

FIRE MAIN TRENCH
LEITH HALL
ABERDEENSHIRE



Archaeological Watching Brief
Carried out between October 2013 and April 2015
by
Murray Archaeological Services Ltd



Report No: MAS 2015-16
by
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-Archaeological watching brief-

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1. Background

1.1 In 2015 a new fire water main was installed at Leith Hall, Aberdeenshire. Preliminary test pits, one in the lawn area, had been dug in October 2013.

1.2 Part of the track for the fire main crossed the lawn to the N of Leith Hall, an area for which there is documentary evidence for the former existence of 17th-century gardens. Dr Shannon Fraser, archaeologist for the National Trust for Scotland, determined that it was advisable to commission a watching brief on those parts of the fire main trench that crossed the lawn.

1.3 In response to proposals to take the track along the route of the main drive to the public road, five test trenches were dug across the road under archaeological supervision and recorded.

1.3 Murray Archaeological Services Ltd was commissioned by the National Trust for Scotland to record the test pit in the lawn which was excavated on 14th October 2013, the trenches across the road which were excavated on 7th April 2015 and the watching brief which was carried out 20th-21st April 2015.

2. The Site

2.1 The main area of the site lay in the N Lawn, Leith Hall, Aberdeenshire.

Parish: Kennethmont NGR: NJ 54086 29789

NMRS ref: No: NJ52NW4.0.

Canmore ID 17673

3 Methodology

3.1 All features were planned, photographed (Appendix 1) and recorded.

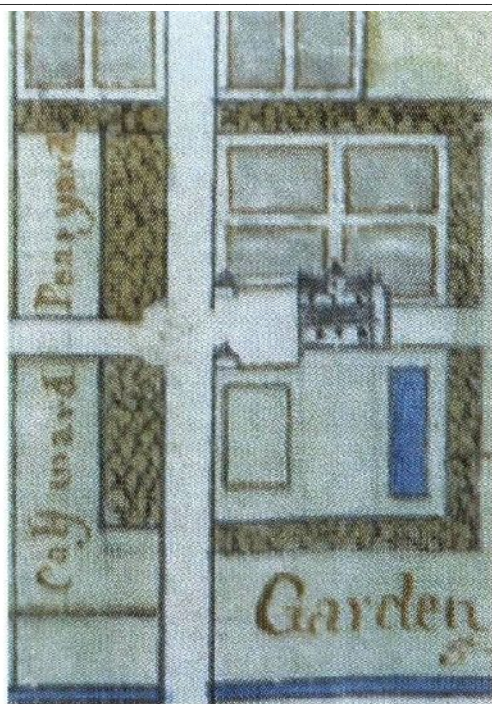
3.2 All mapping was done with a Magellan Mobile Mapper 120 GPS and Glonass.

4. Documentary sources

4.1 The excavators are grateful to Dr Shannon Fraser for access to the main documentary information and to the images of the estate plans.

4.2 The main map resources for the area of the excavation have been discussed and summarised in the Leith Hall Historic Landscape Survey (HLS, 2 vols. Derek Carter Associates, 2007).

4.3 A map, drawn in 1758, shows a formal entrance and gardens with two small pavilions flanking the entry road to the Hall to the original W entrance. They form the two western corners of an almost square open courtyard which extends slightly more than the width of the Hall. To the N of the Hall there is a formal garden with four parterres divided by paths. Another garden lies to the S of the Hall. Certain aspects of this map, such as the E part of the stables, which were never built, appear to have been a designed layout, rather than a completed project. However, an excavation in 2007 (Murray 2007) revealed the complete plan of the S pavilion, showing that at least part of the garden plan had been implemented.



Illus 1 Detail of 1758 estate map

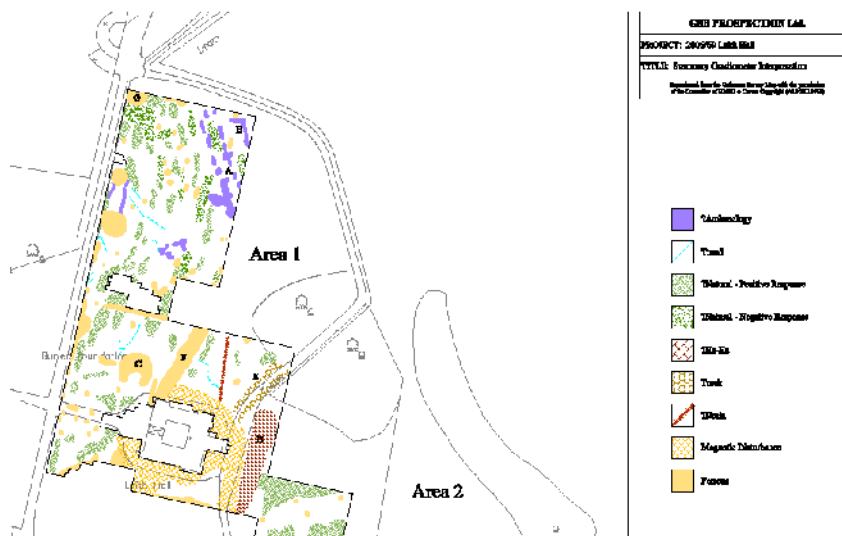
4.4 An Estate Map of 1797 shows that by the late 18th century any formal gardens around the house had been removed and replaced by the more open parkland and lawns that largely remain.



Illus 2 Detail of 1797 map

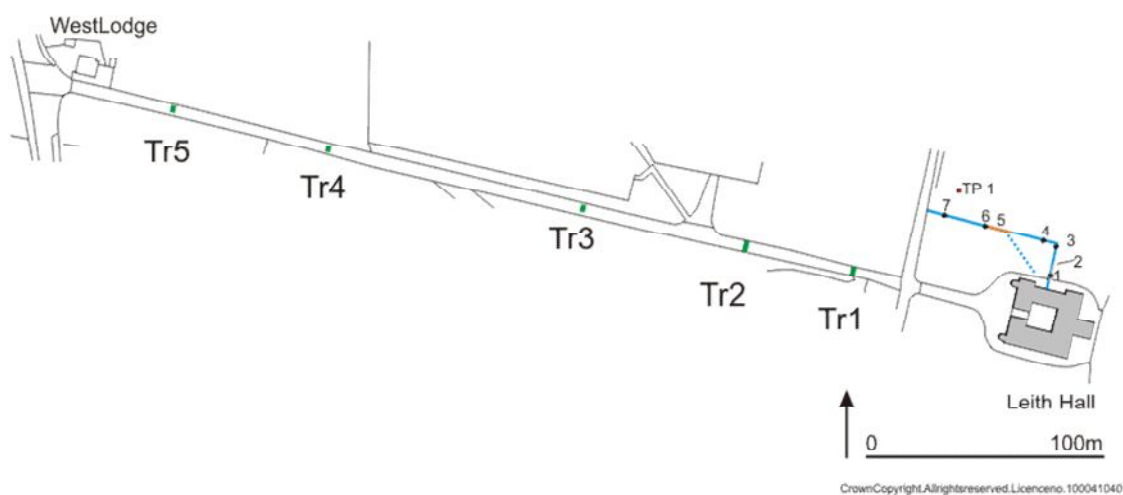
4.5

A geophysical survey had been undertaken in 2006 by GSB Prospection Ltd. It showed a number of anomalies in the N lawn but nothing that could be identified as traces of the formal gardens (Illus 3).



Illus 3 Detail of Summary Gradiometer Survey (fig 3) undertaken by GSB Prospection Ltd in 2006

5 Results



Illus 4 Plan showing the location of the fire main across the N lawn and the trenches across the drive. (For detail of the lawn see Illus 15)

5.1 Test pit 2013

In October 2013 a test pit 500mm square was dug by hand under archaeological supervision in the N lawn at GPS: 354047,829842. It was dug to a total depth of 400mm, which comprised 200mm of topsoil over 150mm of slightly stony subsoil over yellow sandy natural.

No archaeological finds or features were observed.



Illus 5 Detail of Test pit 2013



Illus 6 Position of Test pit 2013 in relation to Hall.

5.2 Test trenches across the drive 2015

In April 2015 five test trenches were dug under archaeological supervision across the main W drive to determine if it would be appropriate to position the water main along the drive rather than through the woods.

Trench 1

Length: N-S across drive: 4.10m. Width: 1m.

GPS: 353999,829796

This trench, just W of the opening into the car park, revealed an earlier stone road surface below 350mm of current road material comprising quarry dust and sub-base. The earlier road surface was made up of irregularly-sized, flattish stones varying in size from very small (60 x 100mm) to large (290 x 300mm, 60 x 300mm). On the S side the edge had been cut by a telecomm installation and the stones were much smaller. On the N side bigger stones (250x600mm) formed the N edge. This was bordered by a possible ditch with a mid grey fill of soft, silty, water-deposited material.

No datable material was evident in the hard compacted sand and gravel above the stone surface.



Illus 7 Detail of stone surface in trench 1



Illus 8 Trench 1 in relation to Hall

Trench 2

Length: 2.3m across S and centre of drive. Width: 900mm. Depth: 800mm.

GPS: 353956,829822

The present road surface comprised c. 400mm of pea gravel and granite dust which lay directly on soft, beige, sandy and slightly silty natural.

No archaeological finds or features were observed.



Illus 9 Detail of trench 2

Trench 3

Length: 1.90m (N/S). Width: 850mm. Depth: 900mm. In centre of present driveway.

GPS:353888,829837

The present road surface comprised c. 300mm of small stone and granite dust which lay directly on soft, beige, sandy and slightly silty natural.

No archaeological finds or features were observed.



Illus 10 Detail of trench 3

Trench 4

Length: 1.90m (N/S). Width: 800mm. Depth: 800mm. In centre of present driveway.

GPS: 353781, 829863

As trenches 2-3. The present road surface comprised c. 300mm of small stone and granite dust which lay directly on soft, beige, sandy and slightly silty natural.

No archaeological finds or features were observed.



Illus 11 Detail of trench 4

Trench 5

Length: 1.90m (N/S). Width: 800mm. Depth: 900mm. In centre of present driveway c. 45m E of the W Lodge gateway.

GPS: 353715,829878

As trenches 2-4. The present road surface comprised c. 300mm of small stones and granite dust which lay directly on soft, beige, sandy and slightly silty natural. Below the beige sandy natural there was a hard, grey, slightly silty natural.

No archaeological finds or features were observed.



Illus 12 Detail of trench 5

5.3 Water main trench across N lawn 2015

The Water Main trench was 1m wide and extended in an L-shape, extending c 19m NNE from the N wall of the Hall at 354083,829803 to 354086,829821, and then turning to run NNW for c 56m to the edge of the lawn at 354031,829835. It was dug to a depth of 1.10m.

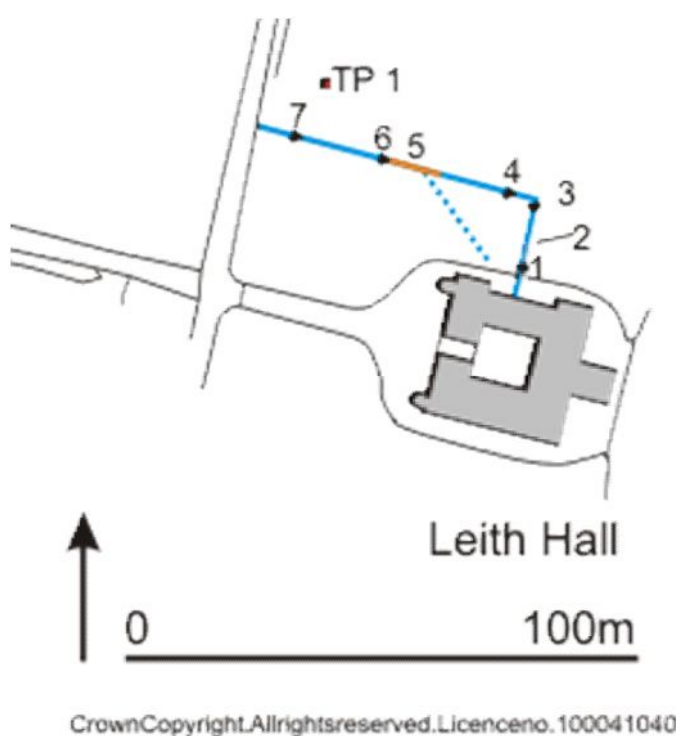
The wrong line was taken at first (Illus 13; Illus 15. Blue dotted line); this line was de-turfed but not dug except beside the castle wall where drainage pipes and a lead pipe were revealed. Below the pipes at c. 354082,829802, three stones (200x300mm to 250x300mm) were exposed running E/W parallel to the wall of the building. They appeared to have some clay-bonding but did not appear convincing as a structure. They were undisturbed and this 'mistaken' part of the trench (c 1.5m W of the proper trench) was backfilled.



Illus 13 Excavated portion of trench dug in error. The main trench began at the downpipe to LHS.



Illus 3 Detail of three stones below pipes in trench dug in error.



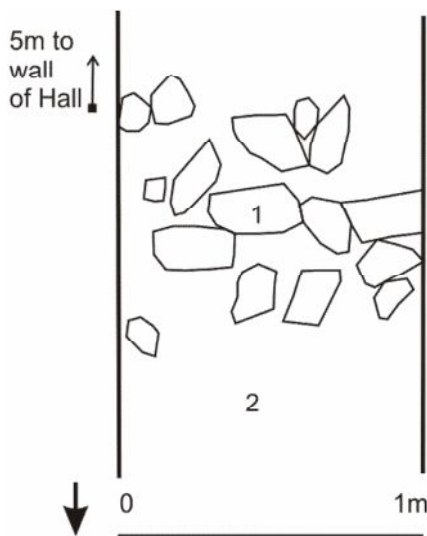
Illus 15 Detail of lawn area indicating water main trench (blue) and features. Dotted blue line indicates a line that was de-turfed (but not excavated) in error.

A number of features were identified in the main trench.

Context 1

GPS: 354083,829808

An E/W linear band of stones, c 800-850mm wide, extended across the trench c. 5m N of the wall of the Hall. Most of the stones lay 200-250mm below the grass with a few almost to the surface. It was sealed by c. 50mm pink/orange gritty sand and c 10mm hard black gritty below 180mm topsoil. Although well packed together there was no obvious bonding between the stones and they may be the remnant of a low dry-built feature such as an edging, rather than a wall of any height.



Illus 16 Plan of context 1



Illus 17 Wall/ border context 1 looking S towards hall.

Context 2

GPS: between 354083,829806 and 354085,829813.

A very hard, compact, gritty surface extended from c 3m from wall of Hall N to c 11m from the wall of Hall. In most places it appeared to be pinkish in colour but in some areas it was grey; this may indicate areas of patching of a surface.

S of the stones (context 2) the layer was more disturbed and there were two sherds of 19th-century pottery and a bottle base in the fill.

This corresponds to a wide band of magnetic response around the Hall indicated by the gradiometer survey (Illus 22) (GSB, 2003 and fig 3.).



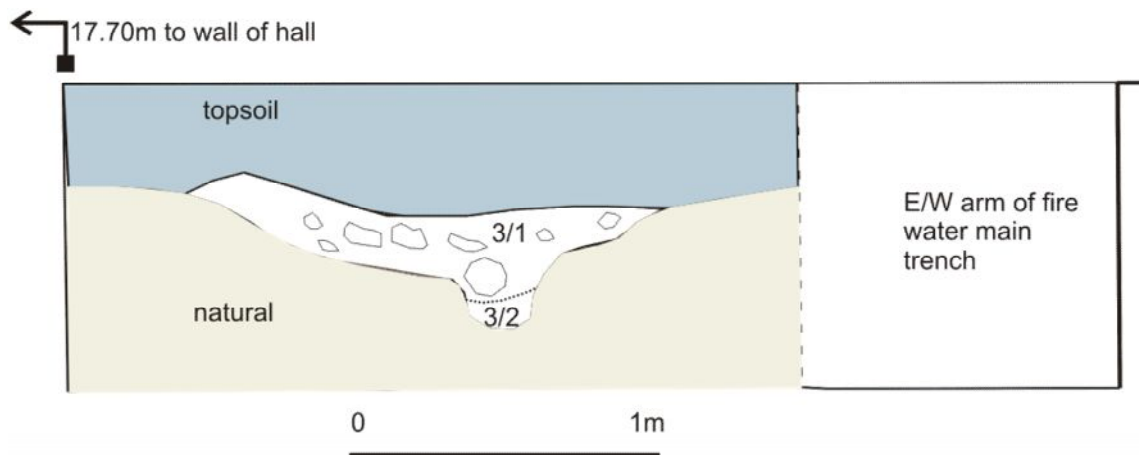
Illus 4 Surface 2 in section in relation to Hall and to wall/border context 1

Context 3

GPS: 354086,829820

The fire main trench cut across a pit or trench, context 3, between 18.1m and 19.6m N of N wall of Hall, and extending at least the width of the trench (1m). In the E section it was 1.5m wide at the top with a shallow bowl-shaped profile cut c. 300mm deep into the natural yellow sand with a grey silt/sand fill with frequent unstructured stones (3/1). The base of the cut had a hard layer of iron pan over the natural suggesting that water had lain in the cut at some stage. It was sealed by 350-400mm of topsoil. The W section

(Illus 19, 20) was similar but with a further cut, 200-250mm wide and 200mm deep in the centre of the base (3/2); this seemed to be a limited feature as it disappeared when the section was cleaned back- possibly a root/planting hole or possibly a rodent hole.



Illus 19 W section of fire main trench from c 17.7m N of wall of Hall, showing section through pit/trench context 3.



Illus 20 Section of context 3

Context 4

GPS: 354081,829822. Cast iron water pipe NNE/SSW at 600mm below surface. This pipe runs to NW corner of the Hall (Murray 2003, 5). It corresponds to a magnetic anomaly indicated by the gradiometer survey (Illus 22: F) (GSB, 2003, 2 and fig 3).

Context 5

From GPS: 354056,829829 to 354068, 829826. Appears to be a natural gully c. 11.5m long (E/W) and extending N and S beyond the trench. The natural clean sand which is c. 300mm below surface on either side of the gully appears to slope down gently into it;

there is no obvious appearance of a cut. In the centre the gully base is 0.80-1.0m below the present surface. The lower fill is of dark grey silt with some small random stones at the base. The higher fill, possibly imported leveling material, includes redeposited natural below the topsoil. This corresponds to the N edge of a magnetic anomaly indicated by the gradiometer survey (Illus 22: C) which is marked on the map as 'buried foundation' (GSB, 2003, 2 and fig 3.). It is possible a natural hollow was leveled.



Illus 5 Gully context 5



Illus 22 2013 plan overlaid on 2003 gradiometer survey (GPS 2003 fig 3).

Context 6

GPS: 354056,829829. N/S clay drain pipe at 1m depth. No clear cut. Lies at W edge of gully context 5.

Context 7

GPS 354039,829833. N/S clay drainage pipe (4") with visible cut in natural.

6 Discussion

6.1 Driveway Of the five trenches along the course of the drive, only trench 1 showed any evidence of an earlier road surface. This could not be dated and appears to be a relatively restricted area, possibly a stone surface used to build up a wet or worn area of the roadway near the junction of a number of routes. It does suggest it would be useful to observe any service trenches in the road between this point and the entrance to the Hall to identify the extent of this feature.

6.2 N lawn The main question in regard to the N lawn is the identification of any evidence to show the extent to which the formal garden shown on the 1758 Estate plan ever existed.

Most of the excavated features were drains or service pipes. However three features are worth further consideration.

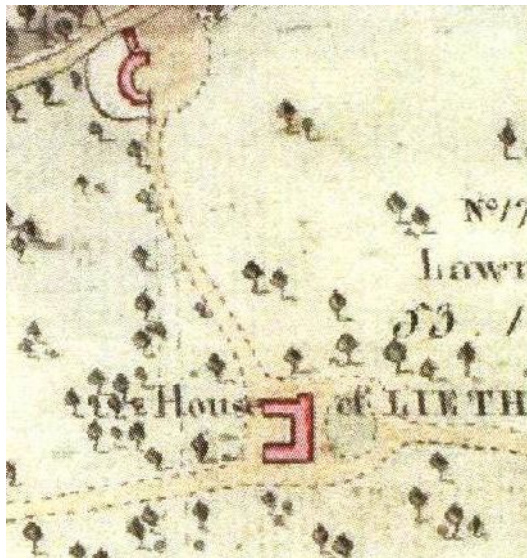
Late 18th/19th century features

Context 2 was clearly a hard surface and can be identified with some confidence as the wide pathway around the building. This is first shown on the 1797 plan (Illus 23), although on this plan there is also a path running NW to the stable, which was probably never implemented as the N/S path to the stable still exists. More clearly, the 1858 Estate map and the 1866 and 1899 OS maps (Illus 24-26) show a wide area of hard surface/path encircling the Hall, with what may have been garden beds or grass between this surface and the wall of the Hall on the N and S sides.

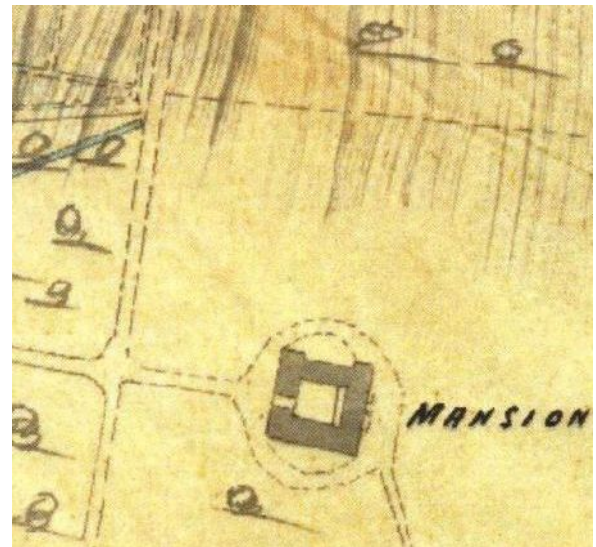
An annotated copy of the OS map (Illus 27) is likely to date to between 1983 and 2000 as it shows the HaHa, which only existed between these dates- and most likely c 2000 when the HaHa was filled in and grassed over. This shows part of the hard surface was to be grassed over.

In summary it would appear that the hard surface context 2 may have been laid down in the late 18th century but was certainly in existence through much of the 19th century and was partly grassed over between c 1983 and 2000.

The edging/wall context 3 may have been the edging of the possible garden bed shown between the wall of the Hall and the path on the 1858, 1866 and 1899 maps. As it was partially covered by hard path material, it is likely to have been covered up when the flower bed was removed at some point in the 20th century.



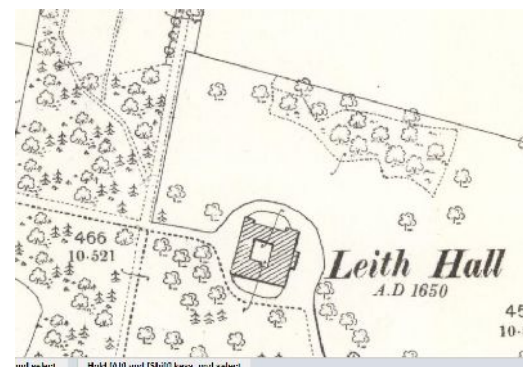
Illus 23 Detail of 1797 Estate plan (above LHS)



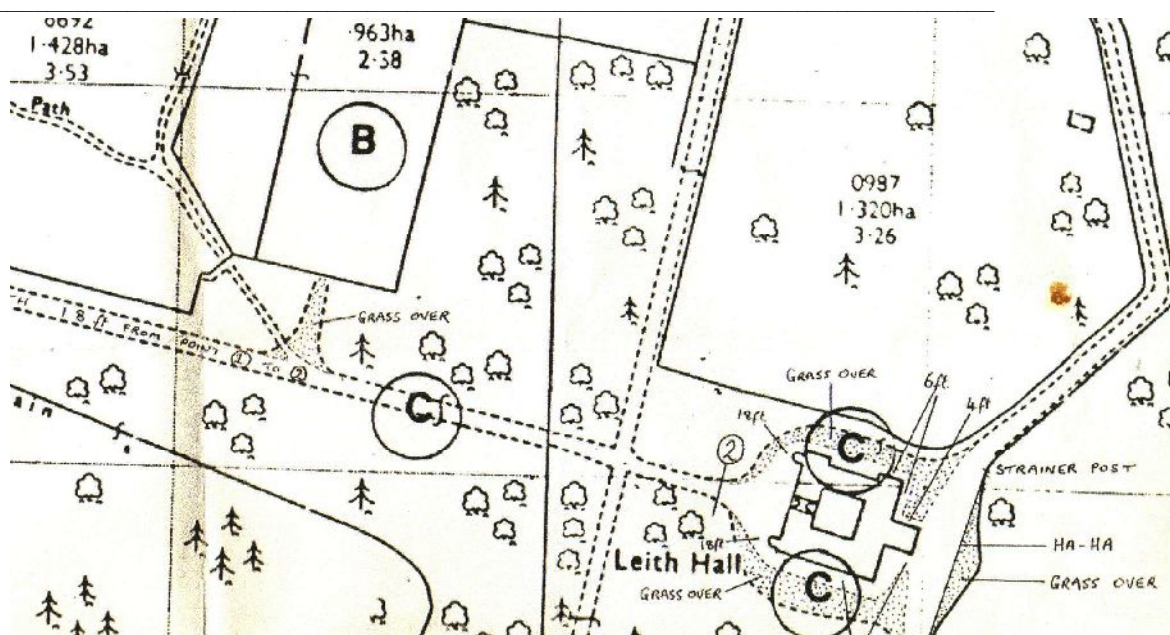
Illus 24 Detail of 1858 Estate Map (above RHS)



Illus 25 Detail of OS map Aberdeenshire sheet XLIII.2 (Kennethmont). 1866 (pub 1870).
www.nls.ac.uk (above LHS)



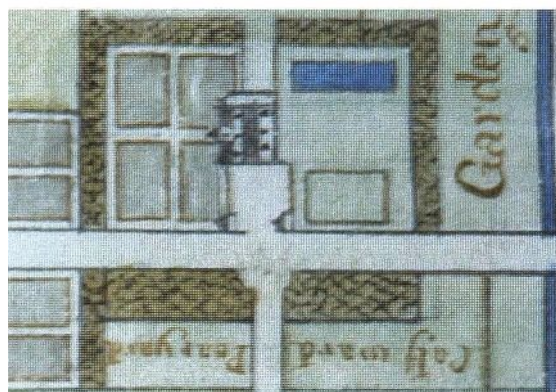
Illus 26 Detail of OS map Aberdeenshire sheet 043.02 1899 (pub 1901) www.nls.ac.uk (above RHS).



Illus 27 Annotated map showing plan to grass over part of gravel surface N of Hall (undated but between 1983 and 2000 as Ha Ha shown. Probably from c.2000 when Ha Ha filled and grassed over.)

Possible 17th/18th century feature

Feature 3, some 18m N of the wall of the Hall, does not appear to coincide with any hard features shown on any of the maps from 1797 onwards. It may have been a relatively small pit made by the removal of a shrub but it may also have been a section across a shallow trench running E/W parallel with the N wall of the Hall. This could be proved or disproved at some point in the future by section across the same line further to the W. If this had been a trench then it is possible that it marked the central division of the gardens shown on the 1758 Estate plan (Illus 28). It could have been a bedding trench for a hedge.



Illus 28 Detail of 1758 Estate Plan



Illus 29 Line of possible hedge marked by ranging rods

7 Potential

7.1 The evidence of the driveway trench 1 is undated and ambiguous- there is potential through watching any service trenches between trench 1 and the Hall entrance to confirm if this is part of a well-structured drive from this point to the Hall or a limited patching of a wet/worn area.

7.2 Most of the evidence in the N lawn appears to derive from services or from the late 18th and 19th-century parkland landscaping. However, the possibility that context 3 was a 17th/18th century hedge/ garden division gives another slender piece of evidence for the gardens shown on the 1758 plan and demonstrates the value of observing any service/ landscaping cuts within the lawn.

References

- GSB 2006 Geophysical Survey Report. GSB Prospection Ltd. Report for NTS.
- HLS, 2007 Historic Landscape Survey. 2 vols. Derek Carter Associates, Report for NTS
- Murray, H K 2007 Leith Hall, Kennethmont: Archaeological Excavation. Report for NTS.
- Murray, J C 2003 Leith Hall, Kennethmont, Aberdeenshire. Report for NTS.

Appendices

Appendix 1: Catalogue of digital photographic record (to archive)

Digital frame number	Content
1-6	Recording of test pit in N lawn 2013
7-18	Driveway trench 1
19-20	Views of trenches in drive looking W
21-24	Driveway trench 2
25-27	Driveway trench 3
28-30	Driveway trench 4
31-35	Driveway trench 5
36-39	Setting up and de-turfing fire main across N lawn
40-51	Trench dug in error on wrong line. Details of pipes and three stones beside wall of Hall
52	Wrong trench and the correct trench (LHS)
53-54	Pipes at wall in fire main trench
55-61	Wall/border context 1
62-67	Path/surface context 2 in W section of trench
68-84	Pit/trench context 3
85-87	Gully context 5
88-92	Looking W along E/W trench. Near ranging rod online of water pipe context 4. Further ranging rod at gully context 5.
93-96	General views of fire main trench in relation to Hall.