

SCARBOROUGH ARCHAEOLOGICAL AND
HISTORICAL SOCIETY

WATCHING BRIEF REPORT



NYCC HER	
SNY	11330
ENY	3273
CNY	5237
Parish	4899
Rec'd	11/2/06

WOOD END
THE CRESCENT
SCARBOROUGH



The base of the ice house and tunnel un-covered
during the excavation work

SITE **WOOD END , SCARBOROUGH**

NATIONAL GRID REF **TA 0410 8815**

SITE CODE **WE06**

MUSEUMS & GALLERY **SCAR.2006.708**
SERVICE ACCESSION NO.

DATE **July-October 2006**

MONITORING CARRIED OUT BY **S M P Wood**

REPORT BY **S M P Wood**

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Introduction

This report sets out the results of a watching brief carried out by Scarborough Archaeological and Historical Society (SAHS) at a development to form a Creative Industries Centre at Wood End Museum, The Crescent, Scarborough. The watching brief was carried out in connection with phase 1 of the development, which consisted of the conversion of Wood End including the demolition of the rear part of the conservatory/vivarium and the erection of a new extension to the rear. The extension is three-storeys, including a basement which is dug into the ground at site level, but partially expressed as a retaining wall on the Valley Gardens elevation.

The watching brief was carried out in response to conditions 12 imposed on planning decision 06/00065/RG3 and 13 on Listed Building consent 06/00067/LB which stated:-

No development shall take place within the application area until the applicant has secured the implementation of a programme of archaeological work in

accordance with a written scheme of investigation which has been submitted by the applicant and approved by the Planning Authority.

A standard Written Statement of Investigation provided by North Yorkshire County Council was used.

Aims and Objectives

The aim of the watching brief was to record any archaeological remains affected by the development and to provide an historical understanding of the site before foundation works for the new development commenced.

Methodology

Archaeology was considered to lie in the stratigraphy between the natural clay surface and the current surface, or cut into the natural clay. The current Wood End building has been recorded through a Conservation Management Plan and has cellars cut into the natural slope. The view was taken that this earlier build will have destroyed any archaeology in this area. Although as a precaution monitoring of some of the lifting of the cellar floor took place.

Archaeological monitoring took place for all of the area north of the vivarium in the area of the new build extension ie in the original service yard.

The archaeological monitoring was carried out in accordance with a standard Written Scheme of Investigation, which in brief will included:-

Monitoring the machine stripping of current surfaces at the rear of the building prior to the excavation of the boulder clay for the formation of cellars down to a point where archaeology or natural clay was encountered

Monitoring the removal of features such as walls where they would have an impact upon below ground archaeology

Recording of archaeological features was carried out using standard techniques as follows:-

Drawn plans and sections where appropriate to a scale of 1:20

Written site notes

Stratigraphic recording using the Society's pro-forma context recording sheets which comply with standard requirements.

Colour print photography indexed to a data base in the site archive

Evidence collected:-

All small finds which provided dating and archaeological evidence such as pottery, bone and other finds were collected, recorded contextually, marked and subject to preliminary analysis by SAHS's own team and entered on a database in the site archive. The database is set out at Annex 9.

All finds will be deposited with the Scarborough Museums and Gallery Service along with the archaeological site archive in accordance with the Society's formal practice established over 60 years – Accession number SCAR.2006.708.

Context numbers. The Society's system of context numbering consists of two letters representing the site name, followed by two digits representing the date followed by a four digit number (preceded by F for a feature). For example WE 06 F1004 was a stone cross wall and WE 06 1005 the loose clay fill behind it. For simplicity in this report WE 06 is omitted.

The context numbering in the rear service yard commences at 1000 and for monitoring in the cellar it commences at 2000. Annex 1 is a list of contexts.

Archaeological and Historical Background

The site lies to the south west of the main core of settlement associated with the medieval town of Scarborough, nevertheless it was considered that there was potential for the development to encounter features or finds associated with the use of the site prior to the construction of the museum and the development of this area in the 19th Century. Any such evidence will contribute to our understanding of the history of land-use and settlement in this area of Scarborough.

There have been no previous archaeological investigations on the site nor is there any record of finds being made during the construction of Wood End and its ancillary buildings.

The earliest map of Scarborough (as opposed to the military view of 1538) is John Cossins map of 1725 but as with most of the other 18th and early 19th century maps of the town it does not extend as far out as the site.

The only 18th century exception and the first map to actually show the site is the manuscript map produced by John Foord in 1782/83 (Annex 2) – this shows the site as open land with no structures.

John Woods map of 1828 (Annex 3) is the first large scale one and this shows the site as part of two large fields apparently crossed by rigg and furrow but containing no obvious structures or archaeological features. This was not long before William and John Barry and John Uppleby acquired the two large fields from John Tindall, a Scarborough ship-builder and employed the York Architects Richard Hey Sharp and Samuel Sharp to design and lay out the area we now know as The Crescent. Building started in 1833 with the segment of terrace east of York Place now called Belvoir Terrace. The building of Wood End was started in 1835 (we know this from a pencilled inscription found under a floorboard during building works in 1948). It is a five bay, plain classical building with some Grecian details. It is shown on Tyson's map of 1842 but in no detail.

The first map to show Wood End in any detail is the 1852 Ordnance Survey plan of Scarborough at a scale of 1:1056 (5' to a mile) (Annex 4). This shows what is referred to in the Conservation Plan as the rear service yard occupying the space between what was to become the vivarium and the north boundary wall to the site (the retaining wall to 15 The Crescent). The service yard was bounded to the east and west by walls which as part of this monitoring were given the context number F1003. The east wall already had its characteristic 'dog leg' which existed to the present day. The garden was occupied by a number of small structures or dividing walls – the map is not clear on this point – but critically in the south west corner an Ice House is

shown. The above ground dimensions of this from the map were approximately 7metres by 4.5metres

By the time of the publication of the 1892 Ordnance Survey plan at a scale of 1:500 (Annex 5) the ice house had gone. The garden had been divided into two with a cross wall to the south of one of the structures referred to above. The southern part of the garden (about a third) was presumably a kitchen garden judging by the layout on the map with a passage to the entrance gate in the west wall approached by steps. The new internal walls enclosed an area occupied by green houses (four) sheds and a tank.

This form was still extant on the 1912 Ordnance Survey plan at a scale of 1:2500 although one greenhouse had gone, but by the time of the 1929 plan at the same scale the sheds, greenhouses and dividing walls had been swept away to be replaced by one large lean to greenhouse sited along the north boundary wall a situation which continued on the 1939, 1:2500 scale map (Annex 6) and the 1965, 1:1250 scale map and indeed until the greenhouse was demolished in 1994 (Annex 7).

Monitoring

Archaeological monitoring was carried out in two phases Phase 1 was in the rear garden/service yard, the existing cellars and a small area where the site huts were built. Phase 2 covered the rear garden/service yard only. The locations of the main finds are shown on plan 1 and photographs referred to in the text are to be found in Annex 10. Reference is also made to the photographic archive where appropriate (eg Film IV 24) the full database of all photographs taken being set out in Annex 8.

Phase 1 Monitoring

Rear garden/service yard

Removal of the east garden wall F1003

The ground level to the east of the north/south garden wall was up to 2 metres higher than the level within the service garden or yard. Hand removal of the wall revealed this differential in section allowing it to be examined and its battering back to be monitored. The section was given the context number 1000 The monitoring of the demolition of this wall F1003 showed an extensive root system consistent with a deep fill of garden soil – Photograph 1 see also Films II 25 & 26., II 27 and VI 20a.

The conclusion was made that this area had been filled with good garden soil for a planting area. Finds in this soil were late 19th century and 20th century blue and white Staffordshire pottery, Copeland Spode, some early Leeds ware, Sponge ware, clay pipes, and kitchen ware. These finds were spread over the whole area of 1001 across the garden.

Initial site stripping

The decision was taken to carry out an initial site strip to ascertain whether the ice house referred to above existed as a below ground structure and if so its extent and level preservation. This was followed by stripping of top soil prior to the installation of the stone piling raft.

To the western area 1001 the finds included 19th century salt glazed kitchen ware with blue and white willow pattern and red glazed pancheons, glass bottles and a few

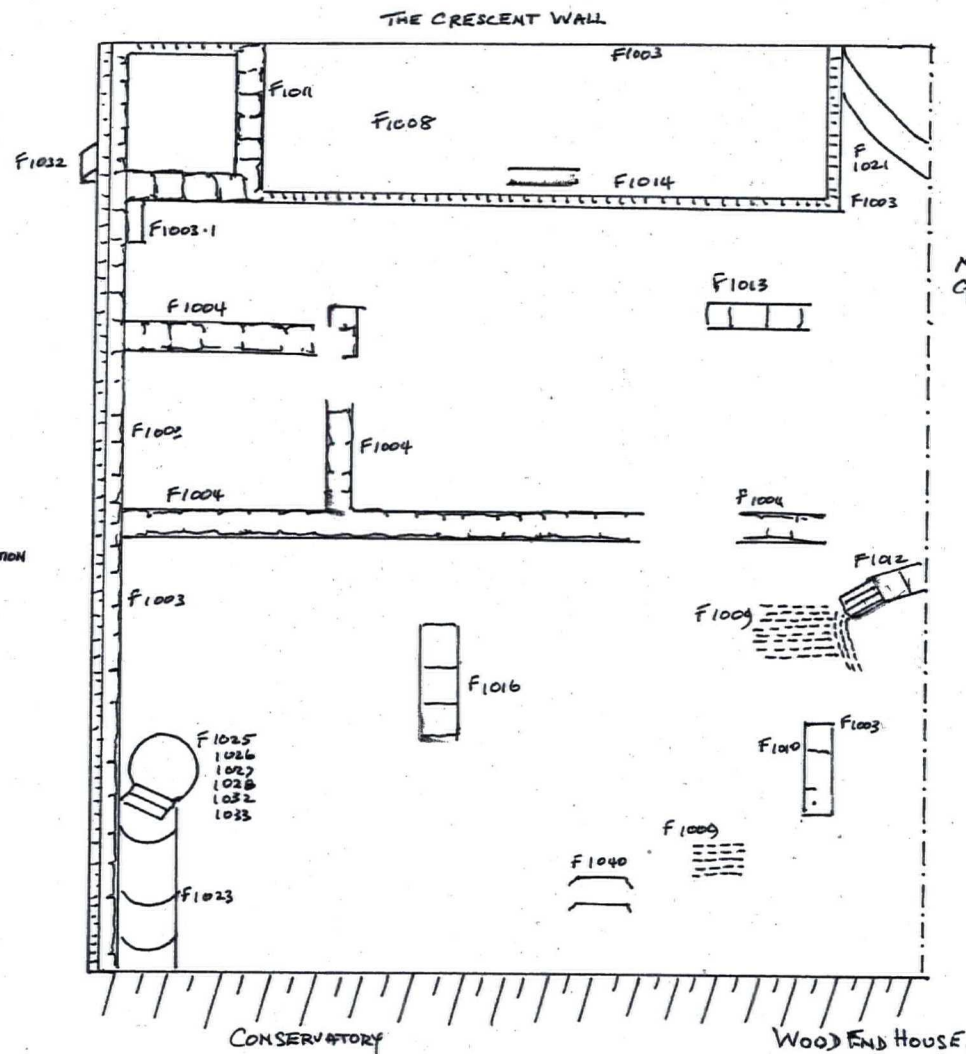
KEY

- F 1003 GARDEN WALLS
- F 1003.1 STONE ENTRANCE
- F 1004 STONE WALL
- F 1009 COBBLED YARD
- F 1010 BRICK WALL
- F 1011 STONE WALL
- F 1012 CULVERT
- F 1013 WALL
- F 1014 GREENHOUSE WALLS
- F 1015 STONE STEP
- F 1016 STONE TOP OF CHANNEL
- F 1021 DRAIN CULVERT
- F 1022 BRICK BUTTRESS
- F 1023 BRICK ARCHED TUNNEL
- F 1025 BRICK COLLAR
- F 1026 STONE FLOOR
- F 1027 STONE COLLAR
- F 1028 CIRCULAR SUMP
- F 1032 STONE IN PASSAGE
- F 1035 RED BRICK BASE
- F 1040 BRICK PLINTH

0 5
METRES



PLANTATION
HILL
ROAD.



DRAWN BY SUSAN M. & WOOD-
NOVEMBER 2006.

fragments of Chinese porcelain and 18th century delft ware. All of these would conform to the period of habitation in the house.

The reveal of the garden area 1001 was a rich garden soil, coarsely sieved to a depth of half a metre. Below this 1002 was a coarser sandy/clay subsoil, with inclusions of brick, charcoal and some pottery.

F1004, a heavily constructed stone wall, ran across the site from west to east - Photograph 2 - also see Film IV 23. This is probably from the first build of 1835. A sondage - Film IV 24, was cut at the southern side of this wall. It was found to be sitting on a heavy orangey clay but with brick particles, stones and pebbles which were thought to be site debris from the building of the house. There were some small pieces of bone, chalk and charcoal. On further excavation from the west the wall had a gusset of red bricks which were contemporary with the wall F1003 ie mid 19th century, - Film V 32. The clay at the bottom was very heavy and dense in consistency and natural. For 7 metres from the west wall, the wall F1004 consisted of three courses in height 800mm high then it dropped to two courses. The average size of the blocks was 500x300mm, roughly hewn and two stones wide. See Photograph 3 and film XVIII 35 for the cleaned face of this wall, showing the clay base and the coarse pinky, red base of brick dust over black clay on which some of the wall was built.

Adjacent to the brick wall F1003, Plantation Hill, the large blocks of a stone wall F1004 continued the whole length of the Plantation Hill side. This structure was constructed to form a re-enforced boundary wall, to cope with the pressure and build up of the garden fill inside the service area.

To the northern end of Plantation Hill wall is a large buttress which was built in 1891 (G. Oliver of Carlisle architects) the conclusion being that this boundary wall was giving problems even then. The structure has a stepped out brick base set into rough concrete on a very hefty orange brown dense clay bottom - Photograph 4. F1022. The piling residue along the eastern and northern boundaries were 10.5 metres deep and revealed grey brown natural clay with no inclusions. The change occurred 3.5 metres down (Film X 12).

In the north west corner 3 metres south of Crescent wall F1003.1 were two cut stone slabs which had formed a hand gate entrance from Plantation Hill - Film IV 35. In this north west corner of the site a square footprint of stone walls was revealed. F1011. Film VII 28. This could have been the foundations of a small building from the first build in 1835 ie a garden structure. The floor showed garden soil over natural clay and finds included some fine glass fragments and clay pipe stems.

On the eastern boundary a culvert drain was found with a heavy tooled cut stone covered top F1012 - Photograph 5 and Film VIII 11a, 13a which led to the Museum Gardens. Adjacent to this was a 19th century stone cobbled yard area F1009 - Photograph 6. A curved cobbled drainage channel led into the drain culvert. This was obviously a yard area and the size of the culvert would accommodate a large amount of surface water. F1012. Film VIII 13a.

A sondage was dug into the cobbled area and revealed a sandy gravel loosely compacted, a bed for the cut stone cobbles to rest into 1017. The next layer down was sandy, crushed stone 1018, and 1019 a pink dense sticky clay, acting as a water repellent base. This pink clay continued across the whole of the yard area to the south and east of the main gateway entrance - see Film IX 16, 17, 18 & 29. Film VII, 19 shows the footprint of the main entrance stones, with an iron gate post base still in

situ. F1016 is the stone covered central heating duct which leads out in a northerly direction, halfway along the front of the conservatory. This heated all of the greenhouses in the garden - Film VII 11, 15. The only remains of these footprints were found in the northern area of site with brick walls and red tiled floors. F1008. These were sitting directly onto brown clay.

In the north eastern corner of site another culvert drain was found. This lead directly underneath the eastern garden wall F1003 and the Crescent wall F1003 - Film XI 1a, 8a. On examination of the northern side it was found to bend to the Plantation Hill side, and must have been a drain for the yard area of the Crescent, the water draining away under Museum Gardens.

Existing cellars

Two trial pits were carried out in the cellar

Trial pit 1 was located in the extreme north west corner. Removal of the 19th century cellar floor 2000 revealed a shallow soily loam 2003 overlying a clay layer 2004 containing brick and mortar fragments interpreted as the natural clay contaminated during the building of the house

Trial pit 2 revealed a 19th century well F2001 its fill 2002 being consistent with its being backfilled in the late 19th century - Films III 19a and XV 28.

Outside the site

A brick and cement mortar structure approximately 1 metre long was found out of site area on the west side of Plantation Hill road, underneath the site of the building works cabin. The bricks are identical in colour and form to the bricks which form the north conservatory wall, Film X11 6a. ie mid to late 19th century. This may possibly have been a structure relating to the building of Valley Bridge.

Phase 2 Monitoring

Excavation following installation of piling mat

The demolition of the Plantation Hill side outer brick wall and stone wall F1003, F1004, revealed in the southern corner the top of a brick tunnel. This was built out from the cellar wall, F1023 - Photograph 7 and Film XIII 9. This was cleaned to reveal a complete tunnel 4.5 metres in length. The southern end corresponded to the inside cellar brick wall - Photograph 8 also Film XII 27a. and showed the bricked up doorway opening, leading into the tunnel.

A circular footprint of shingle and pebble 1024 proved to be the upper part of the fill above F1025. F1026 was the stone threshold which led from the tunnel to the circular feature which proved to be the base of the ice house. F1028 revealed the circular sump of the ice house, the only remaining in situ feature left intact. - Photographs 9, 10 and 11 - Films XIX 6 & 37, XV 2, 11 & 25; F1027, 1032, 1035. The main features were a circular brick collar above a cut stone collar. These were in filled with oval natural cobbles set in a gravel, pebble mix over large heavy natural rocks which sat on a level layer of bricks bedded into a clay base.

The inside of the tunnel was empty with a black soil fill on the floor, under which was a rough random stone, cobble and brick floor. the walls were stone at the base and the arch was brick F1023 - Photograph 12 and Film XV 21.

The remains of this ice house were representative of the importance of the Wood End building in the 19thC., as only the rich could afford this luxury. The whole of this structure had been buried under a deep layer of clay - Film XIX 24, swathes of black clay - Film XV 23 and 34 interspersed with a large gritty pink, maroon layer of brick particles Film XX23a, 1039. Film XXI 19 shows the fill of the site at the eastern section against the underneath of F1004 Film XVIII 35. showing the red brick particles which a section of the wall F1004 was built off and the clay beneath. Film XVIII shows an in depth footprint of the wall F1004. F1040 could have been the remaining base of brick blocks which may have formed the entrance to the conservatory at one time.

The northern part of the site above the West East dividing wall F1004 was built on a natural clay base with garden soil added to form a rich depth for planting. At a later date when the usable service buildings had fallen into disuse, greenhouses were needed. There were many stages of re vamping in the late 19thC and early 20thC. The southern part of the site had various layers of dumped and fill material including clay and garden soil, due to the building of the house, conservatory and the ice house.

The popularity and demise of the ice house – the Wood End ice house in the wider context

In England the earliest recording of an ice house being used and built was in 1660 in St James Park London. This new way of preserving food had been brought into the country from the continent at the time of the Restoration.

In 1734 several cart loads of ice 3inches thick were carried from a frozen canal in St James Park to the new ice house in the Upper Park.

“ the ice house forms an excellent larder for the preservation of every kind of food liable to be injured by heat in summer..... the use of ice in summer is a great luxury.” wrote J. B. Papworth in 1819. In 1818 he writes that the number of ice houses were few. In London a small number of noblemen had private facilities. The only commercial usage was for confectioners. In 1818 Papworth designed an ice house to be a decorative feature in estate grounds and his plans were the basis of most 19th century ice houses although most were then hidden out of sight.

In 1846 Joseph Paxton described the building of his new ice house at Chatsworth House which took days to fill through an aperture in the top. Pickaxes were used to break up the mass of ice and transport it to the kitchen.

The first cargo of ice arrived in Britain from Norway in 1822 and by the end of the 19th century there were dealers in ice, making it a successful commercial business. By 1860 most of our ice came from this source. This was mainly imported to the east coast, to ports such as Yarmouth, Lowestoft and Scarborough.

The demise of the ice house came about in the early 20th century when gas and later electric refrigeration superseded the cumbersome storage system and small chest shaped refrigerators were born.

In 1808 Jane Austin ate ice on a visit to the Marquess of Exeter. As did Charles Grenville when he dined at Burghley House.

The ice house at Wood End is recorded on the 1852 Ordnance Survey map and is concordant with the status and social standing of George Knowles, the eminent 19th

century structural engineer and architect who moved to live in Wood End about 1836 and stayed until his death in 1856. Knowles may possibly have designed and built the house. He had done extensive civil engineering work in Dublin before moving to Yorkshire where he designed Sharow Church in 1825. The ice house had gone by 1892 and little remained its structure, indeed the previous existence of an ice house was virtually forgotten about. The arched brick and stone passage way leading from the cellar to the ice house and forming an access for transport of the ice to the kitchen service area in the cellar (under the conservatory), had survived. It was in remarkable condition, having been bricked up from the cellar area and covered over with a deep deposit of clay in the garden area. 4.5 metres along from this passage the central circular sump for the drainage of residue water from the ice mass, was intact.

Effectively only the foot print of the ice house remained but the monitoring of the excavation of the cellar gave us the opportunity to see and record this piece of the history of the house and the lifestyle of its residents. It has been postulated that George Knowles designed Wood End – there is no hard evidence for this but the sophisticated design of the ice house with its direct access to the service wing of the main house by means of a tunnel (an unusual arrangement) and the amount of re-profiling of the land would suggest an engineer's input into these elements which would perhaps reflect Knowles involvement in the design. This lends credence to the theory that Knowles designed the main house

Conclusion

No archaeology dating from prior to the erection of the house in the 1830's was found – if any did exist it would have been destroyed by the construction of the house, in particular the ice house.

The monitoring revealed that the base of the ice house still existed and it was possible to record this. There is no record of any of the other houses in The Crescent having ice houses and no other ice houses have been found in the course of the extensive archaeological monitoring which has been carried out in the town. Unusually the ice house had a direct connection into the main house. Within 60 years of its construction the ice house had gone out of use and considerable efforts must have been gone to secure its almost complete removal and replacement by fill to form a garden.

This fill supported a number of structures which were associated with the gardens and green houses such as drains and heating ducts running from the house.

Reverting to the period before the construction of the house, the site at this time must have been steeply sloping similar to modern day Plantation Hill and what the monitoring has shown is that the house and its grounds were built using a cut and fill method, extensive amounts of earth having been moved up hill to create the service yard/garden at the northern side of the house and creating a relatively level access from The Crescent.

This is an important site as it shows the fluctuating fortunes of a prestigious 19th century town house during a lifetime of approximately 170 years. It is a vital record of the only existing ice house in Scarborough to be connected to the service cellar of a house. However no archaeology pre-dating 1835 was disturbed as a result of the excavations.

Finally the excavation provided circumstantial evidence of the involvement of George Knowles in the design of the house.

References

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Pearson, T - An Archaeological Survey of Scarborough. 1987
Purcell, Miller, Tritton – Wood End Museum, Scarborough Conservation Plan. 2004
Sitwell, Osbert - Left Hand Right Hand. 1945.

Further general references:

London Old and New Vol IV
The London Journal 1733
Jane Austin's Letters Chapman 1952
Greville's England 1818 Hibbert 1945

Maps consulted

1725	'A new and exact plan of Scarborough'	J Cossins
1747	A plan of Scarborough	W Vincent
1770	A plan of Scarborough	published in Jeffries
1782	A Plan of the Town of Scarborough	J Foord
1798	A plan of Scarborough	published in Hinderwell, 1798
1828	A plan of the Town and Environs of Scarborough	J Wood
1842	'A new and accurate plan of Scarborough'	A G Tyson
1852	Ordnance Survey plan of Scarborough at a scale of 1:1056	
1892	Ordnance Survey plan of Scarborough at a scale of 1:500	
1912	Ordnance Survey plan of Scarborough at a scale of 1:2500	
1929	Ordnance Survey plan of Scarborough at a scale of 1:2500	
1939	Ordnance Survey plan of Scarborough at a scale of 1:2500	
1965	Ordnance Survey plan of Scarborough at a scale of 1:1250	

ANNEX 1 – LIST OF CONTEXTS

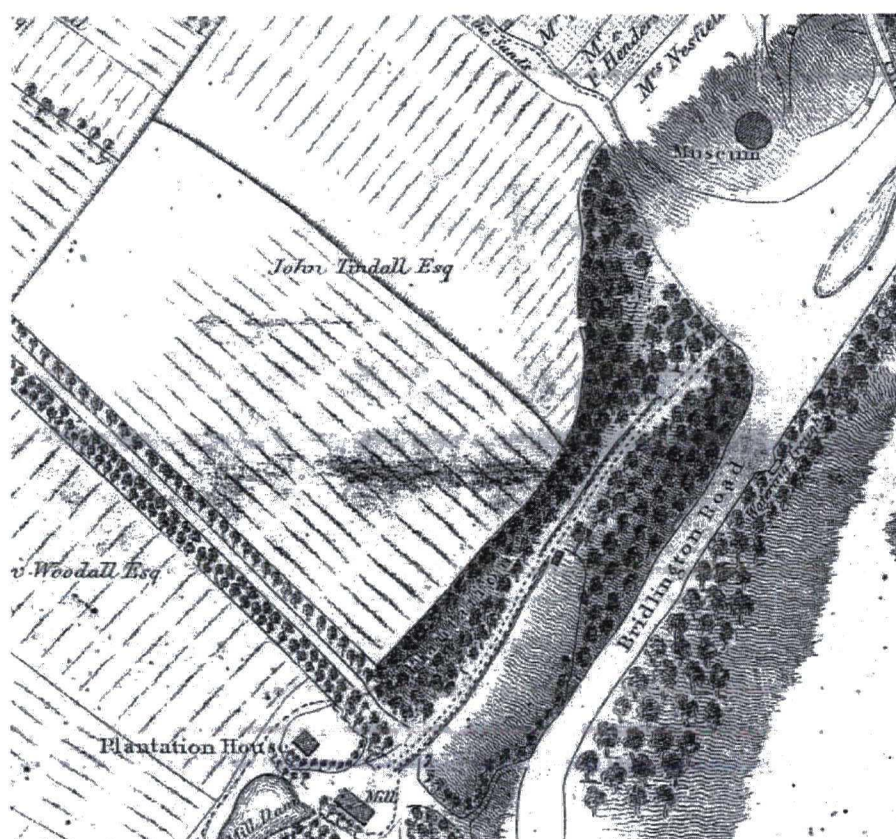
900	outside wall structure
1000	top soil to the east of the garden wall
1001	top soil within the garden walls
1002	sub-soil within the garden walls
F1003	garden walls
F1004	cross wall
1005	sondage showing clay south of F1004
1006	sondage showing clay north of F1004
1007	sandy mortar
F1008	floor tiles
F1009	cobbled yard
F1010	brick wall
F1011	stone wall
F1012	drain culvert
F1013	stone blocks
F1014	green house walls
F1015	steps of greenhouse
F1016	stone cover for heating duct
1017	sondage
1018	2 nd sondage
1019	clay layer
1020	auger holes
F1021	drain culvert
F1022	buttress
F1023	brick tunnel
1024	shingle
F1025	brick collar
F1026	stone flagged floor
F1027	stone collar , sump
F1028	sump
1029	pebbles
1030	gravel mix
1031	flat rocks
F1032	stone base
1033	black soil
1034	base of passageway
F1035	red brick base
1037	clay bottom
1037	brick dust
1038	grey clay
1039	maroon brick dust
F1040	brick plinth
2000	19 th century cellar floor
F2001	the well
2002	fill of the well
2003	loam in the trial pit
2004	clay in the trial pit

ANNEX 2



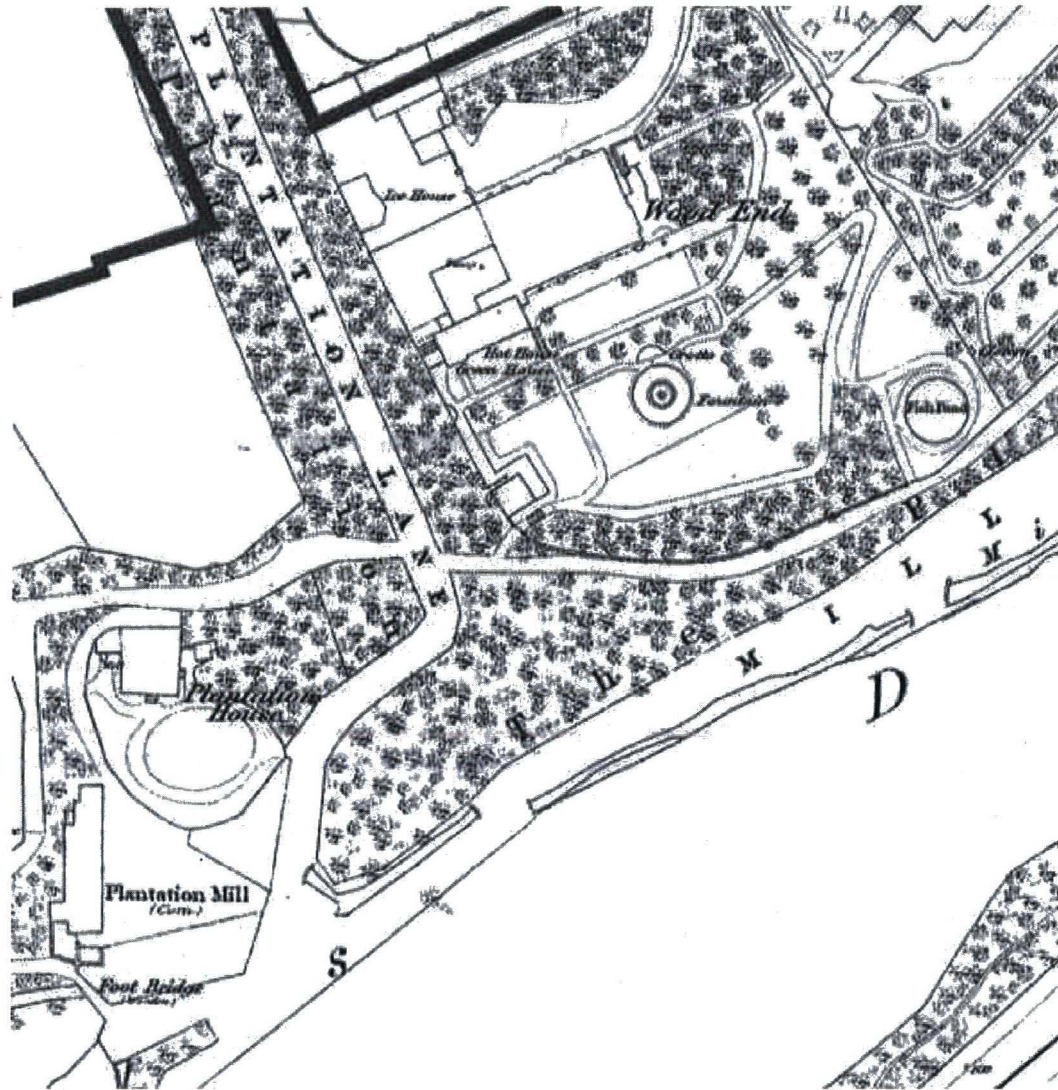
Extract from A Plan of Scarborough by John Foord 1782/83

ANNEX 3



Extract from John Wood's map of 1828 showing the rigg and furrow

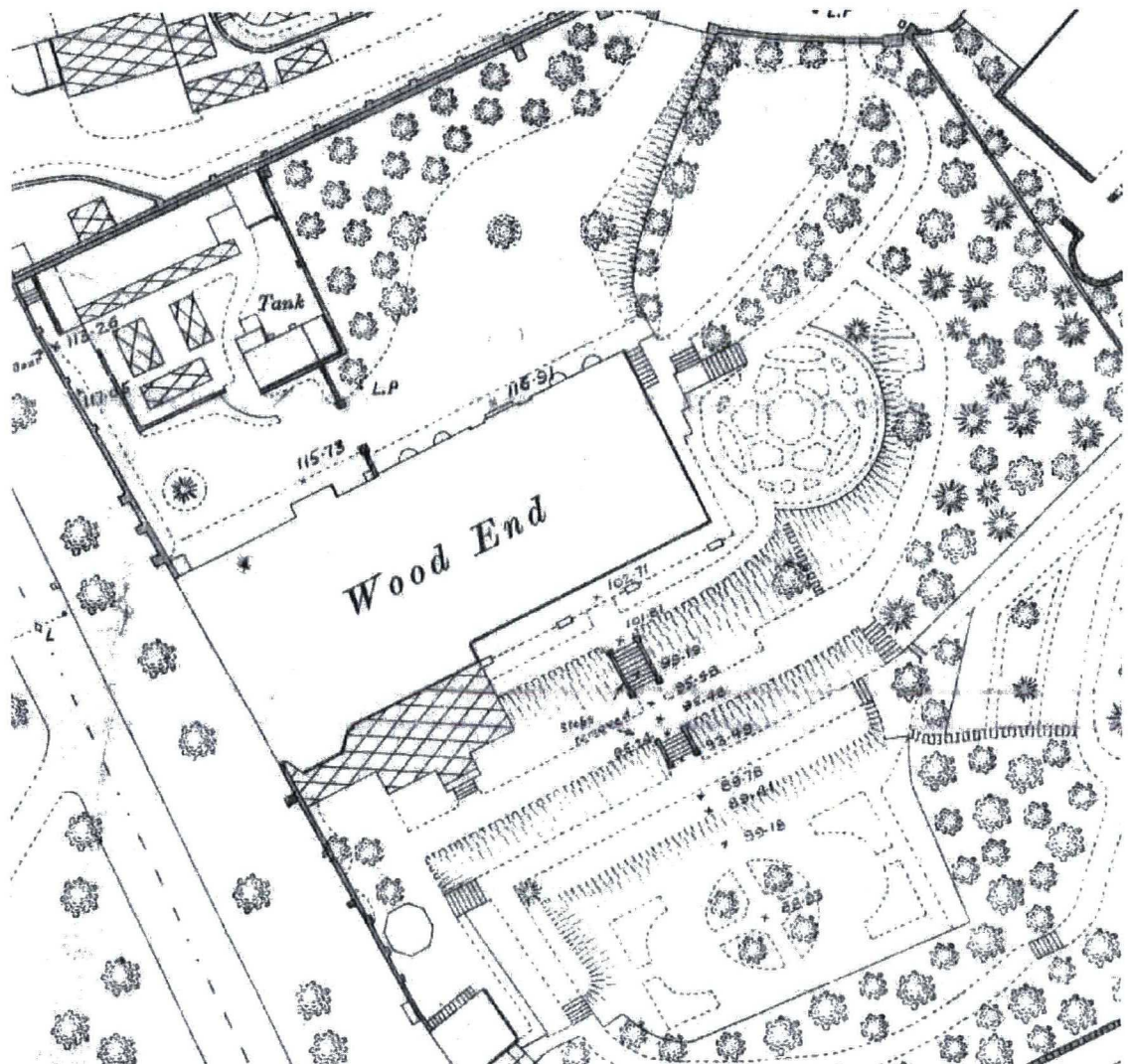
ANNEX 4



Extract from Ordnance Survey 1852 Scale 1:1,056

The ice house is clearly shown against the boundary with Plantation Hill
The pump within the then inner courtyard marks the position of the well F2001

ANNEX 5

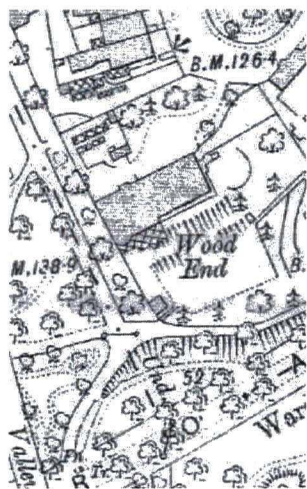


Extract from Ordnance Survey 1892 Scale 1:500

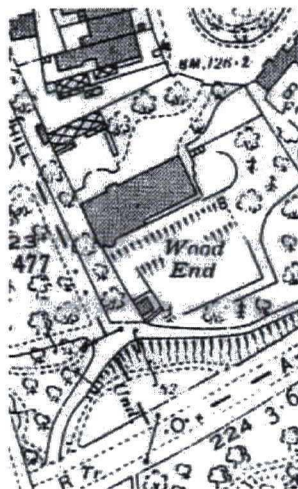
The ice house has gone and the rear service yard split into two the northern part surrounded by a wall and containing greenhouses, outbuildings and tanks

ANNEX 6

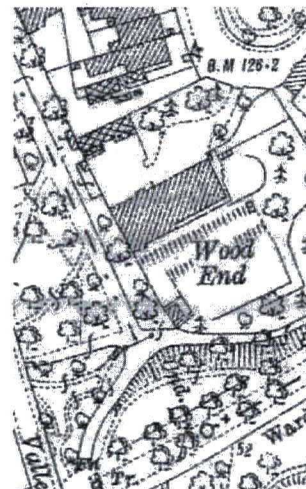
Extracts from 1:2500 scale Ordnance Survey maps of various dates



1912

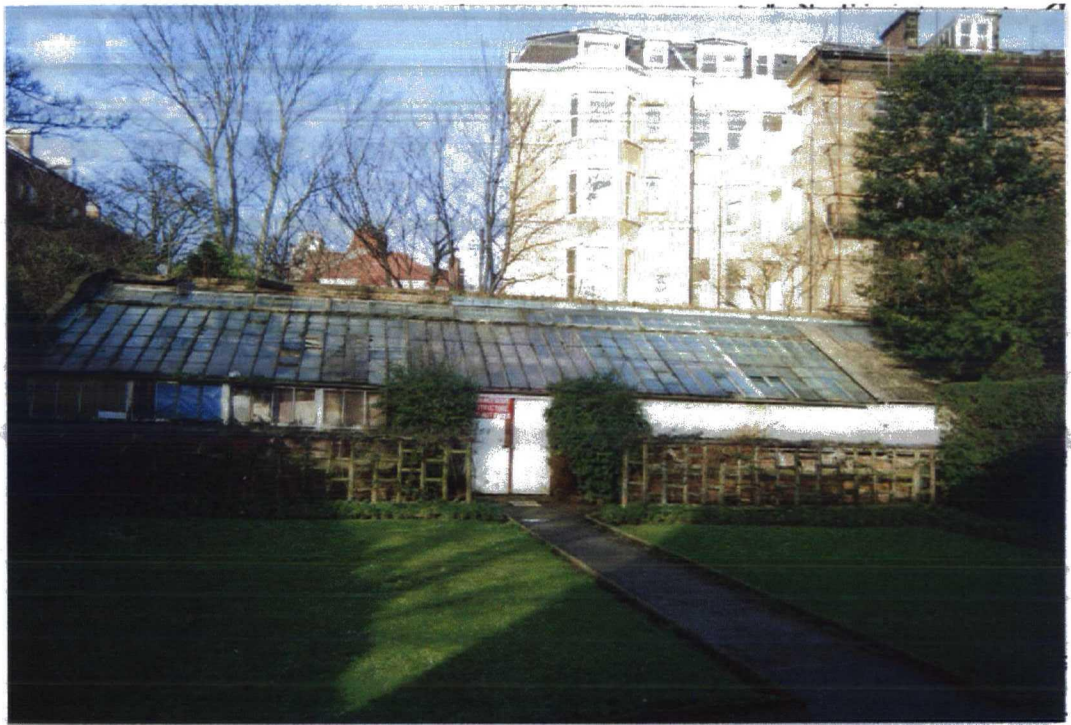


1929



1939

ANNEX 7



The rear garden in 1994 just prior to the demolition of the large lean-to greenhouse against the north retaining wall – this green house shown on the 1929, and 1939, 1:2500 scale OS maps and the 1965, 1:1250 scale map