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EARLS GATE PARK, GRANGEMOUTH

*Desk Based Assessment, Archaeological Excavation
& Historic Building Recording*

for Bericote (Ryton) Ltd

P/11/0511/FUL

March 2012



*Aerial photo of development area from south
Taken by Guthrie Aerial Photography*

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March 2012

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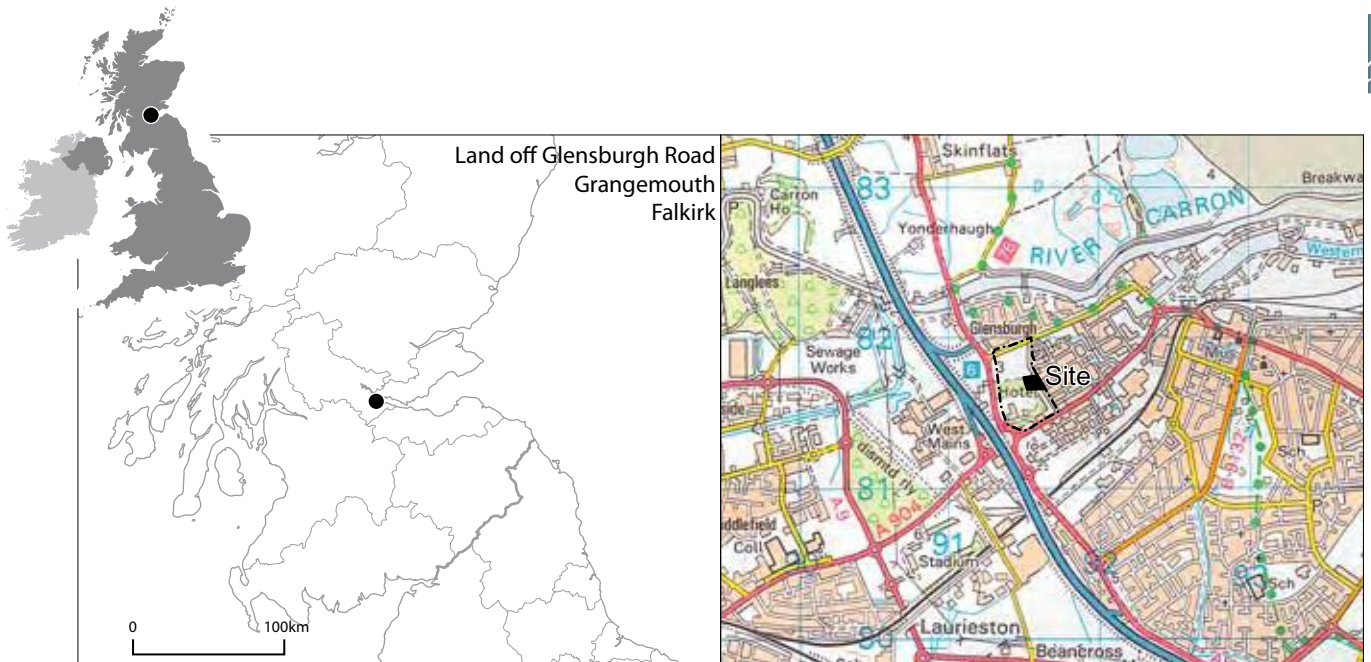
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Scale 1:5,000 @ A4



0 250m

Illus 1

Site plan (as existing prior to development)

EARLS GATE PARK, GRANGEMOUTH

Desk Based Assessment, Archaeological Excavation & Historic Building Recording

An archaeological programme of works incorporating desk-based assessment, historic building survey (Level 2) and area excavation was undertaken by Headland Archaeology (UK) Ltd, managed by CgMs Consulting, on land at Earls Road, Grangemouth. The work was carried out in response to a planning condition (no. 4) on an application (P/11/0511/FUL) submitted to Falkirk Council by Bericote (Ryton) Ltd. The work took place between 7th December 2011 and January 27th 2012.

The site lies within the former grounds of Kerse House, which was known to be a post-medieval mansion with possible medieval origins. The desk-based assessment established that the site fell within an estate formerly known as 'West Kerse' and documented in 1289. A castle in the vicinity was referred to in a Royal Charter of 1508, while Pont's 16th century map depicts a 'Carss Castell' in the approximate location of the site.

Roy shows a single house surrounded by gardens in the mid 18th century, while subsequent estate plans and the 1st edition Ordnance Survey of 1861 depict the house, walled garden and associated grounds. Kerse House was vacated in the early 20th century and finally demolished in 1957. Traces of the structure remained visible on the surface prior to the commencement of the works.

The building survey recorded the upstanding historic remains in the grounds, which included an 18th century walled garden, ice house and additional garden walls.

An area excavation of approximately 1 hectare was centred on the footprint of the house itself. The basement level of the structure was preserved beneath demolition infill and topsoil. In the best-preserved sections, walls survived up to 1.5m in height alongside flooring and with surviving architectural features.

The structure found to form the core of the house had a likely late medieval date (14th–16th century) and comprised a thick-walled rectangular hall or tower-house of rectangular form constructed from sandstone blocks. Some original features, including doorways, window recesses and internal divisions, survived. Surrounding the medieval structure was a series of drainage ditches, which are interpreted as contemporary and backfilled in the earlier 18th century.

Five subsequent phases of expansion of the house were apparent. A comparison of the structural remains with the archival collection of architectural plans showed that the earliest surviving plans, by John Adam in the late 18th century, were never developed. Others such as John Tait's 1830 plan and those from 1876 proved to be an accurate representation of the building.

The archaeological programme has confirmed the medieval origins of Kerse House and established the nature of the structure at that time. It has confirmed the later phases of development of the structure that could already be traced by examination of surviving architectural and estate plans. Very little artefactual evidence was recovered. A small environmental assemblage of waterlogged and charred material was recovered from the basal fills of the presumed medieval drainage ditches.



1. INTRODUCTION

An application (P/11/0511/FUL) submitted to Falkirk Council by Bericote (Ryton) Ltd (the client) for development of land at Earls Road, Grangemouth received planning consent subject to conditions.

CgMs Consulting was commissioned by the client to address Condition no. 4, regarding archaeological mitigation, and contracted Headland Archaeology Ltd to undertake an archaeological programme of work.

A WSI (Written Scheme of Investigation; November 2011; see Appendix 6) setting out the scope of work was agreed with Geoff Bailey, Keeper of Archaeology and Local History (Falkirk Council Cultural Services) and comprised three principle elements:

- Desk-based assessment
- Historic building survey (Level 2)
- Area excavation

This report presents the results of the work, carried out between 7th December 2011 and January 27th 2012.

2. AIMS AND OBJECTIVES

The programme of work sought to mitigate any adverse impacts the development would have on the archaeological resource.

Specific aims included:

- Developing an historic narrative of the site through examination of documentary and cartographic evidence.
- Creating an appropriate archive record of any historically significant standing structures prior to demolition.
- Characterising the origins and development of Kerse House through controlled excavation and recording of an area centred on the footprint of the house.

3. SITE DESCRIPTION

The site is located to the west of Grangemouth (Illus 1) and at the time of fieldwork was predominantly occupied by parkland with some mature woodland; a number of historic structures and modern buildings also stood within the boundary. The area excavation was centred on the footprint of Kerse House (which was still visible) and fell within a wooded area of mature trees.

A chemical plant borders the site to the east, while the A904 Earl's Road and A905 Glensburgh Road form the south and west boundaries, respectively. To the north lies the Forth-Clyde way-road; an infilled section of the Forth & Clyde canal.

The site lies around 5m OD and is underlain by geological deposits composed of inter-tidal clay. These deposits lie at approximately 4.5m OD in the southern part of the site but drop significantly to the north (to 3.2m OD – Test Pit 11; Hydrock Consultants SI Records, Sept 2011).

4. METHODOLOGY

4.1 Desk-based assessment

The desk-based assessment of the site employed the following methodology:

- Information on Scheduled Ancient Monuments and Listed Buildings was obtained from PASTMAP (a map-enabled query system maintained by the Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS))
- The National Monuments Record of Scotland (NMRS), maintained by RCAHMS, was consulted
- Historic maps of the proposed development area, held by the National Library of Scotland (NLS), were identified and consulted
- Relevant architectural and estate plans held by the National Archive of Scotland (NAS) were consulted
- Relevant vertical aerial photographs held by the RCAHMS were identified
- Documentary sources were consulted for information relating to the area's historical past
- the Keeper of Archaeology and Local History at Falkirk Council was consulted on relevant information held in the local Sites and Monuments Record
- During the course of fieldwork, representatives of the neighbouring chemical works provided additional photographs of the site from the early – mid 20th century
- Additional information was supplied by John Reid, a local historian and member of the Grangemouth Heritage Trust.

4.2 Historic building survey

Survey was undertaken of the former elements of the grounds associated with Kerse House and included: the walled garden, ice house and additional standing walls in the grounds. The general standards for a Level 2 Survey as set out by English Heritage (2006) and the IfA (2008) were followed and involved a combination of written description, photographs and measured plan.

Specifically, the survey incorporated:

- A ground plan including the locations of historically significant structural features
- Photographs that captured the overall appearance of features
- Detailed photographic coverage of historically significant structural features
- An interior floor-plan of the ice house and photographic record of its façade upon removal of the WW2 blast wall

4.3 Area excavation

An area of c.1 ha incorporating the footprint of Kerse House was excavated using two 360° tracked mechanical excavators and dump trucks. Each excavator was fitted with a 2m wide flat-bladed ditching bucket and operated under continuous archaeological supervision. Topsoil and modern overburden were removed and excavations continued until either clean geological sediments or significant archaeological deposits were encountered. The work was carried out in coordination with the tree surgeon clearing the development site.

Within the footprint of Kerse House, well-preserved structural remains were identified; sealed by demolition material. Machine excavation was used to clear out the demolition material to floor level. Elsewhere, substantial topsoil sealed geological deposits.

On completion of machine clearance a site meeting was held between representatives of CgMS Consulting, the

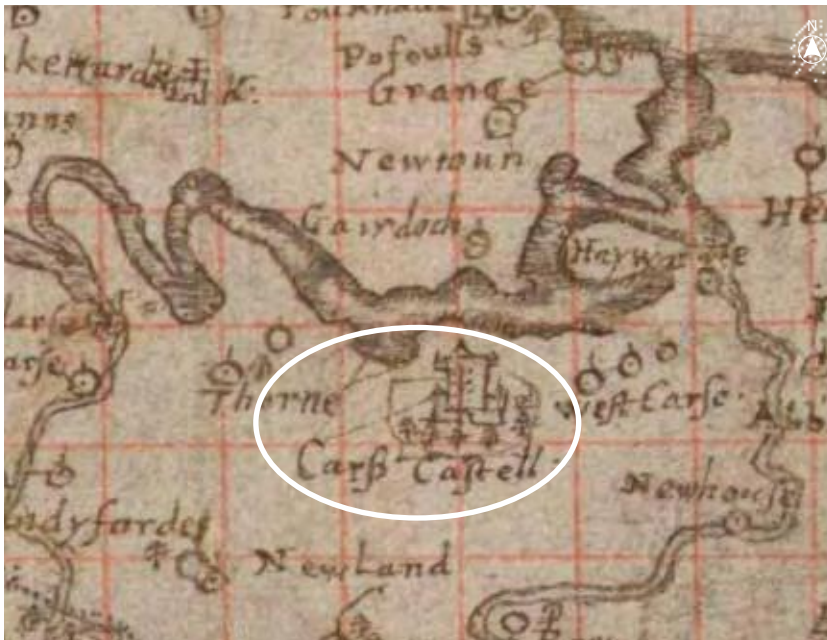
Keeper of Archaeology and Local History at Falkirk Council and Headland Archaeology. The strategy for the excavation and recording of the exposed remains was agreed. This was revised as appropriate as the work progressed (in particular, to allow further machine excavation of substantial archaeological features).

The exposed structural features were hand-cleaned where necessary and a Level 2 Historic Building Survey was carried out. A number of test pits were hand-excavated within the footprint of Kerse House to investigate sub-surface remains and assist in phasing of the building.

Outside the building footprint, surfaces were hand or further machine-cleaned where necessary and investigated for archaeological features. Where practical, features were hand-excavated. Substantial ditches enclosing the footprint of Kerse House were investigated by means of stepped, machine-dug slots. All features were recorded using standard archaeological methods and pro-forma record sheets.

All archaeological features were recorded using an EDM linked to hand-held computer and subsequently linked to the National Grid and Ordnance Datum. Measured hand-drawing was also undertaken where appropriate. Photographs were taken using colour transparencies and print film; supplemented by digital images. Bulk soil samples were collected from secure archaeological contexts for processing and assessment. Where possible a typical 40-litre sample was collected from each archaeological deposit and given a unique number. All finds were recorded by individual context and their cleaning, storage and conservation undertaken in accordance with the Institute for Archaeologists Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials.

The paper and digital archive will be deposited in NMRS and Falkirk Museums. Site registers are included as Appendix 3 and an archive form for digital metadata as Appendix 7. All finds will be reported to the Scottish Archaeological Finds Allocation Panel, which will determine the ultimate destination of the material archive. Once this is determined, and within three months, arrangements will be made with the specified museum for transfer of material and title.



Pont's map of 1583–96 showing 'Carss Castell'
© National Library of Scotland

'22 oxgangs and 10 acres of the land of Eastend town of West Kers... in the barony of Kerse' (RMS 1549).

Post-medieval period

Documentary evidence states that the extended lairdship of West Kerse by the Menteiths came to an end in 1631, when the estate was sold to William Livingston of Kilsyth (RMS 1631). ‘*Carss Castle*’ continued to be depicted on 17th century maps (Gordon 1636; Blaeu 1654).

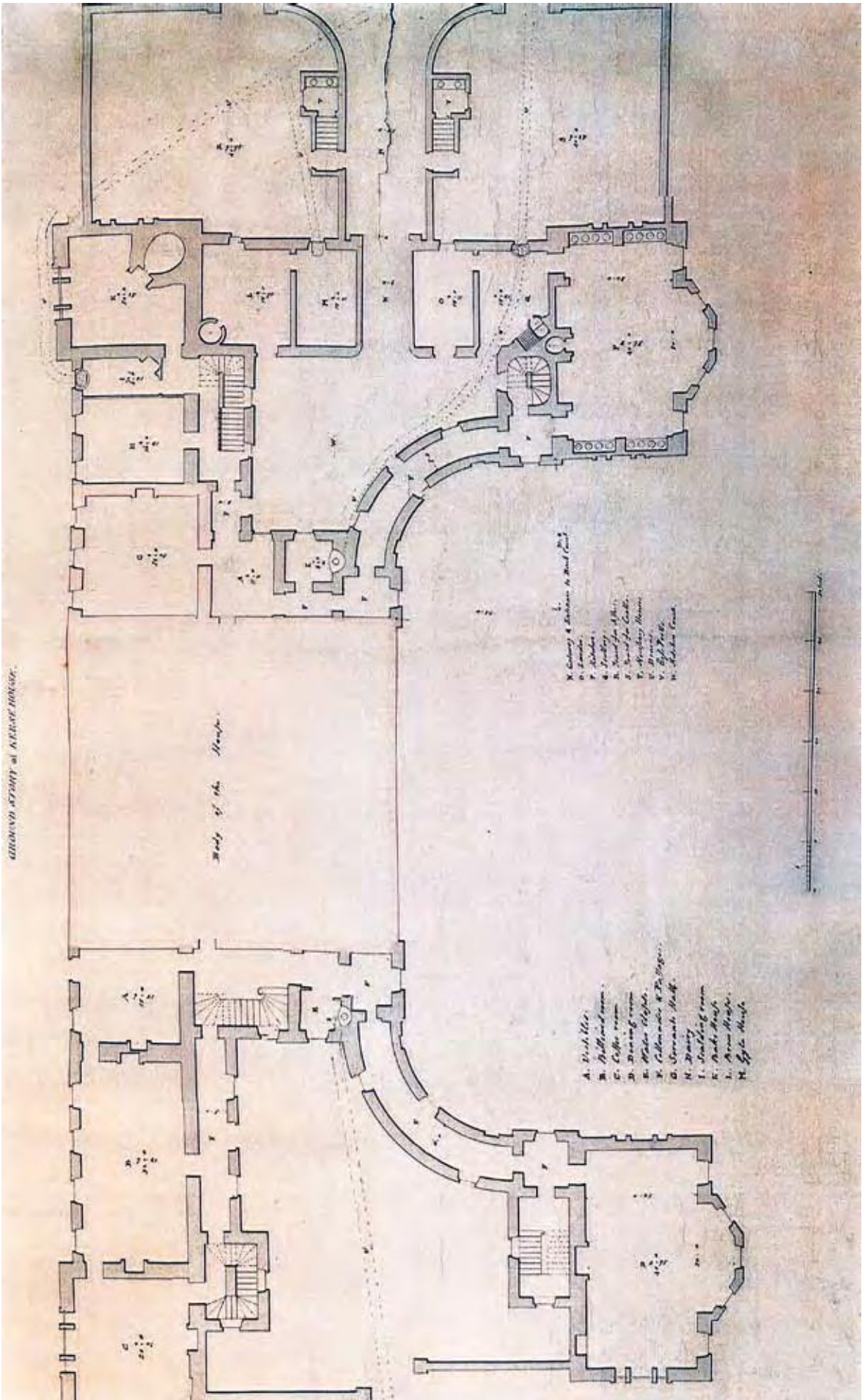
5.1 Desk-based assessment

The site fell within the baronial estate of West Kerse, which is referenced in 1289 when John Stirling of Kerse (Johan de Strivelyn de la Cars) appears as one of the Scottish signatories of the Treaty of Salisbury (John Reid pers comm). His name appears again in 1291 in the 'Ragman Rolls', having sworn fealty to Edward I (Thomson 1834).

'The lands and barony of West Kerse, both in property and tenandry, specifically, - the lands of West Kerse with the tower and fortalice, manor, garden, orchard, fishing of yairs and all other fishing that pertains thereto both in salt water and fresh water...'
(RMS 1508)

This is a historical map of the Carse of Gowrie, Scotland. The map shows the River Forth flowing through the landscape. A white oval highlights a specific area within the Carse, which is labeled 'Carse'. Other labels on the map include 'Aiths hough', 'Green', 'Threberny', 'Mortyflute', and 'Tillmaults'. A north arrow is visible in the top right corner.

Roy's map of 1747–55 showing 'Carse'
© National Library of Scotland



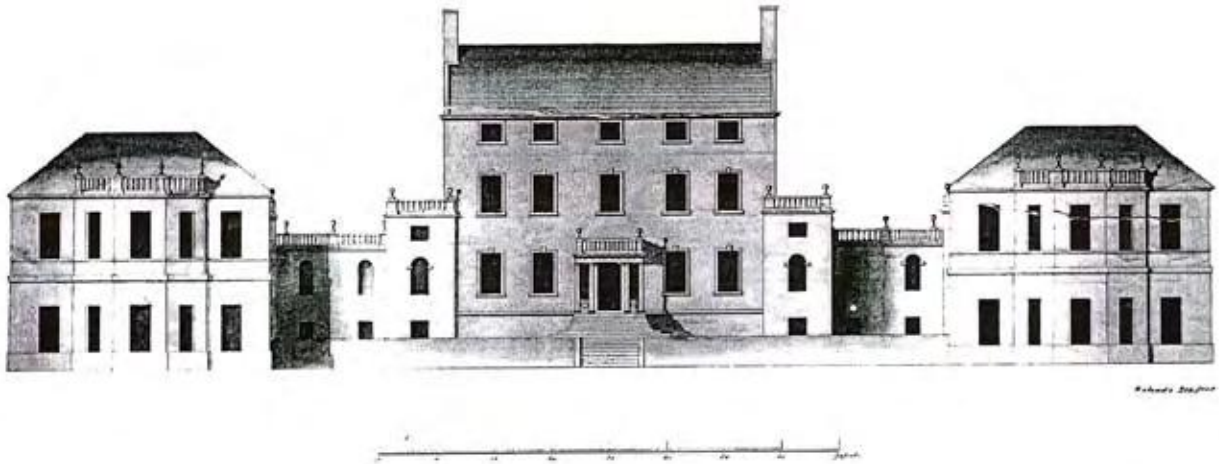
Illus 4

John Adam's architectural plan entitled 'Ground story of Kersa House' – late 18th century (RHP 80021)

© NAS



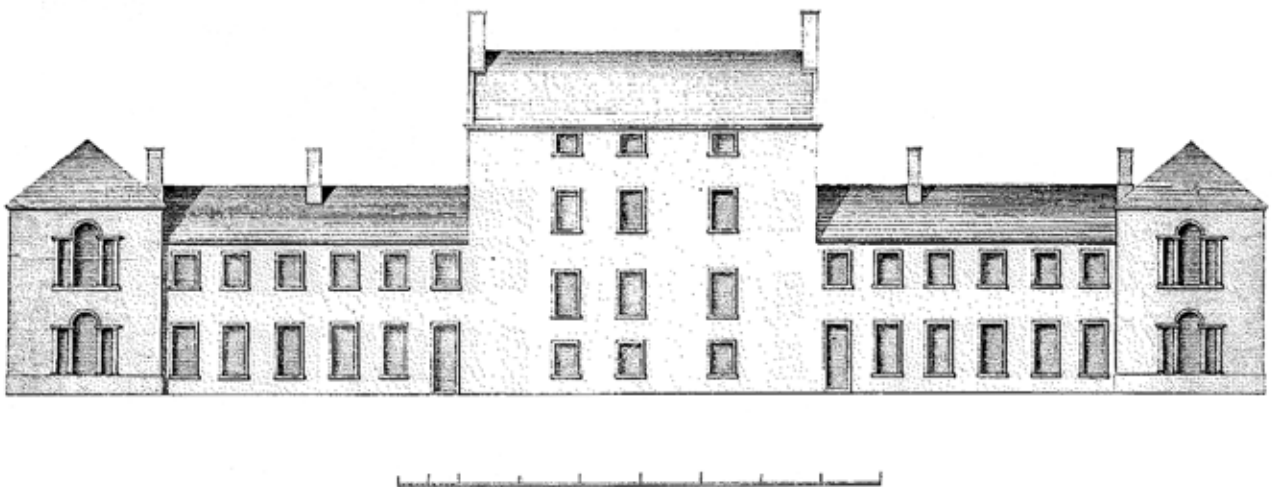
EAST FRONT of KERSE HOUSE
One of the Seats of Sir LAURENCE DUNBAR Bart.



Illus 5

John Adam's architectural elevation entitled 'East front of Kers House' – late 18th century (ST 1309)
© RCAHMS

WEST FRONT of KERSE HOUSE



Illus 6

John Adam's architectural elevation entitled 'West front of Kers House' – late 18th century (ST 1311)
© RCAHMS



Illus 7

Detail of 'Plan of estate of Kerse...'; late 18th century (RHP 48368)

© NAS

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Roy's map of 1747–55 depicts Kerse House, or 'Carse' as a large house surrounded by a partially wooded and cultivated park (Illus 3). To the east and southeast of the house, two square areas are formed by red borders, suggestive of walled gardens or enclosures. A watercourse drains eastwards from them towards the Firth of Forth.

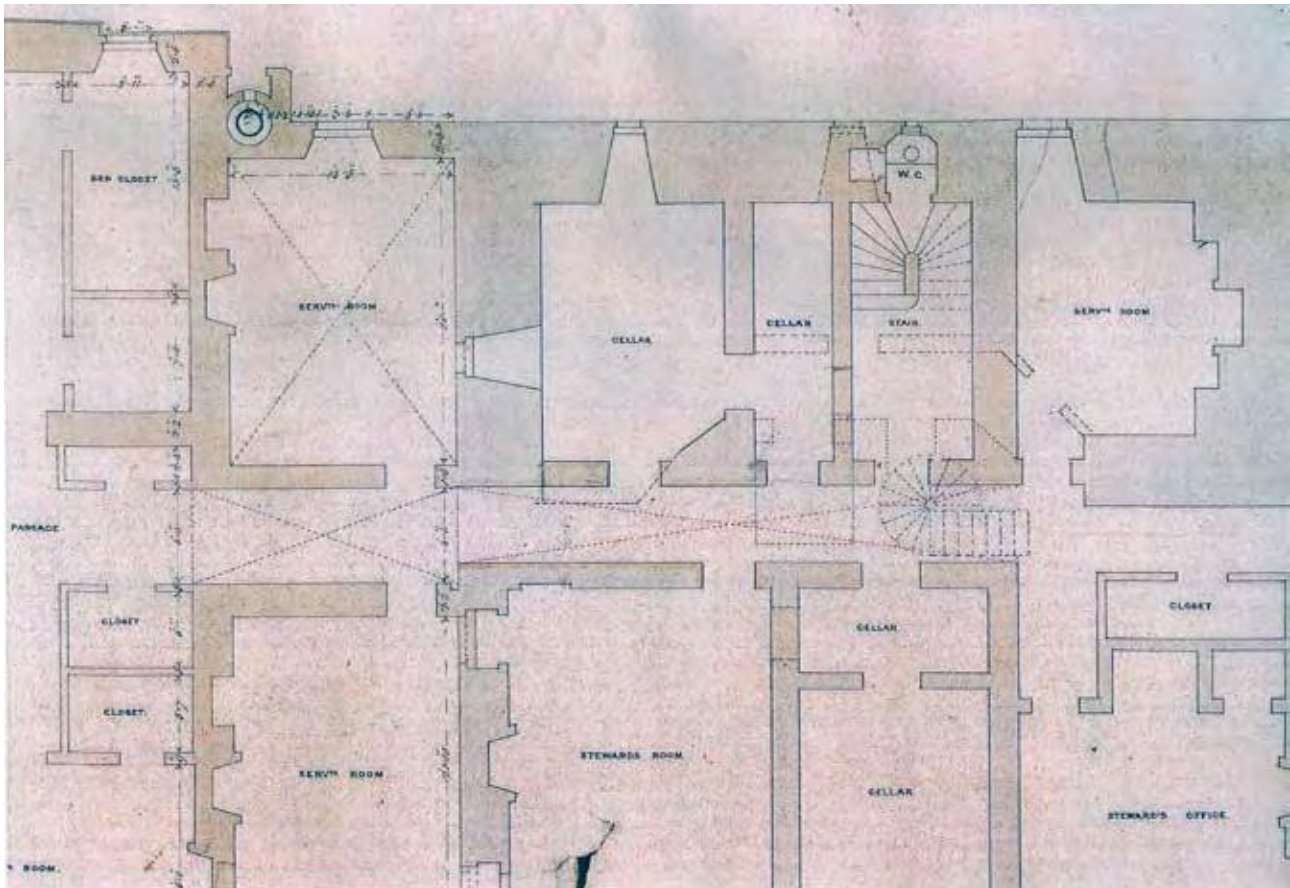
A 1761 'Plan of properties on the River Carron' (RHP 1497; not illustrated) displays Kerse House as an elongated building on a north-south alignment with formal gardens to the southeast and a 'canal' extending eastwards; similar to the features on Roy's slightly earlier map. Taking the evidence from this map and Roy, it seems likely that a walled garden existed to the southeast of Kerse House and prior to the later 18th century example to the southwest recorded during this survey.

Another mid-18th century plan (RHP 6115; not illustrated) shows the footprint of the house in more detail. It comprises a square section in the south, with an entrance-stair leading to the east. The mid-section narrows before widening again in the north with an apparent courtyard opening to the north.

Sometime in the 18th century the estate was purchased by Sir Lawrence Dundas, a merchant of Edinburgh (Wilson 1797; Begg *et al* 1845). A collection of architectural

drawings in the NAS detailing elevations and plans from this period suggest that the house probably underwent improvement and extension soon afterwards. John Adam produced a proposed ground plan and two elevations for the house in the 'later 18th century' (RHP 80021, ST 1309 & ST 1311; Illus 4–6). These show the 'body of the house', along with proposed additions that included sweeping wings to the east (RHP 80021; Illus 4). The form of the standing building shows it to be square in plan with a short extension on the north side. Adam's drawing of the east elevation shows a central three storey, five bay building; assumed to be the 'body of the house'. It has a raised entrance, symmetrically set windows and pitched roof, with chimneys at the gable ends. (ST/1311; Illus 5). The west elevation illustrates that the windows on this side were asymmetrical in their distribution; alluding to the earlier origins of this part of the house (ST/1309; Illus 6). Adam's depiction of the 'body of the house' corresponds only to the southern part of the footprint shown in the mid-18th century (RHP 6115); it can be concluded that Adam intended the northern part of the standing structure to be demolished to make way for his symmetrical design.

Kerse House and grounds are depicted in detail on a late 18th century estate plan (RHP 48368; Illus 7). The form appears very similar to that depicted in the mid-



Illus 8

John Tait's 1830 'Architectural ground floor plan of Kerse House' (RHP 80026)
© NAS

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18th century (RHP 6115). A square structure forms the southern part with a narrower section leading to a wider northern part. The north of the house again appears to have a yard area, opening to the north; but in contrast to RHP 6115 the eastern section is formed by an outbuilding. Another outbuilding is apparent to the west. The form shown on this plan does not reflect Adam's designs and we must conclude that his proposals were never carried out.

As shown on Illus 7 a garden wall is aligned east-west to the west of the house, while paths or roads around the estate grounds are also evident. A waterway extends eastwards at the same location as that noted on both Roy's map and the 1761 plan. A wooded area west of the house is labelled 'back park', with the open ground to the south a 'bowling green.'

This estate plan provides the first representation of a walled garden to the southwest, and as surveyed prior to demolition. This structure appears firmly dated to 1777 by an inscription on one of the stone piers. The estate plan denotes it as 'kitchen garden' and it contains a 'melon ground' in the southeast corner. A building is depicted set against the south wall of the garden, while an 'orchyard' lies to the north of the garden. A further watercourse with two bridging points curves around the outside of the south and east sides.

On 10 July 1768, Sir Lawrence Dundas of Kerse cut the first turf at the eastern end of the Forth and Clyde Canal, which ran adjacent to the northern boundary of the development area (Thom 1966). The extensive trade through the canal spurred Dundas to build a village and quay in 1777 near the eastern side of his estate, which twenty years later was called 'Grangemouth' (Wilson 1797). In 1794, his son, Sir Thomas, succeeded him and was advanced to peerage under the title Lord Dundas (Wilson 1797).

An 1816 Kerse estate plan (RHP 80394) shows little change to the previous example described above, but adds that the watercourse to the south of the walled garden is a 'fishpond.'

Modern period

Thomas Dundas was succeeded in 1820 by his son, Lawrence, who commissioned a remodelling and southern extension to the house by architect John Tait; completed in 1831. The plan of the alterations clearly shows the significantly thicker walls of the historic core of the building and appears to denote removal of the substantial east wall and associated turnpike stair of that historic core to make way for a corridor (RHP 80026; Illus 8).



Illus 9

1st Edition Ordnance Survey 1861
© National Library of Scotland

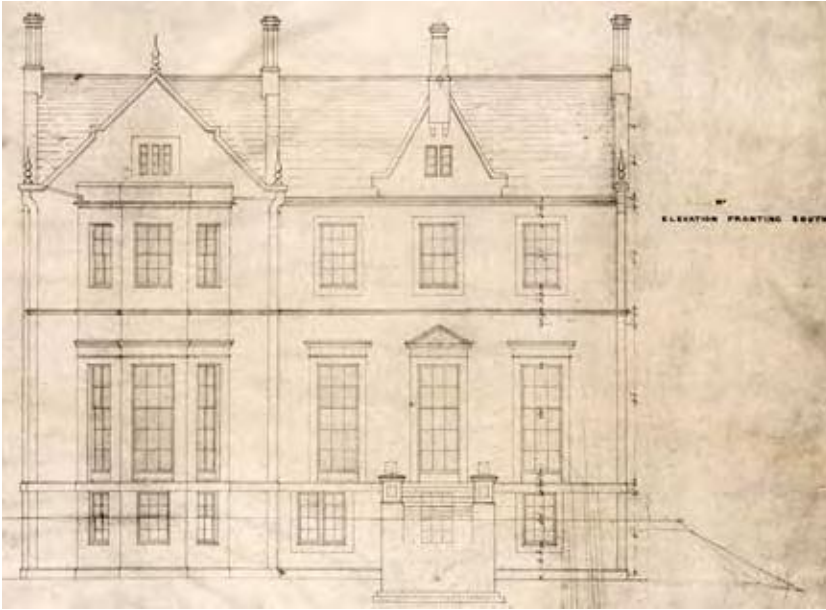
In 1845 Kerse House was described as:

'pleasantly situated in the middle of a finely wooded park and the chief ornament of the eastern Carse. The original part of the building is very ancient, indicating that it perhaps incorporated the remains of the original castle, but successive additions have been made to suit the convenience or taste of the possessor. Its appearance is that of a mansion of the Elizabethan times.' (Begg 1845, 13).

The first edition Ordnance Survey of 1861 depicts additional structures added to the northwest corner. A further building stands at the western extent of the garden wall that crosses the estate to the west of the house. The

ice house is also shown, which was north facing and built into an artificial mound (Illus 9). The Forth and Clyde Canal located only 300m to the north would have provided the means for delivery of the ice.

The watercourses in the grounds previously shown on estate plans had been filled and converted to paths or roads, while buildings on the south side and southeast corner of the walled garden are also shown. A batch of architectural proposals from 1876, incorporating a ground floor plan and elevations, offer a detailed picture of further development of Kerse House in the later 19th century (RCAHMS reference STD 105/2, 105/18, 105/19). The ground floor plan denotes the function of



Illus 11

Architectural plan of south elevation of Kerse House, 1876 (STD/105/18)
© RCAHMS

each room and the more substantial walls of the historic core are also clear (Illus 10).

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The south elevation depicts a three-storey structure, the extension completed in 1831, approximately 16m in height. A raised entrance into the first storey is located on the east side, which is three-bay with rectangular windows set symmetrically. A splayed bay window rises to the second storey on the west side. The pitched roof is divided by a chimney stack with coping running to the eaves. Coping and chimney stacks are also located at the gable ends. Two dormer windows extend from the roof; one crowned by a chimney (Illus 11).

The north and east elevations are restricted to the proposed extension of the house. The north elevation depicts a five-bay, three-storey structure with central doorway. Three dormer windows extend from the pitched roof and two sets of chimney stacks are visible on the roof line. The east elevation of the extension shows it to be a three-storey, three-bay structure with projecting gables. Mullioned windows are set into the south gable and the roof has three dormer windows with two chimney stacks passing through the ridge.

The accuracy of the drawings is supported by photographs showing the east elevation of Kerse House. Part of the east façade, principle entrance and associated embankment can be seen on

photos from 1901 and 1905, while the entirety of the east façade is visible on an undated photo (Illus 12). The only significant deviation appears to be on the east elevation, where the drawing does not denote the porch entrance which is evident on photos and the 1876 ground floor plan.

The photographs also serve to reveal alterations made to the earlier phase of the eastern façade over time. A comparison with the 18th century drawn elevation (ST 1311; Illus 5) shows that the second-storey windows had been enhanced to form dormer windows, while the balustrade door head was altered to a semi-circular arch with keystone.

Importantly, no photographs have been located that show the west elevation of Kerse House. No doubt this reflects that this was never the principal entrance

into the structure; unfortunately it means no photographs of the most historically revealing elevation have been located.

The house was used for training of soldiers in WW2; including ordnance testing (Geoff Bailey pers comm). It is depicted as unroofed on the 1946 Ordnance Survey. In 1957 the structure was demolished and its ruins had been obscured by the encroaching woodland by the time aerial photographs were taken in 1968.

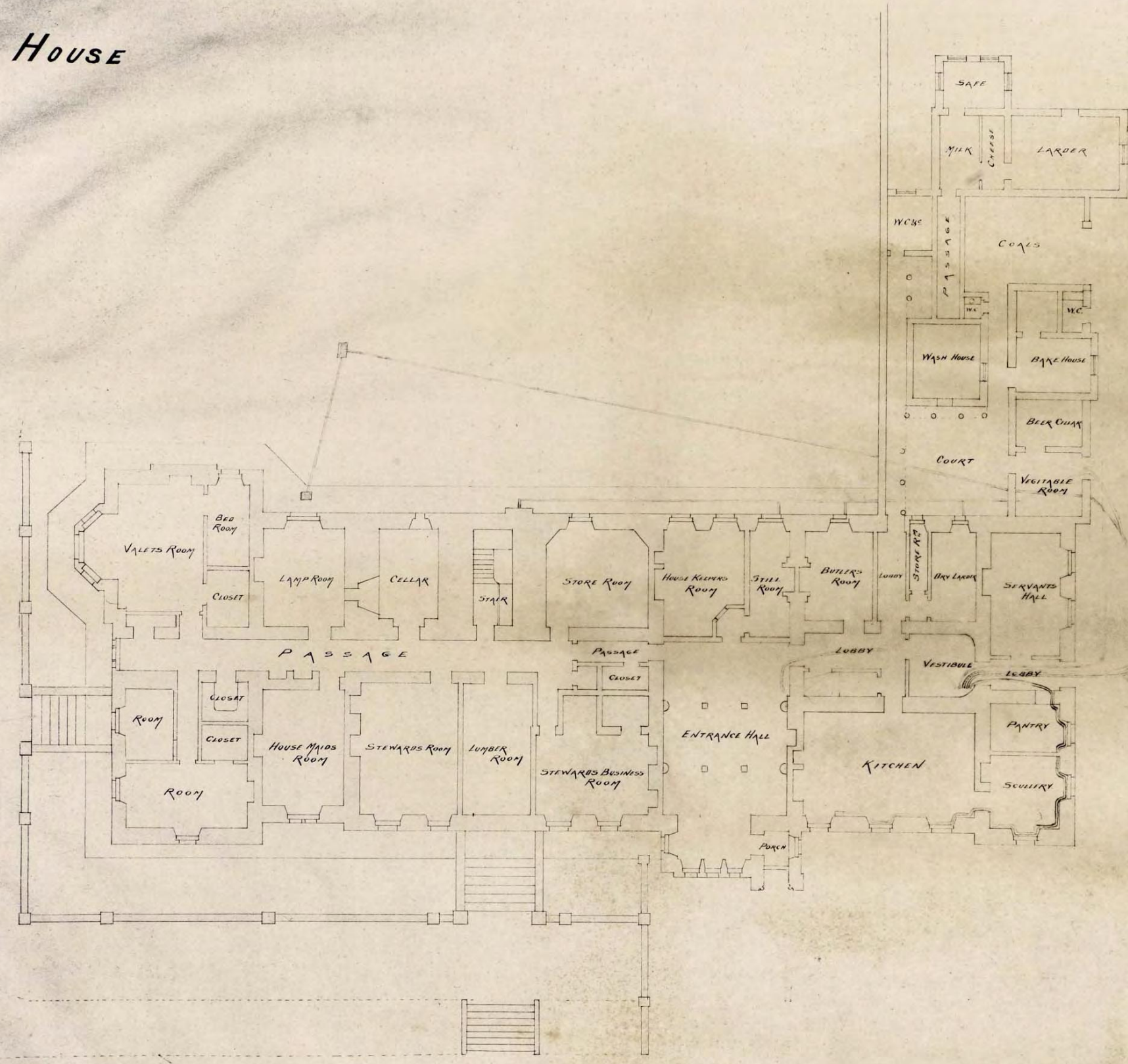
The walled garden subsequently housed the Zeneca Recreation Centre, which included a clubhouse, changing



Illus 12

Undated photo of Kerse House showing east elevation
Reproduced by permission of Douglas Edwards

KERSE HOUSE



GROUND FLOOR PLAN

Scale 0 10 20 30 40 50 60 70 80 Feet



rooms, bowling green and all-weather football pitch. 'The Orangery' on the south side dated only from the 1930s (but replaced an earlier version shown in plans from the early 19th century, RHP 80127). These facilities along with the rest of the development area, which contained other football and rugby pitches and a running track around the edge, functioned until recently as the Sports & Social Club for staff of the adjacent Grangemouth Chemical Works.

5.2 Historic building survey

Walled garden (Illus 13)

The walled garden was approximately rectangular in plan, with a curved east wall, and covered an area of 16,600m².

The walls stood up to 3m in height and were constructed of randomly coursed, hand-made brick topped with stone coping (Illus 14). Coarse white/grey cement formed the bonding material. Indented dressed stone pillars, 1m wide, were located at intervals of 10.5m and at corners. One of the pillars on the west side bore carving suggestive of a construction date: '17.7.77'. A less legible impression appears to state 'IT 1772' (Illus 15). An entrance-way with moulded pillars was located at the southeast corner, while a heavily moulded doorway was located in the centre of the east wall, with the lintel bearing a keystone motif. This type of doorway is found from the mid 18th century onwards (Brunskil 1971; Illus 16).

In the west wall, a 2.3m wide section had been rebuilt (Illus 17). The location corresponds with an entrance depicted on a late 18th century estate plan (RHP 48368; Illus 7). The north wall contained two groups of three sandstone blocks, each approximately 0.7m wide, inset into the wall and only visible on the north face (Illus 18). The original function of these blocks is unknown. Further alterations were evident in the south wall, which had been heightened above the level of the pier tops.



Illus 14

North-facing shot of walled garden showing stone pillar (photo 047)



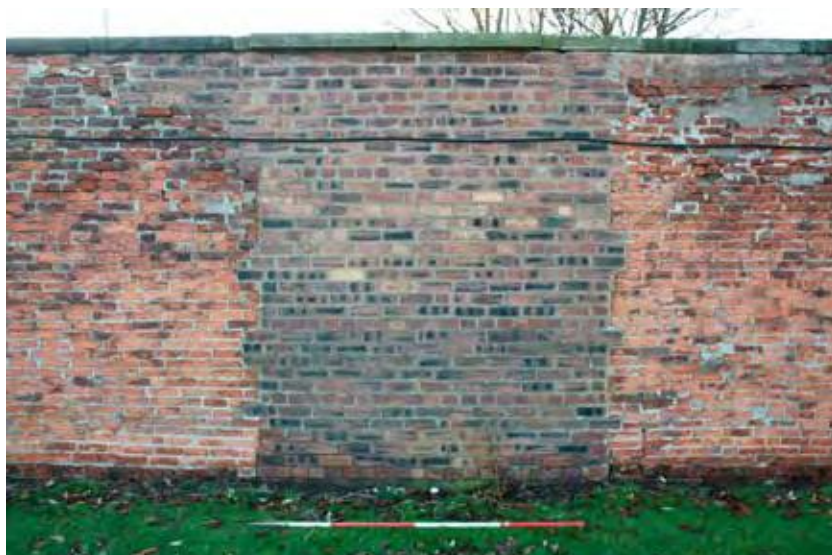
Illus 15

North-facing shot of walled garden showing stone pillar (photo 127)



Illus 16

East entranceway with keystone lintel (photo 133)



Illus 17

Repair in west wall of walled garden (photo 138)



Illus 18

Sandstone blocks in north wall of walled garden (photo 148)



Illus 19

East gable of 'The Orangery' (photo 119)

The garden housed several brick-built, single-storey structures associated with a former recreation club which included a clubhouse, changing rooms, bowling greens and football pitch. The structures centred on 'The Orangery' located at the southern extent of the garden, which is rectangular in plan with pitched, slate roof. The gable ends each contained three windows with arched head (Illus 19). A ballustraded extension to the building projects to the south and the southern façade is harled. The buildings date only from 1930 and were not recorded in any detail. 'The Orangery' was a replacement for an earlier structure depicted in early 19th century plans (RHP 80127).

Gateway

Adjacent to the northeast corner of the walled garden, three stone piers lay either side of a track (Illus 13 and 20). Approximately triangular in plan, they were 3m in length and survived to a maximum height of 0.4m. The structures consisted of mortar-bonded, squared sandstone blocks and were heavily overgrown. The piers represent the foundations of a gateway associated with the grounds of Kerse House.

Garden walls

The remains of two garden walls comprising hand-made, randomly coursed bricks extended east-west across the development site, separated by a track (Illus 13). The western section was heavily overgrown and damaged by trees but survived to a maximum height of 2.9m at its western extent.

The eastern section of wall (Illus 21) sat on stepped sandstone foundations and was 0.4m wide; surviving to a maximum height of 1.7m. The wall was buttressed at approximately 10m intervals with an additional thickness of brick and later repairs/remodelling were evident at its western extent. At the eastern end, the north face had been rendered in cement and a brick-blocked entrance 0.8m wide (Illus 22) was located 8m from the east terminus. The door jambs comprised chamfered sandstone blocks. This section of wall

formed the south side of a 19th century extension to Kerse House (Illus 41).

Ice House (Illus 23 and 24; Appendix 2)

The ice house was located 50m west of the remains of Kerse House and was set into an artificial mound containing shale, stone and clay overgrown with vegetation and trees. A porch entrance to the north was hidden by a right-angled brick blast-wall; built to convert the structure into an air raid shelter (and removed prior to recording).

The porch façade consisted of an arched doorway 2m in height, with columns and head displaying rolled moulding. Holes on the inner face of the door head suggested it may have held a grate. The basal course of surrounding grey freestone displayed vertical fluting; above which the stonework was heavily rusticated, with rolled moulding continuing down either edge of the porch. The upper part of the façade had been truncated and therefore it is not clear if it too formed a full arch.

The remainder of the structure was brick-built and consisted of a cylindrical main chamber with domed roof abutted by the vaulted porch entrance. The chamber wall had an internal diameter of 3.7m and stood 1.2m high (above the ground entrance level). The bonding was English Bond (alternative coursing of header then stretcher) with grey coarse sandy cement. The abutting porch had a variant on this bonding comprising three or four stretcher courses to one header. Stone blocks 0.45m wide were located in the east and west porch brick walls, behind the façade. It is likely that their function was to hold the entrance door.

Internally, the porch had a flagstone floor and an iron tie-bar was evident along the central axis of the vaulted roof. At the south end of the porch the main cylindrical chamber was reached through an opening raised 0.6m above the floor level. This opening had been damaged to provide easier access at a



Illus 20

East facing shot of possible gateway base (photo 143)



Illus 21

Southeast facing shot of garden wall section that extends to Kerse House (photo 166)



Illus 22

North facing shot of garden wall with blocked doorway into Kerse House (photo 172)



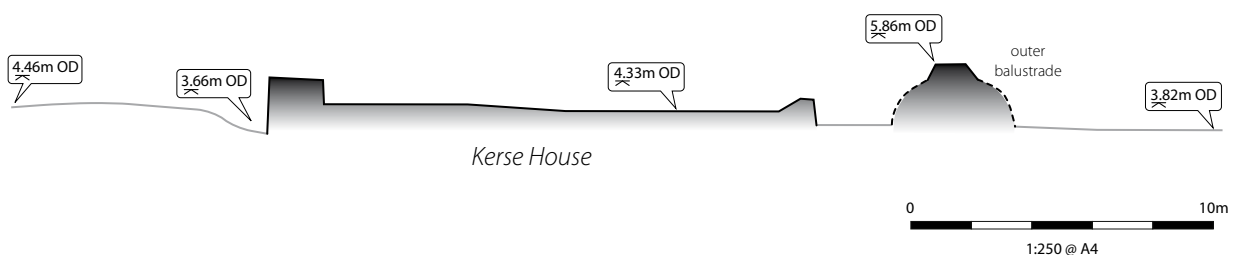
Illus 23

Ice House, north façade. Blast wall removed and prior to removal of mound (photo 006)



Illus 24

Southwest facing shot of exposed Ice House (photo 153)



Illus 25

E-W site section showing topography

later date, and this revealed a double brick wall separated by a 0.26m insulation cavity. On either side of the opening were a series of three horizontal slots containing wood remains; possibly representing fixings for the door into the chamber. The chamber interior itself was filled with soil and debris. A description of the ice house has been included in a published article (Bailey 1992).

5.3 Area excavation

Overview

Outside the footprint of Kerse House, the topsoil strip revealed geological sediments of orange/brown inter-tidal clay with inclusions of marine shell. The general topography sloped gently northwards; with the southern extent at 4.3m above Ordnance Datum (OD) and the northern extent 3.13m OD. A number of features were identified cut into the geological deposits and included substantial ditches as well as shallow circular features. Sealing these was topsoil up to 0.7m deep comprising brown clay loam, which had undergone significant bioturbation, mainly from the roots of the mature plantation that was felled immediately prior to the work.

On the site of Kerse House itself, excavation revealed that a construction cut with average depth of 0.8m had been made in the geological deposits for the basement floor of the structure (Illus 25). A significant proportion of the basement floor survived, with floor surfaces and standing walls up to 1.5m in height. Preservation was much better in the southern part of the structure than the north. The remains were surrounded by a mixed deposit

of demolition material comprising brick, rubble, tile and loam. This was sealed by topsoil 0.3m deep.

The standard of preservation allowed for an analysis of the building's development, which is described in phases and alongside contemporary archaeological features below. A detailed room-by-room descriptive gazetteer can be found in Appendix 1 and additional photographs are on the accompanying CD. Site registers are provided in Appendix 3.

14th–16th century: Phase 1 (Illus 26)

The primary building phase consisted of a near-rectangular structure 17.6m in length by 10.8m wide. The south, west and north walls (074) comprised dressed sandstone facing with a rubble core; totalling 2m thickness. The sandstone blocks were 0.25–0.6m long by 0.3m wide and bonded by off-white, sandy lime mortar with gravel and charcoal inclusions. At the southwest corner, the base of the wall was identified at 3.66m OD (0.8m below the interior floor level) and had a shallow stepped foundation course. Reddening on the outer face of the south wall indicated exposure to a fire, while signs of subsidence were evident from the increased spacing between a number of the blocks (Illus 27).

On the inner face of the south wall, a window with splayed opening to ground level (later blocked) was set into the wall to a depth of 1.5m. The recess narrowed from 1.4m width at the interior wall face to 0.5m. Approximately midway along the west wall, a 2.6m long rebuild was evident from vertical joins in the masonry. It could not be ascertained whether this represented the blocking of an original opening, or remodelling in a later phase (for insertion of a stair).

The east wall of the structure had been truncated; however test pits revealed foundations (137; not illus) at 3.8m OD, which consisted of sandstone blocks aligned north-south. They were on average 0.7m x 0.5m x 0.35m. The foundations totalled 14m in length and at the north end were overlain by tightly packed, edge-set rubble (138; not illus). This may represent the base of the turnpike stair marked at this location on Tait's plan of 1830 (Illus 8). Adjacent to this, the terminus of upstanding wall (074) comprised a chamfered face with rectangular and circular sockets cut into it (Illus 28). The wall head is interpreted as the north side of the original doorway into the structure and the rectangular socket would have held a drawbar measuring approximately 0.2m x 0.1m in cross-section. The structure was therefore sub-rectangular in plan, with a slight 'L' shape formed by the east wall being offset.

The interior appeared to have been subdivided into three rooms by two internal walls (171 and 172) aligned east-west and keyed into the west wall. Wall (171) was truncated to floor level but comprised mortared sandstone and was 3.4m long and 0.6m wide (Illus 29). A jamb was evident in its east face and a 1m wide threshold separated it from

stone pier (173) to the east; which had a corresponding moulded jamb. The southern room was approximately 3.3m wide x 4.5m in length. Stone pier (173) displayed a further moulded jamb on its north side, which formed the south side of a second entranceway 0.8m wide (Illus 30). The entrance appeared to open into the body of the east wall and therefore may have accessed a recess.

The northern internal wall (172) was 0.6m wide and comprised randomly coursed sandstone bonded with lime mortar. It survived to a length of 3.4m, with a later wall abutting it. If the wall originally functioned as a room partition, the central room would have approximate dimensions of 5.1m x 4.4m and the north room 4.9m x 3.6m. The north outer wall had been truncated by a later brick-built oven, 2m wide; however the wall appeared to have been originally recessed and may have accommodated an earlier hearth here. The flooring within the structure was stone flagging and its level was likely to be little altered from the original.

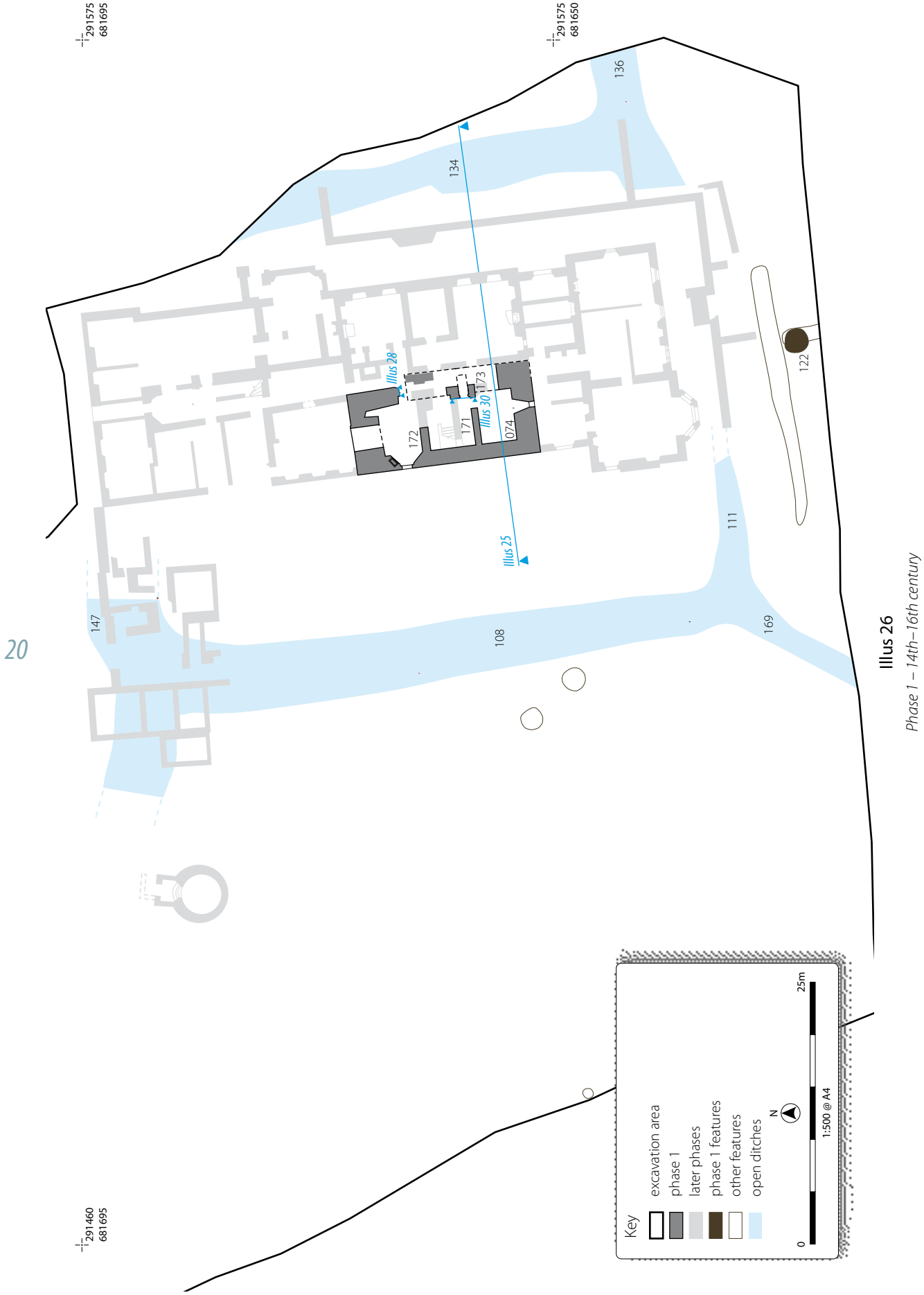
When fully exposed and cleaned the structure was inspected by an architectural historian (Bruce Walker). His opinion was that the structural form of the building was consistent with a late medieval construction date (14th–16th century).

The structure was centrally located, and on the same alignment, as a series of substantial, interconnecting linear cuts into geological clays (Illus 26). Feature (108) was aligned north-south and located on the west side of Kerse House, 15m from the west wall. It was 5m wide and upon excavation of two slots, was found to be 1.7m deep with steeply sloping sides and flat base (Illus 32). The primary fill consisted of grey/black clay silt (107), which was overlain with clay silt deposits (106) and (105) (Illus 31 & 32).

To the south, this feature (108) merged with a linear cut extending to the southwest beyond the limit of excavation. Cut (169) was 2.3m wide and 1m deep. It was filled by grey clay silt (170). A further cut (111) extended eastwards. Feature (111) was 3m wide and 0.8m deep, with a similar profile of steeply sloping sides and a flat base. It was filled by blue/grey clay silt (110).

At its northern extent, feature (108) was found to merge with an east-west aligned linear cut (147). This was revealed after removal of the 19th century outbuilding remains. Partially exposed to 20m length, a slot excavated through feature (147) revealed it to be 6m wide and 2.3m deep. It was filled by brown silt (148) with wood inclusions. Bottle glass dating between 1750 and 1770 was also retrieved from the deposit (see finds assessment below).

At the eastern limit of the excavation area, a second north-south aligned linear cut was identified. Feature (134) was exposed to a length of 36m and upon excavation of two



Illus 27 ►

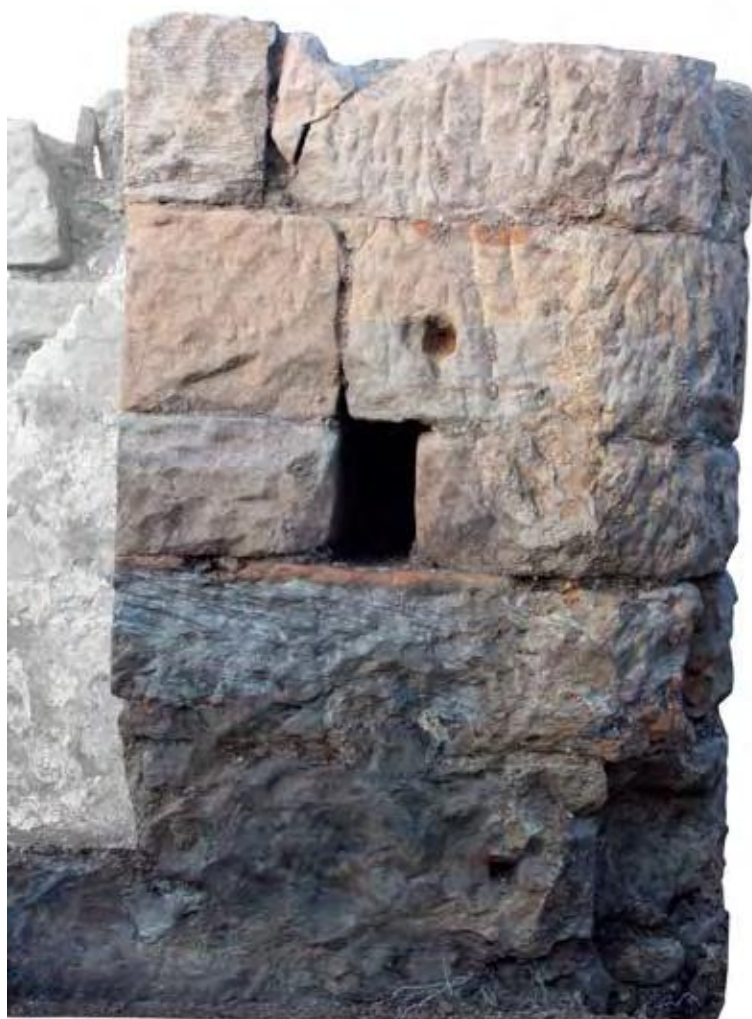
South face of wall (074) showing reddened stone and subsidence. Blocked window visible above scale (photo 156)

slots was found to be 3.6m wide and 1.7m in depth. The sides were steeply sloped and the base rounded. The feature was filled by dark brown sandy clay silt (133). At its southern extent, feature (134) adjoined linear cut (136) aligned east-west, forming a junction. An excavated slot revealed cut (136) to be 3.6m wide by 1.2m deep with a slightly rounded base. The fill consisted of dark brown silty clay (135).

The excavated sections quickly filled with water and the features are interpreted as a system of contemporary and inter-connected drainage channels. Levels taken from the bases of the cuts suggested that water was being diverted eastward, as levels showed a drop from 3.0m OD to 2.6m OD. They may have drained into the water courses to the east of the estate later depicted on Roy's map and estate plans (Illus 3 and 7).

The spatial relation of the ditches to the 14th–16th century structure suggested they were contemporary and this was supported by palaeoenvironmental evidence. Bulk samples taken from the basal fills contained an assemblage of waterlogged and charred plant material. This included domestic refuse comparable to late medieval assemblages recovered in Edinburgh's old town (see palaeoenvironmental assessment below). Artefacts were not retrieved from the basal fills.

The ditches are likely to have remained open for a considerable time, with regular cleaning. A re-cut of ditches (108; Illus 32, filled with 103 & 104), (111) and (169) was evident. The presence of post-medieval finds in the upper ditch fills and the observation that late 18th century estate plans (Illus 7) do not depict them indicates they had gone out of use by this period. Deliberate backfilling of the features seems to have been carried out



21

Illus 28 ►

Photo-rectification of wall (074) entrance

0 0.5m
1:10 @ A4



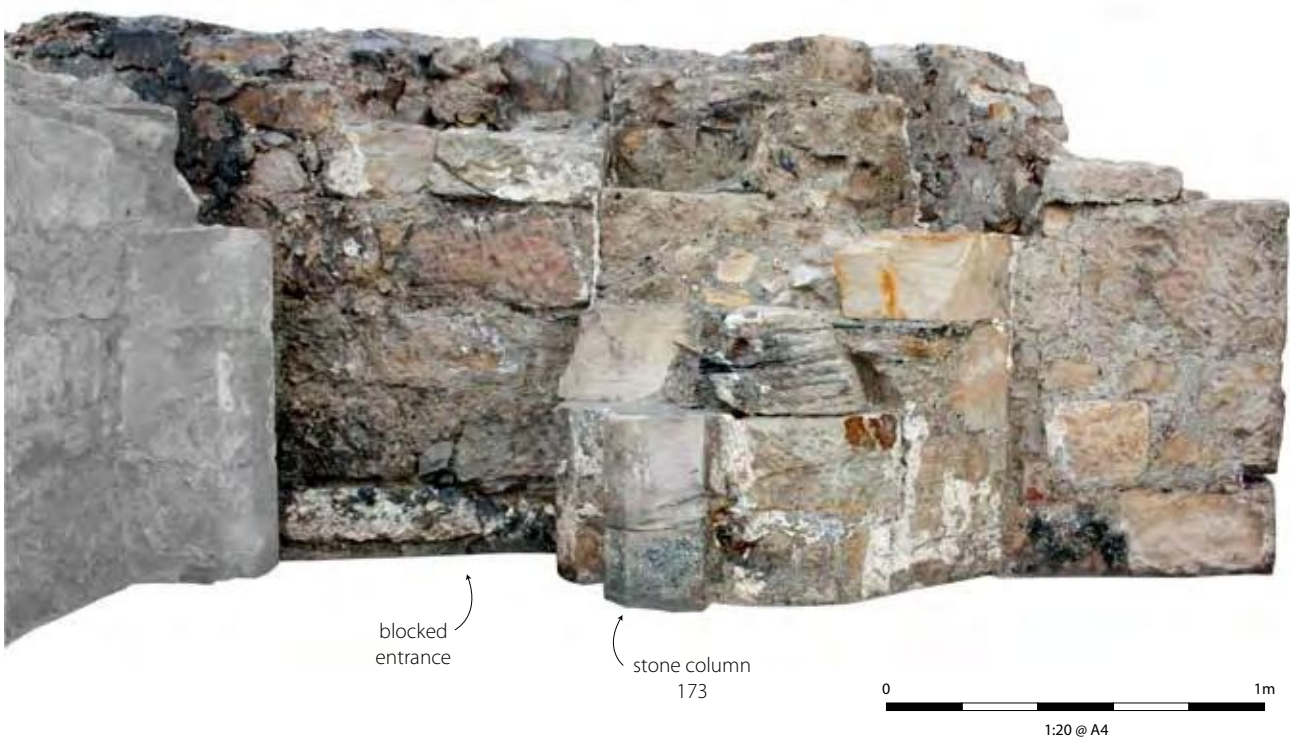
Illus 29

East facing shot of Phase 1 structure with truncated wall (171) in foreground (photo 205)

using clays, presumably derived from nearby geological deposits, and recovered artefacts were scarce.

Towards the southern extent of the excavation area, an irregular, sub-circular cut (122) was identified. Excavation revealed it to be a pit with dimensions of 2.5m width and 0.7m depth. Several irregular, large stones were at the base; which were overlain by a deposit of charcoal-rich grey clay silt (121). Sherds from a 15th/16th century ceramic jug were retrieved from the deposit (see finds assessment below).

22

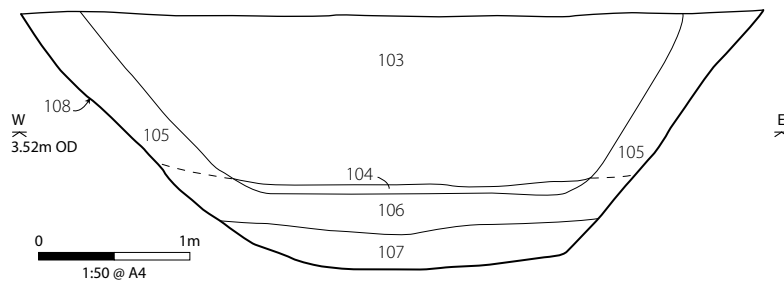


Illus 30

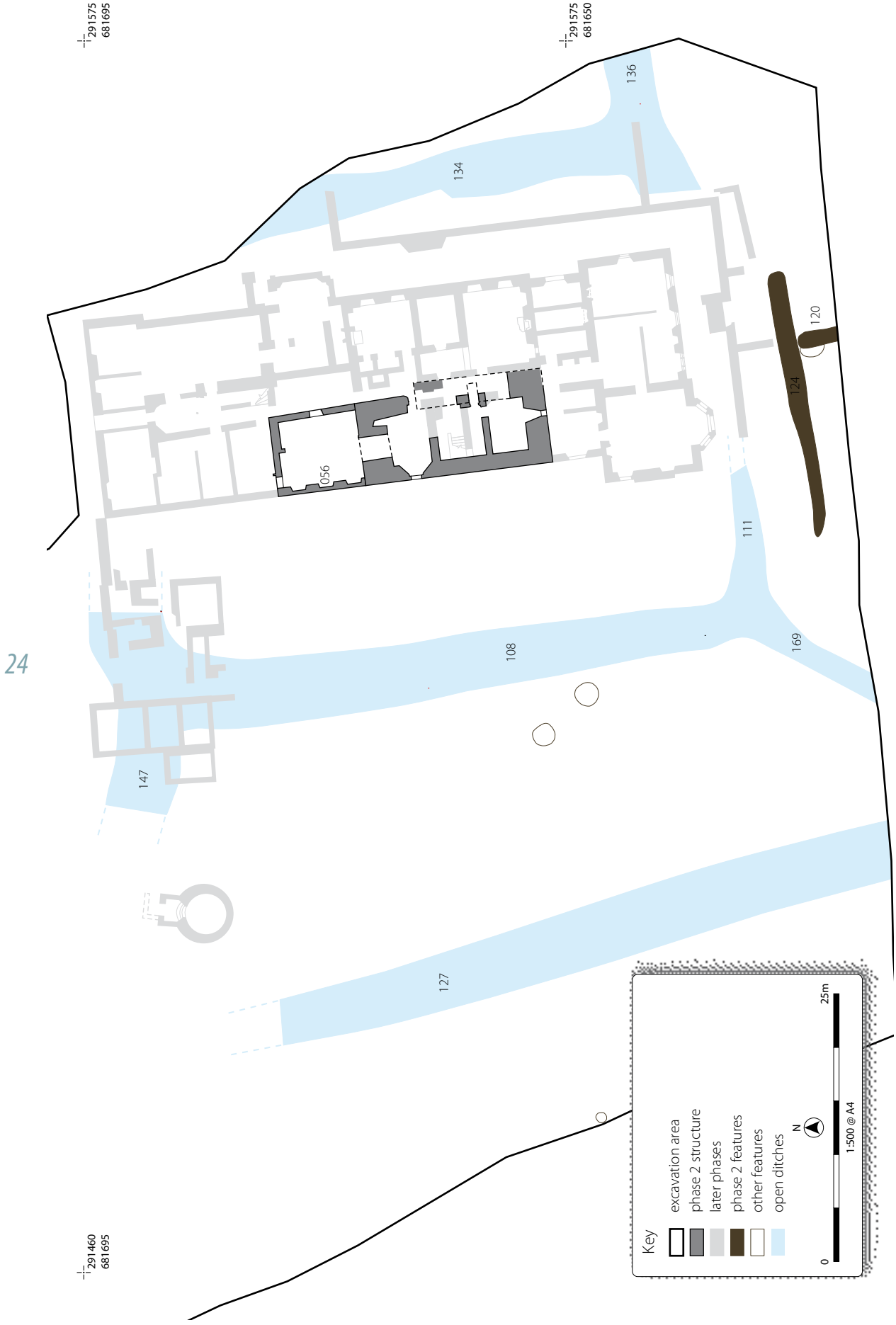
Photo-rectification of stone column (173) and blocked entrance



Illus 31
North facing shot of ditch (108)



Illus 32
South-facing section of ditch (108)





Illus 34

West facing shot of Phase 2 outer wall (056) and windows (photo 275)

Mid-17th century: Phase 2 (Illus 33)

The second principle phase of construction appeared to be an expansion to the north, resulting in a more elongated form to the building and extending its length from 17.6m to 25.8m.

Wall (056) abutted Phase 1 wall (074) and comprised randomly coursed stone of variable sizes. The bonding was hard white sandy mortar. The thickness of the walls was substantially less than the earlier phase; at a maximum of 0.9m. Three windows were located in the west wall and displayed splayed recesses that narrowed from 1.4m to 1.3m width (Illus 34). In the north wall a blocked doorway, 1m wide, with projecting jambs was in the northwest corner.

A date for this phase could not be precisely established; however it may correlate with the building work undertaken by Sir Thomas Hope when he is recorded as erecting a mansion in the mid-17th century (www.scran.ac.uk). It is clear that the house had been extended to the north prior to the first plans that show the footprint in any detail in the mid-18th century.

A north-south aligned linear cut (127) identified in the western part of the excavation area is also attributed to

this phase. The feature was 5.9m wide and exposed to 58m in length. An excavated slot revealed it to be 1m in depth with steeply sloping sides and a flat base. Cut (127) was filled by grey clay silt (128), from which pottery sherds dated to the 16th–18th century were recovered (see finds assessment below). The feature was interpreted as a drainage ditch and considered to be part of a later system than those of Phase 1 due to its different alignment. It similarly does not appear on late 18th century estate plans, suggesting it was infilled by then.

A shallow linear feature (124) at the southern extent of the excavation area was 25m long and aligned east-west. It was 0.5m deep with steeply sloping sides and rounded base. The east terminus was curved, while to the west the cut became more shallow and narrow and was presumably truncated. It was filled by brown silt clay (123/125/126) from which a 17th–18th century ceramic cup and pot were recovered (see finds assessment below). Feature (124) may have functioned as a drainage gully.

A later cut (120) had also been made in earlier pit (122), which was 1.1m wide and 0.3m deep. The cut extended south beyond the limit of excavation and was filled by mid brown silt clay (119). No artefacts were recovered from the feature.

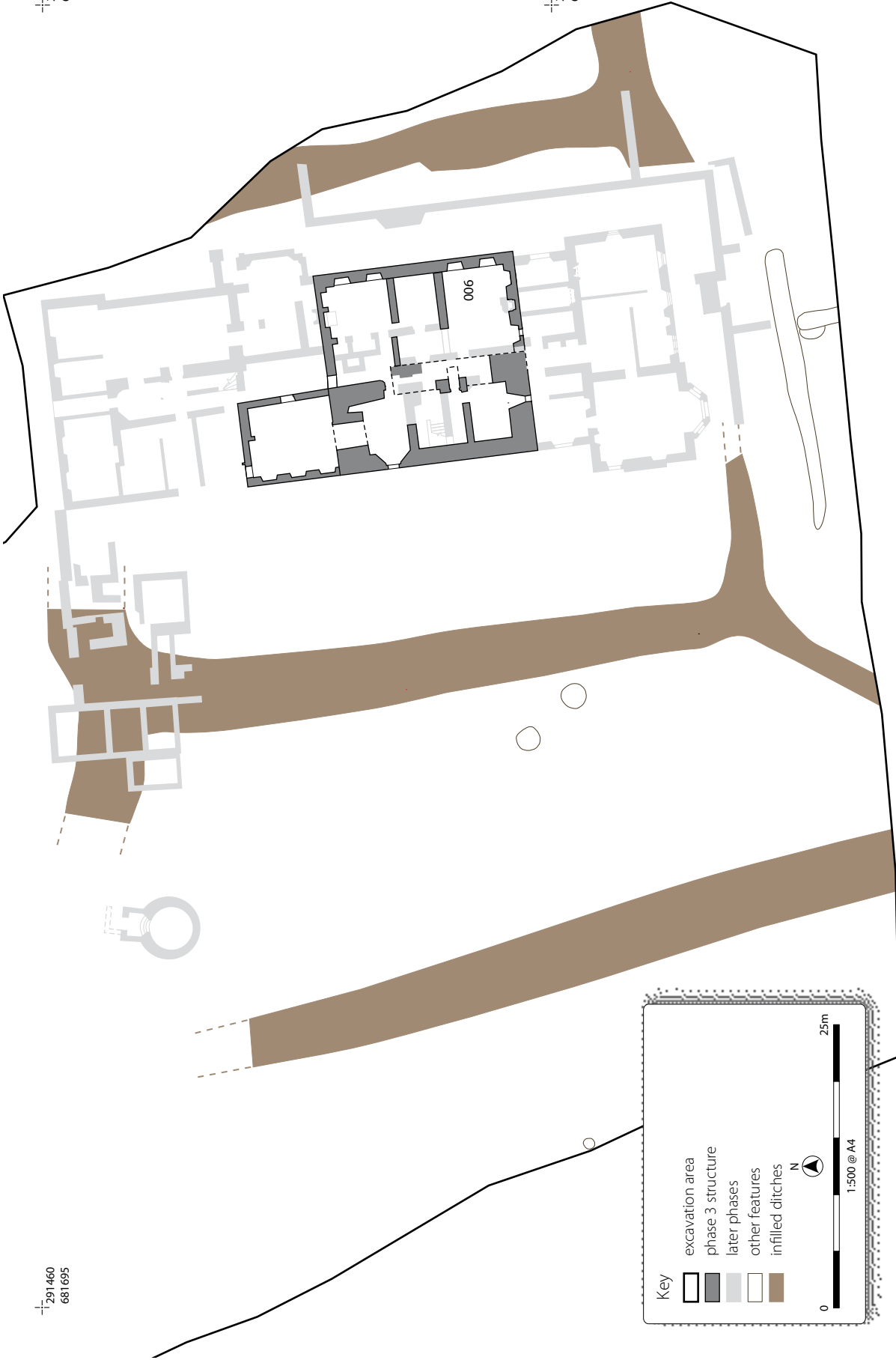


26

291575
681695

291575
681650

291460
681695



Illus 35
Phase 3 – mid-18th century

Mid-18th century: Phase 3 (Illus 35)

In this phase the building was extended eastward, forming a squatter, squared structure 18m wide. An excavated slot against the principal east façade exposed the foundations. A sloping construction cut extended 0.3m deep into the geological clay (3.70m OD). A timber raft had been set at the base, which was overlain by sandstone footings. Over this were two stretcher courses of handmade bricks, bonded by lime mortar. A slate course then separated the brick base from the ground course of the standing wall (006). The wall was 17.8m in length and constructed in evenly coursed, dressed sandstone bonded with lime mortar. The ground course on the outer face comprised projecting stone blocks with chamfered tops (Illus 36). Two sets of splayed window recesses were set into the wall to the north and south. They each narrowed from 1.45m width at the inner wall face to 1.2m. The full east façade originating in this phase forms the central frontage seen in Illus 12.

The east wall returned to form the north wall, which only survived to two courses in height. A splayed window recess and remains of brick fireplace with stone hearth were set into the wall. The south wall also adjoined the east and followed the same build. A centrally-placed fireplace, 1m in height and width, comprised a brick and mortared sandstone hearth. The uprights displayed flush bead moulding in a simple rectangular pattern.

The fireplace was flanked either side by rubble-blocked window recesses which narrowed from 1.5m width to 1.1m (Illus 37). At the base of the window in the southwest corner it is evident that a discarded keystone lintel had been reused in the foundation course (Illus 38). Sherds of tile were retrieved from the mixed floor make-up layer (151), and dated to the late 17th century (see finds assessment below).

The absence of a doorway in the east wall suggested that the principle entrance was into the first floor of the house. Part of the embankment surrounding the house may therefore date to this phase.

The footprint of the house resulting from the Phase 3 extensions matches that described as the ‘body of the house’ on Adam’s late 18th century drawing (Illus 4) and the southern part of the structure shown on estate plans from the mid-18th century on (RHP 1497 & 6115). This date corresponds with the finds from the embankment as well as the discarded keystone lintel in the south wall’s foundation (a design commonly found from the mid 18th century). The lintel had little evidence of weathering and so may have been broken in manufacture and reused in the foundations.

The same estate plans (RHP 1497 & 6115) show further northward extension (described below as Phase 4), and resulting in a footprint similar to that shown in Illus 7. There was no physical association to clearly establish the

relationship between the Phase 3 and 4 builds and it is probable given the plans and dating evidence that they were nearly contemporary. The simpler form of the Phase 3 wall (006) was interpreted as suggesting it was earlier.



Illus 36

West facing shot of outer wall (006) (photo 370)



Illus 37

South facing shot of wall (006) (photo 226)



Illus 38

Detail of reused keystone lintel (photo 221)



Mid-18th century: Phase 4 (Illus 39)

In this phase the house was again extended northward (Illus 39). Wall (175) formed the outer wall of the new extension, abutting Phase 2 wall (056). It was 0.6m wide and made of randomly coursed, roughly-hewn rectangular blocks that survived to a maximum height of 0.5m on average. The bonding comprised hard white concreted mortar. The new addition created a central courtyard on the east side of the building.

The late 18th century estate plan shown in Illus 7 (RHP 48368) generally corresponds with this layout; depicting a rectangular structure with central courtyard on the east side and an irregular layout to the north.

1830: Phase 5 (Illus 40)

This is the first phase where the archived architectural plans seem to have been fully realised; Tait's plan of 1830 (RHP80026; Illus 8) closely correlates with the structural remains evident on site. The original medieval structure underwent significant remodelling with the removal of its east wall and turnpike, while the blocking of the Phase 3 south-facing windows must also have been carried out.

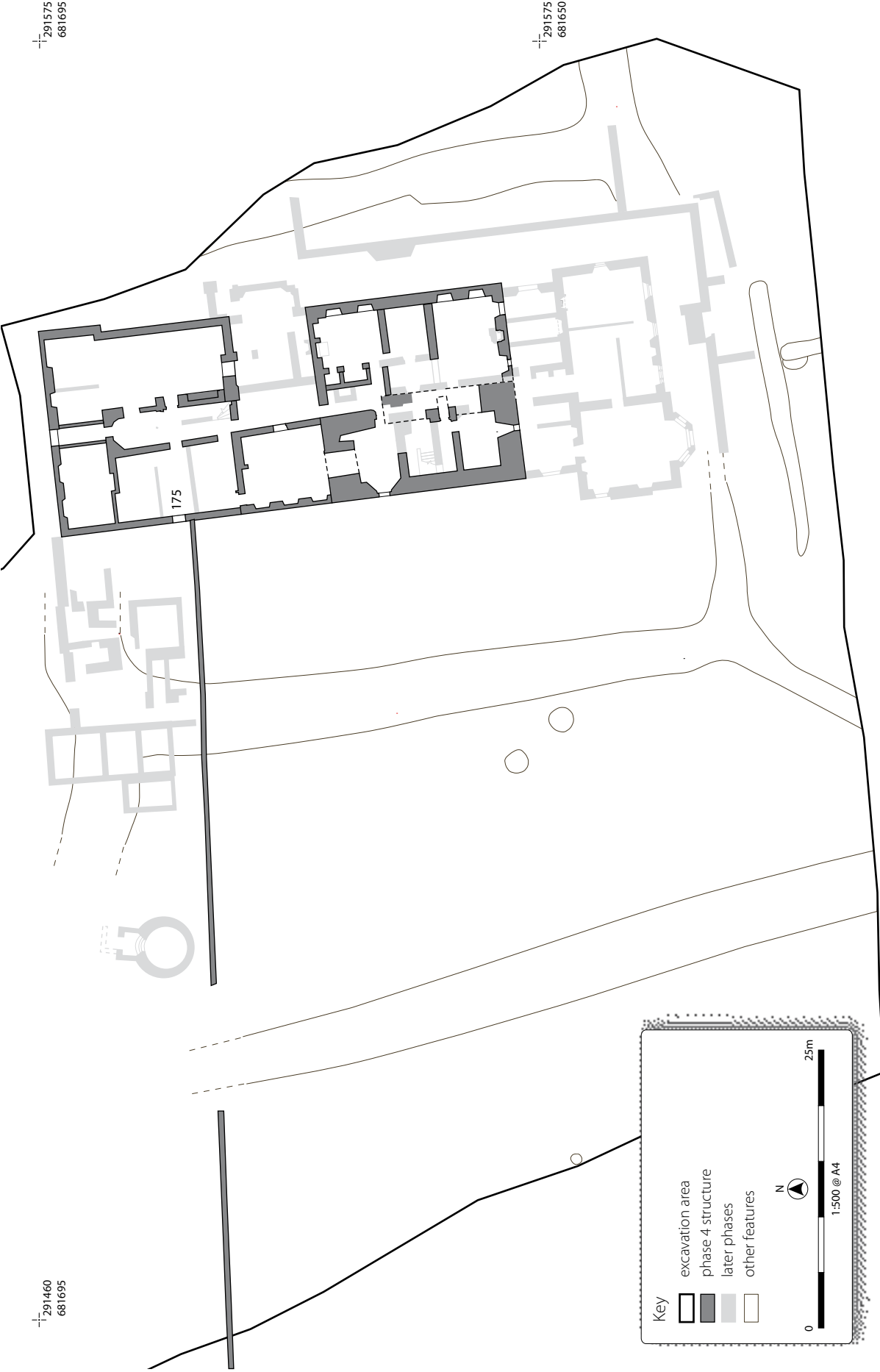
The house was extended south by 13m to reach 55m in length. The outer wall was 0.9m thick and constructed of randomly coursed stone blocks. The build was very similar to the previous phase although the ground course lacked chamfered tops. Appendix 1 describes the interior detailing of the rooms, and the functions noted on Tait's plan. The functions reflect that this was the servants' floor, as would be expected. It is interesting to note that at this point in the house's history the documentary evidence becomes much more informative than the archaeological.

The embanked balustrade surrounding the house is also likely to have been constructed in this phase and is equidistant (4.3m) from the east and south walls. The embankment had been constructed from a mixed foundation layer of brick, sandstone and mortar rubble 0.15m thick set onto the geological clay. This was then sealed by re-deposited clay loam to build up the bank to a height of approximately 1.6m (5.31m OD). Crowning the bank was the stepped foundation of a wall, 0.7m wide, which incorporated a small culvert. This correlates with the balustrade wall visible in Illus 12. Pottery sherds recovered from a loam deposit beneath the bank at the southeast corner (167) were mostly from the same handled jar dating to the 17th or 18th centuries (see finds assessment below).

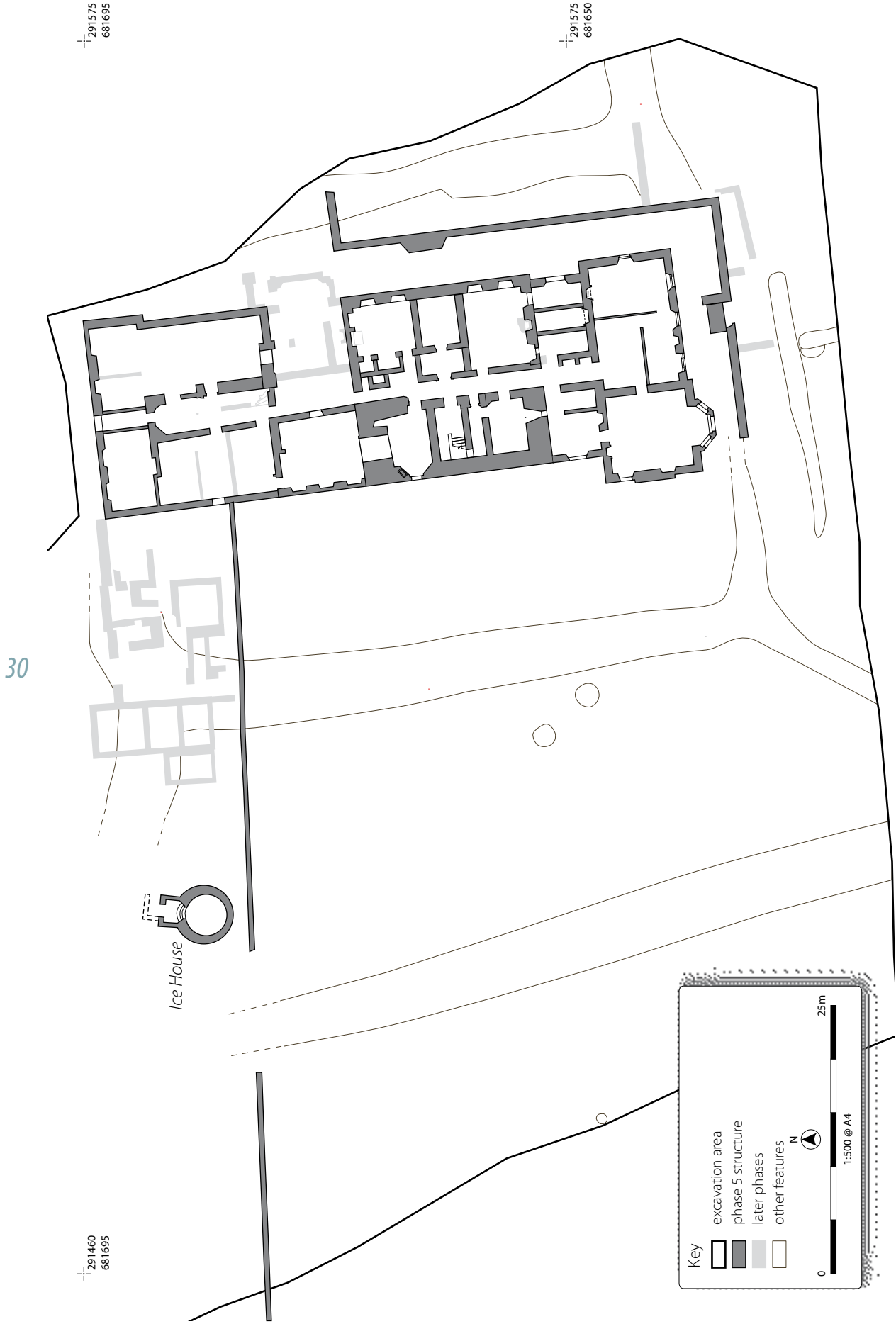
1876: Phase 6 (Illus 41)

The final phase of significant alteration was undertaken in the later 19th century when the house was extended northward. The central courtyard was covered and outbuildings erected to the northwest (Illus 10 and 42). The 1876 ground floor plan and elevations (ST 1309, 1311, 105/2; Illus 10) provide a close representation of the structural remains. Appendix 1 provides a detailed room-by-room description of the surviving fabric and features.

Two shallow circular features were cut into geological deposits to the west of ditch (108). Features (090) and (092) were 2.1m and 2.3m wide, respectively. Both were 0.2m deep and filled by brown silty clay. No dating evidence was recovered and they are interpreted as the remains of garden features because of their very regular form.



Illus 39
Phase 4 – mid-18th century



Illus 40
Phase 5 – 1830



Illus 41
Phase 6 – 1870



Illus 42

*Aerial photo from southeast showing area excavation centred on Kerse House
Taken by Guthrie Aerial Photography*

6. FINDS ASSESSMENT

Julie Franklin

The finds assemblage numbered 161 finds, including pottery, glass and ceramic building material, with a further few finds of iron, clay pipe and stone. They ranged in date from the late medieval period to the 19th century, and provide useful dating evidence for a number of features. A catalogue is included in Appendix 4.

6.1 Assemblage summary

Pottery

There were 86 sherds of pottery. The earliest of these were of medieval date. The earliest sherd was a small piece of Scottish White Gritty Ware, from a decorated jug, probably dating to the 13th or 14th century, though residual in the demolition rubble in Room 6 (see Appendix 1). The remaining medieval sherds, however, do appear to be in situ in pit 122 (Context 121). These were 37 sherds, including some large pieces, with some vessels represented by more than one sherd. All the sherds represented jugs of late medieval redware, including one decorated with applied iron coloured strips. The types of

pottery present, together with the lack of earlier white gritty wares or later handled jars suggests a later 15th or earlier 16th century date for this deposit.

Another well-dated context assemblage was found in the buried loam beneath bank material at the south end of the building (Context 167). There were 20 sherds found in this deposit, mostly from the same handled jar dating to the 17th or 18th centuries, though the lack of any industrially produced wares suggests the deposit is unlikely to have been laid down after the mid 18th century. Other sherds were found singly or in small groups and provide less secure dating evidence, though most belonged to the post-medieval period (16th to mid 18th century).

The only modern pottery found was in overburden. These included creamwares, willow pattern and Chinese porcelain, as well as more utilitarian redwares.

Glass

The glass assemblage numbered 36 sherds. But for two sherds of window glass all represented wine bottles, from two context assemblages of distinct dates. The earliest group was found in the fill of ditch 147 (Context 148). Finds included large sherds from at least six bottles of mallet and squat cylindrical types. The forms present

suggest a date for deposition between c.1750 and c.1770. No other finds were associated with them.

The other group was found in the demolition rubble (Context 003) in Room 18 and may represent material stored in this room.

Ceramic building material

This material included two high status groups of material. The first is a collection of 14 sherds of Delft tile. They are decorated in blue, with landscape designs within circular borders and can all be dated to the late 17th century. They were found in Rooms 5 and 19 (Contexts 149, 151). Delft tiles were frequently used to decorate fireplaces at this period, but also had others uses, such as hygienic wall coverings for dairies and kitchens.

More unusual are sherds of a transfer printed wash basin. It is decorated on the interior of the bowl with a blue landscape design. It has straight sides, tapering to a large drain hole at the base, which was presumably filled with a removable plug. The exterior features a large flange below the rim with a keyed underside for fitting into a wooden cabinet or similar arrangement. It is not clear if this formed part of a plumbed-in sink, or a wash-stand, but either way it would have been an expensive and decorative fixture in the house.

The only other finds were pieces of pan-tile and brick. The pan-tiles included a number of large sherds. Photographic evidence suggests the roof to the main house was slated. The tiles may have belonged to out-houses or been used in internal features.

Other finds

Other finds include a folding knife and a large iron rotary key, probably for a large door, both from overburden. A stone find (Room 5, Context 149) is of uncertain function. It is a large sandstone block, with a hollow pecked out of one face, but for a band running across the centre which has been left standing proud. Possibly it was discarded unfinished.

7. PALAEOENVIRONMENTAL ASSESSMENT

Dr Scott Timpany

Thirteen samples were taken during the excavation with five waterlogged samples processed for palaeoenvironmental assessment. The samples were taken from five ditch fills, which surrounded the main structure; Kerse House. The main aims of the assessment were to see if there are any ecofacts in the ditch fills that could be used for radiocarbon dating and to see if there is any evidence for activities associated with Kerse

House. Tables of the recovered material are included in Appendix 5.

7.1 Method

Samples of approximately 40L were taken on site from archaeologically significant features and deposits. Samples were chosen for processing by the Project Officer in order to answer research questions set during excavation. Samples were wet-sieved using a standard floatation method (*cf.* Kenward *et al.*, 1980) in laboratory conditions using a 1mm mesh and 250µm mesh sieve. A sub-sample of 250ml was assessed for each sample. All plant macrofossil samples were analysed using a low power binocular microscope with x10 and x40 magnifications. Identifications were confirmed using modern reference material and seed atlases including Cappers *et al.* (2006) where necessary.

7.2 Results

The results of the assessment are provided in Appendix 5 (composition of waterlogged samples). All material was preserved through a mixture of waterlogging and charring.

Plant remains

Waterlogged plant remains (WPR)

All samples contained abundant and diverse quantities of WPR (see Appendix 5). The overall assemblage from the processed samples contained a large number of damp, open ground taxa including: pale persicaria (*Persicaria lapathifolia*), sedges (*Carex* sp.), brambles (*Rubus fruticosus*) and cinquefoils (*Potentilla* sp.). Ruderals of arable or grassy land were also present such as: docks/sorrels (*Rumex* sp.), thistles (*Cirsium* sp.), sow-thistles (*Sonchus* sp.), hemp-nettles (*Galeopsis* sp.) and knotgrass (*Polygonum aviculare*). Arboreal taxa are also present in the assemblage including: wild cherry (*Prunus avium*), blackthorn (*Prunus spinosa*), hazel (*Corylus avellana*), and elder (*Sambucus nigra*) together with oak (*Quercus* sp.). A small range of nitrophilous taxa were also present in the assemblage such as common nettle (*Urtica dioica*) and celery-leaved buttercup (*Ranunculus sceleratus*). Probable foodstuffs were also recovered in the samples including domestic plum (*Prunus domestica*) and figs (*Ficus carica*).

Charred plant remains (CPR)

A small range of charred plant remains were recovered from four of the processed samples (see Appendix 5). Charred cereal grains were recovered from deposits (128) and (133) with spelt wheat (*Triticum spelta*) and oats (*Avena* sp.) both present; spelt wheat being the more dominant. Charred fruits of elder were also found in deposits (107) and (116), while a charred domestic plum fruit stone was



present in deposit (133).

Other finds

Together with the plant remains recovered from the samples were a number of other materials (see Appendix 5). These included possible food waste in the form of marine shells, including oyster and mussel, within four deposits (107, 116, 128 and 133). Insect fragments were also present in all the samples recovered together with some samples containing insect pupae and fly larvae casings (see Appendix 5). A small mammal bone was recovered from deposit (133), while a small quantity of fish bone was present in three contexts (107, 116 and 128). Terrestrial/land molluscs were found in two deposits (107 and 133). Cinder and/or coal fragments were also recovered from all samples with the exception of Sample 12.

7.3 Discussion

Dateable materials

All samples contained suitable materials that could be used for radiocarbon dating (see Appendix 5). In particular three samples from contexts (107, 128 and 133) have material relating to food waste that could be dated, including charred cereal grain of spelt wheat and oats together with domestic plum fruit stones. The remaining two samples from deposits (116 and 148) have dateable material that is more likely to represent plant growing locally and include hawthorn (*Crataegus* sp.) and wild cherry fruit stones, hazel nutshell and tree buds (likely birch (*Betula* sp.) and hawthorn).

Food debris

Food debris was present in all samples with the exception of Sample 12, which was taken from the fill (148) of linear ditch (147). The remains of charred cereals of spelt wheat and oats were present in two fills (128 and 133), while charred and non-charred domestic plum stones were also present in three fills (107, 128 and 133). Exotic food types were also present in the form of fig fruits, again found in all samples with the exception of deposit (148) (see Appendix 5). The domestic plant remains assemblage as a whole is similar to late medieval assemblages recovered from Edinburgh's old town (eg Timpany, 2006), giving a tentative date for the discard of food waste and by association Kerse House occupation. Other probable food debris recovered included fish bone and marine shell (see Appendix 5).

Local environment

The WPR assemblage for the samples shows that the local environment around the ditches was probable open pasture land. A number of herbaceous taxa of damp grassland are present including docks/sorrels, buttercups

(*Ranunculus* sp.), chickweed (*Stellaria media*) and thistles, together with goosefoots (*Chenopodium* sp.) (Stace 1997). There was also evidence for the presence of some trees in the landscape from hazel nutshell and elder fruits together with birch buds and seeds. Also amongst the arboreal assemblage are wild cherry and possible whitebeam (cf. *Sorbus* sp.), which are shade intolerant and again point to the landscape being quite open. It is possible given these tree types they may have been grown on the grounds for ornamental purposes. The abundant wood fragments in the samples may also come from local trees or material that has washed into the ditches.

The presence of nitrophilous taxa such as common nettle and celery-leaved buttercup are likely to have been growing in the ditch suggesting the presence of foul and rotting material; likely the food waste and other debris. The presence of fly larvae in the fill (128) of ditch (127) also suggests the presence of rotting (and possible faecal) material. The presence of celery-leaved buttercup also indicates the water within the ditch features was slow moving (Clapham *et al*, 1962); possibly accounting for the build up of material not being washed away.

Of note is the assemblage from ditch (147) which appears to be different to that of the other ditches as it contains no food debris (eg fish bone) or exotic foodstuffs (eg plum and figs), which are present in all of the other four ditches sampled (see Appendix 5). The WPR assemblage is also slightly different containing large numbers of elder fruits and hogweed (*Heracleum sphondylium*), which were rarer in the other samples. There is also less of a range of damp grassland taxa within this ditch sample. The implications of this difference may mean that this ditch is nearer to the dominant plant types (eg local presence of an elder tree). It also appears that waste from Kerse House was not deposited into this ditch section.

7.4 Conclusions

Material suitable for radiocarbon dating was obtained in each sample and the material was likely to be directly related to nearby settlement contemporary with the ditches when they were open.

There is evidence for the deliberate discard of food waste into all of the ditches, with the exception of ditch (147).

Food waste included exotic taxa such as figs and plums, together with spelt wheat and oat suggesting a late medieval date for the assemblage.

The local environment was probably wet pasture land with occasional light-demanding trees such as wild cherry and whitebeam. These may have been grown deliberately as some form of landscaping in the grounds of the house.

8. DISCUSSION

The archaeological programme has established that Kerse House was developed around a structure of medieval origin. Although substantial later remodelling was evident, the basic footprint of the ground floor survived. The form was essentially rectangular, although the east wall was offset from the entrance. A consideration of both the archaeological evidence and Tait's 1830 plan (Illus 8) suggests the ground floor was divided into three rooms with a west facing window in each. The southern room also contained a south-facing window. Upon entering at the east, a turnpike stair rose up within the body of the east wall. The north room may have housed the kitchen as the north wall appeared to have been built to accommodate a hearth and there was no evidence of a window here.

The plan is suggestive of hall-houses or early tower houses which were built from the 13th-14th centuries in Scotland (Dunbar 1966). The hall-house was usually entered at first floor level, however at Tulliallan Castle in Fife the principle entrance was at ground floor level and gave access to the main staircase. The tower houses of Drum Castle in Aberdeenshire and Threave Castle in Kirkcubrightshire also have a similar rectangular plan. In subsequent centuries, towers generally developed into an L or Z-shaped plan, with the addition of one or more wings to the main block. The significantly varying form of tower houses across the medieval period does, however, preclude dating on plans alone.

The ground floor level within the structure was relatively constant across the lifespan of the building; this resulted in very few stratified finds and no direct dating evidence for the structure from artefacts. The best current assessment for a date of construction must combine several strands of indirect evidence, namely: an architectural historian's opinion concerning form (14th-16th century), the earliest stratified pottery from elsewhere on the site (15th-16th century) and a palaeoenvironmental assemblage consistent with a late medieval date.

This corresponds with the earliest reference to a castle made in the Royal Charter of 1508, but not the earlier 13th century documentation denoting an estate at West Kerse. The recovered piece of Scottish White Gritty Ware, dating to the 13th or 14th century, suggests that an earlier estate centre may have been in the vicinity, but given this was a single residual sherd this remains a speculative suggestion.

The paucity of cut features associated with a late medieval estate centre is unusual and differs from comparable sites such as Perceton, near Irvine (Stronach 2004). This can be explained by the low-lying, poorly draining soils the site is located on. Levels taken across the site (Hydrock Consultants SI Records, Sept 2011) further suggest that the house is located close to the edge of a pronounced

drop to the north (from over 4 to just 3m OD) and the medieval house may have bordered boggy land in that direction.

The principle features outside the house, excepting a single isolated pit, were drainage ditches. The temporal relationship between the medieval house and drainage ditches could not be directly established; however the location of the house centrally in a rectangle formed by the ditches, and on similar alignment, suggests they are broadly contemporary. No crossing over the ditches was apparent.

The palaeoenvironmental assessment of material from the basal fills of the ditches provided some evidence for the local medieval landscape. This is characterised as open, wet pasture with occasional trees, perhaps for landscaping. This is consistent with the estate grounds as displayed in the cartographic evidence of subsequent centuries. The samples also served to better characterise the nature of the ditches surrounding the house. The presence of waste (and possibly faecal) material suggests the ditches served as drains, presumably receiving effluent from the house. The presence of celery-leaved buttercup indicates the water within these ditches was slow moving and correlates with the slight change in level recorded between the east and west bases. Given the apparently close relationship between the ditches and house, radiocarbon dating of the basal material may assist in dating the earliest phase.

A complex typology exists in late medieval estate centres. As noted above there is substantial variation in house form and the sites may be enclosed or unenclosed. Enclosed sites were predominantly surrounded by a moat; as seen at Perceton, as well as Caerlaverock Castle in Dumfries and Ladywell near Girvan. A tower or hall house set within a system of drainage ditches therefore adds further variation to this class of site and serves to emphasise that each estate centre developed in its own distinctive way.

The preservation of the house's basement floor allowed for a phased analysis of its development from medieval core into a sprawling late 19th century mansion. The lack of finds in secure contexts meant that function could not be assigned to the various rooms of the house prior to the labelled architectural plans from 1830. It is likely that their earlier functions were utilitarian, like those recorded in 1830 (and including a kitchen and various servants' quarters). The 1876 floor plan showed few changes of room function in the final phase of the structure.

The cross-referencing of archive plans with the physical remains proved to be of significant value in differentiating between the realised and merely proposed plans that exist in the archive. It quickly became apparent that the proposals of John Adam in the late 18th century fell into the latter category. It is instructive to note that the names of the records themselves are not instructive in this regard; all are simply titled as if they were sure to be undertaken.



A point of note is that the principal entrance always seems to have been to the east; from the original medieval phase into the 20th century. This may have been the favoured direction as it faced toward the Forth.

Although the small finds assemblage has limited the interpretation of specific activities in and around Kerse House, the archaeological programme has achieved its main aims of creating an appropriate archival record and producing a narrative for the historic development of the house.

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10. APPENDICES
Appendix 1 – Photo directions and room
by room record of Kerse House





Photo 293



Photo 295

Room 1 'Valets Room' (1876 plan) / 'Servants Room' (1830 plan)

Photos 293, 295

Forming the southwest corner of the house, Room 1 comprises walls of dressed masonry blocks of varying size. The remains of a three-bay window are evident in the south wall, with the stone sills 0.6m above floor level. A further two windows with splayed opening are set into the west wall. The outer faces of the south and west walls comprise a projecting ground course of squared and dressed stones, approximately 1m in length, with chamfered tops. Subsequent coursing consists of masonry blocks around 0.5m in length. An entranceway is located midway along the east wall, which also shows evidence of plastering. The north wall is heavily truncated but a bayed recess with bricked back survives in its western half, with an apparent entrance into Room 2 adjacent. A concrete culvert abuts the north wall, while the floor comprises stone flagging overlying sand and clinker levelling.



Photo 296



Photo 300

Room 2 'Lamp Room' (1876 plan) / 'Servants Room' (1830 plan)

Photos 296, 300

The east, south and west walls are approximately 0.7m thick and consist of dressed masonry blocks with cement mortar as well as occasional patches of brickwork. An entrance way is located in the northeast corner and an interior masonry wall partitions the room. The remains of a centrally placed fireplace are located in the south wall and the opening into Room 1 lies on its west side. A centrally placed window is present in the west wall with the splayed design found throughout the building, which has been latterly bricked up. The external face of the west wall also displays the projecting ground course of masonry seen in Room 1. An excavated slot reveals that the foundations step out around 0.5m from the wall face and consist of roughly hewn masonry.

The north wall is clearly abutted by the west wall and predates it. The wall comprises dressed sandstone facing with a rubble core; totalling 2m thickness. The sandstone blocks are 0.25–0.6m long by 0.3m wide and bonded by sandy lime mortar. Reddening on the south face of the north wall indicates exposure to heat from a fire, while signs of subsidence are evident from the increased spacing between a number of the blocks. No floor surface survives, but sub-floor deposits of clinker and sand are evident.



Photo 205



Photo 211

Room 3 'Cellar' (1876 plan) / 'Cellar' (1830 plan)

Photos 205, 211

Accessed by a doorway in the east wall, the room has a sandstone flagged floor. The south and west walls appear to represent the earliest phase and are up to 2m thick, comprising dressed sandstone facing bonded by lime mortar with a rubble and gravel core. In the south wall a splayed window, formerly open to floor level, has been blocked up by sandstone masonry. A substantial part of the inner face of the west wall has been damaged, while an internal wall has been reduced to floor level. The outer face of the west wall clearly differs from that of the abutting Room 2. The sandstone is lighter in colour and the ground course is identical to the remainder of the wall material.

At the northeast corner an original doorway has been blocked by mortared masonry. The doorway displays moulded jambs which would have held a door that opened away from the room. A second doorway may have been located between the east wall and the reduced internal wall, which shows a jamb at its east end. In the east wall, the section with door jamb is abutted on its south side by a later section of sandstone walling which contains the current entranceway. The north wall abuts the west wall and consists of coursed sandstone rubble 0.65m wide. The coursing is less regular than that of the west and south walls. Remnants of white plaster are visible on the inner faces of the walls.

40



Photo 284



Photo 290

Room 4 'Stair' (1876 plan) / 'Stair' (1830 plan)

Photos 284, 290

A narrow room, entered from a doorway in the east wall which has horizontal slats for door fixings. The room is partially floored with flagstones. The west wall is the continuation of the rubble cored wall in Room 3 and is abutted by the south wall of the room (north wall, Room 2). The base of a dressed-stone, curving stair is located at the west end with one step set into the fabric of the west wall. A drain also runs down the core of the wall. On the outer face of the west wall, vertical joins and a stepped foundation make it clear that there has been a rebuild at the location of the drain and steps. A recess marked 'W.C.' is shown here on the 1830 plan. The north wall consists of two abutting lengths of coursed sandstone and mortar. A brick and cement lined chute into a cellar is located in the northeast corner, which extends under the north wall into Room 5.



Photo 245



Photo 256

Room 5 'Store Room' (1876 plan) / 'Servants Room' (1830 plan)

Photos 245, 256

The west, north and east walls consist of rubble coring with dressed sandstone facing up to 1.8m thick. Midway along the west wall is a splayed window opening and a stone sink has been set into the northwest corner. The north wall has been truncated by a brick-built structure bonded by sandy, off-white mortar. The feature incorporates a chimney base and possible fire-box; suggesting it was a base for an oven. A sub-surface, stone lined chute which communicates with that in Room 4 lies between the brick feature and east wall of the room. On the east side of the entranceway, the east wall corner has been chamfered and rectangular and circular sockets have been cut into the wall head. It likely represents a former entranceway and the rectangular socket would have held a drawbar.



Photo 274



Photo 279

Room 6 'Housekeeper's Room/Still Room' (1876 plan)

Photos 274, 279

The room is a later extension to Room 5, evident from the abutting joints of the east and west walls to the south wall. The walls comprise randomly coursed stone of varying sizes, roughly hewn, with white mortar bonding. Three windows are located in the west wall, while in the north wall a blocked doorway with projecting jambs is in the northwest corner and a fireplace is set centrally.



Room 7 'Butlers Room' (1876 plan)

Photo 346

The external west wall abuts the equivalent in Room 6 and consists of randomly coursed masonry with white mortar. The north wall survives to a single course and is brick built; forming an internal divide. The east wall is of similar construct to the west wall. A flagstone floor survives over much of the room.

Room 8 'Lobby/Store Room/Dry Larder' (1876 plan)

Photo 354

The room is subdivided by an internal east-west brick wall truncated to floor level. The south area comprises split-level flagstone flooring, with the lower level forming a passageway leading to an infilled entrance in the west wall. The north, east and west walls consist of mortared masonry blocks. Holes on the inner face of the east wall may be fixing points.



Room 9 'Servant's Hall' (1876 plan)

Photo 358

This room forms the northwest corner of the main house. The east wall is a brick-built dividing wall which abuts the north and south masonry walls. Two splayed windows are in the north wall and a fireplace is set centrally in the south wall. The west wall forms the continuation of the house's outer west wall from Room 7. Flag stone flooring survives to the south.





Photo 342



Photo 349

Room 10 'Vestibule/Lobby' (1876 plan)

Photos 342, 349

A cut sandstone step provides a north entrance into a lobby which is flanked by brick walls, two courses thick. To the south, this opens into a wider vestibule bordered to the east and west by sections of dressed sandstone wall. An aperture set into the west wall between the vestibule and lobby has been bricked up and may be a blocked window or fireplace. The floor consists of stone flagging with a central drain cut into one slab. To the south, a spiral staircase of cut stone standing to three steps survives. Two lengths of masonry wall extending north from the stair form a compartment. At the southern extent a doorway opens into Room 14. The west walls bordering Rooms 7 and 8 appear to be older than the walls and stair to the east.



Photo 364

Rooms 11 and 12 'Pantry/Scullery' (1876 plan)

Photo 364

Both rooms form the northeast corner of the main house. The walls are truncated to floor level but the remains of two windows in the north wall can be discerned. The outer north and east walls comprise roughly hewn stone blocks, randomly coursed with white lime mortar. The rooms are divided by a brick wall surviving to one course in height.



Room 13 'Kitchen' (1876 plan)

Photo 339

The walls in this area are heavily truncated. The east outer wall stands three courses high and is the continuation of the east outer wall of Room 12. On the west side of the room two columns of cut and dressed stone form two entrances into Room 10. At the southeast corner, a brick-lined recess is located in the wall adjacent to the spiral staircase. An entrance in the south wall leads into Room 14.



Photo 339



Photo 367

Room 14 'Entrance Hall' (1876 plan)

Photo 367

To the east, a porch of dressed stone provides entry into the room from outside; abutting the outer east wall. There are no remains of flooring, however two rectangular stone bases are set into the mixed loam levelling. The south wall in the room is heavily truncated but comprises randomly coursed, dressed stone bonded by lime mortar.



Photo 327



Photo 329

Rooms 15 & 16 'Stewards Business Room/Closet' (1876 plan) / 'Steward's Office/Closet' (1830 plan)

Photos 327, 329

The east wall represents the outer wall of the house and is two courses high. It is constructed of dressed sandstone bonded with lime mortar. On the outer face, the ground course comprises projecting stone blocks with chamfered tops. Two splayed window recesses are in the wall. The north wall abuts this and is similarly constructed, with a window and fireplace set into it. The south wall is formed from two abutting lengths. To the east, the wall stands at seven courses high and is composed of randomly coursed stone with lime mortar. It is faced with white plaster. The upper part of the wall has string coursing, acting as a repair when the vaulted roof of Room 18 was added. There are numerous holes set into the wall, suggesting fixing points for plastering. To the west the wall is randomly coursed, roughly hewn mortared blocks. The east end of the western section appears to be one side of a door jamb; suggesting it predates the eastern. At the west end, the wall has been roughly chamfered to seemingly imitate the opening into Room 5.

A stone column projecting from the south wall has two horizontal grooves on the inner face; probable door fixing points. Two further stone columns, to the north and in alignment, have a similar detail on their north faces; suggesting three doorways as per the 1876 plan. A jamb for the most northerly door abuts the north wall. The remains of brick partitions on the west side of the pillars suggest the two northerly doorways opened into storage recesses while the south

doorway was an entrance. The floor is formed of flagstones with a rough mortared floor beneath.

A small recess (Room 16) entered from the northern end of Room 17 is marked as a 'closet'.

Room 17 'Passage' (1876 plan) / 'Passage' (1830 plan)

Photo 389

The corridor runs up the centre of the house, narrowing at Room 15. It is clear the rubble-cored south wall of Room 3 originally extended into the corridor space but has been cut back. An abutting joint in the entranceway to Room 20 may show its original extent eastwards. The flooring of the passage is stone flags. The other room descriptions provide details of associated walls.



Photo 389



Photo 325



Photo 371

45

Room 18 'Lumber Room' (1876 plan) / 'Cellar/Cellar' (1830 plan)

Photos 325, 371

Comprises two rooms entered from the passageway to the west. In the first room off the passageway the walls are randomly coursed, roughly hewn sandstone blocks with neatly dressed door jambs. The south wall abuts the east and west walls, possibly representing blocking of a previous opening. In the north wall, a rough hole 0.5m in diameter has been cut through. The floor is stone flagging. An entrance in the east wall leads to the second room, which contains two rows of vaulted brick recesses.

There are four brick recesses lining each of the north and south walls, bonded by compact lime mortar. Each is 0.9m wide and 1.1m in height, with arched head. The spacing between the vault tops has been bricked to provide a flat surface over the structures. Remnants of brick vaulting are mortared onto the surface, suggesting the room itself also had a vaulted roof. The east wall is the outer wall of the building and the continuation of that in Room 15. The floor is also completed in brick.



Photo 220



Photo 317

Room 19 'Stewards Room' (1876 plan) / 'Stewards Room' (1830 plan)

Photos 220, 317

Entering from the passage, the north door jamb of the entranceway has deep horizontal slots for the door mount. The short length of wall on the north side is roughly coursed, incorporating angular stones and brick; representing a possible repair. The remainder of the north wall (abutted by the vaulted recesses in Room 18) has a smooth face with white plaster finish. The east wall is the continuation of the house's outer wall (see Rooms 15 and 18) and although truncated, two splayed windows are evident. An excavated slot shows the foundations to be stepped and sitting on a timber raft base.

The south wall consists of lime mortared, coursed sandstone with a centrally placed fireplace, flanked either side by rubble-blocked window recesses. The hearth comprises brick and mortared sandstone, with the uprights displaying flush bead moulding in a simple rectangular pattern. At the base of the window in the southwest corner it is evident that a keystone lintel has been reused in the foundation course.

46



Photo 312



Photo 315

Room 20 'Housemaid's Room' (1876 plan) / 'Servants Room' (1830 plan)

Photos 312, 315

A cut stone pier abutting the north wall forms the north side of the entranceway. Horizontal slots with wood remains represent door fixings in the pier. A join in the western part of the north wall is taken as a possible earlier eastern extent of the thick walls that form the oldest part of the house. Also in the north wall details of the blocked windows of Room 19 are more evident. The east window displays dressed jambs and sill flush with the outer face. The west window is similar but the sill is missing. Holes in the wall face may be plaster fixing points.

The east (outer) wall abuts the east wall of Rooms 15, 18 and 19 and appears to represent a later extension to the house. Constructed in randomly coursed stone blocks, the build is similar to the earlier phase however the ground course lacks chamfered tops. Midway along the east wall is a splayed window recess, blocked up with brick. Horizontal slats in the bay walls infer fixings for shelving or a bench beneath the window. The south wall is a continuation of the west wall and contains a fireplace set midway along it. The hearth is brick with cement mortar while the uprights and lintel are constructed of simple dressed stone with no mouldings. At ground level, two rough sandstone and brick footings extend north-south across the room and the sub-floor make up consists of clinker and slag.



Photo 303



Photo 304

Room 21 'Room' (1876 plan) / 'Servants Room' (1830 plan)

Photos 303, 304

Located at the southeast corner of the building, the north, east and south walls are keyed in and represent a single construction phase along with the east wall in Room 20. The walls are of roughly dressed sandstone of varying size bonded by off-white mortar. The north and east walls have horizontal slots running across them in which thin timber strips remain; possibly for shelving. A window recess is in the east wall and a fireplace in the north wall. The fireplace is 1m high by 1m wide and consists of dressed sandstone uprights and lintel with no detailing. A splayed window opening is in the south outer wall. The west wall is formed of handmade brick bonded with cement mortar and is a single course thick. It sits atop a dressed sandstone footing. A culvert with reinforced concrete capping extends eastwards between Rooms 22 and 23.

Room 22 'Closet' (1876 plan) / 'Closet' (1830 plan)

Photo 311

The north wall is a continuation of the sandstone wall in Room 21, while the west wall is a thin brick partition; a single course thick. The west side of the floor has slate flagging which is edged by bonded bricks. To the south a concrete capped culvert extends into Room 21.



Photo 311



Photo 307

Room 23 'Room' (1876 plan) / 'Bed Closet' (1830 plan)

Photo 307

The south (outer) wall has a fireplace with sandstone uprights, flanked by two windows. The window to the west is wider (1.7m) than that to the east (1.4m). The west wall is dressed sandstone with white plaster on the interior face. A number of loose flagstones indicate the flooring medium.



Structures to northwest

Photo 248

In the northwest extension, only the footings of structures survived and comprised of both mortared brick and sandstone. A cobbled yard area was located centrally. A number of stone lined culverts ran beneath the structures.



Photo 248



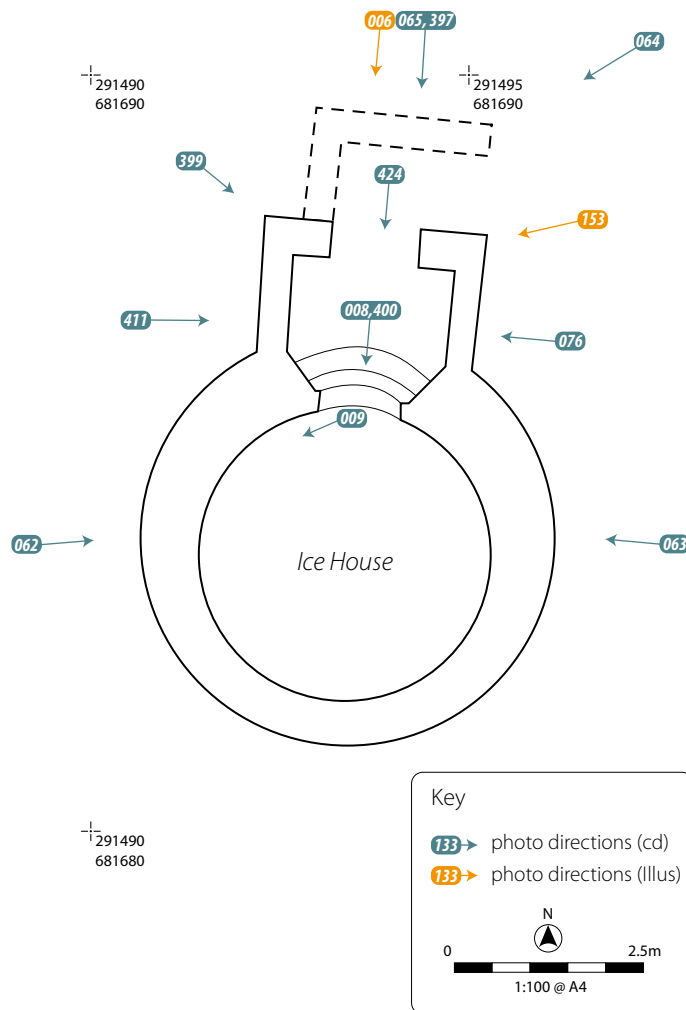
Photo 077

Ballustraded Embankment

Photo 077

Partially surrounding the east and south house elevations are the remains of a balustrade wall sitting atop a bank. Only the base of the wall survives and comprises stepped sandstone rubble with a culvert incorporated.

Appendix 2 – Photo directions and plan of Ice House





Appendix 3 – Site registers

Context register

Context no.	Description
001	Topsoil- mid brown clay loam with frequent tree roots
002	Natural subsoil- orange/brown initer tidal clay with marine shell inclusions
003	Mixed rubble infill/overburden
004	Fill of ditch [005]- same as [135]
005	Cut of ditch- same as [136]
006	Main E wall of house, made up of square cut stone with irregular coursing between 0.2m and 1.7m in height and 0.60m wide. Central, earliest phase of the façade
007	Rubble stone wall to the E of the main front of house wall. It was aligned E-W abutting the E side of wall [010]. The wall was 5m long and 0.45m wide. The E end includes a length of wall built of unfrogged brick.
008	A length of rubble constructed stone wall to the front of house. Abuts the W side of wall [010] and measured 5m long and 1.8m wide up to 9 courses high.. May have formed part of the foundation for the entrance into the house
009	A square section of rubble stone wall to the front of the house immediately E of wall [010]. The wall slopes from W to E and may have formed part of the foundations for the entrance into the house along with [008] to the W. The feature was 3.6m wide and 2.55m high max.
010	A N-S aligned rubble stone wall to the E of the main front wall of the house forming a terrace revetment. The wall was 0.75m thick and 1.3m high and turns to the W at the S end.
011	Brick blocking of window [030] within stone wall [026].
012	Brick blocking of window [031] within stone wall [027].
013	Brick blocked window
014	Internal dividing wall comprising coursed stone 1.2m wide and 5.6m long and with a lime mortar bond.
015	A N-S aligned coursed stone wall 2.7m long and 0.7m wide abutting the N end of wall [006]. Abutted by wall [022] to the W side.
016	External stone wall extension to the main wall of the house [006]. The wall was only 2 courses high and was 2.35m long and 0.7m wide with slate fragments within the lime mortar bond.
017	void
018	A section of N-S aligned coursed stone wall that with a brick fireplace [023] inserted into the wall. Forms an interior dividing wall of the house and is associated with staircase [047]
019	A rid brick footing below floor [020] and abutting the W side of wall [006].
020	A floor comprising large stone slabs up to 0.85m x 0.60m in size located at the N end of the building. Bounded by walls [043, 044, 047, and 048].
021	Block (east of wall [006])

Context no.	Description
022	A red brick constructed wall forming a square enclosure possibly for a tank. The wall was 1.1m N-S by 1m E-W abutting walls [006] and [015].
023	Brick lining in wall 18 that forms part of a fireplace. The bricks are unfrogged and sat over a sandstone base [024].
024	Sandstone slab forming the plinth for a fireplace within wall [018] and associated with brick fireplace [023].
025	Stone culvert constructed of large sandstone slabs with an internal size of 0.6m wide and 0.5m deep.
026	Square cut coursed sandstone wall forming part of the main N-S aligned front elevation to the building. The wall stood 7 courses high and was 0.7m wide with a window [030] inserted.
027	A continuation of wall [026] comprising a slightly different coursing of stonework but still forming part of the front elevation to the house. The wall has a window [031] inserted and stands to a max height of 1.8m and was 4.8m long.
028	A continuation of wall [026] and [027] but in a poor condition. Constructed of the same coursed sandstone blocks.
029	void
030	A large window inserted into wall [026] comprising of large sandstone surround stones with a comb-dressed margin. The upper part of the window surround did not survive but the width way 1.45m. The window had been blocked with brick [011].
031	A large window inserted into wall [027] comprising of large sandstone surround stones with a comb-dressed margin. The upper part of the window surround did not survive but the width was 2.1m. The window had been blocked with brick [012].
032	Coursed stone wall forming part of the main S wall of the building. The wall stands to a max height of 1.2m and has a window inserted close to the E end.
033	An internal red brick wall aligned N-S between stone walls [032] and [035]. Constructed of unfrogged brick 6 courses high.
034	An internal sandstone wall aligned N-S between stone walls [032] and [035]. Only 2 courses high possibly forming a foundation for the floor
035	A main E-W aligned sandstone wall keyed into wall [026] at the E end and abutted by internal walls [033] and [034] on the s side. The wall stood to a max height of 1.4m and had a fireplace [036] inserted into the S facing side. The remains of a chimney [037] was also visible on the wall
036	A brick fireplace located in the S facing elevation of wall [035], was 1.36m wide and included a stone hearth.
037	A brick fireplace located in the N facing elevation of wall [035], was 1.86m wide and 1m highland included a stone hearth.

Context no.	Description
038	A stone slab floor recorded to the NW corner of the room bounded by wall [035]. The slabs measured 0.8m x 0.6m although only a small area of flooring survived.
039	An internal sandstone wall aligned E-W and abutting wall [006] at the W end. The E end continued beyond the LOE. The wall was 1.4m high and included a blocked window and a fireplace [040] on the s elevation.
040	Fireplace built into wall [039] and comprising a hearthstone and a dressed stone surround with a brick lining.
041	Interior stone wall 5m long and 1.32m high possibly keyed into wall [006] at the E end. The wall includes possible beam slots in the e side.
042	Red brick remains of a vaulted ceiling that sat over wall [041] and forming part of a cellar.
043	A sandstone platform 2.4m x 1.1m and 0.57m high. The platform was in a poor condition but was associated with doorway [044].
044	A sandstone structure 1.9m x 1.18m and 0.45m high that may represent the remains of a stone plinth.
045	A stone wall up to 4 courses high. The wall was located opposite staircase [047] and has a doorway between it and wall [056].
046	Sandstone wall with a possible bricked up fireplace inserted on the SE facing side. The wall was T shaped in plan to a maximum height of 3 courses
047	Spiral staircase bounded by walls [048] and [049] with only the initial 5 steps surviving.
048	A stone wall aligned N-S and keyed into staircase [047] at the S end and also associated with wall [049]. Wall was 2.9m long and 0.35m high.
049	A stone wall aligned E-W and keyed into staircase [047] at the W end and also associated with wall [048]. Wall was 1.8m long and 0.6m high.
050	Interior sandstone wall abutting [006] at the E end and [055] at the W end. The wall was 1.16m high. The top of the wall is capped with brick [051] that may represent the remains of a vaulted ceiling. The N facing elevation includes a number of beam slots.
051	Brickwork on top of wall (050) with only 0.35m remaining. This may represent the remains of a vaulted ceiling.
052	Wall in room 18
053	A series of 4 small vaulted cellars abutting walls[006], [050] and [068]. The vaults are constructed of unfrogged red brick with a lime mortar bond and each vault measured 0.9m wide and 1.05m high and 0.9m deep.
054	Same as [053]
055	A sandstone wall aligned E-W to a max height of 1.5m and 0.5m wide. Abuts wall [050] on the E end
056	A sandstone wall surviving to a max height of 1.5m with a plaster render. The wall has a fireplace inserted on the S facing elevation. . Abuts wall (074)
057	A sandstone wall up to 4 courses high and aligned E-W with the remains of 2 fireplaces inserted in the base of the wall.
058	Floor in room 15 (fireplace)

Context no.	Description
059	A square stone column 0.6m diameter and 6 courses high forming the remains of a possible wall support. Same as [060] and abutted by brick wall 0[61]
060	A square stone column 0.6m diameter and 6 courses high forming the remains of a possible wall support. Same as [059]
061	remains of a narrow brick wall aligned E-W and abutting column [059] to the E end. The wall was 1.07m high and 0.24m wide and 0.9m long
062	A red brick floor surface with a sandstone wall surround 1.85m long and 1.3m wide. Within the same room as pillars [059] and [060].
063	Thin brick wall near abutting the S elevation of wall [057]
064	Wall in room 15
065	Blocked up doorway between walls [041] and [066]. Comprised of rubble stone bounded by brick blocking to each side. The opening was 2.2m wide and 1.46m high.
066	Sandstone wall aligned N-S forming an internal wall abutted by wall 041 to the E side and continues as wall [055] beyond a doorway to the N. The wall was 1.45m long, 1.4m high and 0.45m wide. It also included a dressed stone door jamb on the NW corner.
067	Sandstone wall aligned N-S and 2m long comprising square cut dressed stone forming part of an ante-room with walls [068], [066] and [055].
068	Sandstone wall aligned N-S and 2m long comprising square cut dressed stone forming part of an ante-room with walls [067], [066] and [055].
069	A internal sandstone wall aligned N-S forming a doorway with wall [066] to the N and abutted by wall [080] to the s. The wall was 4m long, 1.6m high and 0.5m wide
070	Interior wall footing room comprising of sandstone. Runs parallel to wall [071] to the E and bounded by walls [035] and [039].
071	Interior wall footing room comprising of sandstone. Runs parallel to wall [0710 to the W and bounded by walls [035] and [039].
072	Interior sandstone wall 7 courses high covered in plaster. Abuts wall 081 and associated with wall [073].
073	Interior sandstone wall 7 courses high covered in plaster. Abuts wall 081 and associated with wall [072].
074	Thick rubble-cored sandstone wall. The walls are dressed on both the internal and external faces and it was 1.8m wide standing to a max height of 1.6m.
075	Staircase in room 4
076	Floor in room 4
077	Floor concrete in room 17
078	Floor in room 15
079	Floor in room 17
080	Buttress in Room 20 off wall (039)
081	North east corner of medieval wall with later stone sink addition



Context no.	Description
082	Window set into west wall of medieval phase
083	Wall remains in Room 2
084	Wall remains in Room 2
085	Fireplace (oven) set into north wall of medieval core
086	Internal wall adjacent to fireplace(oven)
087	Sandstone wall forming northeast corner of Room 1
088	Truncated walls in Room 2 abutting wall 087 to south
089	A mid-brown/grey clayey silt fill of garden feature [090]
090	A circular cut with steep sides and a flat base 2.1m diameter cutting the natural and filled with [089]
091	A mid-brown/grey clayey silt fill of garden feature [092]
092	A circular cut with steep sides and a flat base 2.1m diameter cutting the natural and filled with [091]
093	Cut of linear feature
094	Fill of linear feature [093]
095	A circular cut with steep sides and a flat base 1.1m diameter cutting the natural and filled with [096].
096	A compact dark grey/brown clay fill with occasional stone and charcoal fleck inclusions forming the fill to cut [095].
097	irregular linear cut aligned E-W and 4.3m long , 0.8m wide and 0.11m deep cutting the natural. Filled with [098]
098	Fill of linear cut [097] comprising a firm grey silt with small stone and charcoal inclusions
099	Linear cut aligned E-W 4.1m long and 0.8m wide with steep sides and a flat base. Filled with [100].
100	Fill of linear [099] comprising a firm grey silt with small stone and charcoal inclusions
101	linear cut aligned E-W 7.2m long and 0.8m wide with steep sides and a flat base. Filled with [102].
102	Fill of linear [101] comprising a firm grey silt with small stone and charcoal inclusions
103	Fill of linear ditch [108] comprising soft orange/brown clayey silt with occasional stone inclusions
104	Fill of linear ditch[108] comprising soft light blue/grey silt.
105	Fill of linear ditch [108] comprising soft dark blue/grey clayey silt with occasional small stone inclusions.
106	Fill of linear ditch [108] comprising soft dark blue/grey clayey silt with frequent pebble inclusions
107	Fill of linear ditch [108] comprising very soft dark grey/ blue clayey silt with frequent shell, animal bone and stone inclusions.
108	Cut of linear ditch with steep sides and rounded base 5m wide and 1.7m deep and multiple fills.
109	Fill of linear ditch [111] comprising a soft orange/brown silty clay with occasional stone inclusions.
110	Fill of linear ditch [111] comprising a soft mid blue/grey clayey silt.

Context no.	Description
111	Cut of linear ditch 3.5m wide and 0.9m deep filled with [109] and [110].
112	Cut of irregular shaped pit cut 4.8m long and 0.9m wide with a max depth of 0.15m. Filled with [113].
113	Fill of linear ditch [112] comprising a compact light grey silty clay with stone and coal fragments.
114	Fill of linear ditch [108] comprising soft friable orange/ brown silty clay
115	Fill of linear ditch [108] comprising soft mid blue/grey clayey silt with moderate stone and animal bone inclusions.
116	Fill of linear ditch [108]
117	Fill of stone basin [118] comprising a compact grey mix of mortar stone and slate
118	A rectangular stone basin 0.88m x 0.5m and 0.15m deep.
119	Fill of pit [120] comprising a soft mid brown/grey silty clay with stone, charcoal and CBM inclusions.
120	A linear cut with steep sides and a flat base, partially exposed in trench.. Filled with [119] and cutting [121].
121	Fill of pit [122] comprising a soft dark grey sandy clay with frequent charcoal fleck inclusions.
122	An irregular shaped pit cut with steep sides and a rounded base. Filled with [121] and cutting natural. 1.5m wide and 0.7m deep
123	Fill of linear ditch [124] comprising a soft light brown/grey silty clay with frequent stone inclusions.
124	Cut of linear ditch terminus aligned E-W with steep sides and a rounded base cutting the natural.
125	Fill of linear ditch [124] comprising a soft light brown silty clay with frequent stone and brick rubble inclusions.
126	Fill of linear ditch [124] comprising a soft light brown/grey silty clay with frequent stone and brick rubble inclusions.
127	Cut of linear boundary ditch aligned N-S with steep sides and a rounded base 5.9m wide and 1m deep. Filled by [128]
128	Fill of linear ditch [127] comprising a firm mid grey clayey silt with rubble debris inclusions.
129	Linear cut of drain aligned NW-SE cutting [127] 1.44m wide and 0.3m deep filled by [130].
130	Fill of drain [129] comprising a firm mid brown clay with shell, charcoal and stone inclusions.
131	A N-S aligned cut of drain through [127] and [129] and filled with [132]. 0.45m wide and 0.5m deep.
132	Fill of drain [131] comprising rubble.
133	Fill of ditch [134] comprising a loose dark brown/black sandy silt with frequent brick, rubble stone and charcoal inclusions.
134	Cut of linear ditch aligned N-S with steep sides and a rounded base 3.6m wide and 1.7m deep filled with [133].
135	Fill of ditch [136] comprising a soft dark black/brown silty clay with moderate stone and brick inclusions.

Context no.	Description
136	Cut of ditch aligned E-W at the s end of cut [134] with steep sides and a rounded base 3.6m wide and 1.1m deep. Filled with [135].
137	N-S wall founds in central corridor formed of dressed stone 0.5m wide and 0.35m high. Forms E wall of med phase
138	general rubble fill below the flagged floor in the central corridor of the building comprising rounded boulders.
139	Irregular shaped cut of drain through the E wall footing. Filled with [140] and [138].
140	Fill of drain [139] comprising a friable dark brown silt with stone rubble inclusions.
141	void
142	void
143	A semi-circular cut of drain in the foundations of the eastern wall. Aligned N-S 0.3m wide and 0.28m deep with steep sides and a flat base. Cutting wall found [137]
144	Fill of drain [143] comprising a firm mid brown sandy silt.
145	a large cut of linear ditch (aligned N-S with steep sides and a concave base. Filled with [146] and cutting [147]/[137]. 8.5m long, 3.6m wide and 0.6m deep.
146	Fill of linear ditch [145] comprising a firm mid brown silt with stone and shell inclusions.
147	Cut of linear moat ditch aligned E-W 6m wide and 2.3m deep with steep sides and a concave base cutting [145] and filled with [148].
148	Fill of linear ditch [147] comprising a firm mid brown silt with rubble and organic inclusions.
149	Fill of feature [150] comprising a pale grey loose sandy silt with brick, tile and stone inclusions.
150	Cut of cellar feature abutting the medieval wall to the S including a 45° chute at the S end. Possible remains of a coal cellar
151	Floor make up layer comprising brick, tile and slate fragments.
152	Leveling deposit at the E area of garden comprising a firm dark brown/grey clayey silt with occasional shell and charcoal fleck inclusions.
153	Redeposited clay at the eastern area of garden comprising 0.3m of firm brown/orange clay below [152] and above [154].
154	Rubble lenses eastern area of garden comprising a lense of brick and mortar plus clay below [153] and above the natural.
155	Natural clay recorded at the eastern area of garden below [154]
156	Fill of trench cut [163] 0.7m deep comprising re-deposited clay mortar and sandstone.
157	Gravelly sandy silty deposit overlying (162) and below [158] and [159].
158	Sandy lens over (157) with mortar and sandstone inclusions.

Context no.	Description
159	Gravelly orange sandy silt overlying (157) and (158) (eastern side)
160	Upper fill of cut [165] comprising silty sand with orange sandy lenses above [158] and [159].
161	Masonry rubble, W of curbing [164] forming a fill to cut [165]
162	River pebble layer above (002) natural and below [157].
163	Cut of eastern foundations comprising a steep sided cut with a flat base 0.7m deep and filled with [156].
164	Sandstone curbing and footing made up of rounded poorly sorted stones within cut [165]
165	Sloping sandstone/mortar wall (W face of mound)
166	void
167	Loam fill adjacent to south embankment wall
168	Ash deposit in oven /furnace structure in Room 5
169	SW ditch cut- leading off ditch [108]
170	Fill of ditch [169]
171	South internal wall in medieval structure
172	north internal wall in medieval structure
173	stone pier functioning as door jambs in medieval structure
174	void
175	North outer wall abutting wall 56



Photographic register

54

Photo no.	Direction	Description
001	N/A	ID shot
002	W	Ice house pre-works – entrance and blast wall
003	S	Ice house pre-works – blast wall
004	E	Ice house pre-works south side with overgrown mound
005	N	Ice house pre-works south side with mound and wall
006	S	Ice house façade after blast wall removed
007	S	Ice house façade after blast wall removed
008	S	Interior of Ice house – entrance to main chamber
009	S	Interior of Ice house – wooden slots and metal brae
010	S	Ice house interior chambers
011	N	Wall on south side of Ice house – east end
012	N	Wall on south side of Ice house – bricked up opening detail
013	NW	Wall on south side of Ice house – NW facing general shot of south elevation
014	E	Wall on south side of Ice house – E facing general shot of south elevation
015	S	Wall on south side of Ice house – N facing elevation of wall showing concrete render
016	S	Remains of perpendicular wall leading off north side of main wall
017	N	Shot of modern repair to wall
018	S	Shot of exposed wall foundations in trench west end of wall
019	SE	Shots of garden walls (see Illus 13 and appendices 1 and 2)
020	E	Shots of garden walls (see Illus 13 and appendices 1 and 2)
021	SE	Shots of garden walls (see Illus 13 and appendices 1 and 2)
022	W	Shots of garden walls (see Illus 13 and appendices 1 and 2)
023	W	Shots of garden walls (see Illus 13 and appendices 1 and 2)
024	S	Shots of garden walls (see Illus 13 and appendices 1 and 2)
025	SW	Shots of garden walls (see Illus 13 and appendices 1 and 2)
026	SW	Shots of garden walls (see Illus 13 and appendices 1 and 2)
027	S	Shots of garden walls (see Illus 13 and appendices 1 and 2)
028	SW	Shots of garden walls (see Illus 13 and appendices 1 and 2)

Photo no.	Direction	Description
029	NW	Shots of garden walls (see Illus 13 and appendices 1 and 2)
030	SW	Shots of garden walls (see Illus 13 and appendices 1 and 2)
031	W	Shots of garden walls (see Illus 13 and appendices 1 and 2)
032	W	Shots of garden walls (see Illus 13 and appendices 1 and 2)
033	SW	Shots of garden walls (see Illus 13 and appendices 1 and 2)
034	NW	Shots of garden walls (see Illus 13 and appendices 1 and 2)
035	SW	Shots of garden walls (see Illus 13 and appendices 1 and 2)
036	NW	Shots of garden walls (see Illus 13 and appendices 1 and 2)
037	NW	Shots of garden walls (see Illus 13 and appendices 1 and 2)
038	NW	Shots of garden walls (see Illus 13 and appendices 1 and 2)
039	NW	Shots of garden walls (see Illus 13 and appendices 1 and 2)
040	N	Shots of garden walls (see Illus 13 and appendices 1 and 2)
041	NW	Shots of garden walls (see Illus 13 and appendices 1 and 2)
042	N	Shots of garden walls (see Illus 13 and appendices 1 and 2)
043	NE	Shots of garden walls (see Illus 13 and appendices 1 and 2)
044	E	Shots of garden walls (see Illus 13 and appendices 1 and 2)
045	E	Shots of garden walls (see Illus 13 and appendices 1 and 2)
046	NE	Shots of garden walls (see Illus 13 and appendices 1 and 2)
047	NE	Shots of garden walls (see Illus 13 and appendices 1 and 2)
048	E	Shots of garden walls (see Illus 13 and appendices 1 and 2)
049	E	Shots of garden walls (see Illus 13 and appendices 1 and 2)
050	SE	Shots of garden walls (see Illus 13 and appendices 1 and 2)
051	E	Shots of garden walls (see Illus 13 and appendices 1 and 2)
052	NE	Shots of garden walls (see Illus 13 and appendices 1 and 2)

Photo no.	Direction	Description
053	N	Shots of garden walls (see Illus 13 and appendices 1 and 2)
054	SE	Shots of garden walls (see Illus 13 and appendices 1 and 2)
055	NW	Shots of garden walls (see Illus 13 and appendices 1 and 2)
056	W	Shots of garden walls (see Illus 13 and appendices 1 and 2)
057	W	Shots of garden walls (see Illus 13 and appendices 1 and 2)
058	W	Shots of garden walls (see Illus 13 and appendices 1 and 2)
059	S	Shots of garden walls (see Illus 13 and appendices 1 and 2)
060	S	View of Ice house
061	S	View of Ice house
062	E	View of Ice house
063	W	View of Ice house mound
064	S	Front of Ice house
065	S	Front of Ice house with mound
066	S	Front of Ice house
067	S	Front of Ice house with mound
068	W	View of walls to the E of Ice house and mound
069	W	View of walls to the E of Ice house and mound
070	S	Working shot
071	S	Working shot
072	SW	NE facing shot of Ice house inner structure and section of soil mound
073	S	N facing shot of Ice house inner structure and section of soil mound
074	W	E facing shot of Ice house inner structure and section of soil mound
075	S	N facing elevation of Ice house
076	W	Detailed shot showing join between entrance and circular structure of Ice house
077	N	Working shot around east wall of house
078	N	Working shot around east wall of house
079	W	View of stepped roof of Ice house
080	W	View of stepped roof of Ice house
081	W	Detailed shot of change in brick bonds of Ice house
082	N/A	ID shot
083	W	E face of wall (126) and window (030)
084	W	E face of wall (127) and window (031)
085	W	E face of wall (018), (023) and (024)

Photo no.	Direction	Description
086	W	E facing elevation of wall (010)
087	W	E facing elevation of wall (028)
088	S	General working shot
089	NE	General working shot
090	N	General working shot of archways
091	S	N facing shot of fireplace
092	N	General working shots
093	N	General working shots
094	E	W facing shot of staircase (047)
095	S	N facing shot of wall (050) with holes
096	N	S facing shot of floor (020) at northern edge of excavation
097	S	N facing shot of floor (020)
098	N	S facing façade – detailed shot of coursing on wall [049]
099	NE	General shot of west facing façade (006) – Interior of room
100	NE	General shot of (059), (060) and (061) and associated features
101	S	N facing shot of brick fireplace/oven (085)
102	N	S facing shot of brick fireplace/oven (085)
103	SW	General working shot
104	NW	General working shot
105	N	S facing shot of site
106	N	General working shot
107	NE	General shot of western elevation
108	SSE	General working shot
109	S	General working shot
110	N	General working shot
111	W	E facing shot of entrance to walled garden
112	N	SE corner of walled garden
113	N	S face of walled garden
114	N	S facing shot of recreation club – centre
115	N	S facing shot of recreation club – centre
116	N	S facing shot of recreation club – west wing
117	N	S face of walled garden
118	NNE	SW corner of walled garden
119	W	E face of recreation club (southern end)
120	W	E face of recreation club (northern end)
121	W	E face of recreational club (all)
122	W	E facing shot of garden interior



Photo no.	Direction	Description
123	E	W facing shot of graffiti at NW corner of W wall of garden (1st pillar)
124	E	W facing shot of graffiti at W face of W garden (2nd pillar from N)
125	E	W facing shot of graffiti 'RB 1780' (3rd pillar from N)
126	E	W facing shot of graffiti 'IT 1772' (4th pillar from N)
127	E	W facing shot of graffiti 'IT 1772' with adjacent stone (4th pillar from N)
128	NE	SW shot of W garden interior – brick shed
129	N	S facing shot of gym hall
130	W	E facing shot of gym hall
131	SE	NW facing shot of recreation club (NW corner)
132	N	General shot of W garden interior
133	E	W facing shot of gate in interior of W garden
134	SE	General shot of E wall in interior of W garden
135	NW	General shot of N and W walls in interior of W garden
136	E	Detailed shot of pillar in W garden – E wall
137	S	General shot of W garden interior from N corner of bowling green
138	W	E facing shot of wall repair
139	E	General shot of S wall – NW corner
140	S	Detailed shot of pillar in S wall showing brick extension above pillar
141	W	E facing shot of masonry detail on corner of wall
142	N	General shot of interior E wall of W garden
143	E	Southerly stone triangle piers
144	E	Northerly stone triangle piers
145	SE	General shot N and S stone piers
146	W	Westerly stone piers
147	S	N facing shot of interior N wall in W garden (NE corner)
148	S	N facing shot of interior N wall in W garden – detail of stone blocks in brick wall
149	S	N facing shot of interior N wall in W garden – view towards NE corner
150	E	W facing shot of outer W wall in W garden (NW corner)
151	E	W facing shot of outer W wall in W garden (centre)
152	E	W facing shot of graffiti on walled garden
153	SW	NE facing shot of Ice house
154	SW	NE facing shot of Ice house

Photo no.	Direction	Description
155	S	Detailed shot of medieval wall – possible gun hold
156	N	Detailed shot of medieval wall – possible gun hold
157	W	Detailed shot of medieval wall (from above)
158	E	Detailed shot of medieval wall (from above)
159	N	S facing shot of back wall (medieval) continuing N to S.
160	S	S facing shot of back wall (medieval) continuing N to S.
161	S	N facing shot of terminal end of medieval wall (rubble core visible)
162	NW	SE facing shot of medieval wall corner (showing disturbance)
163	N	S face of NW, E to W garden wall
164	N	S face of NW, E to W garden wall
165	S	N face of NE, E to W garden wall
166	S	N face of NE, E to W garden wall – general shot
167	S	N face of NE, E to W garden wall – gap in wall
168	N	S face of NE, E to W garden wall
169	NE	E end of NE garden wall – adjoining building wall
170	S	E end of NE garden wall – southern face
171	S	E end of NE garden wall- northern face
172	S	E end of NE garden wall – northern face with structural detail
173	S	Detailed shot of window blocking [172]
174	SW	General shot of garden wall and Ice house
175	E	Rear wall of building – W face
176	E	Rear wall of building – E face
177	N	S facing section of garden feature [070], [089] and [090]
178	N	S facing section of garden feature [091] and [092]
179	N	S facing section thru garden feature
180	NE	SW facing section of ditch [169]
181	SW	NE facing section of ditch [169]
182	W	East facing section ditch [111]
183	E	West facing section ditch [111]
184	W	E facing section of linear ditch [097]
185	N/A	ID shot
186	W	E facing section of linear ditch [099]
187	W	E facing section of linear ditch [101]
188	W	E facing section of circular feature [095]
189	S	N facing section of linear ditch [108]

Photo no.	Direction	Description
190	E	W facing section of linear ditch [124]
191	W	E facing section of ditch [124]
192	W	E facing section of ditch [124]
193	N	S facing section of pits [120] and [122]
194	W	Earlier phase brick floor in SW corner of stewards room
195	N	S facing section of linear ditch [127] and drains [129] [131]
196	S	N facing section of linear ditch [127] and drain [129]
197	N	S facing section of linear ditch [127]
198	N	S facing section east entrance to house
199	W	E facing shot of sloped stone entrance to house
200	W	W face of N to S medieval wall – Room 3
201	W	Robbed out wall E to W – Room 3
202	W	Junction of wall in NW corner – Room 3
203	N	N face of wall E to W – Room 3
204	E	Blocked door to eastern wall – Room 3
205	E	Eastern wall E to W – Room 3
206	N	Northern door surround pillar of blocked door – Room 3
207	S	Southern door surround pillar of blocked door – Room 3
208	ENE	Detailed shot showing later addition to wall – Room 3
209	E	Detailed shot showing later addition to wall – Room 3 (from above)
210	S	Southern wall E to W – Room 3
211	S	Detailed shot of southern wall window blocking – Room 3
212	W	Detailed shot of southern wall blocking window – Room 3 (from above)
213	W	Southern wall E to W – Room 3 (from above)
214	ESE	Junction of medieval south wall with later eastern wall – Room 3
215	E	Earlier wall footings (medieval) under later wall E to W – Room 19
216	N	General shot of room 19 and corridor 17
217	N	General shot of room 19 and medieval wall footings
218	E	General shot of room 19 and medieval wall footings showing junction with E wall
219	W	General shot of corridor 17 exposing earlier wall footings

Photo no.	Direction	Description
220	S	N facing shot of SW corner showing medieval wall footings and re-used carved block – Room 19
221	S	Detailed shot of re-used carved block – Room 19
222	S	N facing shot of SE corner showing medieval wall footings/extent of walls- Room 19
223	E	W facing shot of SE corner showing medieval wall footings/ extent of walls and timber – Room 19
224	NE	Detailed shot of door blocking against angled earlier wall – Room 3
225	W	Detailed shot of door blocking and blocking against angled wall – corridor 17
226	S	South wall and medieval footings – Room 19
227	W	Stair and western end of room – Room 4
228	S	Southern wall adjacent to room 3 (eastern end) – Room 4
229	S	Southern wall and western end of stairs – Room 4
230	SE	Vertical junction of wall and door jamb Room 4
231	N	S facing shot of wall (137) – excavated in central corridor
232	S	N facing shot of wall (137) – excavated in central corridor
233	S	N facing section of ditches [108] and [111]
234	S	N facing section of ditches [108] and [111]
235	N	S facing section of ditches [108] and [111]
236	N	Detailed shot of wall with possible staircase (from above) – Room 4
237	S	Detailed shot of wall with possible staircase (from above) – Room 4
238	E	W facing shot of exterior of possible spiral staircase – Room 4
239	N	S facing section of eastern ditch [134]
240	N	S facing shot of northern wall (western end) – Room 4
241	N	S facing shot of northern wall (eastern end) – Room 4
242	N	S facing shot of northern wall (relationship between later wall and cellar) – Room 4
243	S	N facing shot of southern wall – Room 5
244	N	S facing section of large ditch with later brick blocking
245	W	E facing shot of western wall with later brick blocking – Room 5
246	NW	Blocked basin
247	N	General shot of 19th Century extension – east of Ice house



Photo no.	Direction	Description
248	NW	General shot of 19th Century extension – east of Ice house
249	NE	General shot of 19th Century extension – east of Ice house
250	E	General shot of 19th Century extension – east of Ice house
251	N	Structures in 19th Century extension – east of Ice house
252	S	N facing shot of wall foundations to the south of central corridor
253	N	S facing shot of wall foundations to the south of central corridor
254	SW	NE facing shot of basin – Room 5
255	N/A	ID shot
256	N	S facing shot of north wall/fireplace – Room 5
257	W	E facing shot of northern extension
258	S	N facing shot of northern extension with cobbled floor surface
259	S	N facing shot of brick structure with culvert
260	S	General shot of Northern extension
261	S	Sub floor feature – Room 5
262	E	W facing shot of wall cut [163] on eastern extent
263	W	E facing shot of wall cut [163] on eastern extent
264	N	S facing shot of wall cut [163] on eastern extent
265	S	N facing shot of wall cut [163] on eastern extent
266	N	Sub floor feature – Room 5
267	W	E facing shot of wall (137) continuation outside Room 5
268	S	E facing shot of wall (137) continuation outside Room 5
269	W	E facing shot of NE corner of medieval wall showing later wall over arch – Room 5
270	W	E facing shot of NE corner of medieval wall showing later wall over arch – Room 5
271	W	Top of Shute showing wall abutting arch – Room 5
272	E	W facing shot of cellar showing early and later facings – Room 5
273	E	W facing shot of floor outside bricked door – central
274	S	General shot of south wall/fireplace – Room 6
275	W	E facing shot of west wall – Room 6
276	S	Detailed shot of south wall, west end – Room 6
277	S	Detailed shot of south wall, west end – Room 6
278	S	Detailed shot of south wall, east end – Room 6
279	N	S facing shot of north wall – Room 6

Photo no.	Direction	Description
280	E	W facing shot of east wall – Room 6
281	E	W facing shot of exterior – Room 1
282	E	W facing shot of exterior – Room 2
283	E	W facing shot of exterior – Room 3
284	E	W facing shot of exterior – Room 4
285	E	W facing shot of exterior – Room 5
286	E	W facing shot of exterior – Room 6
287	E	W facing shot of exterior – Room 7
288	W	E facing shot of eastern wall interior – Room 6
289	W	E facing shot of eastern wall interior – Room 5
290	W	E facing shot of room 4 – from corridor 17
291	W	E facing shot of room 3 – from corridor 17
292	W	E facing shot of west wall from room interior – Room 1
293	S	N facing shot of south wall from room interior – Room 1
294	N	S facing shot of north wall from room interior – Room 1
295	E	W facing shot of east wall from room interior – Room 1
296	S	N facing shot of south wall from room interior – Room 1
297	W	E facing shot of west wall from room interior – Room 1
298	N/A	ID shot
299	E	East and west wall Room 20 on corridor 17
300	N	S facing shot of northern medieval wall – Room 2
301	N	Detailed shot of section against medieval wall – Room 2
302	E	W facing shot of east wall interior – Room 21
303	S	N facing shot of south wall interior – Room 21
304	N	S facing shot of north wall interior – Room 21
305	W	E facing shot of west wall interior – Room 21
306	W	E facing shot of west wall interior – Room 21
307	S	N facing shot of south wall interior – Room 23
308	N	S facing shot of north wall interior (east wall removed) – Room 23
309	N	S facing shot of north wall interior – Room 22
310	S	N facing shot of south wall interior – Room 22
311	E	General shot showing section on south side – Room 22
312	E	W facing shot of east wall interior – Room 20
313	S	N facing shot of south wall interior – Room 20

Photo no.	Direction	Description
314	W	E facing shot of west wall interior – Room 20
315	N	S facing shot of north wall interior – Room 20
316	E	W facing shot of west wall of room 20 – facing corridor 17
317	N	S facing shot of north wall interior – Room 19
318	E	W facing shot of east wall interior – Room 19
319	W	E facing shot of west wall interior – Room 19
320	S	Detailed shot of excavation in SE corner – Room 19
321	E	Detailed shot of excavation in SE corner – Room 19
322	W	E facing shot of moat to north side of house
323	S	N facing shot of south wall interior – Room 15
324	S	N facing shot of south wall interior (western end) – Room 15
325	N	S facing shot of south wall (western end) – Room 18
326	W	E facing shot of western wall/entrance – Room 18
327	E	W facing shot of east wall interior – Room 15
328	N	S facing shot of north wall interior – Room 15
329	W	E facing shot of west wall interior – Room 15
330	S	N facing shot of south wall interior – Room 16
331	E	W facing shot of east wall interior – Room 16
332	N	S facing shot of north wall interior – Room 16
333	N	Detailed shot of curved entrance with timber slot – Room 5
334	NW	Detailed shot of curved entrance – Room 5
335	E	W facing shot of eastern wall interior – Room 14
336	S	N facing shot of southern wall interior – Room 14
337	N	S facing shot of northern wall interior – Room 14
338	NE	NW facing shot of eastern wall interior – Room 12 and 13
339	NW	NE facing shot of western wall interior – Room 12 and 13
340	S	N facing shot of southern extension (wall not standing) – Room 13
341	N	S facing shot of northern extension (wall not standing) – Room 12 and 13
342	E	W facing shot of stair by Room 13
343	N	S facing shot of stair by Room 13 in corridor 17
344	S	N facing shot under stair area by Room 13
345	N	S facing shot of north wall (not upstanding) interior – Room 7
346	E	W facing shot of east wall interior face – Room 7

Photo no.	Direction	Description
347	S	N facing shot of south wall interior face – Room 7
348	W	E facing shot west wall interior face – Room 7
349	N	S facing shot of wall/bay interior face – Room 10
350	E	W facing shot of eastern wall interior – Room 10
351	W	E facing shot of western wall interior – Room 10
352	S	S facing shot of wall (not upstanding) and corridor- Room 10
353	W	E facing shot of west wall interior – Room 8
354	N	S facing shot of north wall interior – Room 8
355	E	W facing shot of east wall interior – Room 8
356	S	N facing shot of south wall interior – Room 8
357	N	S facing shot of north wall interior – Room 9
358	E	W facing shot of room 9 and across to room 12 and 13 (eastern end) – Room 9
359	S	N facing shot of south wall cut – Room 9
360	W	E facing shot of west wall cut – Room 9
361	NW	Detailed shot of NW corner – Room 10
362	S	N facing shot of exterior of southern wall and house – Room 10
363	S	N facing shot of corridor 17 and side entrance (exterior)
364	SE	SW facing shot of external wall/interior of house – Room 11 and 12
365	W	E facing shot of external wall/interior of house – Room 11 and 12
366	W	E facing shot of external wall/interior of house – Room 13
367	S	N facing shot of eastern/house exterior – Room 14
368	W	E facing shot of eastern/house exterior – Room 14
369	NW	SE facing shot of house exterior – Room 14 and 15
370	W	E facing shot of house exterior – Room 18
371	E	W facing short of eastern wall interior – Room 18
372	S	Detailed shot of arch – Room 18
373	W	E facing shot of west wall interior – Room 18
374	NW	Detailed shot of base of brick vault – Room 18
375	W	E facing shot of front (east) wall exterior – Room 19
376	W	E facing shot of front (east) wall exterior – Room 20
377	SW	NE facing shot of front (east) wall exterior- Room 21
378	NW	SE facing shot of south wall and SE corner exterior – Room 21



Photo no.	Direction	Description
379	NW	SE facing shot of south wall – Room 23
380	WNW	ESE facing shot of south wall exterior – Room 1
381	N	S facing shot of bay exterior – Room 1
382	SW	Detailed shot of basin – Room 5
383	NW	Detailed shot of drain in basin – Room 5
384	NW	Detailed shot of re-used chamfered block – Room 5
385	N	Detailed shot of earlier wall abutted to E and W – Room 4
386	N	Detailed shot of 17th Century blocked window/door – Room 20
387	E	Detailed shot of re-used coved/chamfered block – Room 5
388	E	Detailed shot of medieval wall cut through for corridor – Corridor 17
389	W	Detailed shot of medieval wall cut through for corridor – Corridor 17
390	N	GV looking from SE corner of house
391	NW	GV front of house
392	NW	GV of medieval core of house from SE
393	SW	GV of medieval core of house from SE
394	N	S facing section showing foundations of southern medieval wall
395	N	Phase 3 – S facing shot of southern wall (windowed) showing foundations
396	S	Garden brick wall showing rubble foundations
397	S	Ice house façade
398	SW	Ice house façade and brick body
399	SE	Ice house façade and brick body
400	S	Ice house interior showing the interior chamber
401	S	Floor of the inner chamber of the ice house
402	S	Vaulted chamber of the ice house
403	S	vaulted ceiling of the ice house
404	W	W side of the inner chamber of the ice house
405	E	E side of the inner chamber of the ice house
406	W	W side of the outer doorway of the ice house
407	E	E side of the outer doorway of the ice house
408	N	Façade of the ice house also showing the inner chamber
409	W	E side of the ice house
410	E	W side of the ice house
411	E	Detail of the W side of the ice house showing the separate door section

Photo no.	Direction	Description
412	SE	General shot of the ice house and associated structures
413	SE	General shot of the ice house and associated structures
414	SE	General shot of the ice house and associated structures
415	SE	General shot of the ice house and associated structures
416	SE	General shot of the ice house and associated structures
417	SE	General views of the Ice house
418	SE	General views of the Ice house
419	SW	General views of site
420	SW	General views of site
421	NE	General views of site
422	NE	General views of site
423	NE	General views of site
424	N	Head of ice house entrance showing drilled holes

Sample register

Sample no.	Context no.	Description
001	96	F/O circular feature
002	101	F/O ditch 108
003	102	F/O ditch 108
004	115	F/O ditch 108
005	116	F/O ditch 108
006	128	F/O linear ditch
007	130	F/O drain
008	119	F/O pit 120
009	121	F/O pit 120
010	123	F/O ditch 124
011	140	F/O drain 139
012	148	F/O ditch (east-west alignment)
013	133	F/O ditch (north-south alignment)

Drawing register

Drawing no.	Scale	Plan/Section	Description
001	1:50	Plan	Plan of house interior 1a
002	1:20	Section	S facing section of ditch 108
003	1:20	Section	E facing section of ditch 111
004	1:20	Section	N facing section of ditch 108
005	1:20	Section	N facing section of ditch 108 and 111
006	1:10	Plan	Plan of corridor T3 (south end)
007	1:10	Plan	Plan of corridor T1 and T2 (west end)
008	1:20	Plan	Slot on east exterior of building
009	1:10	Section	Elevation of brick vaulted alcove in Rm18
010	1:20	Section	E facing section of ditch 108
011	1:20	Section	E facing section of ditch 111



Appendix 4 – Finds catalogue

Room	Context	SF	Sample	Qty	Weight (g)	Material	Object	Description	Spot Date	Period
–	U/S	–	–	3	–	CBM	Delft Tile	small sherds, three landscape designs within circular borders, one plain white	L.17th	PM
–	U/S	–	–	1	854	CBM	Pan Tile	large corner sherd, glazed underside, some sooting	–	PM/Mod
–	U/S	–	–	1	1481	CBM	Pan Tile	very large sherd, near complete length	–	PM/Mod
–	U/S	–	–	1	–	Clay Pipe	Stem	–	–	PM/Mod
–	U/S	–	–	1	–	Glass	Bottle	green sherd	–	PM/Mod
–	U/S	–	–	1	–	Iron	Key	Large rotary key, solid shank, oval bow, symmetrical bit	–	–
–	U/S	–	–	1	–	Iron	Folding Knife	complete, but for missing handle scales	–	–
–	U/S	–	–	19	361	Pottery (Mod)	Various	Creamware large chamber pot/bowl. Willow teapot & plate, very finely made. Chinese porcelain plate. Redwares (black, brown and slip lined)	L.18th/19th	Mod
–	3	–	–	2	719	CBM	Pan Tile	large sherd, mortared on top	–	PM/Mod
6	3	–	–	2	35	Industrial Waste	Glass Waste	two dark lumps	–	PM/Mod
6	3	–	–	3	–	Iron	Nails	–	–	–
6	3	–	–	1	14	Pottery (Medi)	WG	joining sherds from same jug decorated with applied iron coloured pipes	13th/15th	Medi
18	3	–	–	6	998	CBM	Wash Basin	large sherds from a probably wash basin, transfer printed on interior with landscape design. In turned rim, sides sloping inwards towards open base. Flange on exterior with keyed underside, for fitting, sherd with perforation suggests overflow near top	19th	Mod
18	3	–	–	18	–	Glass	Bottle	Includes 4 bases and 2 rims from three-part mould bottles	1850/1900	Mod
–	4	1	–	1	54	Pottery (PM)	PMR	jar base	17th/L.18th	PM
–	4	–	–	1	22	Pottery (PM)	PMR	thumbled handle terminal	17th/L.18th	PM
13	18	–	–	–	127	Mortar	Sample	–	–	–
13	18	–	–	–	106	Mortar	Sample	–	–	–
15	50	–	–	–	643	Mortar	Sample	–	–	–
15	50	–	–	–	402	Mortar	Sample	–	–	–
6	56	–	–	–	439	Mortar	Sample	–	–	–
6	56	–	–	–	181	Mortar	Sample	–	–	–
3	73	–	–	–	515	Mortar	Sample	–	–	–
–	121	–	–	37	520	Pottery (Medi)	LMRW	jug sherds in very hard thin walled coarse sandy fabric, including riled jug rim, iron-coloured applied strips, grooved strap handle, includes large sherds and multiple sherds form same vessels	L.15th/E.16th	Medi
–	123	3	–	1	33	Pottery (PM)	PMR	cup/storage jar, small ointment pot, complete profile	17th/L.18th	PM
–	128	–	–	7	147	CBM	Brick	small sherds, soft orange fabric	–	PM/Mod

Room	Context	SF	Sample	Qty	Weight (g)	Material	Object	Description	Spot Date	Period
–	128	–	–	3	94	Pottery (PM)	PMR	two small sandy sherds, one thick walled jar sherd	16th–L.18th	PM
–	128	–	6	–	212	Mortar	Lumps			
–	128	–	6	8	77	CBM	Brick	small abraded pieces		PM/Mod
–	128	–	6	1	1	Pottery (PM)	PMR	fragment	16th/18th	PM
–	128	–	6	1	–	Glass	Window	fragment		PM/Mod
–	142	–	12	1	27	Mortar	Lump		–	–
–	148	–	–	15	–	Glass	Bottle	Includes near complete bottle malt bottle, base to shoulder profile of squat cylindrical bottle, a further 4 bases and one rim, probably from squat cylindrical. Bottles date c.1740-60, deposited c.1750-70?	1750/1770	PM/Mod
5	149	–	–	1	–	CBM	Delft Tile	large corner sherd, blue decoration, landscape design within circular border	L.17th/18th	PM
5	149	–	–	1	360	CBM	Pan Tile	corner sherd, black glazed underside	–	PM/Mod
5	149	–	–	1	–	Stone	Object	square sandstone block with hollow pecked out of one face, but for band across centre which has been left, possibly broken during manufacture?	–	–
19	151	–	–	10	–	CBM	Delft Tile	small sherds from at least six different tiles, all with blue painted landscape designs within circular borders, several with mortared backs	L.17th/18th	PM
19	151	–	–	1	–	Glass	Window	small sherd, laminating	–	PM/Mod
19	151	–	–	1	5	Pottery (PM)	PMO	storage jar rim	17th/L.18th	PM
–	154	–	–		482	Mortar	Sample		–	–
–	167	2	–	20	920	Pottery (PM)	PMR	mostly large joining sherds from same handled jar, olive green glaze inside and out	17th/L.18th	PM
5	168	–	–	1	18	Pottery (PM)	PMR	rim sherd from handled jar	16th	PM

Abbreviations: LMRW = Late-Medieval Redware; PMO = Post-Medieval Oxidised Ware; PMR = Post-Medieval Reduced Ware; WG = Scottish White Gritty Ware



Appendix 5 – Palaeoenvironmental tables

Context	Sample	Monocotyledon plant frags	Wood frags	WPR	CPR	Other materials	Charcoal		Material available for AMS	Comments
							Qty	Max size (cm)		
133	13	++++	++++		<i>Chenopodium</i> sp. ++, <i>Prunus domestica</i> +, <i>Corylus avellana</i> +, <i>Ranunculus sceleratus</i> +, <i>Cirsium</i> sp. ++, <i>Ranunculus</i> sp. ++, <i>Carex</i> sp. ++, <i>Betula</i> sp. (bud) +, <i>Rubus fruticosus</i> ++, <i>Urtica dioica</i> +, <i>Potentilla</i> sp. +, <i>Persicaria lapathifolia</i> +, cf. <i>Ficus carica</i> +, <i>Sonchus</i> sp. +, <i>Stellaria media</i> +, <i>Prunus avium</i> ++, <i>Prunus spinosa</i> +, Moss fragments +	Insect fragments +, Land molluscs +, Faunal bone (small mammal) +, Marine shell ++, Cinder +	–	–	Fruit stones ++, charred cereal grain +	Marine shell includes cockle and mussel shell
107	3	++++	+		<i>Prunus domestica</i> +, <i>Ranunculus</i> sp. +, <i>Sambucus nigra</i> +, <i>Chenopodium</i> sp. +, <i>Prunus spinosa</i> +, <i>Ranunculus sceleratus</i> +, <i>Persicaria lapathifolia</i> +, <i>Galeopsis</i> sp. +, <i>Ficus carica</i> +, <i>Cirsium</i> sp. +, <i>Stellaria media</i> +, Moss fragments +	Insect fragments +, Insect pupae +, Marine shell ++, Fish bone +, Cinder +, Land snails +, Coal fragments ++	–	–	Fruit stones +	Marine shell includes mussel shell
128	6	++++	++++		<i>Chenopodium</i> sp. +, <i>Carex</i> sp. ++, <i>Heracleum sphondylium</i> +, bud scales indet. +, <i>Betula</i> sp. (buds) +, <i>Ficus carica</i> +, <i>Ranunculus sceleratus</i> +, <i>Prunus domestica</i> +, <i>Cirsium</i> sp. +, <i>Corylus avellana</i> +, <i>Rumex</i> sp. +, <i>Aptaceae</i> sp. +, <i>Stellaria media</i> +, <i>Rubus fruticosus</i> +, <i>Urtica dioica</i> ++, Moss fragments +	Insect fragments ++, Marine shell +, Fish bone +, Fly larvae +	–	–	Fruit stones +, charred cereal grain +	Marine shell includes oyster and mussel shell
116	5	++++	++++		<i>Urtica dioica</i> ++, <i>Crataegus</i> sp. +, <i>Chenopodium</i> sp. +, <i>Cirsium</i> sp. ++, <i>Betula</i> sp. +, <i>Urtica urens</i> +, <i>Ranunculus</i> sp. ++, <i>Galeopsis</i> sp. +, <i>Sonchus</i> sp. +, <i>Polygonum aviculare</i> +, <i>Ficus carica</i> +, <i>Corylus avellana</i> +, <i>Prunus avium</i> +, <i>Rumex</i> sp. +, <i>Eleocharis</i> sp. +, Moss fragments +	Insect fragments +, Marine shell ++, Cinder +, Fish bone +, Coal fragments ++	–	–	Fruit stones +, nutshell +	Marine shell includes mussel shell
148	12	++++	++++		<i>Sambucus nigra</i> +, <i>Chenopodium</i> sp. +, Bud indet. +, <i>Ranunculus</i> sp. +, <i>Heracleum sphondylium</i> +, <i>Crataegus</i> sp. (bud) +, cf. <i>Quercus</i> sp. +, <i>Rumex</i> sp. +, cf. <i>Sorbus</i> sp. +, <i>Ranunculus sceleratus</i> ++, <i>Carex</i> sp. +, <i>Urtica dioica</i> +, Moss fragments +	Land molluscs +, Insect fragments +, Insect pupae +, Cinder +, Coal fragments +	–	–	Buds +, fruits +	–

Key: WPR = Waterlogged Plant Remains, CPR = Charred Plant Remains, + = rare (1–5), ++ = occasional (6–15), +++ = common (16–50) and ++++ = abundant (>50)

NB charcoal over 1cm is suitable for identification and AMS dating

Appendix 6 – Written Scheme of Investigation (WSI)

LAND TO THE NORTHWEST OF GRANGEMOUTH TECHNOLOGY
PARK, EARLS ROAD, GRANGEMOUTH

Written Scheme of Investigation for Archaeological Works

for CGMS

P/11/0511/FUL

November 2011

65



1. INTRODUCTION

1.1 An application (P/11/0511/FUL), by Bericote (Ryton) Ltd (the client), for Class 6 development comprising a distribution warehouse, parking, SUDS, access roads, internal access road, landscape works and associated facilities at land to the northwest of Grangemouth Technology Park, Earls Road, Grangemouth, has been submitted to Falkirk Council as local planning authority (the LPA).

1.2 The LPA has decided to grant planning consent subject to conditions, including the following (no. 4):

There shall be no works on site until such times as a written scheme of archaeological investigation has been submitted to, and approved in writing by, the planning authority and that the scheme of archaeological investigation has been demonstrated to have been completed also with the written approval of the Planning Authority. For the avoidance of doubt the scheme of archaeological investigation should be carried out in respect of the existing standing structures at the site, and the site of the former Kerse House. The developer shall allow access at all reasonable times to any archaeologist/archaeological organisation approved by this planning authority and shall allow them to observe work in progress and record items of interest and finds. Notification of the commencement date, site contact person and name of the archaeologist/archaeological organisation retained by the developer shall be submitted in writing not less than 14 days before development commences.

1.3 Bericote (Ryton) Ltd has commissioned CgMs Consulting to agree a programme of archaeological work with the LPA, and to encapsulate that programme within a written scheme of investigation (WSI – this document). This document has been produced by Headland Archaeology, following detailed discussions with CgMs Consulting and it will be submitted for agreement in line with this condition.

1.4 The programme of work will involve several elements: documentary research, historic structure recording and area excavation.

1.5 This WSI takes into account relevant IfA Standards and Guidance.

2. DESCRIPTION OF THE SITE

2.1 The site is located to the west of Grangemouth (NGR NS 915 816; see attached figure). It is currently occupied by a number of buildings and

park areas. These include some stone-built historic structures and modern buildings. Some areas are covered with mature trees.

2.2 The site lies around 5m OD and is underlain by inter-tidal deposits (clay – Hydrock Consultants SI Records, Sept 2011).

2.3 Geological deposits are overlain by ‘made ground’ containing a variety of material, some of it likely to be modern in origin (brick, blaes); the depth of this varies from 0.2m in the north of site to 0.9m in the south. A localised area of 2.6m of made ground was noted in one test pit (HTP 07).

3. ARCHAEOLOGICAL BACKGROUND

3.1 The site contains structural remains relating to the post-medieval Kerse House, including a walled garden and Ice House. It has potential to contain remains relating to a medieval predecessor to Kerse House (Carss Castle).

3.2 Kerse House appears to have been built in the 17th century. With much alteration and extension this structure was mapped by the Ordnance Survey in 1865 (footprint shown on the attached plan). Photographs taken prior to demolition (in 1957) show a central structure, partially on an artificial terrace, and with large 19th century extensions on either side. The walled garden is recorded as constructed in 1777. The icehouse appears to have been mapped in 1865.

3.3 A map made by Timothy Pont toward the end of the 16th century. Depicts a ‘Carss Castle’ in the general vicinity of site, and this is presumed to relate to a medieval predecessor of Kerse House. Its precise location is not known. The SI logs (Hydrock Consultants SI Report, Sept 2011) show that the site is underlain by intertidal clays beneath ‘made ground’. It is considered likely that much of the site is reclaimed ‘Carse’ (intertidal marshland).

4. OBJECTIVES

4.1 In general, the purpose of the programme of work is to mitigate any adverse impacts the development will have on the archaeological resource.

4.2 More specific aims of the programme include:

- Creating an appropriate archive record of any historically significant standing structures prior to demolition.

- Controlled archaeological excavation and recording of an area centred on the footprint of Kerse House.

4.3 The resulting archive will be organised and deposited in the National Monuments Record of Scotland and a copy with the Falkirk Archives Service to facilitate access for future research and interpretation for public benefit.

5. SCHEDULE

5.1 Subject to receipt of the necessary approval, the programme of archaeological works will commence in November 2011.

6. PROJECT TEAM

6.1 The project will be managed by Simon Mortimer of CgMs Consulting. Headland Archaeology will carry out the necessary fieldwork and reporting and Simon Stronach will co-ordinate the project for Headland Archaeology. The field team will be supervised by Alastair Robertson (Project Officer). *Curricula vitae* of key personnel can be supplied on request. The project team will familiarise themselves with the background to the site and will be aware of the project's aims and methodologies.

6.2 Specialist artefact analyses will be managed by Julie Franklin who is Headland's Finds Manager. Julie will undertake finds assessment within her areas of competence (medieval and post-medieval ceramics, metalwork, glassware, clay pipes, ceramic building material and other small finds) and assisted by Julie Lochrie (lithics, prehistoric pottery). Further consultation will be sub-contracted to recognised period specialists if appropriate.

6.3 Environmental analysis will be managed by Dr Scott Timpany. Headland has in-house specialists who can undertake analysis of pollen, plant macrofossils, insect remains and thin sections. Faunal remains will be assessed by Claudia Suarez and human remains by Carmelita Troy (although it is not anticipated that the latter will be removed during an evaluation project).

6.4 Headland Archaeology (UK) Ltd is a Registered Organisation and abides by the Codes of Conduct and Approved Practice and Standards of the Institute for Archaeologists. The company has all the necessary technical and personnel resources for the satisfactory completion of the fieldwork.

7. INSURANCE & COPYRIGHT

7.1 Headland Archaeology (UK) Ltd is fully indemnified and all necessary insurances can be presented on request.

7.2 Copyright will be retained by Headland Archaeology (UK) Ltd. Headland will licence the client, CGMS, curator and other bodies as necessary for use in matters relating to the project and for use of the project archive by NMRS. This licence will also extend to non-commercial use.

8. HEALTH & SAFETY

8.1 All of Headland's work is undertaken in accordance with current H&S legislation. A risk assessment and method statement will be prepared prior to the commencement of fieldwork. All staff will wear appropriate PPE and this will include high-visibility clothing, hard hats and safety footwear. Suitable site welfare facilities will be provided.

9. ACCESS & SERVICES

9.1 This WSI is submitted on the understanding that vegetation removal and machine clearance will be organised directly by the client. There are no services within the proposed excavation area.

10. STRATEGY

10.1 A desk-based assessment will be undertaken prior to any fieldwork. It will recover information from all existing archaeological databases, published historic maps, aerial photographs where relevant, and readily available published sources. These basic sources will be supplemented by additional data gathering to obtain copies of relevant plans, elevations and photographs relating to Kerse House in the National Archives of Scotland and RCHAMS. The results will be used to inform fieldwork, and will be included in reports where appropriate.

10.2 Historic structure recording will be undertaken on all the former elements of the gardens associates with Kerse House (ice house, walled garden and other garden walls). The ice house will be cleared of vegetation under archaeological supervision prior to recording.

10.3 The survey will be in line with the requirements of a Level 2 record (RCHME 1996) the survey will include:



- Ground plan as existing (to scale and using a base plan supplied by client). To include the form and location of structural features of historic significance (eg blocked doors & windows, masonry joints, changes in level). A measured interior floor plan of the ice house will be created.
- General photographic view or views of all visible structural faces.
- Photographs that capture the overall appearance of features.
- Detailed photographic coverage of structural features of historic significance.
- The ice-house façade, currently obscured by a brick 'blast-wall', will be recorded photographically following removal of the brick wall.

10.4 The demolition of the ice house will be archaeologically monitored and any pertinent architectural details recorded by photograph and written record (including measured location).

10.5 Any significant architectural structural materials (for example, date-stones) noted during the recording or demolition works will be retained.

10.6 An area centered on the former location of Kerse House (see attached plan) will be cleared of vegetation to current ground level without archaeological supervision.

10.7 This cleared area (c.1 ha or 10,000m²) will then be subject to machine clearance of modern deposits/topsoil under archaeological supervision from over, around and within surviving structural elements of Kerse House.

10.8 The cleared area will be subject to archaeological recording. The scope will be determined following the site strip following consultation with the Falkirk Council Archaeologist.

11. METHOD

Area excavation

11.1 The excavation area will be cleared using a mechanical excavator equipped with a toothless ditching bucket except where compact modern deposits require use of a toothed bucket. The area will be excavated by machine under direct archaeological supervision in controlled spits to

remove topsoil and deposits of modern make-up. Machine excavation will terminate at the top of the natural geology (intertidal clays) or the first significant archaeological horizon, whichever is encountered first.

11.2 Machines and any dumpers will not track over stripped areas. Following machine excavation, the area will be cleaned using appropriate hand tools where required.

11.3 In tandem with machine excavation a representative sample of identified features will be investigated and recorded; sufficient to characterise the nature of the exposed archaeology. The results will be used to determine a strategy for full excavation and recording. This strategy will be agreed on completion of machine clearance following consultation with the Falkirk Council Archaeologist.

Recording

11.4 Historic Structure Recording will follow IfA Standards and Guidance for the archaeological investigation and recording of standing buildings or structures (IfA 2008). Recording will be undertaken on pro forma record sheets. 35mm colour transparencies and digital images will be taken; a graduated metric scale will be clearly visible and a register kept.

11.5 Excavation area recording will follow IfA Standards and Guidance (IfA 2008). All contexts, small finds and environmental samples will be given unique numbers. All recording will be undertaken on pro forma record cards. In the event that stratified deposits are encountered, a 'Harris' matrix will be compiled. 35mm colour transparencies and prints will be taken; a graduated metric scale will be clearly visible. Digital images may be taken for illustrative purposes.

11.6 A site plan including all identified features, areas of excavation and other pertinent information will be recorded digitally. The site plan will be accurately linked to the National Grid and heights to OD. Where appropriate, sections and stratigraphic sequences will be recorded digitally. Digital recording will be undertaken using a differential GPS or an EDM linked to a hand-held computer in order to allow data checking while in the field. If additional detailed recording of features and sections is required (ie. where their complexity means that archaeological information could be lost if recorded digitally) then plans and sections will be hand-drawn on permatrace at an appropriate scale (normally 1:20 or 1:50 for plans

and 1:10 for sections).

- 11.7 Headland maintains a digitally-based library of guidance documents that includes information on excavation and recording. Relevant parts can be forwarded on request.

Samples and artefacts

- 11.8 Finds will be routinely recorded by context and recorded 3-dimensionally where appropriate (*ie* where their position within a context can provide further significant information or the find is of particular significance). Any artefacts retrieved during the evaluation will be cleaned using appropriate techniques and packaged and stored in accordance with First Aid for Finds (Watkinson & Neal 1998). All artefacts recovered during the evaluation will be cleaned, marked and catalogued. Headland's in-house finds specialists will be available to provide advice remotely or on site if necessary. Conservation will be undertaken by Scottish Conservation Studio (for metalwork) and AOC Ltd (for organics).
- 11.9 Deposits identified as archaeologically significant will be sampled for environmental material and other finds (*eg* bone, pottery *etc*). Bulk samples will be taken from selected deposits for wet sieving and floatation in order to recover any environmental material. A bulk sample will typically be 40 litres. However, where large deposits are encountered more than one bulk sample may be taken. Similarly, small deposits such as the fill of postholes may contain less than 10 litres of sediment and will be fully sampled. A representative proportion of samples taken on site will be processed and assessed with the results and recommendations for any further work included in the evaluation report.
- 11.10 Where waterlogged deposits are encountered appropriate sampling techniques will be employed so as to maximise the environmental information gained from such deposits. This may include the taking of monolith or core samples for pollen and non-pollen palynomorphs (*eg* testates and fungal spores) and large specialist samples for plant macrofossil, wood (including waterlogged wood) and insect analyses.
- 11.11 Headland's Environmental Specialist, Dr Scott Timpany, will liaise with site staff to ensure an appropriate strategy for the recovery and sampling of environmental remains develops in tandem with fieldwork results.

12. MONITORING

- 12.1 Access to the site will be afforded to the LPA archaeological advisor for monitoring purposes.

13. REPORTING AND ARCHIVE

- 13.1 An archive report describing the background, method and results of the historic structure survey, with accompanying analysis of the structures' current form, development and nature will be produced and included in the overall site report. This will include: a scale plan of the whole site showing the location of each of the recorded buildings/structures. It will also include a broad selection of photographs.
- 13.2 On completion of the excavation Headland will produce an ordered site archive and an archive report that includes all relevant specialist assessments of excavated material. If it is determined that the significance of the results merits further post-excavation analysis and production of a publication report a Project Design for this work will accompany the archive report. The Project Design will be submitted to the Falkirk Council Archaeologist for agreement of a programme of post-excavation analysis and production of a report fit for publication in a suitable journal.
- 13.3 An online OASIS report will be completed and will be accompanied by a pdf report and boundary file. A summary report will be submitted for inclusion in Discovery and Excavation Scotland.
- 13.4 Final report contents and format will be in line with IfA standards & guidance. Copies of the report will be sent to the client for onward transmission to the local planning authority; copies (paper & electronic) will also be submitted to the HER. Draft reports will be submitted within 6 weeks of the completion of fieldwork.
- 13.5 The project archive will be compiled in accordance with the guidelines published by the Institute for Archaeologists on behalf of the Archaeological Archives Forum (July 2007). The documentary and digital archive will be submitted to RCAHMS and a copy with the Falkirk Archives Service within six months of completion of all work on this project. All finds will be reported to the Scottish Archaeological Finds Allocation Panel, which will determine the ultimate destination of the material archive. Once this is determined, and within three months, arrangements will be made with the specified museum for transfer of material and title.



14. HUMAN REMAINS

- 14.1 All finds of human remains will be reported to the client, curator and local police. If human remains are to be excavated all excavation and treatment of cremated and inhumed human remains will be undertaken in cognisance of IfA Technical Paper Number 13 (Brickley & McKinley & 2004) and relevant Historic Scotland policy on the treatment of human remains.

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- Watkinson D & Neal V *First aid for finds*, (Third Edition 1998).

15.1 Appendix 7 – Archive form for digital metadata

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Name of project, Originator Project Code, Organisation/individual depositing the material, Date form compiled		Earls Gate Park, Grangemouth - Desk Based Assessment, Archaeological Excavation & Historic Building Recording	EGPG/001	Headland Archaeology (UK) Ltd (13 JaneStreet, Edinburgh EH6 5HE)		
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File name	File extension	Path	Software app. used	Software version	Description of file's content	Linked file(s) see section 2.1.3.1 and 2.1.3.3 of
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