

Final report on the work by the Veteran trees and history project

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Introduction

This survey was carried out by the Veteran Tree and History project, part of the Heritage Lottery Funded, Foresters' Forest, an investigation into the culture and natural history of the Forest of Dean, Gloucestershire, in partnership with the Forestry Commission. A pilot was conducted in collaboration with Plantlife in the winter of 2015/2016, with the full project beginning in January of 2018. The project work looked at two areas one around Brookways Ditch (centered on SO623090), and the second around Speech House (centered on SO620121). The project is grateful to the help and support provided by both of these organisations and to all the many volunteers who helped with the surveying in all conditions.

The main aims of the project are to record the veteran and notable trees within defined areas of the Hundred of St Briavels, to record any forest memorials or memorial trees and to employ a landscape archaeology approach, which attempts to bring together the record of the older trees with that of the archaeological and historical record. Equally important is the aim of the project to connect the local people of the area with their forest history, by highlighting the survival of ancient, veteran, and notable trees on the Forestry Commission estate. To this end the project worked with volunteers from the local community to record and locate trees of interest within the survey area, in addition to outreach efforts such as public talks, radio appearances and working with local groups such as poets and writers within the community.

There has been a limited amount of archaeological work carried out at Speech House and Brookways Ditch. The Forest estate was mapped by LIDAR as part of a National Monuments Programme exercise carried out in 2005 by English Heritage (GCC/FC 2012). This was one of the first LIDAR based surveys of extensive woodland carried out in the UK. However, in the project study areas, few targets were identified, and none ground truthed. The LIDAR survey as is standard archaeological practice did not consider the trees and vegetation as monuments or elements of the historic environment of the Forest of Dean, though the local Gloucestershire HER does include veteran and notable trees (Heritage Gateway 2022).

The older and more notable oaks within the area had been mapped by the Forestry Commission (FC) at the end of the twentieth century (FC 2015).

Outcomes and Outputs of the Project

The record of veteran, notable and trees of special interest has been upgraded and their health assessed. This record will be integrated with what is known of the history and archaeology of the landscape to produce a holistic account of the development of the surveyed areas of the forest over the past 2-300 years. The project has produced a GIS database of nearly a 100 records of archaeological sites and of nearly 500 Veteran trees in the areas surveyed. These have been exported as excel files and made available to the Forestry Commission, Gloucestershire HER and Gloucester environmental records centre as appropriate. Other outcomes include training 50 volunteers in Veteran tree and archaeological survey techniques who have completed over 500 volunteer hours. In addition, I have given numerous talks to both local societies and to the academic community over the period of the project and taken part in other community activities.

Impact of COVID-19

Covid-19 essentially stopped all surveying work at the end of the 2019 survey season, whilst it was possible to run some volunteer activities it was not possible to resume field work in either 2020 or 2021.

Study areas

After the pilot period it was decided to split into two projects this Veteran tree and History Project- which was focused on two areas of forest waste and a second project the Ancient and Notable trees project run by Paul Rutter and Plantlife which took a whole forest approach. The Forestry Commission estate has two parts; land which is temporarily enclosed in a inclosure system to allow planting but which is thrown open after the trees are sufficiently grown and land which is not enclosed, described as waste by Hart (1995). The present-day inclosures largely replicate those created in the 19th century. The project wanted to investigate the record of veteran trees and of woodland management such as pollarding, coppicing and stubbing (stogalls) in a sample of these wastes. The two areas chosen to sample as mentioned above are Brookways Ditch and Speech House (Fig. 1)

Tree Archaeology

The study of woods and their trees in the landscape developed as part of the environmental/ecological history movement e.g. Peterken & Game (1984), Rackham (1990), Rotherham (2011). Archaeologists have been slow to adopt tree surveys as part of their toolbox for investigating landscapes despite calls by authors such as Bradley for the investigation of 'natural places' (2013). Despite the fact that archaeologists have tended to overlook trees as part of the historical and archaeological record (Hoen, 2021), there is a renewed interest in the environment and approaches developed from the environmental humanities (e.g. sessions at the Landscape Archaeology conference Uppsalla in 2016). In particular, there appears to be a recent growing interest in 'tree archaeology' (ibid).

Fortunately, in terms of methodology there has been a wealth of previous work by a number of writers on recording and interpreting trees in the landscape e.g. Rackham (1990), Barnes & Williamson (2011), Handley & Rotherham (2013) and Natural England (2000). It is to be hoped that recording ancient, veteran and notable trees may become a normal activity as part of wider efforts such as archaeological surveys of woodland, Historic Landscape Characterisation (England) and Historic Landuse Assessment (Scotland).

Previous work

There has been a limited amount of archaeological work carried out at Speech House and Brookways Ditch. The Forest estate was mapped by LIDAR in 2005 (GCC/FC 2012). The older and more notable oaks within the area have been partially mapped by the Forestry Commission at the end of the twentieth century (FC 2015). Ian Standing wrote several articles for the New Regard cataloguing the Veteran Trees in the Forest (1986, 1987 and 2017).

There is now a proliferation of information registers for veteran and ancient trees in the Forest of Dean. The main source of baseline information for this project derives from the Forestry Commission's register of Trees of Special Interest, and this is a very important resource (FC 2015). However, much of this data was collected in the 1980's and 1990's by a variety of people and organisations and often lacks important data like species or girth, height etc. In this database there has been a concentration on particular species with oak and other canopy trees significantly over represented. While this register is a valuable starting point and tool it should be used cautiously as it may not be representative of the Forest estate as a whole. To this must be added the Historic Environment Record of trees held by Gloucestershire Council, that of the Ancient Tree Inventory and the Wye valley AONB veteran tree survey.

Methodology

The survey used volunteers for data collection. Because of the heavily wooded nature of the landscape and the issues in the pilot project with ground truthing it was decided not to use a 'citizens science' approach to the collection of data. In order to maintain survey control all data used by the project was collected during sessions led by a trained surveyor between 2016 and 2019. Although we had a core group of about six volunteers each survey would usually comprise a mix of backgrounds from absolute beginners to experienced naturalists. Consequently, an approach was developed from the pilot project which aimed to allow all participants to engage successfully with the survey methodology. Each group of volunteers which ranged from around seven to fifteen was organised into groups, within each group was an experienced individual to help any new recruits. Each group was assigned a defined area to survey. Whilst every effort was made to ensure consistency of recording inevitably some subjective issues arose, especially around what constituted trees of special interest. This led to oaks being over recorded as trees of special interest.

Trees were recorded using a variation of a tree survey form (Fig. 2) based on that used by the Woodland Trust (provided by Brian Jones a local veteran tree checker). Each tree was located using a handheld differential Trimble (Geo 7x), which was subsequently reprocessed and corrected before entering into a GIS. Each tree was given a unique number and a photographic record created. In order to determine whether the tree was ancient, veteran or notable characteristics derived from guides such as those in Natural England (2000) and Handley & Rotherham (2013) were used. In practice, distinguishing between ancient and veteran status for the hollies was a complex task for the volunteers and so it was decided to simplify the terminology by using the term veteran for both ancient and veteran hollies.

The recording of the memorials in the Forest used a standardised memorial recording form (Fig. 3). Each memorial and its associated tree or woodland was located using the GPS and the memorial photographed. Archaeological surface finds such as bottles and pottery from boar disturbed middens were collected and their location recorded with a note in the GPS. Similarly, the location of any "humps and bumps" of archaeological interest were noted in the GPS for subsequent recording.

Historical maps were also consulted and while these do have their problems in terms of interpretation particularly in terms of iconography around inclosure boundaries and the degree to which an area was wooded. However when combined with the evidence from survey and other documents historic mapping does contribute to our understanding of the evolution of the two study sites. Similarly, the work of Hart has been vital to the project. In his several publications he has drawn together many of the key public records and made them accessible to scholars and the general public (Hart 1966, 1987 and 1995)

The Survey Areas

Brookways Ditch

Introduction

The area surveyed at Brookways Ditch is a small area of unenclosed land running between Russell's and Church Hill inclosure near Parkend (centered on SO623090) (Fig. 4). This small area (6.5 ha) lies beside Fancy Road which forms an important routeway through the southern part of the Forestry estate between Parkend and Blakeney. It gives access to the watershed between the Cannop Brook and the Blackwater Brook. Brookways Ditch gives access to Moseley Green a pastureland or *landeas* mentioned in the Regard of 1282 in the Bailiwick of Staunton. Several important veteran trees lie nearby including the Shaden Tuft oak (63024, 09154), the Forest Giant (62616, 08529) and the King Charles Oak (62110, 08045). Previous work had been carried out on the important lime tree ride which cuts the eastern corner of the surveyed area (Lennon 2011). A few trees had previously been recorded by Ian Standing (1986, 2017) and by the Forestry commission (FC 2015). The area was surveyed by the project in late 2015 and was subsequently mapped in 2017 using handheld GPS devices (Hoen 2019).

Background

Brookways Ditch also called Brockaditches/Brokersditches (Hart 1966), is a small tributary of the Cannop Brook, which occupies a narrow steep sided valley. It presently forms an unenclosed area between Russells and Churchill inclosure. It is described in the setting up of six walks in 1676 as follows

"Begins at the Parkend furnace, from thence up the Brook to Cannop Furnace, from thence to the corner of the walk at the old Charchay, from thence up a gullet to Bicknor gate, then along Bicknor way to the top of Serridge, thence of Birchwood, and thence down to the damm brook above the damm, so down the damm brook to Synderford bridge, thence along the way to Middle-rudge, thence up Phelpes Meadow to the head of Brokers Ditches, so down the Ditches to the Parkend Furnace." (Hart 1966 p.177).

This inclosure is variously known as King's, Charles the Second or Speech House Inclosure, subsequently the area also became known as the Great inclosure (Hart 1995 p.198). The available history suggests that in the 17th and 18th century attempts at inclosure of the heart of the forest were largely unsuccessful and that "waste and heath" dominated with "decaying hollies, hawthorn and beech" (Hart 1995 p.196). A similar picture is suggested by the map of 1710 (G.R.O D3921/IV/5 in Hart 1995).

Little is known of the history of the valley until the map of 1831 (OS first series Fig. 5). It is likely that the definition of the area as "waste" came about when Russells was inclosed as a separate compound towards the end of the 18th century (Hart 1995 p. 251). This was a time of renewal in the Forest with much new planting. While map iconography can be difficult to decipher the 1831 map shows Russells well wooded with an enclosure boundary, whilst the valley of the Brookways Ditch and Church Hill to the south appear open with scattered trees and with a more park like aspect. The valley connects the communities of the Forest's periphery with the large open area running north – south from Brandeis Green through the centre of the Forest to Crump Meadow in the north (Fig. 5).

Work at the New Fancy colliery appears to have begun around the beginning of the 19th century. Later in 1837 an extension of the Brookhall branch tramroad was built to the New Fancy colliery. The Brookhall tramroad was short lived however and the colliery at New Fancy was connected via a spur to the main Dean railway before 1878 (Paar 1973). There are records of tree planting in the valley in 1848 (FC 2018) and the whole area was forested by 1878 (OS 1878). The lime tree ride was established around 1850 (Lennon 2011). Subsequent, planting dates in Brookways Ditch are known for 1904, 1943 and 1983 (FC 2018).

Results of the Survey

Woodland

In total 20 trees were recorded; the older trees in the valley consist of oaks either veterans or of special interest with girths ranging from 5.4 m to 3.1 m (Table 1., Fig. 4). There is also a rare example of an oak pollard (Fig. 6). In addition, there are occasional large hollies, beech and alder coppice. A quick walkover survey of Russells indicates all the understory has been cut with plentiful stumps of coppice and smaller maidens still visible (Fig. 7) (cf. Note on Russells Hill 1897 in Hart 1995 p.277). The form of the trees varies with tall maidens with restricted crowns at the western end of Brookways Ditch by the road and in the steeper part of the valley (Fig. 8), whilst at the eastern end on the flatter ground, the trees are less dense, have a more open crown (Fig. 9) and there is more of a parkland form to the woodland.

Archaeology

The archaeology has been reported on elsewhere (Hoen 2019) so will be summarised here. Seven archaeological features were recorded by the survey mainly inclosure boundaries, tramroads and various indeterminate mounds and pits (Table 2). The most dominant feature is a large bank and ditch which runs along the south side of the valley just north of the road. At its western end this feature becomes obscured by vegetation and appears to have been destroyed by a series of later large earthworks associated with Parkend (Fig. 4. and Fig. 10). The bank stands nearly 2 m high and has oaks with a 3.1 m in girth growing on it suggesting a feature at least 1-200 years old.

This large bank in places has been reused and slighted for the line of the mid-19th century tramroad (Fig. 11) (part of the route may be seen on Atkinsons map of 1847 (G.R.O. D3921/IV/12). But the tramroad appears to also take its own route and is a substantial monument in its own right with large embankments fitted with stone culverts to carry the route over the deep steep sided streams that feed Brookways Ditch on the run up the valley (Fig. 12). At the eastern end a double banked cutting fed the tramroad into the colliery. In addition there are the usual unidentifiable mounds, pits and platforms which are related to extractive industries and charcoal burning. There is a large pond which is a modern feature possibly related to the need to have ready sources of water for firefighting efforts and/or attempts at encouraging wildlife.

Discussion

This short valley contains much of both archaeological and arboricultural interest. Although characterised as “waste” and outside of the inclosures it has continued to be managed by the FC at a low level, planting has taken place at intervals since the Dean was reafforested after the beginning of the 19th century. A handful of older oaks in the valley may date to the middle of the 18th century. Where such trees of girths over 5 m have survived in this location they are all straight grown trees and are largely by the roadside. This suggests that they grew up in a closed forest as opposed to a parkland landscape where they could develop a more open crown. Most veteran trees in the

contemporary landscape present as parkland trees (Farjon 2017) however large straight trunked oaks are known from prehistoric landscapes where they are used in the construction of wells and log boats (Goodburn 2019 p.19). We have few of these types of trees or this type of closed canopy forest left in the UK or Europe. The opportunity therefore exists in these small areas of forest waste and other parts of the forest estate to allow for the rewilding of tall, closed forest woodland that has not existed in the UK for some considerable time. Equally, novel species mixes could also be used to create new hybrid tall woodlands in the old oak plantations already present in the Dean. It may be worthwhile revisiting these trees to assess height. The trees on the flatter area at the head of the brook are younger and present more open crowns which suggests that this area may have been parkland. A transect through Russells suggests that originally this wood included a coppiced understory which has subsequently been cleared away, the anomalous presence of this coppice was discussed in Hills report of 1897 (in Hart 1995). Already by this time efforts were underway to remove coppice from the plantations.

While more diverse than the plantations that surround it these woods are still relatively low in tree biodiversity with relatively few species present mainly oak on the drier areas and alder in the wetlands.

The evidence we have suggests that a closed canopy woodland grew up along the steep valley sides of the Brookways Ditch at some point after the 18th century outside of the inclosure system. Based on the mapping and woodland evidence the flatter head of the valley was forested in 1787 then reverted to open grazing land till well into the 19th century. The evidence suggests that alongside the growth and expansion of transportation and industry open areas in the heart of the forest declined as plantations with a closed canopy and a restricted range of species expanded onto the greens and lawns throughout the 19th century. Evidence of a short period of industrialisation can be found at the remains of New Fancy colliery (c. 1830 - 1944) at the head of the valley. The large bank and ditch which runs up the valley is an enigmatic monument but may represent the remains of the Great Inclosure bank but this needs further investigation to be demonstrated. That it predates the tramroad of 1837 can be seen but how much earlier it is - is not clear. It seems likely that the establishment of Russells inclosure to the north and Church Hill to the south in the early to middle 19th century have created what are likely to be long standing divisions in the landscape.

Speech House

Introduction

The area surveyed at Speech House (centered on SO620121, Fig. 13) forms another large area identified as waste by Hart (1995). It represents one of the largest wooded areas in the forest not included in the traditional inclosure pattern (Fig. 34), it is however surrounded by a number of inclosures that continue to be managed for timber extraction and their amenity value (FC 2006, 2008, 2014). Part of the waste has been notified as a Site of Special Scientific Interest (SSSI) since 1983 for its ancient woodland of oak and holly together with its rich epiphytic flora (Natural England 1983). Archaeologically, the records in the HER relate to post medieval features such as gale stones, a crashed WW2 plane and other post medieval features. Unusually, Gloucestershire HER is one of the few HERs to record Veteran and Notable Trees within it. The area surveyed forms a long narrow corridor between 100 and 300m wide which runs for nearly 2 km either side of the B4266.

In total over 30 hectares were surveyed and the project identified 314 veteran trees or trees of special interest from 9 species (Appendix 2, Table 3, Fig. 14). The project also identified a series of memorials commemorating royalty, important trees, the laying out of inclosures, and important

individuals in the history of the forest as well as a number of previously unidentified archaeological sites (Table 4, Fig. 15).

Background

The Speech House was built in the 17th century and the present-day landscape and environment largely reflects the development of the current inclosures from then onwards. We are fortunate in that we have some limited mapping and documentary evidence from the post medieval onwards that allows us to see how this landscape has changed over the recent past (see Table 5 for the principal mapping evidence cf. Hart 1966, 1987, 1995, 2005 for documentary evidence).

The 1710 map and historical surveys suggests that much of the area around Speech House was open with scattered woodland (Hart 1995, 1966). Driver's 1787 map and survey (G.R.O. D3921/IV/8.) suggests that planting efforts in the earlier part of the 18th century had been reasonably successful. Most inclosures are shown without boundaries but those at Speech House alongside the two inclosures in the Cannop valley one named for Worcester Lodge, and one named for Speech House are clearly bounded (Fig. 38). The House of Commons journal for 1788 records that the small inclosure near Speech House had formerly been ploughed for cereals and "the ground lying hollow, harbours mice and other vermin, which eat the acorns and destroy the young plants" (HOC 1788 p.606). On the Driver map several meadows and greens are shown as open including those at Great and Little Kensley and Horse Lawn within the survey area. Driver records that Beechenhurst hill has been recently felled and has many thorns, whilst Great Kemsley Green etc. has seen recent felling but has a "few oak, beech and birch" whilst little Kelmseley Green and Horse Lawn are open with oaks, birch, hollies and thorns." (Driver in Hart 1995 p. 252).

By 1831 the mapping indicates that the area around Speech House has a more open aspect compared with Driver's earlier map (OS 1831, Fig. 16) as does Atkinson's map of 1847 (G.R.O. D3921/IV/12). This mapping is hard to reconcile with the documentary evidence of widescale planting from 1814 onwards (Hart 1995 p.261).

By the OS map of 1878 these open areas had become infilled with closed canopy woodland. The earliest records of planting here begin around 1720 in the area to the west of Speech House where the Verderer's Oak is now. Followed by the northside of the Speech House Road in 1810 whilst that on the south side of Speech House Road is recorded as being planted in 1869 (FOD 2018). While we understand the planting of the oaks and other canopy trees quite well the presence of the hollyhock is not clear from the available records. This hollyhock is an important element of what makes the woods at Speech House special and form a key element of their listing as a site of Special Scientific Interest as the ancient hollies provide a habitat for a broad range of lichens and bryophytes and nesting for birds such as the redstart (NE 1983).

Archaeologically, the area had been studied by LIDAR (GCC/ FC 2012, Fig. 17) and a number of anomalies were recognised. Important, previously known features include the Speech House and its grounds, the Arboretum, quarries and the remains of various industrial activities such as the quarry and engine house (SMR 28028/246620), the sundial, and various sites from WW2 – including a crashed Westland Whirlwind plane.

Results

314 trees that are veteran or of special interest were recorded by the project from 9 species (Fig. 14., Table 3). Although efforts were made to be consistent in the recording of trees there was some inconsistency in how trees particularly oaks were recorded, so a small number of oaks were

recorded with girths below around 3.2m but the data has been included to show variations in the growth rates of oaks within the study area.

Oaks

Of the 107 oaks recorded as veterans or as trees of special interest (Fig. 19) the youngest are those planted to commemorate the visits of Earl and Countess of Wessex in 2014 (c. 10 cm GBH) whilst the largest girth tree is the Verderer's Oak which from the FC records has a girth of approximately 7 metres (Fig. 18). Of the known age oaks the Pansanger oak (SH18) is 3.34 m in girth (planted in 1861) and has a growth rate of around 2 cm a year, the oaks planted for Queen Elizabeth and Prince Philip in 1957 have girths of 170 and 190 cm so an annual growth rate of around 3 cm a year.

Of the oak trees recorded by the survey only 8 living trees had girths over 5 m (5-6.10 m) the largest (SH22) at 6.10 m. Five stumps were also measured and these ranged in basal girth from 5.00m to 6.90 m. The largest oaks by girth were located west of the Speech House Hotel and south of the B4266 road (Fig. 19). Alongside the commemorative and memorial trees a much decayed oak avenue was found to line the north side of Speech House Road running for approximately 500 m (Fig. 19) with trees of girths around 3.5-4 m. As the histogram shows the majority of the oaks recorded were less than 4.2 m in girth (Fig. 20).

All of the oak trees recorded were maidens which suggests that once the plantation system became established straight grown trees with long straight trunks were favoured. Typical veteran oaks identified are trees like SH270 girth 5.13 m (Fig. 21) and SH294 both veterans, both much older survivals than the surrounding trees which have girths of between 3-4.2 m. Despite a documentary date of planting north of Speech House Road of 1810 many of these trees are smaller in girth than those south of the road which were thought to have been planted in 1869.

Hollies

The survey recorded 195 hollies all of which are veterans ranging in girth from around 0.5 m to 3.45 m, with coppiced holly stools ranging between 1.0 m and 4.0 m in girth at the base (Fig. 22). The largest holly found is a champion with a girth measured at 30 cm of 3.55 m (the tree is a pollard) for Gloucestershire (SH045) (Jones pers. comm.). Hollies have been found in many forms by the survey (Table 6). The dominant forms are pollards (Fig. 26) and stubs (Fig. 27, also known as stoggals) with maidens (Fig. 25) and coppice (Fig. 24) being less common. The maximum girth of maidens is 2.57 m, that of stubs 3.20 m and of pollards 3.55 m (Fig. 23, Table 6). The distribution of hollies is fairly evenly spread throughout the study area (Fig. 28, 29), some areas have less but there is no clear pattern to the distribution. Many of the hollies are ancient and rotten but show multiple types of regeneration especially phoenix regeneration after trunk fall (Fig. 30). Hollies are often associated with oaks and many have grown up adjacent to oaks for example oak SH209, where a holly is growing next to the base (Fig. 31). Four hollies (SH099, SH100 and SH104) show evidence of graffiti and all are located close together. One (SH099) is possibly related to the First World War as it appears to read either 1919 or 1929 (Fig. 32).

Miscellaneous trees

The type of veteran and notable tree species at Speech House is dominated by oak and holly, but there are occasional beeches and other trees few of which are veterans. The most significant of these is a large now felled beech (SH5) which had a girth of 7.61 m. There was also a hawthorn (SH57) with a girth of 2.62 m. and several yews of interest (Fig. 33).

Archaeology

The archaeological record at Speech House consists of previously known sites recorded by the HER, those recognised by the LIDAR survey of the Forest carried out in the early 2000's (GCC/FC 2012). The archaeological record mostly consists of sites associated with the industrial and forestry heritage of the area and date to the Post Medieval period.

The surveyed area is defined by a series of enclosures that were built up and modified over time to create the landscape we see today. The inclosures that define the area of waste are marked by the OS as New Beechenhurst to the north and west, Great Kensley to the north and east, to the south and east Rushy Lawn/Horse Lawn/Little Kensley inclosure, Speech House Walk and Blackpennywall Green (Fig. 34). The boundaries of these inclosures are highly variable reflecting the practice at the times they were made but usually are some form of earthen bank sometimes with a ditch or occasionally a bank capped with stone. The majority of archaeological sites were found to the east of the Speech House. Elsewhere, there are occasional quarries, relict field systems and structures related to mining.

To the east of Speech House are the remains of pits and platforms (Fig. 15, Table 4). This is the largest concentration of identifiable archaeological sites found by the survey. The circular pits are likely to be charcoal burning pits whilst the deeper rectangular pits would suggest saw pits. Clustered around Speech House are eight memorials to named individuals and one memorial to a tree (the Verderers Oak). Other notable finds include the remains of two house footings near Horse Lawn for small possibly squatters cottages predating our earliest mapping (Driver 1787), and a piece of rock art found beneath holly SH223 (SHA42, Fig. 35) near a small circular enclosure which may be a later car park or the remains of a much earlier monument.

Re-examination of the LIDAR data indicates some additional features not recorded on the 2005 survey. These include a pre-modern field system to the west of the Forest school (Fig. 36, Fig. 37), and ridge and furrow within and just extending beyond the Speech House inclosure.

Discussion

We know little about the landscape history of Speech House before the construction of the present day building in the 17th century. A number of secondary sources were briefly consulted to ascertain when placenames are first mentioned in the histories (Hart 1966, 1987). Few of the placenames from the 1282 Regard of the Forest Dene (Hart 1987) can be reconciled with the current placenames around Speech House, but of those that still remain the Wet Wood (Wetewde) in the Bailiwick of Staunton and Serridge (Schirrugge) in the Bailiwick of Mitcheldean, Little Stapledge and Great Stapledge (Stapuleg) both in the Bailiwick of Blakeney. In the Bailiwick of Abenhall the king held the *Landeas* (pasture lands) of *Kenesleye*. These "lawns" were for the use of commonable animals.

According to Hart (2005 p.53) a "Speeches day" was first recorded being held at Kensley in 1338 and 1340. After this period familiar names start to appear in the available documentation; Beechenhurst (1566), Rushy Lawn and Horse Lawn (1662)) (ibid). As a named landscape it seems likely that this central region of the forest is either a relatively late development or has been reorganised and renamed possibly around the time of the establishment of the Speech House as the principal centre for administration of Forest Law in the 17th century.

The few trees that have survived to come down to us from the 17th and 18th centuries are all oaks (it is difficult to date hollies with any certainty) they all like the Verderers Oak which indicate that they are straight grown trees which have been grown in closed canopy woodland. The available mapping evidence (Driver 1787) suggests that large areas were planted by this stage with "Islands" of open lawns or grazing areas such as that at Great and Little Kensley Green, Little Gorse Green, Horse Lawn

and Phelps Meadow. Later mapping suggest that the amount of woodland planted had declined at the start of the 19th century with both Atkinsons map and the OS showing that open parkland environments had developed in the vicinity of Speech House at some point before 1833. A large continuous area of grazing is shown on the map of 1831 which runs from Park end via Foxes Bridge to Dry Brook (Fig. 16). This accords with the available planting information from the Forestry Commission which suggests the earliest continuous plantings were made in 1720 to the east of the Speech House and that while around Speech House the FC compartment database has records of plantings as early as 1720, the current oak woods largely date from the beginning and middle of 19th century (FC 2018).

There is not space for detailed statistical analysis but some observations may be made. As discussed above the known age memorial trees show that quite rapid early growth of oaks at Speech House is possible with growth rates of 3 cm in girth a year for the first 70 or so years, slowing to around 2 cm a year after that. These agree well with dendrochronological evidence (Moir 2014). In Moir's study of oaks in the Horsepool Bottom nature reserve oaks appear to grow quite rapidly around 4 mm a year for the first 90 years, slowing to a rate of around 1.64 mm for the next 200 years, senescence can come on after around 300 years (defined as a growth rate of less than 1mm a year). In these trees however there are a wide range of girths from 3.47 m to 5.35 m for similarly aged c. 250 year old oak trees. These eight trees are thought to have been planted around 1776.

The pattern of survival of older veteran and trees of special interest in the canopy of the Forest estate is largely one of isolated individual trees e.g. the Forest Giant. Alongside these individual trees is the survival of the large numbers of oaks around Speech House. The reasons for the survival of these individual oaks are related to the practices and decisions of past foresters. Writing in 1897 Hill perhaps provides an explanation “ *There was a final felling a few years later in the Lea Bailey, and with that disappeared the last of the old crop, except some specially fine or quaint old specimens preserved in Church Hill and here and there elsewhere, which demonstrate unmistakably the capability of the soil and climate*” (in Hart p. 283). It seems likely that the few trees of veteran status is entirely the result of a desire in the 19th century to leave example trees of past practice for future generations. Simultaneously, however, this generation also engaged in the removal of the understorey woodlands with the exception of the hollywood at Speech House.

The Hollywood at Speech House

While the survey largely restricted itself to the area of the SSSI a number of exploratory transects were carried out in the woods adjacent to the Speech House itself. The concentration of veteran hollies respects the area outside the present day inclosure boundaries. Although there are elements of an understory in the woods adjacent to Speech House these are mostly of young trees of no great age. The question is therefore what led to this remarkable survival and why are there not more ancient hollies in the rest of the Forest?

The hollies are currently to be found spread on both sides of the B4226 forming a narrow corridor between 100-300 m wide and around 2 km in length. Within this area veteran hollies are found throughout in varying densities and size. Unlike the canopy trees, oaks and other trees with veteran status are largely to be found to the west of Speech House with only occasional examples in the east and north of the area studied. Writing in 1858 Nicholls comments on the old hollies at the Speech House and speculates that these belong to plantings possibly made in 1670 (p.209), Nicholls records that one of the largest hollies near Speech House was nearly 9 feet in girth. Bellows writing in 1899 states that there were 3000 hollies around the Speech House, which is likely to be an exaggeration. Underwood including holly is a consistent part of the surveyors reports from the 17th century

onwards, and holly is likely to have been encouraged as winter fodder and fuel by the commoners and by the commissioners. We appear to have two forms of woodland management at play in the survey area. The management of canopy forming trees to provide timber by the Forestry Commission and its predecessors and the management of the holly and other understory trees for fodder.

The Hollywood at Speech House is, I would argue, a rare partial survival of the type of woods we might have expected had later forestry developments of the middle 19th century not taken place. Up until this time the documentary evidence suggests that underwood was also considered an important part of the woodland economy e.g. in 1688 Hart notes that the commissioners state that *“Enclosures were to be paid for by the sale of decayed beech, birch, hawthorn, hazel, holly and other trees not timber”* (Hart 1966 p. 169). It is noteworthy that this document comments that these trees are probably veterans (*decayed*) and are spread throughout the Forest estate. Earlier in Broughton’s survey of 1633 *“The hazel’s, the crabtrees, the birches, the maples, hawthorns and hollies growing there in great abundance...”* (in Hart 1966 p. 276). The use of underwood of many different species together with a co-planting of oaks with beech as a nursery tree (later larch, Scots pine and spruce), had been standard practice until around the middle of the 19th century.

In modern forestry practice it appears that underwood is thinned and removed so that timber trees can flourish to the canopy. The origins of this practice in the Forest of Dean appear to originate in the middle of the 19th century for example Brown states in his report of 1852 where it was recommended that all underwood be cut away (in Hart 1995 p. 268). In Hills report of 1897 it is also noted that the underwood was cut away (also in Hart 1995).

I would argue that the hollies have survived as this was until recently thought of as an area of “waste” outside of the inclosure system. It provided a place for commoners to move their animals into the centre of the forest and a place to graze them when enclosures such as that at New Beechenhurst were created and fenced. The fencing and closure of these large enclosures during the 19th century would have prevented commoning for up to 25 years and therefore these areas of waste were a method of ensuring access to grazing during the periods in which the young trees were brought on. The hollies and other trees provide an excellent source of winter fodder and firewood which otherwise was no longer available after the changes to underwood management in the 19th century. Whether this was a formal agreement between the commoners and the commissioners or simply an oversight we cannot currently know. The size of the hollies suggests that this practice may extend far into the past. It is noteworthy that Kensley was one of the original pasture lands within the forest. Although much reduced in area its designation as waste has enabled its remarkable survival.

Archaeology

Archaeologically and historically the evidence can be divided into several types.

- Buildings like those at Speech House and the Forest school with their associated enclosures.
- Memorials from the past 200 years to individuals, trees and the creation of the inclosures.
- Remains of past buildings and structures together with present day and past inclosures.
- Archaeological remains of extractive industries such as quarrying and mining.
- Archaeological remains of woodland industries and finally stray finds.

The dating of the history and archaeology recovered by the program agrees with that of the tree survey in that little was recovered that predates the post-modern period. The earliest find is that of a piece of rock art/mortar (Table 4. SHA42). This is most likely to be prehistoric in date and is a rare

find nationally. Portable pieces of rock art are usually found associated with dwellings or in funerary contexts so this is an unusual piece. It does raise questions about the nature of the slighted curvilinear structure nearby. On the face of it this is a late 1960's car park, but the presence of this piece of rock art and the low bank and trees perhaps suggests an earlier monument, though the construction of the car park and track may have destroyed any archaeological interest.

The earliest medieval or modern archaeological remains identified are those of the house footings to the east of Foxes Bridge. These do not appear on Driver's map of 1787 or later maps and so are likely to be earlier. In the report of 1662 (reproduced in Hart 1966), the commissioners note the presence of around 400 cabins and cottages standing in the Forest in 1653 (p.289). These communities were evicted such that by 1662 only five cottages remained. It may be that these footings are related to this period of settlement of the forest. Though it is likely the numbers of squatters fluctuated as the commissioners report of 1680 notes that the number of cabins had gone back up to 100 (ibid p.300). Other early post medieval remains include the field system recognisable to the southeast of Speech House and the ridge and furrow which is present in the Speech House inclosure. These remnants are reminders that each of the Lodges had 40 acres of land with which to grow crops. This field system may relate to the Speech House or it may be the remains of a stint or assart, it is most likely post 18th century in date as it does not contain any trees of special interest, veteran hollies or large oaks. The platforms, saw pits and divisions found to the west of Speech House are most likely related to felling carried out at some point in the 19th or 20th centuries as none of the planted trees occupy these sites.

Dating inclosures, field boundaries and trackways is notoriously difficult without excavation or supporting historical evidence in the form of documentation or mapping. It was not possible in the time available to carry out any mapping of the inclosures found by the project. It was noticed that in some places earlier inclosure boundaries could be seen around Speech House but this would require a separate project to record these features. Driver's map of 1787 and in both earlier maps and the commissioners reports suggest that some inclosures were provided with stone walls and banks and ditches together with "quick" hedges but that these were always intended to be temporary to protect the trees until such time as they were established. An indication of this can be found in the survey of 1787 which notes that for Serridge inclosure it had been *"Enclosed 12 years with a dry stone wall of which little remains"*. The documentary and mapping evidence suggests that little in the way of permanent inclosure boundaries in the survey area had been created prior to the 19th century rather there appears to have been a process of piecemeal inclosure. Around Speech House these new more permanent inclosures gradually reduced the area of open parkland. In 1787 for example *"Little Kelmlesley Green (Kensley) and Horse Lawn were open interspersed with a few good oaks, birch, hollies and thorns."* (Hart 1995 p. 308). The 1831 mapping suggests that Beechenhurst Hill along with Yewtreebrake and Crabtree were all inclosed around this time. Shortly after in 1847 Atkinsons map suggests that new inclosures had been made at Serridge, Great Kensley, Saintlow and Acorn patch so that by 1878 the whole area had been planted and the landscape as it is seen today as a continuous belt of woodland had come into being.

Conclusion

When looking at the survival of individual veteran and specimen trees in the Forest it appears that the survival of these trees was due to choices made by the foresters during the 18th and 19th century to retain specific trees either for their aesthetics or possibly because they were good mast trees or for some other quality the tree was thought to possess. It is interesting that whilst at the west end of the Speech House survey area there are a greater concentration of these trees,

individual veteran trees are found throughout the length of the area surveyed and a wider survey of the forest suggests that there is a sprinkling of such specimen trees throughout.

We have no direct documentary evidence for why the hollywood has survived at Speech House. Whilst we may consider that the whole of the Forest estate operated for long periods as common land, and therefore specifically designated commons or waste were not required for pasture we must also consider that large scale plantings were carried out from the beginning of the 19th century and again in the middle of that century. During the earlier phases of these plantings large parts would be inclosed and hedged and commoners would lose access to these traditional grazings. By maintaining a network of interconnected waste which functioned in effect as a resource of wood pasture the Forestry authorities were better able to maintain a relationship with the commoners and avoided the often violent break downs of the past. Although this survey only examined two of these areas of waste both contain far more veteran trees per hectare than the rest of the Forest.

The walkover survey at both Brookways Ditch and Speech House was able to ground truth sites identified from the LIDAR survey. It was also able to identify significant monuments such as the tramroad and inclosure bank at Brookways Ditch, alongside smaller slighter monuments such as the platforms to the east of Speech House. While LIDAR is an excellent reconnaissance tool it is still not sufficiently sensitive to act as a replacement for walkover survey in wooded environments. The discovery of a small rock art panel suggests that there is an earlier prehistoric record still to be discovered around the Speech House.

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Appendix 1: Figures



Figure 1. Map of study areas and the Forest (Edina Digimap 2022 1:50000)

Speech House Veteran Tree recording form. M=Measured or Estimated, F= fungi, I= Invertebrates (bugs), E= Epiphytes mosses etc. tree form= pollard, coppice, maiden. Tree condition standing, fallen, dead, alive,

Date	Grid ref/Lat and Long	Species	Girth –M or E	Height of Girth	Tree form	Tree F/I/E	Tree condition	Veteran and/ or notable	Photo nos	Comments /pages in notebook	Initials



Figure 2. Recording Form for Trees

Speech House Memorial Form

Record Number:
Name of Memorial:

National Grid Reference:
Latitude & Longitude:
Address of Monument:

Location:

Person/ Thing Commemorated:

Type of memorial:
Construction:
Dimensions:
Lettering:
Inscription:

Imagery used:

Condition:
Causes of any damage:
Accessibility:
Owner/Custodian of the memorial:
Trees associated with memorial:

Photographic files:

Date Surveyed:
Recorded by:



Figure 3. Recording form for monuments

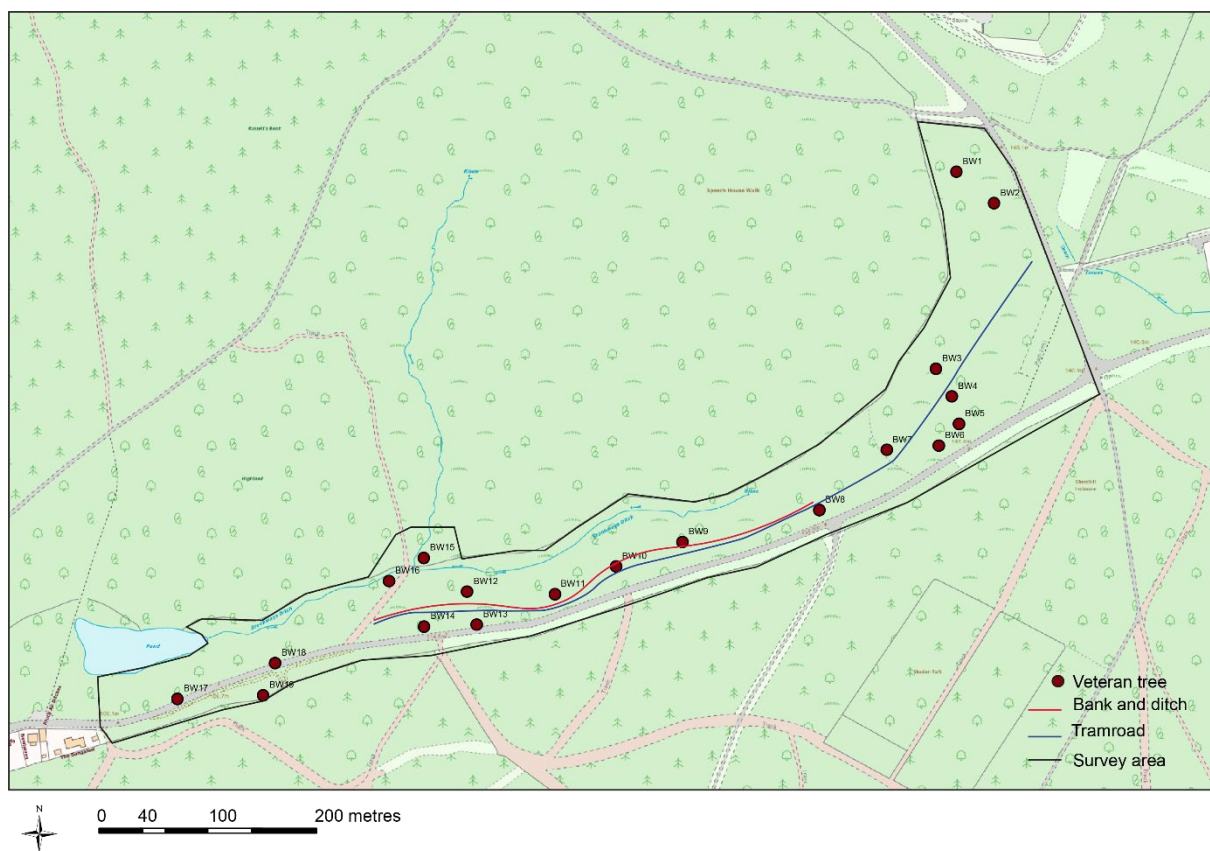


Figure 4. Survey area and trees at Brookways Ditch (Edina 2022 MasterMap educational licence)



Figure 5. Extract from the OS 1831 first edition six inch map (Visions of Britain 2021)



Figure 6. BW6 oak pollard at Brookways Ditch



Figure 7. Coppice stumps in Russells inclosure



Figure 8. BW 9 oak with a restricted crown in denser wooded area of Brookways Ditch



Figure 9. BW4 open grown oak in parkland near Brookways ditch/ New Fancy

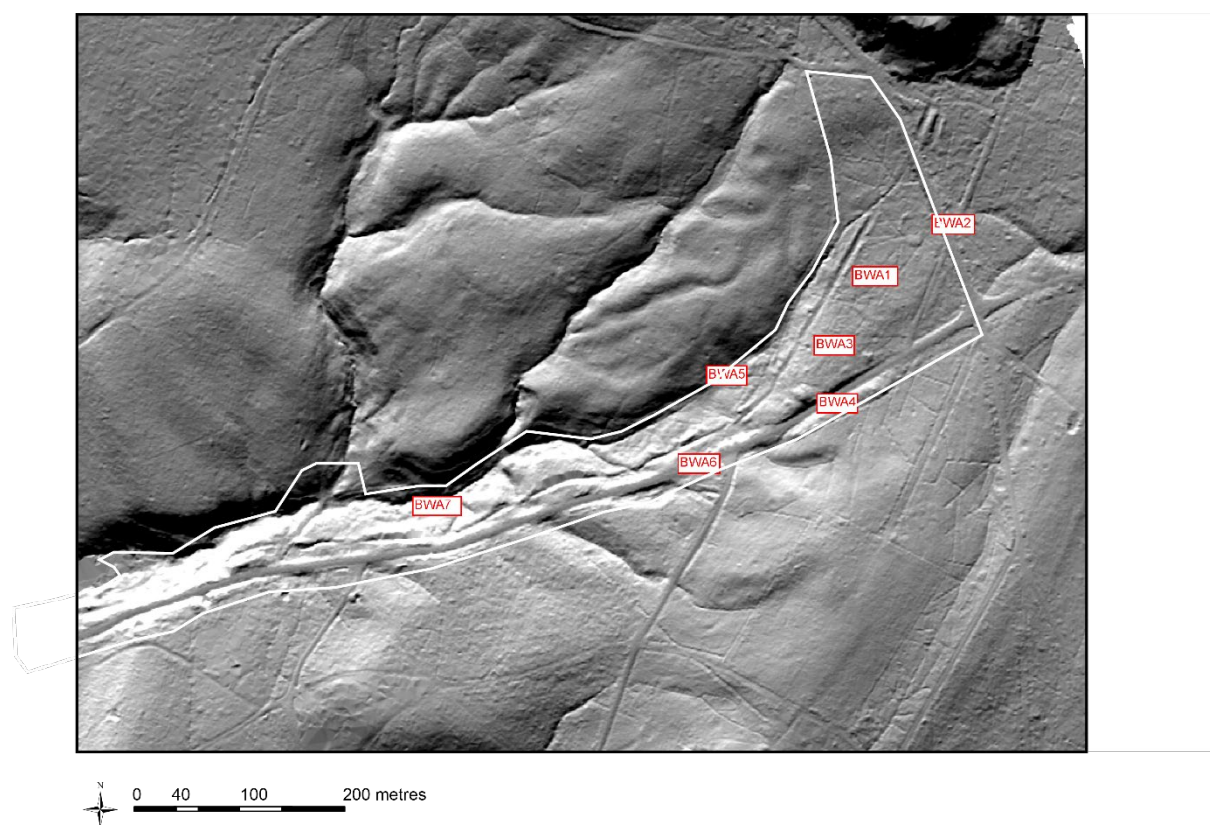


Figure 10. LIDAR at Brookways Ditch (FC 2005)



Figure 11. On the left is the large forestry bank in the centre is the bed of the tramroad ditched on either side



Figure 12. A stone lined culvert along the line of the tramroad

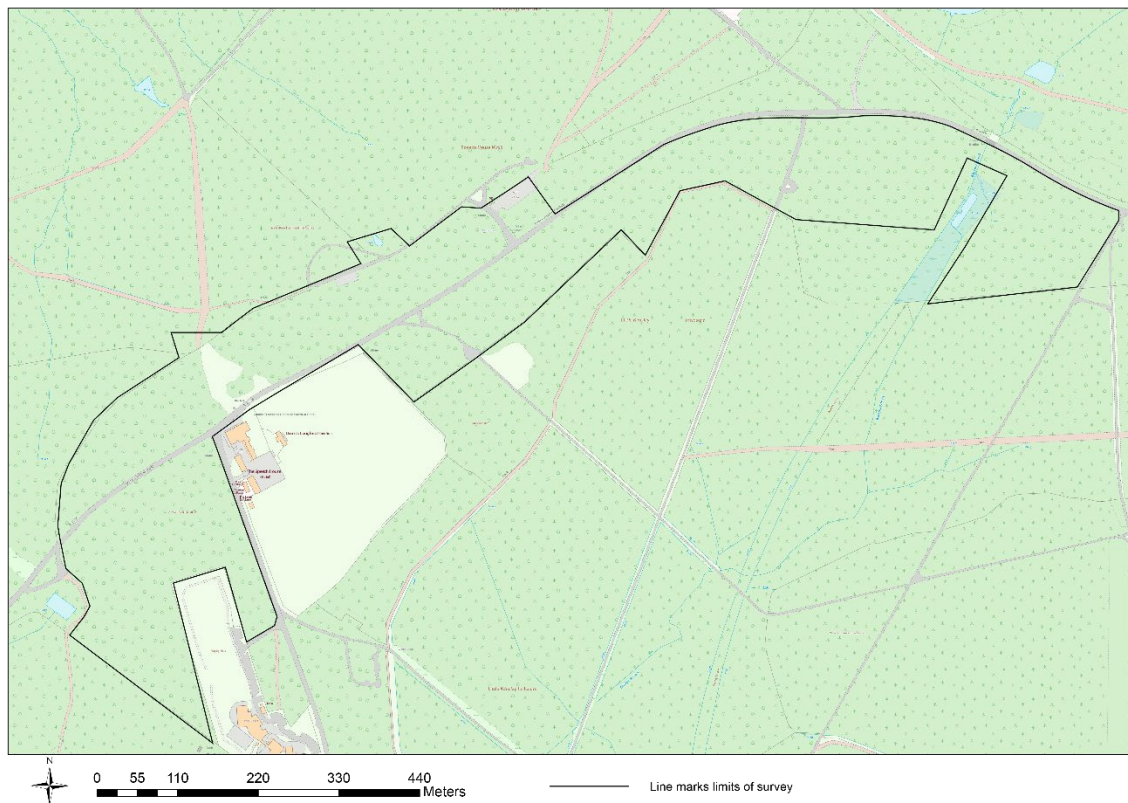


Figure 13. Survey area at Speech House (Edina MasterMap 2017, educational licence)

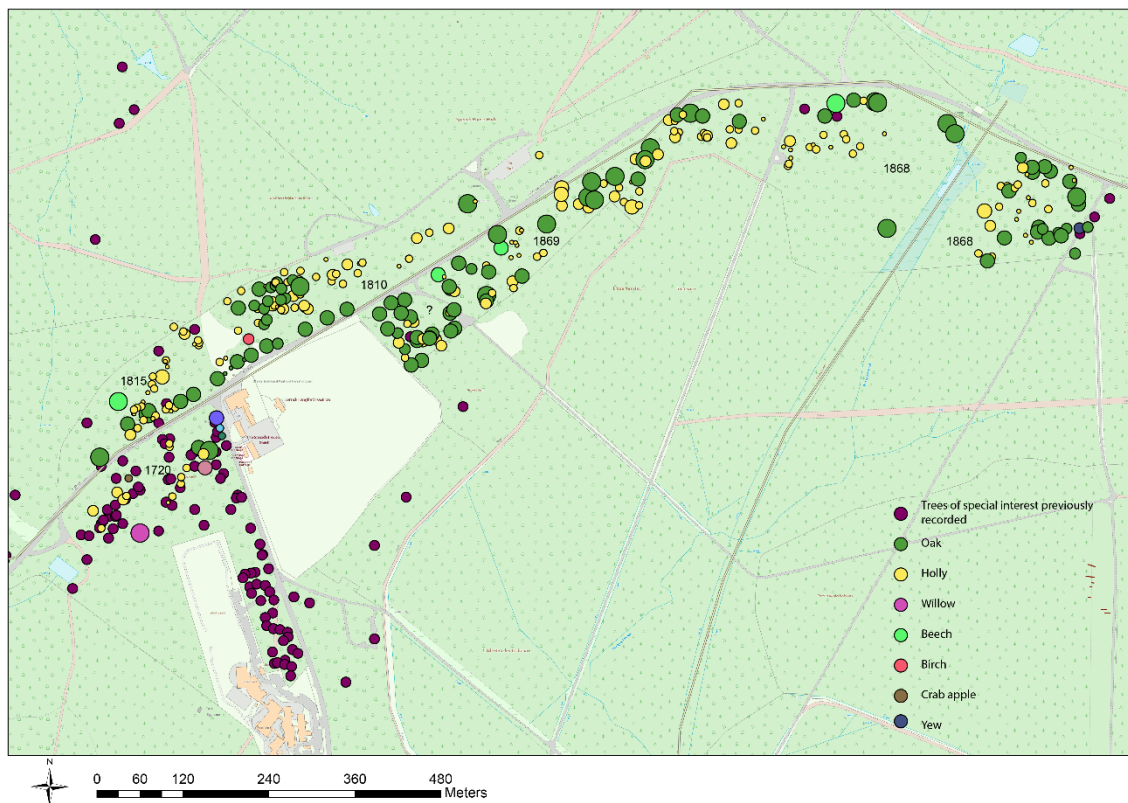


Figure 14. Trees of Special interest recorded by the survey at Speech House and planting dates(Edina MasterMap 2017, educational licence)

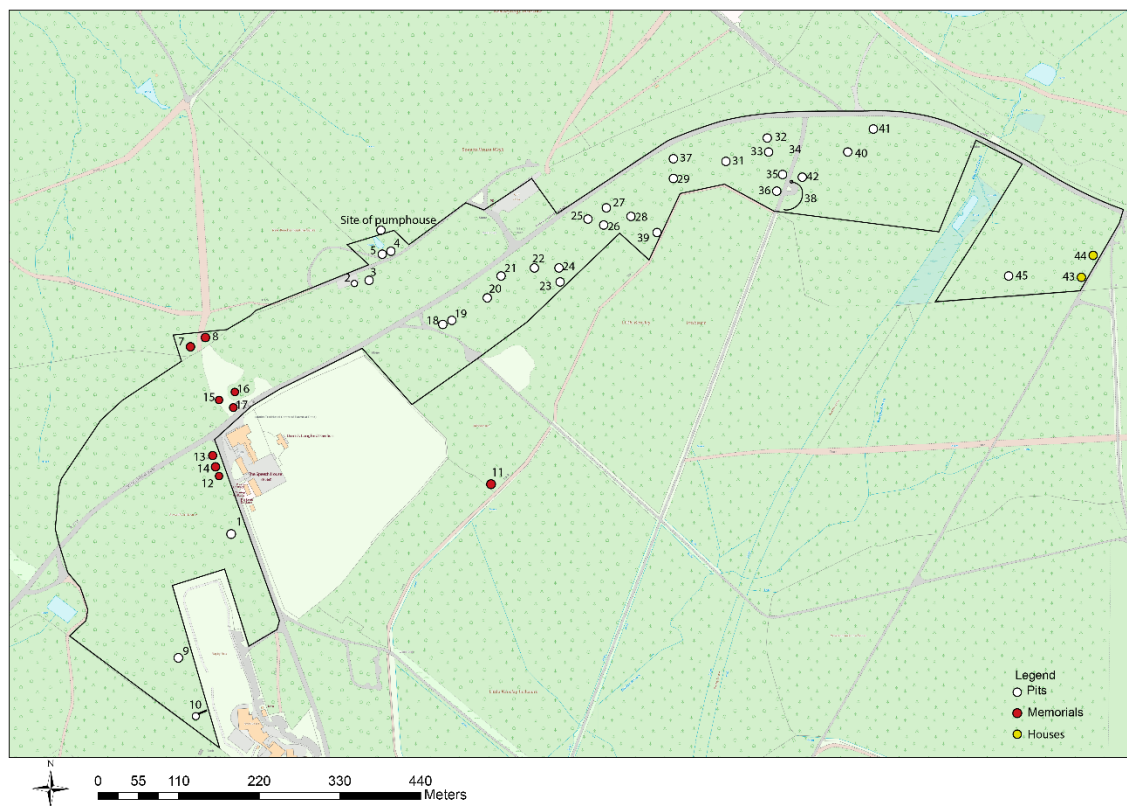


Figure 15. Archaeological sites and memorials recorded at the Speech House during the survey (Edina MasterMap 2017, educational licence)

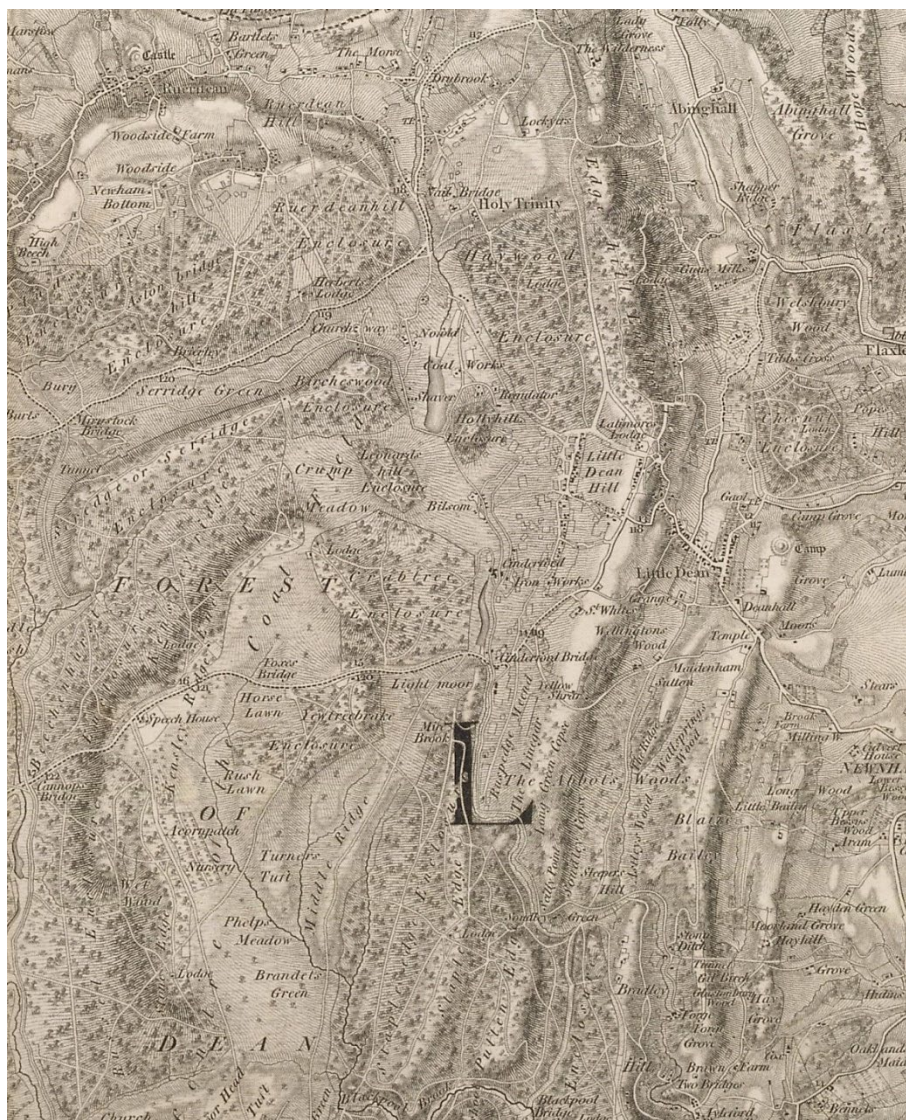


Fig 16. Extract from OS 1831 six inch edition (Visions of Britain 2022)

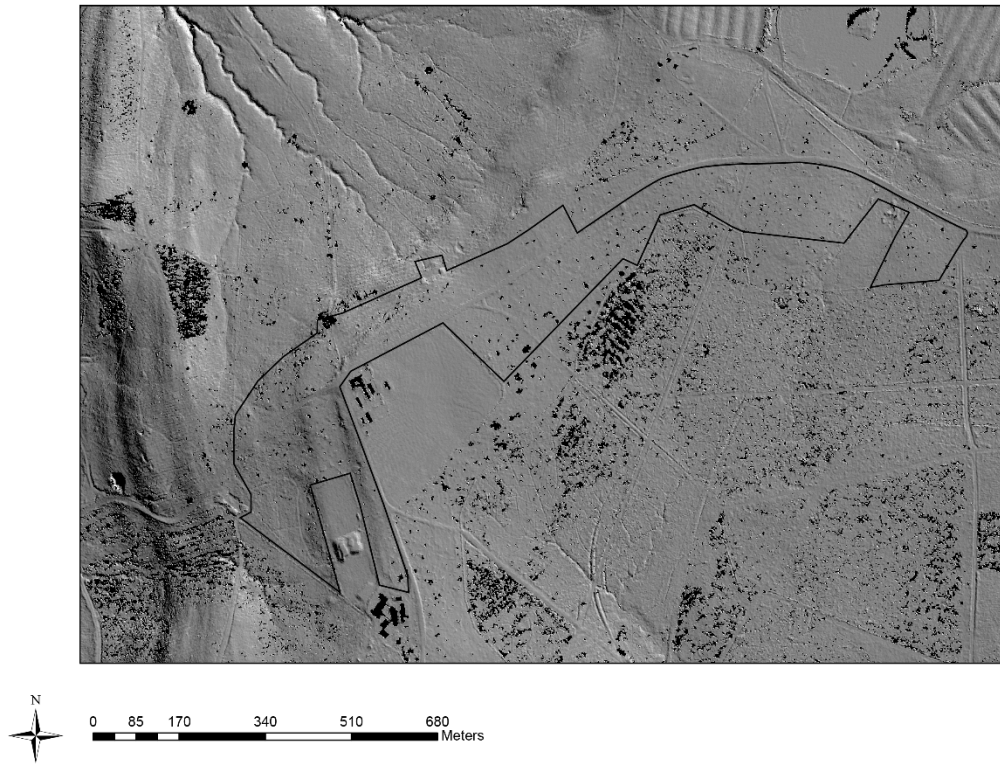


Figure 17. Extract from LIDAR (FC 2005)



Figure 18. Surveying at the Verderers Oak in 2016

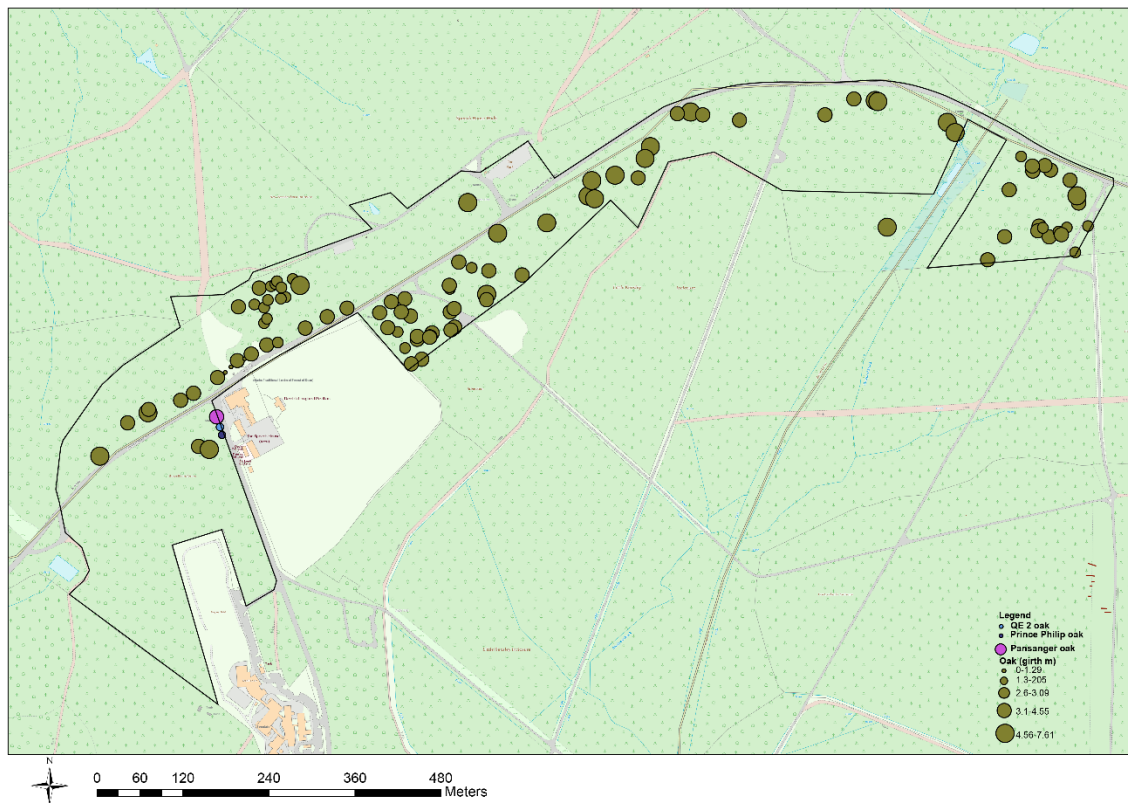


Figure 19. Oak trees of special interest recorded by the survey at Speech House(Edina MasterMap 2017, educational licence)

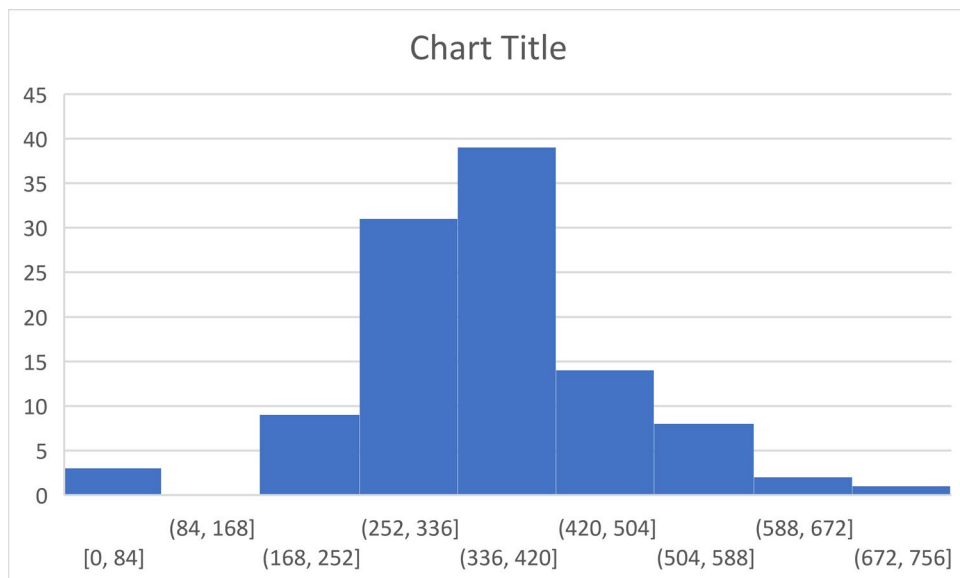


Figure 20. Histogram of oak tree girths



Fig 21. SH270 a rare survival of an older oak at Speech House in a much younger plantation

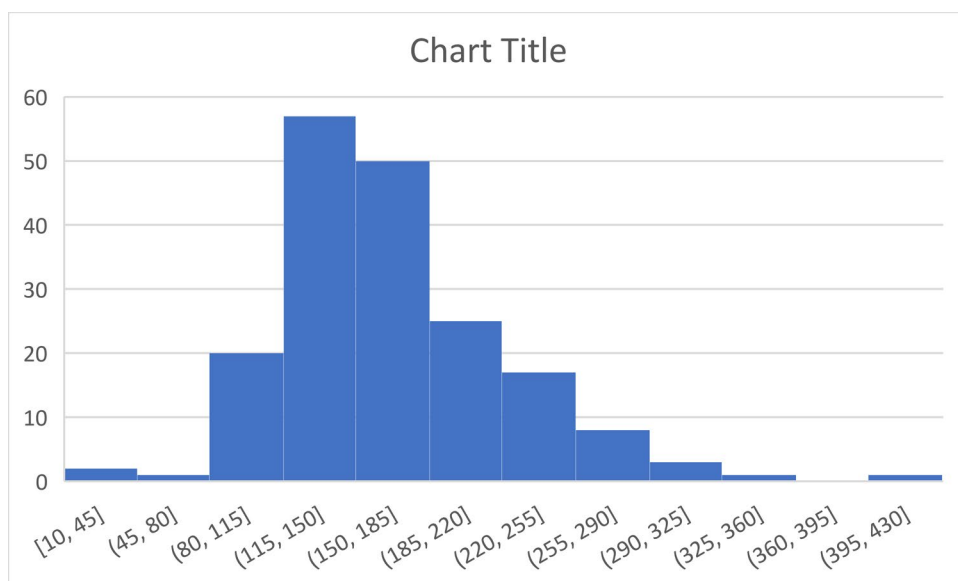


Figure 22. Histogram of holly tree girths (all forms)



Figure 23. SH045 Champion holly



Figure 24. SH202 holly coppice



Figure 25. SH186 holly maiden



Figure 26. SH189 holly pollard



Figure 27. Holly stub

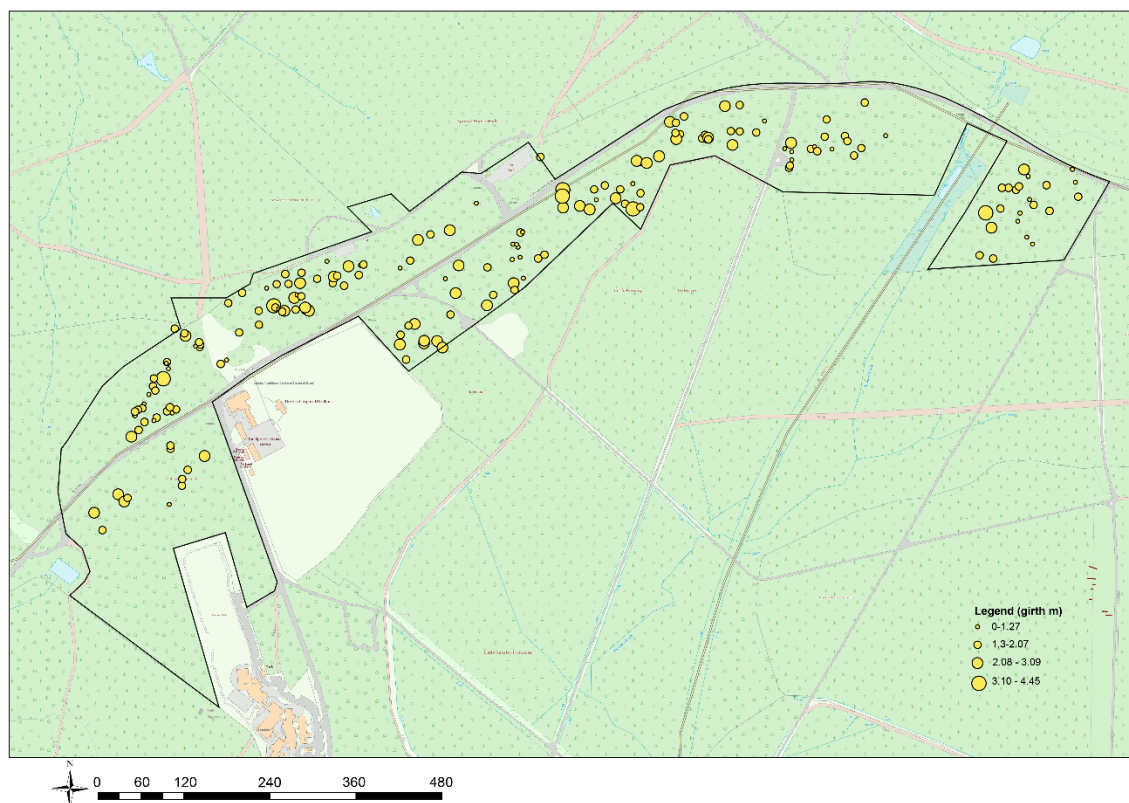


Figure 28. Distribution of hollies by girth in the Speech House survey area (Edina MasterMap 2017, educational licence)

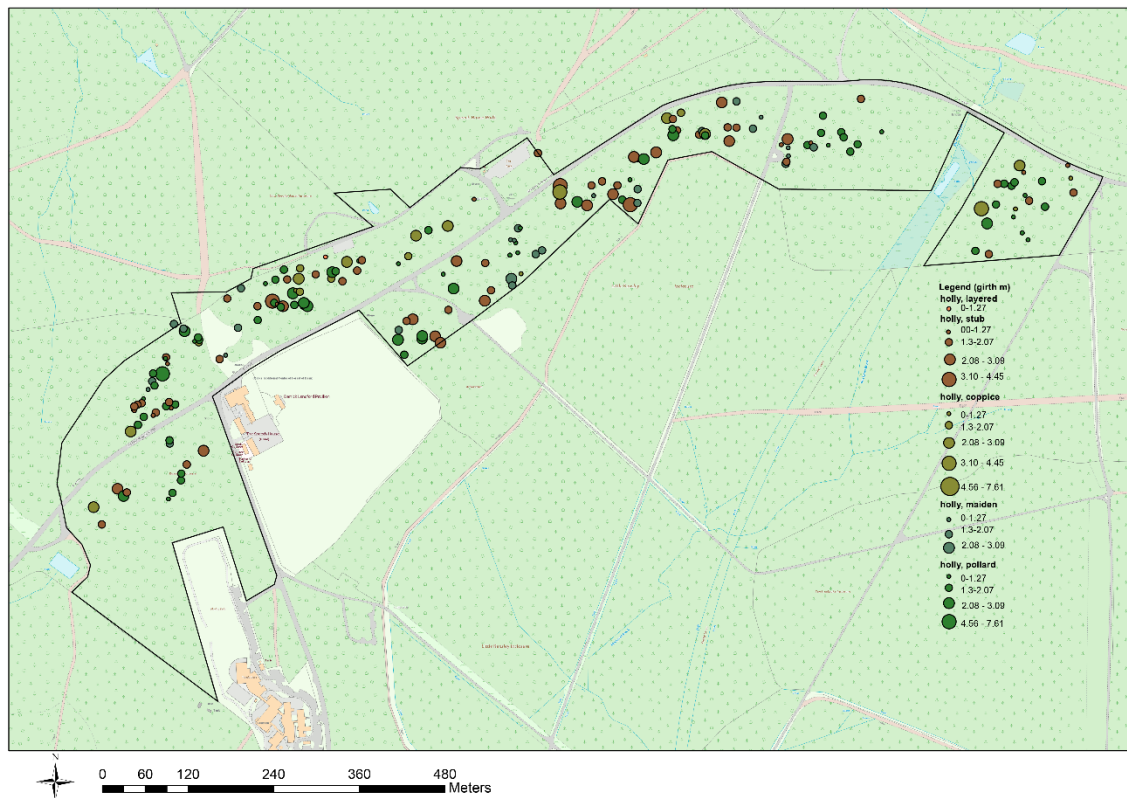


Figure 29. Hollies by form and girth in the Speech House survey area (Edina MasterMap 2017, educational licence)



Figure 30. SH119 a fallen pollard showing multiple regeneration where it has touched the ground



Figure 31. SH209 oak with holly growing at the base



Figure 32. SH099 holly stub with graffiti the letter E and a date either 1919 or 1929

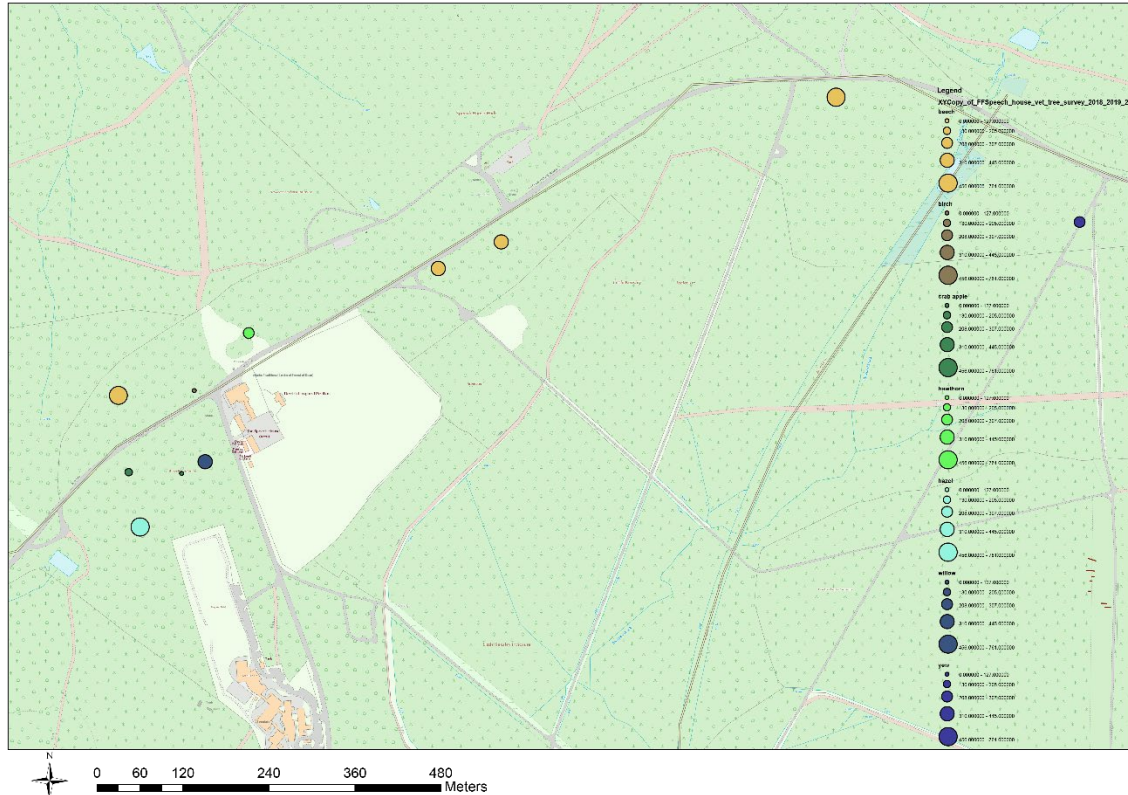


Figure 33. Miscellaneous trees of special interest recorded by the survey at Speech House (Edina MasterMap 2017, educational licence)

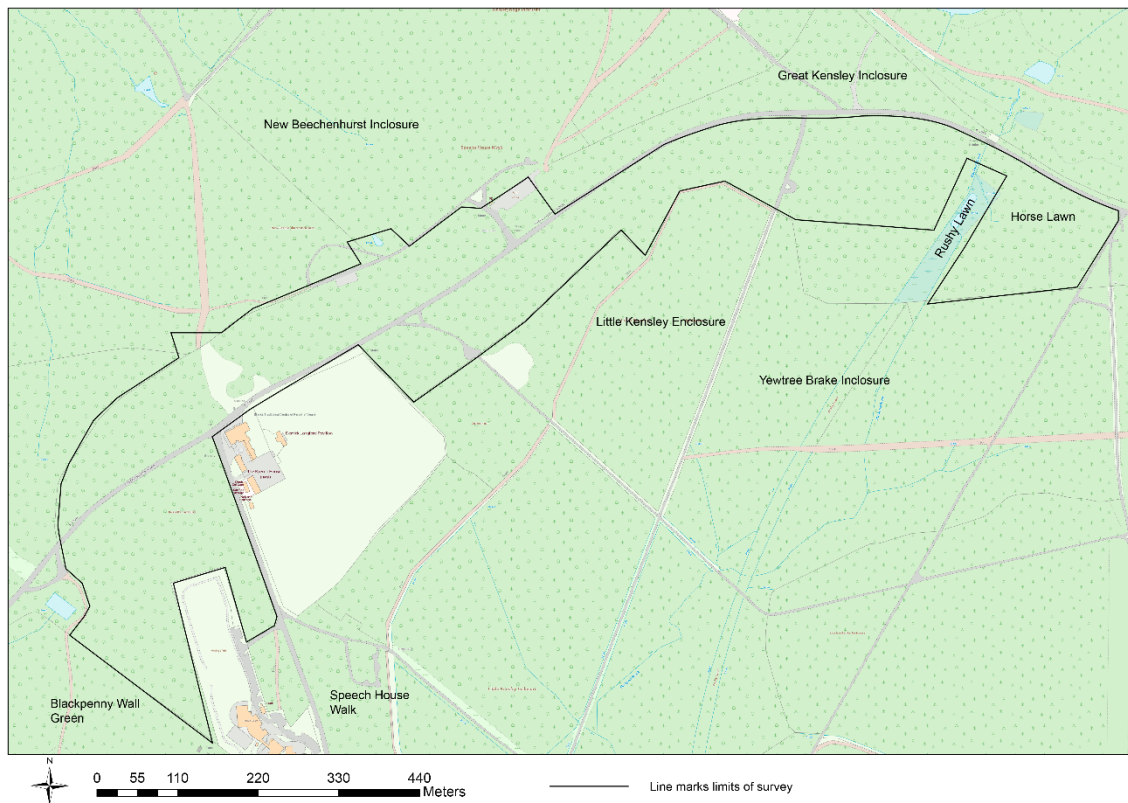


Figure 34. Inclosure boundaries of the area surveyed at Speech House (Edina MasterMap 2017, educational licence)



Figure 35. Cup marked stone beneath holly

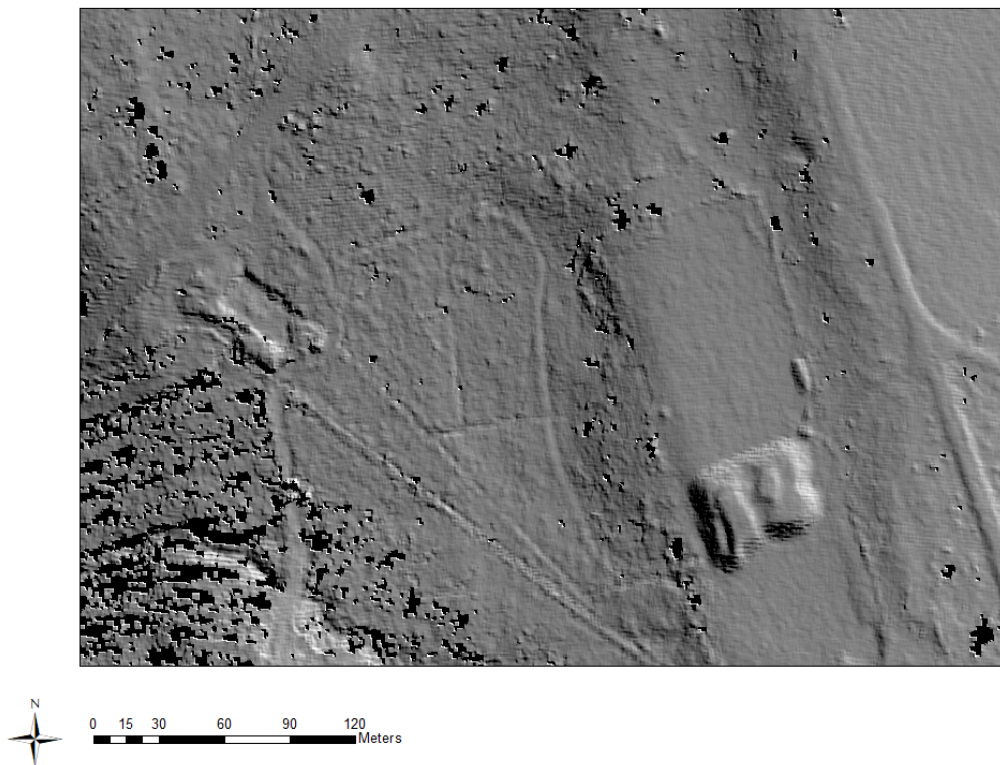


Figure 37. Remnants of truncated field system to the west of Speech House (SHA10)



Tables

Table 1. Veteran trees and trees of special interest at Brookways Ditch

FFID	Comment	Location all SO	DBH (m)	Comments	HER_no
BW1	Oak maiden gbh 3.40 m	362764 209363	1.08	Split trunk	0
BW2	Oak maiden 3.43 m gbh	362799 209334	1.09		0
BW3	Goat willow c.2.30 m gbh	362745 209183	0.73		0
BW4	Oak maiden 4.0 m gbh	362760 209157	1.27		49324
BW5	Oak maiden 3.40 m gbh	362767 209132	1.08		49323
BW6	Oak pollard 3.07 m gbh	362748 209112	0.98		0
BW7	Oak maiden 5.35 m gbh	362700 209108	1.7		49322
BW8	Oak maiden 3.90 m gbh	362638 209053	1.24		49320
BW9	Oak maiden 3.30 m gbh	362513 209024	1.05		49319
BW10	Oak maiden 3.1 m gbh	362452 209001	0.98		0
BW11	Holly pollard 2.08 m gbh	362395 208976	0.66		0
BW12	Beech maiden 3.50 m gbh	362315 208978	1.11		0
BW13	Oak maiden 4.75 m gbh	362324 208948	1.51		49318
BW14	Oak maiden 5.35 m gbh	362275 208946	1.7		49317
BW15	Oak maiden 3.80 m gbh	362275 209009	1.21		0
BW16	Beech multi- stemmed gbh c. 6m	362243 208988	0	has graffiti	0
BW17	Oak maiden 5.40 m gbh	362049 208880	1.72	The FC have a record of three trees centered on this location with dbh of 154, 151, 143	49314
BW18	Beech maiden c. 4 m gbh	362139 208913	1.09		0
BW19	Oak maiden 4.85 m gbh	362128 208883	1.54		0
BW20	Alder Coppice c.4m circumference	362357 208970	1.3		0

Table 2. Archaeological sites from Brookways Ditch

number	Type	Location all SO	Description	Interpretation	HER no.
BWA1	Tramroad	62807/09625 to 62668/09077	A long straight piece of double bank with central ditch c. 200m long, banks c. 1-2 m high.	A continuation of the line of the Brookhall tramroad to New Fancy Colliery	5701
BWA1 cont.	Tramroad	From 62760/09211 to SO 62663/09076	c. 180 m long section the tramroad is visible as an intermittent low bank c. 1m across and 0.30-0.50 m tall.	A continuation of the line of the Brookhall tramroad to New Fancy Colliery	
BWA1c cont	Tramroad	From 62652 09066 to 62224/08953	c. 450m long section of tramroad, includes an embankment over a stream with stone drain, and several associated platforms	Continuation of the line of the Brookhall tramroad. In places this follows and cuts into an earlier large banked feature. The bank and ditch feature has been quarried away in places.	
BWA2	Pond and associated ditches	62829/ 09284	c.30 m x 20m diameter pond with associated ditches	Pond possibly for static water for forest fires? latter half of the twentieth century	33233
BWA3	Mound	62786/ 09136	Circular mound, c. 1m high c. 8m diam	Mound near some small pits, uncertain age and function.	
BWA4	Mound	62725/ 09100	Irregular mound c. 1-1.5 m c.24m x 20 m	Mound by road uncertain age and function	
BWA5	Inclosure bank and ditch	62701/ 09154 to 62659/ 09085	Low bank c. 0.5 m high with associated ditch c. 0.5 deep c. 80 m curves to	Possibly 19 th century inclosure of valley head	Cont...

			enclose the head of the valley. Appears to post-date Russells Inclosure to the North and the Brookhall Ditch Tramroad	encloses an area of alder coppice.	
BWA6	Inclosure boundary and ditch	From 62652 09066 SO 62224/08953	A large bank and ditch, in places standing c. 2m high, runs in a sinuous fashion alongside the modern road.	Possibly the line of the Great Inclosure (Ian Standing pers comm.). It is a very large earthwork, damaged by a later tramroad. Needs further surveying for confirmation.	
BWA7	Platform	62314/ 08979	Ovoid Platform scooped into the hillside. C. 10x 15m.	a charcoal burning platform?	

Table 3. Tree species recorded as trees of special interest or Veteran status at Speech House

Species	Count
Beech	4
Birch	1
Crab apple	2
Hawthorn	1
Hazel	1
Holly	195
Oak	107
White willow	1
Yew	2

Table 4. Archaeological sites and memorials recorded at the Speech House during the survey

Number	Site type	Easting	Northing	size	Description	Photo Numbers
1	CBP	36198 6	212006	c.7m diam	Small revetted CPB.	n/a
2	Quarry	36215 4	212338	c.40x20m	Small quarry, on 1st ed. 1:2500 Gloucestershire 1878,	DSC03663
3	Small pit	36218 7	212355	c.10m in diameter	Revetted into hillside, c.2m deep	DSC03664
4	Platform	36215 9	212343	c.30-40m x30-40m	Large revetted platform, above the path, with stream issuing below.	DSC 03667-8, 3670 is of the platform
5	CBP	36214 5	212336	c.10m diameter	Contains several bottles from a bottle dump two marked Speech House. Has an Oak 2.6m in girth growing on it.	DSC03671
6	Terminus of inclosure by later path	36211 2	213322	Bank c. 75cm high, ditch c. 30cm deep, 1-2m wide	Old inclosure bank and ditch	DSC03672 Cont.....

7	Memorial	c.3619 44	212251	55x39x6 cm	Cast iron plaque rectangular with curved top. Inscription reads VR crest at top. <i>Beneath</i> /New Beechenhurst Inclosure/ Kensley Ridge/ and parts of / Serridge and Beechenhurst/Amounting to 666.3.38/Re-enclosed 1896/E.Stafford Howard Esq/commisioner/Philip Bayliss Esq/Deputy Surveyor	DSC03675
8	Memorial	c.3619 44	212251	78x59x5	Irregular shaped cast iron plaque. ER crest at top. <i>Beneath/ These yew trees/ were planted in the year 1902/ to commemorate the coronation/ of /H.M. Edward VII/ underlined/ EStaffordHowardCBCommr /Philip BaylissDepSurv</i>	DSC03676
9	Memorial	c.3616 92	211948	c.50x50x15 cm	Square roughly finished white granite block. Formerly within a enclosure judging by the regeneration around the base of the oak. Inscription on a small bronze plaque c. 20x 10cm. The Sanzen-Baker oak/designated by/H.M. Verderers of the forest of dean/on 30th fo August 1968/In appreciation of the / deputy-surveyorship of/ R.G> Sanzen- Baker. ESQ/1954-1968	DSC03693
10	Hedgeline	c.3619 54	211757	c.10 m long 3m wide trees look old	Fragment of a hedge line truncated by the forest school and inclosure	DSC3704
11	Memorial	c.3623 60	212/05 4	c. 50 x40x10 cm	Smoothed rectangular sandstone block with curved corners on top. Carved inscription reads. Speech house inclosure/ 1808-2008/ R. Guest. Deputy Surveyor. 18th June 2008.	DSC03705 Cont.....

12	Memorial	361985	212082	plaque 15x22cmx4 cm on 78cm post	Cast aluminium plaque on post. Raised inscription reads This oak tree/was planted by/His Royal highness/Prince Philip/Duke of Edinburgh/To comemorate his visit to the /Forest of Dean/ on 24th of April 1957	IMG_2443
13	Memorial	361980	212103	105x35x10 cm	Pentangle shaped smoothed sandstone. Inscribed with letters blacked. Reads 1861/Albert/Prince Consort/ decorative line/ Pansanger oak/ from a tree in Pansanger park/ <i>Planted by/ Queen Elizabeth</i>	IMG_2445
14	Memorial	361983	212089	plaque 15x22cmx4 cm on 78cm post	Cast aluminium plaque on post. Raised inscription reads This oak tree/was planted by/Her Majesty/ Queen Elizabeth II/ To comemorate her visit to the /Forest of Dean/ on 24th of April 1957	IMG0735
15	Memorial	361992	212618	86x50x17 cm	Sandstone, roughly finished, rectangular with broken ragged top. Plaque embedded into cut rectangular space, held in place with rivets. Engraved inscription, blacked. This oak tree was planted by/ HRH The Countess of Wessex KG GCVO/ to commemorate her visit to/ the forest of Dean/ On 24 April 2014	P4280029
16	Memorial	362000	212176	70x49x18 cm	Sandstone, roughly finished, rectangular with broken ragged top. Plaque embedded into cut rectangular space, held in place with rivets. Engraved inscription, blacked. This oak tree was planted by/ HRH The Earl of Wessex KG GCVO/ to commemorate	P428031 Cont.....

					his visit to/ the forest of Dean/ On 24 April 2014	
17	rededicati on of the Obelix	36200 3	212166	n/a	Plaque reads Unveiled by the HRH The Earl and Countess of Wessex on 24 April 2014 to celebrate the renovation of the monument.	n/a
18	Pit	36227 8	212284	12x13 m c. .3-.5 m	shallow circular pit possible CBP	n/a
19	ditch	36229 3	212990	1mx 18 m x 5.5	shallow ditch	n/a
20	pit	36235 0	212320	6.6xx5.1 m	shallow circular pit possible CBP	n/a
21	pit	36238 5.03	212350. 82	1.5x2 m	shallow longitudinal pit	n/a
22	pit	36239 8.96	212363. 24	6.9x 6.6m	shallow circular pit possible CBP	n/a
23	pit	36245 1.38	212343. 26	7x3.7m	rectangular pit possible sawpit	
24	pits	36244 6.7	212363. 24	n/a	boar diggings	n/a
25	pit	36244 6.7	212363. 24	4mx3m	shallow circular pit possible CBP	n/a
26	pit	36250 3.09	212420	2.6x2.4	shallow circular pit possible CBP	n/a
27	pit	36250 9.75	212448. 53	3.6x4.0m	shallow ovoid pit possible CBP	n/a
28	pit	36254 8.33	212436. 96	3x3.5m	shallow ovoid pit possible CBP split by fence	n/a
29	platform	36260 5.67	212481. 93	4x4m	platform	n/a
30	ditch			26.75 x 1.2m	drainage ditch	n/a
31	pit	36269 7.26	212509. 53	2.7x 2.8 m	shallow ovoid pit possible CBP	n/a
32	pit	36272 5.93	212535. 73	5.5x3.6 m	oval pit with upcast	n/a
33	mound	36272 7.25	212522. 5	7.1x4.5 m	oval mound with 11x3m ditch to the north	n/a
34	pit	36275 0.91	212518. 3	5x6m	shallow ovoid pit possible CBP	n/a Cont....

35	pit	36274 8.01	212472. 13	3.3x2.7m	square pit	n/a
36	small find	36274 0	212462. 27	n/a	small piece of ground stone - discarded	n/a
37	pit	36259 7.98	212510. 34	4.x3m	shallow ovoid pit possible CBP	n/a
38	bank	36277 7	212488	20m x 1m	discontinuous bank c. .5- 1.0 m high	
39	pit	36258 4.18	212405. 72	7x4m	rectangular pit possible sawpit	n/a
40	SF1	36283 3.17	212516. 66	n/a	Iron tramroad plate	n/a
41	SF2	36286 6.43	212545. 14	n/a	SH mineral water bottle	n/a
42	SF3	362779	212492	50x30cm	Cup marked stone	n/a
43	house footings 1	36316 9	212358	5.2x3.15 m	Small rectilinear house footings wall width 0.7m	n/a
44	house footings 2	36316 7	212342	5.8x4.2m	rectilinear house footings 5.8x4.2m wall width 0.7m.	n/a
45	pit	36306 1	212384	4.4x4.8m	shallow ovoid pit possible CBP	n/a

Table 5. Maps consulted during the study

Map title	Year	G.R.O. No.	Reference
Map of the Forest of Dean	1710	D3921/IV/5	Gloucester Records Office. and Hart 1995 p.206
Driver map of the Forest of Dean	1787	D3921/IV/8	Gloucester Records Office
OS first series map sheet 43 1:63.630	1831	n/a	https://www.visionofbritain.org.uk/maps/
Atkinson's map of the Forest of Dean	1847	G.R.O. D3921/IV/12	Gloucester Records office and https://coaley.net/atkinson-1847/
OS 1:2500 County series 1 st edition	1878	n/a	https://edina.ac.uk

Table 6. Holly forms and girth ranges at the Speech House survey area

Type	count	Girth range (cm)
Maiden	30	50-257
Pollard	72	90-355
Stub	66	45-320
Coppice	27	106-410

Appendix 2

Attached file of data from Speech House survey (.csv).