

## Discovery and Excavation in Scotland

Updated on 15/06/2007

<b>LOCAL AUTHORITY:</b>	Edinburgh, City Of
<b>PROJECT TITLE/SITE NAME:</b>	Holyrood Park
<b>PROJECT CODE:</b>	HSCO-90131-2016-01, HSCO-90131-2016-02, HSCO-90131-2016-04
<b>PARISH:</b>	Edinburgh, City Of
<b>NAME OF CONTRIBUTOR:</b>	David Murray, Alan Radley
<b>NAME OF ORGANISATION:</b>	Kirkdale Archaeology
<b>TYPE(S) OF PROJECT:</b>	Watching Brief
<b>NMRS NO(S):</b>	NT27SE 197
<b>SITE/MONUMENT TYPE(S):</b>	Park
<b>SIGNIFICANT FINDS:</b>	None
<b>NGR (2 letters, 8 or 10 figures)</b>	NT 27 73 (individual locations in text below)
<b>START DATE (this season)</b>	14 January 2016
<b>END DATE (this season)</b>	22 March 2016
<b>PREVIOUS WORK (incl. DES ref.)</b>	
<b>MAIN (NARRATIVE) DESCRIPTION:</b> (May include information from other fields)	<p>Watching briefs were maintained during three programmes of work in Holyrood Park. These were part of an ongoing repair programme.</p> <p><b>HSCO-90131-2016-01</b> Monitoring of remedial work undertaken on the main path to the summit of Arthur's Seat from the north side. This path runs into the park on a roughly NW/SE alignment up to Saint Anthony's Well where it turns and runs NE/SW, sloping up along the north-west side of the gully known as Dry Dam. This represents perhaps the most obvious way to the summit, as well as a possible route connecting the Holyrood area with Duddingston on the south side of the hill. Work in this phase was on three areas. The first two (NT 2756 7325 &amp; NT 2757 7345) revealed nothing of interest but a third area (NT 2751 7366) revealed redeposited material, with path gravel and flecks of blaze throughout all the deposits. Significant amounts of 19th-century (or later) material were noted, with a small selection retained. A single body sherd of broadly medieval date was retained from an erosion scar adjacent to the path. These finds may represent more than simply casual loss – perhaps midden (enhanced) material was introduced in the 19th century to landscape the approach to Anthony's Chapel and associated features.</p> <p><b>HSCO-90131-2016-02 - (NT 2701 7370)</b> This work comprised the monitoring of a small excavation to repair a blocked drain at the foot of Arthur's Seat where the tarmac of the cycle path running around the base of the hill meets the 'grass-crete' surface of the lowest stretch of Volunteer's Walk, the path leading up and into the park from a point just to the south of the walled garden of Holyrood Palace. These excavations revealed evidence for extensive infill deposits, of unknown date. The lack of any evidence for stabilisation suggests that the three basal deposits represent a single event. The most likely date for this would be the mid-19<sup>th</sup> century, when the Queen's Drive was constructed.</p> <p><b>HSCO-90131-2016-04 - (NT 2701 7370)</b> A further watching brief was maintained during the excavation of a long drainage trench adjacent to 'Jacob's Ladder', a steep set of steps on the south-eastern edge of Arthur's Seat (Fig. 1). These steps run from near Duddingston Loch at the base of the hill up towards Dunsapie Loch, and poorly drained ground at both top and</p>

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	<p>bottom has caused long term drainage issues.</p> <p>To the west of the bottom of the steps is the site known as Delf's Well, today covered by a stone and brick built box and shown on the 1850s Ordnance Survey maps. An extant drain was believed to run from this structure south-eastwards towards a drain cover visible adjacent to the Duddingston Loch car park. The intention was to locate this existing drain and feed the new drain down the side of the steps into it.</p> <p>The machine-excavated trench was c. 220m in length x 0.4m wide x 0.75m deep. There were no finds or features of archaeological significance.</p> <p>The opportunity was taken to make a detailed written and photographic record, including a measured sketch plan, of Delf's Well.</p> <p>The well appears to be fed by springs coming off the slope, with a vigorous inflow observed coming into the well chamber from the brick built arch low down in its northern wall. It was thought that the well is most likely a mid-19th-century construction over a natural spring.</p>
<b>PROPOSED FUTURE WORK:</b>	
<b>CAPTION(S) FOR ILLUSTRS:</b>	
<b>SPONSOR OR FUNDING BODY:</b>	Historic Environment Scotland
<b>ADDRESS OF MAIN CONTRIBUTOR:</b>	4, Western Terrace, Edinburgh, EH12 5QF
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<b>ARCHIVE LOCATION</b> (intended/deposited)	Archive to be deposited with Historic Environment Scotland

**HISTORIC ENVIRONMENT SCOTLAND**  
**PROPERTIES IN CARE**  
**MINOR ARCHAEOLOGICAL WORKS 2015/2016**

**Holyrood Park • Watching Brief • January 2016**

**HES PIC Index Number: 90131**

**SITE:** Holyrood Park, Edinburgh.

**N.G.R.:** NT 275 741 – NT 286 741

**DESCRIPTION:** An archaeological watching brief attached to work undertaken to repair public footpaths in Holyrood Park, Edinburgh.

**PROJECT CODE:** HSCO-90131-2016-01

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4 Western Terrace, Murrayfield, Edinburgh EH12 5QF

**MARCH 2016**

## INTRODUCTION

Under the terms of its PIC call-off contract with Historic Scotland, Kirkdale Archaeology was asked to monitor work associated with upgrading the main path to the summit of Arthur's Seat from the north side. This path runs into the park on a roughly NW/SE alignment up to Saint Anthony's Well where it turns and runs NE/SW, sloping up along the north-west side of the gully known as Dry Dam. This represents perhaps the most obvious way to the summit, as well as a possible route connecting the Holyrood area with Duddingston on the south side of the hill.

The work was part of a rolling program of repairs, with the path split into nine discrete sections for ease of reference. The current project involved work in areas 1, 2 and 9 (Fig. 1). Areas 1 and 2 were at the south-west (top) end of the section running through Dry Dam, while area 9 was located on a level stretch of path at its north-west end, stopping just to the north-west of the well.

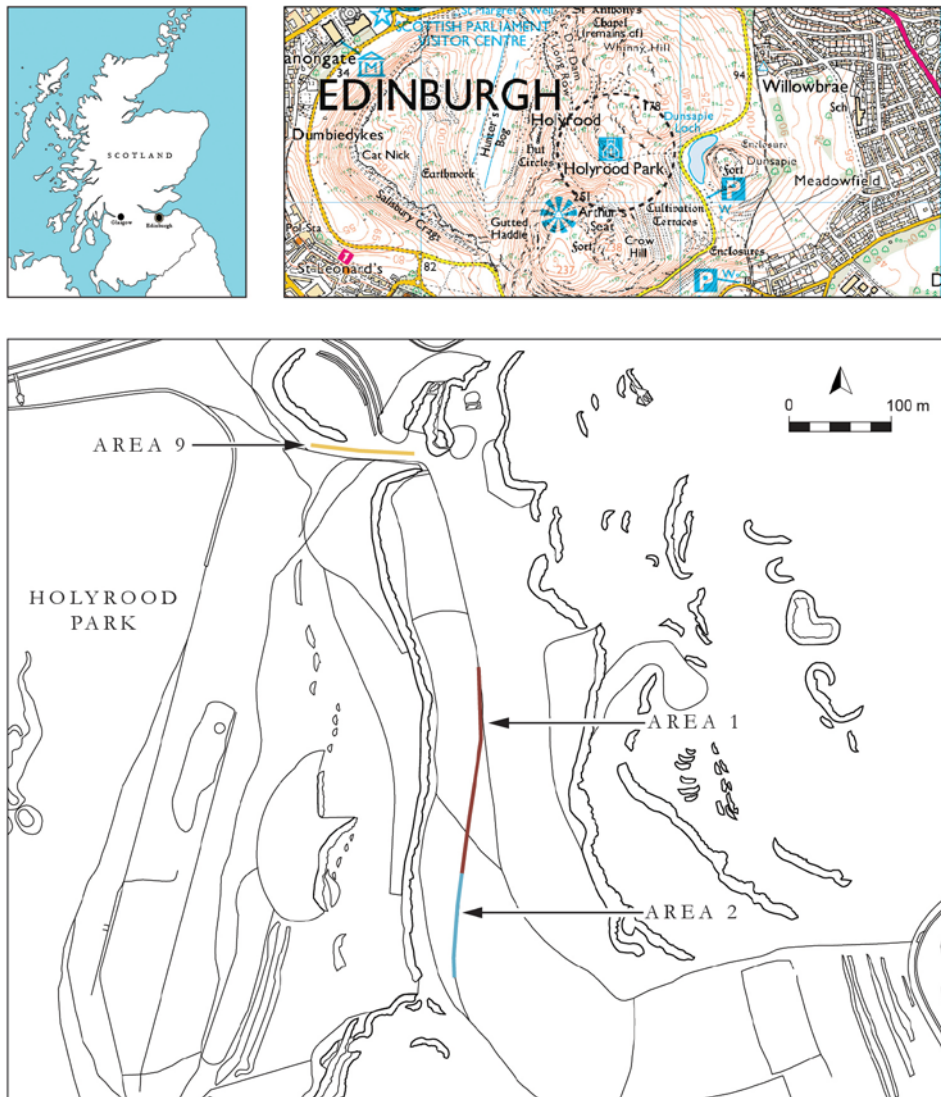


Figure 1: The location of the three areas of work.

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While there were no known archaeological sites close to areas 1 and 2, there were a number of features in the vicinity of Area 9. Most obvious of these is the suite of features associated with Saint Anthony - his chapel, cave and well. The chapel and cave are located to the north-east of the path on higher ground, while the well sits in the middle of the path, just as it turns to run up a steep and narrow defile. The well is marked by a large boulder, presumably a glacial erratic, with a finely dressed stone bowl against its north-west side. A metal pipe feeding under the boulder from its south-east side and some slight masonry under the boulder seem likely to mark restoration work, probably in the nineteenth century.

Running parallel to the south-east end of the path in Area 9 are the remains of a tumbled-down overgrown wall some 1.5m to its south-west. Before work started, significant quantities of pottery and glass fragments of probable nineteenth and twentieth century date were noted in erosion scars in this area.

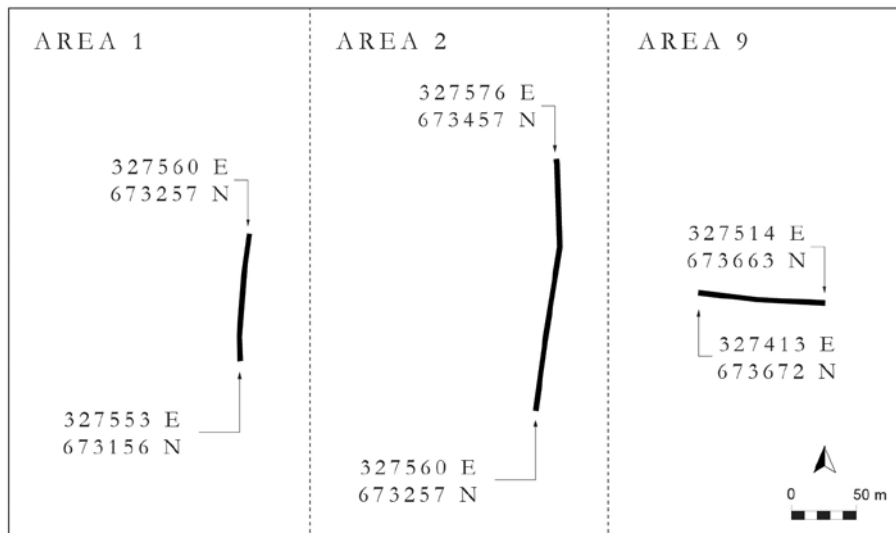


Figure 2: Detailed positions of the three areas of work.

The present work involved the restoration of the existing path, with the digging of narrow trenches along the downslope side to take a new boulder kerb. Occasional cross drains were dug diagonally across the path, almost all of which replaced existing ones, before a new gravel surface was applied. All excavation work was undertaken by hand. The proximity of the bedrock determined the depth of the work – only rarely was a depth of 0.2m attained; in some areas no kerb could be added. Area 1 was approximately 100m long, Area 2 was 200m in length and Area 9 was 100m long. The work took place during January, 2016.

## **DESCRIPTION**

Excavation results in areas 1 and 2 were extremely limited. Bedrock was frequently close to or even at the surface in this area, and almost all digging was through earlier path material. Occasional stretches filled with dark brown silty clay were observed. Only a single artefact (other than modern detritus), a ceramic bottle stopper, was noted from these two areas (Figure 3).

In Area 9 all excavation was through redeposited material, with path gravel and flecks of blaze throughout all the deposits. Significant amounts of nineteenth century (or later material) were noted, with a small selection retained. A single body sherd of broadly medieval date was retained from an erosion scar adjacent to the path (Figure 4).

The existing kerb, built of often substantial boulders located on the downslope (north-east) side of the path, was dismantled in Area 9. This was found to overlie an iron drain demonstrating that the kerb is not of great antiquity. Four dressed stones were recovered from this wall, all similar both geologically and in terms of treatment. The four were fine-grained sandstone slabs some 0.1m thick with well finished faces and fine tool marks visible. Although often broken along their edges, two had curved profiles, again finished to a high standard. These stones were rebuilt into one of the cross drains in Area 9.



**Plate 1:** The four dressed stones from Area 9.

## CONCLUSIONS

Excavation results in areas 1 and 2 were disappointing. Only a single artefact was noted, in spite of the likely use of this route from an early date. By contrast, Area 9 produced so much artefactual material that it might be suggested to represent more than simply casual loss – perhaps midden (enhanced) material was introduced in the nineteenth century to landscape the approach to Anthony’s Chapel and associated features.

The four dressed stones recovered were considered to be of little interest, and allowed to be rebuilt back into the path. The well finished, heavily tool marked nature of these stones indicates a probable late (nineteenth century or later) date for their working. The consistently thin width and curved edges might suggest kerb stones of some sort; in all likelihood they were imported to the site in the relatively recent past as rubble used to build the path.



**Figure 3:** The ceramic bottle stopper (SF001). Scale: 4:1 @ A4.



**Figure 4:** The sherd of pottery SF002 (both sides shown). Scale: 2:1 @ A4.



## LIST OF DIGITAL PHOTOGRAPHS

No.	Description	From	Date
1	Area 9, work starting.	SW	14/01/2016
2	Western end of Area 9.	S	14/01/2016
3	Eastern end of Area 9.	SW	14/01/2016
4	Four dressed stones from Area 9.	N/A	19/01/2016
5	Four dressed stones from Area 9.	N/A	19/01/2016
6	Area 2 before improvement.	N	19/01/2016
7	Area 1 before improvement.	N	19/01/2016
8	Area 9, general shot.	NE	25/01/2016
9	Area 2 as finished.	S	25/01/2016
10	Area 1 as finished.	S	25/01/2016
11	Area 9 as finished.	E	29/01/2016
12	Trench in Area 1.	NW	04/02/2016
13	Area 1 and 2, work in progress.	S	04/02/2016
14	Area 1 and 2, general shot.	SE	04/02/2016
15	Area 2, general shot.	SE	04/02/2016
16	Area 2 as finished.	N	09/02/2016
17	Area 2 as finished.	N	09/02/2016
18	Area 2 as finished.	S	09/02/2016
19	Ceramic bottle stopper.	N/A	09/02/2016
20	Ceramic body sherd view 1.	N/A	09/02/2016
21	Ceramic body sherd view 2.	N/A	09/02/2016

## LIST OF SMALL FINDS

No.	Description	Context
SF001	A ceramic bottle stopper of probable 19 <sup>th</sup> century date.	Unstratified
SF002	A single body sherd of broadly medieval date.	Unstratified

**HISTORIC ENVIRONMENT SCOTLAND  
PROPERTIES IN CARE  
MINOR ARCHAEOLOGICAL WORKS 2015/2016**

**Holyrood Park • Watching Brief • February 2016**

**HES PIC Index Number: 90131**

**SITE:** Holyrood Park, Edinburgh.

**N.G.R.:** NT 275 741 – NT 286 741

**DESCRIPTION:** An archaeological watching brief attached to work undertaken to repair a blocked drain.

**PROJECT CODE:** HSCO-90131-2016-02

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4 Western Terrace, Murrayfield, Edinburgh EH12 5QF

A P R I L 2 0 1 6

## INTRODUCTION

Under the terms of its PIC call-off contract with Historic Scotland, Kirkdale Archaeology was asked to monitor a small excavation at the foot of Arthur's Seat in Holyrood Park, Edinburgh (Fig.1). The excavation was undertaken at the point where the tarmac of the cycle path running around the base of the hill meets the 'grass-crete' surface of the lowest stretch of Volunteer's Walk, a path leading up and into the park from a point just to the south of the walled garden of Holyrood Palace.



Figure 1: The location of the trench.

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An open drain runs along the south side of Volunteer's Walk and into a buried drainpipe some 20m above (to the east of) its junction with the path along the base of the slope. During wet periods the end of the open drain can overflow, indicating a blockage somewhere within the buried section of pipe. The present work was intended to locate this buried pipe and connect it to the existing drainage along the side of Queen's Drive.

The area of the excavation lies in a hollow along the base of the crags and hill, which cartographic sources indicate was a boggy area of ground until presumed reclamation in the 19<sup>th</sup> century.

The work took place on 25th February, 2016.

## **DESCRIPTION**

The initial aim was to locate the existing drain pipe near the junction of Volunteer's Walk and the Duke's drive. A nearly square trench measuring 2.15 m NE/SW by 2.1 NW/SE was taken down a total of 0.8m. A pipe **102** ran west into the trench from its eastern corner, before turning to run south-west, continuing out of the trench. The top of **102** was 0.7m below the ground surface, and no sign of a cut was identified for it.

A further linear trench was then dug to connect the drain with an existing service hatch in the road. This ran from (approximately) the western corner of the square trench westwards for 6.6m and was 0.4m wide and 0.5m deep.

At the extreme western end of this extension, concrete **107** provided a base for the kerb of the road. This was dug against **104**, a dark brown silty clay rich in coal, stone and mortar fragments some 0.2m thick. To the west, **104** sealed **105**, a loose spread of mortar and rubble which thickened to the west. Context **105** in turn overlay **106** at the base of the trench, a deposit so similar to **104** that the two merged together at the eastern end of the trench, away from **105**.



**Plate 1:** The pipe 102, as revealed.

## **CONCLUSIONS**

These excavations revealed evidence for extensive infill deposits, of unknown date. The lack of any evidence for stabilisation suggests that the three basal deposits represent a single event. The most likely date for this would be the mid-19<sup>th</sup> century, when the Queen's Drive was constructed.

## **LIST OF CONTEXTS**

<b>No.</b>	<b>Description</b>
101	'Grass-crete' path surface.
102	Topsoil.
103	Fill (including pipe) in 103.
104	Pipe cut in square trench.
105	Upper soil infill.
106	Rubble and mortar at western end of linear trench below 104.
107	Soil infill below 105.

## **LIST OF DIGITAL PHOTOGRAPHS**

<b>No.</b>	<b>Description</b>	<b>From</b>	<b>Date</b>
1	Site pre-excavation.	E	25/02/2016
2	Site after removal of 100.	W	25/02/2016
3	Square trench showing pipe 102.	W	25/02/2016
4	Square trench showing pipe 102.	NW	25/02/2016
5	Square trench showing pipe 102.	SW	25/02/2016
6	General shot.	E	25/02/2016
7	Linear track as finished.	W	25/02/2016
8	Linear track as finished.	E	25/02/2016
9	General shot.	SE	25/02/2016

**HISTORIC ENVIRONMENT SCOTLAND  
PROPERTIES IN CARE  
MINOR ARCHAEOLOGICAL WORKS 2015/2016**

**Holyrood Park • Watching Brief • March 2016**

**HES PIC Index Number: 90131**

**SITE:** Holyrood Park, Edinburgh.

**N.G.R.:** NT 275 741 – NT 286 741

**DESCRIPTION:** An archaeological watching brief attached to the excavation of a long drainage trench adjacent to the steep stone steps known as 'Jacob's Ladder'.

**PROJECT CODE:** HSCO-90131-2016-04

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4 Western Terrace, Murrayfield, Edinburgh EH12 5QF

A P R I L 2 0 1 6

## INTRODUCTION

Under the terms of its PIC call-off contract with Historic Environment Scotland, Kirkdale Archaeology was asked to monitor the excavation of a long drainage trench adjacent to 'Jacob's Ladder', a steep set of steps on the south-eastern edge of Arthur's Seat (Fig. 1). These steps run from near Duddingston Loch at the base of the hill up towards Dunsapie Loch, and poorly drained ground at both top and bottom has caused long term drainage issues.

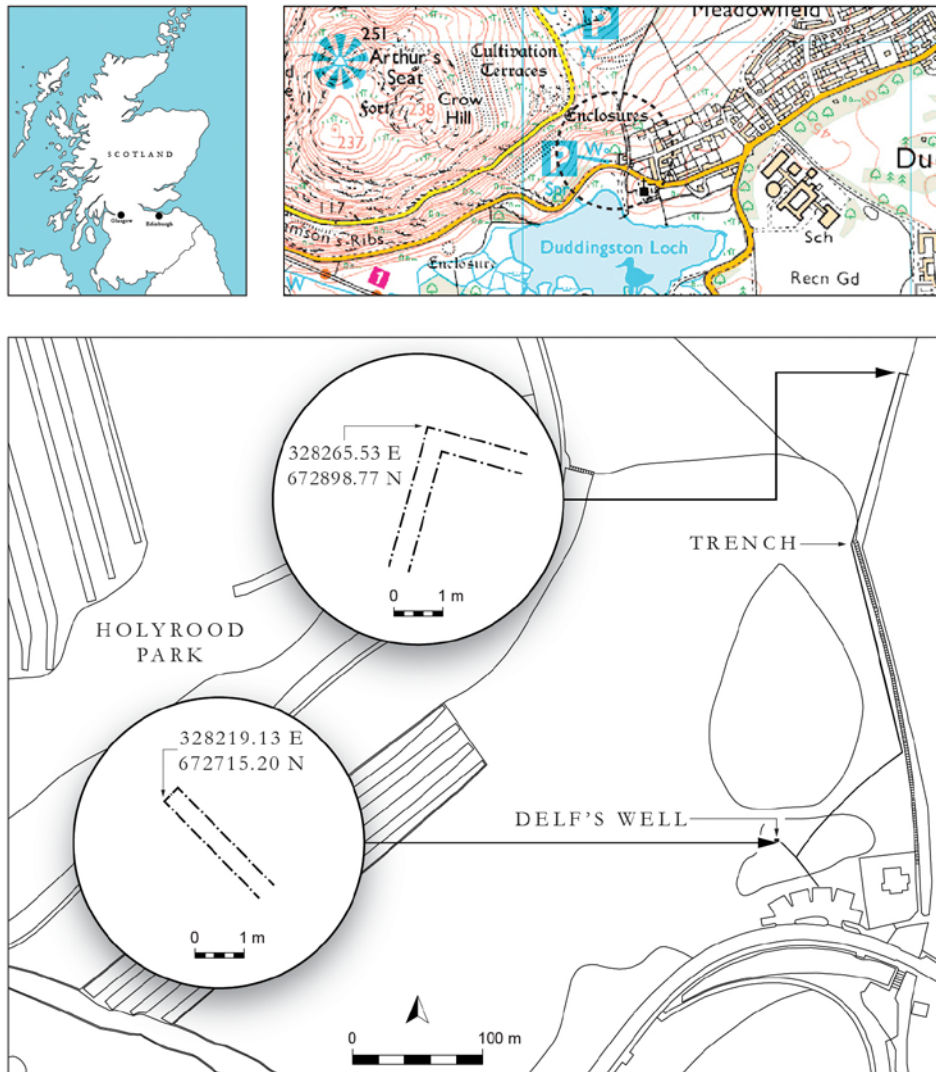


Figure 1: The location of the trench and Delf's Well.

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To the west of the bottom of the steps is the site known as Delf's Well, today covered by a stone and brick built box and shown on the 1850s Ordnance Survey maps. An extant drain was believed to run from this structure south-eastwards towards a drain cover visible adjacent to the Duddingston Loch car park. The intention was to locate this existing drain and feed the new drain down the side of the steps into it.

The topography of the area in which this trench was to be dug varies enormously. At the top of Jacob's Ladder is a gently sloping shelf on the south-east side of Arthur's Seat, to the south of Dunsapie Loch. The ground then falls away steeply to the south to meet the level of Duddingston Loch; much of the excavation lies across this steep slope. Immediately adjacent to Duddingston Loch is a further fairly level terrace.

A number of sites of archaeological interest are known of in the vicinity of this excavation. Jacob's Ladder itself is formed by concrete treads, and while it may mark an earlier access route there is no clear evidence of this. On the north-east side of the steps (which run broadly NW/SE) is a substantial wall marking the boundary of the park on this side. While there is evidence for the enclosure of Arthur's Seat as early as 1541, this extant structure is not necessarily this old. The wall displays clear evidence for multiple phases of building and repair, none of which offer any firm dating evidence. As a legal property boundary the line of this wall is likely to be ancient, even if its fabric is not.

At the base of Jacob's Ladder the steps run between this wall to the north-east and a lodge house to the south-west. This house is one of a series built at the entrances to the park as part of the mid-19<sup>th</sup> century improvements to Arthur's Seat. To the south of the lodge, adjacent to the loch, is Duddingston church, which displays Romanesque architecture indicating that a church, and likely an attendant settlement, has been here since at least the 12<sup>th</sup> century.

To the south-west of Jacob's ladder is Delf's Well, located near the base of the hill slope and presumably exploiting springs fed from the steep slopes to its north. To the north and north-west of this are a series of terraces of variable preservation dug into the hillside. These are thought to be agricultural in nature, and are undated. The lowest of these terraces is prominent to the west of the well, and a continuation of its line might suggest that it would run into its area, but it becomes vague at this point. As this terrace seems more substantial than those further up the slope it is suggested that this is probably a natural feature, perhaps a relict shore line from an earlier, larger Duddingston loch.

The trench totalled approximately 220m in length x 0.4m wide x 0.75m deep. Almost all excavation was by machine, except close to Delf's Well. The trench was backfilled with gravel over a plastic perforated pipe.

The work was undertaken from 14<sup>th</sup> March, 2016 – 22<sup>nd</sup> March, 2016.



## DESCRIPTION

On arrival the opportunity was taken to make a detailed written and photographic record, including a measured sketch plan, of Delf's Well (Fig.2). The site sits close to the base of the steep hillside to the north, and has clear traces of an overgrown cut, **111**, running around its north and west (upslope) sides. The eastern face and the top of the well have been exposed, presumably by this cut.

The well today is capped by a single large (1.78m x 0.85m x 0.09m) sandstone slab **107**, laid E/W and with a definite hollow worn in to the eastern end of its upper surface. A concrete services cover, **106**, has been set into **107**; presumably a hole was cut through the slab to take this. In the north-east corner of **107** is **109**, a broken-off iron fitting set in lead, while just south of this **108** is an iron ring set in lead with a short chain, terminating in a hoop attached to it.

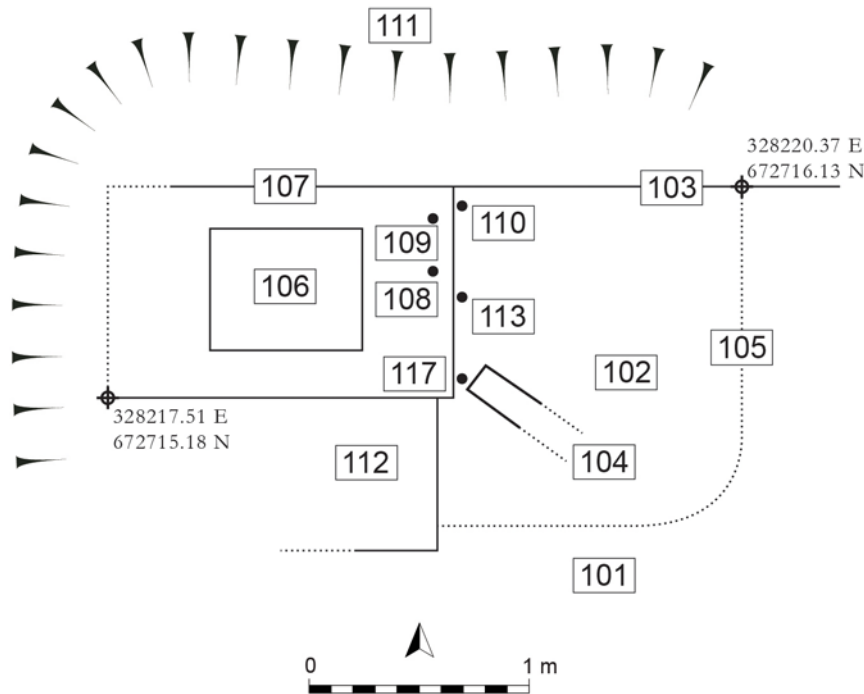


Figure 2: Plan of Delf's Well.

The eastern end of slab **107** rests on brick built wall **112**. This was found to stand eight courses (0.7m) high before widening out as footings, and was 2m long. This length meant it projected out beyond the limits of **107** above to both the north and south. To the south, the brickwork of **112** is capped by a further large sandstone slab whose upper surface is 0.15m below that of **107**.

A series of three pipes fed out of the eastern face of wall **112**. Context **110** to the north was a 25mm square lead pipe that had been pinched shut, while **113** placed centrally and high up in **112** was a large diameter (40mm) short iron pipe, and **117** low down at the southern end was a severed lead pipe 20mm in diameter.

Running off the north end of **112** (and post-dating it) is a short stretch of low walling **103** orientated E/W. This was built entirely of undressed dolerite boulders bonded by mortar, forming a crude south face standing at least 0.3m high. Context **103** was at least 1.75m long, continuing to the east below the turf for an unknown distance.

In the angle between the south face of **103** and the eastern face of **112** was an area of 'Type 1' gravel, **102**. A yellow perforated plastic pipe **104** ran within **102** from the south end of **112**, just beside where pipe **117** feeds out of it, heading off downslope to the south-east. Context **104** was the existing drainage pipe that the contractors were looking for.



**Plate 1:** Delf's Well.

The services hatch **106** was lifted as part of this project, allowing a view inside Delf's Well. Although dark and impossible to measure, a roughly square chamber could be seen, extending considerably beyond the northern and southern limits of slab **107**. A small brick built arch fed into this chamber near the western end of the north wall, and water ran rapidly through this.

Having located the pipe **104**, work then began on the main trench. This was started 8.25m south-east of the south-east corner of the well and ran off to the north-east from here across the reasonably flat ground leading to the base of Jacob's Ladder. At the western end of the trench, pipe **104** was located, but water leaking out its perforations meant that this end of the trench was dammed off and temporarily abandoned. Consultation with Historic Environment Scotland (on site) led to an agreement to replace **104** with a more substantial pipe. This meant an extra area of excavation following this pipe's line, running

from the well, south-eastwards, towards the car park.

Within the south-western end of the trench, topsoil **101** proved to be (a surprising) 0.65m thick and rich in white china and glass. As the excavation moved up the slope this lessened until it averaged 0.2m thick, and the number of finds was significantly reduced. Below **101** deposit **114** was encountered, a pale brown silty clay with an orange hue and with frequent dolerite boulders, often of large size with some charcoal flecks throughout, as well as occasional shards of china and glass. Along a roughly 40m stretch of the trench on the slope adjacent to Jacob's Ladder, deposit **120** was seen below **114**. Context **120** was a deposit of clay, pale-pinkish in colour although mottled with pale-yellow-to-white clay patches. No finds or charcoal were noted in **120**.

Two pipes were found within this trench, **115** towards the south-west end and **118** running parallel to Jacob's Ladder. Context **115** proved to be a 20mm diameter lead pipe running E/W across the trench some 6.5m north-east of the south-western end of the trench. The pipe was 0.3m below ground level, and was assigned a cut number, **116**, although in practice this was near impossible to define in a narrow trench. Pipe **118** was encountered as the trench approached Jacob's Ladder and was a ceramic drainpipe 120mm diameter some 0.5m below the ground surface. Context **118** ran roughly parallel to Jacob's Ladder, some 2.1m to its south-west. It sat within a poorly defined cut **119**.

At the very top of Jacob's Ladder the trench cut across the path diagonally and here, directly under the top step (**123**) was **121**, a substantial rubble deposit containing significant amounts of concrete. This proved to be sitting in a cut **122** some 0.5m deep, with a vertical western edge and a flat base.

## **C O N C L U S I O N S**

Throughout the entire length of this trench a remarkably similar sequence was recorded, with the underlying topography having only a limited effect. The great depth of **101** on the lower, flatter ground compared to its relative thinness on the slopes above presumably represents the greater accumulation of hill wash deposits in this location. The finds indicate a 20<sup>th</sup> century date for **101**.

Below this, topsoil **114** was the basal deposit along almost the entire trench. Although it contained fewer finds than **101**, the presence of concrete within **114** indicates a relatively recent date for its formation. This material is also interpreted as hill wash, and only along a 40m stretch of the trench was any deposit recorded below it. Here, on the steeper slopes, context **120** is thought likely to be natural subsoil, although little of it was excavated making this interpretation tenuous. Surprisingly no trace of bedrock was seen.

The rubble filled cut **122** sitting under the top step of Jacob's Ladder seems likely to relate to the construction of the steps. Such a substantial feature may represent a soak-away at the top of the stairs rather than a feature that runs under their entire length. The ceramic drainpipe **118** running parallel to the stairs is an earlier attempt at drainage, one that ultimately failed as the pipe was dry and choked with soil.

Although only limited excavation was undertaken in the area of Delf's Well, it is here that the greatest archaeological interest lay. The well does indeed appear to be fed by springs coming off the slope, with a vigorous inflow observed coming into the well chamber from the brick built arch low down in its northern wall.



**Plate 2:** A view of the trench (with excavation in progress) adjacent to 'Jacob's Ladder'.

The current superstructure over the well, effectively sealing it, must be 19<sup>th</sup> century or later, with mass produced bricks used in its eastern wall fabric, **112**. The large thin slab **107** laid over this brick wall seems worn however, and it might be suggested that this is a recycled element from an earlier well arrangement. The short iron chain **108** set into the eastern end of the upper surface of this slab may have had a cup attached to it originally.

Set into the eastern wall of the well was a series of pipes, with the large iron pipe **113** set high up and still open, presumably functioning as an overflow outlet. Context **117** was set low down to the south and is a severed lead pipe whose diameter matches that of pipe **115** found crossing the trench some 7.65m to its east. These contexts are likely to represent the same pipe feeding out of the well to the east. It is unclear where this pipe is heading; it seems to be angled too far to the south to supply the lodge house at the park

entrance. It may have supplied a tap in the garden of this house, or it may simply have led under the road to feed into Duddingston loch.

On balance it seems most likely that Delf's Well is a site of unknown origin (perhaps originally a simple natural spring) that was covered in the mid-19<sup>th</sup> century during the programme of improvements to the park enacted then. The well was completely obscured by soil until relatively recently when it was dug out and exposed<sup>1</sup>. The cut **111** running along its north and west sides is likely to represent this operation, and presumably the services cover **106**, Type 1 gravel **102**, and associated plastic drainage pipe **104** were all emplaced at this time.

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<sup>1</sup> Information obtained on site from a park ranger.

## LIST OF CONTEXTS

No.	Description
101	Topsoil.
102	Area of Type 1 gravel to immediate east of the well.
103	E/W wall built against the north-east corner of 012.
104	Yellow plastic pipe and fill in cut 105.
105	Cut for 102 and 104.
106	Services cover on top of 107.
107	Single large sandstone slab capping well.
108	Iron ring set in lead connected to small iron chain in the top of 107.
109	Broken-off iron setting in top of 107.
110	Pinched shut lead pipe running out of the eastern face of 112.
111	Large cut edge along the north and west sides of the well.
112	N/S brick well under the eastern edge of 107.
113	Cut-off large diameter iron pipe near the top of 112.
114	Compact pale orange/brown silty clay, with frequent dolerite inclusions and some charcoal flecks; below 001.
115	Lead pipe crossing trench in cut 116, probably the same as 117.
116	E/W cut for 115.
117	Severed lead pipe running out of the south end of 112.
118	Ceramic pipe in cut 119.
119	Cut adjacent to and roughly parallel with Jacob's Ladder steps.
120	Compact pale pinkish clay mottled with pale yellow/white clay patches in the base of the trench.
121	Substantial rubble deposit in cut 122.
122	Cut under top end of 123.
123	Concrete steps forming Jacob's Ladder.

## LIST OF DRAWINGS

No.	Type	Description	Scale
1	Plan	Sketch plan of Delf's Well.	1:20

## LIST OF DIGITAL PHOTOGRAPHS

No.	Description	From	Date
1	Delf's Well, general shot.	E	14/03/2016
2	Delf's Well, general shot.	S	14/03/2016
3	Delf's Well, general shot.	W	14/03/2016
4	Delf's Well, general shot.	W	14/03/2016
5	Delf's Well, detail of wall 112.	E	14/03/2016
6	Delf's Well, detail of wall 103.	S	14/03/2016
7	Delf's Well, general shot.	E	14/03/2016
8	Delf's Well, general shot.	NE	14/03/2016
9	View of interior of Delf's Well.	S	14/03/2016
10	Start (south-west end) of trench.	SW	15/03/2016
11	Start (south-west end) of trench.	S	15/03/2016
12	Lead pipe 115.	NW	15/03/2016
13	Lead pipe 115.	NW	15/03/2016
14	Start (south-west end) of trench.	NE	15/03/2016
15	Jacob's Ladder steps, pre-excavation.	SE	16/03/2016
16	Work in progress.	N	16/03/2016
17	Jacob's Ladder steps, pre-excavation.	NW	16/03/2016
18	General shot of excavation.	W	16/03/2016
19	Delf's Well, general shot.	E	16/03/2016
20	Delf's Well, general shot.	SW	16/03/2016
21	Lower part of trench backfilled.	W	17/03/2016

<b>No.</b>	<b>Description</b>	<b>From</b>	<b>Date</b>
22	Lower part of trench backfilled.	E	17/03/2016
23	South-west facing sample section of trench.	SW	17/03/2016
24	Work in progress.	SE	17/03/2016
25	Ceramic pipe 118.	NE	17/03/2016
26	Work in progress.	NW	18/03/2016
27	Deposit 021 at top of steps (in section).	SE	20/03/2016
28	Work in progress.	NE	22/03/2016
29	Wall 112 of well fully exposed.	E	22/03/2016
30	Wall 112 of well fully exposed.	E	22/03/2016
31	Brick arch feeding into western end of the north wall of the interior of the well.	S	22/03/2016