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The Gardens and Landscape of Rothamsted Manor - an Historical Report - Volume 2 - Appendices and Figures



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Volume II - Appendices, Maps & Figures

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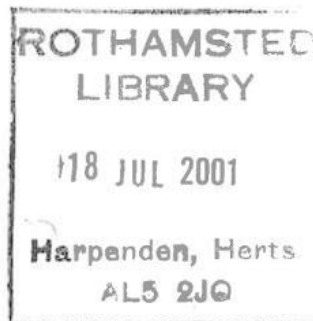
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The Gardens and Landscape of Rothamsted Manor

An historical report

VOLUME II – APPENDICES, MAPS & FIGURES



Prepared towards the Diploma in Conservation (Landscapes & Gardens)
Architectural Association

by
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COOK

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APPENDIX A

Chronology of Ownership and Occupancy

Dates in bold denote dates when the ownership of Rothamsted was transferred.

- 1212 First mention of the manor of Rothamsted.
- 1221** Gubion
- c. 1292** Nowell (Noel, Nele)
- 1355** Cressy
- 1525** Bardolph
- 1623** Sold to Anne Wittewronge , widow of Jacob Wittewronge (1558-1622).
- 1639** Given to Sir John Wittewronge (1618–1693), son of Anne and Jacob, on his majority. Knighted in 1639 and created 1st Baronet of Rothamsted and Stantonbury in 1662.
- 1693** James Wittewronge (1647-1721), Sir John’s 2nd son. Stantonbury and baronetcy to Sir John’s eldest son, John.
- 1721** Jacob Wittewronge [The Younger] (1693-1728), grandson of James.
- 1728** James Wittewronge [The Younger] (1720-1748), son of Jacob.
- 1738** Manor House let to 5th Earl of Dysart.
- 1748** Thomas Wittewronge (1723-1763), brother of James. Died unmarried.
- 1757** Manor House let to 3rd Earl of Harborough and to John Crawley.
- 1758** Manor House let to Lord Huntingtower.
- 1763** John Bennet (1722-1783), first cousin of Thomas Wittewronge.
- 1783** John Bennet Lawes [The Elder] (1768-1822), nephew of John Bennet.
- 1801** Death of John Bennet’s widow, Sarah. Start of John Bennet Lawes’ residence.
- 1822** Sir John Bennet Lawes (1814-1900), son of John Bennet Lawes [The Elder]. Manor house let until 1834, when he took up residence. Field experiments begun in 1843.
- 1900** Sir Charles Lawes-Wittewronge (1843-1911), son of Sir John Bennet Lawes.
- 1911** Lawes-Wittewronge family left Rothamsted. Manor House let to Major Ralph B. Sidebottom and Hon. Mrs. Sidebottom from 1911-1939.
- 1934** Sold to Lawes Agricultural Trust. Manor House and buildings converted into halls of residence in 1951-52, and also used for meetings and conferences.

APPENDIX B

Transcripts from Documentary Sources

This appendix is a collection of documentary evidence from primary sources used in the preparation of this report. It includes transcripts of material concerning the gardens and designed landscape from the Wittewronge papers consisting principally of memoranda and accounts, and also some relevant references found in published sources. Unless another source is given, sources are referenced by their number in the HALS Wittewronge archive, with preface D/Elw, ie. [F20] is from HALS ref. D/Elw F20. Entries are given in chronological order.

Memoranda, Descriptions and other references

From the Particulars of the manor and estate of Rothamsted c.1623

A prettie Courte before the house at the goeing in on the South being 30 yds square, and is paled about. Two little garden plotts lying on each side the Courte, one behind the house, on the North there is a dayrie house, a verie faire Pigeon or dovehouse, and a Well house, that goeth with a Wheele, wherein a dogg is putt, and draweth up the water. There is also a Moate that compasseth the back parte of the house, which Moate hath been verie badly used and is dried upp and stopped in one or two places. On the North parte of the said Moate there is a prettie orchard, that is planted with young trees, and hath verie pleasant walks about the said orchard if they were well looked unto and ordered. There is a[ls]o a yard on the East parte of the house whereon standeth two faire Barnes, two Stables, and a Shedd for two Horse. [E17, transcript from Boalch]

I had an Oake groweing in the Warren which I caused to bee felled when I began to repair my house at Rothamsted about Anno 1638 or 1639... [F20 – back page]

1649/50 Memorandum. There was burnt 184,000 of brick this year, 385 quarters of lime. [F23]

January 11th 1652 For my dearest Friend the Lady Katharon Wittewrong, ... at Rothamsted

My dearest Love

I receaved thine by Tom, I am sorry thou art not well but doe hope it is noething but a could; I desire thou to be merry & make much of thy selfe; soe my absence will bee the less tedious; my occasioning here doe every day vary, & soe ...: Humfrey [his Steward] ... not to Stanton, but into Suffolk, to dispack something there, tending to our conclusion heere. My purpose was to see thee this weeke, but I have to deale with such slippery men, that if I come away I feare it may cost mee the more trouble, the next weeke. & therefore if thou canst excuse my coming downe untill then, I doe confidently believe all will bee by that time ended; Butt if thou shouldest not bee well & hast a disire to have mee come downe, send up John with the Horses for mee: I dined today at my fathers where they are all well, & remember them to thee; I had allmost forgott to thank thee for my cake it was exceeding good. & stands mee in grate stead for my breakfasts every morning, I have given Thomas Jones order to save two bundles of vine cuttings, which are layd in the earth in the orcharde, I would have them sent up by [Stepping?] on Friday next, which I desire thee to give

order for. If I stay now till next weeke I shall need a [band] or two more & ... I need not; I shall expect to hear from thee on Friday. till then I remayne.

Thy most affectionate Husband till death

John Wittewronge [Z22/7]

19 April 1652 Daughter Kathrine born

14 August 1652 Ripe Grapes & Peaches [F42]

Mem the 17th of February 1665/6 the tall Elme in the field before [below?] the house was pruned as allsoe the young [birch/beeche?] that grows by the Warren pale next dredge field. And on Monday following being the 19th ...[sett?]... the hithermost (now the second) firs two out of the orchard into the new warren orchard as allsoe the furthestmost of that yew out of the garden & sett a pine in its place, & the 24th I sett the other 8 fir trees in the same ... as allsoe then the yong nursery of [trees?] beyond the firs in the warren were pruned. [F20 – back page]

Oct 1666 The river in Rothamstead Mead which had by reason of ye Great Drought bin dry & not run at all for these 2 years last past began to run again by the abundance of raine that fell from the 12th to the 23rd of this Month & my new pond in ye Mead was brim full & also ye Pond before ye Stable. [F42]

May 28th 1666 I measured

The long walk in the garden & Orchard, betweene that and the Warren along that wall, from the field before the house beginning ...[page torn] [gravell?] walks & walking to Dredge field is 486 feete ...[page torn] and from that corner to the other of the orchard is 146 feete. [F20 – back page]

4.6.1667 - Settlement on the Marriage of James Wittewronge and Elizabeth Diconson

A close of pasture lying before the said Mansion House called Passage Close containing by estimation 10 acres.

A close of pasture adjoining the orchard or garden wall of the Mansion House called the New Orchard and Plantation, containing 5 acres. [Scattergood, Vol. 1, Bundle 31]

27 Jan 1671 Sett 198 large French Chessnutts in ye Border in ye further qr of ye Orchard [F42]

4 Nov 1674 made an End of setting ye Wood at ye left [side?] & further end of ye Park on ye left hand of ye long walk [F42]

The following references are taken from the transcripts of Sir John Wittewronge's 'Diary of Weather' [F19], published in 'Observations of Weather'. See Appendix B for a list of plant species and varieties mentioned in the diary.

March 1683 ... the extream hard winter killed all my hartchoakes ...[and]... fig trees, some vines, rosemary, Philleraea & cipress trees as also all the carps in my pond before the stable.

... the backward spring...[affected]...Apricotts, peaches, nectrines, payres or plumbs ... nor any leaves on the roses or gossberries.

23rd April - first smal dish of Sparragoes wee had this yeare, but afterwards had plenty every day

15th August – cut & eat a very large mellon weing 4 pound, and it was as good as it was great.

This summer in generall from the beginning of May: till the latter end of August, was the hottest and dryest that I ever remember; or (I thinck) any man els, being more like Spain for hot dry settled weather than England; wee had 203 ripe bunches of grapes before Bartholemewtide but the peaches and Roman Nectrines ripened later then usually; not till the middle of this month and some not till the beginning of December, and the late peaches, as the blouddy peach, French peach & Portugall & Man peach not till the middle of that month and after, seven not till Michaelmas.

3rd October – 14 pigeons out of the new dove house

3rd March 1684/5 : Made the hot bed for mellons

6 of March Sowed the seeds

11 Prickt them out

26 Transplanted them into ranges

The 17th [Oct. 1685] made a vessell of 12 qts of the Clarrett and frontiniack grapes, to which I putt (when it was up) 2 pounds of fine shugar.

11th,12th,13th & 15th February 1685/6 – sett the box that grew in the Knott, in the borders in the garden next the gravel walks

5th May 1686 – But it was the unkindest year for all mannor of fruit that I ever knew; almost all apple & peare tree leaves were eaten up of catterpillars, as also the fruit or els blasted. They eat also other leaves & almost all the rose budds.

The 28th [Sept.1686] pickt all the grapes off the Vine by the Arches, whereof made about 3 gallons of wine.

November 1686 – The french marigolds, & Affricanes lasted in flower from the latter end of July till the beginning of November; & there were some Pincks in flower the last of November; and 2 or 3 gilly flowers.

5th February 1686/7 – planted 7 Ewe Trees in the garden one whereof is sett in the place where the stone boy stood.

Spring 1688 – No pear blossoms out, but on the wal trees.

These transcripts are taken from the small notebook [F42] used by Jacob Wittewronge II during his period at Rothamsted (1720-28). This book was also used by Sir John Wittewronge from 1650, and John Bennet (17622-1783).

27/12/1721 Mem. I planted 40 Elms fronting from the House to the Lane that leads from Hatching Green to Redbourn December 27th 1721

Nov 14th 1722 I planted the cross walks in the Orchard with young Apple trees for hedges most of them nonparels. I likewise planted at the same time the South West Wall next the Warren or Ffurr Grove wth Peaches, Apricots, Figgs, Pears, 2 plumbs, 2 Gold Pippins, & 2 Quinces. there is ag.t that wall 42 trees.

July 23th 1723 I this day gathered a nectarine full ripe & found two ripe peaches fallen off one of my trees w.ch peaches never used to ripen till towds the end of August. Note this is the most plentyfull year of Wall fruit viz. Peaches, Nectarines, & Apricocks, that ever I remember, & they ripen a fortnight or 3 weeks before the usual time, it having been a very drye Summer.

My Son Thomas was born 26th of Septem.r & was Baptized 16th of Oct. 1723. he was born on a Thursday.

Mem Anno 1725.I this Summer graveled the CrossWalks in the Orchard wth a foundation of Chalk ... a Coat of Gravel from Harden [Harpenden] Comon wth a covering of fine red Gravel from Barnet Heath. I also this Summer painted the Hall, Drawing Room, best Stairs, common staircase with all the Gates in the Court and Gardens.

Mem. This Summer Anno 1725 has been the wettest that any man can remember. My Wife was forced to feed her Bees in June or they would have been starved, the weather being so wett every day that they could not get out to gather any honey ...

Accounts

The Wittewronge Collection contains several notebooks which record a great variety of estate and household accounts from the time of Sir John Wittewronge. It was not possible to read through all of these, but a cursory trawl revealed little of interest to the present study. The following accounts were the exception, and are taken from one of his notebooks [ref F23] following the heading; 'Primo April 1648 – Charges aboute the building', which covers a period of major building works. The items transcribed here are some of those that on an initial inspection appeared to relate to the gardens.

20.5.1648	pd. him [Robert Babb] for doing the rayles by the new Moate	00 – 02 – 00
2.6.1648	To Thomas Jones for 3 dayes gardining	000 – 04 – 00
5.5.1649	to Thomas Jones for 4 days of gardening	00 – 00 – 00
9.6.1649	to Thomas Jones for 5 days gardening	00 – 06 – 08
30.6.1649	pd to the Bricklayers for 36 pole of walling...& for 7 buttresses	27 – 06 – 00
7.7.1649	payd to Barton for 3 pole of walling	02 – 05 – 00
	pd for 2 buttresses	00 – 05 – 00
	pd to Smyth for 1 pole ½ of walling	01 – 02 – 06
	pd to him for 2 buttresses	00 – 05 – 00
August 1649	7 ordinary elmes	00 – 02 – 04
	for 63 young oakes where sett at 4 apeece	001 – 01 – 00
	for 11 at 3 apeece	000 – 02 – 09
24.11.1649	To Miss Crossey[?] for her pension for ½ a year ...	000 – 05 – 00
	To her for weeding in ye garden	000 – 02 – 08
January 1649/50	for bringing downe of gilly flowers from London	000 – 00 – 06

The following items appear transcribed in Scattergood, Vol. 2, Bundle 39.

29.10.1658	Paid the mason for stone balls	03 – 00 – 0
	Paid the mason for paving ye Arches	

The following accounts are all taken from the notebook [F42] of Jacob Wittewronge II, and date from the period 1720-28.

1720	Harvey the Gardiner for Trees	008 – 06 – 00
	Kilby for trees & bought a dunghill	004 – 00 – 06
	Axes, Houghs, Spades, rowlers, Locks for Garden	003 – 12 – 07
6.1.1720/1	Making a new Laurel arbour & mending the old yew arbor, & making a bench in Yew	001 – 04 – 00
2.3.1720/1	Pd for makeing an Hedg. & deep ditch round the Warron or ffurr grove	
27.3.1720/1	Pd Kilbey & Harison [?] for trees	02 – 04 – 00

14.4.1721	Workmanship & Timber for the [Triset?] wth 2 Garden Gates & other	06 – 17 – 6
19.4.1721	To Sparks for 4 Locks for ye Garden Gates	01 – 06 – 0
27.4.1721	To Harvey the Gardiner for Trees	08 – 00 – 0
23.5.1721	Digging gravel & other Labourers in ye Garden	01 – 10 – 0
4.9.1721	To Tarbox for painting 29 yds Palisades More for 4 flower potts lead colour	000 – 14 – 06 000 – 02 – 00
16.9.1721	To Cock & Smyth Bricklayers, for doing the two gable ends & repairing the Garden Walls & building a chimney in the drying room	10 – 06 – 00
2.12.1721	To Mr Rapper for 123 foot of Timber Labourers in ye Wood walks 1400 hornbeam setts	006 – 03 – 00 000 – 15 – 00 000 – 08 – 00
16.12.1721	Labourers in Wood walks	001 – 00 – 00
22.12.1721	To William Clark for hurdles &c To labourers in the Wood walks To Davison the Gardiner for 6 peaches, 6 Soringows [syringas?], 64 Wallnut Trees, 40 Elms & 105 fillberds of 3 yds growth	01 – 18 – 00 01 – 10 – 00 05 – 02 – 00
10.3.1721/2	To labourers for new turfing the Court, & new laying the Grass walk in ye Garden	
26.3.1721/2	To Harvey for 100 Standard Yews & 4 Pyramids To Dick to pay Labourers & Garden	003 – 14 – 00 002 – 02 – 00
5.6.1722	To Ffitch for Cucumber frames	001 – 03 – 00
21.7.1722	To Bates for Phileras, Hollys & Yews	002 – 18 – 00
4.10.1722	To Labourers in laying out ye Orchard	001 – 16 – 00
23.10.1722	To Morgan, Stirly, & Grigary in ye Orchard Ashwells Survey of Rothamsted att 4d p acre	001 – 15 – 00 013 – 09 – 06
19.11.1722	To Wm Clark for railing ye Elms &c To Davis for Green & Ffruit trees	001 – 00 – 00 010 – 15 – 00
4.12.1722	To Labourers in the Garden	002 – 16 – 00
1.4.1723	To day labourers in ye Orchard	001 – 00 – 00
2.3.1723/4	To Harvey the Gardiner for trees	006 – 09 – 00
13.2.1724/5	To Rich.d Hawkins for the Walks in ye Orchard	001 – 06 – 00
7.6.1725	Charges for Gravel Walks in ye Orchard	008 – 00 – 00
1726	To Labourers in ye Garden clearing Woods &c	021 – 09 – 00
Mem	Debts oweing by me in Oct. 1727 To my Gardiner John Peters on Note	60 – 00 – 0
[undated]	To Harvey, Davis, Kilbey & Bales [?] for Fruit Trees & Greens, all sorts of Garden Tools, Labourers in digging Gravel, cuting & laying Turf &c. abt. The Garden	101 – 08 – 06

The following accounts are from the period of James Wittewronge II (lived 1720–1748). They are taken from his personal accounts [F56]. It should be noted that he was relaxed about dating the entries. It may be interesting to note that early entries for 1737 record expenditure centred almost exclusively on Tennis, Cards, Horse, Tavern, Newmarket, Billiards and Chocolate. The later entries below give some clues about the gardens in his time, particularly concerning maintenance and the use of glass, and they indicate the proportion of total expenditure devoted to them. They do not suggest that he was engaged in any changes to the design, and no further information was uncovered from this period. This report will therefore resist the temptation to speculate further.

28.12.1742[?]	Gardners ½ years wages	006 – 00 – 00
	Pd Labourers in Garden	001 – 16 – 00
	Things in ye Garden	002 – 7 – 10
	Millars Gardner's Dictionary	1 – 1 – 0
1743[?]	Labourers in Garden	15 – 14 – 0
	½ yrs wages to Gardner	6 – 0 – 0
	Things for Garden	1 – 13 – 6
	for Garden Barrows	1 – 5 – 6
	Iron for Frames in Garden	1 – 3 – 0
From Lady Day 1744 to Midsummer		
	A Load of Dong for Garden	0 – 10 – 0
	Labourers in ye Garden	20 – 3 – 2
	Gardeners Bill	4 – 5 – 8
	½ year Wages	6 – 0 – 0
	Carriage of Turf Gravel & Chalk for ye Garden	3 – 10 – 0
	Garden Matts	1 – 5 – 6
	[these items add up to £35-14-4 out of a total expenditure of £169-13-9½ for the period, of which £27-6-3 was spent on housekeeping]	
1746[?]	Seedsmans Bill	3 – 19 – 0
	Gardenner Journey to Town	0 – 11 – 0
Lady Day 1747 – Lady Day 1748		
	Housekeeping	297 – 18 – 3
	Stable	111 – 5 – 7
	Garden	47 – 0 – 0
	Cellar	60 – 6 – 3

The following items appear transcribed in Scattergood, Vol. 2, Bundle 44jj.

Bills – John Snoxells to James Wittewronge 1746 [sundry plumber & glaziers' bills]

23.3.1746	for 6 ft. ½ of new Glass in ye Garden	0 – 4 – 4
	for a light new leded to ditto	0 – 1 – 8
5.3.1747	for 2 squares stopt in ye Garden	0 – 0 – 2
28.12.1747	2 Garden light repard	0 – 2 – 6
	13 squares Garden	0 – 4 – 4

Extracts from published material

The extracts below were of interest during the preparation of this report, but may be of greater use to a future study of the later periods of the gardens' development. Their greatest value is to evoke something of the character of the gardens from the mid-19th Century to the early 20th Century, but there is also some information of use for historical analysis. A good number of other contemporary descriptions may still be in existence.

From 'The Poor Man and his Beer' by Charles Dickens, written in response to a visit to Rothamsted Research Station, and published in 'All the Year Round' No.1 April 30th 1859. [quoted in 'Records of the Rothamsted Staff' No.3, Nov 1931]

... we walked on the trim garden terrace before dinner, among the early leaves and blossoms; two peacocks, apparently in very tight new boots, occasionally crossing the gravel at a distance.

Gardeners Chronicle June 5, 1875.

The name of this estate has become, as it were, a household word with agriculturists and men of science all the world over. Its reputation is modern, and wholly due to the ability, zeal, and munificence of the present proprietor, J. B. Lawes Esq. Though, as our engraving shows, the mansion is a large and pictorial example of Elizabethan architecture; though its contents comprise much which forms the admiration of connoisseurs; though it stands in a park with many noble trees – Sycamores, Limes, Beeches, &c. – yet it is little known for any of these things. It has somehow almost entirely escaped the notice of compilers of county histories and guide books. This is certainly somewhat surprising, as among a hundred that would appreciate the charm of this fine mansion and its surroundings, there would probably be not more than one who could appreciate at anything like their value the extensive series of experimental researches which have made Rothamsted famous.

Our illustrations tell their own tale; there is the old gabled mansion with its finely-kept sward in front, a pictorial bit of architecture, to describe which would demand the pen of a Dickens, and there, hard by, a glorious row of Limes, whose arching branches rooting in the soil, and then uprising 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.

From an undated press cutting from 'The Advertiser and Times' that appears to have been copied from a hand-written account dated 1905. [F101]

At this period of the year it is delightful to walk on the velvety lawns of Rothamsted, and study the creeper-covered gables that rise along its front. The gay flower-beds, neatly inlaid in a huge carpet of green turf and sheltered by a belt of massive trees, appeal to the artistic senses and carry the imagination away from the hurly-burly of commercial life into a land where all is peace, rest, and beauty.

From an article 'Nearly Forty Years Ago', by T. S. Dymond, describing his time at the Rothamsted Research Station in the late 19th Century [Records of the Rothamsted Staff No. 3, Nov.1931]

From the grass plots we would proceed by 'Unter den Linden' to the small red clover plot in the garden of the Manor House.

APPENDIX C

Some species and varieties mentioned in Sir John Wittewronge's 'Diary of Weather' 1683-89.

In his memoranda to accompany his observations of the weather, Sir John mentions only those plants whose welfare or development were of interest at that particular time. For this reason there may have been many plants in his garden that remained unrecorded. This

Vegetables:

Radishes, asparagus, artichokes, garden peas.

Flowers:

Anemones, gilley flowers [prob. carnations], marigolds [African & French], pinks, primroses, roses, tuberosa [prob. *Polianthus tuberosa*].

Trees & Shrubs:

Ash, beech, box, french chestnut, cypress, elm, fir, 'hollow crown', holly, maple, oak, pine, yew.

Fruit:

Apple

Cherry Black

Chestnut French

Fig

Grape Clarett, Frontiniack

Gooseberry

Melon

Nectarine Roman

Peach Bellass, Blouddy, French, Man, Maudelin, Newington, Portugall

Plum

Quince

Walnut

APPENDIX D

Chronology of Rothamsted under Sir John Wittewronge

1623	Map of estate, and description of manor house and surrounding area prepared for the sale to Anne Wittewronge.
1624	Sketch of manor house.
1638	Sir John Wittewronge begins to repair the house.
1639	Rothamsted passed to Sir John.
1642-3	Sir John in active service for Parliamentarians.
1647	Building works begun.
1648-49	Major payments for bricks and other building works. Mention of 'new Moate'.
1649	Payments for walling and buttressing, likely to be new garden walls. Oaks and Elms planted.
1650	Date of bell in clock tower.
1652	Ripe Grapes & Peaches.
1653	Last record of payments for bricks.
1654	Date in moulded brick on chimney stacks.
1654-58	Member of Parliament.
1658	Payment for stone balls.
1665/6	Memorandum concerning yews, pines and firs in 'new warren orchard'.
1666	Memorandum concerning measurement of garden.
1667	Marriage settlement of 'New Orchard and Plantation'.
1671	Planting 'French Chessnuts' in the orchard.
1674	Tree planting underway in 'ye Park'.
1683-88	'A Diary of Weather.'
1685/6	'Knott' removed, and paths edged with box.
1693	Death of Sir John Wittewronge.

APPENDIX E

Suggestions for further research

1. The changes carried out by Sir John Bennet-Lawes in the mid 19th Century and by Sir Charles Lawes-Wittewronge in the early 20th Century are likely to be the most interesting and fruitful subjects for future research, and a reasonable quantity of material from these periods is probably still in existence. It is likely that the illustrious career of Sir John Bennet-Lawes helped to ensure the preservation of his papers. Boalch's history certainly had access to sources beyond those held at HALS. A good place to start would be with enquiries to the descendants of Sir Charles Lawes-Wittewronge. As an adjunct to this it would be interesting to know what effect, if any, the research in the estate had on the gardens and their cultivation.
2. There is a faint chance that papers concerning Rothamsted prior to 1623 survive with Bardolph family papers in another archive, but if this were the case it might be expected that antiquarians would have tracked them down long ago. It is in any case unlikely that such papers would reveal much of use in the present cause.
3. It is possible that a more thorough study of Sir John Wittewronge's accounts and records may reveal something of interest. In particular, the building accounts of 1647-1653 might be analysed to further ascertain their relevance, if any, to the construction of garden features. Other accounts include references to a considerable amount of hedging, and it may be possible to trace the creation of the field boundaries
4. A branch of the Wittewronge family was at Stantonbury in Buckinghamshire, which Sir John Wittewronge bought in 1663, and there may be further papers in that County Record Office. There may also have been other branches or family members elsewhere. Boalch refers to a mount at Stantonbury, and it would be interesting if this dated from the time of Sir John's building works there during the 1660's.
5. Information on the gardens in the 1700's might be found in the papers of the lessees mentioned in Appendix A.
6. Research on the physical fabric at Rothamsted might include archaeological studies of the footings below the south lawn, or investigations of any remains of garden walls under the western parterres. More accurate expert dating of the garden walls, gates and other features would be useful. It may be possible to find features in the woodland such as gravel paths or ditches. A survey of mature trees (and stumps) to establish species, age and location might be helpful to trace the history and intention of the planting and may reveal otherwise obscure or fragmentary formal features such as early avenues. It would also be interesting to know the age of the topiary yews, and the origin of the stone urns, seats and other ornamental features.
7. It would be possible to undertake an analysis of the architectural history of the house and outbuildings in respect of their relationship with the gardens and the wider estate.
8. There are other features of the Rothamsted landscape on which further historical research may be undertaken. These include the lodges, the design of the research campus itself and its associated technical requirements, such as greenhouses, and also the public 'Rothamsted Park' north of the research site, which serves the town of Harpenden. There may even be aspects of the landscape of the experimental fields that are worthy of attention.

APPENDIX F

Bibliography

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Maps

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Archival items

- Particulars of manor and estate of Rothamsted, c.1623, n.d., (HALS, D/Elw E17).
Accounts between Sir John Wittewronge & Humphrey Taylor – Steward, 1649-1665, n.d., (HALS, D/Elw E26).
Sir John Wittewronge, Accounts and Memoranda, (HALS, D/Elw F18; F19 [Diary of Weather]; F20; F21; F22; F23 [incl. 'Charges about the Building']).
Sir John Wittewronge, Accounts and Memoranda, (HALS, D/Elw E17).
Notebook of Sir John Wittewronge & Jacob Wittewronge, n.d., (HALS, D/Elw F42).
Personal Accounts of James Wittewronge II, 1737-1746, (HALS, D/Elw F56).
James Wittewronge, Account of his Estate, 1741-, n.d., (HALS, D/Elw F59).
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Oral sources

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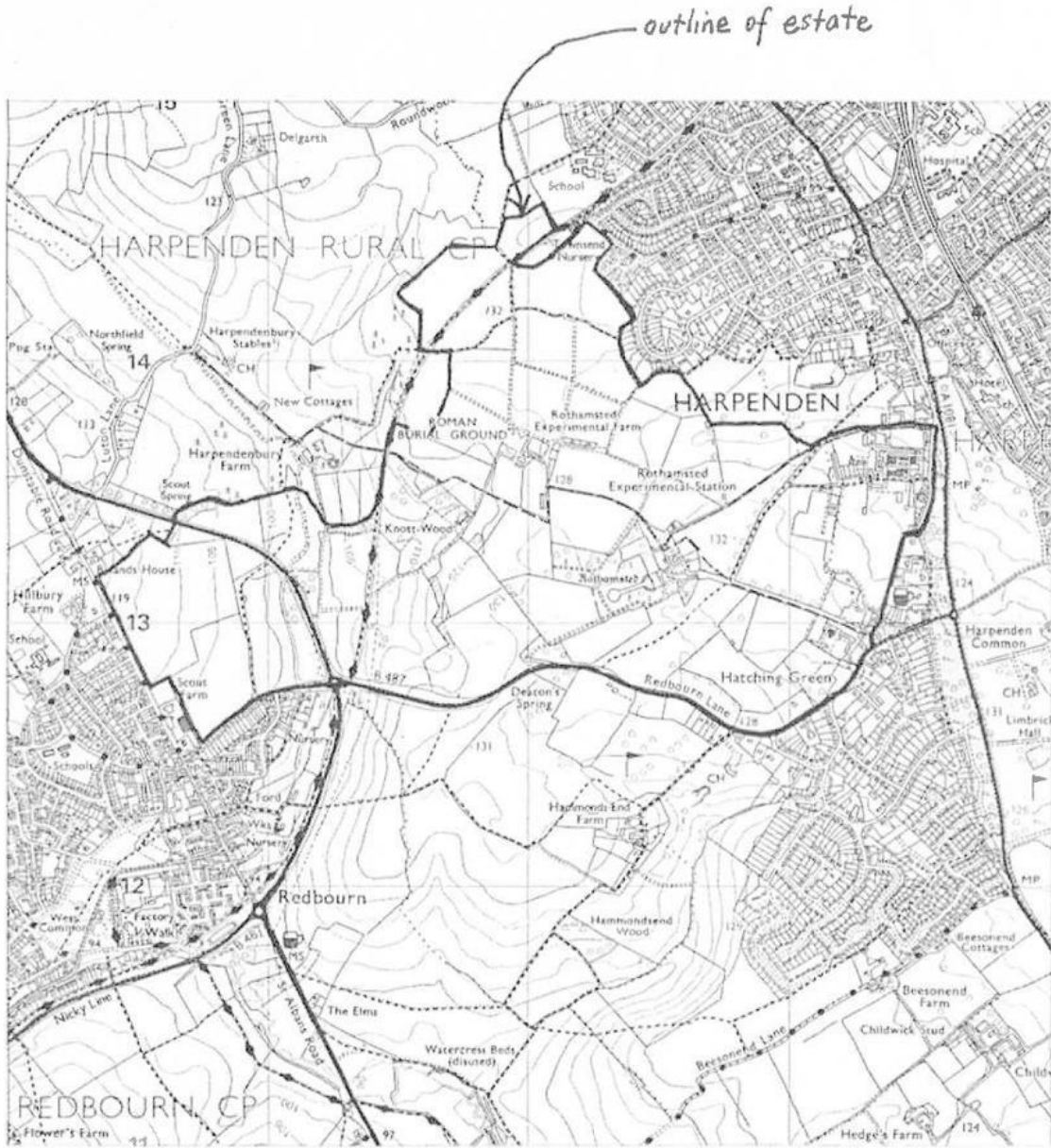
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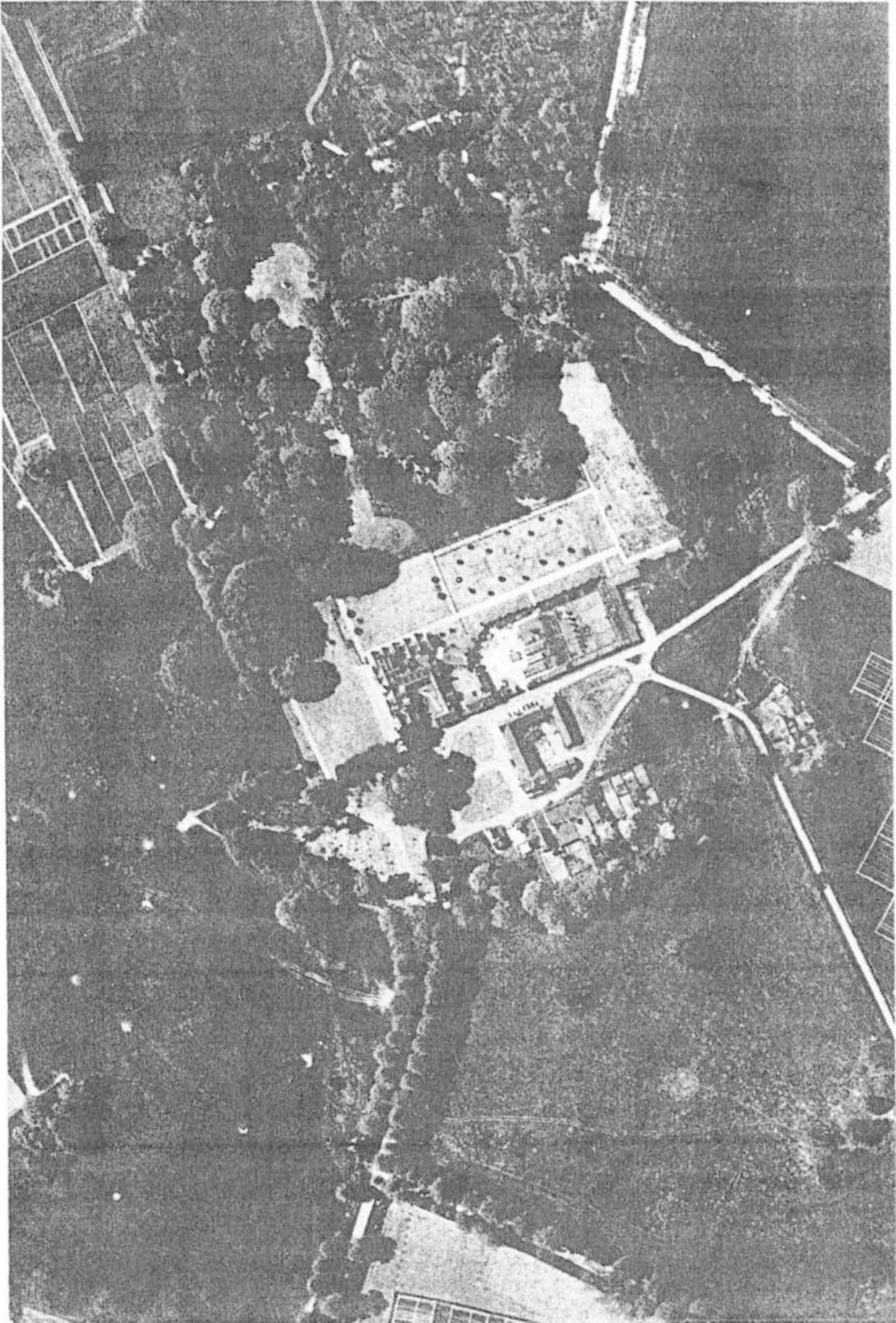
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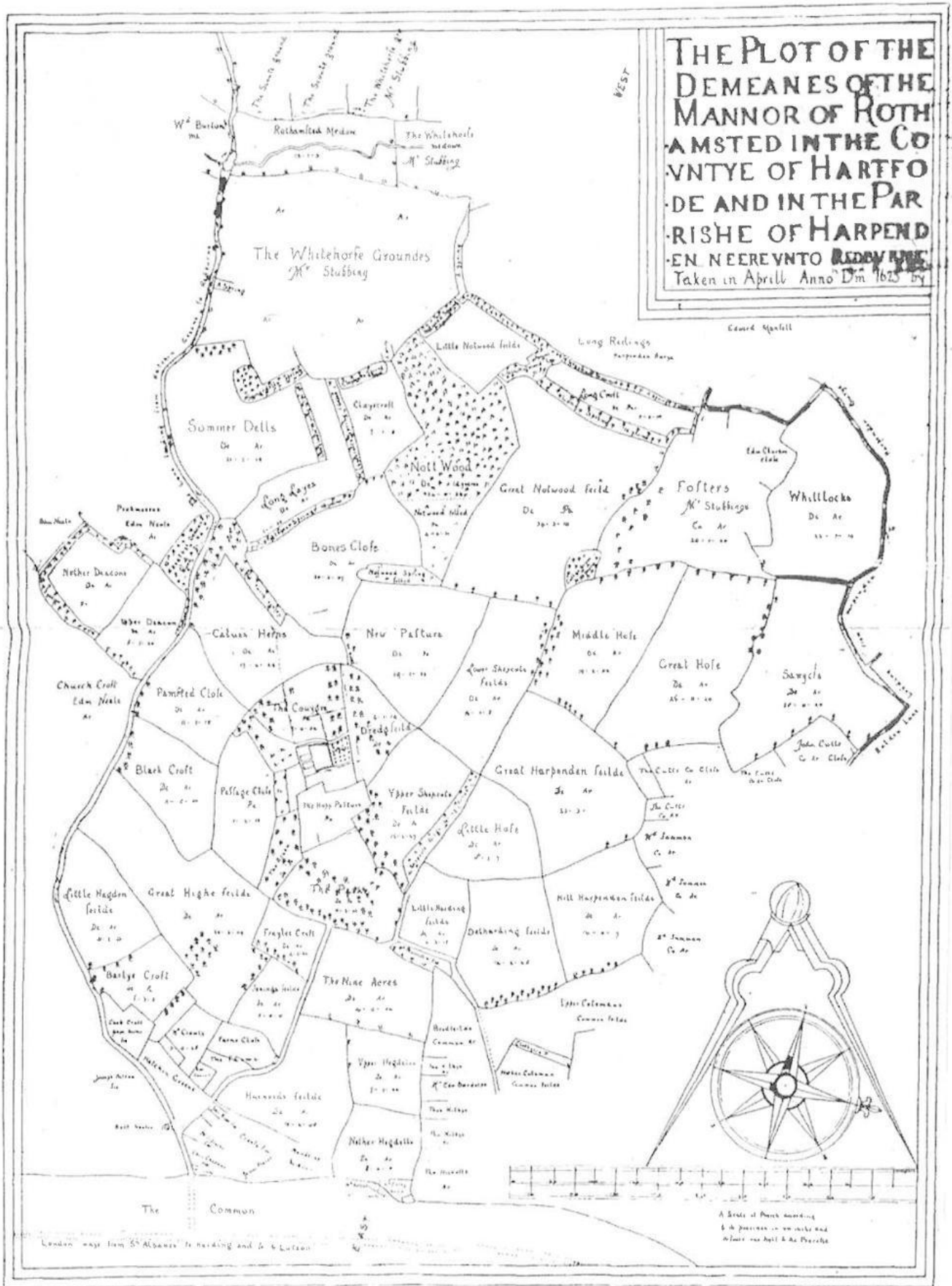
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MAP 1

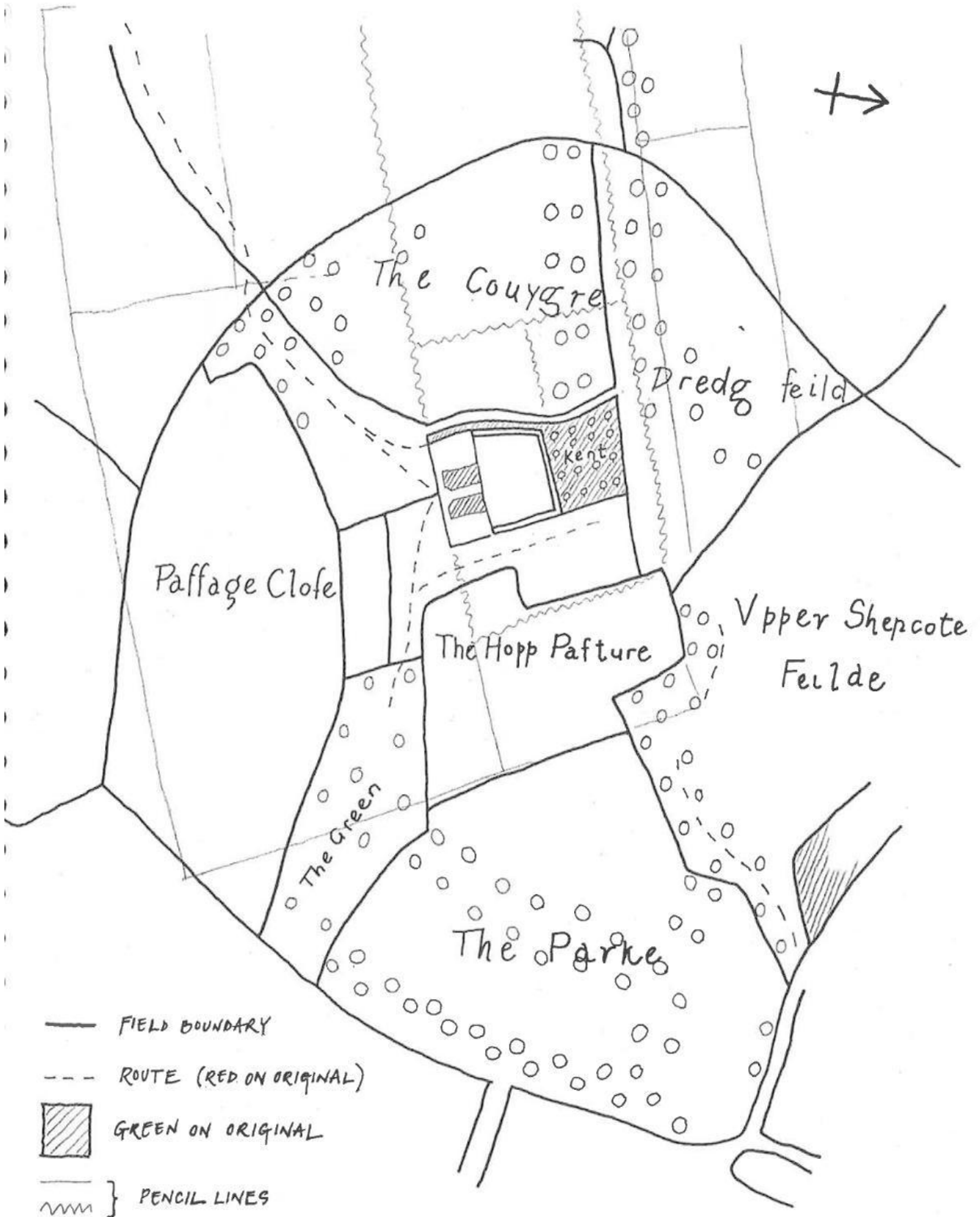


MAP 2





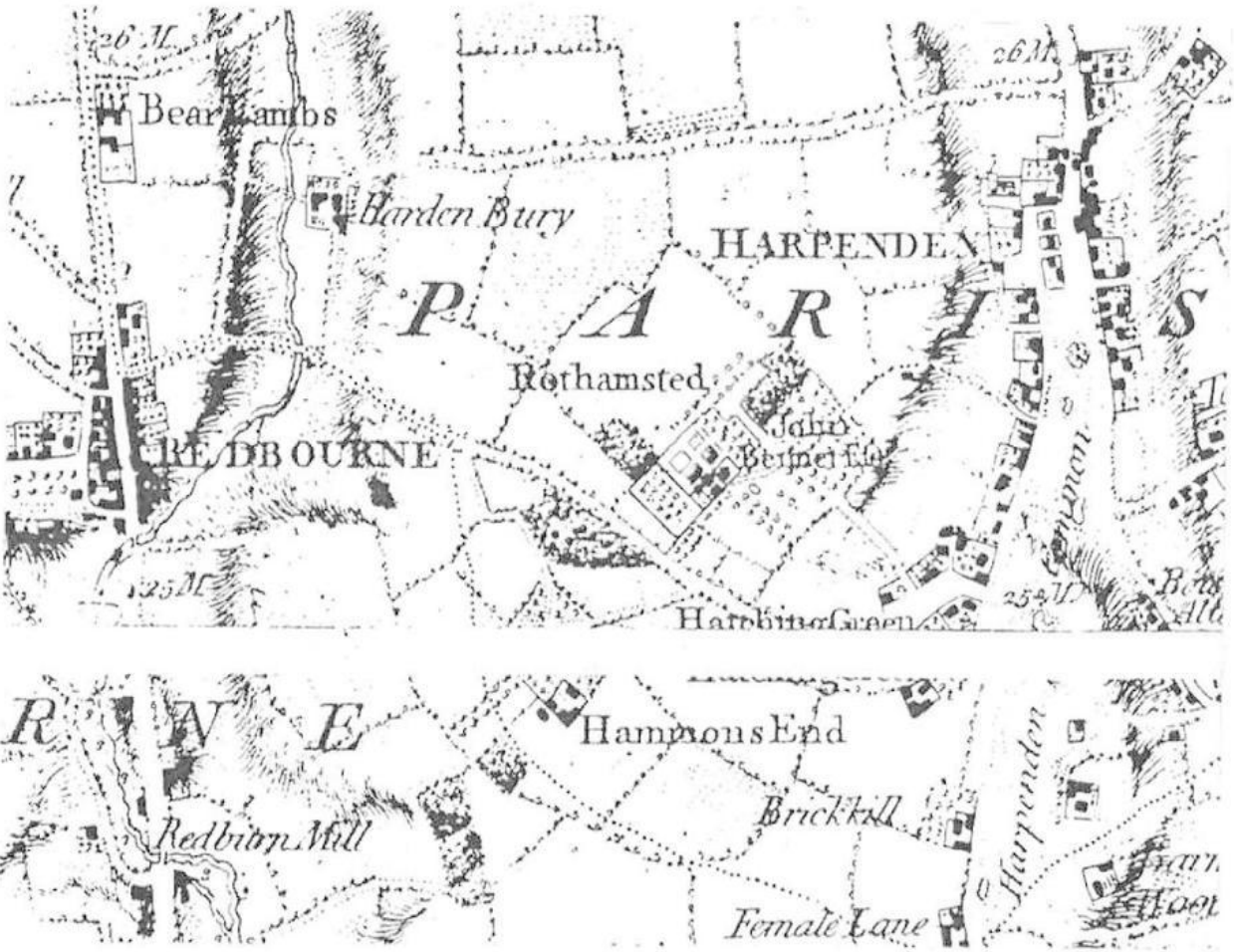
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'THE PLOT OF THE MANNOR OF ROTHAMSTED... 1623'

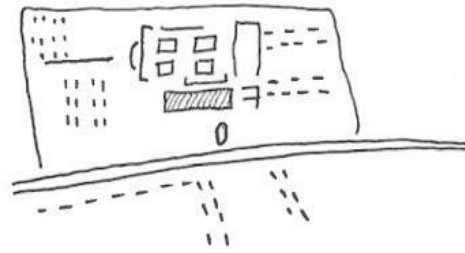
TRACING AT FULL SCALE

MAP 4



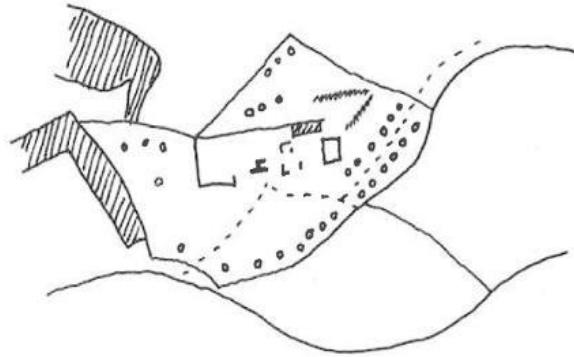
DURY & ANDREWS, 1766

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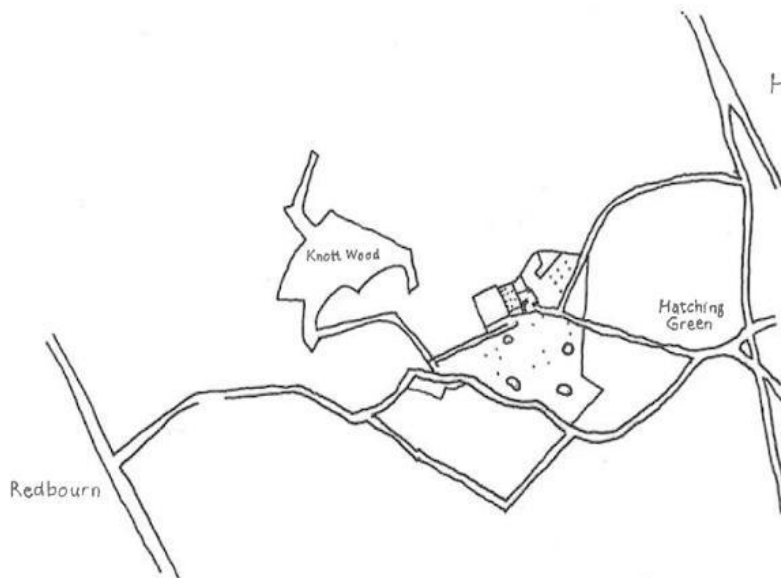
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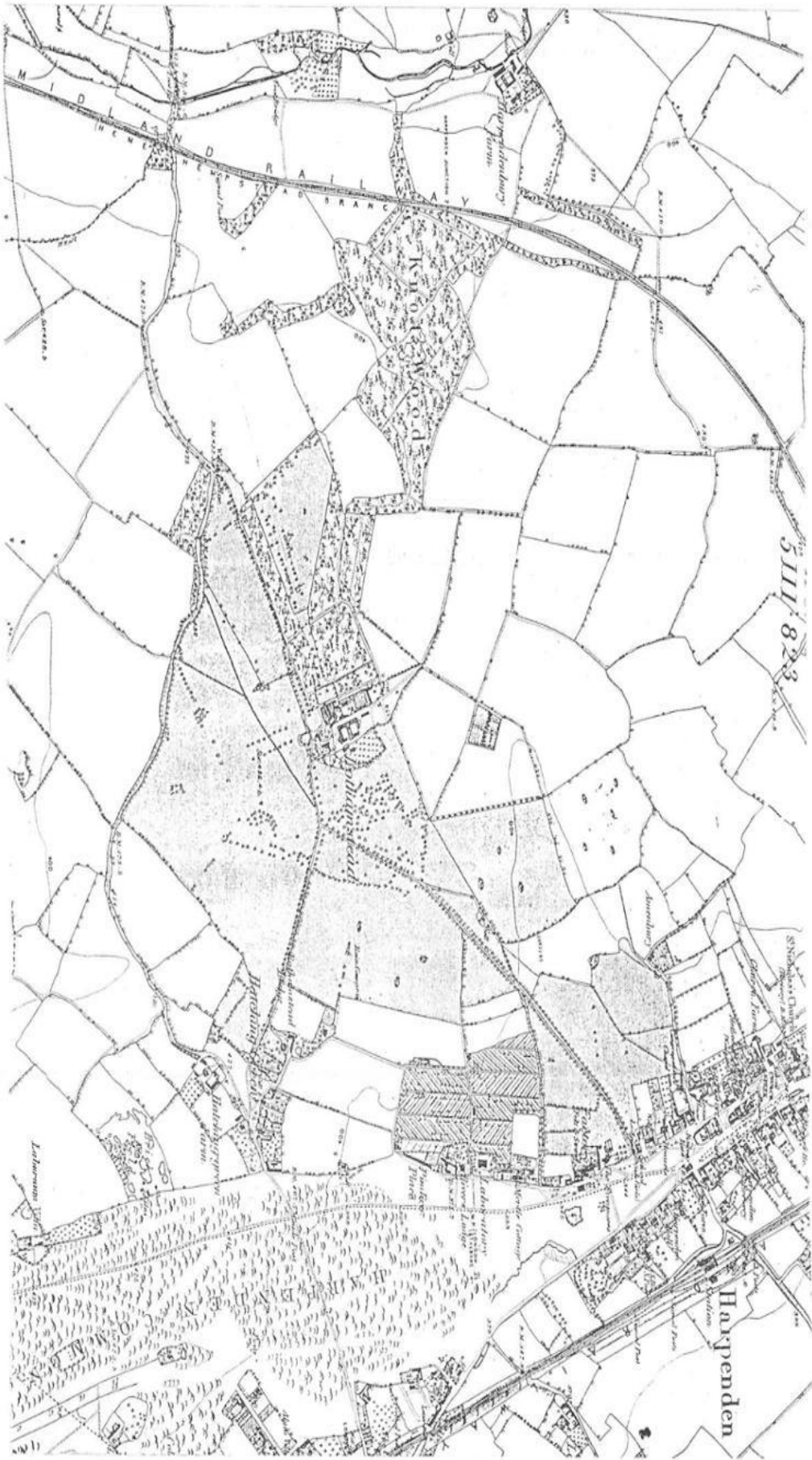
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TITHE MAP, 1838.

- KEY TO FIELDS :
- 349 Little Wood
 - 350 Orchard (Meadow)
 - 351 Manor & Farm Buildings
 - 352 Wood and Plantation
 - 395 New Pasture
 - 454 'Home Field'-arable-John Sarnell

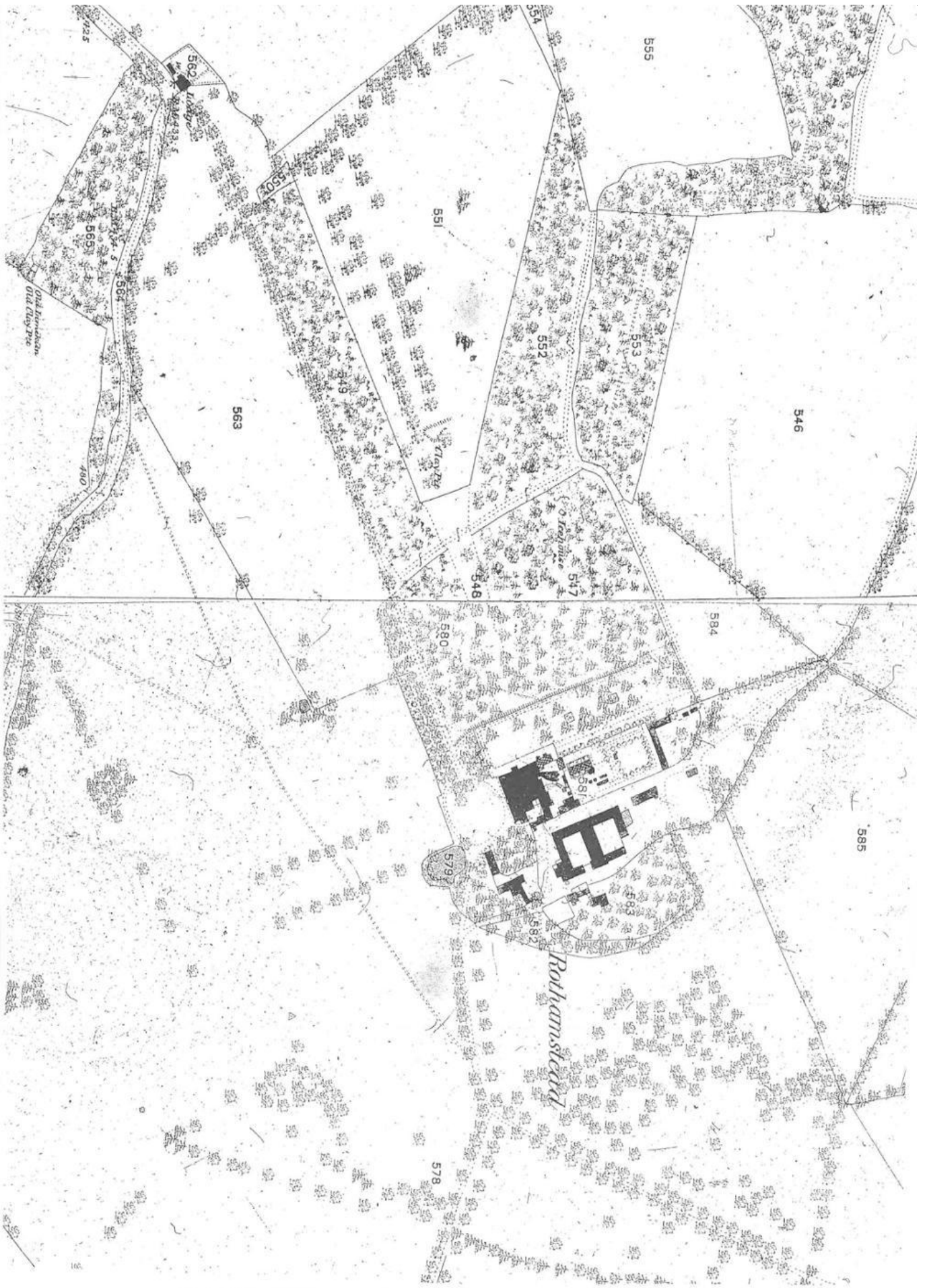


ORDNANCE SURVEY, 1ST EDITION, 6", SURV. 1878, publ. 1884.



MAP 10





MAP II

ORDNANCE SURVEY, 1ST EDITION, 25", Surv. 1878, publ. 1884.



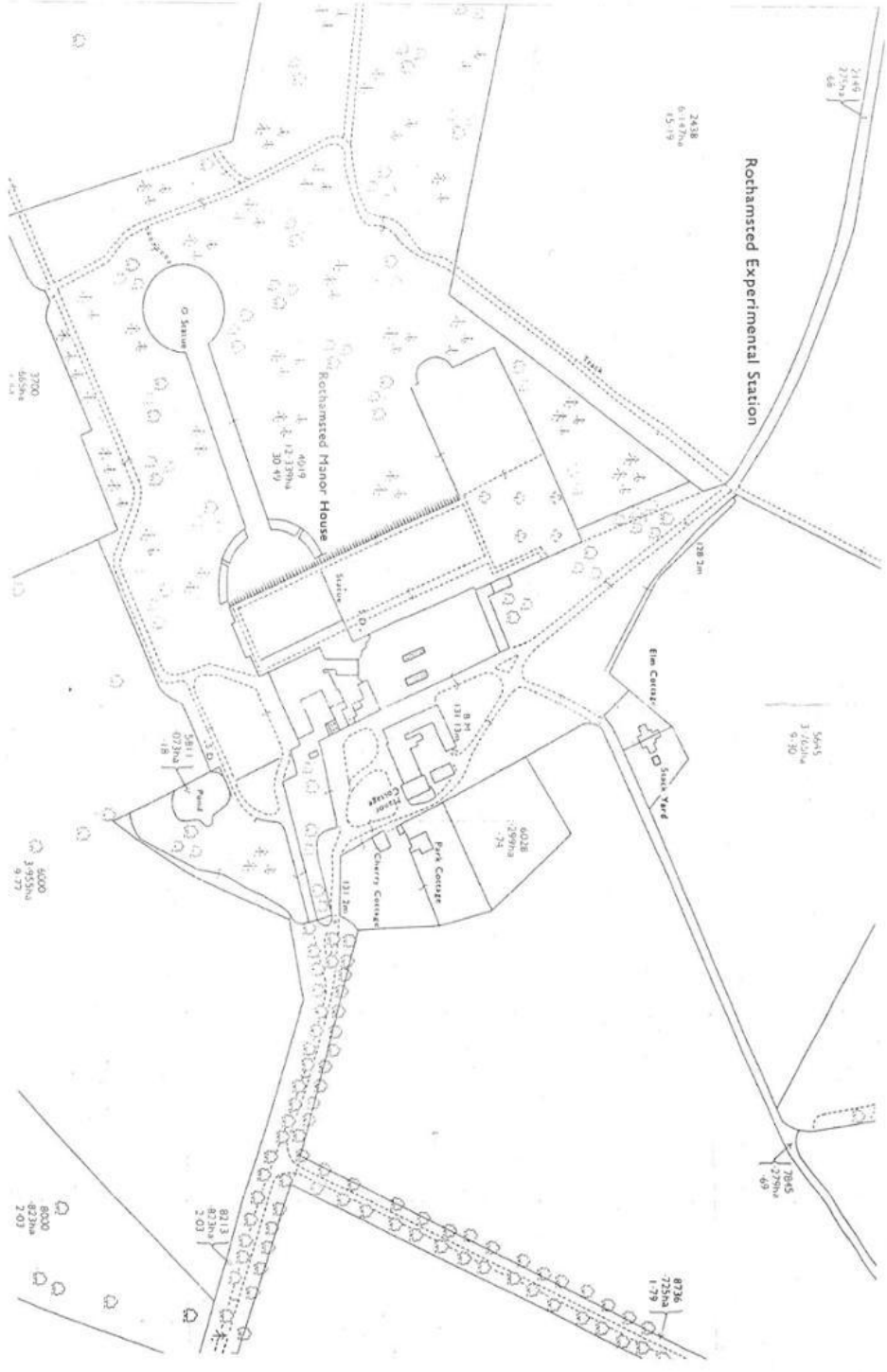


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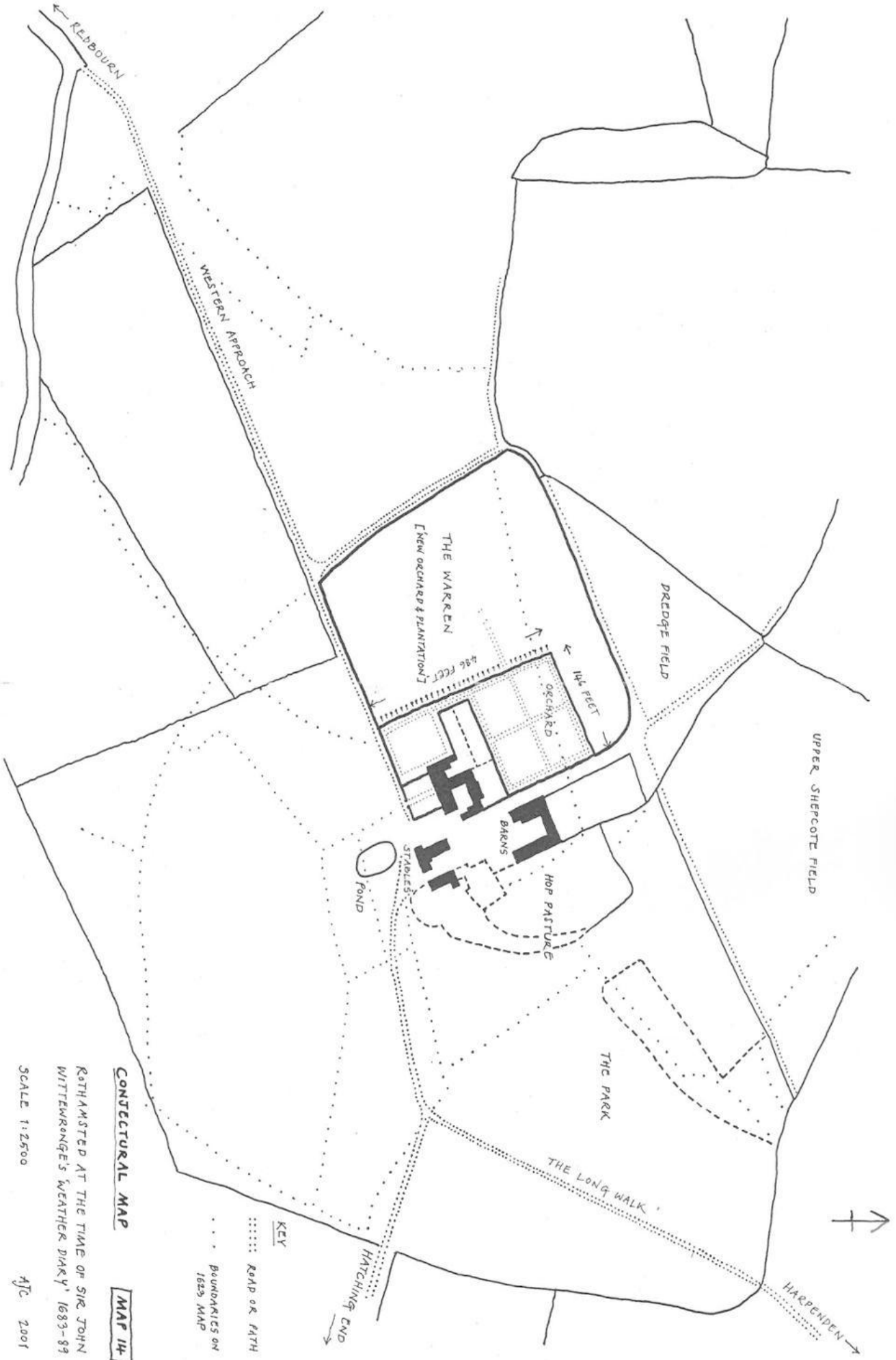


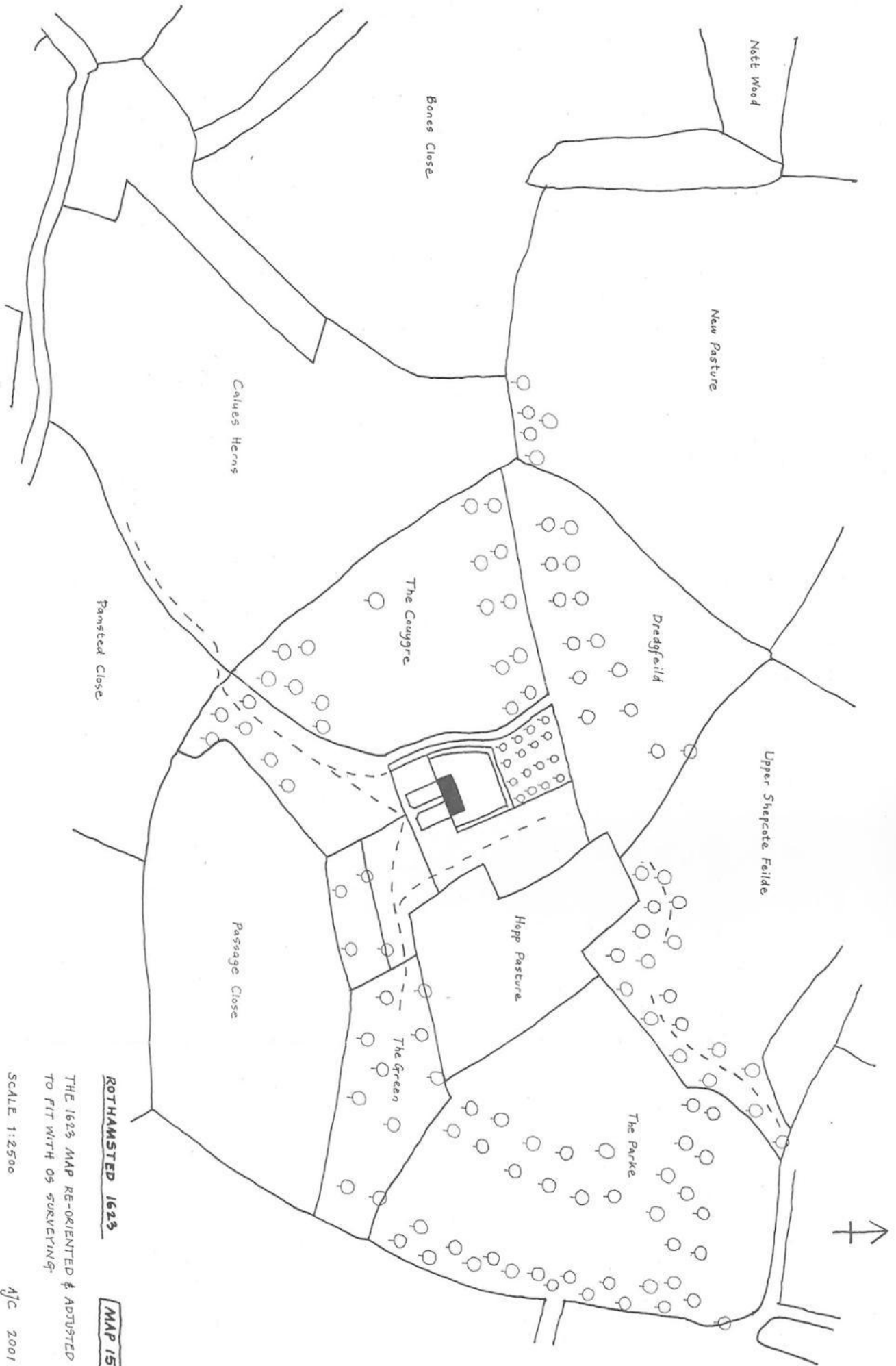
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ROTHAMSTED 1623

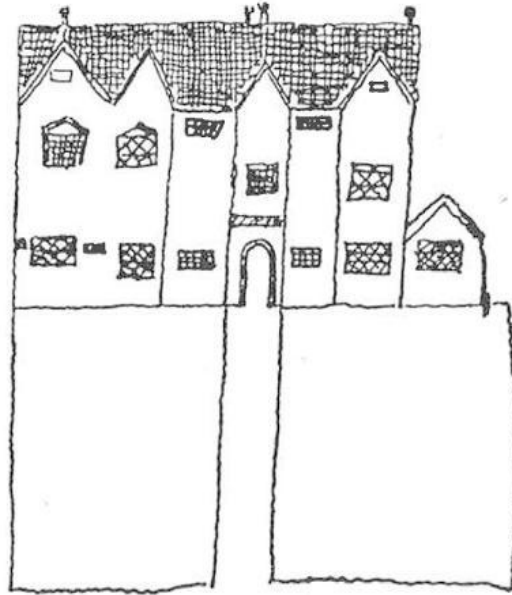
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THE 1623 MAP RE-ORIENTED & ADJUSTED
TO FIT WITH 05 SURVEYING

SCALE 1:2500

AJC 2001

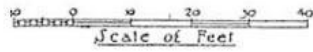
Fig. 1



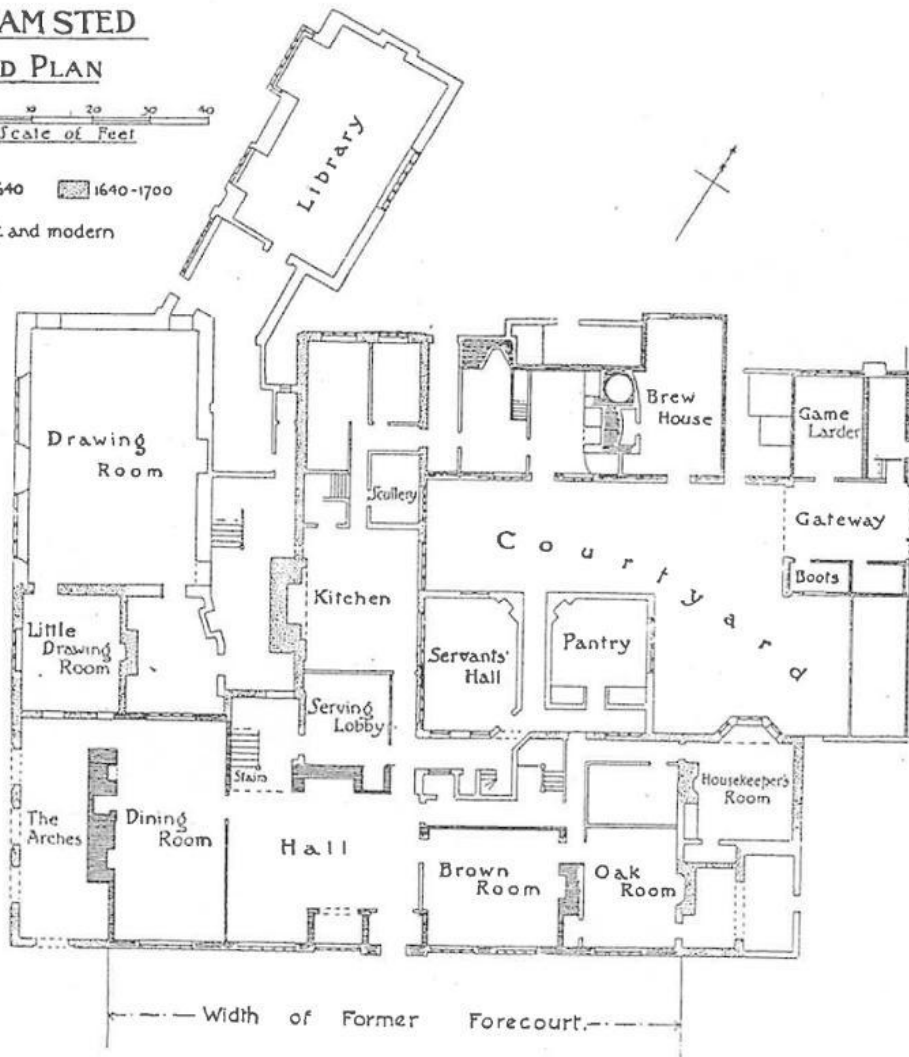
ROTHAMSTED MANOR, 1624

Fig. 2

**ROTHAMSTED
GROUND PLAN**



- before 1640
- 1640-1700
- 18th cent. and modern



V. T. Hodgson, dd. 1907.

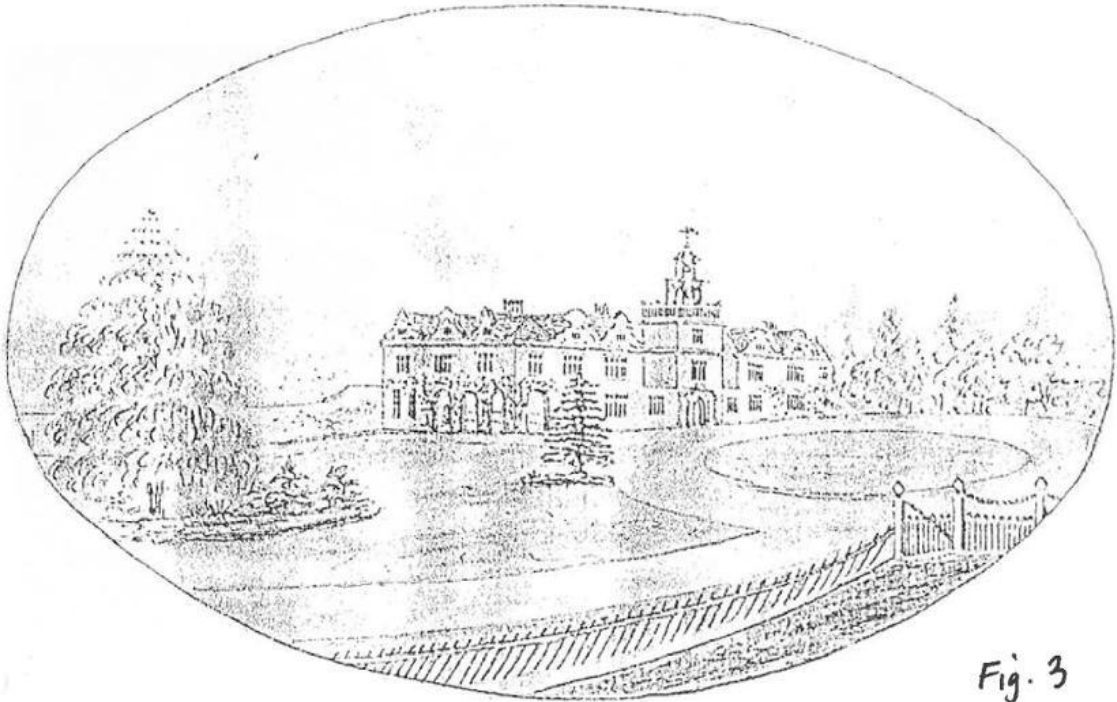


Fig. 3

Fig. 4



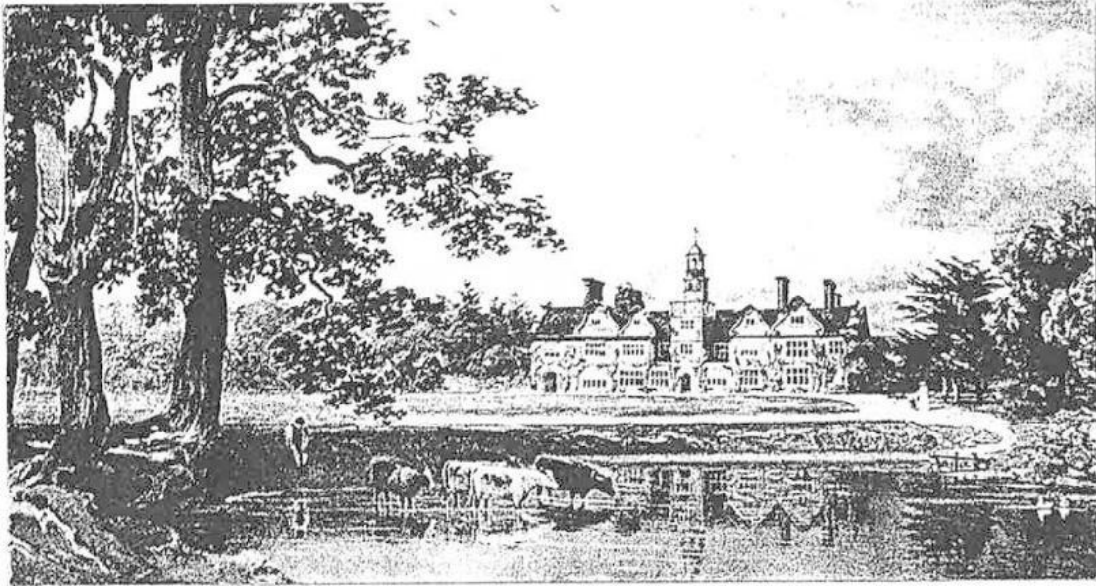


Fig. 5

Fig. 6



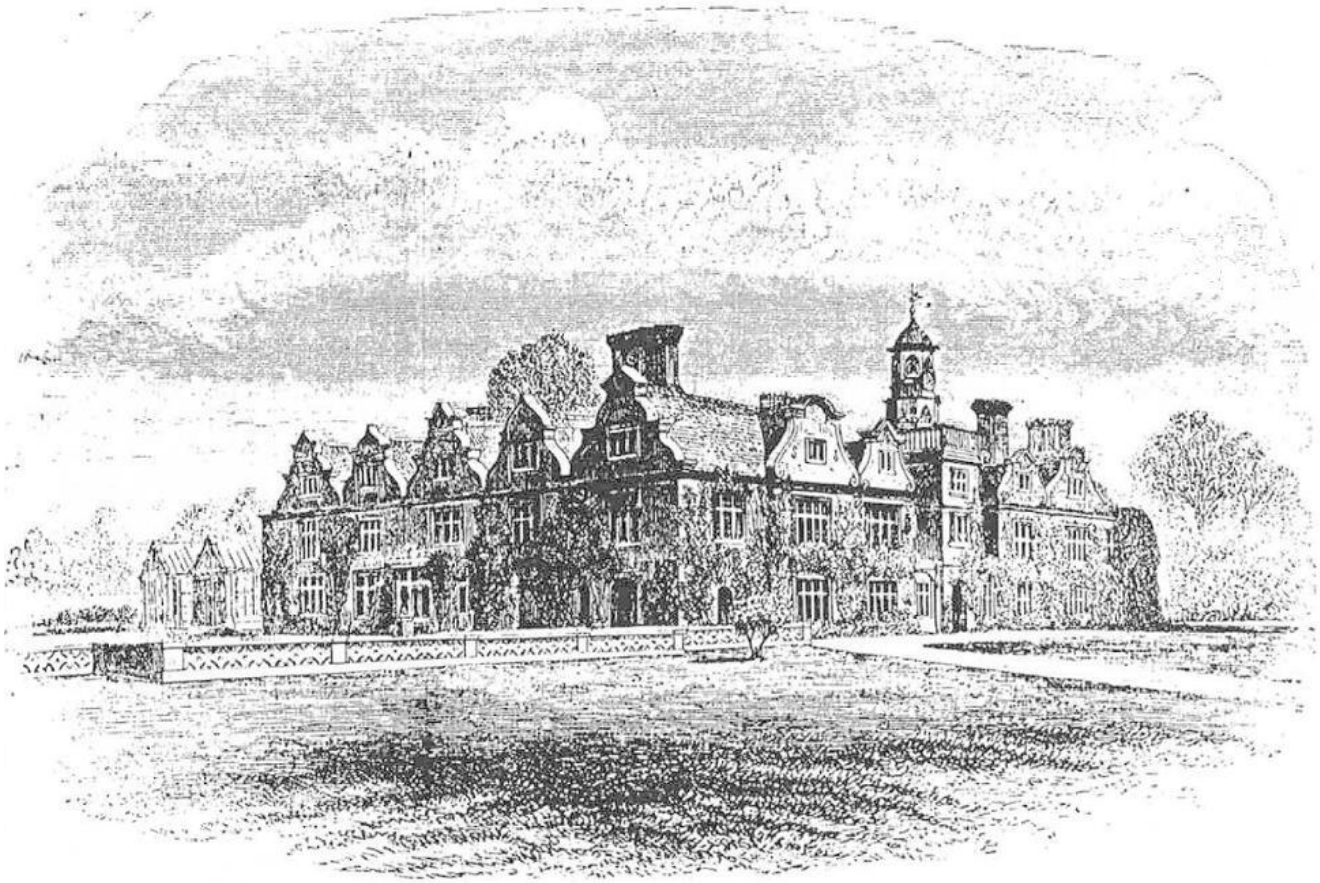


Fig. 7

Fig. 8



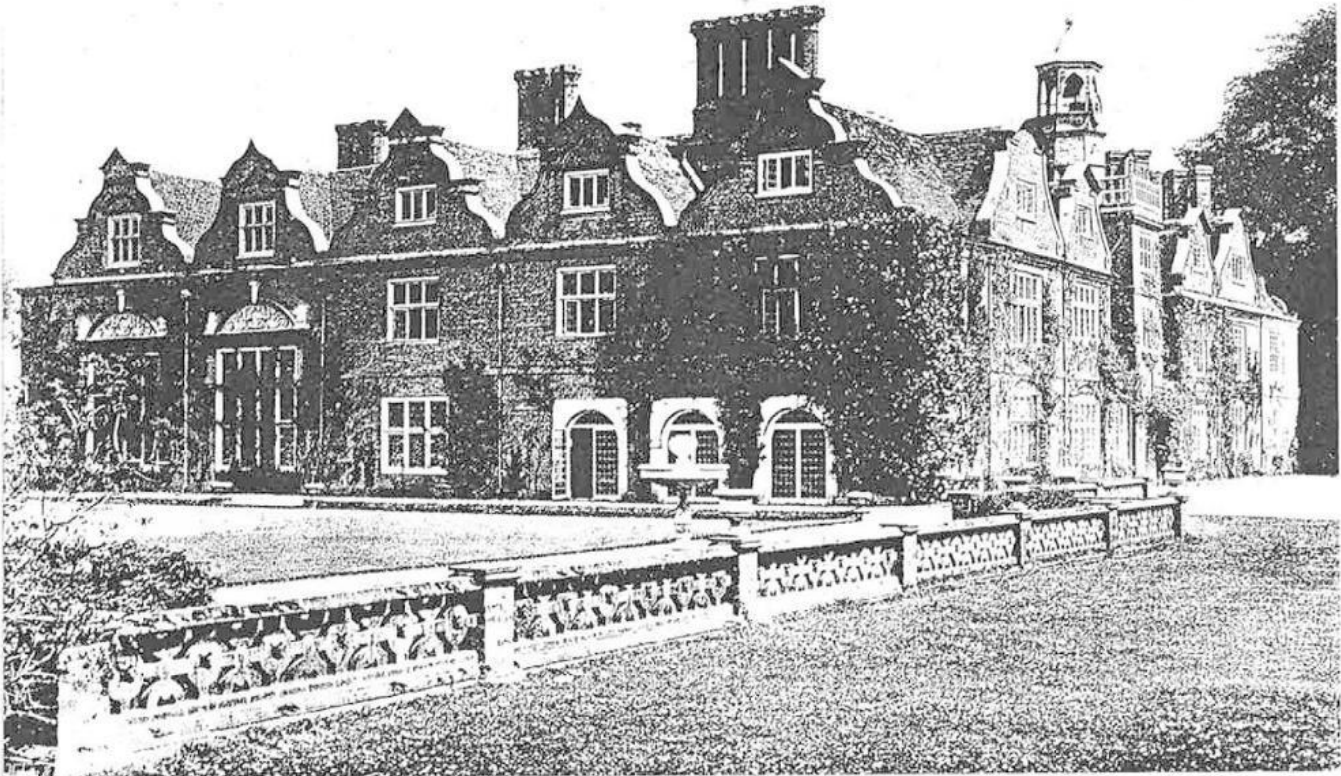


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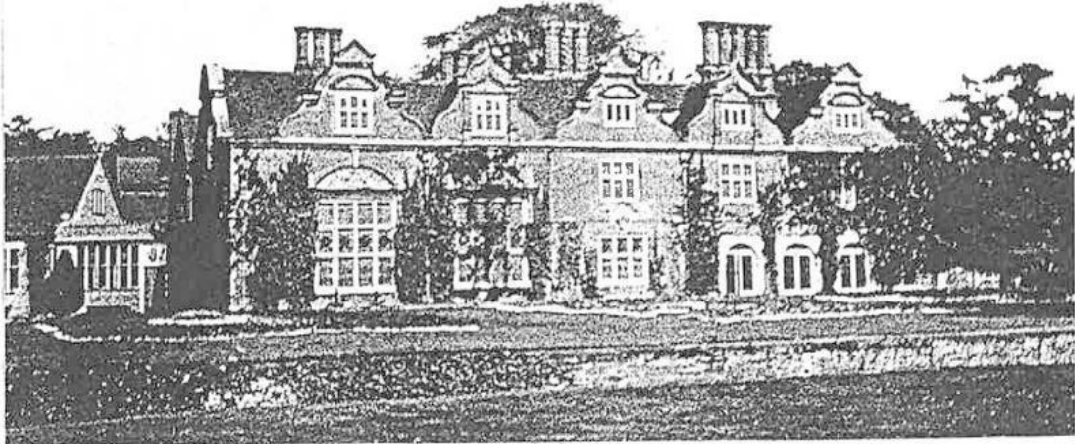


Fig. 10

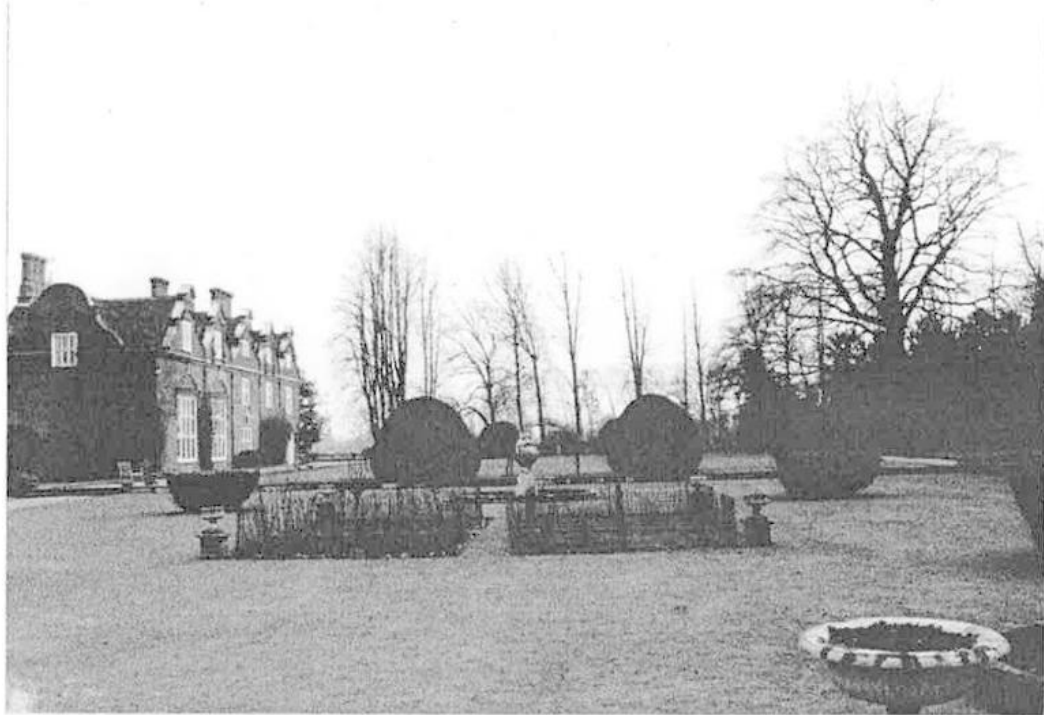


Fig. 11



Fig. 12

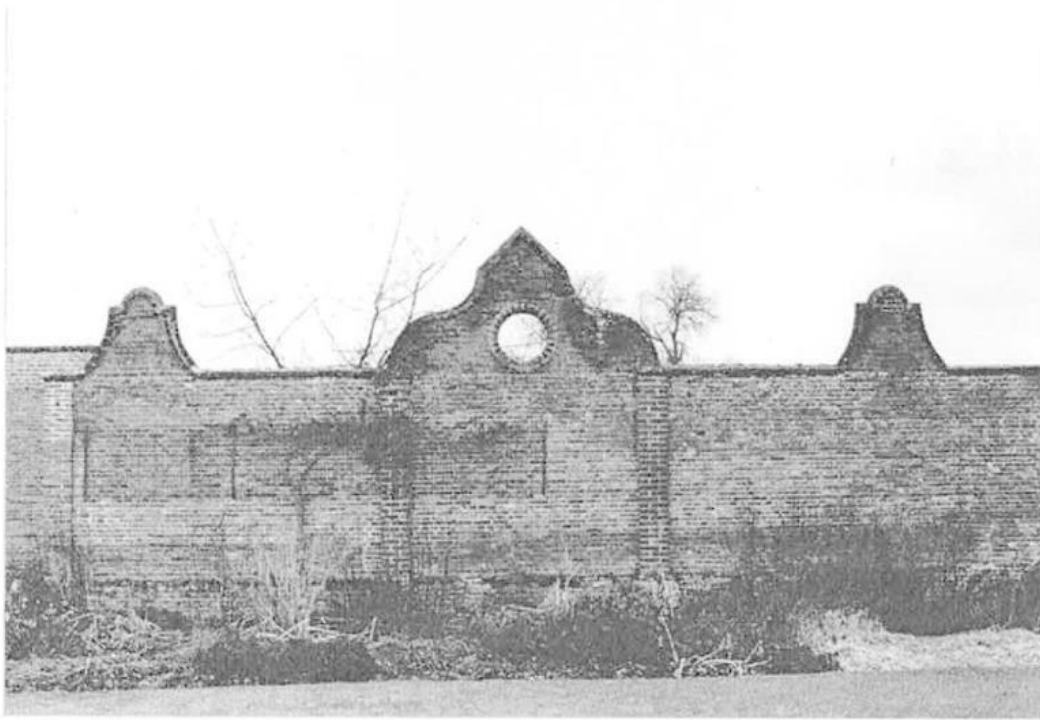


Fig. 13



Fig. 14

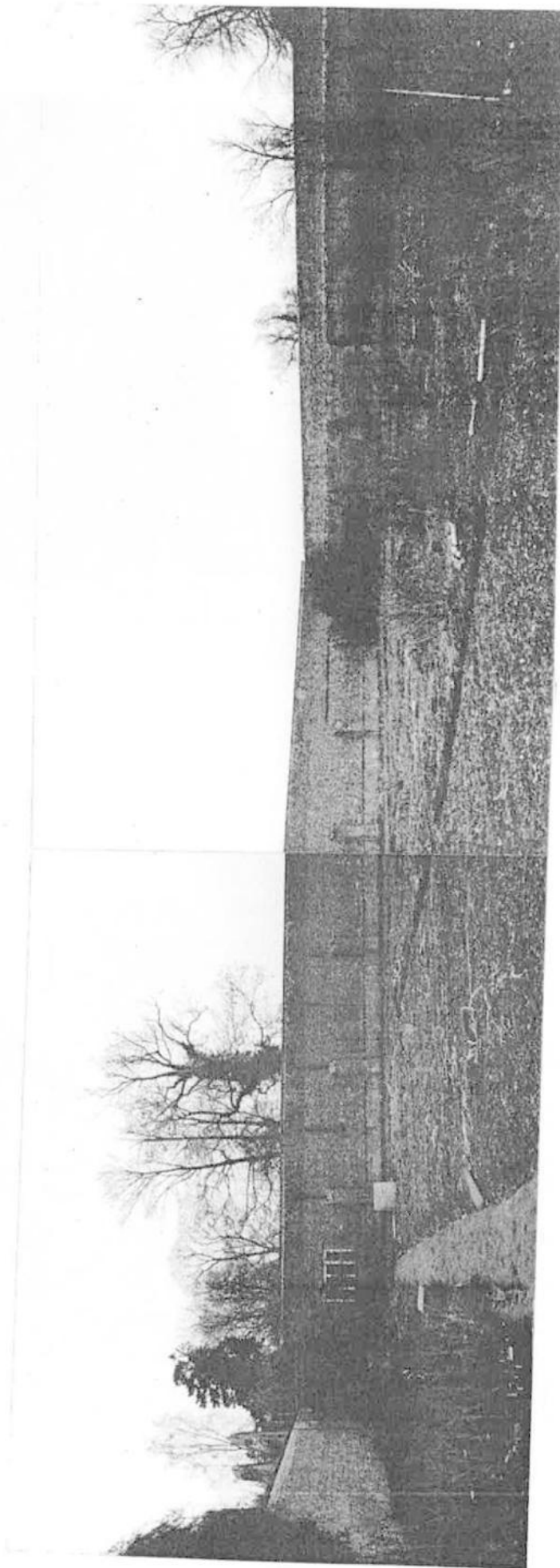


Fig. 15

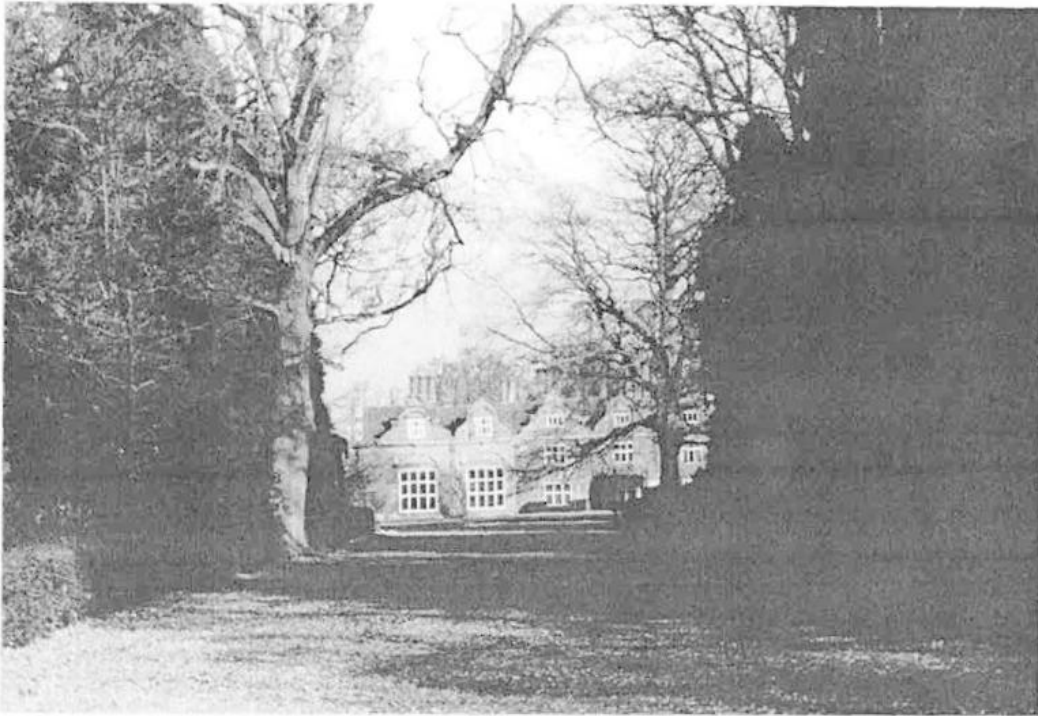


Fig. 16



Fig. 17

Fig. 18



Fig. 19



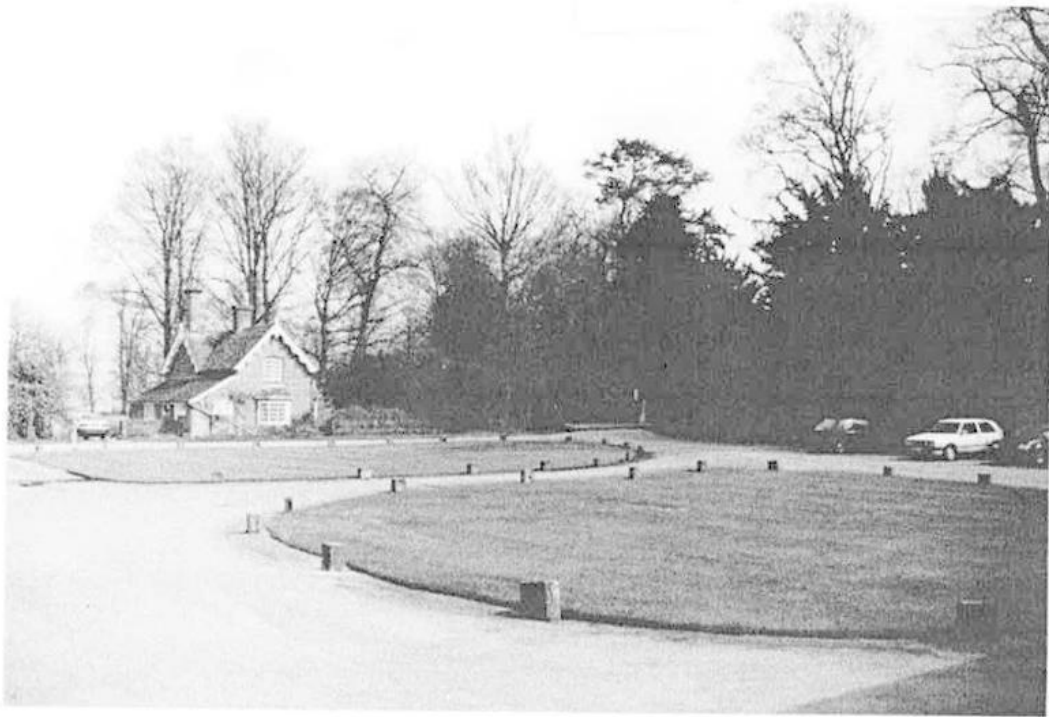


Fig. 20



Fig. 21