LOCAL AUTHORITY:	Edinburgh, City of	
PROJECT TITLE/SITE NAME:	Edinburgh Castle: Johnston Terrace	
PROJECT CODE:	HSCO-90130-2015-04	
PARISH:	Edinburgh, City of	
NAME OF CONTRIBUTOR:	Gordon Ewart	
NAME OF ORGANISATION:	Kirkdale Archaeology	
TYPE(S) OF PROJECT:	Watching brief	
NMRS NO(S):	NT27SE 1365 ??	
SITE/MONUMENT TYPE(S):	Watching brief	
SIGNIFICANT FINDS:		
NGR (2 letters, 8 or 10 figures)	Centred c. NT 2514 7338	
START DATE (this season)	28 October 2015	
END DATE (this season)	1 March 2016	
PREVIOUS WORK (incl. DES ref.)		
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	A watching brief was maintained on Johnston Terrace, immediately below the south side of Edinburgh Castle, during path relocation work on the north side of the road. At Johnston Terrace's south-west end, where the present work was concentrated, it skirts the base of the cliffs that form this side of the rock, while further to the north-east it runs across the slope below the esplanade. Earlier work undertaken by Kirkdale Archaeology (Kirkdale Archaeology (2012), Gas main replacement, Johnston Terrace and Lawnmarket, Edinburgh (archaeological monitoring and recording), unpublished Data Structures Report.) had shown that well preserved deposits pre-dating Johnston Terrace's construction survived along its south-east side at the north-east end. This was thought to be at least partly because the north-west (upslope) side was quarried into the slope, with the material removed from here spread to the south-east to provide a level terrace for the road, sealing earlier deposits. In none of the excavation monitored were 'natural' in-situ deposits revealed (e.g. fluvoglacial subsoils or bedrock). Even the deepest area of excavation to 1.10m showed only evidence for deposits with anthropogenic origins. This is almost certainly a testament to the immense amount of landscaping that the construction of Johnston Terrace involved. The south-west end of the road feeds onto a substantial bridge crossing King's Stables Road, with clear evidence of the creation of a substantial bank connecting the lower end of Johnston Terrace to this bridge. Indeed the regularity and coincidence of positioning of the whole slope below the lower end of Johnston Terrace suggests that this is all artificial, relating to the road's construction.	
PROPOSED FUTURE WORK:		
CAPTION(S) FOR ILLUSTRS:		
SPONSOR OR FUNDING BODY:	Historic Scotland	
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ARCHIVE LOCATION	Archive to be deposited with Historic Environment Scotland	

HISTORIC SCOTLAND PROPERTIES IN CARE MINOR ARCHAEOLOGICAL WORKS 2015/2016

Edinburgh Castle • Watching Brief • October 2015

HS PIC Index Number: 90130

SITE:	Johnston Terrace, Edinburgh.	
N.G.R.:	NT 252 733	
DESCRIPTION:	Archaeological watching brief during the relocation of the footpath running along the northern edge of Johnston Terrace, below Edinburgh Castle.	
PROJECT CODE:	HSCO-90130-2015-04	
CONTENTS:	Introduction	1
	Description	3
	Conclusions	5
	List of Contexts	7
	List of Digital Photographs	8
	Appendix A	9



4 Western Terrace, Murrayfield, Edinburgh EH12 5QF

INTRODUCTION

Under the terms of its PIC contract with Historic Environment Scotland, Kirkdale Archaeology was asked to carry out an archaeological watching brief on Johnston Terrace, immediately below the south side of Edinburgh Castle, during path relocation work on the north side of the road (Fig. 1).

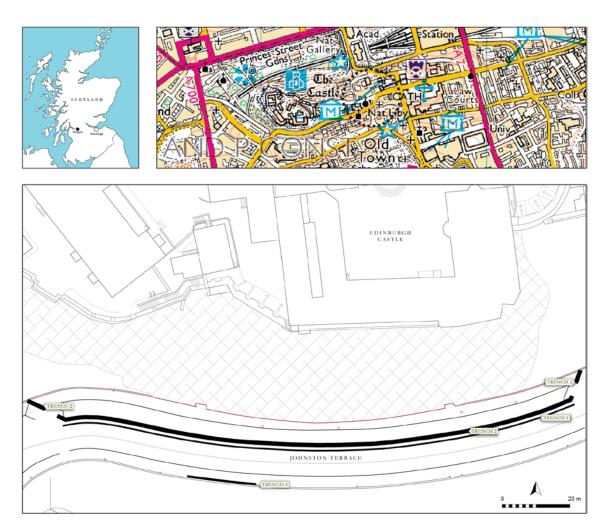


Figure 1: Plan showing the locations of the three trenches (see Appendix A for a larger version). Mapping © Crown copyright. All rights reserved 2016. Licence number 100036933.

Johnston Terrace was built in 1827 to provide access to the top of the High Street from the west side of Edinburgh that was easier to use than the earlier West Bow that formed a steep, dog-legged approach running up from the east end of the Grassmarket. Today it is a wide street curving gently around the base of the castle rock, rising from the south-west to the north-east. At its south-west end, where the present work was concentrated, it skirts the base of the cliffs that form this side of the rock, while further to the north-east it runs across the slope below the esplanade. Earlier work undertaken by Kirkdale

Archaeology¹ had shown that well preserved deposits pre-dating Johnston Terrace's construction survived along its south-east side at the north-east end. This was thought to be at least partly because the north-west (upslope) side was quarried into the slope, with the material removed from here spread to the south-east to provide a level terrace for the road, sealing earlier deposits.

Edinburgh's Flodden Wall ran from David's Tower standing high on the east side of the castle rock down through the Grassmarket to the south, cutting across the future line of Johnston Terrace. A map of the 1573 siege of Edinburgh Castle in Holinshed's *Chronicles* shows a gate through this wall on roughly the line of Johnston Terrace, suggesting an earlier route preceded it, although no other maps show this. To the east of this wall-line, evidence for the burgh of Edinburgh might be expected, while to the west nothing is shown on early maps, although a number of the castle's *garderobe* chutes empty out into this area.

The current work was undertaken in response to the threat of falling rocks from the cliffs along the south side of Edinburgh Castle. Two trenches were excavated along the north side of Johnston Terrace, starting just to the north-west of the line of the Flodden wall. The larger Trench 2 ran close to the line of the present pavement, with Trench 1 parallel to it 0.95m to the south; both trenches were £157m long. Trench 2 was intended to receive a substantial wall designed to catch falling rocks, while Trench 1 was intended to take the kerb along the side of the relocated pavement. A third trench 0.55m wide x 0.50m deep was dug on the other (south) side of the road to receive a street lighting cable. This ran from the northernmost street light westwards for 19.6m, terminating in a deeper (1.1m) hole to receive a new lamp post.

Work started on 28th October, 2015, and an intermittent watching brief was maintained during ground breaking works, with the final site visit on 1st March, 2016. All excavation was by machine, with Trench 1 dug first, then Trench 2. Trench 3 was excavated a full month after work had finished on the other two trenches; it was dug in a single day.

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¹ Kirkdale Archaeology (2012), Gas main replacement, Johnston Terrace and Lawnmarket, Edinburgh (archaeological monitoring and recording), unpublished Data Structures Report.

DESCRIPTION

Trench 1

Tarmac 100, some 100mm thick, overlay 101, an 80mm – 100 mm thick layer of angular 'type 1' gravel mixed in with tar. Below this, 102 was a 100mm thick layer of type 1 gravel (with no tar) which peeled off onto context 103. This was a compacted surface of angular chips of whin stone, which followed the gradient of Johnston Terrace. Just appearing at the base of the trench, 104 was a compact pinkish clay with occasional mortar and charcoal flecks throughout.



Plate 1: Surface 103.

Trench 2

Tarmac 200, and its gravel and tar underlay 201, lay over pure gravel 202, peeling off onto a possible surface 203. The greater depth of Trench 2 showed deposit 204 to consist of clay, typically pinkish, but mottled with patches of pale grey, and with lenses of pale grey silty clay rich in mortar and with some coal and small sandstone fragments mixed in. At the east end of the trench 200mm of 204 was removed without bottoming it, but 57m east of the west end of the trench the top of a new layer, 205, was revealed below 204. This comprised mortar and sandstone rubble (some with mortar attached) mixed in with pale grey silty clay. Two sherds of china were recovered from 205.

At both ends of Trench 2 a gap was left where a gate will allow access behind the new wall, before a final c.2.5 m long stretch of trench connected to the existing wall along this side of Johnston Terrace. At the eastern end, a series of service pipes were found against the side of the wall, running parallel to it.

Context **206** was a plastic duct, **207** a cast iron sewer pipe, **208** comprised two ceramic pipes, and **209** was a ceramic pipe set in concrete. These had disturbed all the relationships between deposits seen elsewhere in the trench, and the wall footings **210**. These footings projected a few centimetres out from the above ground wall face, and were poorly dressed; they were exposed for 450mm without reaching their base. To the west the same sequence ran up against **211** (the wall at this end), with no sign of any services. Context **211**'s footings again stepped-out slightly, and were poorly faced.



Plate 2: S-facing section towards the north-east end of Trench 2.

Trench 3

Trench 3 was excavated on the other (south) side of the road, running west for 19.6m from the last lamp post on this side of the street. The trench was positioned directly against the wall on the south side of the pavement and was 550mm wide x 500mm deep. The final (western) 900mm was excavated to a depth of 1.1m. A uniform sequence was noted along the length of this trench, with tarmac **300** some 100mm thick over a 150mm thick layer of **301** – 'type 1' gravel and whin dust. This in turn sealed **302**, a cement rich with coarse inclusions, with a smooth upper surface following the current angle of the road, traced along the whole length of the trench and typically 80mm – 100mm thick.

Below 302 was a further deposit of 'type 1' gravel, 303, typically 100mm – 150mm thick. At the base of the trench 304 was pinkish clay with occasional mortar and coal inclusions. At the eastern end of the trench this formed the base of the trench and was not excavated, while to the west up to 50mm of 304 was removed. In the deepest section at the extreme western end of the trench, up to 800mm of 304 was

removed. Here wall **305** also continued down against the south side of the trench, and a possible tight, near vertical cut **307** filled with mortar **306** for the wall against **304** was noted.



Plate 3: The western end of Trench 3, showing wall 305.

CONCLUSIONS

In none of the trenches were 'natural' *in-situ* deposits revealed (*e.g.* fluvo-glacial subsoils or bedrock). Even the deepest area of excavation in Trench 3 (1.1m) showed only evidence for deposits with anthropogenic origins. This is almost certainly a testament to the immense amount of landscaping that the construction of Johnston Terrace involved. The south-west end of the road feeds onto a substantial bridge crossing King Stables Road, with clear evidence of the creation of a substantial bank connecting the lower end of Johnston Terrace to this bridge. Indeed the regularity and coincidence of positioning of the whole slope below the lower end of Johnston Terrace suggests that this is all artificial, relating to the road's construction.

Trench 3 was dug close to the junction of Johnston Terrace and this bridge, so the extreme thickness of **304**, the pinkish clay at the base of the sequence, is unsurprising. Small amounts of mortar were noted throughout this material, and it seems best interpreted as redeposited natural dumped as part of this landscaping. Wall **305**, forming the southern boundary of the road, seemed to be cut through **304**, but these were probably broadly contemporary operations. The concrete surface **302**, some 250mm below the level of the current pavement, indicates that the pavement has been raised.

The depth of artificial deposits seen in trenches 1 and 2, on the northern side of the road, below the cliff of the castle rock, is more surprising (although only excavated to a maximum depth of 500mm). On this side it might seem more likely that the slope would have been quarried into, in order to provide a level surface, but even here there has been landscaping. As well as the probable redeposited natural **104** and **204**, a rubble deposit **205** at the western end of Trench 2 demonstrates this. Although rich in mortar (suggesting demolition debris) few finds were recovered. The two white china sherds from **205** indicate that this does not significantly pre-date the 1827 road construction.

An informal surface, 103 and 203, sealed these redeposited natural deposits. This followed the slope of the current road surface, and might be best interpreted as a temporary 'working surface' used while the landscaping of the future road was enacted. In both these trenches this surface was then sealed by angular stone chips, 102 and 202, below the modern road surface and its make-up. This is likely to be bedding for the original surface of Johnston Terrace, presumably either of stone slabs or smaller stone setts now removed.

It seems likely that all the deposits identified date to the 1827 road construction or later. This provides the potential for sealed and therefore well preserved earlier deposits underlying Johnston Terrace. While no evidence is known of to suggest significant early structural remains in this area, the possibility of midden deposits relating to the castle, particularly in the area of the *garderobe* chutes, is likely.

LIST OF CONTEXTS

Trench 1

No.	Description
100	100mm thick modern tarmac.
101	80 mm – 100mm of type 1 gravel and tar below 100.
102	Compacted angular stone chips, 100mm thick.
103	Compact surface of whin chips, follows the gradient of Johnston Terrace.
104	Compact pinkish clay, with occasional charcoal and mortar flecks.

Trench 2

No.	Description
200	100mm thick modern tarmac.
201	80 mm – 100mm of type 1 gravel and tar below 200.
202	Compacted angular stone chips, 100mm thick.
203	Compact surface of whin chips, follows the gradient of Johnston Terrace.
204	Compact pinkish clay, with occasional charcoal and mortar flecks.
205	Mortar, sandstone rubble and pale grey silty clay below 204 at the western end of the trench.
206	Plastic duct at the eastern end of the trench.
207	Cast iron sewer pipe at the eastern end of the trench.
208	Two ceramic pipes at the eastern end of the trench.
209	Ceramic pipe set in concrete at the eastern end of the trench.
210	Wall footings at the eastern end of the trench.
211	Wall footings at the western end of the trench.

Trench 3

No.	Description
300	100mm thick modern tarmac
301	80 mm - 100mm of type 1 gravel and tar below 300.
302	Coarse, inclusion rich cement with a flat upper surface, 80mm – 100 mm thick.
303	Medium-sized angular whin chips 150mm thick.
304	Compact pinkish clay, with occasional charcoal and mortar flecks.
305	Wall along the south side of the road, 1.1m high above ground level.
306	Mortar rich fill of 307.
307	Possible near vertical cut for 305 and 306, seen only in the (deepest) western end of the trench, 50mm –
	80 mm wide.

LIST OF DIGITAL PHOTOGRAPHS

No.	Description	From	Date
1	East end of trenches 1 and 2.	Е	28/10/2015
2	East end of trenches 1 and 2.	Е	28/10/2015
3	S-facing section, eastern end of Trench 2.	S	28/10/2015
4	Surface 103, eastern end of Trench 1.	W	28/10/2015
5	Surface 103, eastern end of Trench 1.	S	28/10/2015
6	Surface 103, eastern end of Trench 1.	W	28/10/2015
7	Western end of Trench 1.	NW	28/10/2015
8	Course of trenches.	NW	28/10/2015
9	Course of trenches.	NW	28/10/2015
10	Course of trenches.	W	28/10/2015
11	Course of trenches.	SW	28/10/2015
12	Course of trenches.	SW	28/10/2015
13	Trenches 1 and 2 viewed from the esplanade.	NE	28/10/2015
14	Trenches 1 and 2 viewed from the esplanade.	NE	28/10/2015
15	Trenches 1 and 2 viewed from the esplanade.	NE	28/10/2015
16	Trenches 1 and 2 f viewed rom the esplanade.	NE	28/10/2015
17	Middle section of Trench 2 during excavation.	E	06/11/2015
18	Work in progress.	SE	12/11/2015
19	Work in progress.	W	12/11/2015
20	Work in progress.	W	12/11/2015
21	Western end of Trench 2 as finished.	S	12/11/2015
22	W-facing section of the western end of Trench 2, part infilled with concrete.	NW	01/02/2016
23	W-facing section of the western end of Trench 2, detail of the east end.	NW	01/02/2016
24	W-facing section of the western end of Trench 2, detail of the west end.	NW	01/02/2016
25	Detail of stone wall at extreme western end of Trench 2.	S	01/02/2016
26	Section of wall in Trench 2, as finished.	S	01/03/2016
27	Trench 3, tarmac 300 being broken out.	NE	01/03/2016
28	Trench 3, detail of footings to wall 305.	NW	01/03/2016
29	Surface 302.	N	01/03/2016
30	Trench 3, general shot.	NE	01/03/2016
31	Trench 3, general shot.	W	01/03/2016
32	Trench 3, general shot.	SW	01/03/2016
33	Trench 3, deepest western end, wall 305.	NW	01/03/2016
34	Trench 3, deepest western end, wall 305.	NW	01/03/2016
35	Trench 3, deepest western end, wall 305.	NW	01/03/2016
36	Trench 3, deepest western end, SW-facing section.	SW	01/03/2016
37	Trench 3, deepest western end, SW-facing section.	SW	01/03/2016
38	Trench 3, with plastic pipe inserted.	SW	01/03/2016

APPENDIX A: LOCATION PLAN

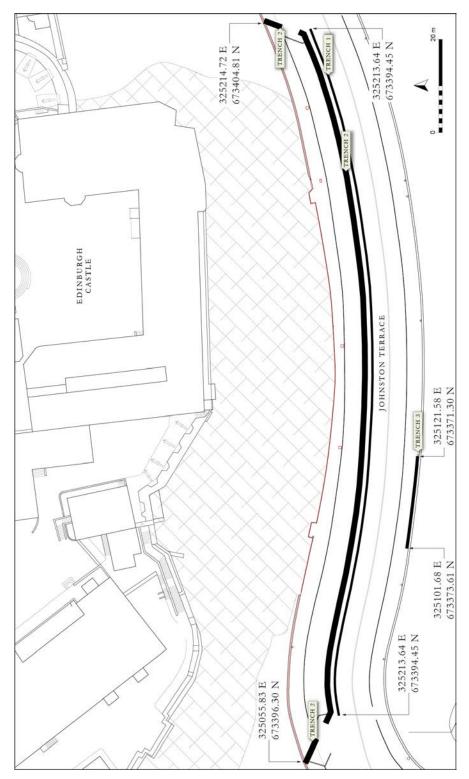


Figure 2: Trench location plan.