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The Gardens of Rothamsted Manor - Management Plan

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A2 Site Description

Rothamsted Research

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A2 Site Description

Location

- Rothamsted is situated on the south-western edge of the town of Harpenden in Hertfordshire, c.2km east of the village of Redbourn and some 6km north-west of St Albans [Map 1]. To the west of the estate the A5183 (Roman Watling Street) runs north-west from St Albans, and to the east the estate extends to Harpenden Common, which is crossed by the A1081 between St Albans and Luton. The southern boundary follows the B487 between Hatching Green and Redbourn.
- The Manor House is situated at the centre of the estate. The gardens lie to the north, west and south of the house, with the Manor Wood to the west and north.
- The research campus is on the east side of the estate, and the 'experimental farm' is located north-west of the Manor House [Map 10].

Size and physical factors

- The Manor House, outbuildings, gardens, and neighbouring Manor Wood occupy c. 13ha.
- The Rothamsted estate as a whole is c. 330ha.
- Geology and soil - The soil is a flinty loam on clay-with-flints and/or chalk.
- The Manor House site and surrounding fields occupy a slight plateau at the centre of the site, from which the land gently slopes away to east and west. The valleys to east and west are obscured from view because of the gentle gradients and peripheral trees. It is unlikely that there were ever very distant views. The principal prospect from the Manor House is to the south (across parkland in 18th & 19th Centuries, and now across fields).
- The gardens experience heavy frosts, and are exposed to north-easterly winds.
- Experimental fields cover most of the estate.
- The principal concentrations of trees are in the Manor Wood adjacent to the formal gardens, and in Knott Wood further to the west. There are mature trees along some site roads and field boundaries.

Entrances & Approaches

The main entrances to the site are from Harpenden via the research campus to the north-east and from Hatching Green to the south-east. At Hatching End the driveway is marked by a 19th Century lodge. From these entrances roads follow lime avenues and then join to approach the house along a single road from the east, which forks at the entrance to the Manor site. The southern fork leads through a shrubbery to the main entrance in the south front of the house. The northern fork passes through a yard to the east of the Manor House on its way to the experimental fields to the north. The yard is bounded to the north by barns and storage buildings [Fig.38], to the east by a 19th Century cottage, and to the south by a wall screening the principal driveway. On the west of the yard, access to the central courtyard of the Manor House is through a two-storey gateway building [Fig.40]. The western approach to the house, which is no longer used, arrives at the south front along a straight drive from a 19th Century lodge on the B487.

The Manor House

As far as is known, the house stands on the site of the earliest Manor House, and its core dates back to the 16th Century or earlier. The majority of the external fabric (red brick) dates from changes made in the mid-17th Century when the house was re-fronted and substantially altered and extended. It was further extended in a similar style in the mid-19th Century. The principal architectural fronts to the south and west incorporate Dutch-style gables. The main entrance is in the centre of the south front. There is a central courtyard, enclosed by south, west and north wings, with the gateway to the yard on its eastern side.

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Description of the Gardens by area

See Map 11 (Plan as Existing) for the management areas referred to in this document.

Area 1 - Approach and Front Lawn

The eastern approach drive enters the gardens through a wrought iron gate (Grade II) [Fig.9]. The line of this approach was established between 1900 and 1911, having previously followed a more southerly route. The drive passes along a short avenue of flowering cherries and then divides. To the north of the drive is an area of mature yews and sycamores. To the south is the shrubbery (Area 2). The two branches of the drive emerge from the shrubbery to form a turning circle on either side of the well-kept lawn [Fig.10] in front of the house's main entrance. The line of a walled forecourt (17th Century) can be traced in the lawn in times of drought.

A section of ha-ha extends along the south of the front lawn, overlooking the fields beyond. This is the principal view from the house, but retains little of its former parkland character [Fig.10]. A 19th Century ornamental ha-ha wall formed the foreground to the view until it collapsed in the 1990's. Only the lower section up to lawn level was rebuilt [Fig.12], and a rudimentary wire fence on the far side of the ha-ha is now necessary to restrain livestock. Part of the original ha-ha wall survives overlooking the pond to the east. A stone sundial was located near the ha-ha on the axis of the house but was stolen in 2001.

A stone seat is located to the east of the front lawn on the axis of the former western avenue, backed by clipped hedging and shrubbery. An area of lawn extends west of the turning circle and is ornamented with 5 clipped yews on the axis of the formal gardens to the north, from which it is separated by a low wall. The rarely used western approach drive joins the turning circle at its south-west corner, where a group of lime trees appear to be a remnant of the former avenue planting.

Area 2 - Shrubbery and Pond

The principal area of shrubbery lies to the south of the eastern approach drive. The planting is in need of renewal, and is dominated by overgrown laurels. There are no kept paths. A young memorial oak tree stands in a grassed clearing in the shrubbery. This and the other memorial trees nearby are subject to considerable encroachment by the laurels and surrounding mature trees. The pond on the western side of the shrubbery dates back at least to the 17th Century, and a few trees dating from the 18th Century or earlier stand on its banks. The pond lies at a lower level than the driveway which overlooks its northern edge. In between are two or three terraces for planting, now largely overgrown. The view across the pond towards the house is one of the classic views of Rothamsted and is the subject of several historic illustrations and photographs [Figs.3,13,14]. It was becoming obscured by young sycamores in 2002. The abandoned wooded area south of the pond has uneven ground as the result of earlier rubbish tipping.

Area 3 - Formal Gardens

To the west of the house and walled gardens lie well-kept formal grassed parterres [Figs15,16]. This area was formed out of the former walled garden enclosure when it was reduced in size in the 1860's. A ha-ha separates the parterres from the woodland beyond. The west front of the house gives onto the upper parterre (the 'croquet lawn'), which is flanked by two pairs of clipped yews and enclosed by a gravel path. This was laid out with bedding and later as a croquet lawn during the 20th Century, and is reputed to have been a bowling green in the 17th Century. The 'Rose Lawn' to the north is a larger parterre set c.400mm below the level of the croquet lawn, to which it is linked by steps at both sides. It extends along the west wall of the walled garden, which is lined with a herbaceous border [Figs.17,18]. Flower beds, urns and clipped yews are symmetrically arranged around an ornamental stone 'fountain' feature [Fig.16], which appears to have been intended for planting rather than water. The topiary yew 'balls' are currently

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undergoing a process of restoration. A 19th Century low ornamental terracotta ha-ha wall with brick piers runs along the western edge. Other features of the parterres include a reclining white marble nymph by Sir Charles Lawes-Wittewronge (Grade II) [Fig.24], which was set on a pedestal in a pool at the south end of the lawn in the early 20th Century. The 17th Century 'stone boy' was stolen in 1997 from under the arched arbour at the southern end of the upper lawn [Fig.23]. A rose arch walk along the western side of the lawn dates from the 1990's [Figs.21,22]. Its flanking beds are planted with a collection of hostas that is approaching 100 varieties. Set within the lawn towards its northern end is the Red Clover Bed [Frontispiece]. This is the smallest of the 'classical experiments' and has been continuous since 1854. When the former walled garden was halved in size in the 1860's the clover bed was left 'stranded' in the newly created parterre.

Area 4 - Walled Garden

The walled garden lies to the north of the house. It occupies an area that is approximately the eastern half of the 17th Century walled orchard. The walls are red brick and are listed Grade II. The lower part of the east wall is the oldest section in the garden and dates from the 17th Century or possibly earlier. The north wall and the upper part of the east wall are later and are probably 17th Century, although they may have been altered later when a lean-to building was constructed outside the walled garden to the north. The west wall is mid-19th Century with early 20th Century ornamental additions echoing the Dutch gables of the house [Fig.17]. An arched walk of decrepit apple trees [Figs.29,30] runs across the walled garden and is aligned with an ironwork gate leading west into the formal garden [Fig.19]. The area to the north of the central path is uncultivated, and the southern area is used as a gardeners' yard [Figs.27,28]. (See Appendix C for content of walled garden in December 1941.)

Area 5 - Orchard

North of the Rose Lawn is a rectangular area that was planted as an orchard in the early 20th Century. It extends from the walled garden wall westwards and projects into the Manor Wood. Within the wood, its southern boundary is defined by a continuation of the ornamental terracotta walling that runs along the western edge of the parterre. The section flanking the orchard is now largely ruinous. A line of overgrown shrubbery defines the orchard's northern edge and closes off the northern extension and yew circle (Area 6c). At the western edge overgrown laurels now obscure the former semi-circular termination. There are no orchard trees remaining in the area. The section that forms the northern continuation of the formal parterres was planted with ornamental trees in the early 1990's, and is managed as a wild flower meadow. The western projection into the wood was planted with native species in the late 1980's and is intended to become natural woodland [Fig.37].

Area 6 - Manor Wood and 'Dirce' Avenue

The Manor Wood lies to the west of the ha-ha and also extends to the north of the parterre lawns, providing a backdrop and a shelter for the house and formal gardens. The woodland has formed an essential and integral part of the gardens for as long as records exist, although it has passed through a number of changes in character. For the purposes of this document it is divided into the following areas:

Area 6a - The 'Warren'

This is the historic area of woodland dating back to the 17th Century and earlier. In 1623 it was called the 'Conygre'. Sir John Wittewronge and his 18th Century descendants referred to it as the Warren, and also, as it developed, as the Plantation, the Wood and the 'Ffurr Grove'. In the main body of the woodland the trees include oak, ash, sweet chestnut, birch, maple, beech, sycamore, California redwood, spruce, Lawson cypress, yew and larch. Recent planting has been of native trees intended to enhance wildlife value, but this

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has not been intended or maintained to uphold or enhance the designed landscape value. In the northern part of the Warren are the remains of unique collections of as yet uncatalogued varieties of daffodils and rhododendrons bred by the late Leslie Scowen, who worked at Rothamsted from 1946 to 1974. A decaying octagonal brick and timber summerhouse with a clay-tiled roof overlooks the Rose Lawn at the wood's eastern edge [Figs.22,35], and a brick icehouse is located further to the west. The roof of the icehouse has been broken by a falling tree, but the rest of the brickwork appears to be in reasonable condition. The eastern edge of the Warren overlooks the ha-ha adjoining the formal parterres and presents a generally wild and unkempt appearance.

The principal designed feature in the woodland is a formal avenue ('Dirce avenue') [Figs.31,32] laid out in its present form in the first decade of the 20th Century by Sir Charles Lawes-Wittewronge on the line of an earlier avenue. Its axis is slightly north of the line perpendicular to the house, and aligns with the Great Drawing Room added to the west front by Sir John Bennet Lawes in 1863. At the east end, facing the house, the avenue starts from an exedral (semi-circular) grassed area with a pair of two stone 'rococo' urns and a large copper beech. Around the exedra the yew hedging forms a double layer to enclose narrow curved compartments. The avenue culminates in a circular clearing ('Dirce circle') at the west end, where a large sculpture by Sir Charles Lawes-Wittewronge - 'The Death of Dirce' (Grade II) - was set up according to his wishes after his death in 1911 [Figs33,34]. The entire composition is lined with laurel behind clipped yew hedging. Away from the house the hedging is backed in the main by mature conifers, with several Wellingtonias at the Dirce circle, and Lawsons cypresses along much of the avenue. The hedging and shrubbery is maintained appropriately to be viewed from across the ha-ha, but is gappy and unkempt in areas towards the opposite end. Access to the avenue from the croquet lawn is by way of two narrow steel bridges across the ha-ha which appear to be subsequent to Sir Charles' design.

The age of the existing paths in the wood is unclear.

Area 6b - Western Avenue ('West Lawn')

The western avenue approaches the house along the southern edge of the wood. In 1875, the flanking lime trees were admired by the Gardeners Chronicle:

"*... a glorious row of Limes, whose arching branches rooting in the soil, and then arising in a dense tangle of young shoots, form leafy corridors, the charm of which is best appreciated on a hot and sunny summer day when the air is heavy with the perfume of the blossoms.*" [Fig.6]

This was called 'Unter den Linden' by the scientists, who used the route when walking between the Park Grass and Garden Clover experiments. By the early 20th Century the arched walkways had disappeared, but limes still remained. Sir Charles Lawes-Wittewronge realigned the final part of the approach road further to the south, allowing the lime avenue to be grassed, and it was illustrated in Country Life in 1906 as the 'West Lawn'.

The last of the older limes was lost in the storms of 1987/90. Replacement lime trees were planted, but not to a regular layout. The ground was not re-levelled after the upheavals and remains uneven The new trees have not been maintained, and the area is generally overgrown.

Some yews and redwoods remain lining the approach road further to the west.

Area 6c - Northern extension

The largely abandoned section of woodland to the north of the orchard was added by Sir Charles Lawes-Wittewronge in the early 20th Century in the triangular area of the former Dredge Field. As with the tree planting enclosing the Dirce circle (above), the motive appears in part to have been to close off the view of his late father's experimental fields, in this case from the north of the formal parterres. Closing the axis of the formal gardens he planted a circle of yews (probably intended as a hedge), surrounded by woodland trees. Most of the yews remain and are now mature, but they are obscured from the formal garden by later

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conifers, rhododendrons and overgrown laurels, and self-seeded and planted natives are now beginning to fill up the centre of the circle. The connecting paths into this area have largely disappeared, and it would be easy to miss it entirely. The surrounding area is mainly planted with conifers with an open understorey. Concrete foundations in the northern extension date from the period of army requisition during the 1939-1945 war.

Area 6d - Dirce extension

This was added at approximately the same time as the northern extension, and for similar reasons. It provided an encircling backdrop to the Dirce sculpture, offered additional shelter from wind, and closed off the western axis and the view to the surrounding fields. Outside the original boundary of the Warren a double line of mature yews remains to the south of the Dirce circle, presumably marking an earlier boundary walk. A broken single line of yews continues to the north. Further west, beyond the site track, there are few remaining mature trees, and there is therefore very little shelter for the mature Wellingtonias to the rear of the Dirce circle. Much of this area has been planted with native trees in recent years.

Area 6e - Western extension

The western extension was planted in the mid-19th Century and formed a wooded link with Knott Wood to the west. It was almost completely clear felled in 1938, but small stands of Grand Fir, Western Hemlock, Douglas Spruce and Sweet Chestnuts remained. The rest was replanted in the 1970's as a timber plantation, with native forest trees, and cherries along the central track.

Area 7 - Yard and Outbuildings

The yard to the east of the house [Figs.38,40] is laid out with two central grass areas surrounded by vehicle access routes, including the through-route from the research campus to the experimental farm. A large pond was shown in this area on the Tithe Map of 1838. The yard was laid out in its current form at the beginning of the 20th Century when Sir Charles Lawes-Wittewronge removed several barns and outbuildings.

The main parking area for the manor runs along the southern side of the yard, backed by a walled area of shrubs and trees that screens the driveway to the front of the house. On the west side a C17 two-storey gateway gives access to the house courtyard, and north of this is a C17 cottage. Two 19th Century cottages are located on the east side of the yard, with a third on the north side. All the cottages are occupied by staff, present or retired. The timber-boarded farm buildings on the north of the yard include some 17th Century timber frame construction and are used for storage. Further north is a brick barn that houses the soil store [Fig.39].

North of the walled garden is a row of largely derelict mid-19th Century lean-to outbuildings used for vehicle and garden storage [Figs.41,42].

Wildlife

- The Herts and Middlesex Wildlife Trust identified Rothamsted as of importance for Hertfordshire's wildlife during their habitat survey of 1994-1997, and identified it as a 'Wildlife Site'. This is the description given in their citation (March 2002):

  A world-renowned site for agricultural experiments. A large proportion of the area is arable but there is a mix of semi-natural habitats still remaining on the site including woodland, hedgerows and water bodies. Two areas of grassland are particularly important. The Broadbalk field supports several uncommon and declining species including the nationally rare Corn Bedstraw. Park Grass is an area of permanent grassland divided into experimental plots to determine the effects of fertilisers and liming. Part of the grassland is unimproved with 17

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grassland indicators and includes an expanding colony of Snakes-head Fritillary that is at least as old as the experiment (c.150 years). The site includes Knott Wood, a small area of ancient semi-natural woodland mainly composed of planted Beech with a few coppiced species. Rothamsted Manor also includes a pond, an icehouse and an established area of ornamental woodland with a range of fungi and colony of Violet Helloborine [not seen in recent years]. *Continuous moth recording over a long period of time has produced an extensive list of invertebrates including many that are rare or uncommon.*

- No part of the estate has a statutory designation on wildlife grounds.
- Professor Roger Plumb has been co-ordinating a biodiversity study on the estate. This is an attempt to bring all the existing information together, to update it, and to fill in the gaps as necessary.
- Woodland: The two principal woods on the estate are both important for wildlife, but have different qualities:
  - Knott Wood is considered to be semi-ancient woodland (records of established woodland management date back to at least 1623) with a diverse flora including several ancient woodland indicator species. It was almost entirely clear felled in 1938 but has regenerated with areas of replanting. It is managed principally for wildlife, with some timber production.
  - The Manor Wood is mainly planted trees, including many introduced species. Its flora is not as rich as Knott Wood and includes fewer ancient woodland indicator species. It is a better habitat for birds, probably due to the number of older trees. In some areas of the wood rampant laurel dominates the understorey at the expense of native species.
- Classical field experiments: The classical field experiments contain areas where management has been consistent and well recorded over long periods. This continuity of management has allowed a number of distinct ecological communities to become established. Some areas where 'artificial' inputs have been restricted have communities that may have changed little since the early C19 (pre-scientific agriculture), while others have come about as the result of specific inputs or techniques (eg. different manuring, fertilising, pesticide regimes). The resultant flora and fauna has been the subject of detailed observation and recording over a long period. These different communities therefore have wider scientific and cultural interest as well as local wildlife significance.

Archaeology

- St Albans City and District Council list the Manor House site as amongst 'archaeological sites which may be subject to a recording condition'.
- At the time of writing there is no established procedure for dealing with archaeological remains on site. The recent excavation of a trench across the front lawn for electrical cable illustrated the possible implications of this; the footings of the 17th Century forecourt walls were revealed and disturbed by contractors but were not protected. The opportunity to photograph and record what was revealed was not taken.
- There are a number of questions about the garden's history that might be answered by garden archaeology. These include details of the layout both at the time of the 1623 sale and after Sir John Wittewronge's changes (1647-93), and the arrangement and surfacing of paths in the Manor Wood dating from the 18th to early 20th Centuries.
- The most significant archaeological site on the estate is the Roman Temple to the north-west of the manor, which is a Scheduled Ancient Monument.