

# The Grounds of Magdalen College 1480–1880

By JOHN STEANE

## SUMMARY

*The unique location of a deer park in the midst of a university town is a powerful focus for visitors to Oxford. What is perhaps less well known is that Magdalen College also possessed until the middle of the 18th century a remarkable layout of formal gardens on the Renaissance model. These have been recently graphically displayed in a resistivity survey.<sup>1</sup> In addition the site, adjoining the flood plain of the river Cherwell, includes a great meadow famed for its fritillaries and surrounded by water walks that make it one of the most beautiful parts of the city. This article seeks to trace the evolution of these grounds from the foundation of the college in the late 15th century to the later 19th century.*

## SOURCES

The cartographic and pictorial evidence for the Magdalen College grounds is voluminous. It includes excellent maps by Agas (1578), Loggan (1675), Williams (1733), Taylor (1750), Davies (1797), engravings of the buildings in the context of the grounds in the Oxford Almanack, drawings and watercolours by John Malchair, A. W. Pugin and others in the collections of Corpus Christi College, the Ashmolean Museum and the Bodleian Library. The main documentary sources are the *Libri Computi*, the college account books written for the most part on vellum (rarely on paper) and in Latin from 1480–1883. The late 15th- and early 16th-century *Libri* treat the accounts of the gardens (*Custus Hortorum sive Gardini*) separately from those of the Grove (*Custus Virgulti* or *Arbusti*) and those of the meadow (*Custus Prati*). They vary hugely in the amount of detail given in different years, some with 70 or 80 entries, others only 4–5 lines. Much depended on the relative zeal, interest and accounting skill of the Bursars who did the job in rotation. From about 1560 the separate treatment of the gardens ceases; horticultural matters are subsumed in the accounts of the Grove and Meadow which are fused together. The sums spent each year form a useful pointer to the major campaigns of work on the college grounds and sometimes these can be linked with events such as the arrival of presidential new brooms. The sources multiply in the 19th century. The *Libri Computi* continue but are supplemented by the College Order Book and at the end of the century by the minutes of the Bursarial Committee. We can now understand (in summary form) not only the total sums spent annually on the upkeep of the grounds but also the nature of the decisions taken and, at times, the reasons backing them. As the 19th century progressed bills and correspondence survive which show that the work was actually carried out. Many photographs taken during the last 130 years supplement this with a visual record.

<sup>1</sup> Published in J.M. Steane and B. Dix, 'Recent Investigations into the History of the Gardens, the Water Walks and the Meadow', *Magdalen College Record* (1997), 75–86. A brief account of the resistivity survey appears as an Appendix at the end of this article; see also Fig. 4. For a more detailed explanation see the report deposited in Magdalen College Archives.

## THE GROVE

The ground now known as the Grove had belonged in the late 12th century to Hugh de Malaunay, who granted it together with the meadow formerly known as Cowlake or Great Mead to the Hospital of St. John the Baptist.<sup>2</sup> The hospital originally stood on the western edge of this land facing the city wall and the graveyard of St. Peter's in the East. Henry III acquired the land in 1231 and gave it and half of the Garden of the Jews to the refounded hospital, which was now rebuilt near the Cherwell and Pettypont bridge in the south-eastern corner of the site. Bishop Waynflete acquired the decayed hospital to found his college but did not replace the buildings for the first ten years.<sup>3</sup>

The first concern of the founder in fact was to define and defend this splendid site outside the protective walls of the city. This demanded the construction of the Long Wall which still bounds the college grounds to the west and north. If we can believe David Loggan's *Prospectus Oxoniae orientalis*, a long crenellated wall was also built along the Cherwell to the east.<sup>4</sup> Its construction was begun in 1467 and occupied, according to the *Victoria County History*, seven years, probably an understatement because in 1490-1 the *Libri Computi* record massive wall-building still taking place, including a payment to Chamberlain of Headington for quarrying and carrying 100 cart loads of stone for the wall in the Grove while John Gyll was paid for working on the same wall for 16 days. Once the Grove was enclosed the gates could be locked and Waynflete's college was secure from casual entry by burglars, undesirable citizens and rioters. As the foundation statutes of 1487 put it: 'We would have the Grove Gates in the Eastern and Western walls constantly shut'.<sup>5</sup>

The Grove (referred to as *Virgultum* in the 16th century and *Arbustum* towards the middle of the 17th century and thereafter) was a piece of land 11 acres in extent. For the first 30 or 40 years after the commencement of the *Libri Computi* most of the entries relating to the Grove refer to keeping the weeds down and mowing for hay. Either trees were not being planted in great numbers or maybe they had not reached the stage when they needed pruning. From c. 1520, however, increasing numbers of entries refer to planting trees and pruning them. Three different words are used for pruning. In 1521-2 when Hinton was paid 18*d.* for pruning elms in the Grove for 5*d.* a day the word used was '*deputando*'. In other years the expression '*amputandibus arbores in arbusto*' was employed. A third usage, deriving from '*tondeo*' (to shear, clip or crop) is found in the late 16th century. This suggests a picture of neat, orderly trees clipped to shape demonstrating man's mastery over nature.<sup>6</sup>

This image of orderliness is confirmed in the picture of the Grove as seen in the Agas map of 1578 (Fig. 1). Here, three avenues are seen criss-crossing the area enclosed by the Long Wall and the river Cherwell. Agas also shows a row of trees planted around part of the western, northern and north-eastern edges. We do not know for certain when this formal planting in avenues was carried out but there certainly was a frenzy of activity in tree planting and paling which took place in 1561 and for two or three years after that. The species are rarely mentioned but include willows (1561), ashes (1563) and maples and elms after 1660. The young trees needed watering, protecting with thorns, and staking. This happened when Moorfields in London was laid out in 1607 in the form of a criss-crossed

<sup>2</sup> H.E. Salter (ed.), *Cartulary of the Hospital of St. John the Baptist*, i (Oxf. Hist. Soc. lxxvi), 72-3.

<sup>3</sup> J. Mills, 'The Foundation, Endowment and Early Administration of Magdalen College, Oxford' (Oxford Univ. unpubl. B.Litt. thesis, 1977), 14.

<sup>4</sup> Bodl. G.A. Oxon. a 41, p. 14.

<sup>5</sup> *V.C.H. Oxon.* iii, 203; G.R.M. Ward (ed.), *The Statutes of Magdalen College Oxford* (1840), 125.

<sup>6</sup> K. Thomas, *Man and the Natural World* (1983), 208.

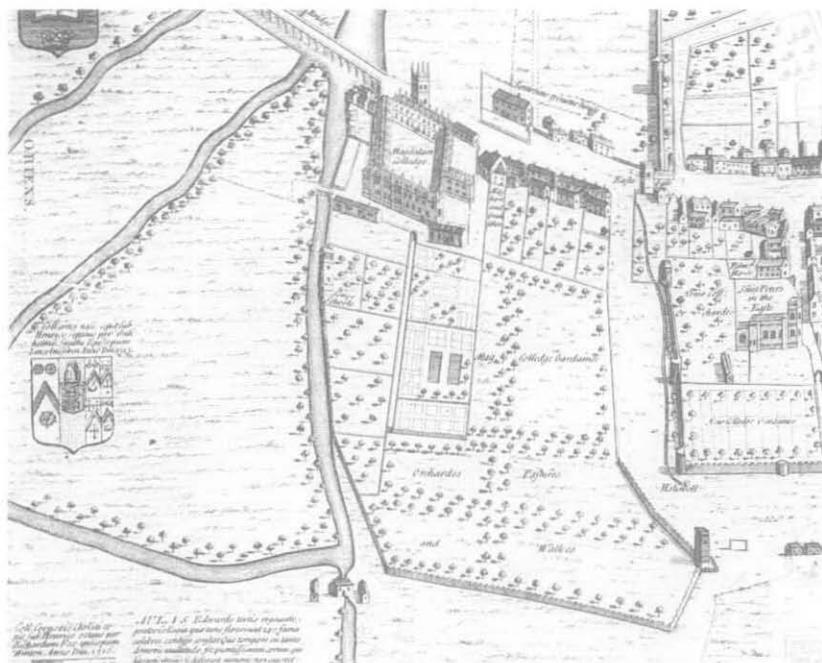


Fig. 1. Agas map, 1578. This map is orientated south-north. The crenellated Long Wall is clearly shown at the N. end, as are the 3 avenues and the area of the gardens and fish ponds (Bodl. MS. Top. Oxon. a 35, f. 28).

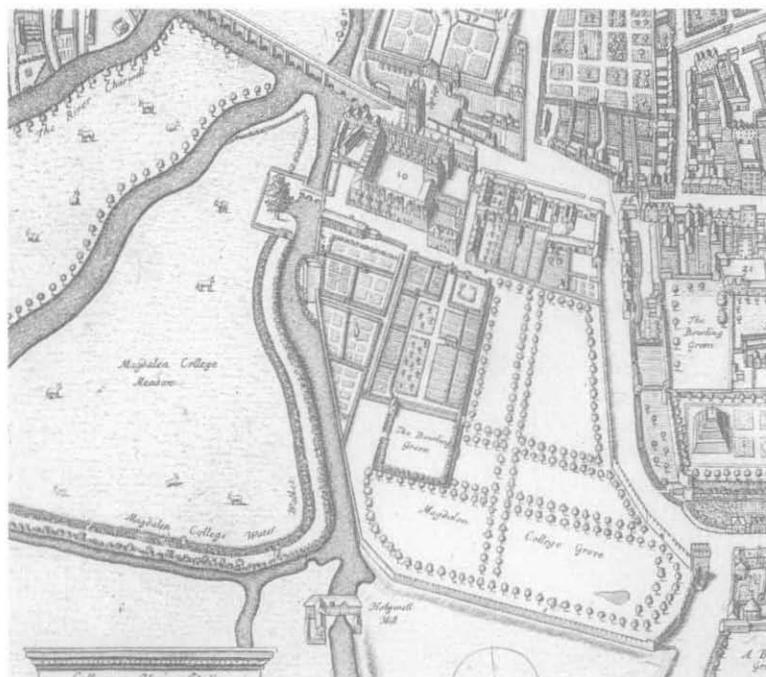


Fig. 2. Loggan map, 1675. As with Agas this map is orientated with south at the top. Developments have clearly taken place in the gardens; the bowling green has been added and a beginning made with the water walks (Bodl. MS. Top. Oxon. a 35, f. 24).

avenue like Magdalen with rails or paling at the foot of the trees.<sup>7</sup> If access was being restricted at Magdalen it sounds as if the public was being allowed into the Grove although there is no evidence for this until the 18th century. To protect young trees from browsing by cattle, brushwood and thorns were brought in by the cartload from the college woods at Shotover and Headington.

If it is accepted that the formal planting of the Grove at Magdalen took place in the middle of the 16th century the question arises – What was its function at this time? With its shady walls for contemplation the area is appositely named. The allusion is not so much to the thickly wooded groves of classical Italy, but rather to Academe where Plato taught. The rhythm of formal planting might have been considered to be a pre-requisite to thought. John Evelyn had this in mind when he wrote in *Sylva*, 'In the walks and shades of trees, the noblest raptures have been conceived and poets have composed verses which animated men to glorious and heroic actions'.<sup>8</sup>

Intellectual endeavour was linked with presidential prestige. It is significant that the great north-south avenue at Magdalen terminated at its southern end near the back door of the President's lodging. It was but a short four or five steps for the President to take his guests out of the lordly lodging into the lordly walks. This fits Moses Cook's advice that 'most walks that are made abroad either terminate, or end, or lead to the front of a house, or door, or garden gate, or other gate, highway or wood'.<sup>9</sup>

The calm of the college Grove and its walks was shattered by Civil War. Charles I, by leaving London at the beginning of hostilities, had delivered the Tower of London, the traditional centre of the royal ordnance, into the hands of Parliament. He occupied Oxford and Anthony Wood noted that after the battle of Edgehill 'the ordinance and great guns were driven into Magdalen College Grove, about 26 or 27 peices, with all their carriages'.<sup>10</sup> For three years 1642-5 the Grove was the headquarters of the royal ordnance. The technicians in the royal service set up workshops, forges and foundries. Quantities of fuel were stockpiled, the coal and timber kept in 'the store house' behind Magdalen College were replenished from stocks of 'sea coal' requisitioned locally or brought in from other parts of the country. Forges were thus fuelled to make ironware and cast brass ordnance. The equipment mentioned in the Ordnance Papers included ladles (the ladlemaker had 'his shopp in ye grove'), sponges, shot, 'cases of Tynn, grease poz', plates of iron, shovels, spades and pickaxes. Bolts for wagons, bodes and 'wheels unshod' are also mentioned. It is difficult to believe that under the grass where deer now graze there is a layer of industrial waste, but significantly there are several places on the inside of the north-western part of the Long Wall where burning has left areas of fire-reddened limestone. Did the 17th-century smiths use the Long Wall as one side of the shacks they erected to house their forges?

Magdalen's bell tower was used as an observation post and the college grounds were also fortified. In July 1644 the royalist garrison was preparing to be besieged. Supplies were ordered to be sent to a labour squad working in the meadow to the east of the college. One possibility is that they were digging the banks and ditches of a detached broad-arrow-shaped bastion covering the bridge connecting the inner college ground to the meadow and water walks. This is certainly shown on the De Gomme drawing<sup>11</sup> (Fig. 3) but all traces

<sup>7</sup> J. Lubbock, *The Tyranny of Taste* (1995), Figs. 11-12.

<sup>8</sup> J. Evelyn, *Sylva, or a Discourse of Forest Trees and the Propagation of Timber in His Majesty's Dominions* (1670), 183.

<sup>9</sup> M. Cook, *The Manner of Raising, Ordering and Improving Forest and Fruit Trees* (1679), 183.

<sup>10</sup> A. Clark (ed.), *The Life and Times of Anthony Wood*, i (Oxf. Hist. Soc. xix), 68.

<sup>11</sup> R.T. Lattey, E.J.S. Parsons and I.G. Philip, 'A Contemporary Map of the Defences of Oxford in 1644', *Oxonienisia*, i (1936), 161-72.

would appear to have vanished from the meadow itself. It does not appear in modern air-photographs. Perhaps it was completely flattened after the successful capture of the city by Fairfax.<sup>12</sup> The 1649 college accounts mention a sum of £3 0s. 0d. spent on 'carrying away gravel which was stopping up the river and for demolishing fortifications'.

A second and still visible fortification which they may have been constructing was an advanced observation post or bastion known as Dover's Speare, Peare, Pear, or Pier. Henry Cary, first Earl of Dover, commanded a regiment in the Oxford garrison. The pier is shown in the De Gomme drawing as connected to the college, and thereby to the fortified city, by a bank running along the north side of the meadow (Fig. 3).<sup>13</sup> This bank is ditched on both sides and the northern ditch carries a channel of the Cherwell which links with the tail-race of Holywell Mill. At the point where the river Cherwell splits into two channels, one running west and one south, at the north-east corner of the frutillary meadow are the remains of Dover Bastion. It has clearly been flattened by laying the path on top but it is still noticeably higher (by as much as 0.75 m.) than the banks to the south and west. It points north-east and if the intervening trees had been removed it would have provided an observation platform of movements in any besieger's army to the north and east. The De Gomme



Fig. 3. De Gomme map of the defences of Oxford, 1644 (Bodl. MS. Top. Oxon. b 167).

<sup>12</sup> A. Kemp, 'The Fortification of Oxford during the Civil War', *Oxoniensia*, xlii (1977), 237-47.

<sup>13</sup> Bodl. MS. Top. Oxon. b 167. It is also shown on Loggan's *Prospectus* (Bodl. G.A. Oxon. a 41, p. 14).

drawing shows a blue line round the rectangle of the fortification, presumably indicating a watery defence. This must have been in the vicinity of the irregular shaped pond at the rear, but the pond is more likely to be part of the 18th- or 19th-century landscaping of this area, known as 'the duckery'. The batteries in the walks, so Wilson claimed, were kept busy, especially one which was described as a 'work in the river', approached by 'a high and strong causeway', which is probably to be identified with 'Dover pier'.<sup>14</sup> Certainly Charles II had heard of its fame; on his visit to Oxford in 1663 he went out of his way to visit it 'to see the place where Dover Peer was'.<sup>15</sup>

#### THE GARDENS 1480-1640

Some years passed after the foundation of the college before the hospital buildings were demolished or absorbed. As the collegiate structures arose so gardens were created at the rear of the site.<sup>16</sup> Four were named in the 1490s. The 1490-1 *Liber Computus* mentions the 'new garden'; that of 1494-5 refers to 'the garden of the lord President'. By 1496 'the little garden', 'the cook's garden' and 'the garden of the bachelors' all figure in the college accounts. The early 16th century sees payments being made to Ralph and Robert Andrewes for looking after the gardens (in the plural). It seems likely that these four gardens were all in the south-eastern quadrant of the Grove. Ralph Agas's map of 1578, although of uncertain accuracy concerning measurements, has been proved by the resistivity survey to be broadly reliable as to layout (Figs. 1, 4). It shows three main rectangular elements in the enclosed area in the south-east quadrant of the Grove. Each was in turn subdivided into square or rectangular beds with two rectangular fishponds. They are bordered on the east by a gated and fenced roadway which runs north-south the whole of the length of the gardens. To the east of this, and bordered on one side by a branch of the river Cherwell, is a series of enclosed spaces, which, judging from the trees delineated in them, were orchards.

In common with most other contemporary gardens portrayed in late 15th- or early 16th-century manuscript sources, the gardens at Magdalen were enclosed by walls, hedges or paling. A sense of enclosure was considered inseparable from the concept of the garden at this time.<sup>17</sup> Richard Hart and Henry Flynt were paid 8s. 4d. for repairing a wall around the garden in 1512-13. The gardens were also hedged, a practice advised by Gervase Markham a century later:<sup>18</sup>

it shall not then be amisse to fence your garden with a tall strong pale of seasoned oake, fixt to a double parris raile, being lined on the side with a thick quick-set of white-thorne.

Paling was used in the middle of the 16th century. A close examination of Agas's bird's eye view indicates that there was a paling fence at the north end of the garden. The pointed upright planks are unmistakeable. One imagines that the rest of the garden enclosure at this time (1578) was similarly paled but it is not possible to be sure of this because Agas's imaginary view is from above at this point and the fences are shown only as lines. Paling did of course need constant repair and renewal because it quickly rotted at the base where it came into contact with wet earth. Overy and his two sons were paid 10s. 4d. in 1563 'for repairing the pales of the lord President already fallen down'. Once enclosed, the gardens

<sup>14</sup> H.A. Wilson, *Magdalen College* (1899), 157.

<sup>15</sup> Clark, *op. cit.* note 10, p. 497.

<sup>16</sup> The first gardens were part of the Jews' cemetery, which was on both sides of the road leading to Pettypont, later Magdalen Bridge. Henry III gave half the Garden of the Jews to the refounded Hospital of St. John the Baptist: Salter, *op. cit.* note 2, p. 77.

<sup>17</sup> J. Harvey, *Medieval Gardens* (1981); T. McLean, *Medieval English Gardens* (1981).

<sup>18</sup> G. Markham, *The English Husbandman* (1635), 195.

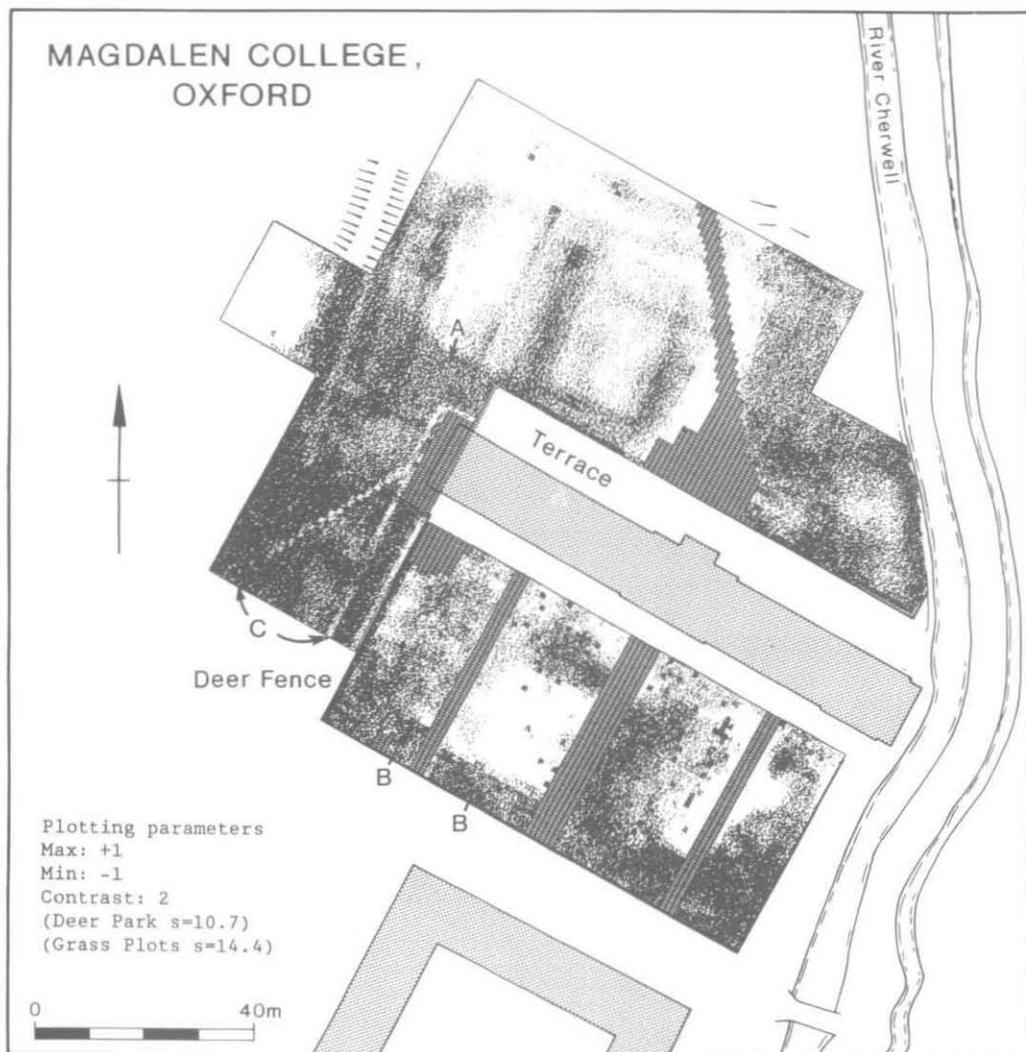


Fig. 4. Resistivity survey, Magdalen College gardens, June 1996. Dot-density plot of results, high resistance (Northamptonshire Archaeology). (See Appendix.)

were gated and locked, and entries in the *Libri Computi* as early as 1498-9 are found recording repairs to locks and the provision of keys for gates to the garden.

Within these enclosures were gravel walks shown as double lines criss-crossing at intervals in Agas's map. This conforms with contemporary garden practice as explained by Thomas Hill:<sup>19</sup>

After the herbs seemly performed in convenient places and walks of the Garden ground ... the Allies even troden out and levelled by a line, as either three or four broad, may clearly be filled over with River or Sea sand to the end that showers of rain falling, by the earth cleaving to or clogging their feet.

<sup>19</sup> T. Hill, *The Gardener's Labyrinth* (1577).

In 1597 a specific reference confirms not only the existence of gravel paths but that the gardens were thought of in the plural: 'Paid to Burnham for carrying 20 cartloads of gravel for the walks between the gardens.'

The information given in the *Libri Computi* as to the stocking and cultivation of the Magdalen gardens is disappointingly meagre. In 1490-1 John Coke was paid 12*d.* for providing 'various seeds', for making a lock and for eradicating 'noxious and superfluous' plants in the garden. It seems likely that seeds were saved each year and only rarely were bought in. There are however two references to the purchase of onion and leek seeds costing 6*d.* in 1495 and 20*d.* in 1496.

The college had a vine in the 1520s and 10*d.* was paid to a vine dresser 'for cleaning the vine of the college for two days'. Determined assaults were made from time to time at clearing weeds. In 1513 William Cotyngton was paid 10*d.* 'for mowing nettles in the garden for 2 days'. In 1496 John Schell was paid 2*d.* 'for mowing hemlock growing near the garden of the bachelors'. Tools figure even more infrequently. William Steine was paid 13*d.* 'for two mattocks and for repairing one' in 1498 and in 1509 4*d.* was spent on three wooden mattocks. Manure, doubtless the product of the stables, was recorded as being moved 'from the gate of the grove under the apartments of Doctor Veysey' in 1495.

An interesting question arises when we enquire who actually used the gardens. From the beginning of the 16th century the garden of the President was separate from the rest of the college gardens. Work specifically carried out in 'the garden of the lord President' is mentioned in 1521 (earth being carried in a cart), 1559 (men working round the President's beds) and 1562 (sawing up planks). These last may have been used for edging the beds. As the century progressed individual garden plots began to be linked with Fellows' names. The President's garden may well have covered a larger proportion of the available space earlier in the century. As the garden increased in size it was divided and other Fellows, possibly on a rota basis, were allowed to make use of certain plots. In 1563 for instance the college staff were engaged in quartering timber and mending the pales in the gardens of Messrs. Flower, Goodall and Mansell. Overy, who had been working for three days in the President's garden, was moved to help out for two days in Mr. Flower's garden.

#### FISHPONDS IN THE GROVE

Many monastic communities during the Middle Ages maintained fishponds from which they supplemented their diet, particularly during Lent. Oxford colleges rarely had sites suitable for digging fishponds. Magdalen, however, had the space and also the spring-fed water supply in the Grove.<sup>20</sup> Since fish need a plentiful supply of oxygen and derive their sustenance from bottom-living plants it is essential for the water supply to be fresh and slow moving. Agas's map of 1578 (Fig. 1) shows two rectangular hatched areas in the second of the enclosed gardens to the north of the college; it seems reasonable to interpret these as fishponds.

Whether these are in the same place as those referred to earlier in the *Libri Computi* is uncertain. In 1511 John Hinton was paid 2*s.* 6*d.* 'for working round and cleaning le Mote'. This 'moat' was fenced and Caxton and his mates were paid for repairing it 14 years later. It is conceivable that this is the same pond which is described as being 'around the garden

<sup>20</sup> B. Durham shows two sources of water available to the hospital, citing an aqueduct from Crowell existing by 1246, and a later aqueduct from above Holywell Mill replacing it in 1267: B. Durham, 'The Infirmary and Hall of the Medieval Hospital of St. John the Baptist at Oxford', *Oxonienisia*, lvi (1991), 22 (Fig. 2).

of the lord President' in 1520. In 1531 Townshend was paid for making an aqueduct for the President's garden. This certainly sounds as if it refers to a culvert bringing water from one of the two springs in or adjoining the Grove. The term 'moat' drops out of the accounts halfway through the 16th century and is replaced by the word *stagnum*, a pond. Gervase Markham advised frequent cleaning and from time to time 'to drain them and lade them, and this would be done at the beginning of the spring' every seven years. This explains the 1623 entry in the *Libri Compti* 'for flattening the nettles and cleaning out the fishpond in the Grove £2'. It was advantageous to have two fishponds; while one was drained the other could be used as a temporary stock pool. Also when both were in use one could be used for breeding and the other for fattening fish. As Markham remarks, 'such fish as you mean to preserve you shall put into smaller pits or stews and the other dispose at your pleasure'.<sup>21</sup>

#### A BOWLING GREEN IN THE GROVE

A second amenity was the Bowling Green, which came after the fishponds but lasted well into the 18th century. Colleges in the 17th century tried to control the morals of their undergraduates by forbidding them to frequent the bowling greens in the town and by setting up their own.<sup>22</sup> Magdalen acquired a bowling green sometime between 1578 (it does not appear on the Agas map) and the early 1630s when the first references in the college accounts begin. The site chosen was in the middle of the Grove to the north of the enclosed gardens in a square area marked 'orchards' on the Agas map (Figs. 1-2). It was known as the '*sphaeresterium*' and to begin with was evidently not of grass but of gravel. Clarke, in 1630, is paid 3s. 4d. for providing four cartloads of gravel for the bowling green, and Hill is paid 6d. for a sieve (*pro criba*). Markham mentions three types of bowling green:

Your flat bowles are the best for allies, your round byazed (biased) bowls for open grounds of advantage and your round bowls like a ball for green-swarths that are plain and level.

A ditch was dug round the green in 1647 and Loggan (Fig. 2) shows it with an entrance on the east and hedged on the inner side of the ditch. The Oxford Almanack for 1731 indicates that it was hedged and moated. The bowling green was extended from a square to a rectangle and reached up to the Cherwell if we can believe the Taylor map (Fig. 5). It is still there in the 1797 Davies map but fades out of the college records and was probably incorporated in the deer park in the first decades of the 19th century<sup>23</sup> (Fig. 6). Its position is still traceable on the modern ground surface of the Deer Park in the form of a low scarp and a slightly sunken area.

#### HAY AND FUEL

Magdalen was fortunate with its very extensive site outside the city wall and adjoining the flood plain of the river Cherwell to be able to draw upon the dual resources of timber/wood from the Grove and Water Walks and hay from the Grove and the meadows. The hay was principally needed in the 16th and 17th centuries to feed the horses in the college stables, used by the President and Bursars when on progress round the college estates or on business to London.

<sup>21</sup> G. Markham, *The Pleasures of Princes or Good Men's Recreation* (1635), 38-9.

<sup>22</sup> P. Manning, 'Sport and Pastime in Stuart Oxford', in H.E. Salter (ed.), *Surveys and Tokens* (Oxf. Hist. Soc. lxxv), 108-10.

<sup>23</sup> Loggan: Bodl. MS. Top. Oxon. a 35, f. 24; Oxford Almanack: Bodl. MS. Top. Oxon. a 35, f. 156v; Taylor: Bodl. MS. Top. Oxon. a 35, f. 36.

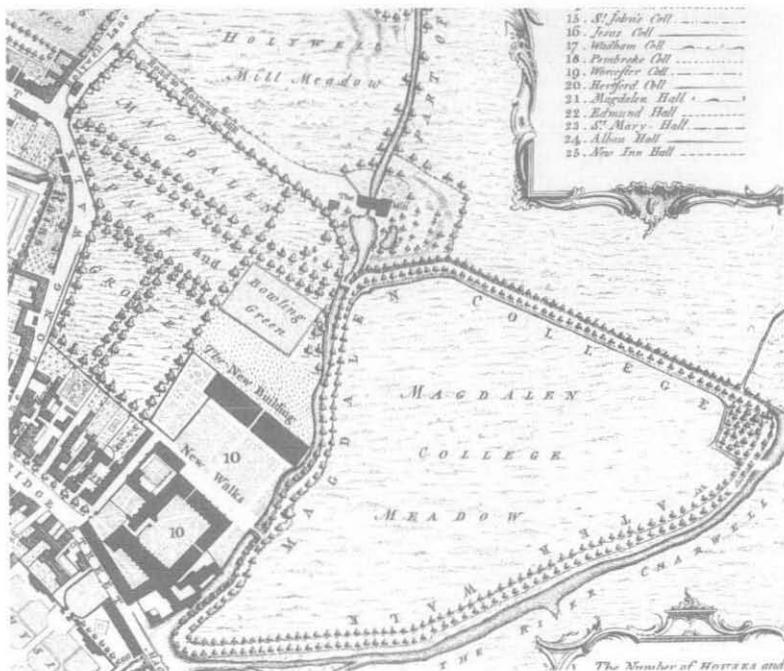


Fig. 5. Map of Oxford by Taylor, 1750. The formal garden layout shown by Loggan (Fig. 2) has disappeared but there is still a strip to the SW. of the New Building. The Bowling Green has been extended and the avenues have been truncated (Bodl. MS. Top. Oxon. a 35, f. 36).

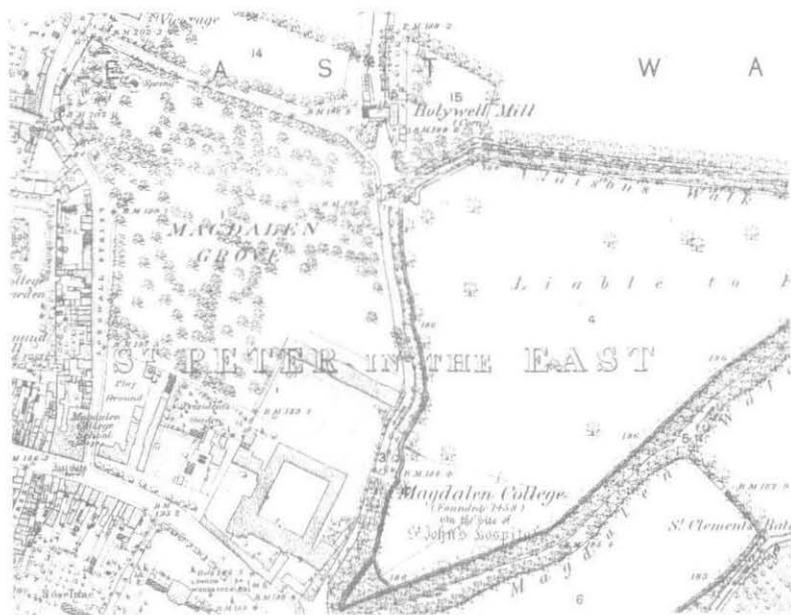


Fig. 6. O.S. map of Oxford, 1876. The Deer Park has now taken in the area of the Bowling Green. An enlarged President's Garden has been laid out to the W. of the college buildings and Magdalen College School occupies the area to the W. of this.

The college stables, situated to the west of the college buildings and rebuilt there in 1636, provided a plentiful supply of manure. This was stockpiled in the upper part of the Grove in 1583 to be used later in the season for top dressing the meadow as Gervase Markham recommended:

then he shall dung those grounds which he will lay for medow at Candlemas: or those which he will grase or late in the first beginning of the Spring at Michaelmas before, with the oldest and rottenest manure he can get.

Manuring pasture tended to promote rank growth which could only be counteracted by effective drainage. Hence the *Libri Compti* are full of entries for ditching the meadow. Field evidence noted in the winter of 1996-7 showed the former subdivision of the meadow into three fields. In the 16th century these had required hedging and weeding. Docks, nettles and thistles were pulled up.

The haymaking itself was labour intensive and involved scything, spreading with rakes and carrying, using pitchforks. Larger numbers of casual workers than were employed during the rest of the year were brought in. Haymaking was at times done on a contract basis with the lump sum paid over to an individual 'by agreement' who then recruited and paid off his labour force. On other occasions the labourers involved were listed individually and included 'poor scholars' and the wives of college estate workers. Despite careful husbandry home-grown hay was still insufficient for the needs of the college and it was supplemented after 1570 by quantities bought in during the lean months of January and February.

The *Libri Compti* show little evidence for stock rearing. Cattle are shown browsing in the meadow in Loggan's map (Fig. 2) and horses figure in the foreground of a late 18th-century view of the college seen from the east, but the documents are mainly concerned with keeping other men's animals out of the college grounds. In particular horses strayed in and were expelled in 1559 and 1568.

The other main product was fuel, whether in the form of billet wood (*lignum*) to fire the communal hall hearth and the numerous fireplaces throughout the college, or brushwood and faggots to burn in the bake ovens and kitchen. The Hearth Tax return of 1665 gives a total of 112 hearths for Magdalen,<sup>24</sup> and the view taken for the Oxford Almanack of 1731 shows 35 chimney stacks with a minimum total of 55 flues. Keeping these hearths supplied required the loppings and fellings in the Grove and Water Walks to be supplemented by much larger quantities of fuel brought in from time to time from the college woods at Shotover and Headington.

## THE WATER WALKS

The first cartographical suggestion of the existence of Magdalen's Water Walks is seen on Agas's map when the triangular meadow to the east of the college and its grounds between two branches of the Cherwell is shown bounded by two rows of trees (Fig. 1). There is, however, no indication as yet of raised walks. The low situation of the meadow, with constant danger of flooding, would have made embankments desirable. The first notice of large-scale construction of such banks comes in the college accounts of 1609 when the unusually substantial sum of £47 8s. 4d. was spent on the Grove and the Walks. Quantities of gravel were brought by Walton and Pratt and others while Major and Bristow carried 48 cart loads into the Grove for 20s. 6d. The walks were also raised in the Grove itself. The lower part of

<sup>24</sup> M. Weinstock (ed.), *Hearth Tax Returns, Oxfordshire, 1665* (O.R.S. xxi), 78.

the walks required a sub-structure or revetting of stone. Four cart loads were used and Stiles the quarryman was paid 6s. 9d. for constructing the slopes in the 'upper part' of the Grove.

After the Restoration of Charles II the college restructured the grounds by repairing and extending the embanked walks, incorporating the Dover Pier into the system, planting trees and providing seats. Setbacks occurred on 7 May 1663 when Wood records a prodigious flood so that 'all Xt Ch. walks and Magd. walkes were drowned; and the water at Magd. Bridg levill with the common way almost'.<sup>25</sup> In 1677, Hower had the job of revetting the crumbling earth at Dover Pier with woven branches (*virgis intextis sustentatis*) for which he was paid 6s. 3d. By 1675 Loggan's map shows that the walks had been embanked from the bridge leading from the college across the lesser stream of the Cherwell along the west and north side of the college meadow (Fig. 2). During the 1680s redoubled efforts were made digging, carrying and spreading sand; in 1686 King was paid £7 6s. 6d. for 279 cart loads. In 1701 the walks were extended from Dover Pier southwards towards Magdalen Bridge. Labourers were employed in watering and beating the new bank. William Williams's *Prospect of Oxford from the East near London road* (1733) shows the treed water walks on the east side of the college meadow completed.<sup>26</sup>

As the amenities of the Grove were improved the college grounds attracted people as a place of leisure and entertainment. Hearne records that at the beginning of the 18th century Merton College garden had been a centre of public resort 'in the pleasant time of the year'. Eventually the unrestricted use for meetings every Sunday night by younger university men and the women of the town grew scandalous and the Fellows of Merton decided to shut up their garden gate. 'Thereupon the young gentlemen and others betook themselves to Magdalen College walk which is now every Sunday in summer time strangely filled, just like a fair.'<sup>27</sup>

#### THE MAGDALEN DEER PARK

It is difficult to imagine how the public were accommodated once the Grove began to be used to herd deer and yet it seems that the college did keep deer from the early years of the 18th century. Dr. Bloxham, Fellow of the college in the 1830s, wrote:

my impression is that the deer were first introduced into a section of the space behind the New Buildings (then a bowling green and gardens) about the beginning of the last century, and that, as they increased, more space was given to them, till the whole was at last absorbed into what is called 'The Grove', but no historical account, or tradition of them is extant.<sup>28</sup>

The *Libri Compti* begin to mention the deer in the 1720s mainly in connection with supplementing their diet by buying in additional foodstocks. In 1723 Bootham is paid £1 4s. 0d. for hay for feeding the deer and a basket is bought 'for the use of the deer, 1s. 4d.' In most years the grazing available in the Grove, supplemented by tree and hedge clippings and hay from the meadow, appears to have sufficed. 1742 must have been a bad year because Faulkner was paid £16 10s. 0d. for providing hay for the deer and an ash tree whose foliage was presumably fed to them. Again in 1756 £1 1s. 0d. was spent on milk for feeding the deer and in 1760 vetch was bought for the same purpose. In the late 18th century there are regular payments made year after year to individuals for looking after the deer and for culling them.

<sup>25</sup> Clark, *op. cit.* note 10, p. 474.

<sup>26</sup> Bodl. G.A. Oxon. a 41, p. 17.

<sup>27</sup> T. Hearne, *Remarks and Collections*, vi (Oxf. Hist. Soc. xliii), 82; P. Bliss (ed.), *Reliquiae Hearnianae* (1857), 503.

<sup>28</sup> Quoted in E.P. Shirley, *English Deer Parks* (1867), 136.

Illustrative evidence for the presence of the deer appears in prints and drawings of the later 18th century. Cattle but not deer are shown occupying the meadow in the Loggan map (Fig. 2). No deer are represented in the picture of Magdalen Grove depicted in the Oxford Almanack in the year 1731 but they do appear in a late 18th-century watercolour of the Grove<sup>29</sup> and also in the view of the college in the 1787 issue of the Oxford Almanack.<sup>30</sup>

The exclusion of the public from the Grove was a significant development in the early 19th century. Buckler in 1823 stated 'nearly 50 head of deer augment the interest and beauty of the Grove: two of these noble animals are annually sacrificed for the college use'. He goes on to say: 'The meadow in which they pasture undisturbed is most properly shut from public intrusion'. In 1825 the college ordered that the Grove be separated from the New Buildings by a sunk fence instead of an iron railing.<sup>31</sup> Mr. Parkinson was given the task of designing such a 'ha-ha' and the perpendicular wall built against the eastern side of the sunk fence is still there.<sup>32</sup>

The *Libri Computi* in the early 19th century record from time to time the introduction of fresh stock into the Magdalen herd. These came from the royal forests of Wychwood and Whittlebury. In 1875 the Prince of Wales made a present of four fine deer. 'The unanimous thanks of the college' were conveyed to his Royal Highness together with the message that 'they reached the college in safety and are doing well'.<sup>33</sup>

The Victorian age saw Magdalen experimenting tentatively with keeping exotic birds within its grounds. Peacocks were given to the college in the 1880s but were not a great success. As Macray put it: 'Their choral capacities are not in harmony with the musical taste of the college'. The Bursar was ordered to dispose of them.<sup>34</sup> Two emus were given through the good offices of the Rector of Exeter College. One died and the other was 'on its way'. When two American ostriches were offered for the Grove by Baron Rothschild the College declined the gift.<sup>35</sup> Exotic birds were not always welcomed. Still less were cawing rooks. Limited permission was granted at the end of the century for the destruction of birds by shooting: 'That the Rook shooting be confined to fellows and their friends and that shooting in the Grove to take place on one particular afternoon only in each year'; presumably it was the noise that was objected to, both avian and ballistic.

Taken over the five centuries a picture emerges of the President and Fellows determined to exploit the resources of their grounds to the full; at times they are in the vanguard of park and garden design, as when they plant the formal avenues in the Grove; at other times there are long periods when little changed. The Civil War seems to have acted as a catalyst and the re-ordering of the grounds included the creation of the Water Walks. The gradual replacement of the avenues by a more natural park landscape grazed by deer coincided with the obliteration of the formal gardens in the middle of the 18th century (Figs. 5-6). Finally the 20th century saw attempts to maintain the tranquillity of the grounds while at the same time permitting greater public access.

<sup>29</sup> Bodl. MS. Top. Gen. A 13, f. 14.

<sup>30</sup> H.M. Petter, *The Oxford Almanacks* (1974), 58, 77-8; Bodl. MS. Top. Oxon. a 35, f 159.

<sup>31</sup> Magd. Coll. Mun., College Orders, 28 Apr. 1825, no. 7.

<sup>32</sup> *Ibid.* June 1825, no. 2.

<sup>33</sup> *Ibid.* 11 Nov. 1875, no. 3.

<sup>34</sup> *Ibid.* 26 July 1886.

<sup>35</sup> *Ibid.* 7 Nov. 1894.

APPENDIX: RESISTIVITY SURVEY OF MAGDALEN COLLEGE GARDENS, 1996  
(see Fig. 3)

In June 1996 Northamptonshire Archaeology was asked by the College to undertake a resistivity survey of part of the Deer Park to the north and west of the New Buildings (1733-9) and four grass plots at the south between the New Buildings and the old college. Within the Deer Park the survey area was bounded by the river Cherwell at the east and at the south-east by the terrace alongside the New Buildings. A gravel path projects diagonally to the north-west from the terrace steps. The survey extended to the west of the New Buildings where it is defined by a ha-ha (deer fence) along its eastern side. The four grass plots bordered by gravel paths to the south of the New Buildings were surveyed separately.

A total of 30 20 m. x 20 m. grid squares was surveyed along a series of parallel transects spaced 1 m. apart. Twenty of the grid squares were in the Deer Park, with the remainder across the grass plots. Individual readings were logged at 1 m. intervals along each transect using a Geoscan Research RM15 resistance meter with a twin electrode configuration in a mobile probe spacing of 0.5 m. Data were analysed and plotted using the computer programme Geoplot v.2.01.

The resistivity technique measures the electrical resistance of the soil, which is largely dependent upon the moisture content of the ground. Since stone features (such as walls and paths) have a lower moisture content than earth-filled features they will produce readings of a higher resistance. Mapping readings of high and low resistance across an area may thus produce a pattern of buried features.

A detailed analysis of the features presented as dot-density and shade plots may be found in the report 'Northamptonshire Archaeology Resistivity Survey at Magdalen College, Oxford, June 1996', a copy of which has been lodged in Magdalen College archives.

#### ACKNOWLEDGEMENTS

Thanks are due to Hugh Dickinson, Sherardian Professor of Botany, for enthusiastically encouraging the resistivity survey of the gardens; to the President and Fellows of Magdalen College for their interest and support; to Ian Gourlay of the Oxford University Department of Plant Sciences for help with surveying trees in the Grove; to Janie Cottis and Robin Darwall-Smith for help in producing and deciphering manuscripts; to the Bodleian Library for permission to reproduce maps and plans; to Gerald Harriss, former Fellow Librarian and Tutor in Modern History, for making useful comments; to Christine Ferdinand for help with books; to Keith Wills, Senior Bursar, for an aerial photograph and for supporting the wider dissemination of the article; to Brian Dix for his expertise on garden archaeology; to Adrienne Rosen for improving the text in a number of ways.