1999: 104) to allow for the slope it was built on. Since then the museum has been extended to the south and west. At the same time as the construction of the museum Jamaica Street was widened and straightened to become what is now known as Chambers Street.

## 3. TEST PITS

### 3.1 Methodology

Nine test pits (4-12) were excavated by hand at various locations in the basement area of the museum in order to best characterise sub-surface archaeological deposits (Illus 2 and 4). Although twelve test pits had been planned, pits 1-3 could not be excavated for reasons of practicality (requirements of access as the basement was in use).

Concrete flooring and hard surfaces were broken out by a sub contractor prior to the works commencing. Each pit was $2 \mathrm{~m} \times 1 \mathrm{~m}$ and excavated to a depth of no greater than 1 m .

The stratigraphic sequence of each test pit was fully recorded. Any archaeologically significant deposits and features encountered were recorded by standard archaeological methods. All contexts and environmental samples were given unique numbers and bulk finds were collected by context. Photographs were taken using colour transparency and print film, as well as with a digital camera. Sections and elevations were drawn at 1:10, with plans of individual features drawn at 1:20.

### 3.2 Results

Detailed results of the test pitting are given in Appendix 4, a summary is given below.

The test pits revealed that a number of archaeological deposits survived beneath the museum basement. Clay loam containing oyster shell fragments was identified in a number of trenches and represents buried topsoil ('garden' soil) that would have formed the ground surface in the medieval or post medieval period. In test pits 8,10 and 11 , walls, including a doorway, were revealed that were thought likely to be the remains of basements associated with the 18th-19th century terraced houses of Argyll Square (Illus 5 and 6). Overlying and backfilling the structures were rubble deposits from the demolition of these buildings in advance of the museum's construction in the mid 19th century.

After considering the results of the test pitting CECAS deemed the remains to be archaeologically significant and a programme of monitoring and recording was required to be undertaken during the main contract excavations.

## 4. FLODDEN WALL INSPECTION

### 4.1 Methodology

A visual inspection of locations A, B and C (Illus 2) was undertaken to establish if any remnants of the Flodden Wall were present. Removal of a segment of brick wall in Area A and plasterboard in areas B and C was carried out in advance by a sub-contractor to enable inspection. The surviving remains were recorded by photograph (colour transparency, print and digital) as well as written description. Results are given below.

### 4.2 Results

## Area $A$

(Illus 3 \& 7)
There were no visible remnants of the Flodden Wall in Area A. However to the immediate east, part of the medieval wall was still upstanding and had been incorporated into a modern brick wall. As a result, only the south face could be inspected. The wall survives to a length of 9 m , with a maximum visible height of 2.4 m . It has been constructed over bedrock which was visible to 0.2 m height above the basement floor level. The wall is composed of sandstone blocks with irregular coursing, bonded by lime mortar. A bricked-up square void towards the eastern end measures 1 x 1 m and is 0.7 m above the base. The west end of the section had been truncated, with a modern brick wall continuing eastwards; bonded directly onto the medieval structure. Brick coursing also overlies the top of the wall, extending to the height of the basement room.

## Area B <br> (Illus 8)

The base of the Flodden Wall in area B was approximately 1.3 m above the surrounding floor level. It sits on and had been built onto sandstone bedrock. The wall reaches a


Illus 7
Flodden Wall in Area A


Illus 8
Flodden Wall in Area B


Illus 9
Flodden Wall in Area C
maximum height of 1 m and is 1 m in width. Aligned eastwest, it consists of north and south facing outer layers of dressed sandstone blocks with typical dimensions of $0.5 \times 0.4 \times 0.3 \mathrm{~m}$, and bonded by light brown lime mortar. Between the faces is an inner core of unworked stone and mortar, 0.3 m in width. A modern brick support for the floor above has been cemented onto the east end of the wall.

## Area C <br> (Illus 9)

The remains of the Flodden Wall at this location stand 2.3 m in height and 2.6 m in length, with a width of 0.7 m . Aligned east-west, the wall had been constructed directly onto natural bedrock. The north face appeared to be of original medieval construction, consisting of up to fifteen irregular courses of dressed sandstone blocks with average dimensions of $0.6 \times 0.3 \times 0.2 \mathrm{~m}$, bound by lime mortar. The face was partially obscured by a mortar render which would seem to be a later addition. Abutting the dressed stone to the south is roughly hewn stone and mortar that would have formed the rubble core. The original southern face is not present and a later sandstone wall has been built part-way along the original to replace it. This wall is 0.5 m wide, comprises dressed sandstone blocks with cement mortar and sits on a concrete block.

## 5. ARCHAEOLOGICAL MONITORING

## OF ENABLING WORKS

### 5.1 Methodology

An area covering $70 \mathrm{~m}^{2}$ in the northwest part of the museum was excavated to an approximate depth of 0.5 m below the ground surface, to allow for the creation of a stair and ramp in the west pavilion (Illus 2). The breaking out of modern concrete floors was not monitored; however below this level excavations were supervised by an archaeologist at the ratio of one archaeologist per machine.

Archaeological structures and deposits were recorded by measured survey, photograph and written record. Photographs were taken both digitally and with film (colour transparency and print).

### 5.2 Results

Excavations did not reveal any significant archaeological deposits. A make-up deposit of dark brown clay loam mixed with redeposited red glacial till was exposed to a depth of 0.4 m . It contained inclusions of brick along with frequent sub-angular stones and abutted the museum foundations. Several concrete encased service pipes cut the deposit.

## 6. ARCHAEOLOGICAL MONITORING

## OF MAIN CONTRACT EXCAVATIONS

### 6.1 Methodology

Reduction of the basement level was carried out by a maximum of two mini-excavators. Initial breaking out of modern concrete/paved floors and removal of the underlying sand bedding was unmonitored, while all excavations below this level were archaeologically supervised with a ratio of one archaeologist per machine.

Where possible, the mini-excavators were equipped with a flat-bladed bucket to aid identification of archaeological deposits and structures. The use of a toothed bucket was required on occasion for the removal of hard surfaces and demolition material.

Machine excavation continued down to the first archaeological horizon or natural geological deposits; whichever was encountered first. Where buried 'garden'soil was revealed, test pits ( $1 \mathrm{~m}^{2}$ in plan) were hand excavated through the deposits aiming at a sample of $10 \%$ of the area for the recovery of artefacts. A metal detector was also utilised to assist in artefact recovery. Environmental samples were recovered from test pits located every $400 \mathrm{~m}^{2}$.

Archaeological structures and deposits were recorded by measured survey, photograph and written record on pro forma record cards. Photographs were taken both digitally and with film (colour transparency and print). Digital shots took preference as the interior conditions in the basement area were dark and became increasingly dusty. Sections and elevations were drawn at 1:10, with plans of individual features drawn at $1: 20$. Bulk samples of archaeological deposits were taken for wet sieving and flotation, with a representative proportion of these samples processed and analysed. A daily site diary was also kept, detailing on-site hours, activities and progress.

### 6.2 Results

The previous basement floor level was generally 80.9 m Ordnance Datum (OD), with the exception of cellar 15 where it was 80.3 m (Illus 2). The redevelopment works reduced the basement floor to 79.7 m OD, with temporary foundation and drainage trenches excavated to a lower level. The areas within the basement are described in the order in which they were excavated and can be found on Illus 2.

The general stratigraphic sequence of the site comprised natural geological deposits of compacted reddish brown clay till, with several outcrops of sandstone bedrock, sealed by clay loam. This buried loam may have been supplemented by colluvial movement down a natural slope or by manuring of cultivated land prior to development. The loam is presumed to be a former topsoil or old ground surface and has been termed a 'garden' soil here.


Illus 10
East facing shot of pit 070

Archaeological features principally comprised walls cut into the buried loam.

## Entrance

(Illus 2)
The first area of excavation was in the northeastern part of the basement, around a new entrance. A temporary foundation trench excavated to a depth of 2.2 m below the previous basement floor level revealed natural geological deposits (059) towards the base. These comprised compacted brown green clays and were identified at 79.1 m OD at the east end of the trench, sloping down to the west below the limit of excavation. Overlying this was 057 - mid brown sandy clay with frequent stones and occasional oyster shell inclusions. Large boulders were identified in the deposit towards the base of the trench. 057 was a maximum of 0.9 m in depth and may be a colluvial deposit. Overlying 057 at the east end of the trench was dark brown clay 058 , containing frequent oyster shell and charcoal fragments. The deposit was up to 0.42 m thick and was interpreted as buried 'garden' soil - topsoil that would have formed the ground surface in the medieval and early post medieval period. This was sealed by rubble deposits 1.3 m deep which lay beneath the basement's flagstone flooring.

## Cellars 6 and 7

The area to the south of the entrance (northern part of cellar 7) revealed compacted glacial deposits of red clay at a depth of 1.7 m below the floor level; equating to 79.2 m OD. Overlying this was brown sandy clay 'garden' soil, which was 0.8 m deep and contained


Illus 11
West facing shot of wall 065

In cellar 6 to the west of test pit 7 , natural geological deposits were recorded at 0.6 m below the basement floor ( 80.3 m OD). Sealing this was buried 'garden' soil 079 , which was 0.4 m in depth and contained inclusions of charcoal, oyster shell and rubble fragments. Within soil deposit 079 , sandstone setting 080 was revealed (Illus 24). It was rectangular in plan with dimensions of 0.9 m length, 0.8 m width and 0.1 m depth. 080 had a central rectangular depression 0.07 m deep with slate base. Mortar remains on 080 suggested there may originally have been additional courses bonded to the base, forming a standing structure which was possibly an 18 th century garden feature.


## 'Racetrack'

The oval-shaped service corridor in the southern half of the site was termed the 'racetrack' in project documents due to its shape in plan, this terminology is followed here (Illus 2).

In the eastern half of the 'racetrack', natural geological deposits were generally identified at 0.7 m below the basement floor, although this level varied somewhat across the area. Bedrock outcrops were encountered at several locations, from only 0.5 m below the floor level. Overlying natural geological deposits in the northeastern part of the racetrack was clay loam deposit 084 . Brownish red in colour, the deposit contained frequent inclusions of small to large sandstones and occasional charcoal. In the southeastern part, grey red silty clay 083 overlay natural geological deposits. It was up to 1 m deep in places and although relatively sterile, contained occasional fragments of oyster shell. 083 and 084 were likely to be deposits of a buried 'garden' soil that was preserved where the level of bedrock dropped. Sealing deposits 083 and 084 was rubble makeup which was overlain by the basement floor flagstones. Deposit 083 continued westward, where it was recorded as deposit 085 in the southern section of the racetrack area. Cutting 'garden' soil 085 was wall 086 (Illus 3 and 24). It was aligned northsouth and was composed of mortared sandstone blocks. The top of 086 was 80.2 m OD ( 0.7 m below the basement floor level) and was exposed to a depth of 0.65 m with the base not reached. 086 was 0.4 m in width and 2.5 m long; having been truncated at either end by the museum walls. A service pipe cut through the wall and it was sealed by mixed rubble infill. 086 was part of a wall associated with the Georgian buildings of Argyll Square and extended from cellar 15 (as wall 112) to a point between cellars 4 and 6 , where it was labelled 074 (Illus 24).

In the western half of the racetrack, brown mixed loam deposit 156 was recorded overlying geological deposits to the west of wall 086.156 was approximately 0.5 m thick and contained inclusions of stone, masonry and pottery dating to the 18th/19th century.. The deposit became shallower east to west, with recorded depths ranging from 0.4 m to 0.1 m below the basement floor. Sealing 156 in the southwestern
part of the racetrack was compact stone and mortar surface 157. It was identified at 0.1 m below basement floor and was composed of a 0.15 m thick deposit of compacted mortar and small stones, overlying a layer of larger angular stones 0.2 m thick. 157 was 10 m in length, 1.1 m wide and had been truncated by the museum foundations as well as service pipes. The compact layer may have been part of the 18th century road surface of Argyll Square. To the west of surface 157, patches of bedrock were encountered at 1.3 m below the museum floor. At the base of a temporary foundation trench in this area, deposit 181 was revealed at a depth of 2.25 m below the museum floor and was made up of a compacted layer of ash and crushed coal. It may have provided a working surface during building of the museum as the deposit had not been truncated by the museum walls. The deposit was exposed to a length of 1.45 m and width of 1.3 m . Overlying 181 was plaster deposit 180, which was exposed to 1.35 m in length and 1.3 m in width. It reached a maximum thickness of 0.45 m and appeared to be a dumped deposit. Sealing 181 was redeposited mixed loam, similar in composition to 156 .

## Cellar 4

The remains of four basement rooms (structures 1-3 and 5) and several interlinking walls survived beneath the museum floor in this area (Illus 3, 17 and 24). The structures and walls cut buried 'garden' soil that was at least 0.8 m deep in places, while the structures themselves had been backfilled by demolition rubble.

## Walls west of structure 5

(Illus 24)
Wall 135 was aligned east-west, with the top of the wall located 0.3 m beneath the basement floor. It was 5 m in length, 0.4 m in width and exposed to a depth of 1.6 m without the base being reached. An associated construction cut (136) was visible to a width of 0.25 m on the north side of the wall. The wall was composed of


Illus 13
West facing shot of the floors of structures 1 and 2 , with structure 1 in foreground

Extending north from 138 was structure 5's west wall 139 . It was 1.25 m long, 0.4 m wide and at least 1.8 m in depth. Its west face, abutting buried 'garden' soil, was rough and unmortared. The east face was well finished and mortared, with the upper course of stone angled to support a former vaulted roof.

The entranceway was formed by a 1 m wide gap between wall 138 and wall 141. Aligned east-west, wall 141 was 2.5 m long, 0.65 m wide and greater than 0.8 m in depth. The eastern end was recessed and it was faced and finished along the entire southern side. The structure's east wall (140) extended north from 141. Wall 140 also comprised sandstone and was 2 m in length, 0.4 m wide and at least 1.8 m deep. It was faced and mortared on its west side but rough and unmortared on its east. The upper course of stone was angled on the west side to support a former vaulted roof.

Later excavations for a temporary foundation trench revealed the floor surface (154) of structure 5. It was exposed at a depth of 2.2 m below the basement floor ( 78.7 m OD) and comprised a compacted, rough surface of mortar mixed with small stones. A thin lens of coal dust lay on the surface.. Structure 5 and the area to the south of walls 135 , 138 and 141 were backfilled by a mixed deposit of brown loam, rubble and stone to a depth of at least 1.8 m .

## Structure 1

(Illus 12, 17 and 24)
Structure 1 was encountered 3m east of
cement mortared sandstones, with brick repairs evident. The north face was rough and unworked, whilst the south face had a smooth finish with plaster rendering evident in places. Wall 135 represented an 18th century revetment wall which separated the outer basement area of an Argyll Square building from the higher road level beyond.

## Structure 5

(Illus 24)
Structure 5 was a basement room 2.7 m wide by at least 2.5 m long, The south wall and entrance was formed by walls 138 and 141 , the west wall by 139 and the east wall by 140 . It was evident the walls had supported a vaulted roof by their angled upper courses.

Wall 138 was located to the east of 135 , on the same alignment.The construction cut was not visible and the wall was 3.75 m in length, 0.4 m wide and at least 1.8 m deep. 138 displayed similar characteristics to 135 : an unworked north face abutting 'garden' soil and a neatly finished south face. The east end of wall 138 had an iron door hinge fixed into it.
structure 5, with the gap between them backfilled by a mixed deposit of brown loam, slate and stone. Structure 1 was also a vaulted basement room, measuring 2.7 m x 2.3 m in plan. The south wall and entrance was formed by walls 120 and 121 , the north wall by 115 , the east wall by 117 and the west wall by 124 .

The structure's west wall (124) extended north from the east end of wall 141. It was 2.7 m long, 0.5 m wide and exposed to 1.8 m depth. 124 comprised sandstone bonded by cement mortar. Its eastern side was neatly finished, with plaster visible and a black, sooty stain also evident. Part of the south wall of structure 1 was formed by wall 120, which abutted the east side of wall 141 and ran eastwards for a distance of 1.75 m . Wall 120 was 0.33 m wide and at least 1.8 m deep. It had a smooth, plaster finish on the southern face but the north face was roughly finished. The eastern end of the wall was recessed to accommodate a door and also had a small square hole cut into it for a bolt. The bolt-hole was towards the exterior of the structure and therefore the door would have been locked from the


Illus 14
Vaulted basement 3 showing contrast in wall faces
outside - suggesting its function as a storage space. The other side of the door was created by wall 121 , which lay 1 m to the east. Wall 121 was 1.3 m in length, 0.3 m wide and at least 1.8 m deep. Composed of sandstone, it was plastered on the south face and recessed at the west and east ends; with a metal fitting still in place at the east end. The west end formed part of the doorway for structure 1, while the east end was associated with the abutting structure 2 .

The structure's east wall (117) extended north from midway along wall 121. It was 2.6 m long, 0.4 m wide and at least 1.8 m deep. The east and west faces were roughly finished with sooty stains visible. The upper course of stone was almost triangular in section, to allow for vaulted roofing to the east and west.Wall 115 formed the north wall of structure 1 and was 2.7 m long, 0.4 m wide and at least 1.8 m deep. Composed of sandstone mortared with grey cement, the visible south face was roughly finished with coal staining evident. Overlying north wall 115 and part of the west wall (124) was the remains of a red brick vaulted roof (116). It was heavily truncated and only survived to a single course above the walls. The bricks had dimensions of $0.23 \times 0.11 \times 0.08 \mathrm{~m}$ and were bonded by yellow cement mortar with gravel inclusions. The top of the roof was located approximately 0.25 m below the basement floor. The floor of structure 1 (152) was identified 2.2 m below
the basement floor. It was 3 m long and 2.7 m wide and composed of angular stones forming a rough surface (Illus 13) Coal dust overlay the floor.

## Structure 2

## (Illus 12, 17 and 24)

Structure 2 was the third vaulted room encountered and lay on the east side of structure 1 . With dimensions of $2.7 \mathrm{~m} \times 1.4 \mathrm{~m}$, it was narrower than structure 1 . The south wall and entrance was formed by walls 121 and 122, the north wall by 125 , the east wall by 119 and the west wall by 117 .

The entrance between walls 121 and 122 was 0.85 m wide, while wall 122 was 1.7 m in length, 0.6 m wide and at least 1.7 m in depth. The southern and western faces were finished with plaster. The western face was recessed to accommodate a door and had a square hole cut into it for a bolt; similar to structure 1's wall 120. The west wall of structure 2 was wall 117 and is described under structure 1 as it also formed that structure's east wall. The east wall of structure $2(119)$ was 2.6 m long, 0.4 m wide and composed of randomly coursed sandstone with a rough finish. The north wall of structure $2(125)$ was 1.4 m long, 0.5 m wide and exposed to a depth of 1.8 m . The exposed south face was roughly finished. Overlying 119 and 125 was the


Illus 15
Southeast facing shot of wall 073 with window sill setting
remains of a vaulted red brick roof (118). It was heavily truncated and survived to a maximum of four courses above wall 119. The floor of structure 2 (153) was revealed 2.2 m below the basement floor. It measured $3 \mathrm{~m} \times 1.4 \mathrm{~m}$ and consisted of rectangular stone slabs with dimensions of $0.4 \mathrm{~m} \times 0.3 \mathrm{~m}$ (Illus 13). Structures 1 and 2 were backfilled with demolition material 123, which comprised rubble, mortar, clay and brick fragments.

## Structure 3

## (Illus 14 and 24)

Structure 3 was a further cellar that lay to the east of structure 2. The area between structures 2 and 3 was filled by dark brown sand mixed with demolition material.

Structure 3 had dimensions of 2.1 m x 1.9 m in plan. The south wall and entrance was formed by walls 126 and 130 , the north wall by 128 , the east wall by 129 and the west wall by 127.

The west wall of structure 3,127 , was 2.6 m long, 0.2 m wide and at least 0.8 m deep. It comprised randomly coursed sandstone bonded by cement mortar. The east (internal) face was smooth and plastered while the west face was roughly finished (Illus 14). Soot stains were visible on the east face. The structure's north wall (128) was 2.1 m long, 0.3 m wide and at least 1.1 m deep. The southern face was plastered, again with soot stains noted. East wall 128 was 2.2 m long, 0.4 m wide and exposed to 0.8 m depth. The west (internal) face had remnants of plaster. The southern wall and entrance was formed by walls 126 and 130 . Wall 126 was 1.3 m


Illus 16
South facing close up shot of window sill setting in wall 173


## Illus 17

Elevation of vaulted cellars 1 and 2
southern return to wall 069 was formed by wall 074 . It was 1.3 m long, 0.5 m wide and exposed to a depth of 0.9 m It comprised worked sandstone blocks and the west face was neatly finished. The south end of 074 was truncated by the museum's foundations, but appeared to be the same as wall 086 recorded in the racetrack area.
1.5 m to the south of wall 069 , a stretch of substantial wall (073) with a possible window sill setting was recorded (Illus 15, 16 and 24). The wall ran parallel to 069 and was 3.8 m long, 0.7 m wide and exposed to a depth of 0.8 m . At the window setting the wall narrowed to 0.3 m width, creating an internal bay. The setting was 1.2 m wide and recorded at 79.8 m OD.

Surrounding wall 073 and abutting the finished south faces of walls $69,120-122,126,130,135$ and 138, were backfill deposits 75 and 143. They were composed of rubble, stone and brown loam with plaster and mortar inclusions.

## Cellar 15

## (Illus 18 and 24)

Levels of natural geological deposits altered significantly in cellar 15 . Bedrock was identified only 0.2 m below the basement floor at the southern limit of the cellar ( 80.1 m OD), whilst at the northwest corner a temporary foundation trench revealed natural clays at a depth of 1.7 m ( 78.6 m OD) overlain by buried 'garden' soil of dark brown loam with charcoal and small stone inclusions. Post excavation analysis recovered a fragment of human bone from garden soil deposit 114 in the southwest corner of the cellar: an intermediate phalange from a finger (appendix 3). As only a single, small piece of bone was found in the deposit, it is unlikely to represent in situ remains and may have been redeposited from the cemetery soil associated with the kirk of St. Mary in the Fields.

Further wall remains were identified in this cellar.Walls 100, $105,111,112$ and 134 appeared to form part of the footprint for basements associated with former buildings of Argyll Square.

At the north east corner, wall 112 extended southwards for 7.5 m and is the likely extension of wall 086 recorded in the racetrack and cellar 4 . It was 0.6 m wide and at least

1 m in depth. The top of the wall was exposed immediately below the basement floor at 80.1 m OD. 112 was randomly coursed, mortared sandstone which was faced and finished on its west side. The east side was rough and irregular. Eastwest aligned walls 100 and 105 lay to the west of 112 and may have formed a west return wall for 112. .Wall 105 was 3 m long, 0.5 m wide and exposed to 0.48 m in height. Made of sandstone, only the north face had a mortar render. It was truncated at its eastern end of by a concrete pad and its western end by a sandstone block, both associated with museum foundations. On the same alignment as 105, extending west, was wall 100 . Wall 100 was 1.9 m long, 0.6 m wide and exposed to 0.35 m depth

In the northwestern part of the cellar wall 111 was identified, aligned north-south. Consisting of mortared sandstone it displayed a smooth plaster render on the east face. 111 was 3.8 m long, 0.6 m wide and of unknown depth. The top of the wall was 0.9 m below the museum floor $(79.4 \mathrm{~m}$ OD). 0.5 m west of 111 , a length of wall was revealed 1.2 m below the floor surface (134). This wall was aligned east-west and exposed to a length of 1.5 m and depth of 0.2 m . It was 0.5 m wide.

The area within the walls was backfilled by rubble and mortar $(103 / 108)$ which contained pottery from the 17th/18th century (Appendix 2); correlating with the period in which the Argyll Square buildings stood.

## Corridor between cellars 15 and 5

(Illus 2 \& 24)
Excavations here extended to 1.3 m below the floor level. The top of wall 173 was identified 0.7 m below the floor ( 80.2 m OD) and was at least 0.6 m deep. 173 was 3.1 m long, 0.6 m wide and aligned north-south. It was composed of mortared sandstones $0.3 \times 0.25 \times 0.1 \mathrm{~m}$ and was dressed on both east and west faces.

## Cellar 5

(Illus 2, 19 and 24)
Natural geological deposits were not exposed during excavations in cellar 5. Buried loam was identified in


Illus 18
East facing shot of walls 100 and 105, cut by block in cellar 15


Illus 19
East facing shot of wall 164 in cellar 5
the southern part of the area at a depth of 0.7 m below the basement floor and contained small stone inclusions. Cutting the loam was wall 164. It was aligned east-west and was 8.7 m in length, 0.5 m wide and revealed to a depth of just 0.1 m (Illus 19). The top of the wall was 1.1 m below the museum floor ( 79.8 m OD). 164 comprised mortared sandstone with a dressed north face and unfinished south side.

Wall 166 formed a north return at the west end of wall 164. 166 was exposed to 3 m in length and 0.4 m in depth and was 0.4 m wide. The sandstone coursing was irregular with mortar bonding and only the east side was dressed to a flat finish.

To the east of wall 164 , two parallel walls were located (162 and 163). Wall 163 was 1.9 m in length, 0.6 m wide and at least 0.4 m deep. The top of the wall was 0.7 m below floor level. It was roughly dressed on the east face but undressed on the west. 2.4 m east of wall 163 was parallel wall 162 . It was also 1.9 m long and was 0.4 m wide. 162 was dressed on both its east and west faces.

Abutting the dressed faces of all the walls and dispersed across the northern part of cellar 5 was a demolition layer (161). It was encountered 1 m below the floor and was composed of rubble, slate and brick more than 0.3 m deep. Pottery recovered from the deposit was dated to the 18th/19th century (Appendix 2). Sealing 161 and overlying the walls was a make-up deposit of dark brown silty sand mixed with rubble (160). 160 was 0.6 m deep.

## Rooms adjoining Cellar 5

## (Illus 24)

Two adjoining rooms to the northwest and southwest of cellar 5 were also excavated. The room to the northwest was dug to 2.8 m below the basement floor ( 78.1 m OD). Natural deposits were not reached and instead a mixed deposit of brown loam and demolition material was revealed (168). 168 contained 19th century pottery and was 1.7 m deep and sealed by redeposited dark brown loam which contained stone, brick and oyster shell inclusions. 167 was 0.7 m deep and overlaid by sand bedding for the basement floor.

The room to the southwest revealed the remains of a vaulted structure (169) 1m below the museum floor. 169 comprised a north-south aligned section of wall made up of randomly coursed sandstone. The remains of a vaulted roof were evident on the east side of the wall, which had been truncated by the museum foundations. Sealing 169 was backfill deposit 170; light brown sandy clay with inclusions of charcoal, mortar and oyster shell. It also contained frequent angular stones and was 0.76 m deep.

## Cellar 2

## (Illus 2 \& 3)

In the southern half of cellar 2, natural geological deposits were at varying heights. Towards the east they were encountered at approximately 0.7 m below the museum floor ( 80.5 m OD), while a 2 m deep trench excavated in the western part of the room did not reach natural deposits. Overlying the natural was buried 'garden' soil
deposits. In the eastern part this was recorded as deposit 114 and was dark brown clayey silt with inclusions of stone and oyster shell, 0.2 m deep. To the west was midbrown clay loam 147 , which contained inclusions of oyster shell, animal bone and frequent small stones. The deposit was exposed to a maximum depth of 1.8 m . Within 147 , a vaulted culvert (structure 6) was encountered (Illus 20).

The top of the culvert was 1.7 m below the basement floor ( 70.2 m OD ), with the base a further 2.1 m deeper. No construction cut was visible, suggesting 147 had been redeposited around it. The structure was aligned northeast-southwest and consisted of randomly coursed, mortared sandstones approximately $0.2 \mathrm{~m} \times 0.2 \mathrm{~m} \times 0.1 \mathrm{~m}$ in dimension. The culvert had a compact stoney base 0.6 m wide, which was curved in the middle. The northwest and southeast walls ( 148 and 149 respectively) were 1.5 m in height and 0.6 m in width. The internal height of the structure from the base to the top of the vaulted roof (150) was 1.7 m . The culvert ran northeast for approximately 10 m on a slight curve, where it was then blocked by pieces of ceramic and cast iron piping (Illus 21). Several service pipes were cut into the top of deposit 147 and correspond to the linear cuts recorded in test pits 9 and 12.

In the northern half of the cellar, natural geological deposits were not reached. A deposit of rounded sandstone pebbles (159) was revealed at a depth of 1.1 m below the floor and was exposed to 0.2 m thickness. Overlying 159 was a mixed deposit of brown loam and sub-angular stones containing oyster shell and occasional animal bone inclusions (158). The deposit was 0.7 m deep, with no visible truncation by the museum walls. This suggested 158 was a make-up layer of redeposited topsoil.

In a room to the north of cellar 2, a deep demolition layer was overlain by redeposited clay and loam. Natural glacial till was recorded at a depth of 1.25 m . Truncating this deposit was shallow sub-rectangular cut (093), which was 4.8 m long, 1.6 m wide and 0.15 m deep. It was filled by a mixed deposit of brown clayey silt which contained inclusions of stone, slate, animal bone and oyster shell (092). Sealing 092 was red brown silty clay 090 , which was 0.35 m deep and contained frequent stones. Pottery dating to the 18th century was recovered from this deposit. Post excavation analysis also retrieved three small fragments of human bone from 090 - identified as fragments of human cranium, rib and what appears to be a distal phalange from a little finger (Appendix 3). The fragments were dispersed and very small; therefore unlikely to be in situ remains. Overlying this was dark brown loam 087. It contained subangular stone inclusions and was 0.5 m deep.


Illus 20
Culvert structure 6


Illus 21
Blocking of culvert structure 6

HEADLAND ARCHAEOLOGY (UK) LTD



### 6.3 Finds Summary

Julie Franklin

For a full report see Appendix 2. The assemblage points towards a late date for the majority of the deposits found. The early finds were few and fewer still appeared to be in situ in undisturbed deposits. Context [071] contained five sherds of medieval pottery and no later finds and would appear to have been laid down in the 15th century. Context 103/108 contains two sherds of pottery and two of Delft tile and would appear to have been laid down in the late 17 th or early 18 th century. Several other contexts contained only one datable find or none and could thus be of early date. Of the rest of the finds-producing contexts all post-dated the mid 18th century.

However, few contexts produced large assemblages, sherds are often small and redeposited and dating evidence should thus be used with caution. The one exception to this is context 160 which contained some large and joining sherds all of 19th century date, indicating this deposit has been little disturbed since deposition.

The finds are largely unremarkable. They appear to represent domestic midden, and are a cross-section of the material culture in use in Edinburgh during the periods represented.

The finds are stable, and given their context and nature, none are recommended for further cleaning or conservation.

### 6.4 Environmental Summary

## Davie Masson, Dr. Emma Tetlow \& Dr. Scott Timpany

For a full report see Appendix 3. On the whole the environmental material from the site is likely to contain a mixture of materials that have been blown and/or washed into features by natural agencies (e.g. windblow) from the surrounding area, together with deliberately dumped [midden] waste in the form of bone and marine shell. Other domestic materials are also present in the assemblage from the museum including pottery sherds and metal objects (see Finds report). There is some evidence of industry in the area with the presence of iron slag and magnetic residue in the assemblage suggesting metal working was taking place in the vicinity of the site.

Of particular interest is the recovery of human bone in three samples ( 018,019 and 020). These samples were taken from buried soil and mixed deposits within two areas; Test Pit 9 and Cellar 15. The bone fragments have been preliminarily identified as a fragment of human cranium, a rib and what appears to be a distal phalange from a little finger (018), a further fragment which is possibly part of a human cranium (019) and an intermediate phalange from the ring, middle or index fingers. The presence of the fragments across two areas suggests that more than one individual is represented in the samples. It is unlikely that
this material is in situ and it is most likely to be re-deposited material deriving from a graveyard surrounding the nearby Kirk of Fields.A further sample (016) which consists largely of fragmentary, mixed animal bone also contains a possible triquetral joint from a human wrist.

## 7. DISCUSSION

The natural geological deposits encountered during the programme of works generally comprised compacted reddish brown clay till with several outcrops of sandstone bedrock. The pre-modern topography of the area could not be entirely recovered as these deposits had been truncated by both the construction of the museum and earlier structures. At locations that did appear to be undisturbed, the natural fluctuated within an approximate range of 79-81m OD (Illus 22). At Flodden Wall location B, the bedrock was recorded at 82.2 m OD, suggesting a natural ground rise towards the south.

The three upstanding sections of the medieval Flodden Wall, which had survived the later construction of the museum, were found to be in a good state of preservation despite some modern alterations especially evident at location B. These sections of the Wall have been preserved in situ.

The earliest dated feature was a medieval pit, cut into natural deposits, which contained five sherds of 15th century pottery. Although outwith the medieval core of the city, activity in this period is attested by the siting of the 13th century Kirk of Fields to the east of the museum. This evidence also fits in well with the results of previous excavations to the immediate west of the museum, which produced evidence for terracing and cultivation predating the 16th century (Ewart 1991). Overlying natural deposits at intermittent locations was a buried loam that presumably formed an old ground surface or topsoil. Pottery fragments dating to the medieval and early post-medieval period confirm that it was the ground surface at that time and also may derive from manuring of cultivated land.

Processing samples from this deposit also recovered five human bone fragments from three locations. They were a significant distance from each other and the bone does not represent in situ burials. The Kirk of St. Mary in the Fields, ruined in 1547, and its associated cemetery lay to the immediate east of the museum's location, under what is now the University of Edinburgh quadrangle. Construction and landscaping for the university (established in 1582) and development of the thoroughfare that is now Chambers Street may have redeposited parts of the graveyard soil westwards. In the room north of cellar 2 , the loam had been redeposited over a deep lying demolition layer that may be associated with demolition of the buildings on the west side of what is now West College Street, identified on Gordon's map of 1647 , or earlier medieval structures. In cellars 6 and 7 a rubble wall and sandstone base were revealed within the buried loam deposits. They may be the remains of features in the gardens depicted on Gordon's map of 1647, or from later landscaping around Argyll Square.


Illus 25
Comparison of revealed structural features with Argyll Square buildings

As stated, the presence of buried 'garden' soil was sporadic across the site and it appears that a significant amount had been truncated, presumably by terracing ahead of construction, leaving only those deposits that had accumulated in natural depressions in the original topography. Further evidence of heavy disturbance in the area was derived from there being no structural remains identified in the eastern part of the site; on the footprint of the Trades Maiden Hospital erected in 1739. The only evidence that may relate to the building was patches of a mortar and crushed stone layer overlying natural deposits.

The vaulted culvert revealed in cellar 2 (structure 6), which ran approximately north- south, was an unanticipated feature and in an excellent state of preservation. There was no construction cut visible or finds retrieved to assist with dating the structure. The section exposed had not been damaged by the museum foundations, which suggests it was in use at the time. The culvert was not damaged during redevelopment works and a membrane was laid down to ensure concrete did not directly adhere to it.

Significant structural remains were encountered beneath the museum's basement floor in cellars 4, 5 and 15. They comprised mortared sandstone walls and four rooms in which deposits of soot were noted. The majority of walls were faced on only the interior or exposed face.

The footprint of the museum partly sits on the location of Argyll Square as depicted on the 1859 plan (Illus 23 and 28). The layout of the structural remains corresponds with the outline of buildings making up the south range (Illus 23 and 25). The buildings were constructed in the Georgian period; which also correlates with the dates of finds retrieved from demolition material between the walls (Appendix 2). The vaulted structures are likely to be the remains of what would be termed today 'under pavement cellars'. Their use as coal stores is intimated by the presence of soot on the walls and floors.

It was only after a deeper trench was excavated for foundations work that the floors of the vaulted structures were exposed.The bases of the other walls were not reached within the limit of excavation, nor any other floor surfaces.

A possible window setting only just exposed was further evidence that the basement floor of the earlier buildings was not reached and may survive at a deeper level beneath the extent of the redevelopment works.

## 8. BIBLIOGRAPHY

Adair Collection 1582-1822 Collection of maps, plans etc. from Scotland Europe and America. Disbound map collection currently held in the National Museum of Scotland SAS Archive GA 193 MAP (N)
Ainslie, J 1804 Old and New Town of Edinburgh and Leith with the Proposed Docks. Edinburgh (map)
Barrott, HN 2000 An Atlas of Old Edinburgh West port, Edinburgh.
Cullen, W \& Lord, D 1988 The Walls of Edinburgh. Cockburn Association: Edinburgh
Ewart, G 1992 'Chambers street, sit of new Museum of Scotland (City of Edinburgh Parish): multi-phase urban site.' Discovery Excav Scot, 1992, 50.
Grant, J 1881 Cassell's Old and New Edinburgh. Cassell, Petter, Galpin \& Co. London
Kincaid, A 1784 A Plan of the City and Suburbs of Edinburgh. Edinburgh (map)
Lizars, D 1778 in Arnot's History of Edinburgh
Ordnance Survey 1849-53 Large Scale Town Plan of Edinburgh
Shepherd, TH 1929 Modern Athens displayed in a series of views, or, Edinburgh in the nineteenth century. London: Jones \& Co.
Simpson, A and Stevenson, S 1981 Scottish Burgh Survey, Edinburgh, Canongate and Leith. University of Glasgow: Glasgow
Wilson, D Daniel Wilson Scrapbooks,Vol I, p. 91. NMS Library, Acc. 123882
Wood, J 1831 Plan of the City of Edinburgh including all the latest and intended improvements Edinburgh. (map)
Woodville, M 1818 A visit to Edinburgh, containing a description of the Principal Curiosities and Public Buildings of the Scottish Metropolis. Walter and Grieg: Edinburgh
Yanni, C 1999 Nature's Museums:Victorian Science and the Architecture of Display Continuum. International, Baltimore


Illus 26
Gordon's map from 1647 showing approximate site location
Reproduced by permission of the Trustees of the National Library of Scotland


Illus 27
Edgar's map from 1765 showing approximate site location Reproduced by permission of the Trustees of the National Library of Scotland


Illus 28
Industrial Museum Edinburgh, Plan from 1859 showing approximate site location
Reproduced by permission of the Trustees of the National Library of Scotland
APPENDICES
APPENDIX 1 - SITE REGISTERS ..... 31
Context register ..... 31
Photographic Register ..... 36
Sample Register ..... 43
Drawing Register ..... 44
APPENDIX 2 - FINDS ASSESSMENT ..... 45
Introduction ..... 45
Pottery ..... 45
Finds ..... 45
Finds Discussion ..... 45
References ..... 45
APPENDIX 3 - PALEOENVIRONMENTAL SAMPLE ASSESSMENT ..... 51
Introduction ..... 51
Method ..... 51
Results ..... 51
Discussion ..... 51
Conclusion ..... 51
References ..... 51
APPENDIX 4 - TEST PIT RESULTS ..... 56
Test Pit 4 ..... 56
Test Pit 5 ..... 56
Test Pit 6 ..... 56
Test Pit 7 ..... 56
Test Pit 8 ..... 56
Test Pit 9 ..... 56
Test Pit 10 ..... 56
Test Pit 11 ..... 57
Test Pit 12 ..... 57
APPENDIX 5 - DISCOVERY EXCAVATION SCOTLAND ENTRY ..... 58

## Appendix 1 - Site registers

## Context register

| Context No. | Area/ Test pit / Cellar | Description |
| :---: | :---: | :---: |
| 001 | T11 | Grey slate flagstones. |
| 002 | T11 | Yellow sand bedding deposit, 0.07 m deep, underlying 001. |
| 003 | T11 | Dark brown sandy loam with frequent inclusions of clay, slate, brick and masonry. 0.26 m thickness. |
| 004 | T11 | Compacted mortar surface. Yellow-brown with inclusions of coal fragments. |
| 005 | T11 | Slag backfill of cut 009. 0.3 m thickness. |
| 006 | T11 | Sandstone wall aligned NE-SW. Exposed to 2 m length, 0.48 m width and 0.65 m depth. Plastered on SE face. |
| 007 | T11 | Compacted mixed brown clay with cinder and coal inclusions. Overlies 005 and underlies 004. |
| 008 | T11 | Rubble backfill deposit on SW side of wall 006. Possible cellar backfill. |
| 009 | T11 | Construction cut of wall 006.0 .73 m wide and 0.8 m deep. Filled by deposit 005 . |
| 010 | T10 | Rubble backfill deposit abutting wall 013 and east side of wall 014.0 .7 m deep. |
| 011 | T10 | Secondary clay and rubble backfill deposit, abutting wall $013.0 .3-0.9 \mathrm{~m}$ in depth. Overlies 010. |
| 012 | T10 | Light brown-grey sandy rubble with brick and mortar fragments. Backfill deposit between wall 013 and west side of wall 014. |
| 013 | T10 | Sandstone wall aligned E-W. 0.26 m wide and exposed to 0.9 m depth. 0.26 m wide and exposed to a depth of 0.9 m . Doorway located in the wall, 0.93 m wide. |
| 014 | T10 | $\mathrm{N}-\mathrm{S}$ aligned wall. 0.6 m wide and exposed to 0.6 m depth. |
| 015 | T10 | Cut for wall 014.0 .13 m deep and 0.36 m wide. |
| 016 | T11 | Possible garden soil consisting of yellowish brown clayey loam. |
| 017 | T4 | Concrete/tile/lino museum floor |
| 018 | T4 | Rubble backfill deposit overlying 019. |
| 019 | T4 | Garden soil deposit with inclusions of oyster shell, stone and coal. |
| 020 | T4 | Early garden soil underlying deposit 019. |
| 021 | T8 | Flagstone floor of museum that has been tiled |
| 022 | T8 | Stone and concrete pad to support possible pillar |
| 023 | T8 | Bedding sand below museum flagstone flooring 021 |
| 024 | T8 | Sand and rubble deposit 0.7 m thick underlying 023 . |
| 025 | T8 | Mortar and rubble demolition deposit below 024. |
| 026 | T8 | Wall remains underlying soil deposit 028.0 .36 m long, 0.3 m wide and 0.5 m deep. |
| 027 | T8 | Cut for sandstone and concrete pad. 1.1 m long, 1 m wide and 0.5 m deep. |
| 028 | T8 | Sandy clay soil deposit overlying wall remains 026 . Revealed to a depth of 0.15 m . |
| 029 | T9 | Museum basement flooring-slate flagstones overlaid with linoleum tiles. |
| 030 | T9 | Sand bedding layer for flagstones 029.0.12m thick. |
| 031 | T9 | Grey brown sandy loam beneath bedding layer 030. Contains oyster shell, animal bone and charcoal inclusions. Probable buried garden soil. Overlies 035 . |
| 032 | T5 | Rubble make up deposit beneath 017 . |
| 033 | T5 | Dark brown clay loam underlying 032. Interpreted as garden soil. At least 0.3 m thick. |
| 034 | T12 | Rubble and sand make up deposit 0.36 m deep. |
| 035 | T9 | Mottled clay deposit with some inclusions of oyster shell and charcoal that appears to be weathered natural mixed with garden soil |
| 036 | T9 | Cut of linear feature at 0.42 m below museum floor. 0.07 m deep. |
| 037 | T9 | Fill of cut 037. Grey brown sandy clay with frequent stones and mortar inclusions |
| 038 | T12 | Rubble backfill deposit cut by service trench 040 . |


| Context No. | Area/ Test pit /Cellar | Description |
| :---: | :---: | :---: |
| 039 | T12 | Reddish brown clay loam-probable buried garden soil. Inclusions of oyster shell, stones and cinders. Underlies 038 |
| 040 | T12 | Possible cut for services. |
| 041 | T9 | Natural geological deposits of boulder clay |
| 042 | T7 | Paving slabs and lino constituting museum floor |
| 043 | T7 | Sand bedding for paving slabs 042 . |
| 044 | T7 | Rubble deposit underlying 043. Frequent mortar fragments also present in deposit. |
| 045 | T7 | Sandy loam fill of possible wall cut 046. 0.8 m wide. |
| 046 | T7 | E-W aligned linear cut. Exposed to 2 m length, 0.82 m width. |
| 047 | T6 | Slate flagstone and lino flooring of museum. |
| 048 | T6 | Bedding sand for floor 048 |
| 049 | T6 | Rubble make up deposit |
| 050 | T6 | Compact mortar surface |
| 051 | T6 | Natural geological deposits |
| 052 | T7 | Mortar and asphalt deposit |
| 053 | T7 | Reddish brown clay deposit |
| 054 | - | Sandstone bedrock |
| 055 | - | Flodden Wall section |
| 056 | Area C | Flodden Wall section |
| 057 | Entrance | Possible buried garden soil below rubble |
| 058 | Entrance | Buried clay loam: garden soil |
| 059 | Entrance | Natural deposits of green silty boulder clay |
| 060 | C7 | Rubble make up below floor surface |
| 061 | C7 | Buried loam deposit below rubble 060 |
| 062 | C7 | Fairly sterile sandy clay subsoil with lenses of garden soil through it, below rubble |
| 063 | C7 | Museum wall foundations cut |
| 064 | C7 | Cut for garden/ boundary wall 064.3 .85 m length, 0.3 m width, 0.2 m deep |
| 065 | C7 | Rubble wall, unmortared and only a single course preserved. May be a garden feature of Argyle Square or earlier medieval/post-medieval boundary. |
| 066 | C7 | Black silty backfill around wall 065 in cut 064 . |
| 067 | C7 | Compacted mortar and rubble deposit |
| 068 | East of C4 | Buried clay loam: garden soil |
| 069 | East of C4 | E-W aligned wall |
| 070 | C6 | Sub-circular pit cut into natural geological deposits, 1.8 m in length, 1.3 m in width and 0.25 m in depth. |
| 071 | C6 | Charcoal rich fill of pit 070 |
| 072 | C 6 | E-W aligned wall ( $=069$ ). Composed of mortared sandstone. 5.5 m long, 0.5 m wide. |
| 073 | East of C4 | E-W wall running parallel 072.3 .8 m long, 0.7 m wide |
| 074 | East of C4 | N-S aligned wall. 1.3 m long, 0.5 m wide and at least 0.9 m deep |
| 075 | East of C4 | Rubble backfill deposit between walls 072 and 073.1 .3 m wide |
| 076 | C 6 | Wall stub. 0.3 m long, 0.22 m wide |
| 077 | C7 | Linear cut running E-W, 0.5 m wide. Services cut. |
| 078 | C7 | Fill of 077. Red brown sandy clay with frequent stones. |
| 079 | C6 | Buried clay loam deposit containing rubble, oyster shell and charcoal inclusions. |
| 080 | C7 | Masonry setting. Single course of sandstone blocks with central recess lined with slate. Mortar on top suggested it stood higher originally. |


| Context No. | Area/ Test pit / Cellar | Description |
| :---: | :---: | :---: |
| 081 | Racetrack | Bedrock deposit/sandstone |
| 082 | C2 | Bedrock deposits thought initially to be a feature |
| 083 | Racetrack | Clay loam deposit: probable post medieval garden soil. |
| 084 | Racetrack | Sterile subsoil over natural - possible colluvial deposit |
| 085 | Racetrack | Brown red clay loam cut by museum walls identified 0.5 m below museum's basement floor. |
| 086 | Racetrack | Wall remains aligned north-south. 086 continues into cellar 15. |
| 087 | North of C2 | Redeposited garden soil below sand bedding for museum floor. |
| 088 | North of C2 | Cut for timber plank 089 in deposit 090.3 .7 m long, 0.3 m wide and 0.1 m deep. |
| 089 | North of C2 | Timber plank aligned east-west. |
| 090 | North of C2 | Red brown silty clay: buried topsoil deposit with frequent stone inclusions. |
| 091 | North of C2 | Rubble backfill deposit over plank 089.0.1m thick. |
| 092 | North of C2 | Demolition deposit in cut 093. Contains stone, slate, animal bone and oyster shell inclusions. Identified 1.1 m below museum floor. |
| 093 | North of C2 | Shallow cut containing demo deposit 092.4 .8 m in length, 1.6 m in width, 0.15 m in depth. |
| 094 | North of C2 | Redeposited glacial till |
| 095 | C15 | Bedrock with slate capping associated with museum foundations |
| 096 | C15 | A line of sub-square sandstone blocks associated with the museum basement. $1 \times 1 \mathrm{~m}$ |
| 097 | C15 | Yellow brown sandy silt loam redeposited over museum walls' construction cut |
| 098 | C15 | Yellow brown humic silt loam with inclusions of oyster shell, mortar blocks and charcoal |
| 099 | C15 | E-W aligned substantial wall foundations. Exposed to 15 m length, 1.2 m width. Assumed to be part of earlier phase of museum basement layout |
| 100 | C15 | E-W aligned wall with mortar render on north face. Probably same wall as 105. |
| 101 | C15 | Foundation trench for wall 100 . |
| 102 | C15 | Humic sandy silt backfill deposit in cut 101. Abundant grit and occasional brick fragments. |
| 103 | C15 | Demolition deposit between walls in cellar 15. Comprised mortar and rubble in a sandy/silty matrix. Same as deposit 108. |
| 104 | C15 | Sandstone block identical to 096 |
| 105 | C15 | E-W wall forming probable continuation of wall 100. Mortar render visible on north side. |
| 106 | C15 | Foundation trench for wall 105 |
| 107 | C15 | Backfill deposit in trench 106. Humic sandy silt; similar to deposit 102. |
| 108 | C15 | Demolition deposit. Same as 103. |
| 109 | C15 | Line of four sandstone blocks 1 x 1 m . Identical to 96 and 104. |
| 110 | C15 | Very mixed stiff clay sand silt with frequent stones and charcoal. Occasional coal, oyster shell and animal bone inclusions. |
| 111 | C15 | $\mathrm{N}-\mathrm{S}$ aligned wall. Mortared sandstone with plaster rendering on east face. 3.8 m length, 0.5 m width. |
| 112 | C15 | Continuation of mortared sandstone wall 086 from racetrack area. 7.5 m long, 0.6 m wide. Smooth finish on west side |
| 113 | C15 | Dark brown silty sand below demolition deposits 103/108. Buried topsoil |
| 114 | C2 | Dark brown clay silt. Buried garden soil 0.2 m deep. |
| 115 | C4 | North wall of vaulted structure 1.2 .7 m long, 0.4 m wide. Mortared sandstone. |
| 116 | C4 | Vaulted roof of structure 1. Comprised mortared red brick surviving to only a single course over wall 115. |
| 117 | C4 | Dividing wall between vaulted structures 1 and 2.2 .6 m in length, 0.4 m wide. Soot staining on west face. |
| 118 | C4 | Remains of vaulted brick roof over structure 2. Majority truncated with only a single course surviving over wall 125. |
| 119 | C4 | East wall of structure 2.2 .6 m in length. Randomly coursed sandstone with mortar bonding. West face had a smooth finish. |


| Context No. | Area/ Test pit /Cellar | Description |
| :---: | :---: | :---: |
| 120 | C4 | E-W wall forming part of south wall of structure 1.0 .95 m long, 0.3 m wide and at least 0.72 m deep. Eastern end recessed to accommodate a door. |
| 121 | C4 | E-W wall forming part of south wall of structures 1 and 2.1 .3 m long, 0.3 m wide. Recessed at either end to support doors for both structures. |
| 122 | C4 | E-W aligned wall forming east side of structure 2 's north wall and continuing eastward. 1.7 m long, $0,6 \mathrm{~m}$ wide, 1.7 m deep. Square bolt-hole cut into west face. |
| 123 | C4 | Backfill and demolition deposit in structures 1 and 2. Consists of large stones, mortar bricks and sand. |
| 124 | C4 | West wall of structure 1. Plaster render on east face with patches of soot visible. 2.7 m in length. |
| 125 | C4 | North wall of structure 2 . Mortared sandstone, faced on south side. 1.4 m long, 0.5 m wide, at least 0.9 m deep. |
| 126 | C4 | E-W wall forming part of south wall of structure 3.1 .25 m long, 0.3 m wide. Randomly coursed mortared sandstone. Wall truncated on west side by services. |
| 127 | C4 | West wall of structure 3.2 .6 m long, 0.25 m wide and 0.8 m deep. Internal face finished and plastered. |
| 128 | C4 | North wall of structure 3.2 .1 m long, 0.3 m wide and 1.1 m deep. Mortared sandstone with plaster finish on south, internal, face. |
| 129 | C4 | East wall of structure 3.2 .2 m long, 0.35 m wide and at least 0.85 m deep. Internal face has remnants of plaster and is stained with soot. |
| 130 | C4 | E-W wall forming part of south wall of structure 3.3 .9 m long, 0.4 m wide. At least 0.95 m deep. Entire south face plastered, as well as north face where it is the interior of structure 3 . |
| 131 | East of C4 | N-S wall abutting wall 130.1 .6 m long, 0.5 m wide and at least 0.9 m deep. South face finished and plastered. |
| 132 | East of C4 | E-W wall running east from 131.1 .7 m long, 0.5 m wide. South face plastered, while north face rough. |
| 133 | C4 | Demolition deposit between structures 2 and 3 . |
| 134 | C15 | E-W aligned wall on the west side of wall 111.0 .5 m wide and exposed to 1.5 m in length. |
| 135 | C4 | $\mathrm{E}-\mathrm{W}$ wall forming north side of outer basement corridor. 5 m long, 0.4 m wide and at least 0.8 m deep. South face finished with plaster remnants visible. |
| 136 | C4 | Construction cut of wall 135 . Cut visible to 0.25 m width on north side of wall. At least 0.8 m deep. |
| 137 | C4 | Backfill deposit in cut 136. Slag, ash and cinder mixed deposit. |
| 138 | C4 | E-W sandstone rubble wall forming continuation of wall 135 . Face on south side. 3.8 m long, 0.4 m wide and at least 0.8 m deep. |
| 139 | C4 | West wall of structure 5.1 .25 m long, 0.4 m wide. Upper course of wall angled to accommodate vaulted roofing. |
| 140 | C4 | East wall of structure 5. Faced and mortared on west (internal) side. 2 m long, 0.4 m wide and at least 0.8 m deep. |
| 141 | C4 | E-W wall forming part of south wall of structure 5 . West side recessed to accommodate structure 5 's door. 2.5 m in length, 0.65 m wide. |
| 142 | C4 | Mixed sand and rubble backfill of service trench. |
| 143 | C4 | Rubble, stone and loam backfill deposit in basement corridor and structure 5 . |
| 144 | C4 | Buried topsoil deposit cut by wall 135. |
| 145 | C4 | Cut for service trench |
| 146 | C4 | Backfill deposit between structures 1 and 5.contains slate, loam and stone inclusions. |
| 147 | C2 | Redeposited topsoil overlying culvert structure 6. Clay loam containing oyster shell, animal bone and stone. |
| 148 | C2 | West wall of culvert (structure 6). Mortared, randomly coursed sandstone rubble. 0.6 m width, 1.5 m depth. |
| 149 | C2 | East wall of culvert. Same dimensions and material as 148. |
| 150 | C2 | Vaulted roof of culvert. Mortared sandstone. The arch is 0.2 m in height. |
| 151 | C2 | Thin silt deposit accumulated on curved base of culvert. |
| 152 | C4 | Floor of vaulted structure 1. Rough stone floor 3 m long by 2.65 m wide. |
| 153 | C4 | Floor of vaulted structure 2. Stone slab floor. Slabs 0.3 x 0.4 m . Floor 3 m by 1.4 m |
| 154 | C4 | Mortar and stone floor of structure 5. Coal deposits on surface. |
| 155 | C4 | Wood deposits on structure 2 floor. |
| 156 | Racetrack | Mixed loam deposit |


| Context No. | Area/ Test pit / Cellar | Description |
| :---: | :---: | :---: |
| 157 | Racetrack | Compact stone and mortar surface overlying 156 . Cut by museum walls. 0.15 m thick mortar and small stone matrix overlies larger angular stone layer 0.2 m thick. |
| 158 | North of C2 | Redeposited garden soil overlying pebble deposit 159. Contains oyster shell, animal bone and stones. |
| 159 | North of C2 | Dump deposit of rounded sandstone pebbles below loam 158 |
| 160 | C5 | Make up deposit of dark brown loam and rubble overlying 161. |
| 161 | C5 | Demolition layer of rubble, slate and brick |
| 162 | C5 | $\mathrm{N}-\mathrm{S}$ mortared sandstone wall. Both faces dressed. 1.9 m long, 0.4 m wide. |
| 163 | C5 | N-S wall with east faced dressed. 1.9 m long, 0.55 m wide. Located beside parallel wall 162 . |
| 164 | C5 | E-W aligned wall. 8.7 m long, 0.45 m wide. Dressed on north face. |
| 165 | C5 | Clay loam garden soil cut by wall 164 and 163 . |
| 166 | C5 | $\mathrm{N}-\mathrm{S}$ wall abutting wall 164 . Mortared sandstone at least 3 m in length, 0.4 m wide. |
| 167 | NW of C5 | Mixed loam backfill containing stone, brick, oyster shell. |
| 168 | NW of C5 | Mixed demolition material underlying 167 |
| 169 | SW of C5 | Remains of wall with angled top course to support a vaulted roof. 1.95 m long, 0.7 m wide. |
| 170 | SW of C5 | Backfill deposit over wall 169. Compact sandy clay with inclusions of stones, charcoal, oyster shell and mortar. |
| 171 | SW of C5 | Construction cut for 169.0 .69 m wide. Remained unexcavated. |
| 172 | SW of C5 | Fill of 171. Sandy silty clay with inclusions of charcoal, oyster shell, mortar and stone. |
| 173 | b/w C5 and C15 | N-S aligned wall. Mortared sandstone. 3.1 m long, 0.6 m wide. Depth of 0.7 m visible. Dressed on both east and west faces. |
| 174 | b/w C5 and C15 | Backfill and demolition deposit surrounding wall 173. Rubble and stone. |
| 175 | b/w C5 and C15 | Bedrock that may form base of Flodden Wall |
| 176 | b/w C5 and C15 | Make up deposit over 175. Brown silty clay with inclusions of stone, charcoal and brick. 0.2 m deep. |
| 177 | Racetrack | Stepped foundation of museum wall |
| 178 | C4 | Support wall for museum foundations. 6.3 m length, up to 0.2 m width. 1.1 m depth visible. Mortared sandstone, irregularly coursed. |
| 179 | NW of C5 | Possible wall remains |
| 180 | Racetrack | Plaster deposit probably associated with museum construction. |
| 181 | Racetrack | Compacted ash and coal surface. Possible work surface during museum construction. |

## Photographic Register

Photo No. | Direction |
| :--- |
| facing |$\quad$ Description

001 _ ID shot film 1

| 002 | NE | Test pit 11 showing 1 |
| :--- | :--- | :--- |
| 003 | NE | As above with flash |

Test pit 11 with wall 006
As above
Test pit 10 with walls 13 and 14 showing
As above
Test pit 10 doorway
TP10 west side with possible vaulting
TP10 east side with vaulting
TP10 face of wall 013
TP4 showing garden soil019
As above with flash

TP4 showing garden soil 020
As above without flash

TP4 post ex
TP8
TP* close up of wall 026
TP10
TP10 showing wall 013
TP11
TP5 showing garden soil 033
TP5 post ex
TP9 below buried soil 031

TP9 feature 036 NW corner
E TP12 mid ex
E TP12 post ex with cut 040 visible
W TP9 post ex
W East facing section TP9
NW Flodden Wall area C
NW As above
W As above
$\mathrm{N} \quad$ As above
$\mathrm{N} \quad$ As above
N Flodden Wall area A
N Flodden Wall area B

- ID shot film 2

W TP6 showing surface 050
W TP6 showing natural 051
E TP7 post ex
E TP7 west facing section showing cut 046

| Photo No. | Direction facing | Description |
| :---: | :---: | :---: |
| 042 | N | East facing section of 054 |
| 043 | N | As above |
| 044 | N | As above |
| 045 | E | West facing elevation of 054 |
| 046 | E | As above |
| 047 | E | Close up of wall |
| 048 | N | As above |
| 049 | SE | North-facing elevation of 054 |
| 050 | SE | As above |
| 051 | SE | As above |
| 052 | SE | As above |
| 053 | - | ID shot film 3 |
| 054 | NE | Flodden Wall in area B |
| 055 | NE | As above |
| 056 | N | As above |
| 057 | N | As above |
| 058 | N | Flodden Wall in area B on bedrock |
| 059 | N | As above |
| 060 | E | Flodden Wall in area B |
| 061 | E | As above |
| 062 | SE | Close up Flodden Wall in area B |
| 063 | W | Flodden Wall in area C |
| 064 | NW | Later wall support in area C |
| 065 | NW | As above |
| 066 | NW | Close up decorated stone |
| 067 | W | Close up stonework detail |
| 068 | W | As above |
| 069 | SW | Flodden Wall in area C |
| 070 | SW | As above with flash |
| 071 | W | East end Flodden Wall in area C showing mortar - lower half |
| 072 | W | East end Flodden Wall in area C showing mortar - upper half |
| 073 | E | Flodden Wall segment B |
| 074 | W | Flodden Wall segment C |
| 075 | E | West end segment B |
| 076 | E | As above |
| 077 | E | West end segment B where it meets museum wall |
| 078 | E | As above |
| 079 | NE | Segment B showing wall only |
| 080 | NE | As above with flash |
| 100 | - | ID shot Film 4 |
| 101 | E | Top of garden soil in entrance area |

HEADLAND ARCHAEOLOGY (UK) LTD
RME07

| Photo No. | Direction facing | Description |
| :---: | :---: | :---: |
| 102 | E | West end of foundation trench showing 057 |
| 103 | N | General shot of centre of foundation trench |
| 104 | N | As above |
| 105 | N | As above |
| 106 | NE | As above |
| 107 | E | General shot of excavated foundation trench |
| 108 | W | General shot of east end of trench |
| 109 | N | East end of entrance area showing exposed garden soil |
| 110 | E | Exposed garden soil 069 |
| 111 | E | As above |
| 112 | W | Garden soil 062 and wall cut 063 |
| 113 | W | Natural clay subsoil at 0.62 m below ground surface |
| 114 | W | Rubble wall 065 |
| 115 | W | As above with flash |
| 116 | N | Rubble wall 065 and fill 066 |
| 117 | N | As above with flash |
| 118 | W | Working shot |
| 119 | N | Deposit 067 - compact mortar surface |
| 120 | N | As above without flash |
| 121 | NW | Wall 069 and garden soil 068 |
| 122 | SE | As above with flash |
| 123 | SW | Charcoal rich pit 070 |
| 124 | SE | General shot showing walls 072-074 |
| 125 | S | Window sill detail on wall 073 |
| 126 | S | Wall 073 |
| 127 | - | Void |
| 128 | S | Detail of space between walls 073 and 074 |
| 129 | NE | Detail of pipe and abutment on wall 072 |
| 130 | NW | General shot |
| 131 | N | Working shot of garden soil 079 |
| 132 | N | As above with flash |
| 133 | E | Masonry feature 080 |
| 134 | E | As above with flash |
| 135 | E | 080 and surrounds |
| 136 | E | As above with flash |
| 137 | S | Masonry surface 081 |
| 138 | S | As above with flash |
| 139 | N | 082 foundation/surface |
| 140 | N | As above with flash |
| 141 | E | 082 foundation/surface |
| 142 | E | As above without flash |
| 143 | N | Underpinning trench on inner wall of race track showing 083 |


| Photo No. | Direction facing | Description |
| :---: | :---: | :---: |
| 144 | N | As above |
| 145 | W | Underpinning trench at south facing wall at east end of racetrack |
| 146 | W | As above |
| 147 | E | Area excavated on 23/1/09 |
| 148 | E | As above |
| 149 | E | West entranceway outside museum |
| 150 | NW | SE facing section showing deposit 089 |
| 151 | E | Wall foundations 086 |
| 152 | E | As above with flash |
| 153 | S | Wall foundation 086 in section |
| 154 | S | As above with flash |
| 155 | N | Cut 088 and timber plank 089 |
| 156 | N | As above with flash |
| 157 | W | Cut 088 and timber plank 089 |
| 158 | W | As above with flash |
| 159 | S | Possible steps 095 without flash in cellar 15 |
| 160 | S | As above with flash |
| 161 | W | Possible steps 095 without flash in cellar 15 |
| 162 | W | As above with flash |
| 163 | S | Stone slab 096 |
| 164 | S | As above with flash |
| 165 | S | Stone slab 096 with 095 in background |
| 166 | S | As above with flash |
| 167 | E | Wall 099 |
| 168 | E | As above with flash |
| 169 | N | Wall 099 showing depth |
| 170 | N | As above with flash |
| 171 | E | Walls 100 and 105 cut by sandstone block |
| 172 | E | As above with flash |
| 173 | N | Wall 105 |
| 174 | N | As above with flash |
| 175 | N | Wall 111 |
| 176 | N | Wall 112 |
| 177 | E | Wall 112 west face showing smooth finish and iron protrusion |
| 178 | E | Wall 112 west face showing iron protrusion |
| 179 | W | Wall 112 east face - rough and unfinished |
| 180 | S | Demo deposit 103/108 and buried soil 113 in cellar 15 foundation trench |
| 181 | W | Buried soil 114 in area of test pit 9 |
| 182 | N | Working shot |
| 183 | S | Vaulted cellars |
| 184 | S | As above with flash |
| 185 | E | Vaulted cellars |


| Photo No. | Direction facing | Description |
| :---: | :---: | :---: |
| 186 | NE | As above with flash |
| 187 | N | Vaulted cellar 2 |
| 188 | N | As above with flash |
| 189 | N | Vaulted cellar 1 |
| 190 | N | As above with flash |
| 191 | S | Vaulted cellar 3 |
| 192 | S | Detail of vaulting in structure 3 on wall 130 |
| 193 | W | East face of wall 129, Str. 3 showing worked finish |
| 194 | E | East face of wall 129, Str. 3 showing rough, unfinished face |
| 195 | N | Deposit 127, between structures 2 and 3 |
| 196 | E | Vaulted structures 1-3 |
| 197 | N | Wall 134 in cellar 15 |
| 198 | E | Working shot cellar 2 showing services |
| 199 | S | Wall 135 showing cinder fill 137 of construction cut 136 |
| 200 | E | General shot of structure 5 |
| 201 | E | Detail of door hinge on SE corner of wall 138 |
| 202 | E | Inner, smooth faces of walls 140 and 141 in structure 5 |
| 203 | N | Walls 120, 124, 141 and vaulted roof remains 116 |
| 204 | N | South face of wall 135 showing plaster remnants |
| 205 | S | North face of wall 135 showing unworked finish |
| 206 | NW | General shot of structure 5 |
| 207 | NE | Stone culvert - structure 6 |
| 208 | N | Floors of structures 1 and 2 |
| 209 | E | Floor of structure 5 |
| 210 | S | Deposit 155 on structure 2 floor |
| 211 | S | Surface 157 showing museum wall and services truncation |
| 212 | W | Section of surface 157 |
| 213 | W | Section showing rubble and loam 158 and pebble deposit 159 |
| 214 | S | Wall 162 in cellar 5 |
| 215 | S | As above with flash |
| 216 | E | Walls 163 and 165 in cellar 5 in foreground, wall 162 in background |
| 217 | E | As above with flash |
| 218 | E | Wall 164 in cellar 5 |
| 219 | E | As above with flash |
| 220 | E | Working shot in cellar 5 showing services and mixed backfill |
| 221 | N | Working shot showing demo deposit 168 in room of cellar 5 |
| 222 | W | Wall 169 |
| 223 | S | As above |
| 224 | S | As above |
| 225 | W | Wall 173 |
| 226 | W | As above with flash |
| 227 | S | Wall 173 |


| Photo No. | Direction facing | Description |
| :---: | :---: | :---: |
| 228 | E | Working shot |
| 229 | E | As above |
| 230 | E | Working shot of wall underpinning |
| 231 | W | General shot showing steel supports |
| 232 | - | ID shot |
| 233 | E | Possible foundation of Flodden Wall 175 |
| 234 | E | As above |
| 235 | N | As above |
| 236 | N | As above |
| 237 | SW | Wall 178 abutting 177 |
| 238 | W | Wall 178 |
| 239 | W | As above |
| 240 | NW | Wall 177 - foundation of museum wall: first half |
| 241 | NW | As above |
| 242 | SE | Wall 177 - foundation of museum wall: second half |
| 243 | SE | As above |
| 244 | S | West end of racetrack with 177 in shot |
| 245 | S | As above |
| 246 | N | Working shot |
| 247 | NE | Wall 179 |
| 248 | NE | As above |
| 249 | NE | Wall 135 in underpinning trench |
| 250 | NE | As above |
| 251 | N | Possible top of arch wall 135 |
| 252 | E | Underpinning trench |
| 253 | N | As above |
| 254 | N | As above |
| 255 | N | As above |
| 256 | - | Culvert in underpinning trench |
| 257 | - | As above |
| 258 | - | As above |
| 259 | - | As above |
| 260 | - | As above |
| 261 | - | As above |
| 262 | - | Underpinning trench |
| 263 | - | Corridor south of Flodden Wall |
| 264 | - | As above |
| 265 | - | Wall 166 in drainage trench in cellar 5 |
| 266 | - | As above |
| 267 | - | Working shot of drainage excavations in cellar 5 |
| 268 | - | As above |
| 269 | - | As above |

HEADLAND ARCHAEOLOGY (UK) LTD
RME07

| Photo No. | Direction <br> facing | Description |
| :--- | :--- | :--- |
| 270 | - | As above |
| 271 | - | As above |
| 272 | N | Corridor between cellars 5 and 15 |
| 273 | N | As above |
| 274 | NE | Culvert structure 6 |
| 275 | N | Fireclay pipes blocking culvert 6 |
| 276 | S | Section of drainage ditch running south from entrance |
| 277 | N | Working shot of drainage ditch |
| 278 | N | Section of trench showing bedrock |
| 279 |  | As above |


| Sample No. | Context No. | Description |
| :---: | :---: | :---: |
| 001 | 005 | Slag backfill of 009 in TP11 |
| 002 | 033 | Garden soil in TP5 |
| 003 | 031 | Garden soil in TP9 |
| 004 | 037 | Fill of feature 036 |
| 005 | 035 | Garden soil in TP9 |
| 006 | 039 | Garden soil |
| 007 | 052 | Bitumen/asphalt deposit |
| 008 | 057 | Garden soil |
| 009 | 058 | Garden soil |
| 010 | 059 | Natural geological deposits |
| 011 | 057 | Early garden soil |
| 012 | 061 | Garden soil |
| 013 | 062 | Garden soil |
| 014 | 066 | Backfill around wall 065 |
| 015 | 071 | Fill of oval pit 070 |
| 016 | 079 | Garden soil |
| 017 | 083 | Garden soil |
| 018 | 090 | Garden soil |
| 019 | 097 | Mixed deposit |
| 020 | 114 | Garden soil |
| 021 | 151 | Deposit in culvert structure 6 |
| 022 | 147 | Backfill deposit over culvert 6 |
| 023 | 155 | Wood deposit on structure 2 floor |
| 024 | 165 | Possible buried garden soil |
| 025 | 084 | Fairly sterile deposit of sandy clay |

HEADLAND ARCHAEOLOGY (UK) LTD
RME07

## Drawing Register

| Drawing No. | Section / Plan | Description |
| :--- | :--- | :--- |
| 001 | S | TP11 - NE facing section |
| 002 | P | TP11 with wall 006 |
| 003 | P | TP10 |
| 004 | S | TP6 west facing section |
| 005 | P | TP9 showing feature 036 |
| 006 | S | TP9 east facing section |
| 007 | P | TP12 showing cut 040 |
| 008 | S | TP12 - west facing section |
| 009 | S and P | TP7 - west facing section |
| 010 | P | TP7 |
| 011 | P | Plan and elevation of structures 1-4 |
| 012 | P | Plan of structure 5 walls |
| 013 | P | Pocation of culvert structure 6 |
| 014 | P | Flodden Wall 175 |
| 015 | P and P | Cellar 15 - southern end |
| 016 | Cellar 15 - northern end |  |
| 017 | P 070 in cellar 6 walls |  |
| 018 |  |  |

## Appendix 2 - Finds Assessment

Julie Franklin

## Introduction

This assessment covers the finds from both the test pitting and watching brief. The fieldwork yielded a relatively small assemblage ranging from the medieval period through to the 20th century. The majority of finds dated to the later 18th and 19th centuries.

## Pottery

There were 72 sherds of pottery. These ranged in date from possibly as early as the 12 th century to the 20th century. The majority of the sherds were of later date. Only seven sherds dated to the medieval period, including imported R henish stoneware as well as locally produced White Gritty Ware. Post-medieval pottery numbered only five sherds, of local red and greywares and imported Anglo-Dutch tin-glazed earthenware. The remainder of the pottery was modern, including white salt glazed stonewares, creamware, pearlware, porcelain, transfer printed wares, slip decorated redware, and other industrially produced types. These include some large and joining sherds, particularly from context [160].

## Finds

There were 25 sherds of clay pipe, including 17th century and 19th century types. There was a near complete 17th century bowl, probably produced in Edinburgh, though with no maker's mark. Later pipes included a 'TW' bowl and several stems marked for Edinburgh makers Cochrane (active 1862-1915), Donaldson (1833-77) and MacKenzie (1869-1902) (Gallagher 1987).

Glass numbered 51 sherds. There were some bottle sherds dating back to the late 18 th or early 19 th century, some fragments of bottle and window glass may be a little older, as they are associated with 17th century pottery and clay pipes. Highlights included three small beads, two black, one white, from a 19th or 20th century context [155].

There were 69 finds of metalwork, 44 of which were iron nails. Of the remainder few finds were identifiable. There were three fragments of copper alloy wire pins, two of which were associated with early finds [079], [114]. Wire pins are commonly found in deposits dating from the 16th to the 19th centuries (Caple 1983). A small bolster chisel found during the excavation was unfortunately unstratified and thus of uncertain date. There was also a small quantity of iron-working debris, totalling 208 g , scattered through a number of excavation contexts.

From recent contexts there were also finds of leather and textile, including a complete shoe sole.

Two of the more unusual finds were of stone. The first was a fossil, part of a possible large shellfish or tree branch. The second was a nodule of flint of near perfect hollow hemispherical shape. The interior and exterior are covered in cortex, with the flint visible in the break.

There were also a number of fragments of building materials. The more decorative of these included four
sherds of painted Delft tile [024], [103]/[108], [160], a slab of polished white marble [156], and a roll moulded architectural fragment [032]. Other finds include two near complete brick [011], [012], fragments of pan tile, mortar and ceramic drain pipe.

## Finds Discussion

The assemblage points towards a late date for the majority of the deposits found. The early finds were few and fewer still appeared to be in situ in undisturbed deposits. Context [071] contained five sherds of medieval pottery and no later finds and would appear to have been laid down in the 15 th century. Context 103/108 contains two sherds of pottery and two of Delft tile and would appear to have been laid down in the late 17th or early 18th century. Several other contexts contained only one datable find or none and could thus be of early date. Of the rest of the finds-producing contexts all post-dated the mid 18th century.

However, few contexts produced large assemblages, sherds are often small and redeposited and dating evidence should thus be used with caution. The one exception to this is context [160] which contained some large and joining sherds all of 19th century date, indicating this deposit has been little disturbed since deposition

The finds are largely unremarkable. They appear to represent domestic midden, and are a cross-section of the material culture in use in Edinburgh during the periods represented.

Potentially the most interesting finds are the fossil and flint nodule. Found in the same context [075], though unfortunately with no accompanying dating evidence, they are both geologically interesting and neither is likely to be found deposited naturally in Edinburgh. Given their location, it is entirely possible that these represent finds once curated within the museum.

All the finds are stable and, given their context and nature, none are recommended for further cleaning or conservation.

## References

Caple, C 1983 'Pins and wires' in Mayes P \& Butler L A S, Sandal Castle Excavations 1964-1973 Leeds, 269-278
Gallagher, D B 1987 'Nineteenth and Twentieth Century Edinburgh Pipemakers', in Davey, P (ed) The Archaeology of the Clay Tobacco Pipe, vol X: Scotland, (BAR Brit Ser 178), Oxford, 31-34

Table A2.1
Finds Catalogue

| Test Pit/ <br> Excavation | Context | Sample No. | Material | Qty | Weight <br> (g) | Object | Description | Spot Date | Period | Box <br> No |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 011 | 003 | - | Clay Pipe | 1 | - | Stem | Narrow Bore | 19th-e.20th | Mod | 1 |
| 011 | 003 | - | Pottery | 1 | - | Modern | Whiteware | 19th/20th | Mod | 1 |
| 011 | 005 | - | Fe | 1 | - | Strip | Wide Strip, broken at either end | - | - | 3 |
| 011 | 005 | - | Pottery | 2 | - | Modern | Redware, bowl sherds, slip trailed decoration | m.18th/19th | Mod | 1 |
| 011 | 008 | - | Pottery | 1 | - | Modern | Whiteware | 19th/20th | Mod | 1 |
| 011 | 010 | - | CBM | 1 | - | Stoneware Pipe | Rim sherd | - | - | 2 |
| 011 | 010 | - | Clay Pipe | 1 | - | Stem | Narrow Bore | 19th-e.20th | Mod | 1 |
| 011 | 010 | - | Pottery | 1 | - | Modern | Porcelain | 18th/20th | Mod | 1 |
| 011 | 011 | - | CBM | 1 | - | Brick | Near complete brick. Red, stock moulded, $220+$ x $110 \times 57$ | - | PM/Mod | 2 |
| 010 | 011 | - | Clay Pipe | 1 | - | Stem | Narrow Bore | 19th-e.20th | Mod | 1 |
| 011 | 012 | - | CBM | 1 | - | Brick | Complete brick. Red, stock moulded, covered in thick mortar, 225? X $110 \times 60$ | - | PM/Mod | 2 |
| 011 | 012 | - | Fe | 1 | - | Nail | - | - | - | 3 |
| 004 | 018 | - | Fe | 2 | - | Nails | - | - | - | 3 |
| 004 | 019 | - | Fe | 1 | - | Shaft | Possible nail | - | - | 3 |
| 004 | 019 | - | Glass | 1 | - | Bottle | Base fragment | L.18th/e.19th | Mod | 1 |
| 008 | 024 | - | CBM | 1 | - | Delft Tile | TGE, blue pattern. Th 8 | L.17th/18th | PM | 1 |
| 008 | 024 | - | Clay Pipe | 1 | - | Stem | Narrow Bore | 19th-e.20th | Mod | 1 |
| 008 | 024 | - | Fe | 1 | - | Shaft | - | - | - | 3 |
| 008 | 024 | - | Glass | 1 | - | Bottle | Neck sherd, green wine bottle, poor condition | 18th/e.19th | Mod | 1 |
| 008 | 025 | - | Fe | 1 | - | Spoon? | Shaft, flattening to board rounded end, possibly butt end of spoon handle? | - | - | 3 |
| 009 | 030 | - | Clay Pipe | 1 | - | Stem | Narrow Bore | 19th-e.20th | Mod | 1 |
| 009 | 030 | - | Fe | 6 | - | Nails | - | - | - | 3 |
| 009 | 031 | - | Pottery | 1 | - | Post- <br> Medieval | PMO, jar sherd | 16th | PM | 1 |
| 005 | 031 | - | Stone | 1 | - | Arch Frag | Fragment of architectural stone with recess | - | - | 2 |
| 005 | 032 | - | Stone | 1 | - | Arch Frag | Roll-moulded architectural fragment | - | - | 2 |
| 009 | 035 | - | Fe | 1 | - | Object | Small iron fragment, visible break | - | - | 3 |
| 009 | 035 | - | Pottery | 1 | - | Medieval | WG | 12th/15th | Med | 1 |
| 007 | 043 | - | Fe | 6 | - | Nails | - | - | - | 3 |
| 007 | 045 | - | Building <br> Material | 1 | 174 | Plaster | Large piece of plaster with moulded edge | - | - | 2 |
| 007 | 045 | - | Fe | 1 | - | Bar | Large thick, square sectioned bar | - | - | 3 |
| 007 | 045 | - | Fe | 5 | - | Nails | Large | - | - | 3 |
| 007 | 045 | - | Pottery | 1 | - | Modern | Whiteware | 19th/20th | Mod | 1 |
| 006 | 050 | - | Fe | 1 | - | Nail | - | _ | - | 3 |
| Exc | U/S | - | Clay Pipe | 1 | - | Stem | Wide Bore | 17th-e.18th | PM | 1 |
| Exc | U/S | - | Fe | 1 | - | Chisel | Complete small bolster chisel with some surface loss | - | - | 3 |


| Test Pit/ <br> Excavation | Context | Sample No. | Material | Qty | Weight <br> (g) | Object | Description | Spot Date | Period | Box <br> No |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Exc | U/S | - | Fe | 1 | - | Nail | Rectangular sectioned shaft with mineralised wood attached | - | - | 3 |
| Exc | 058 | 9 | Building <br> Material |  | 1 | Mortar | Small fragment | - | - | 2 |
| Exc | 058 | 9 | MWD |  | 2 | Mag Res | - | - | - | 2 |
| Exc | 058 | 9 | MWD |  | 1 | Slag | - | - | - | 2 |
| Exc | 065 | 14 | Building <br> Material |  | 3 | Mortar | Small fragments | - | - | 2 |
| Exc | 065 | - | CBM | 5 | - | Pantile | Small fragments of pantile | 17th/20th | PM/Mod | 2 |
| Exc | 065 | 14 | Cu | 1 | - | Wire Pin | Head and short part of shaft | - | - | 3 |
| Exc | 065 | 14 | Glass | 7 | - | Bottle | Sherd and fragments from small natural phial rim | - | Mod | 1 |
| Exc | 065 | 14 | MWD |  | 14 | Mag Res | - | - | - | 2 |
| Exc | 068 | - | Clay Pipe | 1 | - | Bowl | Bowl, part of heel, with stamp | m.17th | PM | 1 |
| Exc | 071 | 15 | MWD |  | 4 | Mag Res | - | - | - | 2 |
| Exc | 071 | 15 | MWD |  | 3 | Slag | - | - | - | 2 |
| Exc | 071 | - | Pottery | 1 | - | Import | Raer/Aach Stoneware?, brown speckled glaze | L.15th/e.16th | Med | 1 |
| Exc | 071 | - | Pottery | 1 | - | Import | Fre/Eng, fine white ware fragment with copper speckles | 12th/14th | Med | 1 |
| Exc | 071 | - | Pottery | 1 | - | Medieval | PMR, jug sherd | 15th/16th | Med | 1 |
| Exc | 071 | - | Pottery | 2 | - | Medieval | WG, green glazed | 13th/15th | Med | 1 |
| Exc | 075 | - | Stone | 1 | - | Fossil | Possible fossil; $54 \times 27$ with circular section | - | - | 2 |
| Exc | 075 | - | Stone | 1 | - | Flint | Flint nodule; chalky cortex, mid grey flint. Broken through middle of spherical nodule with large central void | - | - | 2 |
| Exc | 079 | 16 | Building <br> Material |  | 22 | Mortar | Small fragments | - | - | 2 |
| Exc | 079 | - | Clay Pipe | 2 | - | Stem | Wide Bores | 17th-e.18th | PM | 1 |
| Exc | 079 | 16 | Cu | 1 | - | Wire Pin | Head and short part of shaft | - | - | 3 |
| Exc | 079 | 16 | Fe | 1 | - | Object | Small fragment of possible nail | - | - | 3 |
| Exc | 079 | 16 | Glass | 1 | - | Bottle | Small green sherds | - | Mod? | 1 |
| Exc | 079 | 16 | Glass | 11 | - | Window | Small clear sherds of window glass | - | PM-Mod | 1 |
| Exc | 079 | 16 | Industrial Waste |  | 1 | Glass Waste | Small dark vitreous fabric of possible glass waste | - | - | 1 |
| Exc | 079 | 16 | MWD |  | 2 | Mag Res | - | - | - | 2 |
| Exc | 079 | 16 | MWD |  | 38 | Slag | - | - | - | 2 |
| Exc | 079 | 16 | Pb | 1 | - | Fragments | Small fragments | - | - | 3 |
| Exc | 079 | 16 | Pottery | 1 | - | Post- <br> Medieval | PMO handle/jug rim sherd | 16th | PM | 1 |
| Exc | 083 | 17 | CBM | 1 | - | Brick | Small red ceramic fragment of possible brick | - | PM/Mod | 2 |
| Exc | 083 | 17 | MWD |  | 1 | Slag | - | - | - | 2 |
| Exc | 090 | 18 | Building <br> Material |  | 48 | Mortar | Small fragments | - | - | 2 |
| Exc | 090 | 18 | CBM | 1 | - | Stoneware <br> Pipe | Large piece of stoneware pipe | - | Mod | 2 |
| Exc | 090 | 18 | CBM | 1 | - | Brick | Small fragment of brick | - | PM/Mod | 2 |
| Exc | 090 | 18 | CBM | 7 | - | Pantile/Brick | Small ceramic fragments | - | PM/Mod | 2 |

HEADLAND ARCHAEOLOGY (UK) LTD
RME07

| Test Pit/ <br> Excavation | Context | Sample No. | Material | Qty | Weight (g) | Object | Description | Spot Date | Period | Box <br> No |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Exc | 090 | - | Clay Pipe | 1 | - | Stem | Wide Bore | 17th-e.18th | PM | 1 |
| Exc | 090 | 18 | Fe | 1 | - | Object | Small lump | - | - | 3 |
| Exc | 090 | 18 | Fe | 1 | - | Wire | Small piece of wire | - | - | 3 |
| Exc | 090 | 18 | Fe | 1 | - | Strip | Small strip in three pieces, two conjoin | - | - | 3 |
| Exc | 090 | 18 | Fe | 8 | - | Nails | Nails and some shafts which are most likely nails | - | - | 3 |
| Exc | 090 | 18 | Glass | 4 | - | Window | Four small degraded sherds of bottle or vessel glass | - | Med/PM | 1 |
| Exc | 090 | 18 | Metal | 1 | - | Strip | Small rectangular-sectioned strip | - | - | 3 |
| Exc | 090 | 18 | MWD |  | 5 | Mag Res | - | - | - | 2 |
| Exc | 090 | 18 | MWD |  | 58 | Slag | - | - | - | 2 |
| Exc | 090 | 18 | Pottery | 1 | - | Import | TGE-small fragment | 17th/18th | PM | 1 |
| Exc | 090 | 18 | Pottery | 2 | - | Modern | Stoneware, Modern Whiteware | 19th/20th | Mod | 1 |
| Exc | 090 | 18 | Pottery | 2 | - | Post- <br> Medieval | PMO and PMR | 16th-17th | PM | 1 |
| Exc | 090 | 18 | Stone | 1 | - | Painted <br> Fragment | Fragment of stone with thick red paint on one side | - | Mod | 2 |
| Exc | 097 | 19 | Building <br> Material |  | 46 | Mortar | Small fragments | - | - | 2 |
| Exc | 097 | 19 | Glass | 3 | - | Window | Small degraded flat sherds of possible window glass | - | Med/PM | 1 |
| Exc | 097 | 19 | MWD |  | 3 | Slag | - | - | - | 2 |
| Exc | 103/108 | - | CBM | 2 | - | Delft Tile | TGE- two tile sherds from different tiles. One is light blue, undecorated, the other has a blue pattern. Mortared on back. Th 8 | L.17th/18th | PM | 1 |
| Exc | 103/108 | - | Pottery | 2 | - | Import | TGE, joining storage jar rims | 17th/18th | PM | 1 |
| Exc | 114 | 20 | Cu | 1 | - | Wire Pin | Head and part of shaft | - | - | 3 |
| Exc | 114 | 20 | Glass | 1 | - | Window? | Small sherd of light green | - | - | 1 |
| Exc | 114 | 20 | MWD |  | 1 | Mag Res | - | - | - | 2 |
| Exc | 114 | 20 | MWD |  | 10 | Slag | - | - | - | 2 |
| Exc | 114 | 20 | Pottery | 1 | - | Medieval | MRW, pink jug rim | 13th/15th | Med | 1 |
| Exc | 123 | - | Clay Pipe | 1 | - | Bowl | Bowl, spurred, stamped 'T W ' | 19th | Mod | 1 |
| Exc | 123 | - | Clay Pipe | 1 | - | Stem | Wide Bore | 17th-e.18th | PM | 1 |
| Exc | 123 | - | Pottery | 1 | - | Modern | WSG, moulded plate rim | m18th/e.19th | Mod | 1 |
| Exc | 133 | - | Clay Pipe | 1 | - | Stem | Wide Bore | 17th-e.18th | PM | 1 |
| Exc | 133 | - | Pottery | 1 | - | Modern | Trans-print, plate sherd | 19th | Mod | 1 |
| Exc | 143 | - | Pottery | 1 | - | Modern | Redware, slip trailed | m.18th/19th | Mod | 1 |
| Exc | 143 | - | Pottery | 2 | - | Modern | Whiteware, creamware?, jar rim; Rockingham sherd | 19th | Mod | 1 |
| Exc | 147 | 22 | Building <br> Material |  | 41 | Mortar | Small fragments | - | - | 2 |
| Exc | 147 | 22 | CBM | 6 | - | Pantile/Brick | Small fragments of red/buff ceramic | - | PM/Mod | 2 |
| Exc | 147 | 22 | Clay Pipe | 2 | - | Bowl | Fragments | 17th/e.18th | PM | 1 |
| Exc | 147 | 22 | Glass | 3 | - | Window | Small flat degraded sherds of possible window glass, two clear, one slightly green | - | PM/Mod | 1 |
| Exc | 147 | 22 | MWD |  | 2 | Mag Res | - | - | - | 2 |
| Exc | 147 | 22 | MWD |  | 5 | Slag | - | - | - | 2 |


| Test Pit/ <br> Excavation | Context | Sample No. | Material | Qty | Weight (g) | Object | Description | Spot Date | Period | Box <br> No |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Exc | 147 | 22 | Plastic | 2 | - | Fragment | Two small fragments of thick ( 2 mm ), hard, plastic | - | Mod | 1 |
| Exc | 147 | - | Pottery | 1 | - | Post- <br> Medieval | PMO-skillet rim/handle | 17th/e.18th | PM | 1 |
| Exc | 147 | 22 | Pottery | 2 | - | Modern | WSG sherd; Creamware fragment | L.18th/e.19th | Mod | 1 |
| Exc | 147 | 22 | Stone | 1 | - | Fragment | Thin sherd of grey sandstone with mortar adhering to one side | - | - | 2 |
| Exc | 151 | - | CBM | 21 | - | Stoneware Pipe | Small fragments | - | Mod | 2 |
| Exc | 151 | 21 | Clay Pipe | 1 | - | Stem | Fragment | - | PM/Mod | 1 |
| Exc | 151 | 21 | Fe | 1 | - | Vessel | Cast iron vessel sherd | - | - | 3 |
| Exc | 151 | 21 | Fe | 1 | - | Strip | Many fragmentary, thin pieces of Iron | - | - | 3 |
| Exc | 151 | 21 | Fe | 1 | - | Strip | Small fragment of heavily corroded strip | - | - | 3 |
| Exc | 151 | 21 | Glass | 1 | - | Window? | Small curving green fragment | - | - | 1 |
| Exc | 151 | 21 | MWD |  | 17 | Mag Res | Includes what appears to be corrosion from iron object | - | - | 2 |
| Exc | 155 | 23 | Cu | 1 | - | Wire | Two fragments of wire, one fragment includes two twisted wires, the other is a single thicker wire | - | - | 3 |
| Exc | 155 | 23 | Cu | 1 | - | Tack | - | - | - | 3 |
| Exc | 155 | 23 | Cu | 1 | - | Strip | Curving, tapering strip | - | - | 3 |
| Exc | 155 | 23 | Cu | 1 | - | Mesh | Small fragment of wire mesh | - | - | 3 |
| Exc | 155 | 23 | Fe | 1 | - | Bolt | Visible thread | - | - | 3 |
| Exc | 155 | 23 | Fe | 1 | - | Object | L-shaped, rectangular sectioned shaft, closed at one end but broken and open at other | - | - | 3 |
| Exc | 155 | 23 | Fe | 14 | - | Nails | - | - | - | 3 |
| Exc | 155 | - | Glass | 3 | - | Beads | Three small ?glass beads, 2 black, one white | - | ? | 1 |
| Exc | 155 | 23 | Glass | 13 | - | Window | Sherds of thin clear glass | - | Mod | 1 |
| Exc | 155 | 23 | Leather | 2 | - | Fragments | - | - | - | 1 |
| Exc | 155 | 23 | MWD |  | 4 | Mag Res | - | - | - | 2 |
| Exc | 155 | 23 | MWD |  | 38 | Slag | - | - | - | 2 |
| Exc | 155 | 23 | Pottery | 4 | - | Modern | Redware, flower pot sherds | 18th/20th | Mod | 1 |
| Exc | 155 | 23 | Textile | 2 | - | Fragments | Small lengths of dark, woven fabric | - | - | 1 |
| Exc | 156 | - | Clay Pipe | 1 | - | Stem | Narrow Bore, moulded mouthpiece | 19th-e.20th | Mod | 1 |
| Exc | 156 | - | Glass | 1 | - | Bottle | Base of green bottle glass | L.18th/e.19th | Mod | 1 |
| Exc | 156 | - | Pottery | 4 | - | Modern | Porcelain, Chinese \& European | 18th/19th | Mod | 1 |
| Exc | 156 | - | Pottery | 5 | - | Modern | Blue transfer printed, pearlware, WSG | L.18th/e.19th | Mod | 1 |
| Exc | 156 |  | Stone | 1 | - | Marble | Slab of marble, polished on one side, Th. 39 | - | - | 2 |
| Exc | 158 | - | Clay Pipe | 1 | - | Stem | Wide Bore | 17th-e.18th | PM | 1 |
| Exc | 158 | - | Pottery | 1 | - | Modern | Creamware | L.18th/e.19th | Mod | 1 |
| Exc | 160 | - | CBM | 1 | - | Delft Tile | TGE- edge sherd, decorated with purple design.Th 8 | L.17th/18th | PM | 1 |
| Exc | 160 | - | Clay Pipe | 5 | - | Stem | Narrow Bores, one stamped 'Edinburgh'/'mackenzie' (1862-1915), another '-aldson (1833-77), one moulded mouthpiece; one wide bore | 17th-19th | Mod | 1 |
| Exc | 160 | - | Pottery | 1 | - | Modern | Mocha Ware, banded | L.18th/e.19th | Mod | 1 |

HEADLAND ARCHAEOLOGY (UK) LTD
RME07

| Test Pit/ <br> Excavation | Context | Sample No. | Material | Qty | Weight (g) | Object | Description | Spot Date | Period | Box <br> No |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Exc | 160 | - | Pottery | 3 | - | Modern | Green shell-edged | L.18th/e.19th | Mod | 1 |
| Exc | 160 | - | Pottery | 3 | - | Modern | Coloured Wares, blue and buff | 19th | Mod | 1 |
| Exc | 160 | - | Pottery | 3 | - | Modern | Porcelain, Chinese \& European | 19th | Mod | 1 |
| Exc | 160 | - | Pottery | 9 | - | Modern | Transfer printed, blue, brown, one purple with hand colouring | 19th | Mod | 1 |
| Exc | 161 | - | Pottery | 1 | - | Modern | Redware, marbled slip decoration | M.18th/e.19th | Mod | 1 |
| Exc | 161 | - | Pottery | 1 | - | Modern | WSG bowl base | M.18th/e.19th | Mod | 1 |
| Exc | 167 | - | Clay Pipe | 1 | - | Stem | Wide Bore | 17th-e.18th | PM | 1 |
| Exc | 168 | - | Clay Pipe | 1 | - | Stem | Narrow bore, stamped 'cochrane/-nburgh' (1869-1902) | 19th | Mod | 1 |
| Exc | 168 | - | Glass | 1 | - | Window | Sherd of thick clear glass | - | Mod | 1 |
| Exc | 168 | - | Leather | 1 | - | Shoe | Sole | - | - | 1 |
| Exc | 168 | - | Pottery | 6 | - | Modern | Redware, slip lined vessel | L.18th/19th | Mod | 1 |
| Exc | 172 | - | Pottery | 1 | - | Modern | WSG moulded plate rim | m18th/e.19th | Mod | 1 |

## Appendix 3 - Paleoenvironmental sample

## assessment

Davie Masson, Dr. Emma Tetlow \& Dr. Scott Timpany

## Introduction

Fourteen environmental samples were processed from samples taken during the excavation of the Royal Museum, Edinburgh. The assessment aims to investigate the presence/ absence of environmental (and artifactual) material within the samples and what information they might provide that add to the archaeological interpretation of the site.

## Method

Samples were processed in laboratory conditions using a standard flotation method (cf. Kenward et al., 1980). This was then sorted by eye and any material of archaeological significance removed. All plant macrofossil samples were assessed using a stereomicroscope 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).

## Results

The results are summarised in Tables A3.1 (composition of retents) and A3.2 (composition of flots). Suitable materials for AMS (Accelerated Mass Spectrometry) radiocarbon dating are identified within each table. All plant material was preserved by charring.

## Plant remains

Charred cereal grain
Only two samples (014 and 015) were found to contain charred cereal grain, with small quantities of oat (Avena sp.) recovered from Sample 014 and hulled barley (Hordeum vulgare) grains present in Sample 015. The grains were found to be poorly preserved being abraded in both samples.

## Charcoal fragments

Charcoal fragments were present in seven samples; mostly in rare quantities (see Tables A3.1 and A3.2). Fragments recovered from the flot samples were generally larger in size $(2 \mathrm{~cm})$ than those present within the retent samples ( 1 cm ). Three samples ( 018,019 and 023) contain material suitable for identification and AMS radiocarbon dating.

## Other finds

Ceramic materials in the form of pottery, clay pipe, brick and other ceramics were found in ten samples (see Table 1). Building material of mortar and slate were found in five samples ( $009,016,018,019$ and 022 ), while glass was present in eight samples. Metal finds were also recovered from the site with copper objects found in four samples ( $014,016,020$ and 023 ), lead objects in one sample (016) and iron objects in four samples ( $016,018,021$ and 023). Slag and magnetic residue were found in ten samples. Burnt and unburnt bone fragments were recovered from 10 samples (see Table A3.1),
with mammal and fish bone present. Marine shell was also present at the site and was found in nine samples.

## Discussion

Environmental material in the form of charred cereal grain and charcoal fragments was found within the processed samples from the museum but was found to be sparse; the assemblage as a whole dominated by artifactual rather than environmental materials. The most abundant environmental materials present were bone fragments both burnt and unburnt bone with mammal and fish bone within the assemblage. Human bone was also recovered in three samples (see below). Charred cereal grain of oat and hulled barley was found in small quantities in two samples (014 and 015); the oat from the backfill around the wall [065] and the barley from within the fill [071] of oval pit within Area B.

On the whole the environmental material from the site is likely to contain a mixture of materials that have been blown and/or washed into features by natural agencies (e.g. windblow) from the surrounding area, together with deliberately dumped [midden] waste in the form of bone and marine shell. Other materials of domesticity are also present in the assemblage from the museum including pottery sherds and metal objects (see Finds report).There is some evidence of industry in the area with the presence of iron slag and magnetic residue in the assemblage suggesting metal working was taking place in the vicinity of the site.

Of particular interest is the recovery of human bone in three samples ( 018,019 and 020 ). These samples were taken from buried soil and mixed deposits in three areas; two around cellar 2 and the third in Cellar 15.The bone fragments have been preliminarily identified as a fragment of human cranium, a rib and what appears to be a distal phalange from a little finger (018), a further fragment which is possibly part of a human cranium (019) and an intermediate phalange from the ring, middle or index fingers. The presence of the fragments across two areas suggests that more than one individual is represented in the samples. It is unlikely that this material is in-situ. A further sample (016) which consists largely of fragmentary, mixed animal bone also contains a possible triquetral joint from a human wrist.

## Conclusion

- The assemblage as a whole is representative of a mix of domestic and industrial debris from activities in the vicinity of the site.
- The charred cereal grain from the site is likely to have been transported by natural agencies from activities in the surrounding area.
- The presence of human bone from three areas of the site suggests more than one individual is represented.


## References

Cappers, RTJ, Bekker, RM \& Jans, JEA 2006 Digital seed atlas of the Netherlands. Barkhuis Publishing and Groningen University Library: Groningen.
Kenward, HK, Hall, AR \& Jones, AKG 1980 'A tested set of techniques for the extraction of plant and animal macrofossils from archaeological deposits', Science and Archaeology 22 3-15.
Table A3.1
Retent Sample Results

| Context <br> No. | Sample <br> No. | Feature | Sample <br> Vol (1) | Ceramic |  |  |  | Other <br> Materia | uilding | Stone | Glass |  | Metal |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Pottery <br> (Med-PM) | Clay pipe | $\begin{aligned} & \text { CBM } \\ & \text { (Brick) } \end{aligned}$ | Other ceramic | Mortar | Other |  | Glass | Glass waste | Cu obj | Pb obj | Fe obj | Other metal |
| 057 | 8 | Possible Garden Soil. | 10 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 058 | 9 | Garden Soil (Post Med). | 10 | - | - | - | - | + | - | - | - | - | - | - | - | - |
| 057 | 11 | Possible Early Soil. | 10 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 062 | 13 | Pit A (Garden Soil). | 20 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 065 | 14 | Backfil Around Wall (65). | 10 | - | - | - | ++ (Pantile) | - | - | - | ++ | - | + (Pin) | - | - | - |
| 071 | 15 | Fill of Oval Pit (Area B) | 30 | + | - | - | - | - | - | - | - | - | - | - | - | - |
| 079 | 16 | Garden Soil (Area C). | 30 | + | - | - | + (Pantile) | ++ | - | - | ++ | + | + (Pin) | + | + | - |
| 083 | 17 | Buried Soil. | 30 | - | - | + | - | - | - | - | - | - | - | - | - | - |
| 090 | 18 | Buried Soil. | 30 | + | - | + | - | +++ | - | + Painted Slate. | + | - | - | - | ++ | + |
| 097 | 19 | Mixed Deposit. | 10 | - | - | - | - | +++ | - | - | + | - | - | - | - | - |
| 114 | 20 | Buried Soil. | 10 | + | - | - | - | - | - | - | + | - | + (Pin) | - | - | - |
| 151 | 21 | Deposit in Curved Base of Sewer Strat 16. | 10 | - | + | - | + (Pantile/Pipe) | - | - | - | + | - | - | - | +++ | - |
| 147 | 22 | Backfill Deposit over Strat 6, Cellar 2. | 20 | - | + | - | - | +++ | $\begin{aligned} & \text { + Plastic } \\ & \text { Tile. } \end{aligned}$ | + Slate. | + | - | - | - | - | - |
| 155 | 23 | Wood Depsoit on Strat 2, Floor. | 3 | + | - | - | - | - | - | - | $\begin{aligned} & ++ \text { (beads, } \\ & \text { glass) } \end{aligned}$ | - | $\begin{aligned} & ++ \text { (pin,tack, } \\ & \text { mesh.) } \end{aligned}$ | - | ++ | - |

Table A3.1 (continued)

| Context <br> No. | Sample No. | Feature | MWD |  | Organics |  |  | Burnt bone |  | Unburnt bone |  | Shell |  | Charcoal |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Fe slag | Mag res | Leather | Wood | Textile | Mammal | Fish | Mammal | Fish | Marine | Terrestrial | Qty | $\begin{aligned} & \text { Max Size } \\ & (\mathrm{cm}) \end{aligned}$ |
| 057 | 8 | Possible Garden Soil. | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 58 | 9 | Garden Soil (Post Med). | + | +++ | - | - | - | ++ | - | ++ | + | ++ | - | - | - |
| 57 | 11 | Possible Early Soil. | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 62 | 13 | Pit A (Garden Soil). | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 65 | 14 | Backfil Around Wall (65). | - | ++++ | - | - | - | +++ | + | ++ | + | - | - | - | - |
| 71 | 15 | Fill of Oval Pit (Area B) | ++ | ++++ | - | - | - | +++ | - | +++ | + | - | - | - | - |
| 79 | 16 | Garden Soil (Area C). | +++ | ++++ | - | - | - | + | - | +++ | ++ | ++++ | - | - | - |
| 83 | 17 | Buried Soil. | + | - | - | - | - | + | - | ++ | - | +++ | - | - | - |
| 90 | 18 | Buried Soil. | +++ | ++++ | - | - | - | ++ | - | +++ | + | +++ | + | + | 1.0 |
| 97 | 19 | Mixed Deposit. | + | - | - | - | - | - | - | +++ | + | ++++ | - | - | - |
| 114 | 20 | Buried Soil. | + | ++ | - | - | - | + | - | ++ | + | ++ | - | - | - |
| 151 | 21 | Deposit in Curved Base of Sewer Strat 16. | - | ++++ | - | - | - | - | - | - | - | + | - | - | - |
| 147 | 22 | Backfill Deposit over Strat 6, Cellar 2. | ++ | ++++ | - | - | - | + | - | +++ | ++ | ++ | - | - | - |
| 155 | 23 | Wood Depsoit on Strat 2, Floor. | +++ | ++++ | + | + (not retained). | + | + | + | ++ | + | + | - | - | - |

Table A3.1 (continued)
Table A3.1 (continued
Retent Sample Results

| Context <br> No. | Sample <br> No. | Feature | Material available for AMS Dating | Cinders | Comments |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |

## Table A3.2

Flotation Sample Results

| Context <br> No. | Sample No. | Total flot Vol(ml) | Cereal grain |  | Charcoal |  | Material available for AMS | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Avena sp. | Hordeum vulgare | Qty | Max <br> size (cm) |  |  |
| 057 | 8 | 0 | - | - |  | - | - | Archaeologically sterile |
| 058 | 9 | 20 | - | - |  | - | - | Archaeologically sterile |
| 057 | 11 | 0 | - | - |  | - | - | Archaeologically sterile |
| 062 | 13 | 10 | - | - |  | - | - | Archaeologically sterile |
| 065 | 14 | 1500 | + | - |  | - | - | - |
| 071 | 15 | 150 | - | + | + | <1 | - | - |
| 079 | 16 | 150 | - | - | + | <1 | - | - |
| 083 | 17 | 20 | - | - |  | - | - | Archaeologically sterile |
| 090 | 18 | 200 | - | - | + | <1 | - | - |
| 097 | 19 | 50 | - | - | + | 1.5 | Charcoal + | - |
| 114 | 20 | 75 | - | - | + | <1 | - | - |
| 151 | 21 | 20 | - | - |  | - | - | Archaeologically sterile |
| 147 | 22 | 100 | - | - | + | $<1$ | - | - |
| 155 | 23 | 2000 | - | - | ++ | 2 | Charcoal + | - |

Key: $+=$ rare, $++=$ occasional, $+++=$ common and $++++=$ abundant
NB charcoal over 1 cm is suitable for identification and AMS dating

## Appendix 4 - Test Pit Results

## Test Pit 4

Test pit 4 was 1 m in depth. The basal deposit comprised compact reddish brown clay (020) that contained inclusions of cinders and small stones at its surface. It was only exposed to a depth of 0.02 m and represents natural geological deposits. Overlying this was yellow brown clayey loam 019, which was 0.2 m in depth and contained frequent inclusions of coal, cinder and oyster shell fragments. Sealing deposit 019 was rubble layer 018. It was 0.62 m deep and made up of small to medium angular stones. 018 was overlain by concrete 0.1 m thick, which was surfaced with linoleum tiles (017).

## Test Pit 5

Test pit 5 was 1 m in depth. The basal deposit was dark brown clayey loam 033, which contained inclusions of oyster shell, coal, cinders and small stones. 033 was exposed to a maximum depth of 0.3 m at the northern extent of the test pit. Sealing this was rubble deposit 018, which reached a maximum depth of 0.8 m at the southern extent of the test pit. 018 was sealed by concrete and tile surface 017 .

## Test Pit 6

Test pit 6 was 0.6 m in depth. The basal deposit comprised compacted reddish brown clay with occasional small stone inclusions (051) - interpreted as natural geological deposits. Overlying this was a very compact brownishwhite mortar and crushed stone layer (050), which was 0.1 m thick. There also appeared to be traces of bitumen within the deposit. Sealing 050 was rubble make-up deposit 049 , which was 0.4 m deep and contained medium sized stones in a sandy matrix. Overlying 049 was sand bedding layer $048,0.06 \mathrm{~m}$ deep, which lay beneath slate flagstone flooring 047.

## Test Pit 7

Test pit 7 was 1 m in depth. Natural geological deposits of reddish brown clay (053) were revealed 0.65 m below the ground surface and exposed to a depth of 0.35 m . Overlying this was a solid layer of mortar and asphalt 0.05 m thick (052), which may be associated with deposit 050 in test pit 6. 052 and 053 were truncated by linear cut 046 , which was aligned east- west and extended beyond the limits of the trench. 046 was 0.62 m wide and had vertical sides. The base was not reached before the limit of excavation, but the cut was at least 0.4 m deep. 046 was filled by deposit $045-$ mixed yellowish brown sandy loam containing frequent small stones and fragments of brick, mortar and asphalt. Sealing this was rubble deposit 044 which was 0.4 m in depth and made up of small to large sandstone inclusions. A layer of bedding sand (043), 0.1 m thick, overlay 044 and was covered by stone slab floor surface 042 .

## Test Pit 8

Test pit 8 was 1 m in depth. The earliest feature revealed was wall remains in the southeast corner (026), which
comprised two courses of sandstone; the southern face of which was rendered in plaster. 026 is likely to be the remains of a cellar wall. Overlying wall 026 was brown sandy clay loam 028. It was 0.15 m deep and may represent disturbed garden soil overlying cellar remains 026. On the north side of 026 at the base of the test pit was rubble deposit 025 . It was made up of small to large angular stones with frequent pieces of mortar in a sand matrix. 025 was exposed to a depth of 0.1 m and interpreted as a demolition deposit used to backfill the cellar. Sealing 025 was a further rubble deposit, 024, which was a maximum of 0.8 m in depth and contained frequent mortar and occasional brick fragments. 024 was truncated by rectangular cut 027 , which was 1.1 m in length, 1 m wide and 0.5 m deep. 027 contained 028 - a substantial sandstone slab sitting on a concrete base. A square notch in the surface of the slab had been filled with concrete and may have been the setting for a pillar or other structure. A 0.15 m thick layer of bedding sand (023) surrounded slab 028 and also overlay rubble deposit 024. 023 was itself covered with flagstone surface 021 .

## Test Pit 9

Test pit 9 was 0.8 m in depth. Natural geological deposits of reddish purple boulder clay (041) were exposed at the base. Sealing this was mottled brown and green clay with occasional charcoal, stone and oyster shell inclusions (035). This mottled deposit appears to represent the interface between natural geological deposits and overlying garden soil. 035 was $0.1-0.4 \mathrm{~m}$ deep; reaching maximum depth at the western end. Part of a linear cut (036) was revealed at the northwest corner of the test pit, truncating 035 and aligned northeast-southwest. It was 0.07 m in depth and exposed to a width of 0.2 m .036 was filled by greyish brown sandy clay 037 , which contained frequent mortar fragments and charcoal flecks. Sealing 037 was 031- grey brown sandy loam with mortar, oyster shell, animal bone and ceramic inclusions. 031 was up to 0.24 m in depth and interpreted as redeposited garden soil. Overlying this was yellow sand bedding layer 030, 0.1 m thick, which was surfaced by flagstone floor 029 .

## Test Pit 10

## (Illus 5)

Test pit 10 was 1 m in depth. Two walls were revealed, extending beyond the limit of excavation: 013 and 014. Wall 013 was aligned east-west. It was 0.26 m wide and exposed to a depth of 0.9 m and length of 2 m .013 was faced on both sides and comprised four courses of sandstone blocks bonded by lime mortar. A doorway was present at the eastern end of the wall, 0.95 m wide, with the lintel and an iron door hinge still in situ.

Abutting wall 013 and extending northward from it on the west side of the doorway was wall 014 . It was exposed to a depth of 0.63 m and length of 0.44 m .014 consisted of mortared sandstone blocks, faced on both sides. The top of the wall was angled on both sides where vaulted roofing appears to have been truncated away. Sandstone rubble and red clay backfill 011 was deposited on the south side of wall
013. It contained frequent mortar fragments, occasional brick fragments and was $0.3-0.8 \mathrm{~m}$ in depth. Overlying 011 and identified between the north side of wall 13 and east side of wall 014 was deposit 010 . This was also a rubble backfill deposit but in a grey brown sandy matrix. 010 was a maximum of 0.7 m in depth. The void between the north side of wall 013 and west side of wall 014 was backfilled by deposit 012 . This consisted of grey brown sandy rubble with frequent brick and slate fragments, reaching 0.45 m in depth. Sealing rubble deposits 010 and 012 was sand bedding layer 002 , which was 0.2 m thick and itself overlain by flagstone surface 001 .

## Test Pit 11

## (Illus 6)

Test pit 11 was 1 m in depth. Yellow brown clay 016 was exposed at the base of the test pit on the north side and was 0.7 m maximum depth. It contained small stone inclusions and altered to a more loamy composition towards the top of the deposit; representing an interface from natural geological deposits to cultivation soil. 016 was truncated by cut 009 . The cut was linear in plan, aligned east-west and exposed to a depth of 0.5 m . Only the north side of 009 was revealed, sloping steeply towards the south. Wall 006 had been erected in cut 009.006 comprised mortared sandstone blocks, was 0.48 m wide and exposed to a depth of 0.7 m . The north face was rough and unfinished, while the south face had a smooth finish and evidence of plaster rendering in places. The void between wall 006 and cut 009 on its north side was backfilled with slag deposit 005 and reached a maximum of 0.9 m in width. Overlying

005 and abutting the top of wall 006 on its north side was deposit 007 . This consisted of very compact orange brown clay with cinder and small stone inclusions. 007 was 0.2 m in depth and interpreted as a make-up layer. Abutting the south side of wall 006 was sandstone rubble backfill deposit 008 , which was exposed to 0.7 m in depth (equating to the height of the wall). Sealing wall 006, make-up deposit 007 and rubble 008 was concreted mortar surface 004. It was yellow brown in colour, with occasional inclusions of coal fragments and was 0.07 m thick. Overlying 007 was dark brown sandy loam 003, which was 0.16 m deep. It contained frequent inclusions of clay, slate, brick and masonry. Sand bedding layer 002 overlay 003 and was 0.07 m deep. Flagstone surface 001 covered 002.

## Test Pit 12

Test pit 12 was 1 m in depth. The basal deposit was reddish brown clayey loam 039, which contained frequent inclusions of stone and cinders as well as oyster shell and animal bone fragments. 039 was revealed to a depth of 0.55 m and interpreted as a garden/cultivation soil. Sealing this was rubble deposit 038 , which was 0.42 0.5 m deep. Both 038 and 039 were truncated by cut 040 , which was linear in plan and aligned east-west. Only the north edge of 040 was exposed in the test pit: it was steep sided, curving slightly southwards and revealed to a depth of 1 m .040 was filled by dark brown sandy loam 042. This deposit was fairly loose and contained frequent small stones. Slate flagstone surface 039 , latterly covered with linoleum tiles, sealed deposits 038 and 042.

| Appendix 5 - Discovery Excavation Scotland entry |  |
| :---: | :---: |
| LOCAL AUTHORITY: | City of Edinburgh |
| PROJECT TITLE/SITE NAME: | Royal Museum, Edinburgh |
| PROJECT CODE: | RME07 |
| PARISH: | Edinburgh |
| NAME OF CONTRIBUTOR(S): | A Robertson |
| NAME OF ORGANISATION: | Headland Archaeology Ltd |
| TYPE(S) OF PROJECT: | Archaeological monitoring; test pitting; wall recording |
| NMRS NO(S): | NT27SE.1872; NT27SE.3931; NT27SE.4620.0 |
| SITE/MONUMENT TYPE(S): | Medieval./ Post-medieval deposits and 18th-19th century structural remains |
| SIGNIFICANT FINDS: | Medieval pottery |
| NGR | NT 258733 |
| START DATE (this season) | January 2008 |
| END DATE (this season) | May 2009 |
| PREVIOUS WORK (incl. DES ref.) | DES 1992, 50 |
| MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields) | Headland Archaeology Ltd. was commissioned to carry out a programme of archaeological works in the basement area of the Royal Museum, Edinburgh in advance of and during redevelopment of the museum. The work consisted of test pitting, monitoring of groundworks and recording of upstanding remains of the Flodden Wall. <br> Previous excavations on the western extension had revealed evidence of medieval activity (Ewart 1992), while 17th century map evidence shows buildings with associated gardens on the site of the current museum. In the 18th century the Trades Maiden Hospital moved onto the eastern side of the site and the buildings of Argyle Square were constructed to the west. |
|  | The groundworks exposed one medieval pit containing 12-16th century pottery; correlating with the period of activity revealed in Ewart's previous excavations. Across the site, sporadic deposits of buried 'garden' soil were revealed; with finds dating them to the medieval and post-medieval periods. The incomplete coverage of these deposits across the site is likely to have been caused by the ground being levelled during periods of major construction, with garden soil only surviving in natural hollows. No wall remains over the footprint of the Trades Maiden Hospital were revealed, further implying significant truncation had occurred. |
|  | Structural remains were however encountered elsewhere beneath the museum's basement floor. A number of walls, one incorporating a window setting, and the upstanding remains of three vaulted rooms were revealed. A comparison of their locations with the 1859 plan of Argyle Square suggests they are the remains of buildings on the southern range of the square. The vaulted rooms appear to have served as coal stores at some time and would be termed today 'under pavement cellars.' A stone culvert was also revealed in an excellent state of preservation, for which suitable contingency measures were taken to protect it. <br> The wall bases were not encountered within the limit of excavation and the window feature only just revealed. Archaeological deposits are therefore likely to survive at a deeper level and may include the basement floors of the 18th-19th century Argyle Square buildings as well as earlier features. |
| PROPOSED FUTURE WORK: | None |
| ARCHIVE LOCATION (intended/deposited) | Archive to be deposited in NMRS and report lodged with CECAS. |
| SPONSOR OR FUNDING BODY: | National Museums Scotland |
| CAPTION(S) FOR ILLUSTRS: | $\mathrm{n} / \mathrm{a}$ |
| ADDRESS OF MAIN CONTRIBUTOR: | Headland Archaeology Ltd, 13 Jane Street, Edinburgh EH6 5HE |
| EMAIL ADDRESS: | alistair@headlandarchaeology.com |

