

Newhailes House and Estate

Musselburgh, East Lothian

Garden Features: Rapid Assessment

for

The National Trust for Scotland

February 2018



Oblique view of the Beeston Junior Boiler, incorporated within the wall of the glasshouse.

Addyman Archaeology

Archaeology Heritage Consultancy Architecture

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Rapid Assessment

Executive Summary

Addyman Archaeology undertook rapid assessment of two garden features on the Newhailes House and Estate, in February 2018. The works concerned the exposure, cleaning and photographic recording of a Beeston Junior Boiler connected to the extant glasshouse, and a stone-lined flue on the course of the heated wall dividing two areas of the western walled gardens. The boiler dates either from the late 19th or earlier 20th centuries. The flue provided the heating for the heated wall.

1. Background to the works

This report provides a rapid assessment of two features located at Newhailes House and Estate, encountered in the course of the current development of the estate, or otherwise threatened by the present works. The record and assessment is intended to inform the conservation decision-making process for the estate as a whole, as undertaken by The National Trust for Scotland (NTS; contact, Dora Nemeth, Property Project Manager), to a scheme and specification developed by LDN Architects (contact, Emma Rose Berry); principal contractor for the work was ID Verde.

A fee proposal for work on the drain in the western walled garden (9th February) was submitted to and approved by the NTS Property Project Manager, Dora Nemeth. A request for further recording of the boiler was submitted on site on 15th February. The archaeological works comprised the production of a photographic and written record for the two features in question.

The rapid assessment was conducted by Tudor Skinner on the 15th February 2018. Weather conditions were generally good – cold, dry and clear. A record of the works has been entered into the OASIS database (OASIS ID: addyman1-310056).

2. Glasshouse Boiler

The glasshouse (site number NT37SW 1230) is located in the former Newhailes Nursery, east of the stables and approximately seven metres south-west of the listed Newhailes Doocot (Grade B; List entry 10913). The glasshouse is centred on NGR NT 32526 72425. The boiler itself is located at the eastern corner of the glasshouse, running underneath the north-east wall of the building. The glasshouse was one of several buildings subject to Level 3 Standing Building Survey in 2012 by AOC Archaeology (Sprout 2013), which included drawn detail for the ironwork and ventilation systems. This survey presumably encompassed the present boiler.

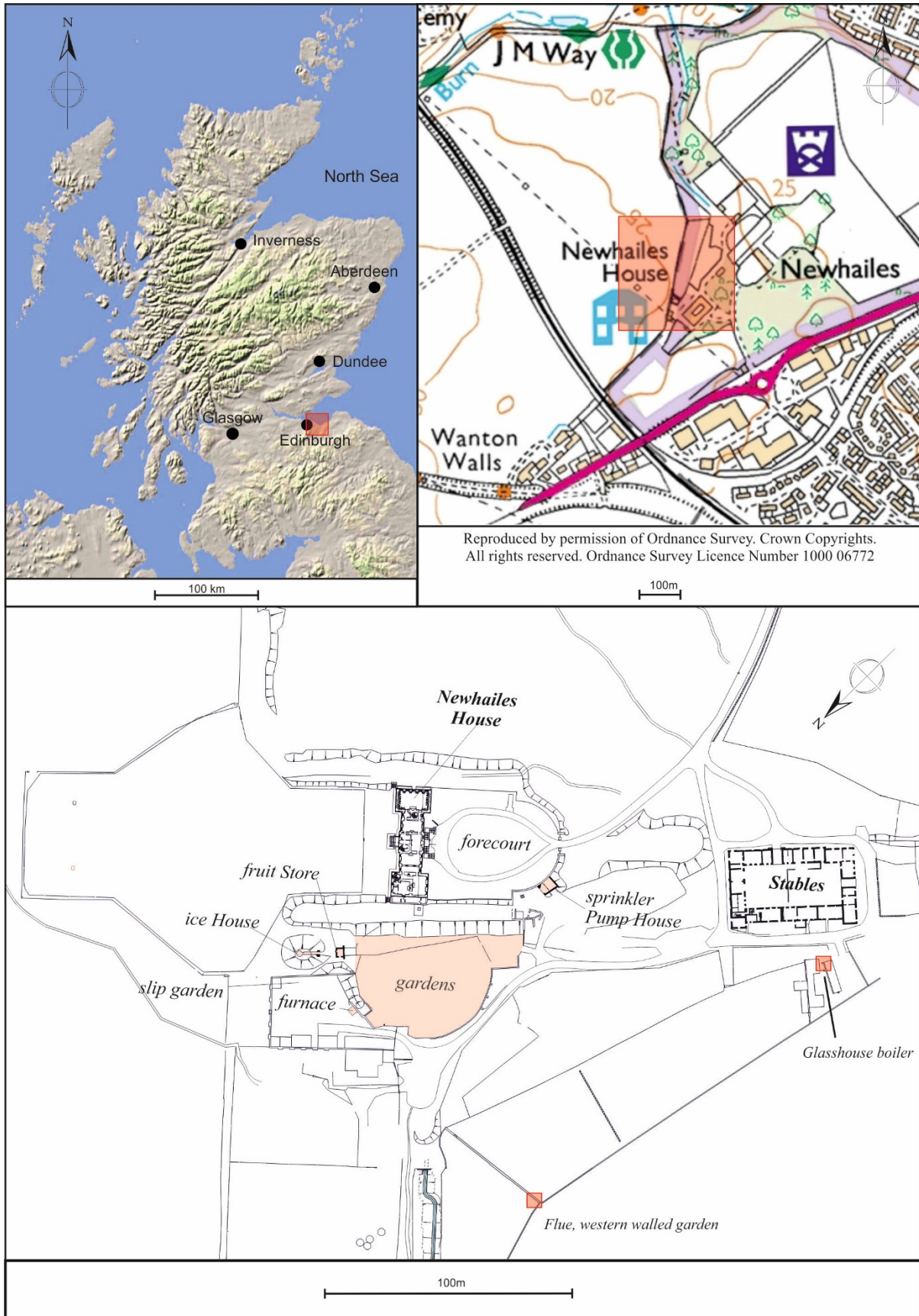


Figure 1 site location

The boiler itself was 0.55 m in length, 0.48 m in width and was exposed above a reduced topsoil depth by 0.4 m. It is an example of the Beeston Foundry Company's (later Beeston Boiler Company) Robin Hood Junior Boiler, manufactured between 1895 and the first half of the 20th century. It is a sectional solid-fuel boiler, constructed of now-heavily oxidised iron, with a broadly rectangular body built from curving rib sections, joined by lugs on the upper surface. A pipe rises from the south-west end of the upper surface of the boiler, extending into the greenhouse interior. The stove hopper is located on the north-east side of the device and has since become loose. Miscellaneous rusted fragments of pipework were uncovered in the course of cleaning the area around the boiler. The majority of the boiler extended out from the glasshouse wall within a brick-lined pit. The main body of the device is positioned underneath the exterior wall of the greenhouse but does not intrude beyond the inner wall-line itself. The exception to this is the curved pipe extending from the top of the boiler, which faces into the glasshouse interior for approximately 0.1m and presumably connected to the pipework of a wider heating system. This device was evidently utilised as a means to heat the glasshouse, indeed the Beeston Furnace Company arose as specialists in horticultural ventilation.

3. *Flue, western walled garden*

The flue is located adjacent to the east/west aligned heated wall in the western walled gardens, centred on NGR NT 32548 72576. This feature had been encountered unexpectedly during the excavation of a new drainage trench and standpipe, part of which was intended to run underneath the above-noted wall. The position of this feature correlates with one of five sub-square anomalies identified along the course of the heated wall during geophysical survey undertaken by GUARD (Rennie 2014). The exposed area was cleaned and photographed. It comprised a projecting course of sandstone masonry, extending approximately 0.5 m out from the lower masonry courses of the heated wall, approximately 0.9 m below the present ground surface and exposed for a length of c. 1.2 m. This forms the top of a stone-lined flue, lined on either side with flat stones positioned on their ends. This feature is evidently the heating flue for the heated wall. No evidence was observed of the sub-square anomaly identified in the earlier geophysical survey.

4. *References*

Rennie, C. 2014. *Newhailes Nursery: Geophysical Survey*. Guard, Unpublished report.

Sproat, D. 2014. 'Inveresk, Newhailes Glasshouses, Standing building recording', *Discovery and Excavation in Scotland New Series*, Vol 13.



Plate 1 glasshouse boiler, looking south-west



Plate 2 glasshouse boiler, looking north-west



Plate 3 glasshouse boiler opening into glasshouse, looking north-east



Plate 4 heated flue, looking south-west



Plate 5 heated flue and hollow interior, looking south-west

Appendix A Photograph Register

Image No.	Direction Facing	Date	Description	Initials
1675.04(001)	NW	15/02/2018	Glasshouse boiler	ATS
1675.04(002)	N	15/02/2018	Glasshouse boiler in interior of glasshouse	ATS
1675.04(003)	N	15/02/2018	Glasshouse boiler in interior of glasshouse	ATS
1675.04(004)	SW	15/02/2018	Glasshouse boiler	ATS
1675.04(005)	SW	15/02/2018	Glasshouse boiler	ATS
1675.04(006)	S	15/02/2018	Glasshouse boiler	ATS
1675.04(007)	SE	15/02/2018	Glasshouse boiler	ATS
1675.04(008)	SE	15/02/2018	Glasshouse boiler	ATS
1675.04(009)	W	15/02/2018	Glasshouse boiler	ATS
1675.04(010)	W	15/02/2018	Glasshouse boiler	ATS
1675.04(011)	NW	15/02/2018	Glasshouse boiler	ATS
1675.04(012)	NW	15/02/2018	Glasshouse boiler	ATS
1675.04(013)	SW	15/02/2018	Glasshouse boiler	ATS
1675.04(014)	SW	15/02/2018	Glasshouse boiler	ATS
1675.04(015)	N	15/02/2018	Glasshouse boiler in interior of glasshouse	ATS
1675.04(016)	NE	15/02/2018	Glasshouse boiler in interior of glasshouse	ATS
1675.04(017)	NE	15/02/2018	Glasshouse boiler in interior of glasshouse	ATS
1675.04(018)	NE	15/02/2018	Glasshouse boiler in interior of glasshouse	ATS
1675.04(019)	NE	15/02/2018	Glasshouse boiler in interior of glasshouse	ATS
1675.04(020)	NE	15/02/2018	Glasshouse boiler in interior of glasshouse	ATS
1675.04(021)	SW	15/02/2018	Heated flue close-up	ATS
1675.04(022)	SW	15/02/2018	Heated flue close-up	ATS
1675.04(023)	SW	15/02/2018	Heated flue close-up	ATS
1675.04(024)	SW	15/02/2018	Heated flue close-up	ATS
1675.04(025)	SW	15/02/2018	Heated flue close-up	ATS
1675.04(026)	SW	15/02/2018	Heated flue in context	ATS
1675.04(027)	S	15/02/2018	Overhead view of heated flue	ATS
1675.04(028)	S	15/02/2018	Overhead view of heated flue	ATS
1675.04(029)	S	15/02/2018	Overhead view of heated flue	ATS
1675.04(030)	S	15/02/2018	Overhead view of heated flue	ATS

Image No.	Direction Facing	Date	Description	Initials
1675.04(031)	S	15/02/2018	Overhead view of heated flue	ATS
1675.04(032)	S	15/02/2018	Overhead view of heated flue	ATS
1675.04(033)	S	15/02/2018	Overhead view of heated flue	ATS
1675.04(034)	SW	15/02/2018	Heated flue in context	ATS
1675.04(035)	SE	15/02/2018	Initial view of heated flue	ATS
1675.04(036)	S	15/02/2018	Miscellaneous unstratified ironwork in boiler pit	ATS
1675.04(037)	S	15/02/2018	Miscellaneous unstratified ironwork in boiler pit	ATS
1675.04(038)	W	15/02/2018	Glasshouse boiler	ATS
1675.04(039)	NW	15/02/2018	Glasshouse boiler	ATS
1675.04(040)	NW	15/02/2018	Glasshouse boiler	ATS
1675.04(041)	W	15/02/2018	Glasshouse boiler	ATS
1675.04(042)	W	15/02/2018	Glasshouse boiler	ATS
1675.04(043)	W	15/02/2018	Glasshouse boiler	ATS
1675.04(044)	SW	15/02/2018	Glasshouse boiler	ATS
1675.04(045)	SW	15/02/2018	Glasshouse boiler	ATS
1675.04(046)	SW	15/02/2018	Glasshouse boiler	ATS
1675.04(047)	SW	15/02/2018	Glasshouse boiler	ATS
1675.04(048)	S	15/02/2018	Glasshouse boiler	ATS
1675.04(049)	S	15/02/2018	Glasshouse boiler	ATS
1675.04(050)	S	15/02/2018	Glasshouse boiler	ATS
1675.04(051)	SE	15/02/2018	Glasshouse boiler	ATS
1675.04(052)	SE	15/02/2018	Glasshouse boiler	ATS
1675.04(053)	SE	15/02/2018	Glasshouse boiler	ATS
1675.04(054)	SE	15/02/2018	Glasshouse boiler	ATS
1675.04(055)	NW	15/02/2018	Glasshouse boiler	ATS
1675.04(056)	NW	15/02/2018	Glasshouse boiler	ATS
1675.04(057)	NW	15/02/2018	Glasshouse boiler	ATS
1675.04(058)	NW	15/02/2018	Glasshouse boiler	ATS

Appendix B DES entry

LOCAL AUTHORITY:	East Lothian Council
PROJECT TITLE/SITE NAME:	Newhailes House and Estate. Garden Features: Rapid Assessment
PROJECT CODE:	1675.04
PARISH:	Inveresk
NAME OF CONTRIBUTOR:	Tudor Skinner
NAME OF ORGANISATION:	Addyman Archaeology
TYPE(S) OF PROJECT:	Walkover survey
NMRS NO(S):	NT37SW 1230; NT37SW 168.07
SITE/MONUMENT TYPE(S):	Glasshouse; Heated flue
SIGNIFICANT FINDS:	None
NGR (2 letters, 8 or 10 figures)	NT 32526 72425
START DATE (this season)	15 th February 2018
END DATE (this season)	15 th February 2018
PREVIOUS WORK (incl. DES ref.)	
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	Addyman Archaeology undertook rapid assessment of two garden features on the Newhailes House and Estate, in February 2018. The works concerned the exposure, cleaning and photographic recording of a Beeston Junior Boiler connected to the extant glasshouse, and a stone-lined flue on the course of the heated wall dividing two areas of the western walled gardens. The boiler dates either from the late 19th or earlier 20th centuries. The flue provided the heating for the heated wall.
PROPOSED FUTURE WORK:	unknown
CAPTION(S) FOR ILLUSTRS:	-
SPONSOR OR FUNDING BODY:	National Trust for Scotland
ADDRESS OF MAIN CONTRIBUTOR:	The Old Printworks, 77a Brunswick Street, Edinburgh EH7 5HS
EMAIL ADDRESS:	TudorSkinner@addyman-archaeology.co.uk
ARCHIVE LOCATION (intended/deposited)	National Trust for Scotland