

# Moccas Court Parkland Plan

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**ASHMEAD·PRICE**  
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## Contents

PART 1: SITE EVALUATION.....	1
1. Introduction and summary .....	1
2. Background to the Parkland Plan.....	2
2.1 Commissioning of the Plan.....	2
2.2 The study area.....	2
2.3 Management and personnel .....	2
2.4 Digital mapping, GPS and Geographic Information System (GIS).....	3
3 Location, land ownership, physical character and usage of the park.....	4
3.1 Ownership.....	4
3.2 Designations.....	4
3.3 Agricultural land classification and land use.....	4
3.4 Field parcel names and Rural Land Registry numbers .....	4
3.5 Resource protection issues .....	4
4 Historical Development of the Landscape .....	5
4.1 Introduction.....	5
4.2 Key phases of development and documentation.....	5
4.3 Prehistoric, Roman and Early Medieval.....	6
4.4 The Middle Ages.....	6
4.5 The Tudor and Stuart Period.....	7
4.5.1 The deer park .....	7
4.5.2 The Little Park .....	8
4.6 The early Cornewalls .....	9
4.6.1 The chivalric tradition.....	10
4.6.2 The Great Paddock.....	11
4.7 Velters Cornwall (c.1698-1768) and the <i>ferme orneé</i> .....	11
4.7.1 Portrait of a landscape c.1750.....	13
4.7.2 The <i>ferme orneé</i> .....	15
4.8 Sir George Cornwall (1748-1819).....	15
4.9 ‘Capability’ Brown .....	16
4.10 Uvedale Price – the agrarian picturesque.....	17
4.11 Richard Payne Knight – the arbiter of contemporary taste.....	18
4.12 The Nineteenth Century: Continuity and Change.....	20
4.12.1 Timber sales and the John Webster plantings.....	20
4.12.2. Sir George Cornwall (1775-1835) and Sir Velters Cornwall (1824-68).....	20
4.12.3. The Rev. Sir George Cornwall (1833-1908).....	21
4.12.4. The visit by the Woolhope Club’s ‘Commissioner’ 1870 .....	22
4.12.5 Kilvert’s Diary – an Indian summer for Moccas .....	24

4.12.6 The President’s day at Moccas .....	26
4.12.7 The 20th century .....	28
PART II: ANALYSIS OF LANDSCAPE DEVELOPMENT .....	31
5 Overview of the Development and Condition of Parkland Elements .....	31
5.1 Introduction .....	31
5.2 Summary- character area map and landscape design evaluation .....	31
5.3 Area A: Monnington Walk and North of the river .....	31
5.4 Area B: Moccas Court and Church .....	33
5.5 Area C: Moccas Court Parkland .....	33
5.5.1 Area Description .....	33
5.5.2 Historical Development .....	34
5.5.2.1 Little Park – 8609, 8623, 9728, 2231, 2930 .....	34
5.5.2.2 Depple Wood - 8555, 1785, 1501 .....	35
5.5.2.3. The Warren - 1163 .....	36
5.5.2.4. The Boat House / River 16 Field – 2522, 4192 .....	36
5.5.2.5. Dog Kennel Wood - 4876 .....	37
5.5.2.6. The Fish Ponds .....	37
5.5.2.7. Dog Kennel Field – 3661 .....	38
5.5.2.8. Church Field – 4632 .....	38
5.5.2.9. Airfield – 5110 .....	38
5.5.2.10. Crossend Coppice – 6706 .....	38
5.5.2.11. Kennel Cover – 8687, 8483 .....	39
5.5.3 The Area C Today – archaeology, trees and ecology .....	39
5.5.3.1 Archaeology .....	39
5.5.3.2 Parkland trees (including area D) .....	39
5.5.3.3 Ecology .....	41
5.6 Area D: The Meres and the Paddock .....	41
5.6.1 Area Description .....	41
5.6.2 History and Development .....	41
5.6.2.1 The Meres – 9351 .....	41
5.6.2.2 The Great Paddock – 7918 .....	42
5.6.2.3 Forsythes, the arable field adjoining The Meres - 1435 .....	43
5.6.3 The Area D Today – archaeology, trees and ecology .....	44
5.6.3.1 Archaeology .....	44
5.6.3.2 Veteran trees .....	44
5.6.3.3 Ecology .....	44

5.7 Area E: The Deer Park – the National Nature Reserve .....	45
5.8 Area F: The Woodland Trust Land .....	45
6. Statement of Significance .....	46
6.1 Archaeology .....	46
6.1.1 The Middle Ages.....	47
6.1.2 Recreational use .....	47
6.1.3 The landscape garden.....	47
6.2 History.....	47
6.3 Design .....	48
6.3.1 The Deer Park .....	48
6.3.2 The <i>Ferme Ornée</i> .....	48
6.3.3 Brown, Repton and the Picturesque.....	49
6.4 Parkland trees.....	50
6.5 Ecology .....	50
7. Issues and constraints.....	50
7.1 SSSI condition.....	50
7.2 Parkland and farmland .....	51
7.2.1 Arable land.....	51
7.2.2 Grassland.....	51
7.3 Veteran trees and woodland .....	52
7.3.1 Veteran Trees.....	52
7.3.2 Woodlands .....	54
7.4 Wetlands, ponds and fishing pools.....	54
7.4.1 The Meres wetland.....	54
7.4.2 Ponds and fish pools .....	55
7.5 Boundaries – hedges and walls .....	55
7.6 Drainage and culverts.....	56
PART III: DEVELOPING MANAGEMENT POLICIES .....	57
8. Conservation Management Policies.....	57
8.1 Moccas: Vision for the Moccas Court parkland .....	57
8.2 Conservation management policies .....	59
8.2.1 Implementing the Parkland Plan.....	59
8.2.2 Archaeological features and sites.....	59
8.2.3 Landscape repair and restoration .....	60
8.2.4 Standards for restoration, repair and management work .....	61
8.2.5 Plan led approach to future development proposals or changes of land use .....	61
8.2.6 Visitor access and enjoyment of the historic landscape.....	62
8.2.7 Maintaining and developing an archive for the historic landscape.....	62

PART IV: RESTORATION RECOMMENDATIONS.....	63
9 Recommendations.....	63
9.1 Little Park 8609, 2930, 2231, 8623 & 9728 .....	63
9.2 Depple Wood 8555 & 1501 .....	63
9.3 The Warren 1163 [including plantation 1785].....	64
9.4 Boat House 2522 and River Field 4192.....	65
9.5 Dog Kennel Wood 4876 .....	65
9.6 The Fish Ponds.....	65
9.7 Dog Kennel Field 3661 .....	66
9.8 Church Field 4632.....	66
9.9 Airfield 5110.....	66
9.10 Crossend Coppice 6706 .....	66
9.11 Kennel Cover 8687 & 8483 .....	66
9.12 The Meres 9351 .....	66
9.13 The Great Paddock 7918.....	67
9.14 The Forsythes 1435.....	67
10. Management Prescriptions.....	67
10.1 Arable reversion to low input grassland .....	67
10.2 Plantation reversion to parkland .....	68
10.3 Extensive or very low input grassland .....	68
10.4 Meres: seasonal re wetting and restoration of sluice .....	69
10.5 Existing Parkland trees .....	70
10.6 New planting.....	70
10.7 Estate woodlands. ....	71
10.8 Walls .....	71
11 HLS Options and Capital Works 2013 – 2023 .....	72
11.1 HLS Annual management options .....	72
11.2 Capital works .....	73
11.3 Capital works map .....	73
11.4 Special Projects.....	75
12. Long Term Recommendations.....	75
Bibliography .....	75
Appendix 1 Preparatory to the statement of significance .....	77
Appendix 2 1953 woodland census compartment data.....	86
Appendix 3 The tree survey .....	87
1. Tree survey method.....	87
2. The tree image database.....	88
3. Generating an identification system for tree records .....	88

4. Monitoring .....	89
5. Tree data analysis.....	91
6. Spatial distribution of trees .....	92
7. The Little Parks lime tree.....	93
8. Fallen trees and branch wood .....	93
9. Tree photo gallery .....	94
10. List of the 203 recorded trees.....	95
Appendix 4 Ecological Survey .....	97
1. Introduction.....	98
2. Methodology.....	99
3. Update of ecological observations and land management advice on land to north of road .....	99
4. Ecological survey of Meres, Horse Paddock and Forsythes.....	101
4.1.1 Horse Paddock 7918 .....	101
4.1.2 The Meres now 9351 .....	101
4.1.3 Meres Plantation 7342 .....	102
4.1.4 Forsythes 1435 .....	102
4.2 Phase 1 habitat map .....	102
4.3 Evaluation and Recommendations.....	102
5. Conclusion .....	103
Map 2 – Phase 1 habitat map .....	104
Appendix 5 Geophysical survey of the castle site .....	105
Appendix 6 Archaeological assessment of the Meres .....	123
Appendix 7 Archaeological database of Moccas Estate 2003 .....	133
Appendix 8 Historic Environment Record Consultation letter from Dr. K. Ray .....	137
Appendix 9 Historic Environment Record sites .....	139
Maps 1a and 1b Location of RPG, ownership and scope .....	140
Map 2a and 2b. Designations and Character Areas .....	141
Map 3 Landscape classifications .....	142
Map 4 Agricultural land classification.....	143
Map 5 Land use in the plan area .....	144
Map 6 Field names.....	145
Map 7 Land parcel numbers .....	146
Map 8 Sequence for Moccas Park and surroundings from 1815 .....	147
Map 9 Sequence for plan area 1772 to 1837.....	148
Map 10 Sequence for plan area 1837 to present.....	149
Map 11 Sequence for northern ‘loop’ area .....	150
Map 12 Sequence for Little Park 1772 to present.....	151

Map 13 LIDAR and 1772 map of Little Park and vicinity .....	152
Map 14 Sequence for the Meres, the Paddock and Forsythes .....	153
Map 15 Sequence for SW ridge part owned by the Woodland Trust .....	154
Map 16 Sequence for Moccas castle and its environs .....	155
Map 17 Dam height and calculated extent of impounded water in the Meres. ....	156
Map 18 Path of the culvert from the Meres to the Wye.....	157
Map 19 Restoration recommendations for the northern ‘loop area’ .....	158
Map 20 Restoration recommendations for the Little Parks and vicinity .....	159
Map 21 Restoration recommendations for the Meres, the Paddock and Forsythes .....	160

# PART 1: SITE EVALUATION

## 1. Introduction and summary

This Parkland Plan has been commissioned by Chester-Master Ltd to inform the long-term management of the Grade II\* Registered Park and Garden at Moccas Court Herefordshire. The Parkland Plan was made possible by funding available via Natural England's Higher Level Stewardship Scheme. The plan aims to provide management and capital works recommendations which will conserve and enhance the character and significances of the historic designed landscape, whilst identifying, protecting and conserving the many archaeological, historical, cultural, and ecological features of the site and, at the same time, accommodating environmental changes.

To this end, a key ambition is to identify the most suitable means of managing the park's physical fabric – particularly those aspects which combine to form the park's key significances – to secure for the future Moccas Court's remarkable and distinctive parkland landscape. Information provided in this plan will be used to inform a Higher Level Stewardship Agreement with Natural England, to fund the conservation, repair, consolidation and, where appropriate, restoration of the historic landscape. In the future, all works – from new development to conservation and restoration – should be governed by the principles embodied in the Parkland Plan with the aim, in the long term, of benefiting the whole estate.

Our historical research has, in the main, confirmed the findings of the Debois Report that the western half of the Moccas Court landscape – to the east of Depple Wood and the to the west of the drive from Cross End Farm to the parish church - was imparked between c.1790 and 1835 in a manner that suggests 'Capability' Brown's survey of 1778 provided the inspiration. Our survey of surviving parkland trees suggests that c.1810 was the climax of this process. We also know that George Amyand Cornewall (1748-1819) was greatly influenced by the local picturesque writers in the setting out of his grounds and the manner of his planting and it is our vision to return to this landscape. Fortunately, the 25" O.S. plans of c.1885 display the grounds of this period at their climax.

We have also discovered an earlier layer of landscape interest at Moccas dating from the mid-18<sup>th</sup> century, reflected in some contemporary poetry, the Lambe Davis survey of 1772 and a prospect by the watercolourist, Paul Sandby. It seems that Moccas was regarded as a *ferme ornée* in this period with an embellished pastoral landscape, which included some arable fields. Sir George's landscaping left arable fields in the eastern half of our study area, where they exist today. The challenge here is to restore some of the earlier ambiance to these fields in terms of flower rich margins, mixed hedgerows, field corner planting and pools. Since the 2003 study some progress has been made in this direction.

Sections 1-3 of this report are introductory, whilst section 4 extends the historical context both backwards and forwards, to fill in the gaps left by Debois. Part 5 contains our analysis of the character areas, as they exist today, followed by our statement of significance, which is also expanded in appendix 1. All this is underpinned by several plans, maps and air photo time sequences. Aesthetic interests are intertwined with the ecological issues within the study area which are examined in section 7. Part 8 describes our vision for the landscape and associated management policies where we re-visit the character areas in turn to outline our proposals. Section 9 has the specific recommendations which inform the proposed Higher Level Stewardship scheme and its costing over the next 10 year period.

We have also initiated a survey into the management of the Meres and made recommendations to ensure that the day-to-day farming activities and arboriculture produce sustainable results and



enhances the well-being of the landscape for all its diverse ecosystems. Finally we have set out the management policies that will fulfil our objectives long after the plan period has ended.

## **2. Background to the Parkland Plan**

### **2.1 Commissioning of the Plan**

Since 2004 the parkland has been managed under a Countryside Stewardship scheme. This expires in 2013 and the Higher Level stewardship Scheme (HLS) which emerges from the current study will form an agreement between Chester–Master Ltd and Natural England for the next ten years. In February 2013, Chester-Master Ltd commissioned Ashmead Price to produce a Parkland Plan as part of this management scheme.

The aim of the Parkland Plan is to provide an opportunity to address the varied interests and significances of the site - agricultural, ecological and historic, within the context of an established farmed estate - in order to better inform future management decisions and target grant funding; to inform and guide day-to-day management and maintenance; to inform and manage a programme of conservation, restoration and repair; to present a costed programme of work (both land management options and capital works) required to achieve the conservation and restoration objectives for a ten year HLS agreement or other relevant grant schemes.

### **2.2 The study area**

The Registered Park and Garden (RPG) includes land outside the ownership and control of the Agreement holder (Chester-Master Ltd) and conversely there are areas of significant historic interests outside of the RPG which are within the control of Chester-Master Ltd.

The study brief called for the whole of the RPG to be considered as an overview at the evaluation, analysis and developing management policies stages, whilst the land in ownership was to be the focus for detailed restoration and management recommendations and ultimately the subject of the HLS agreement.

At a pre start meeting on 18th February 2013 the scope of works was clarified to exclude detailed restoration and management recommendations around Moccas Court itself (in separate ownership) and to include the area known as the Meres, along with fields adjacent known as the Great Paddock and Forsythes, in both the overview and detailed restoration and management recommendations, with a view to including the land in the HLS agreement.

The deer park (Moccas Park SSSI) is managed by Natural England as a National Nature Reserve (NNR) and therefore is considered as an overview for coordinating management policies; however the NNR is excluded from any HLS agreement.

The land belonging to the Woodland Trust south west of the NNR and within the RPG is also considered as an overview and is excluded from the HLS agreement area.

A summary map (Map 1b) illustrates the study area, the scope of works agreed at the commissioning stage and the ownership.

### **2.3 Management and personnel**

Ashmead Price has managed and coordinated the study and has contributed to the evaluation, analysis, policy, recommendation and prescription stages throughout the study period from Feb 18th to 31st July 2013. In addition, specialist contributions were commissioned from sub-consultants, to provide background information gathering; tree survey, archaeological survey and ecological survey; historical research, mapping and chronology; analysis of the character areas; statement of significance; issues and opportunities; management policies and detailed restoration and capital works recommendations. The sub-consultants' work is fully integrated into the body of the report, and data is also reproduced in the appendices.

Ashmead Price have also consulted a number of key stakeholders throughout the project and is particularly grateful for the assistance / input provided by:

Francis Chester-Master Trustee and land agent

Anne Strong land agent

Wayne Davies Natural England

Kim Auston English Heritage

Saul Herbert Natural England (Moccas Park NNR)

Esther Stephens Natural England

Helen Trapp Natural England

Mike Williams (Farm Environment Plan consultant)

Keith Ray County Archaeologist

Owen Whittall Tenant Moccas Court

Tim Dixon retired NNR warden

Numerous primary and secondary sources were referred to in the preparation of this study and a full bibliography is given on page 80.

The consultants team comprised:

Howard Price BA MA CMLI Director Ashmead Price - project management and coordination

David Lovelace BSc – GIS mapping, historical map sequences, veteran tree survey

David Whitehead MA FSA Hon Sec Woolhope Naturalists Field Club - Historical research

Caroline Hanks MSc MIEEM CEnv - Ecological survey, Detailed management recommendations.

Archaeophysica – Martin Roseveare MSc BSc (Hons) MEAGE FGS MifA - Geophysical survey at the Meres and the castle site.

## **2.4 Digital mapping, GPS and Geographic Information System (GIS)**

Various maps, aerial photographs and LIDAR (Light Detection and Ranging) used throughout this plan have been digitalised and geo-referenced to create a time sequence of the landscape of the Moccas park from 1754 to present. These exist as layers within the project GIS which can be viewed and down loaded, along with other maps and documents used in this plan, from the project server at [www.r5r.eu/me.html](http://www.r5r.eu/me.html).

Some of the map, air photo and LIDAR sequences have been reproduced in the map sections after the appendices but these are necessarily of low resolution to fit onto the printed page.

The following are the maps, aerial photographs and LIDAR we have used:

Isaac Taylor's county map of Herefordshire 1754

John Bach map of the Monnington Court Estate 1771

John Lambe Davies map of the Cornwall estates 1772

Lancelot Brown plan for intended alterations at Moccas Court 1778.

The Ordnance Surveyors' Drawings c.1816

Bryant's map of Herefordshire 1837

The National Archives deposited copy of the Tithe Map for Moccas and Monnington 1837

Geoff Gwatkins transcription of the same relevant tithe maps with field names and colour coded for land use.

The c.1885 first edition 25" and 6" to mile OS maps

Dudley Stamp land utilisation survey of 1936

Historic aerial photographs 1946, 1963, 1971 and 1974.

The 1953 Forestry Commission Census of Woods compartment map

Modern aerial photographs 2000 and 2009  
Geomatics LIDAR Digital Terrain Model (DTM) data for the park.

See maps 8 to 20 below.

The tree survey (sections 5.5.3.2 and 7.3.1 and Appendix 3) has used GPS and digital photography to help record the girth, status and characteristics of each of the 203 mature and veteran trees in the plan area. We have used the locations of trees now lost but depicted on the first edition 25 inch to the mile OS maps to recommend precisely where to plant new parkland trees (maps 19, 20 and 21). The tree survey data and the new planting locations are available at 1 meter resolution in formats compatible with main stream GIS software and GPS units on the DVD in the back of this report and on the report web site.

### **3 Location, land ownership, physical character and usage of the park**

#### **3.1 Ownership**

Map 1a shows the RPG which is in five ownerships as shown in map 1b. The Monnington part north of the river Wye is owned in part by the Bulmer family and part by the Cotterell family. The extreme SW part of the park occupying the ridge is owned by the Woodland Trust which has recently acquired the land from a private owner. The pleasure gardens, pasture and trees in the vicinity is owned by the Baunton Trust [4] and the remaining land including the NNR and the current plan area by the Baunton Trust [3] that is to say Chester–Master Ltd.

#### **3.2 Designations**

The boundaries of the RPG, National Nature Reserve [NNR] and Special Area for Conservation [SAC] are shown on map 2a. The NNR comprises the historic park the south of the Bredwardine to Moccas road up the NE boundary of the Woodland Trust land. The SAC is the river Wye which includes part of the bankside. The landscape character areas as defined by Herefordshire Council for planning control purposes are illustrated in map 3.

#### **3.3 Agricultural land classification and land use.**

Most of the land in the scheme area is classed a grade 2 according the agricultural land classification map reproduced in map 4. The fields adjacent to the river The Boat field and River Field are class 3 presumably due to flood risk while the lower Meres is grade 4. The land use: arable, pasture, orchard and woodland with types according the historical origin: ancient woodland, intermediate age and recent planation are colour coded in map 5.

#### **3.4 Field parcel names and Rural Land Registry numbers**

The parcel names and numbers used throughout this report are shown in maps 6 and 7.

#### **3.5 Resource protection issues**

All the land in this plan and in the HLS scheme area is in the River Wye catchment and has the potential to affect water quality in the River Wye. The water quality in the River Wye catchment is giving concern in terms of both the Water Framework Directive and the Habitats Directive with key factors being high phosphate and silt levels.

Much of the land immediately next to the River is woodland and under current management is low risk in terms of run off and erosion directly affecting the river. Woodland management operations including thinning, felling, extracting timber on woodland tracks are some of the operations that could increase the risk of diffuse pollution affecting the River Wye and future operations should be planned with this in mind, taking advantage of Catchment Sensitive Farming or Forestry Commission grants to channel run off away from woodland access tracks for example.

Arable fields adjacent to the River Wye have 6m wide rough grass buffer strips in place and these should be retained in HLS, ELS or as voluntary measures to meet future “Greening” requirements of CAP subsidies.

There are few tributary watercourses at Moccas Court, the main one in the plan area arises above the Horse Paddock and flows through the Meres and eventually via the stone culvert to the River Wye below Cross End Farm. Other small watercourses and ditches on the farm on arable or intensive grassland should also have buffer strips of at least 4m in place.

Management of grassland, field gateways, farm tracks, stock feeding areas and water troughs to minimise poaching will affect water quality. Benefits will also arise from careful siting of muck heaps, management of sprays and spray equipment and attention to detail with soil management planning, crop rotation and soil organic matter levels.

## **4 Historical Development of the Landscape**

### **4.1 Introduction.**

The juxtaposition of diverse landscape forms – river, alluvial plain, high forest and sandstone cliffs – has provided the inhabitants of Moccas, for over two millennia, with most of the essentials necessary to feed both the body and the spirit; thus, providing a good life. The happy proximity of fertile farmland and plentiful woodland resources is relatively rare in Midland England. Here in the Wye valley there were no such limitations and with a little labour, this plethora of natural resources could support more than a subsistence life-style. In the prehistoric period it produced monuments like Arthur’s Stone; in the Dark Ages it sustained monastic life and in subsequent centuries the increment was directed towards castles, deer parks and country houses – a genteel lifestyle. At all points in its history the possessors of the Moccas estate must have appreciated the spiritual and aesthetic bonus that came with such a varied landscape and the balance between productive and recreational use of the landscape may often have caused some heart searching. In drawing up this Higher Level Stewardship scheme we are particularly sensitive to this dilemma but also conscious that we need to protect and give continuity to the special qualities of the Moccas landscape, which have slowly evolved over two millennia.

### **4.2 Key phases of development and documentation.**

The landscape at Moccas and its varied scenery have been highly regarded at least since the mid-18<sup>th</sup> century when some parts of the English countryside ceased to be viewed with exploitive and utilitarian intentions and became instead a stimulus for the imagination. In the vanguard of this movement were painters, poets and prose writers who particularly invested pastoral countryside with Arcadian and Edenic values. The Cornwalls invited a long list of creative visitors, scientists as well as artists, who painted, wrote, classified and categorised the special qualities of the landscape. Sometimes, either professionally or socially, they gave advice on improvement or management. Fortunately, they left a long paper trail either in images and reports or, more informally, in influencing the taste and priorities of the Cornwall family whose actions can be detected in the letters, accounts and incidental records that eventually found their way to the Hereford Record Office. Over the last decade or two these sources have been well-studied in two reports by the Debois Landscape Survey Group; a comprehensive study of the Deer Park by Wall and Harding; landscape appraisals by English Heritage and the Hereford and Worcester Gardens Trust (2001) and a detailed evaluation of the management of the estate under Sir George Cornwall by the Department of Cultural Geography of Nottingham University; much more is to be found in the bibliography (page 71). This report is built firmly on this body of knowledge and in this respect those who live and work on the Moccas estate might feel a kinship with Richard Payne Knight, a visitor at Moccas, who felt it was all in vain, for:

‘See yon fantastic band,  
With charts, pedometers, and rules in hand,  
Advance triumphant, and alike lay waste  
The forms of nature and the works of taste!  
To improve, adorn, and polish, they profess;  
But shave the goddess, whom they come to dress’ (Knight, 21-3).

### 4.3 Prehistoric, Roman and Early Medieval.

Arthur’s Stone, high up on the Dorstone ridge, formed the burial chamber of a Neolithic long barrow and provides evidence for a populous and well-organised community, which farmed the land in c.3000 BC that was later to be the Moccas estate (Harding & Wall, 41-48). Several thousand fragments of flint implements found on the hill suggest that these early settlers were well-equipped to exploit the surrounding countryside, clearing woodlands, planting crops and keeping domestic animals. However, pollen analysis of core samples taken from the Lawn Pool shows that they made little impact upon the surrounding woodlands, which only show evidence of decline during the Iron Age c.600 BC to 43 AD. Indeed, some archaeologists believe that ‘there was something of an agricultural retreat’ during the Roman period in Herefordshire with woodlands re-colonising areas that had been use for agriculture in the previous era.

In the post-Roman period west Herefordshire remained British or Celtic until it was annexed politically by the Mercians in the early 8th century. Moreover, as the region had become Christian in the late Roman period, Moccas – Old Welsh *mochros* ‘pig-marsh’ – and its surrounding area, was exploited by monks from small monastic cells at Dorstone, Bredwardine and Moccas, itself. St Dyfrig or Dubricius, the patron saint of Archenfield, a British sub-kingdom, that stretched southwards towards Gwent, founded his retreat at Moccas, perhaps somewhere close to the present church. Recent archaeological work has suggested that an early and extended graveyard existed to the west of the church, in an area where the mid-17th century antiquary, Silas Taylor spotted ‘foundations of a very large church’ (Hoverd, 7; *TWNFC* (2002), 385). Dyfrig and his followers were presumably attracted by the diverse resources available at Moccas and its remoteness from the strife-ridden regions of Saxon England, east of the Severn. This security was eventually undermined in AD 745 when the King of Mercia, Aethelbald, crossed the Wye and seized the northern part of Archenfield, in which Moccas lay. Significantly, Moccas emerges in Domesday Book (1086) in the hands of the minster church of St Guthlac, Hereford. Since Guthlac was an early Mercian prince, a cousin and confident of Aethelbald, it seems certain that it was the conquering king who acknowledged the religious usage of the estate at Moccas and simply transferred it to the royal foundation on the river cliff at Hereford.

### 4.4 The Middle Ages.

St Guthlac’s minster was secularised in the late Saxon period and on the eve of the Conquest most of its lands were to be found in the hands career churchmen, favourites of Edward the Confessor and other laymen. The process continued after 1066 and the Normans, who came from a reformed religious environment, where monks lived according to a rule, and secular ministers housing married clerks were regarded with disapproval, quickly grabbed the best of St Guthlac’s lands. In Domesday Moccas is assessed as a three-hide estate and was divided between the minster and William the Conqueror’s physician, Nigel, who had an extensive portfolio of St Guthlac’s lands elsewhere. Nearly, a hundred years later in Henry II’s revision of the Herefordshire Domesday, a marginal entry indicates that both parts were now in the possession of Walter de Fresne who held it by knight’s service from the honour of Kington. Moccas had thus become a gentry-estate and probably a place of residence, rather than simply a source of agricultural produce. There is little sign of this in Domesday where it is a fairly typical agricultural holding with a high population of servile tenants – 6 *villani*, 3 *bordari* and a Frenchman with five ploughs between them.

It is possible that an early member of the de Fresne family erected the small motte and bailey castle photographed by Alfred Watkins in 1925 above the Meers (SO 423350), which was subsequently ploughed out, producing no evidence of stonework (Harding & Wall, Fig. 2.2.3). However, the most significant moment of gentrification came in 1293 when Hugh de Fresne was granted a license by Edward I to strengthen his manor house at Moccas, but without a tower or turret. This was not because the king felt threatened by Hugh's ambitions, but simply because he failed to pay the king a sufficient fee for a full crenellation license. Later in the year Hugh was arrested by the sheriff of Herefordshire for non-compliance – presumably he thought no one would notice if he added a tower or two. The outcome is unknown but it seems unlikely that Hugh built his chivalric mansion on top of the puny motte at the Meers and we must assume that he re-constructed an existing manor house, near the church, close to the site of the Court Farmhouse.

The de Fresnes prospered and nearly a century later, Richard de Fresne is found in possession of Huntington Castle, the premier castle in the honour of Kington. When he died in 1375 his house at Moccas was said to be ruinous and the estate of two carucates – perhaps 200-300 acres - with 12 acres of meadow, seems to have diminished somewhat since the Domesday survey. At Huntington Richard probably enjoyed the use of the deer park, which is mentioned regularly from 1265 onwards whilst at Moccas there was no park. The nearest one was to be found, at least since 1317, in the parish of Dorstone, belonging to the lord of that manor, Geoffrey de Bello Fago. Like many medieval parks, it occupied the marginal land high up on Dorstone ridge, and makes no further appearance in the available documents of the later Middle Ages.

#### **4.5 The Tudor and Stuart Period.**

Richard de Fresne divided his estates between three sisters and, presumably by marriage, it is eventually found in the possession of Sir Roger Vaughan, head of a large local family, who died in 1415 at Agincourt (*Dictionary*, 992). His descendants settled at Bredwardine and rebuilt the castle. But within two decades of his death Hugh and Elizabeth Vaughan were granting a messuage and land at Woodbury in Moccas to John ap Rose-Gough. The grant is dated 'at Mockas' 1435 and suggests a much earlier date for the acquisition of Moccas by the Vaughans than the reign of Henry VII (1485-1509) suggested by Robinson (HRO, J56/11/111). However, it seems likely, that between c.1490 and 1550 the manor was sub-let or, indeed, sold to the Scudamore family for an inquisition of 1490 names Henry Scudamore as the possessor of the manor and similarly, the subsidies of 1543-7 provide Moricius Skudamor as the principal landowner at Moccas (*IPM Henry VII* (1), 254 (619); Faraday, 190). Neither Henry nor Moricius appear in the extensive genealogical tables available for the Scudamore family.

##### **4.5.1 The deer park**

The deer park in Dorstone parish appears to have become into the possession of the owners of Moccas towards the end of the Vaughan occupancy or during the early years of the Cornwall rule. At Bredwardine the Vaughans may have had use of Benfield Park on Bredwardine Hill, which is mentioned in c.1200 and persisted as place-name evidence on the late 19th century OS plans (Whitehead (2001), 20). The first reference suggesting some sort of park at Moccas comes in 1617 when Henry Vaughan of Moccas sent a deer to his cousin in Youghal, Co. Cork. However, cartographic evidence for the park is lacking on all county maps until the 'resurveyed and enlarged' version of Saxton's map in 1665. A hitherto unnoticed reference is found in a bill of complaint registered by a Roger Vaughan in 1670. The plaintiff claimed that by inheritance he was owed an annual tribute of two deer – a buck and doe – from the owner of the park at Newcourt in the parish of St Margaret's in the Golden Valley. The defendant, Bennett Hoskyns, denied the claim on the basis that the park at Newcourt had been 'unparked' and the deer there had been given to Henry Vaughan for his park at Moccas. The date of this event is unrecorded but it must pre-date the marriage of Francis Vaughan, Henry's widow, to Edward Cornwall and

probably occurred before the Civil War – before c.1640 (HCL, Pitman Papers III, 7-8). This dispute is quickly followed by two written references to the park pale on an ecclesiastical survey of 1677 and in 1684 during another legal dispute relating to the manor of Dorstone, when the pale on the south-side of the park (overlooking Dorstone) is mentioned. On the former document the reference is to the ‘pale of Park-y-Grove’, which suggests that at this date it was attached to the manor of Bredwardine, referred to in earlier documents as the manor of Grove or in Welsh Gronw (HRO, J56/11/14; PRO, C6/398/45). The most celebrated sighting of the park came in 1650 when Edward Cornwall, 3rd son of John Cornwall of Berrington, near Leominster, was found by the widow of Henry Vaughan, poaching in her park at Moccas and was so smitten by the trespasser, she married him.

#### **4.5.2 The Little Park**

The majority of these references seem to relate to the original medieval deer park, high up on Dorstone Hill, which was almost entirely within the parish of Dorstone and belonged in the 17th century to the Vaughans of Bredwardine. However, it is possible that some of them refer to the ‘Little Park’, to the NE of Moccas Court. The corralling and coursing of deer in this period would often take place in a confined area, perhaps as some form of entertainment. Landscape historians have recently paid more attention to little parks, which are fairly frequent features in the designed landscapes of late medieval England. They are generally a component of an ornamental landscape found close to a castle or manor house. Oliver Creighton views them as features, which flourished during the late 15th and early 16th centuries and as places where selected deer, taken from a more remote great park, could be grazed for display or coursed for the table. Sometimes they are associated with viewing platforms or standings. The little park provided aesthetic pleasure for the inhabitants of the great house, both male and female, and a place where deer could be easily managed (and killed) within a confined space (Creighton, 134-8).

Although the first documentary reference comes in 1669 (HRO, A81/IV/379), the Little Park at Moccas probably dates from the Vaughan period c. 1440-1650. With relatively inaccessible deer parks at Dorstone and Bredwardine Hill – and the former still in other hands - a modest enclosure, watered at its centre by a canal (later a culvert) bringing a stream of fresh water from the Meers and with a natural viewing platform on the west and north, was an attractive and useful amenity, perhaps shared by the twin estates held by the Vaughans and, probably, beyond 1650 by the Cornwalls. During this period little parks were the height of fashion, with a well-recorded example occurring below the walls of Windsor Castle.

In 1772 the Little Park was already separated from the Lawns by the highway from Bredwardine where there is a sunk fence, an indication of its use as a deer enclosure. During the Vaughan era it is likely that the Lawn was used for arable farming and much ridge and furrow has been detected here, some of it showing the characteristic curving profile of a medieval field system. Nearer the Court, Little Park, even today, extends close to the ha-ha, built in 1786, which defined the Georgian pleasure grounds, but in 1772 it was separated from the house by a number of small fields. It is still possible to look on to the Little Park from the upper windows of Moccas Court, which until the c.1770 was still a castle-like dwelling.

Writing in c.1650, the local antiquary Silas Taylor noticed ‘the large trenches about the house...and near to it...a mount over the river Wye, yet to be seen’ (Taylor, f.146v). Later writers refer to the rebuilding of the Court in the late 17th century using material from the ruins of Bredwardine Castle (Reese, 232). In the hearth tax of 1664 Edward Cornwall Esq. is assessed for seven hearths, a fairly modest number for a gentry-establishment.

This house lay on the site of the later Court Farm, to the east of the present Court, and until c.1780 it may well have had towers from which the Little Park and its deer could have been easily appreciated. Velters Cornwall (d.1768) wrote to his neighbour William Bridges at Tyberton in 1737 explaining that the architect, Francis Smith of Warwick had instructed him to ‘demolish the

end of the chateau next to the Wye' so he could begin work on a new house (HRO, A81/IV/379). 'Chateau' may merely have been affected aristocratic speech but, if taken literally, it suggests that Moccas Court had the trappings of a chivalric structure. Indeed, on a watercolour reproduced below, recently purchased by the family, probably by Paul Sandby, and painted before the construction of the new house, a medieval arch is clearly depicted to the old house, which itself was tall and tower-like.



#### 4.6 The early Cornewalls

Recent evaluations of the Moccas landscape have taken as their starting point the marriage of Sir George Amyand to Catherine, the daughter and heir of the recently deceased Velters Cornwall in 1768. This certainly makes sense in terms of the surviving documentation, which can now be found in the Hereford Record Office but it ignores the fact that the landscape he acquired, reflected in detail on the Lamb Davis survey of 1772 had many distinct features that would hardly change during his custodianship and are readily recognisable today. The Little Park, as we have seen, dates back to the Vaughan period and may have developed in association with the deer park. Similarly, the mixture of arable and pasture, so close to the pleasure grounds of the house, pre-dates the Lambe-Davis survey. Similarly, the Great Paddock, adjoining the deer park, above the Meers is an early feature.

Edward Cornwall of Berrington, a scion of an ancient earldom that dated back to Richard of Cornwall, the son of King John and younger brother of Henry III, lived until the age of 95, dying in 1709. By this date, his son and heir Henry (b.1655) was already in his middle age and had enjoyed a very successfully military career both for the Stuarts before 1688 and for the House of Orange after. He married a Dutch heiress, Marita Huyssen in 1683, which enabled him in 1694 to buy the Vaughan estate at Bredwardine and the manor of Grove (Gronw), which included Weston and 'Park-y-Grove alias Mockop (sic) Park'. The family also acquired building materials to reconstruct their house. When he died in 1717 his monument in Westminster Abbey describes him as 'of Bredwardine Castle'. His eldest son, also Henry (1685-1755) also had a successful military career and became Lieutenant General and Governor of Londonderry. He never married and had little interest in the Moccas estate, living at Byfleet, Surrey when he died. His half-



brother, Captain James Cornwall (1698-1744) also perpetuated the family tradition of military service for his country, dying heroically at the naval battle fought off Toulon in 1744. A grateful nation erected another monument in Westminster Abbey where again his place of origin is stated as 'de Castro Bredwardine' (Reade, 100-105, 110).

#### 4.6.1 The chivalric tradition

Clearly, the castle of Bredwardine carried with it certain kudos for the descendants of Richard of Cornwall and complemented the martial activities of several members of the family. Indeed this sense of duty and honour was shared with many members of the marcher aristocracy, including their predecessors at Moccas and Bredwardine, the Vaughans; several of whom collaborated in the early 17th century with John, the First Viscount Scudamore in reviving the prowess of the county militia. This required the leadership of the gentry and the development of disciplined horsemanship. At Holme Lacy Sir John created an academy for the training of 'high bounding horses' to provide 'gracious' mounts for well-born gentlemen. Several of the Vaughans were involved in this, including Hugh, the muster master for Herefordshire, who was probably a member of the Bredwardine family. At the same time, in the 1630s, in South Shropshire, the cousin of Edward Cornwall, Sir Thomas Cornwall of Burford founded a military company for the gentlemen of his shire (Atherton, 33-39; Reade, 218-20, 240-2). This training enabled members of both families to play an active part in the Civil War and, as we have seen, persuaded two generations of the Cornwalls of Moccas to pursue a military career beyond the Civil War.

The significance of this diversion is to provide an explanation for the importance of equestrian pursuits in the family life of the Cornwalls, which, in turn, had a significant impact upon the development of the landscape. Confirmation that breeding and training of horses continued beyond the Civil War comes from a report in Berrow's Worcester Journal for 18 September 1755:

'We hear that Velters Cornwall Esqre., of Moccas, in the Co. of Hereford, through his ill state of health, intends to dispose of all his valuable stud of horses, mares and foals. The sale begins on Octr. 13 next, and will continue one week, and there are among this stud 30 or 40 horses that derive their pedigree from the best stallions and mares that have been in this kingdom since the Restoration, and from Bierley Turk to Godolphin Arabian'.

However, this was not the end of the family interest in horses. The copious accounts kept by George Amayand Cornwall from 1772 show that the family took a more than passing interest in their horses albeit in the peaceful Georgian era, the preoccupation with military mounts seems to have declined. Significantly, the new stables were started in April 1782 and finished in the following year, well ahead of the house. The old stables were removed as the new offices were constructed on the site in April 1788. The second account book has a whole section on stable expenses and records the purchase of several types of horses. Farm horses appear to be replacing oxen for ploughing on the estate and were distinguished from coach horses. Both these heavy animals usually cost between £30-£40 although a cart horse bought at Hereford Fair on October 1797 cost a mere £13 2s 6d. Some horses had pet-names such as Redfearn and Yellow Jack. The latter 'covered' a mare in 1784 for which the accounts register a feeding cost for the mare of £2 7s – suggesting it was a visiting horse. During the winter of 1789-90, hay worth £74 was fed to seven coach and saddle horses, eight hunters and hacks and two ponies – suggesting that the farm horses were stabled elsewhere. There is no specific mention of racehorses, which were probably kept in specialist stables. Regular payments to Tozard, 'for stables', of £115 in 1784, suggests just such a service. On average about £300 was spent on the stables every year. Attending the Hereford Races in September was a regular event on the Cornwall social calendar. The annual subscription was 10 guineas and every three years the race meeting coincided with the Music Meeting (Three

Choirs Festival) held at the Cathedral. Tickets for all concerts for Sir George and Lady Caroline cost 18 guineas in 1783. An entry in the accounts following the race meeting in this year, records a payment to Scudamore 'a dun horse -£84', which implies that Sir George bought a racehorse from his neighbour John Scudamore of Kentchurch Court (HRO, J56/IV/3).

#### 4.6.2 The Great Paddock

Apart from the winter, Sir George's horses were often to be found in the Great Paddock. This large triangular field, enclosure by a high stone wall, was situated above the Meers and shared a common boundary with the deer park on its west. Both the Meers and the Paddock make their first appearance in a bill of complaint of 1691 (PRO, C6/398/45) and both are mapped by Lambe Davis in 1772. The shape and form of the Paddock remains consistent on all subsequent maps. Brown also names it on his plan of 1778, where the high wall is accompanied by a bosky hedge, perhaps suggested by him to soften the hard edges of the Paddock when it was integrated into the new landscape park. Sir Georges accounts shows that it was the subject of regular attention. In February 1785 the horses were out early and payments are made to carry 'hay to the horses in the Paddock'. Some shelter seems to have been provided by the 'shed in the Paddock', which was thatched in November 1785. Even more interesting is the suggestion on Sandby's painting (discussed below) that a stable-block was sited here before its reconstruction close to the house in 1788. The horses in the Paddock were also supplied with regular water and in February 1793, Jones, a labourer, was paid £1 4s for watering the Paddock and keeping the watercourse clear. This reference presumably refers to the spring, which runs in a culvert across the Paddock today. In high summer the weeds were cleared from the ditches of the Paddock, at a cost of 12s in June 1783.

Thus, in the 18th century the Great Paddock was still serving its original purpose, providing safe accommodation for the valued hunters, hacks, ponies and coach horses used by the family – a use that recent memory confirms. There is no mention in the accounts of the wall albeit, high in the deer park, a mason called Beavan, laboured throughout 1785 on the new park wall, which generated a lot of documentary references. Thus, the Great Paddock derives from an earlier era, one that, perhaps, came to an end in 1755 when Velters Cornwall sold his stud of pedigree stallions and mares. 'Paddock', according to the OED was a new word in the 16th and 17th century – derived from the Old English *parroc* meaning 'enclosure' (the word 'park' comes from the same root). The close proximity of the Great Paddock close to the park is clearly no accident, and, no doubt the horses enjoyed the 'tack' of the deer park in the summer season, which, again, is recorded in George Cornwall's accounts. Only in the Tudor and Stuart period did 'paddock' become closely associated with horses. As we have seen, the golden age of horsemanship came in the 17th century when the gentry gallants sharpened their skills with the formal system of discipline associated today with dressage. The extensive enclosure, which survives as the Great Paddock was probably constructed in this era by either the Vaughans or early Cornwalls. Their early training in the management of war horses supported their military careers either as cavaliers or roundhead troopers, which they also put to good use at the service of the state after 1660. The Great Paddock is an important and rare survival. Nothing of this nature survives at Holme Lacy where the prototype of the 'academy' is well recorded. It was part of the accoutrements of a gentry life-style, which had a particular resonance in Herefordshire, where the marcher families in the 17th century remembered their chivalric roots. Elevated above the surrounding landscape, the Great Paddock would have provided a fine setting for the brave displays of these latter-day knights and their fine mounts.

#### 4.7 Velters Cornwall (c.1698-1768) and the *ferme orneé*.

Velters was the eldest son of Henry Cornwall (d. 1716) by his second wife Susanna. His younger brother was James, the naval hero, with whom he was frequently compared, in a not

unfavourable light. Unlike his predecessors, he chose a political career, becoming M.P. for the county of Herefordshire between 1722 and 1768 (Williams, 60). Although allied to the Tories he represented the 'country interest' and vigorously opposed increasing government expenditure on foreign adventures. He was held in great esteem by all parties and known for his integrity and distain for patronage, titles and other rewards. Indeed, on his monument in Hereford Cathedral, his wife and mother-in-law reproach him for declining high office. In 1763 he became the 'idol of all classes in Herefordshire' for his stand on the Cider Tax, which would have placed 4s duty on every 48 gallons produced. He was particularly concerned that those who had no more than 40s a year income or lived in cottages should be able to make at least three small casks of cider for their own consumption without paying any duty. As a result, in part, of Cornwall's campaign, the government backed down on a universal tax and when he returned to Herefordshire in June 1763 the bells were rung in every village church on his route and the freemen of the county presented him with a loyal address (*HT* 9 September 1942; Reade, 107-10).

Recent scholars have forgotten Velters Cornwall but as the guardian of the Moccas estate from 1716 to 1768 his impact could well have been considerable. Indeed the landscape handed over via his daughter Catherine, to Sir George Amyand in 1768, had many of the features that we are called upon to make judgements upon in this study. Henry Cornwall, Velters' father, had added a substantial appendage to the Moccas estate by purchasing the residue of the Vaughan inheritance in 1694. This seems to have included around 3000 acres but much of it was in Wales and on Henry's death it was split between his three sons – Henry junior, Velters and James – with Velters retaining only Moccas, Bredwardine and Cusop. According to calculation made on the death of Velters in 1768 he held 730 acres in the parish of Moccas, plus manorial rights to the 20 acres of common (HRO. AF/57/12).

Some correspondence between Velters and his neighbours, Francis and William Bridges of Tyberton reveal something of his character and interests. In 1737 Velters was considering rebuilding Moccas Court, employing Francis Smith of Warwick as his architect. Smith appears to have been the contractor at Tyberton Court in c.1728 where John Wood of Bath was the architect. Cornwall, clearly admired the business acumen of William Brydges and 'hopes to grow wiser about building' with his advice, although admitting that it might be 'beyond the reach of my noddle'. As evidence for his limitations he mentions his failure to find a tenant for The Weston, a farm in the parish of Bredwardine and his reliance upon his agents, Mr. Lewis Lewis and Mr. Morgan Lloyd. He owns that he will never be rich since 'as ye Brokers phrase it...who buys, I sell'. He considers inviting William Bridges and his wife to Moccas but hints that his housekeeping is rather less fastidious than Mrs. Bridges is accustomed to. As an excuse he explains that his wife Kitty (Catherine) had recently been injured as a result of a fall at a race meeting on the Lugg Meadows, near Hereford. He hints that his wife was willing to stay the night at Tyberton, if she was accompanied by two servants to look after her needs. He offers to bring his guns so that 'you may have cocks and venison for London or elsewhere'. Finally, he ends the letter with a joke at his own expense, reporting that his wife felt that the dog kennels at Tyberton would provide suitable accommodation for her husband (HRO, A81/IV/379).

Cornwall's self-effacing rusticity, a parody of Fielding's Squire Western, is made very clear in this letter. We also learn that, notwithstanding the sale of his stud in 1755, racing was an important past time for his family in 1737, as well as shooting. The letter also mentions Kitty Cornwall's pleasure at living at Moccas, because of the friendship offered by Jane Bridges, William's wife. The family archive shows that in the 1730s, having built a new house, Jane and William Bridges embarked upon making an ornamental garden at Tyberton. This involved creating a water garden to the SE of the mansion and planting the surroundings with exotic shrubs, mostly from Southern Europe and America, supplied by Thomas Gabriell, a Monmouth nurseryman. The upper pool still has a line of mature yews planted on the dam, probably dating

from this time. To the west of the house there was a formal walled garden and, wrapped around it, a small deer park (Lambert, 3).

#### 4.7.1 Portrait of a landscape c.1750

The enthusiasm for landscaping at Tyberton may have been replicated at Moccas, but without the advantage of a copious water source. A Yew Walk is marked on the 1772 plan, which still survives to the east of the later Court, but was obviously associated with the earlier house. It may have been established by Velters but no documentation confirms this. However, in the archive there is a substantial collection of poems, most of them written to eulogise Velters' political career but one or two throw an interesting light upon life at Moccas in the 1750s and 60s. These are written by John Lockman (1698-1771), a prolific writer and a friend of the poet, Alexander Pope (HRO, AF57/5A/25; *ODNB* I, 1237). He was clearly on intimate terms with Velters and a frequent guest at Moccas Court. A poem entitled 'On an Ice House near the Banks of the Wye' refers to Moccas as a 'hospitable seat' where guests enjoy banquets provided by the 'courteous knight' who fills their goblets with 'vinous cyder' cooled with 'Vaga's ice'. This facilitates conversation deep into the night on affairs of state and other more philosophical themes. Accompanying this is 'The Tea-Table Song for the Ladies' dedicated to the 'amiable Miss Cornwall', which celebrates the new fashion for taking tea, again with whimsical references to the genteel social round at Moccas.

More informative for this project, is a poem entitled 'Adieu to Moccas', where the 'charmed eye with changeful prospects fills'. Lockman describes in his laboured verse how the scenery at Moccas is constantly changing, providing 'new fields of choice to explore' so that, just when you think you have 'fixed the whole' another view presents itself. The Wye 'strays through banks of flower fields' with 'hedges trim', containing 'full-fed bees'. Orchards are also mentioned and the 'craggy cliff' – presumably Brobury Scar. Finally, the poet takes to the 'brambly steep' where the 'rustling deer burst forth' and finally reaches the summit where he finds to the west a view of a 'tract of territory wild and vast...the Welsh Alps'. The poem makes it clear that the immediate landscape close to the court, albeit dedicated to agricultural production, has lyrical qualities and for a metropolitan poet, something of a pastoral idyll.

Another poem welcoming George, the first Lord Lyttleton to Moccas, presumably dating from 1756 when Lyttleton set out on his Welsh tour, refers to the 'Attic (elegant) pleasures' the owner of Hagley in Worcestershire, would enjoy on arriving at the Moccas. Clearly, he would experience something quite distinct from the embellished and contrived landscape at Hagley. A similar contrast, no doubt, to that felt by visitors who on their tour of West Midland gardens took in the Leasowes after a visit to Hagley. An election ballad, written the year Velters died in 1768 also contrasts the bustle of London and Westminster, from which the great man yearned to escape, with the bucolic peace of his 'farm' in Herefordshire.

Two further pieces of evidence confirm that Moccas was the epitome of the Georgic landscape, productive but also pleasurable, in the time of Velters Cornwall. The first is a watercolour painted by Paul Sandby in the late 1770s, which shows Sir George Amyand Cornwall and his wife Catherine, Velters' heir and only daughter, admiring the scenery from Brobury Scar (See page 9, private collection). The second piece of evidence, which can be related to the painting, is the survey carried out by Lambe Davis in 1772. Sandby takes up a view point at the west end of the Scar so that the old house can be seen in the middle distance. Further over to the left (SE) is a large up-standing Georgian house, perhaps Standard Farm, with Garway Hill and St Edmunds Tump (to the west of Grosmont) in the distance. Moccas Church is between the two principal buildings, but hidden by the trees. There are few indications that this is a gentry-landscape and, apart from some new planting on the Scar, the scene is entirely pastoral. There is even a shepherd

with a small flock of sheep in the Boat House Meadow. Behind him the hedgerows run horizontally across the scene and recede back to the Court. Standard trees occur haphazardly and are associated with hedgerows. There is no sign of the deer park, which would be out of sight from this perspective and the Little Park is indistinguishable from the other enclosures. The field pattern stretches, without a break up onto the eastern end of Woodbury Hill, where the woodlands begin to appear above Blakemere. It seems likely that Sandby made some sketches on site and completed the picture in his studio. Sir George and Lady Catherine were certainly painted subsequently, and Lady Catherine's dress is almost identical to the one she is wearing in Sir Joshua Reynolds' portrait. Thus, the field pattern is probably fairly contrived and equally the buildings may be misplaced and inaccurate in structural terms.

On Lamb Davis's plan the hedgerow in the foreground of Sandby's view seems to be missing albeit a double enclosure with two trees marks the spot where a small building is visible on the painting. This may have been the site of the Cold Bath adjoining Dog Kennel Wood, which is referred as 'Cold Bath Plantation in 1782. Beyond the Warren the field boundaries on the plan are far more complex than those visible on the painting. It is possible to pick out the Church Coppice but the standard parkland trees marked by Lamb Davis in the Little Park are absent on Sandby. However, it is still possible to accept that both artefacts reflect the same piece of countryside and at the same sort of time.

One thing is certain; when Velters Cornwall died in 1768 there were few signs of a polite landscape in the grounds around the old Moccas Court. There is no open parkland, no avenues, nor any pleasure grounds of substance. The plan marks the Yew Walk running parallel with the river and leading it seems to a summerhouse (?) set in the bank where the new house was to be built in the late 1770s. Beyond, a walk seems to be indicated, leading to a small pool – which exists today – and continues, perhaps, to the building noticed above. Beside the river, to the east of the old house was the ice house celebrated in Lockman's poem and recently identified by Debois as a grotto. Thus, the only contrived features, typical of Georgian pleasure grounds were laid out in linear formation along the river frontage with the house in the east and the bath house in the extreme west. Beyond this the working landscape was ubiquitous with arable fields, pasture, meadow, coppice and orchards all jostling each other in a haphazard manner. Only the Little Park, the Great Paddock, the Warren and the deer park reflected an earlier age of chivalric landscaping. And yet, this pastoral ensemble stimulated the effusive, if laboured, eulogies of a poet who was the friend of Alexander Pope, the father of 'natural gardening'. Lockman knew a good landscape when he saw one and in another poem he describes his country retreat at Woodford in Essex with its arbours, verdant shrubberies and 'un-numbered beauties', which he compares with Cooper's Hill – the subject of a famous pseudo-picturesque poem by John Denham, published in 1640.

Denham's poem is regarded as the prototype of the pastoral poetry, which began to be written about the real countryside in the early 18th century. Perhaps, the magnates, metropolitan politicians and neighbours who visited Moccas in the time of Velters Cornwall saw something that we have missed. William Bridges, the cousin and agent of James Brydges, first Duke of Chandos, local gentry like Mr. Symonds of Lower Eaton, Mr. Lechmere of Fownhope Court, Edward, Lord Harley of Eywood, Thomas Foley of Stoke Edith and Lord Lyttleton of Hagley are some of the guests entertained at Moccas during this period. Without exception they either already had important pleasure grounds or were in the process of developing them. What did they see at Moccas?

#### 4.7.2 The *ferme orneé*

It seems that the attraction at Moccas was rustic simplicity, reflected both in the landscape and in its owner. This was no rococo playground, like Painswick in Gloucestershire, the diversion of a successful Bristol merchant. Nor was it a landscape full of symbolic monuments with deep meaning for a failed politician like John Aislabie at Studley Royal or Lord Cobham at Stowe. It was the Arcadian home of a Virgilian hero, a man rooted in his own soil, ‘the protector of his country’s weal, a son of Liberty’. A showy polished landscape would have been out of character with the man. It was the sort of estate admired by Pope, which produced profits and pleasure in equal measure, but eschewed vulgar display. This vision was shared by the pastoral poets of the age e.g. Dyer, Thomson and the local ‘cider poet’ John Philips; it was a landscape in equilibrium with nature, which from the top of the deer park or in front of the scar achieved sublime heights, but also within its orchards and along its hedgerows, provided quiet beauty, prosperity for and its owner and a bucolic existence for the labourers he employed.

Among the cognoscenti this sort of landscape was already being classified as a desirable style – the *ferme orneé* or ‘farm-like way of gardening’. It fulfilled Joseph Addison’s injunction in the *Spectator*, No. 414, 25 June 1712:

“But why may not a whole Estate be thrown into a kind of Garden by frequent Plantations that may turn as much to the Profit, as the Pleasure of the Owner. Fields of Corn make a pleasant Prospect, and if the Walks were a little taken care of that lie between them, if the natural Embroidery of the Meadows were helpt and improved by some small Additions of art, and the several Rows of Hedges set off by Trees and Flowers, that the Soil was capable of receiving, a man might make a pretty Landskip of his own Possessions” (Hunt & Willis, 142).

It was also promoted by Stephen Switzer in the *Practical Husbandman* (1733) who pointed up Dawley in Middlesex, the estate of the Tory leader, Viscount Bolingbroke as an example. Pope praised Riskins in Buckinghamshire, for the same qualities, it belonged to Lord Bathurst, another Tory leader, well known to Cornwall. Perhaps most famous of all the exemplars of the style was the small farm of William Shenstone, at the Leasowes in Shropshire, where well-managed rural scenery was designed to stimulate the imagination. Shenstone warned that ‘Art should never be allowed to set foot in the province of nature, otherwise than clandestinely’ – and so it was a Moccas (Jacques, 18-25).

#### 4.8 Sir George Cornwall (1748-1819).

The Debois study of the Moccas demesne begins its historical analysis with the stark statement that ‘When he laid out his landscape at Moccas Sir George Cornwall took advice from Capability Brown, Humphry Repton etc’. Yet even a cursory view of the mapping evidence suggests that he inherited a working farm and that many of the elements present in 1768 were still there when he died in 1819, and, indeed, recognisable today. Only on the terrace, beside the river, where he found the Georgian pleasure grounds, was there a purely ornamental landscape. Sir George accepted what he acquired via his wife and had it mapped by Lambe Davis and painted by Paul Sandby – clearly he was very pleased with what he found. A second survey, undated but generally accepted as a few years later and based on the 1772 survey (HRO, C62), shows hardly any changes and the smaller maps and plans, produced as Sir George made more purchases in the parish of Moccas, demonstrate only marginal changes in the configuration of the landscape. Initially, there was no wholesale reversion to pasture or parkland and the balance of a mixed farming establishment is maintained. However, within this broad framework one or two new coppices appear, new drives and footpaths come into use and a relatively small area of parkland is developed on the Warren and Dog Kennel Fields, which connect the new pleasure grounds, also

developed at this time, with Little Park. But there is no evidence that Sir George ‘laid out’ a new landscape. The process of embellishment intensified but there was no major reorganisation of what he acquired.

#### 4.9 ‘Capability’ Brown

Sir George was a rich man and injected a good deal of capital into the estate. As Seymour, Daniels and Watkins have indicated he embarked upon a process of expansion, and by purchase and exchange, considerably increased the land in the parish of Moccas under his direct control. Much of this land was brought together as a home farm – Moccas Court Farm. Clearly, this gave him much more flexibility in managing the land visible from the Court, much of which, when he took it on in 1768, had been tenanted by William Thomas. A new landowner in Sir George’s position, especially and émigré from the City of London, would have surrounded his new house with parkland. Thomas Harley, another businessman, encircled Berrington Hall, near Leominster with parkland, recently taken out of the common fields of the parish of Eye, which, ironically, had previously belonged to the Cornewalls. He was assisted by ‘Capability’ Brown. Sir George may well have gone down the same path. In contemporary parlance he was a man in need of ‘ready-made taste’ – typical of many of Brown’s clients.

Brown was at the height of his career in 1778 when he was consulted by Sir George. Presumably the recommendation came from the Harleys – the senior branch of the family at Eywood, in the parish of Titley, had been employing Brown since 1775 – and along with Sir George, they shared the two county seats as M.Ps. for Herefordshire. Both branches of the Harley family were immersed in landscape improvement at this time and as the pre-eminent patrician family in the county, Sir George probably found that keeping up with the Harleys was an irresistible attraction. But having paid Brown his fee of £100 for ‘his journeys and plans’, he stopped short of engaging him as a contractor. Thus, he probably saved himself £1600 – the total cost Thomas Harley paid for obliterating the traditional countryside at Berrington (Stroud, 233; Turner, 167, 181). It would probably be a mistake to attribute some far-seeing and virtuous motive to Sir George’s reluctance to go down the path of comprehensive improvement for, when he came to rebuild the Court, he followed a similar procedure, obtaining plans from the best architect of the day, Robert Adam, but again stopped short of giving him the contract, choosing a local man, Anthony Keck, instead. Of course, like Velters Cornwall before him, Sir George may have espoused the dream of a Tory Arcadia built in England’s green and pleasant landscape. As a particularly literate household, no doubt, Goldsmith’s *Deserted Village* (1770) had been read and admired at Moccas, and the mercantile spirit that destroyed the labouring community at Stoke Poges, condemned.

Brown’s plan lay in the Library to be consulted but Sir George, it seems, had no intention of sterilising a large part of his estate as parkland although, as we have seen, he took pains to connect his new pleasure grounds with Little Park and Depple Wood. But Brown’s belted parkland to the SE of the Court was never entertained. After all, he had inherited a large deer park, which, as the subsequent drive system shows, he was keen to connect more firmly with the Court. Debois believe that in this at least, he followed Brown’s plan but the evidence is inconclusive. The copious accounts show that he was happy to follow in the footsteps of his father-in-law and farm the estate in a flexible manner, even letting out a good deal of the land he had recently purchased, but at the same time retaining a firm control of the aesthetic elements in the setting of the Court. Every page of his account books, especially the farming accounts, ignored by Debois, indicates that he was familiar with all the nooks and crannies of the estate. Fundamentally, he continued to sustain the character of the *ferme orneé* he had inherited from his predecessor albeit by the 1770s this epithet was decidedly old fashioned. By micro-managing his estate he was able to introduce ‘intricacy and variety’, which was the latest catch phrase among picturesque improvers, fed-up with vapid lawns and pinioned trees recommended by Brown and his imitators. The terminology

had changed but Sir George was still farming in the ornamental style, making pictures in his farmland, as the poet John Lockman had noticed back in the age of Velters Cornewall. One aspect of the landscape remained fixed – the sublime setting of the Scar, the river and the high wooded hills.

#### **4.10 Uvedale Price – the agrarian picturesque.**

In fact, Brown's reputation was already being quietly undermined in the salons and libraries of the cognoscenti. William Mason (1725-1797) the author of the *English Garden* – a long poem, written four books between 1772-81 – began as an apologist for Brown but ended his quartet of poems by tacitly criticising Brown's intrusive landscape style, recommending instead intimate landscapes created with a 'painterly eye'. Among his friends was William Gilpin, who dedicated to Mason his *Observations on the River Wye*, written in 1772. He also encouraged Gilpin to write *Forest Scenery* (1791), which became the handbook for landowners with a passion for tree planting (Whitehead, Chicago (2001), 85-9). The diarist, Elizabeth Greenly, met Gilpin's nephew, William Sawrey Gilpin, when she was guest at Moccas on August 25th 1800 (Private collection). Mason was much admired by another vociferous critic of Brown, Uvedale Price of Foxley who declared that 'Mr. Mason's poem on modern gardening is a real attack on Brown's system'. Price was also very well known to George Cornewall, both as a friend and political ally and noticed in 1792 that a 'coxcomb' called Humphry Repton, who regarded himself as Brown's successor had visited Moccas and the houses of some other 'gentlemen in my neighbourhood'. This rang alarm bells, for although 'ingenious...as the layer out of grounds' he was just as much a threat to the distinctive character of Herefordshire as his predecessor, the 'thin meagre genius of the bare and bald' – Brown (Watkins (2006), 79).

Essentially, the picturesque critique of the work of Brown and Repton centred upon localism. Herefordshire in the 18th century – to some inhabitants, Old Siluria – had become the epicentre of the Georgic vision, focussed upon cider and cattle, and the pastoralism it induced. Moccas, as we have seen had a particular place in this scheme of things and the arrival of 'mechanic improvers' from the degraded landscapes of the Home Counties, tainted by Parliamentary enclosure and rural poverty, was unwelcome and threatened the social and environmental equilibrium of an Arcadian microcosm. Price preached a form of picturesque agriculturalism, not far removed from the concept of 'profits and pleasures' promoted by earlier writers. 'Connection' was one of his slogans – connected countryside – wood, pasture and arable – supporting a connected social system – landlord, tenant farmer and labourer, working in harmony with the land. Advised by the agro-economist Nathaniel Kent, Price went against the tendency of his age, to create larger farming units, and sub-divided his estate into small farms. He believed a populous landscape was a harmonious landscape. George Cornewall followed suit and albeit he increased his ownership of land, he was quite happy to have tenant farmers working the soil in view of his house. This was quite unlike those patrons of Brown who lived in solitary isolation in a *cordon sanitaire* of belted parkland, guarded by keepers, dogs and man-traps. Sir George's blue-print for Moccas, in accordance with Price's ideas, was benevolent management with an aesthetic eye (Daniels, 157-81).

Sir George's accounts reflect a day-to-day interest in his estate with hedge renewal, tree planting, draining, manuring, weeding, anthill removal, felling, hole filling and innumerable other minor tasks – which could so easily have been delegated, routinely coming within his purview. If Sir George was away, his steward Aird brought him the vouchers when he returned and each item was copied into the account book, no doubt with discussion and commentary at each stage. Moreover, the accounts record by name all full-time employees on the estate on each occasion that their endeavours were recorded. In the front binding of the last volume of accounts 1800-1817, there is a selection of notes, mainly recording good farming practice among his neighbours, but including in 1807, Mr. Hardwick's innovation at Credenhill of keeping no permanent



workmen – the very antithesis of the paternalism recommended by Price, and adopted with commitment at Moccas (HRO, J56/III/117).

#### 4.11 Richard Payne Knight – the arbiter of contemporary taste.

Sir George was also signed-up to a more cerebral and aesthete manifestation of the picturesque, promoted by Richard Payne Knight of Downton Castle who, albeit a collaborator with Price, often found himself disagreeing with his views. However, Knight also subscribed to the Georgic view of Herefordshire:

Still let utility improvement guide,  
And just congruity in all preside.  
While shaggy hills are left to rude neglect,  
Let the rich plains with wavy corn be deck'd. *The Landscape* (1795)

Unlike Brown and Repton, the advocates of the picturesque landscape accommodated corn-land in their perfect countryside, which artists like Gainsborough and Constable also idealised. Two illustrations drawn by Thomas Hearne, included in *The Landscape*, conveyed succinctly the difference between the Brownian system and the picturesque. In the first picture a Palladian mansion sits on a lifeless lawn, surrounded by manicured trees and tame water. Here nature has been completely subdued but in the accompanying picture, the same scene is shown in an overgrown state bursting with energy and irregular forms of life. Even the mansion is in a hybrid style, with mongrel vitality. The message is clear – and derived from Rousseau – arts and sciences brought no good unless you took cognisance of nature (Knight, between pp. 14-15). In practice, Sir George adopted a middle way, rejecting Hearne's wild picturesque for the agrarian model promoted by Price.

However, Knight's erudition, forceful personality and more rigorous approach to issues of sensibility made him a national figure, regarded by some as 'the arbiter of contemporary taste'. He was also very entertaining and approachable and thus, seems to have made regular appearances at the glittering social occasions that developed around Sir George, Lady Catherine and their eight talented children. Knight apparently organised some of Sir George's reading and in his accounts for 1784 he records a subscription paid to Knight for a book entitled *Recheres pur l'esprit e les progress desartes de la Grece*. Another guest at the Moccas entertainments was Elizabeth Greenly (1771-1839) a gentlewoman of Titley Court, near Kington who, between 1794 and 1830, was an intimate friend of the 'Miss Cornewalls' and recorded her impressions in a diary (Private manuscript). She was an accomplished artist, singer and linguist. She was also full of vitality and accompanied Sir George on his hunting expeditions, occasionally taking a fall in her stride. She was also a champion bow-woman and after an evening at Moccas, thought nothing of mounting her horse, crossing the Wye below the Scar and riding unaccompanied across country to her home where she arrived after dark.

Many of the social occasions she recalls were musical events, usually at Moccas, but also at the Three Choirs Festival in Hereford or occasionally in London, always accompanied by one or two of the Cornwall sisters. On these occasions Knight often turned up, passing an opinion on a musical performance or a painting. In September 1803 with Fanny Cornwall Elizabeth borrowed her father's carriage to visit Shobdon Court – another landscape that eschewed Capability Brown and was developed as a *ferme orneé* by Richard Bateman, a neighbour and close friend of Horace Walpole. After Shobdon, more members of the Cornwall family joined the cavalcade, which proceeded to Downton where they stayed the night as a guest of Knight. 'Next day we made the circuit of the walks thro' the romantic valley where rocks and woods Mr. Knight showed to great advantage by the manner in which he led his paths among them, above or on the edge of the River Teme, the mill etc'. The following day they were joined by the Clive family of Powys Castle,

which required another tour and on the following day Elizabeth and Fanny retraced their steps along the walks to sketch Bow Bridge and the adjoining mill. They probably realised they were following in the footsteps of the artist, Thomas Hearne who produced a portfolio of watercolours of the Downton Gorge between 1784-6. Hearne subsequently arrived at Moccas in 1789, presumably on Knight's recommendation, and ultimately produced at least nine views of the estate, which like the views of Downton, captured the diversity of the Moccas landscape, its network of fields, woods and meadows. There were also portraits of veteran trees including *An oak tree* that seems to have been given to Knight, from whose collection it subsequently emerged. The ancient trees of Moccas were clearly cherished objects and in January 1804 Elizabeth Greenly noted in her diary that during a storm 'one of the finest oak (at Moccas) was blown down, its gurth (sic) could not be less than 20 feet'. Later in the century, Dr. Bull recalled an anecdote that indicated how the womenfolk of the Cornwall household felt great attachment to the ancient trees in the park (*TWNFC* (1870), 320).

Many more picturesque connections can be made from Elizabeth Greenly's diary but it is clear, that like some of Jane Austen's heroines – Catherine Moreland and Fanny Price - the young women of the Cornwall household lived and breathed the picturesque and spent much of their recreational time sharpening their sensibility either through painting, writing and visiting e.g. the Ladies of Llangollen in 1810, whose rocky garden was as picturesque and unconventional as the 'ladies' themselves. They had two copies of Price's *Essays* on their bookshelf (Mavor, 1050). The girls' excitement with landscape presumably derived from the adult world around them and we can hardly doubt that as their father, Sir George, laboured over his account books, a picturesque vision for Moccas was as firmly fixed in his mind as it was in that of his daughters.

Caroline Cornwall married Sir William Duff Gordon and at the age of 83 in 1872 wrote a brief account of her memories of Moccas in the late Georgian era; a copy of which was taken by Finola Somers in 1955 and is now in the Eastnor archives. She lists the many visitors who came to Moccas, including Price and Knight and provides a detailed portrait of the latter:

'We all liked (Payne Knight), and wisely (he) never did our religious principles any harm, but did our taste a great deal of good, and was immensely learned in all works of art and all the beauties of nature. Walking out with him was a great pleasure. He pointed out all the beauties of nature, the effect of light and shade etc. He was a very remarkable man...and had an enquiring and reading mind...and ended by being the greatest Grecian scholar in England, the highest authority upon all classical literature. He travelled abroad in Greece and Italy, learnt what to admire and what was spurious, and so became the consulted man of taste in England. We used to dine very often at his peculiar house in Soho Square where he had a collection of bronzes. He was very fond of music...and a very pretty poet, no doubt you know his verses on the 'Four fair nymphs' (apparently written about four of the Cornwall sisters). He was a curiously ugly man. I have a bust of him in the dining room' (Eastnor Castle Muniments).

We need look no further for the leitmotif that guided the hand of George Cornwall at Moccas. Whenever he planted a new coppice, made a new path or renewed a hedgerow he was striving to create a painterly effect and conscious, no doubt, that sometime in the near future the 'gentlemen professors' of picturesque landscaping, Uvedale Price and Richard Payne Knight, would be coming to inspect his work. Indeed, he seems to have taken Knight's advice on more practical matters and scribbled into his early notebook (1772-7) the dimensions of the garden wall at Downton, which had just been constructed.

## 4.12 The Nineteenth Century: Continuity and Change.

### 4.12.1 Timber sales and the John Webster plantings

Sir George's notebooks give little indication that the delightful Elysium at Moccas was built upon flimsy foundations. Although he had doubled the size of the estate, which reached 7000 acres in 1818, this had been achieved by raising loans, of at least £29,000, on the security of his West Indian plantation. When this collapsed as a result of a slave rebellion in 1795, financial difficulties plagued him for the rest of his life (Seymour, 43-6). Nevertheless, having a large estate also increased his control over land close to Moccas Court, which enabled him to have more flexible approach to land-use and thus, respond to market forces. Like many of his contemporaries – Uvedale Price, for example – he continued to be interested in farming. Thus, he retained some arable fields within his demesne, developed a new Home Farm between 1783-4 and became a founder member of the Herefordshire Agricultural Society when it was founded in 1797. This brought him close to Richard Payne Knight's younger brother, the horticulturalist, Thomas Andrew Knight, who named one of his new varieties of fruit, as a tribute of Cornwall, the 'Moccas Pear'.

Another spin-off from a larger estate was that it enabled him to extend the amenity land around the court. The *ferme orneé* depicted by Sandby and Lambe Davis gave way towards the west, to more conventional parkland. Sir George was a compulsive planter and he found a forester in 1793 who shared his enthusiasm. John Claudius Loudon visited Moccas in 1836 and met Mr. J. Webster, who claimed that in 43 years he had planted '300,000 oaks, besides other trees' (Loudon, 368-9). Much of this seems to have been on the western hills, where he established nurseries to acclimatise young trees for difficult situations. The Woolhope Club's 'commissioner' saw the results in 1870 and had mixed feelings. In the park veteran oaks were crowded out by new saplings, which had deleterious effect upon the picturesque beauty of the place. On the other hand, the principle of providing a succession of planting was praised and many of the sweet chestnuts and oaks that exist in the extended park around the Court today have girth measurements (see girth histogram section 5.5.3.2 below and Appendix 3 section 5) that would suggest a planting date between 1793 and 1836 during Webster's time (*TWNFC* (1870), 319-20).

Notwithstanding picturesque beauty, Sir George and Webster planted for commercial reasons. The high timber prices during the French Wars 1793-1815 provided an incentive. Not only was there a demand for good naval timber, particularly if it was close to a navigable river, but domestic demand for building etc. was also high. When Sir George's colonial investments collapsed in 1795 it was inevitable that the timber on the estate should increasingly be viewed as a potential wind-fall. A large timber sale took place between 1808 and 1809 that raised £12,000. Significantly, the valuer noticed that many of the mature trees had a 'roughness of bark', which depressed the sale price. Clearly, trees with picturesque qualities were less valuable commercially than pristine plantation trees (HRO, LC Deeds, 5214).

During the last two decades of his life, financial problems continued to stalk Sir George and his letters and papers are full of lists of rent arrears, valuations, mortgages and abortive attempts at controlling expenditure. In 1811 he resolved to reduce personal and household expenditure by £1500 per year, noting possible reductions in housekeeping, building and gardens. By 1814 the interest charges on mortgaged property amounted to a quarter of their rental value.

### 4.12.2. Sir George Cornwall (1775-1835) and Sir Velters Cornwall (1824-68)

Sir George died in 1819 at 70 years and was succeeded by his eldest son, also George. According to his grandson, Sir Geoffrey Cornwall (1869-1951) the younger Sir George continued to plant trees around the Court and these could be recognised because he grouped them in threes – the

picturesque number. He pointed out several examples to the Woolhope Club, on a visit in 1933 (*TWNFC* (1933), xiv). Sir George II was less assiduous in recording the routine life at Moccas and so there are few documents available. In the last year of his life he failed to pay the gardener's bill, which was over £100, much more than his father paid out for the pleasure grounds, which suggests he was busy enhancing the extensive grounds within the new ha-ha – and, perhaps, beyond. He was keen on planting and grafting fruit trees, killing vermin, spreading lime and netting his fruit cages. He also had a very fine vinery made for the walled garden by James Vaughan, a plumber-glazier of Bye Street, Hereford(HRO, AF57/12).

During this period three useful maps become available, the first new maps of the estate since Lambe Davis' survey of 1772. A comparison of O.S. Surveyor's Drawing of 1815 and the printed 1" O.S. map of 1832, with glances at Bryant's county map of 1835 gives some indication of the extent of the parkland developed around the Court by Sir George and his son. Between 1813 and 1832/5 most of the Warren had been brought into the park with the arable limited what became West Field. Church Field and Brick-kiln Field were now parkland and arable here was restricted to a small area around Standard Farm. In 1814 there was a small patch of arable to the west of Standard Farm, on the roadside. In this period the ha-ha makes its first cartographic appearance, together with Dog Kennel Wood and the string of three fishponds. In 1814 there was only one small pond. The walk through Dog Kennel Wood to Depple Wood is clearly marked on Bryant but indistinct in 1814, where most of Depple Wood seems to be absent too. The ha-ha boundary on Bryant seems to embrace this whole section of the park as an extension of the pleasure grounds. This perhaps reflects George II's increased expenditure upon gardening.

When Sir George the younger died in 1835, his eldest son Velters (b. 1824) was still a minor and the estate was managed by his mother and trustees. An inventory of the live and dead stock attached to Home Farm on his father's death indicates that the balance of farming was very much in favour of animal husbandry with 89 cows and 386 sheep present on the estate. In all the animals were worth £2065. This reflected the mapping evidence with most of the parkland close to the Court being now grazed. Albeit the inventory was taken in December, 51 acres of arable was sown with winter wheat and 620 bushels were in store in the granary. Other crops in store included hops, clover seed, peas and vetches. 167 ton was available for winter feed, some, no doubt, for the 27 horses in the stables. For household use there were 106 hogsheads of various ciders. In all the live and dead stock came to £3453 (HRO, af57/12)). This appears to be a well run and profitable enterprise and it is interesting that the tithe map of two years later (1837) shows that the process of imparking had stopped and had been reversed. Brick-kiln Field was now rotating as arable and pasture and this situation was confirmed on the c.1885 6" OS plan.

Eventually Sir Velters Cornwall enjoyed his estate but his interest in Moccas was passing and family tradition relates that he was basically known for his interest in sport and gambling. He died unmarried in 1868.

#### 4.12.3. The Rev. Sir George Cornwall (1833-1908)

The Rev. Sir George was the younger brother of Sir Velters. He was an important figure in late Victorian Herefordshire both for his philanthropic work and his broad cultural interests. Moccas once again became a centre of local social and political life. On September 7th 1863, at breakfast in Lyttleton House, Malvern Link, the Rev. Sir George was elected a member of the Woolhope Naturalists Field Club, which proceeded to Great Malvern Priory to view the work of restoration carried out by Mr. (later, Sir) Gilbert Scott. The Rev. Sir George was not in attendance and it was only on July 18th 1865 that he attended his first meeting at Ludlow where several limestone quarries were visited. When the first true transactions of the Club were issued in 1866, the Rev. G.H. Cornwall B.A., Moccas Rectory, Hereford was Hon. Secretary and, as his office required,

he was regularly in attendance and made his first recorded speech at Talgarth in May 1866 supporting Dr. Bull's project to record the 'remarkable trees of Herefordshire'. It was entirely fitting that he had chosen to be the recorder of the oak. At a subsequent meeting, the following month, he also offered to record the elm. During the next few transactions Mr. Cornwall's paper on the 'Oak tree in Herefordshire' is referred to with anticipation and a special photograph is commissioned of the Monarch Oak at Holme Lacy to accompany the article (*TWNFC* (1852-65), 301-2, 271; (1866), 163, 176).

Cornwall was not a regular attendee at field meetings but was obviously interested in other local estates. Thus, in August 1867 he came with the club to Stoke Edith, the rather closed estate of the perpetual widow, Lady Emily Foley. The walk took in the extensive woodlands in the Woolhope Hills and ended with a bread and cheese meal, washed down with cider, on Backbury Hill. In the summer of 1870 he attended field meetings in Deerfold Forest and Symonds Yat where arboriculture was likely to be on the agenda. As an expert on oaks he spoke-up at the Annual General meeting in February 1867 where a debate occurred on the respective virtues of the sessile and pedunculate oaks. He thought that 'many of the finest oaks which were to be found in this county were certainly *sessiliflora*. The roofs of many of our oldest buildings, as at Chester and Westminster Abbey, were *sessiliflora*. The *sessiliflora* might grow faster than the pedunculata, but he would not go so far as to say that it grew taller'. The debate continued at the AGM of the Club in March 1868 where the Worcestershire naturalist, Edwin Lees, denied that there were two species of oak, and believed they were simply varieties. This was challenged by the forester from Holme Lacy, Mr. Welles, who found the two oaks quite distinct at Holme Lacy albeit the pedunculate was more robust. The Rev. Sir George agreed with Welles on the first point, but from experiments at Moccas and Tibberton he found that *sessilifloras*, if planted on good soil, were faster in development. He also found that poor soil produced better timber in both species of oak (*TWNFC* (1867), 70, 316; (1868), 146). Here spoke the voice of experience and in replanting the Moccas landscape today, we should take notice of his recommendation and plant some *sessilifloras*. In 1999 Harding and Wall found *Quercus petraea* abundant in the woodland, but only occasional in the park.

#### **4.12.4. The visit by the Woolhope Club's 'Commissioner' 1870**

When Henry Graves Bull and the Rev. Sir George launched their campaign to record the 'more remarkable trees of Herefordshire' in May 1866, they anticipated a flood of information, especially from the estate owners on the committee of the club, listing with measurements, the veteran trees of the shire. By 1870 it was clear that there had been little response and the indefatigable Dr. Bull set out to fill the vacuum. There was obviously some embarrassment among the committee members, and to spare their feelings and disguise the fact that the 'remarkable trees' cause was not a one-man-band, Bull assumed the anonymous title of 'commissioner' and using that title began to publish surveys of local estates. One of the first was on the trees of Harewood, the estate of the president of the Club – Chandos Wren Hoskyns Esq. Bull had very strong feelings about the English landscape and was an avowed disciple of Uvedale Price and Richard Payne Knight. He pointed out Price's influence at Whitfield Court and Holme Lacy and quoted readily from *The Landscape* when describing the Downton Gorge. Moreover, whenever appropriate he expressed disapproval of the work of 'Capability' Brown and his followers. His writings on the landscape, especially when describing field-days are peppered with apposite quotations from Romantic poets, his favourite being Cowper, famed at that date for his expression of picturesque sensibility (*TWNFC* (1868), 259-60; (1869), 57-62).

In the 1870 Transactions Bull presented his longest paper on veteran trees, modestly entitled 'Incidental notes on remarkable trees in Herefordshire' again attributed to the 'Commissioner'. This enabled him to sweep through the estates of the county – Shobdon, Moor Court, Broxwood,

Brampton Bryan, Croft and several minor places- providing a magisterial summary of the greatest trees in the county. He left Moccas to last, for a climax. Clearly, the Rev. Sir George, having recently inherited the estate from his brother and with a multitude of other public concerns, had little time to write his paper on the oaks of the county, so Bull filled the gap but with many flattering gestures to his patron and Hon. Secretary of the Club (*TWNFC* (1870), 311-21).

It is sometimes difficult to follow Bull's movements but he started at Monnington, providing evidence from tree-ring counting that the Monnington Walk was planted in 1628. He crossed the Wye by Sir Velters' new bridge (1868), and from the court walked to the parish church and noticed, on the way, several evergreen oaks (*Quercus ilex*), some suffering the effects of recent frosts. He passed into the Lesser (Little) Park where there are many oaks that measured 12-14 feet in circumference and noticed the 'young avenue of oaks' planted by Sir Gilbert Lewis in 1841. Sir Gilbert was the son of Harriet (7th child of Sir George and Lady Catherine) who married Sir Thomas Frankland Lewis Bart of Harpton Court, Radnor. Sir Gilbert was their youngest son and probably a trustee of the Moccas estate during the minority of Sir Velters Cornwall. The avenue may have been planted to mark the coming of age of Sir Velters. In 1870 Bull found the trees had girths of three and four feet. As he left the Little Park he noticed the wilderness – an 'under growth of thorn trees, sloes, eglantine and briars' – with some massive oaks, some dead 'here and there'.

Most of Bull's account naturally deals with the Deer Park, where he measures and comments on the veteran trees around the Lawn Pool. Looking along the south-side of the Pool he decided that this was 'a picture to enchant and artist' and found a complementary quote from Cowper. He picked out for particular praise the 'Club Oak', recently named in honour of the Woolhope Club by the Rev. Sir George and the 'Tall Oak' – a tree of great height and graceful growth. Both are illustrated with photographs by Ladmore & Son and were fine examples of *Quercus sessiliflora* syn. *petrea*, a species, which Bull would have recognised, had recently been promoted by the owner of Moccas. He was also aware that the *sessiliflora* that grew so stately in the lower levels of the park also produced the trees of stunted – and picturesque – growth that enhanced the scenery of the Welsh hills. Particular praise was reserved for the 'Moccas Oak', painted by Hearne in c.1788 and celebrated by J.G Strutt in *Sylva Britannica* (1822), which was a pedunculate oak – the picturesque species of lowland England.

Having been shown a rare mistletoe oak just to the north of Depple Wood, on the path to Bredwardine, Bull noticed, but failed to record 'the many old pollard oaks of great size' in the Wye-side meadows e.g. the modern Boathouse Field. He also commented upon Depple Wood and its indigenous box trees, nourished by calcareous springs; and crossed the Warren, where he measured the sweet chestnuts and beech trees, which had girths ranging from 10 to 12 feet. In Dog Kennel Wood, on his way back to the pleasure ground, he commented on some wonderful holly trees, 55 feet high and on the view of the Scar, which 'will ever linger on the memory of visitors'. Finally, the cedars on the lawn, close to the Court, are measured and Bull suggests that they were planted between 1780-90 and mentions other cedars in Herefordshire with similar planting dates.

Almost as a postscript, he gave the Rev. Sir George some advice. Having found the Deer Park, and probably the wider landscape, over-planted to such an extent that 'so large a place could scarcely be made to look smaller', he blamed the 'Scotchman' (Webster). He understood, however, that there was considerable pressure upon the forester, during the years of Sir George's financial crisis, to plant intensively for later profit but now was the time for the Rev Sir George with a 'judicious exercise of taste' to thin the woodlands to create 'lawns and open glades'. One result of this would be the emergence of many suppressed trees, which had hitherto had little opportunity to develop. He ended with an appeal to his readers:

‘If you would judge how well Oaks can grow in Herefordshire soil; if you would see the grandeur of this noble trees in its fullest luxuriance; if you would admire the variety of picturesque forms it can assume in the later periods of its life; visit Moccas Park. There you will not only find them in great abundance, but you will find also a richness of landscape that becomes them, and cannot fail to carry away impressions that will be life-long in the pleasure their memory will recall. Of all such enjoyments of Nature and Nature’s works – unlike the more exciting pleasures of social life, -it may ever be said – HAEC OLIM MEMINISSE JUVABIT’

Bull’s description and warm feelings for Moccas leave us in no doubt that the improvements made by Sir George in the last two decades of the 18th century and the first two of the 19th century had created, and in another sense, helped to preserve, a landscape, which was still capable of bowling over a literary-minded doctor of medicine, whose rational approach to nature – measuring and quantifying - succumbed to his deeper romantic sensibilities. Although Bull saved his highest praise for the Deer Park, he approached it via the inner parkland and returned by a slightly different route via Depple Wood, the Warren and Dog Kennel Wood, thus, enjoying the total experience of Moccas. Albeit, Brick Kiln Field was back under an arable regime by this date, Bull has no reservations about the whole experience. The pedestrian tour he embarked upon at Moccas, enjoying a diversity of rural scenery, must also have been experienced by many mid-18th century visitors to Moccas. The varied topography had to be enjoyed as a series of unfolding pictures, enhanced in many respects by the farming activities taking place there, and unlike a Brownian landscape, with a few formal viewpoints, the visitor here was drawn into active exploration of the different elements of the whole – the *ferme ornée*, it seems, was still capable of enchanting the hardened picturesque tourist (*TWNFC* (2009), 48-9).

Bull noticed on his walk in 1870 that the Rev. Sir George had already begun marking trees for felling. The tree next to the mistletoe oak on the footpath to Bredwardine had ‘No 127’ painted on it. Timber sales at Moccas are recorded in 1883, 1884 and 1897 and although much of the felling probably took place in the Deer Park, thinning probably took place elsewhere as Bull’s observation of ‘No 127’ implies. The c.1885 25” and reduced 6” plans presumably show the process proceeding.

#### **4.12.5 Kilvert’s Diary – an Indian summer for Moccas**

Dr.Bull’s enthusiasm for Moccas was endorsed a few years later by the diarist, Francis Kilvert who, after a few years in Wiltshire, returned to West Herefordshire in April 1875 to become the vicar of Bredwardine, a living in the gift of the Rev. Sir George Cornwall. He was already familiar with the Cornwall family and on the last day before he resigned as the curate of Clyro, on August 30th 1872, he spent some lyrical hours at the ‘gypsy camp’ set up by Lady Cornwall, beside a rushy lake (the Lawn Pool) in Moccas Park. Rather disarmingly, Sir George arrived late, having attended a funeral and in his formal priestly dress, proceeded to help his wife butter the bread for the alfresco lunch. After the meal, the group dispersed to sketch the scenery, re-grouping in the evening to discuss their efforts, following which, Kilvert walked back to Hay in the dusk. Such easy going and bohemian behaviour no doubt brought Kilvert, the romantic outsider, back to Bredwardine three years later (Plomer II, 252-3).

His preliminary visit to Moccas, to formalise the arrangement with his new patron, was equally charming and unconventional. Having been put-up at Monnington Court, where Kilvert immediately fell in love with the ancient avenue, he crossed the new bridge to Moccas to meet the bishop, James Atlay, and together they walked to the church where Sir George was playing the organ. Deferentially, Kilvert was reluctant to interrupt, but the bishop assured him that Sir George would not mind. The formalities over, Sir George showed Kilvert around the ‘beautiful

little Norman church' and was intrigued by Kilvert's claim that he was an ancestor of Sir Reginald de Fresne, whose 14th century monument was in the church. Some of the tenant farmers at Moccas soon put two and two together, and began to assume that Kilvert was a relation of Sir George. No doubt the close relationship Kilvert had with his patron increased this impression.

Kilvert was a solitary priest who, John Toman, his recent biography believes, modelled himself upon the Celtic *perigrinatio*. He spent his holidays in Cornwall and South Wales and was especially impressed by Tennyson's *Idylls of the King*, which were being published at this time. The Celtic history of Bredwardine and Moccas suited Kilvert very well and his patron, it appears, was equally intrigued as he either wrote, or sponsored an account of the area in the Dark Ages, which has as its focus the Dubrician connexions with Moccas found in the *Lives of the Welsh Saints* and the *Book of Llandaff* (Tolman, *passim*). Bishop Atlay was similarly infamous for diocesan wanderings, which took him away from Hereford and into the delicious countryside of his diocese. Like Kilvert, he was drawn frequently to Moccas and on one occasion in February 1876 the bishop, having encountered Kilvert at Preston-on-Wye, a few miles to the east of Moccas, accompanied him on a damp cold walk back to Moccas Court for his supper

Kilvert took a delight in late evening walks and when he was finally ensconced at Bredwardine in April 1876 he walked to the top of Moccas Park in the evening sunshine and from the summit of the hill he watched it catch 'the white houses of Dorstone'. On his return through the park in the twilight he penned the famous portrait of the 'grey old men of Moccas' – a veritable anthem to the veteran oaks. A few months later he learnt that there was a more sinister side to the routine of park management. Once again he was partying at the court when he heard that Mrs. Beavan, a keeper's wife, was ill, so he broke away from the gathering to visit her at Park Lodge, where he discovered that her neighbour, Mrs Hicks at the other lodge, another keepers' wife, was equally disconsolate. She startled Kilvert by asserting that Moccas was the 'worst park in England for killing bucks, it killed the men as well as the deer'. It seems she was referring to the steepness of the slopes and with this anti-picturesque thought in his mind, Kilvert returned to the party. On his way back he encountered a group of frisky deer, alarmed by the shooting, with their 'horns going like a forest' and, with some relief he found himself back on the lawns of the Court where the 'river-scenes at Moccas were enchantingly beautiful'. He left the gathering praising Lady Cornwall's generosity for enabling him to enjoy grapes, peaches and nectarines from her glasshouses.

Kilvert had another encounter with the deer on another late evening when he left the Court in the dark and took a circuit through the park, finding some of the deer grazing outside the pale. He later learnt that Sir George kept hounds at the Dog Kennel covert, trained specifically to drive escaped deer back over the 'buck-leaps' into the park. Kilvert constantly varied his route home from Moccas and on July 3rd 1876 he took to 'the beautiful green path by the riverside to Dipple (Depple Wood)' to see the petrifying spring that dripped over the mossy rocks. Two months earlier he had visited Dipple (sic) to cut branches of wild cherry to decorate the church at Bredwardine for Easter. On another occasion he punted down from Bredwardine to Moccas – 'a lovely voyage... (with)... evening lights and shadows on the water' but returned once again, in the dark, via Depple. Even Sir George on a frosty evening in December, strode along here with a 'spudstick', in order to fulfil his promise to Kilvert to preach to the congregation at Bredwardine. Thirty churchgoers were present to hear his sermon but Kilvert does not record how he returned home to Moccas. However, clearly the path through Depple Wood was an important thoroughfare in the late 19th century, connecting the Court, via Dog Kennel Wood and over the Warren, with Bredwardine.

Notwithstanding Sir George's status he was very conscious of his duties as lay rector at Bredwardine. Having restored Moccas church – Kilvert was present at the rededication – he



inaugurated a fund for the repair of the tower of Bredwardine, contributing £13 10s, which Kilvert thought was a 'very handsome sum'. Later on in the year the roof needed urgent attention and both Bishop Atlay and Sir George attended the re-opening ceremony in September. As a musical family the Cornewalls organised a concert party in the Bredwardine schoolroom in July and some pressure was put upon some of their neighbours – Mr. Arkwright of Hampton Court and the two Miss Wintons from Maesllwch Castle, above Glasbury-on-Wye – to attend. £9.10s was raised for the school and the group from Moccas set-off back down the river in their punts singing catches and glees as they faded into the twilight.

Sir George encouraged Kilvert to take on responsibilities, which he may have found irksome. Very soon the vicar of Bredwardine was a trustee of Bredwardine Bridge and sitting, with Sir George, discussing repairs, tolls and tenancies. He was also a trustee of the famous Jarvis Charity, which provided educational opportunities for children in several parishes around Bredwardine and was in difficulty because of the agricultural depression. Again this was close to Sir George's interests and among the trustees were a number of influential landowners, including Mr. Davenport, the new proprietor of the Foxley estate.

Kilvert often seems to have been ill and before one of the Jarvis meetings in December Lady Cornwall came to see him and brought some medicine. On another occasion Miss Cornwall, recently returned from France, entertained Kilvert on a walk from Monnington, with her travellers' tales and suggested, perhaps rather impractically, that Kilvert should take a health cure in Cannes. However, Kilvert eulogised upon his life at Bredwardine, which he regretted in private, having given Miss Cornwall, he felt, the impression that his chaplaincy was easy. The generosity of the family seems to have no bounds and when Sir George learnt in January 1878 that Kilvert's father, also a clergyman, was coming to stay at Bredwardine, he sent over a hare and a brace of pheasants for the vicar's housekeeper to cook. Little did he know that a couple of days later, the incessant rattle of Sir George's guns, would cause Kilvert not a little irritation. The Court was an open house for Kilvert and when a friend returned from Italy with some plants, a visit to the library was arranged to consult some botanical books.

It was probably the summer picnics that Kilvert enjoyed most. They were generally under the oaks close to the Lawn Pool and, apart from eating, varied entertainments were provided for guests. In July, with the Davenports present, the alternative activities were a walk up the hill to see the sunset or a walk to the Norman church. On this occasion Kilvert led the group, across the Little Park, to the church. Such was the delicious life at Moccas in 1878 when the Cornewalls shared their estate with their romantically inclined curate. The Court, the park and the riverside walks were all accessible to Kilvert, and like the poet John Lockman in the previous century, he was captivated by the idyll that was Moccas. It seems, again that the *ferme ornée* was still able to work its magic. In August 1879 Kilvert married Elizabeth Roland and a little more than a month later he died and was buried at Bredwardine. It seems that Sir George, or his daughter had eventually found a living in Cannes, for their frail curate but he died before he could enjoy it. Kilvert's funeral service was conducted by one of his friends but Sir George was present in the church (Plomer III, 163, 263-440).

#### **4.12.6 The President's day at Moccas**

In 1891 Sir George Cornwall became the president of the Woolhope Club and in August invited the members to Moccas for the 4th Summer Field Meeting (*TWNFC* (1891), 221-241). Such was the crowd-gathering power of Moccas that one third of the total membership of the Club attended. The interests of the club were changing and on arrival, 'without delay', the members were directed to the parish church where Sir George read a paper on its history and architecture. He drew parallels with other Romanesque churches and praised the work of Sir Gilbert Scott who

restored the church in 1870-1. On the way back to the Court for lunch, several exotic trees were admired – a *Cryptomeria japonica*, an occidental plane, a Wellingtonia and a hemlock spruce. Like Sir George the well informed members of the club were thrilled by all the new conifers arriving from America and Asia in the 19th century and keen to judge how they responded to the English climate. The Wellingtonia had its own tablet recording measurements, and the Club added another one on that morning. Soon members were filing across the ornamental bridge over the ‘fern dingle’ to reach the herbaceous gardens behind the walled kitchen garden where ‘cultivation of showy British wild plants, mixed with plants from Italy, Switzerland and other foreign parts, has been successfully carried out during a long period of years under the horticultural taste and supervision of Sir George’. In the Transactions there followed a long list of exotics that had been successfully cultivated at Moccas; notwithstanding ‘the unprecedented winter of 1890-91’. Thus, the gardening activities at Moccas followed the main trend of Victorian taste –the picturesque had been tamed and privatised by respectability.

During lunch, Sir George exhibited some specimens of rare British plants found in the locality. A business meeting followed and Sir George read another paper on the formation of the Travertine – the porous rock – called tufa today, which was very much in evidence in the early Norman church. Sir George demonstrated his wide knowledge by describing the classical context for its use and then explained how he cut two wagon loads of the material from an outcrop in Depple Wood for Sir Gilbert Scott, for the restoration of the church. With rain threatening members assembled on the lawn where Lady Cornwall provided a brief history of the 17th century-sundial brought from Monnington Court. She also read and translated the five Latin mottoes inscribed on its dials.

‘Time only permitted of too brief an expression of thanks’ to Lady Cornwall – who also provided the lunch –and the members trooped-off to Depple Wood to admire the many exposures of Travertine. Their guide pointed out the masses of new rock that had been created since he had removed so much for the church. Walking through the parkland to Cross End Farm, the ivy-leaved bell-flower (*Wahlenbergia campanula*) was spotted, this being its ‘only known locality in Herefordshire’. The modern flora of Herefordshire states, in an unforgiving tone, ‘the site is now destroyed’ (Whitehead (1976), 36)!

Crossing the modern road the Deer Park was reached and further rare plants were noticed albeit the recent hot weather had virtually dried-up the Lawn Pool. There followed the usual rituals of measuring the veteran trees, including the Club Oak. Some measurements were also taken of an oriental plane and a ‘towered ash tree’, which were described as being in the grounds on the western side of the Court, reminding us of an earlier diversity of trees in the parkland under consideration in this report. The description suggests that they were between Dog Kennel Wood and Depple Wood. Although it had hardly ceased raining all day ‘the members of the Club retired to the riverbank to walk to Bredwardine Church, where another paper was given by the indefatigable Sir George. Still raining they set off over Brobury Scar, via the Monnington Walk to the spot where their transport had been left earlier in the day. It was now 5.30 p.m. and although ‘the enthusiasts, headed by the President, stuck to their work’ it was felt that time and the rain ‘prohibited a visit to Monnington Church. Once again, it seems, Moccas had displayed its multitudinous beauties and for both the antiquarians and the naturalists – and even the gardeners – a seemingly endless sequence of well-composed vignettes had passed before their eyes. Sir George must have been well-pleased with the result, but little did he or his guests realise that the world of cultural consensus that had been spawned by the Enlightenment and Romanticism in the 19th century England was about to collapse.

#### 4.12.7 The 20th century

Sir George died in 1908 and he was succeeded by his two bachelor sons, Sir Geoffrey (1869-1951) and Sir William (1871-1962). The Woolhope Club resumed its field meetings soon after the First World War and in May 1920 the Club 'motored' to the foot of Merbach Hill and walked the ridge to Arthur's Stone, from where they descended into Moccas Deer Park (*TWNFC* (1920), lxxxii, 55). However, the old generation of geologists and naturalists were gone and the new men, like Alfred Watkins (1855-1935) and George Marshall (1869-1950) were antiquarians. Modern specialisation had destroyed the broad church of cultured and well-educated amateurs that had been the strength and the glory of the old Club. They met Sir Geoffrey in the park and visited the Club Oak – without measuring it! – and quickly proceeded to the church where the Hon. Secretary, George Marshall, who had just published a paper on Norman tympanum, which mentioned the examples at Moccas, drew their attention to two Norman cross slabs, which had been specially revealed and cleaned for their inspection. Watkins took a photograph for the *Transactions*. Sir Geoffrey conducted the members through the grounds of the Court, where nothing was reported notwithstanding that Sir Geoffrey was a noted gardener, well known for his cultivation of roses and sweet peas. They crossed the bridge over the river, to reach their 'brakes' and off they went to Monnington to 'tap and jot' the information received from Watkins and Marshall into their notebooks – if they had any. The contrast with 1891 could not have been greater; the band of like-minded enthusiasts had been replaced by a coach load of tourists. Certainly, this is the impression given by the account in the *Transactions*.

The impression is given during the inter-war years that Moccas was allowed to slumber as Sir Geoffrey abandoned the Court and went to live at Newcote, where he died (*HT* 26<sup>th</sup> January 1951). Many older people, interviewed by Tom Wall, remember that public access to the Deer Park was tolerated, if not openly encouraged, and the sweet chestnuts occasionally provided a golden harvest of nuts. Meanwhile, bracken covered most of the lower park and was harvested by local farmers for bedding. However, the bachelor brothers were keen sportsmen and the vegetation on the Lawn Pool was annually fired to improve the winter duck shoot. It was probably at this time that the Meres began to be regarded as a 'duck decoy'. Specialist interest in the parkland at Moccas also seems to have declined although in October 1924 the British Mycological Society met in Hereford and arranged a number of 'Fungus Forays'. One of these included Moccas but they left no record locally of the result of their visit (*TWNFC* (1924), cii).

In May 1933 fifty three members of the Woolhope Club came to Moccas to capture past times (*TWNFC* (1933), xiv-xvii). The tone was decidedly antiquarian but the purpose of the visit was 'more especially to study the fine trees' and, as in 1891, they visited the gardens of the Court and the Wellingtonia on the lawns was measured – it had put on two inches since 1891. Other specimens were noticed, including a Black Sally (*Salix cinera*) and a hybrid oak, crossed with a cork oak. As they moved to the church Sir Geoffrey pointed out a group of three large sweet chestnuts and three sycamores, planted by his great grandfather, Sir George (1775-1835) 'who used to plant in groups of three'. After a picnic lunch in the Deer Park, which included a paper on 'Dog Doors and Cat Holes in Churches', Mr. Frank Jones 'conducted the members through the park, pointing out some of the more famous trees, of which new measurements were taken'. Several of the trees mentioned in 1870 were noticed and the Club Oak, it was found had put on just over 2 inches since 1891 but was being undermined by rabbits 'working underneath it all round'. When the tree was measured by the Club again in 2008 it had stagnated and was suffering from die-back.

On this visit most attention was paid to the castle mound, first noticed by the Rev. Sir George in the late 19th century. Rather typically, Alfred Watkins annexed this as a pre-historic marker on a 'straight track' that included Moccas Church and Snodhill Castle over in the Golden Valley. George Marshall, whilst not dismissing this, believed it was 'small Norman castle of motte and bailey type' and was the predecessor of the stone building built beside the Wye, on or close to the

site of the Court, as a result of Hugh de Fresne's crenellation license of 1293. Several maple trees (sycamores?) were noticed growing on the motte, the largest had a girth of 9 feet at five feet high.

During the Second World War the Deer Park was used as a transit camp, a Wellington bomber on a training flight crashed on the ridge and Meadow Saffron (*Colchicum autumnale*) was gathered for medicinal purposes having been eradicated elsewhere in lowland Britain for fear that it might poison livestock. It was, apparently, found to have survived in parkland, as it was avoided by deer. In 1946 the RAF air photographs provide the first clear view of the parkland since the unique O.S. survey for the large scale maps produced in the 1880s and only revised piecemeal thereafter (maps 10, 11, 12 and 15 below). Significantly, the only notable area where the extension of arable can be detected, in the study area, is to the west of Church Field, at the expense of the NE extremity of Little Park and Dog Kennel Field, but even here solitary trees survived. Across the major part of Dog Kennel Field and the Warren the parkland survived albeit the tree cover had diminished. Single trees still existed in Boat House, which remained meadow, and Depple Wood had a shaggy edge, suggesting that the fence was well back in the wood. Little had changed by the air photograph of 1963 but there had been further loss of historic trees and much of Dog Kennel Field and the Warren was managed grassland, as its even texture indicated. Dog Kennel Wood had been felled and its 80-120 year-old ash and elm, mentioned in the Forestry Commission census of 1953 had been replaced by new planting or regenerating trees. In the broadest terms there was only slightly more tree cover than today.

Moving further south, the 1946 air photographs show Little Park (see below) much as we see it today, but with the shrubbery fully planted. In 1963 there had clearly been casualties in Little Park but the mature framework survived, with no sign of the conifer plantations that exist here today. Both the 1946 and 1963 photographs show that Church Field had grown to the NW. Whereas in c.1885 the trees gradually stretched in an attenuated form towards the ha-ha, ending, perhaps 100 metres from the pleasure grounds, allowing space for a viewing zone from the lip of the ha-ha, they were now arbitrarily curtailed and well back. This broke the original connexion between parkland and pleasure ground and today an arable field still separates the two elements. The LIDAR survey is not very revealing for Moccas but ridge and furrow is indicated within the ha-ha and between the Wilderness and the public road, to the west of Park Lodge. This is probably the continuation of the ridge and furrow visible in the Lawn and was detached from the latter when the road was constructed in c.1790. Some field boundaries of small fields marked by Lambe Davies in 1772 are also clearly visible (map 13).

The 1946 photograph of the Meres shows a fringe of fairly mature trees along the public road which had been reduced in number by 1963 (map 14 and plan web page). A line of trees separates the Upper and Lower Meres, but the rushy area extends both sides of the boundary. In 1963 the Lower Meres had been planted with young willows. The Paddock is open on both photographs but with many more boundary trees in 1946. A photo of this area in 1972 indicates that the Upper Meres had recently been ploughed and castle site was clear of the maples mentioned in 1933. Willows have also been planted in the marsh below the sluice gate. The LIDAR shows no ridge and furrow here indicating that the area had always been permanent meadow or pasture.

The Census of Woodland (1953) throws a rare light on the state of the woodlands, outside the Deer Park, in the years immediately after World War II (Appendix 2). Remarkably, there had been no felling for the war effort and only the Wilderness, with its mixture of oak and elm, had been felled and the ground, it was stated, was to be put back into the Little Park. Depple Woods was well planted with ash and oaks of 60-120 years growth albeit the western end, above the springs, had a lot of scrub – elder, box, rhododendron, thorn, yew and willow – emphasising its previous recreational use. Dog Kennel Wood and Crossend Coppice similarly had oak and elm of 80-120 years growth, suggesting they had been planted either by Sir George Amyand or his son. Dog Kennel cover, however, albeit containing some oak and elm of a similar date, was now planted with European larch of 20-30 years growth. This was the only woodland in the study area

touched by conifers. The rest reflected the later planting of Sir George and his hyper-active forester, Mr. Webster.

Sir William Cornwall died in 1962 and the estate passed to his cousin Lieutenant Col. William Chester-Master, who was descended from Catherine Cornwall (1821-96), the younger sister of Sir Velters and the Rev. Sir George. The recent history of the estate is recorded by Harding and Wall (2000) and, as this volume suggests, from the 1960s there has been growing scientific interest in the Deer Park at Moccas, which in some respects led to the neglect of the domestic landscapes closer to the Court. The total experience that had been Moccas from the mid-18th century to the early 20th century has been fragmented and diminished. The scientific community is no longer interested in the antiquarian aspects of the landscape, nor does it have much concern for landscape aesthetics. From the outsiders perspective there seems to be a strong desire to create lists, tick boxes on spread sheets and a compulsion to find the rare and exotic, however microscopic. Even the measuring of trees has waned albeit given new popular credibility by the Woodland Trust's Ancient Tree Hunt. The trend is detectable in the Woolhope Transactions where the naturalists separated from the antiquarians soon after the War and founded their own Natural History Section. Visiting Moccas has become a pseudo-scientific experience and, inevitably, the focus has been, the increasingly on the celebrated Deer Park.

In August 1974 after a winter lecture discussing deer, led the Club on a field meeting during the summer, to observe the deer in their habitat. Three years later the Section was back listing the Coleoptera, Diptera and Hymenoptera and in 2004 it was beetles and lichens that were the focus of their study (*TWNFC* (1994), 144; (2004), 135). To some extent the Registration of the broader landscape by English Heritage in 1986 as a II\* Park and Garden of Special Historic Interest has helped to overcome the separation of the Deer Park from the estate immediately around the Court and restore the cultural unity. For those still in search of the picturesque, the walk from the Court, through Little Park, into the Deer Park and up onto the Dorstone Ridge; returning via the Lawn Pool, Depple Wood, under the Scar (below) and through Dog Kennel Wood, remains one of the most satisfying landscape experiences in England.



## **PART II: ANALYSIS OF LANDSCAPE DEVELOPMENT**

### **5 Overview of the Development and Condition of Parkland Elements**

#### **5.1 Introduction.**

The following section outlines a number of conservation management policies for the Moccas Court parkland set within the context of the RPG. A summary of the vision for the area as a whole is followed by a series of objectives and overall recommendations for each aspect of the park's significance. This underpins the Conservation, Restoration and Management Proposals which follow.

#### **5.2 Summary- character area map and landscape design evaluation**

The following are summary descriptions of the six main Character Areas at Moccas, with an outline of their history, a summary of their present state and condition. The landscape vision for their future management and recommendations are in section 8 below.

The six main Character Areas at Moccas are as follows and are shown in detail on map 2b.

- Area A: Monnington Walk and north of the river
- Area B: Moccas Court and Church
- Area C: Moccas Court parkland – the present study area
- Area D: The Meres, the Paddock and Forsythes - the present study area
- Area E: The Deer Park – NNR
- Area F: Woodland Trust Land.

Only the character areas within the plan area, that is the Moccas Court parkland C area D, will be dealt with in detail but a summary will be provided for the others.

#### **5.3 Area A: Monnington Walk and North of the river**

The broad avenue of yews and Scots pines, known as Monnington Walk, runs NW from Monnington Court for about a mile, gradually rising to the Scar - 'a red sandstone precipice beetling over the winds of the Wye' (Kilvert) - where there are ravishing views of the 'wanton meanderings' of the river and the parkland of Moccas Court. The Walk was clearly designed to embrace the Scar which has been enhanced by the planting of more pines and sweet chestnuts – the latter already 'considerably past their prime' when the Woolhope Club noticed them in 1870 (TWNFC (1870), p. 312). Time seems to have stood still for these ancient relics and although one or two have passed away, many still stand as gaunt fossils amidst the new woodland, still vigorous in parts but doing what sweet chestnuts do best –dying with sublime beauty. Today the last two hundred yards of the Walk runs out in Monnington Coppice but the early maps, including J. Bach 1771 (figure below) show that it was once quite distinct, running beside the wood.



From the map of the Monnington Estate by J. Bach 1771

The Woolhope Club believed the Walk provided a formal approach to Monnington Court from the ancient ford at Bredwardine, but since it goes no further than the Scar this seems unlikely. Robinson says that Scots pines were often planted by adherents of the Stuart cause in the 17th century. Baron Price of Foxley, for example, is said to have planted 'Scottish firs' on Ladylift for this reason. The Woolhope Club in 1870 recorded a pine which had recently been blown down with 240 rings and thus concluded that it had been planted in c.1630. The 1630's, however, appears a little early to dedicate a walk to the Stuarts as there were few signs that Charles I's dynasty was in difficulty. On the other hand, avenues, usually sweet chestnut, were certainly being planted at this time as a gesture towards Italianate formality. A more likely date would be the 1650s, during the Interregnum when Thomas Tomkyns, the lord of Monnington, was beginning to recover from the heavy fines he had been forced to pay for his support of the Stuarts. The Walk may have been a clandestine signal of support for the 'King over the seas' (Charles II). He also refurbished the Court and inscribed the screen in the hall with a loyalist inscription used in the 1630's at Dore Abbey and elsewhere.

The choice of Scots pines mixed with yews was certainly an unusual choice for an avenue – the yew especially made grazing difficult – and this makes a political interpretation even more plausible. When the Walk passed into the hands of Sir George Cornwall of Moccas with the Monnington estate in 1775, Monnington Coppice and the Scar received a good deal of attention. The integrity of the Walk was maintained and Sir George's account book (HRO, J56/IV/E) refers to the planting of the top of the Walk with sweet chestnut – possibly some of those noticed above.

In 1778 the scenic possibilities of the Scar were also noticed by Capability Brown, whose improvement plan marks serpentine walks through the woodland. James Wathen's sketch (and print) of 1788 shows new planting upon the Scar. Further planting took place between 1803 and 07 and the following year Sir George 'planted up Monnington Walk to join Scarfield'. But when the Woolhope Club visited it a century later they found the trees 'very picturesque' and failed to detect any younger trees. The planting was so intensive up here that when the surveyor, Wainwright, carried out a valuation of the Monnington estate in 1800 he complained about the difficulty in measuring the '14 acres at the top of the walk'. Over 9000 more trees were planted on the Scar between 1812 and 1813 and in the following year a further 500 were planted on Monnington lawn.

In April 1875 Francis Kilvert woke up at Monnington Court to find 'the early morning sunshine glinted upon the red boles of the gigantic Scotch firs in Monnington Walk'. However, we can probably assume that they were beginning to break up and when the Woolhope Club made a final visit in 1933, the secretary noticed 'that since their last visit in 1920 many of the fine-Scotch firs had died where they stood'.

Today the walk still contains some very venerable pines. Some of these are tall erect trees, badly damaged by wind but still vigorous with open crowns. Most emphatically, they have bright orange bark – just as Kilvert noticed – formed into a tortoise shell pattern, which, unlike the Scots pine, begins at the base of the tree. These seem to be Maritime pines (*Pinus pinaster*) which according to Allen Mitchell arrived before 1600. He also notes that two of the oldest can be found in Herefordshire – at Garnons and Holme Lacy (*The Trees of Britain and Northern Europe* (1982), pp. 95, 268). There are also several venerable Scots pine with orange bark amidst the high branches, but with less striking colour and patterning on the trunk. Since the 1930's there has been considerable infilling, possibly with Austrian pine (*Pinus nigra* var. *nigra*) which has been much planted since the Victorian era as a substitute for Scots pine albeit 'dark and scruffy' (Mitchell). They seem unlikely to achieve the aesthetic climax of their ancient neighbours. The yews, as might be expected, are vigorous and burgeoning albeit the adjoining farmer has given some of the trees a lop-sided appearance by cutting the foliage back to his boundary. Some of them have also succumbed to drought and disease in the recent past.

In the past the Scar has provided an important viewpoint for admiring the Moccas demesne and was used by Wathen and by Sandby as the station for their prospects in the late 18th century. The density of woodland makes it difficult to find a safe place from which to enjoy the view. In reverse, the view from within the estate was even more important, as we have stressed. In c.1835 the trustees of the estate, following the younger Sir George's death, were called upon to cut the woods back from 'Sir John's cottage' to open up the view to the Scar.

#### **5.4 Area B: Moccas Court and Church**

Both the Court and the church are grade I listed buildings and are surrounded by the stables, Home Farm and other estate buildings – which are variously listed grade II and II\*. Within the curtilage of these listed buildings and defined by the ha-ha of 1786 are the extensive pleasure grounds, which include the remains of the early Georgian yew-walk beside the river, which ends with the prospect of the Scar to the west of the Court. There is much native and exotic planting, which was admired by the Woolhope Club in 1891. Further to the east there is a Chinese-style footbridge crossing a dingle, planted as a fernery and further on, the walled garden and adjoining shrubberies. In the dingle there are the remains of an ice house. Since the Court was originally a medieval building, the site of the old house to the east of the present Court has archaeological interest. Similarly, the church has Dark Age antecedents and once shared its extensive graveyard with a second larger church. Unstratified burials have been found in the arable field to the south-west.

#### **5.5 Area C: Moccas Court Parkland**

##### **5.5.1 Area Description**

Today the parkland is restricted to Little Park (8609 & 2930) which is managed as wood-pasture and is predominantly planted with oak including an avenue either side of the now abandoned west drive to the court. There are other species including field maple, ash, one small leaved lime and the occasional holly and thorn. As well as some newly planted trees (oak and sweet chestnut) in individual enclosures, a new shrubbery of mixed native broadleaves has been planted to separate the paddock close to the road from Little Park. Close to boundary with the Warren (1163) there are a number of well-proportioned sessile oaks (*Quercus petraea*). Within Little Park there are several discrete pockets of woodland and recent plantation.

The largest wood is Depple Wood (8555, 1785 & 1501), which occupies the steep slopes above the Wye. It contains oak and ash standards with a varied under-storey of box, privet, rhododendron, yew and holly. A well-made footpath enters the wood from the north and south but is interrupted by copious springs, which render it impassable. At the north end there is an area of conifers, sheltering a pheasant rearing station. Other woods include three coniferous plantations



(8623, 9728 & 2231) in the Little Park, which have also been used for pheasant rearing. Dog Kennel Wood (4876) to the west of the fishponds is a young plantation of ash, again with a diverse under-storey. A footpath runs through it into the Warren Field. Crossend Coppice (6706) is a young beech plantation whilst Kennel Cover (8687 & 8483) is neglected mixed woodland. The majority of the land within the area is used for arable, including the former meadows (2522 & 4192) close to the Wye, opposite the Scar. With the exception of the fields close to the ha-ha (Airstrip, 5110 & Church Field 4632) the arable fields on the west of the area (the Warren, 1163, Boat House, 2522, River 4192 & Dog Kennel 3661) all contain scattered veteran trees, indication their previous incarnation as parkland.

## 5.5.2 Historical Development

### Introduction

The area of the Moccas estate under consideration in this plan achieved its apogee towards the end of the life of Sir George Cornwall (1748-1819) when the *ferme orneé*, developed in the early 18th century, gradually gave way to a more conventional park, planted in the picturesque manner, where individual trees gradually coalesced into loose clumps, but just as easily dissolved into open glades. Nevertheless, as arable fields still survived to the SE of the pleasure grounds, close to the church, and above southern end of Depple Wood and moreover, there were also extensive meadows beside the Wye, it is clear that Moccas never had a landscape park in the manner generally proposed by Brown and Repton. It was, however, very similar to the ‘agrarian picturesque’ promoted by Uvedale Price at Foxley, which, as we have explained above (4.7.2.) evolved naturally from the *ferme orneé* being a landscape of both profit and pleasure. The 25” O.S. plan of c.1885 provides the best guide to the character of the park Sir George left when he died in 1819. By c.1885 the trees he had planted had achieved sufficient maturity to be noticed by the O.S. surveyors. Some of the trees, e.g. the Sweet Chestnuts and oaks may have survived from an earlier period, see section 5.5.3.2 below.

#### 5.5.2.1 Little Park – 8609, 8623, 9728, 2231, 2930

The west approach to the Court appears on Brown’s plan of 1778 but the present alignment is slightly different. It presumably followed the building of the Keepers House in 1787 and the creation of the public road from Bredwardine in c.1790. The Little Park is a much earlier element in the landscape and dates from a period when the Deer Park was a remote feature on Dorstone Hill. It was a place where the deer were displayed and probably killed. An open space, below the ‘wilderness’, is marked on both the 1772 survey and Brown’s plan and indicates the natural amphitheatre that can be found here today.

The stone-lined pond (photo below) was fed by the underground conduit from the Meres and, no doubt, provided water during the disembowelment of the deer. Sir George Cornwall replanted the Little Park in 1782 and levelling was carried out in 1786.



Stone wall abutment to pond in Little Park fed by the culvert (right) that runs from the Meres to the Wye. See map 18 below for the full course of the culvert. Note the modern drains that run into the culvert at this point. See section 9.1 for recommendations.

In this period the Little Park was regularly mowed. The avenue arrived in 1845. The presence of bluebells in the recent plantations within Little Parks indicates that the grassland was much more rich species than today.

#### 5.5.2.2. Depple Wood - 8555, 1785, 1501

This was probably a piece of early woodland and has an indicative flora including patches of Bluebells and Dogs Mercury. Sir George Cornwall appears to have developed it as a picturesque walk to Bredwardine (1795) but had already been replanting here in 1787. An upper walk is referred to in 1779 and 1800, which probably enjoyed the views across the river to Bredwardine, and a lower walk of a more intimate nature, threading through the wood and more characteristic of the reflective sensibilities of the time. Two potential viewing sites –looking towards Brobury - exist – one mapped by Debois (map 19) and another at the western end of the wood above the conduit outfall and outside the area defined by this plan. The present view over Brobury from the highest point on the Warren is below:



Brown also noticed the potential of the wood for recreational use and marks a footpath entering its northern end from the Warren. The lower path is marked on the c.1885 O.S. map together with a higher path entering the woodland from the Sweet Chestnut grove on the southern boundary of the Warren and West Field. These paths are present today but interrupted by the copious springs that emerge in the wood, below West Field.

The Woolhope Club during its visit in 1870 referred to Depple as a ‘hanging wood of Box’. Albeit potentially native to Britain, Box is not indigenous to Herefordshire and it is likely that

this, along with Privet, Rhododendron, Yew and Holly were all planted in c.1800 to create cover, designed to direct the walkers' attention to particular views and features, such as the springs and pools noticed on the c.1885 map. Among the trees planted here are Horse Chestnut and Wild Cherry, both floristic trees designed to enhance the experience. The climax of the walk was undoubtedly the cascade at the southern end of the wood, which was managed to create white-water enabling it to be heard before it was seen.

The springs in the Depple wood are calcareous and deposit tufa (travertine) which was used in the restoration of the parish church in the late 19th century. The walk through the woods was regularly used by Francis Kilvert, who often returned home to Bredwardine in the dark. The wood seems to have been hedged and ditched, presumably to prevent the cattle grazing on the Warren from straying into the woodland. In 1784 a 'lodge' is mentioned at Depple, which was being 'cleaned'.

In recent times Depple Wood has been expanded eastward by a modern plantation at the expense of the parkland see map 11.

### **5.5.2.3. The Warren - 1163**

This appears to have been planted as parkland between 1779 and 1788. The process started in 1782 when the ground was drained and Depple Wood ditched. Draining continued for the next two decades and in 1797 women were employed to pick-up stones in West Field to line the drains on the Warren. Earlier the northern end of the Warren was part of the Great Ham, suggesting that it was originally open pasture. In 1794 the newly planted trees were large enough for them to be coppiced but four years later the brow of the Warren was fenced and the ground below it was ploughed and planted with more trees. In 1812-13 375 holes were dug for planting single trees. In 1806 Sir George made a list of grass seeds he intended to sow in the Warren, which included rye grass, cocksfoot, foxtail, dogs-tail, white clover, trefoil and burnet. Subsequently, the grassland under the trees was weeded and mowed.

Since warrens for rabbits were contrived man-made features – 'coney gaers' (rabbit castles) elsewhere in West Herefordshire – the feature marked on the 1772 map and identified by Debois as 'Ham House', was probably associated with the warren. On the other hand it could have been the 'lodge', mentioned at Depple in 1784. Formal warrens appear to have been abandoned in the early 18th century when rabbits began to proliferate in the wild. To disguise its presence it became the centre of a thick plantation on the Brown plan of 1778. From the evidence of the c.1885 O.S. map, Sir George's planting was more scattered but coalesced in a picturesque manner on the high point of the Warren. Similarly, where the ground dropped away to Little Ham or Boat House, trees – Beech and Sweet Chestnut were measured by the Woolhope Club - were planted to make a connexion between Dog Kennel Wood and Depple Wood. From within this loose grove, on the ridge above Boat House, there were fine views of the Scar. Whether you were coming out of Dog Kennel Wood or climbing up the field path beside Depple Wood, the ravishing views would have taken the walker/rider by surprise.

Much of the parkland planting on the highest point of The Warren has been lost in the expansion of Depple Wood, which has been augmented here with coniferous planting and there is no longer any connexion with Dog Kennel Wood. The map 11 sequence includes the Brown 'intended alterations map' of 1778 and a contour map showing how the high point on the Warren fairly closely coincides with the clump he depicted, see map 11 centre right. Interestingly this clump persisted until well after 1946.

### **5.5.2.4. The Boat House / River 16 Field – 2522, 4192**

On the c.1885 O.S. map Depple Wood continues as a narrow fringe of wood land – two trees deep – along the river side until the field levels out to a shingle beach. Sir George probably planted the

widely spaced individual trees, and four or five small clumps, which are scattered unevenly across the meadowland. In 1870 Dr. Bull, the Woolhope Club 'commissioner' noticed the 'many old pollard oaks in the Wye-side meadows' which he thought were 'grand objects of interest'. None of these impinged upon the view from the Court towards the Scar. In 1772 the field was called 'New Meadow' although the alternative term 'Ham' suggests a more informal grazing regime. In 1790 labourers were working on the 'Boat walk by the river', which implies that the walk from the pleasure grounds and over the fishponds was being formalised. In 1799 the hedges in 'Boathouse Mead' were being renewed. The O.S. plan suggests that the Willows and Alder dominating the riverside today were absent in the past - allowing more of the river, which sparkles as it runs over the shallows - to be seen from the Court or nearby. The pastoral setting, emphasised in the reverse view from the Scar, depicted in the sketches by Wathen (c.1788) and Sandby (c.1775) reinforce the idea of the *ferme ornée* or the agrarian picturesque in contrast to the sublime presence of the Scar. Even today the juxtaposition of contrasting landscape experiences is breath-taking.

#### **5.5.2.5. Dog Kennel Wood - 4876**

Sir George planted this wood in 1794 to enhance the interest of the walk from the pleasure grounds to Depple Wood and around the river bend. The site chosen was on a bank above the river meadows, which also contained a spring line. This water source almost certainly supplied the cold bath, mentioned in the accounts in 1782. The 1772 Lambe Davies plan shows a small building below the lowest pond in River Field (4192). The later c.1885 O.S. plan also shows a narrow pond defining the NW corner of Dog Kennel Wood, with another small building adjoining it. The situation is sheltered and discreet and was probably the site of the old Dog Kennels. A scatter of early bricks marks the spot today. On the same plan the water outlet is half way along the northern boundary of the wood and runs directly to the river.

Today the wood has a diverse flora, including snowdrops, which must have been introduced. In the 1780s it was regularly mowed. This suggests that the new wood was probably an extension to the pleasure grounds, made more delightful by the access route crossing over a string of three fishponds. The path through the wood is mentioned 1794. Conifers were present in the wood in c.1885 and like the holly and box also present today, they were introduced to enhance the effect of light and shade. It is possible that Repton provided the advice for this new element in the landscape but it is also the sort of conceit likely to be recommended by Price and Knight. Alternatively, a similar shrubbery was nurtured by Elizabeth Greenly at Titley Court and its bijou character, emphasising small scale incidents, texture and colour, suggests that it was designed to satisfy the romantic sensibilities of the George Cornwall's daughters.

#### **5.5.2.6. The Fish Ponds**

The fish ponds probably existed in an earlier landscape but as a linear feature stretching along the bank that was later to become Dog Kennel Wood, parallel with the river. The 1772 survey shows a pool in the SE corner of the Warren, close to the site of the later bath house. With the creation of the ha-ha sometime in the 1780s, the accompanying ditch on the west side of the pleasure grounds began to function as a drainage channel, which helped to fill the new string of fishponds. The 'Old Kennel Pools' were cleared and their dams re-pointed in 1791. Today most of the water comes from a land-drain under Dog Kennel Field, which may also have been the result of one of Sir George's extensive drainage schemes. Thus, much of the water that formerly percolated out of the bank below dog Kennel Wood now found itself directed to the fish ponds. Although not immediately visible from the west lawns of the Court, the first sight of the water would have been a pleasurable experience, enticing the observer to pass through the wicket gate, across the causeway and into the secret world of the shrubbery - a sort of Mansfield Park experience for the young women of the Cornwall household.

#### **5.5.2.7. Dog Kennel Field – 3661**

This has been taken out of the Warren in recent times and was included in the parkland in c.1885 and provided a connection with the Little Park. Close to the fishponds there remains an area of this parkland planted with several veteran Oaks and Sweet Chestnuts. As the ground rises to a natural knoll here it was a natural area for planting but now the trees are under siege from the plough and the chain saw. The full extent of the planting can be seen on the c.1885 O.S. map but the area was already integrated into the park on the OS Surveyors' Drawing of 1815. The grove acted as a counterpoise to the planting within the pleasure grounds and provided shelter for the shrubbery and fish ponds.

#### **5.5.2.8. Church Field – 4632**

This is an amalgam of Little Church Field and Great Church Field represented on the 1772 survey. They were arable fields then and are today but in the early 19th century they were annexed to the park, which merged with the Little Park at its west end and the parkland ran right up to the ha-ha. The West Approach runs along the NW boundary; the ha-ha is on the NE, which cuts through the west end of the churchyard, whilst on the south there is the disused Church Drive, separating Church Field from Airfield.

#### **5.5.2.9. Airfield – 5110**

This arable field equates with 'Thirteen Acres' in 1772. The field remained arable in c.1885. The new hedgerow along the boundary with Church Field addresses the prairie-like character of this portion of the study area. Equally, the new planting along the east and SE boundary, plus the small ponds by Brick Kiln Wood all create diversity and intricacy of land-form and bode well for future enhancement.

#### **5.5.2.10. Crossend Coppice – 6706**

This appears as woodland on the 1772 survey. On the c.1885 O.S. map it has been inter-planted with conifers. It was 100% oak just before felling in 1953. It serves as a shelter belt for the NW end of Little Park, where the ground drops steeply towards the stone-lined pond. It is balanced by the Kennel Cover, which arrived on the site in c.1787. The trees in the coppice have been high pruned and the shrub layer severely cut back so that it is no longer providing useful cover for the shoot. It has a fine display of bluebells below.



Crossend Coppice. Mapped as woodland in 1772, recorded as an oak wood in the 1953 census of woods and converted to a plantation of Beech with Larch in the mid 1960s.

### 5.5.2.11. Kennel Cover – 8687, 8483

This small woodland was planted in c.1787 to provide a ‘cover’ for the kennels, removed from close proximity to the Court, on the site of Dog Kennel Wood. The culvert from the Meres crosses the wood (map 18) and may have fed a pond here, associated with the kennels. This is considered in the 2003 hydrological report by Kevin Gilman ‘Hydrology of Moccas Park’ a copy of which is on the report web page.

### 5.5.3 The Area C Today – archaeology, trees and ecology

#### 5.5.3.1 Archaeology

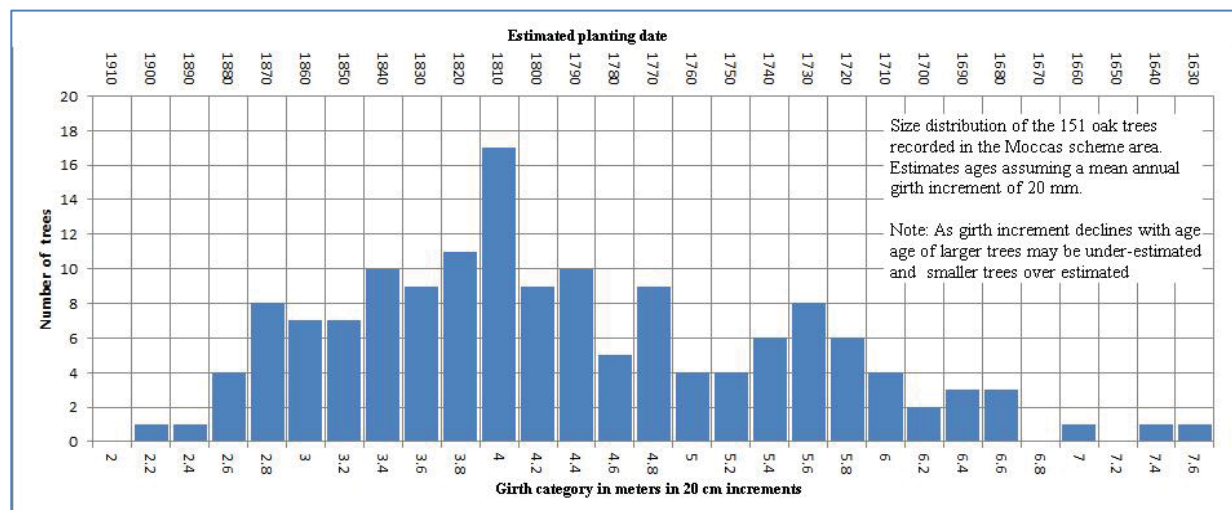
The archaeology of Area C has been surveyed by Hereford Archaeology and reviewed for this report. A full account appears in the report ‘An Archaeological Reconnaissance Survey of Moccas Estate’ by Tim Hoverd 2003 which is on the report web page and the database of sites in Appendix 7. Particular attention is drawn to the extended curtilage of the parish church; the ridge and furrow and hollow-ways found in Little Park; the culvert that runs across Little Park and feeds the stone pond, as well as the route of the ‘canal’ leet that preceded it; the putative viewing platform in Little Park; the fishponds, which may be medieval; the sites of the old dog kennel and the Georgian bath house adjoining Dog Kennel Wood and finally, the carriage rides/formal paths that radiated from the Court, marked with the viewpoints on the Dubois view point map.

#### 5.5.3.2 Parkland trees (including area D)

More detail regarding the trees of the plan area is to be found in Appendix 3.

In summary, 166 mature, veteran and notable trees were recorded within the plan area C having a girth exceeding 2 meters and 37 in area D giving a total of 203 trees for the whole plan area. This works out at a mean average density of 1.8 trees per hectares over the 111 hectares of the plan area. 151 were oak, 19 sweet chestnut, 6 horse chestnut, 4 ash, 3 beech and 3 field maple. Other tree species recorded included alder, sycamore, small leaved lime and turkey oak. In addition there is small but significant population of smaller parkland trees such as holly and hawthorn. The tree with the largest girth was a sweet chestnut of 8.6 meters girths and largest oak 7.6 meters.

The girth of each tree was measured with a tape and tape reading recorded photographically. Where the trunk was inaccessible or otherwise difficult to place a tape around the girth was calculated from the calibrated image of the trunk. One advantage of a calibrated image is where a trunk is heavily burred or decayed rendering a tape girth measurement less meaning full. In the girth histogram below note how the girths of the oaks peak at 4.0 meters with an estimated planted year of around 1810 the height of Webster’s planting regime (see section 4.11.1 above). There is also an older secondary peak around 5.6 meters girth or an estimated planting date around 1730 during the time of Velters Cornwall.



Tree species	number
oak	151
sweet chestnut	19
horse chestnut	6
ash	4
beech	3
field maple	3
alder	2
lime	1
sycamore	1
Turkey oak	1
Total	203



There has been significant die back of mature oak trees in the recent years. We note that some oaks with full crowns in the 2000 and 2009 air photos are dead or dying now. One oak, presently with a full crown, has clear signs of Acute Oak Decline (see 7.3 below)



The digital photographs that form part of the tree survey database can be used to monitor and measure the future growth and development of all trees in the park. Image files from digital cameras always come tagged with data about each photograph including the precise time which is helpful for future monitoring as well as associating photographs with GPS locations since both are ‘time stamped’, see Appendix 3 section 4.

Some recent digital camera models and mobile devices already have GPS in-built so their photographic images will be tagged for both time and location making it especially easy to record trees, views, habitats etc. with precision. Using these techniques in combination with GIS, database and available aerial photography will make monitoring the status of the trees throughout the park straight forward and routine.

### **5.5.3.3 Ecology**

A full Phase 1 ecological survey of Moccas Court including Area C was done by John Thompson for Debois Landscape Survey Group and incorporated into the 2003 landscape report. A review has been made in 2013 with the full account in Appendix 4.

Of particular note is the change of land use in Dog Kennel Field (3661) from semi-improved grassland to arable. This has placed additional stress on the veteran trees that have had all their lower limbs and many of the upper limbs severely pruned, are currently being ploughed under the tree canopies, often very close to the trunks and with regular trimming of young growth on the lower trunks that is being stimulated in response to this management.

There are many veteran trees in other fields and within the woodlands in Area C (see 5.5.3.2 above) some of which are similarly vulnerable to farming and forestry operations and which are an important ecological feature of Moccas parkland. The number, diversity of species, their proximity to the River Wye SSSI and to the deer park NNR at Moccas Park make these an extremely valuable ecological resource with Herefordshire and the West Midlands.

Also notable is the continued presence of invasive weeds associated with the banks of the River Wye including Himalayan balsam, Japanese knotweed and giant hogweed. Recommendations for control are given in sections 9.3 and 9.4 below.

The recent planting of new specimen trees in Little Park and Airfield and the restoration of hedgerows around Brick Kiln Field in the Countryside Stewardship Scheme has enhanced the ecological features in this area of the parkland.

## **5.6 Area D: The Meres and the Paddock**

### **5.6.1 Area Description**

Today the Meres and the Paddock have been added to the Deer Park. The pale across the SE corner of the Park has been removed and, similarly, the stone wall on NE side of the Paddock. Until recently, the Lower Meres was planted with willow but apart from a row of pollards these have now been removed. The regular pattern of watercourses, that is the key feature of the Lower Meres which contains species rich grassland, wet meadow and ditch flora, augmenting the NNR.

The water system no longer operates as the sluice gate at the west end of the channels, at the entrance to the culvert, no longer operates. The east end of the Lower Meres (0947) has a number of veteran trees, which stretch up into the Upper Meres. Otherwise the Meres is lacking even the few trees marked on the early 6 inch maps. The west end of the Upper Meres (8539) contains the site of the castle, which has been seriously damaged by ploughing. The bailey is now separated from the site of the motte by an enclosure containing young oaks and sweet chestnuts. Above the castle is the Paddock. Apart from on the NW side this entirely walled, although ruinous in a number of places.

### **5.6.2 History and Development**

#### **5.6.2.1 The Meres – 9351**

Note that this field number replaces 8539, 0246, 0947, 0753, 9350, 8560, 9465 & 7566.

Until recent times the Meres was excluded from the Deer Park and generations of Cornewalles, and even the Vaughans, seemed to have spent a good deal of time trying to drain it and improve the grassland. The Upper Meres seems to have been the site of the 12th-century motte and bailey castle; the owners of which presumably took comfort in the watery waste that secured the northern and eastern approaches to their stronghold. Computer models derived from LIDAR



suggest that before draining the castle would have been provided with significant water-defences, see map 17 and the archaeological assessment Appendix 6.

The earliest attempt at draining the area is marked by the ‘canal’, which carried the water away from the site via the Kennel Covert and through the ‘wilderness’ at the southern end of the Little Park. Subsequently an underground culvert was constructed, which took the water level down a further metre or so and keeps it drained today. This was provided with a sluice, controlling the exit from the Lower Meres, suggesting that at certain times of the year the water-level was raised.



Surprisingly, there is no sign in the copious accounts kept by Sir George of any work relating either to the canal or the culvert, although ‘draining’ is a ubiquitous feature of every set of annual accounts, with the area sometimes unspecified. Since the culvert creates an impressive cascade at the southern end of Depple Wood, an 18th century origin is implicit. On the other hand, on its way to Depple Wood the culvert fed the stone-lined water-hole in the Little Park, which could have been a focus for deer handling activities at an earlier date. This would suggest that the water was controlled in the

Meres as early as the 17th century, before the Cornwall’s acquired the estate.

The Meres is mentioned in a court case of 1691 where Edward Cornwall claims that the Meres was part of a marriage settlement made upon his wife by her first husband, Henry Vaughan. There is no indication in the proceedings of the case of how the Meres was managed.



The network of drainage channels stretching eastwards up the Lower Meres into the area known recently as the Decoy, suggests the final campaign of draining, associated with the stone-lined culvert, was carried out with some precision, with the main channel running west to east with regular branches to drain the sumps at the east end. Something similar seems to have stretched to the west. There are annual references to the Meres in Sir George’s accounts which relate to clearing the ditches in the winter, paid for by the perch. On one occasion in 1801 the

channels are referred to as ‘water furrows’ – a significant phrase. In the late summer the area was mowed. The Upper Meres was usually mowed earlier e.g. in July 1793 the ‘hardheads’ were mowed, presumably to stop the weed seeding. The Lower Meres was hedged and paled, implying that access by animals was controlled. It is difficult not to conclude that the Lower Meres was managed as a water meadow, providing early grazing for cattle or horses and a hay crop later in the summer. In earlier centuries, meadow was the most valuable form of agricultural land.

The raising of the water-level in the Meres may have augmented the hay crop by providing early grazing but it may also have attracted wildfowl, providing sport and varied meat for the table. Alternatively, albeit difficult to prove, the raised water-level may have been done for aesthetic reasons.

### 5.6.2.2 The Great Paddock – 7918

Along with the Meres, the Great Paddock dates from an earlier era than the immediate setting of the 18<sup>th</sup> century Court, which figured so strongly in the documentation created by Sir George. We

have placed this in a chivalric landscape of the 17th century (4.6.1 above) and like the waterworks in the Meres, it may pre-date the Cornwall occupancy or be associated with Edward Cornwall or his son and grandson, both called Henry. It figures in the legal dispute over Frances Cornwall's jointure in 1691 where it is called the 'Horse Close'. The building of the stone wall around the Paddock, like the draining of the Meres, was a great and costly undertaking.

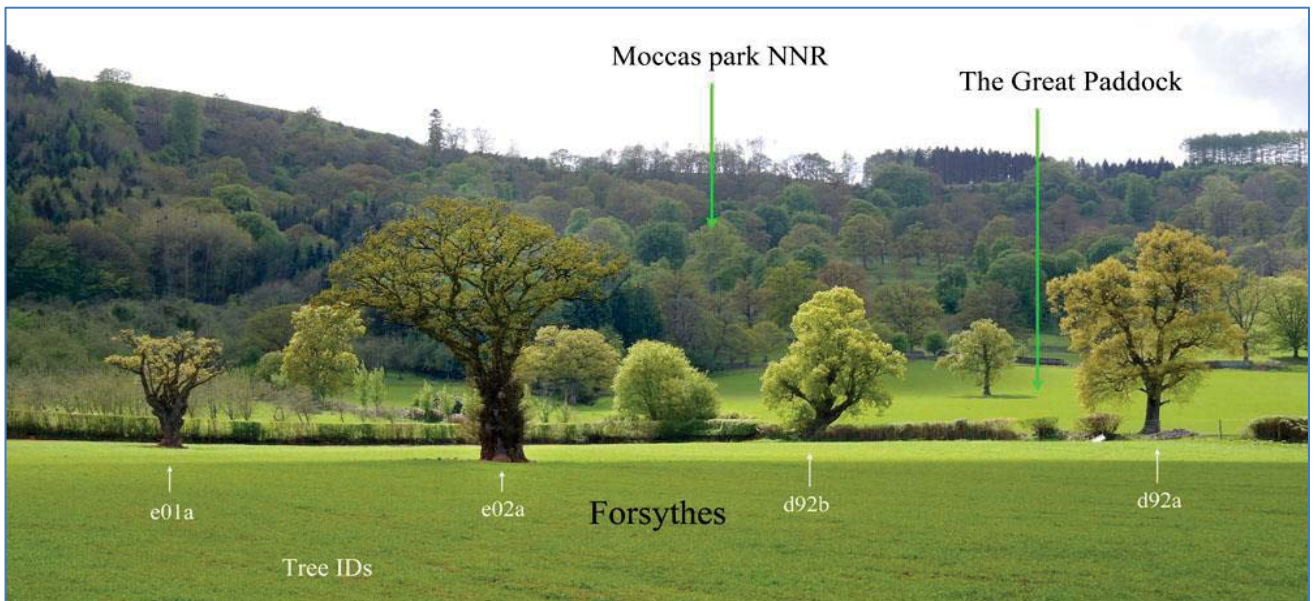


The Great Paddock from the Meres looking south and up towards Moccas Park ridge

The Great Paddock was originally closed to the Deer Park and a close investigation of the west end of the Paddock, where the wall has been removed, reveals the stone foundations. On the north side of the enclosure, where the wall bounds the park, it is nine feet high, including the coping. It was intended to keep the deer out. On the east and south side the wall is a mere four or five feet high, perhaps sufficient to prevent the horses corralled there from jumping out. Compared with the Meres, there are very few references to the Paddock in Sir George's accounts. There was certainly a building, which was thatched in 1793.

**5.6.2.3 Forsythes, the arable field adjoining The Meres - 1435**

This was three discrete fields in 1772 and remained so until the 1970s. It is now one arable field and visually a poor accompaniment to the historic landscapes to the west. There are however a number of significant veteran oaks in the hedgerows and two within the arable field itself.



Forsythes field looking SW to the top of the park with the Great Paddock in middle distance

### 5.6.3 The Area D Today – archaeology, trees and ecology

#### 5.6.3.1 Archaeology

Both the Meres and the Paddock have a significant role to play in understanding and interpreting the historic landscape at Moccas. Hence for this study we have commissioned a geophysical survey of the castle site and the water system (Appendix 5 and 6). The place of the motte and bailey castle – if it exists - in the early history of Moccas will help to unravel the early history of the site and its relationship with the later Court, which also has claims as a castle site. The geophysical survey of the castle site shows that it is a more complex and extensive structure than once thought Appendix 5.

The water system, running in a culvert right across the estate to form an ornamental spout in Depple Wood is equally intriguing. Did it control 17th century water meadows? Did it fill an ornamental pond in the Little Park and later water the dogs in the nearby kennels? Did it flood an area used as a duck decoy? Was it simply a means of drainage which had an aesthetic bonus when it deposited the water in Depple Wood? The Paddock is equally interesting as an archaeological puzzle. Why undertake such a massive building project using a scarce and expensive material? Why were the horses so prized? An attempt at answering this question is found in the Appendix 1 along with intriguing insights supplied by the archaeology survey and assessment in Appendix 7.

#### 5.6.3.2 Veteran trees

Area D has a significant number of mature and veteran trees which are an important landscape and ecological adjunct to the NNR even though not at the density and number of the Little Parks. We recorded 37 mature and veteran trees in the Meres, Paddock and Forsythes including 26 oaks six of which are over 6 meters in girth, see Appendix 3 section 6.

#### 5.6.3.3 Ecology

The Meres and the Paddock were not included in the original surveys by John Thompson for the 2003 Debois survey. The full survey results from 2013 are included in the Ecological Survey in Appendix 3.

Whilst the grassland of the Paddocks and some of the Meres was reseeded relatively recently (c2000) following arable and root cropping in the 1990s, this grassland is the most species rich of all the grassland in the area of Moccas Court covered by this plan. Furthermore it forms a mosaic with wetland, ditches, fen, scrub and veteran trees and is adjacent to Moccas Park NNR. Its proximity to the Flitts NNR at Blakemere also contributes to its importance as an ecological area of regional significance within the West Midlands (Saul Herbert, NE NNR Warden, pers comm.).



The Meres looking SE towards Westbury Wood with the main channel in foreground

## 5.7 Area E: The Deer Park – the National Nature Reserve

The Deer Park has received a great deal of attention in recent years and is deservedly the subject of a monograph by Harding and Wall (2000) which explores its multi-faceted importance. The history of the park is discussed there and is summarised in this report (pp. 35-68). The park today covers c.138 ha and rises steeply from the Lawns c.75m to Dorstone Hill 275m. The Park has been famous from, at least since the late 18th century, for its veteran trees – objects even today of iconic adulation. Fortunately as one famous tree declines, there is always another to take its place. Albeit there are still blocks of commercial forestry, there are many trees dating from the late 17th century, especially oaks and sweet chestnuts and, at least since the late 18th century, a succession of planting has been maintained. Many of the trees that give the park its character were planted by Sir George Cornwall, either side of 1800. He planted single trees and his account books record payments for digging the holes. He also defined the southern boundary of the park by building a stone wall in c.1785 and made the Lawn a permanent part of the Park. There always appears to have been a herd of deer, which were provided with a thatched deer house for shelter. In 1814 pheasants, hares and grouse were said to be abundant in the park. Cattle and sheep were allowed in the park in winter but a cut of grass was taken in the late summer and ‘fern’ (bracken) harvested for winter bedding. Drainage was carried out in the vicinity of the Lawn Pool in 1773 and in 1784-5 there was a campaign to eradicate ant hills – c4500 hills were cut down. Stone was extracted from quarries in the park and lime was burnt there. According to the English Heritage registration details 1998 ‘It is considered one of the five most important areas of relict wood pasture in England’ and along with the other grounds surrounding the Court it is a II\* site in the Register of Historic Parks and Gardens.

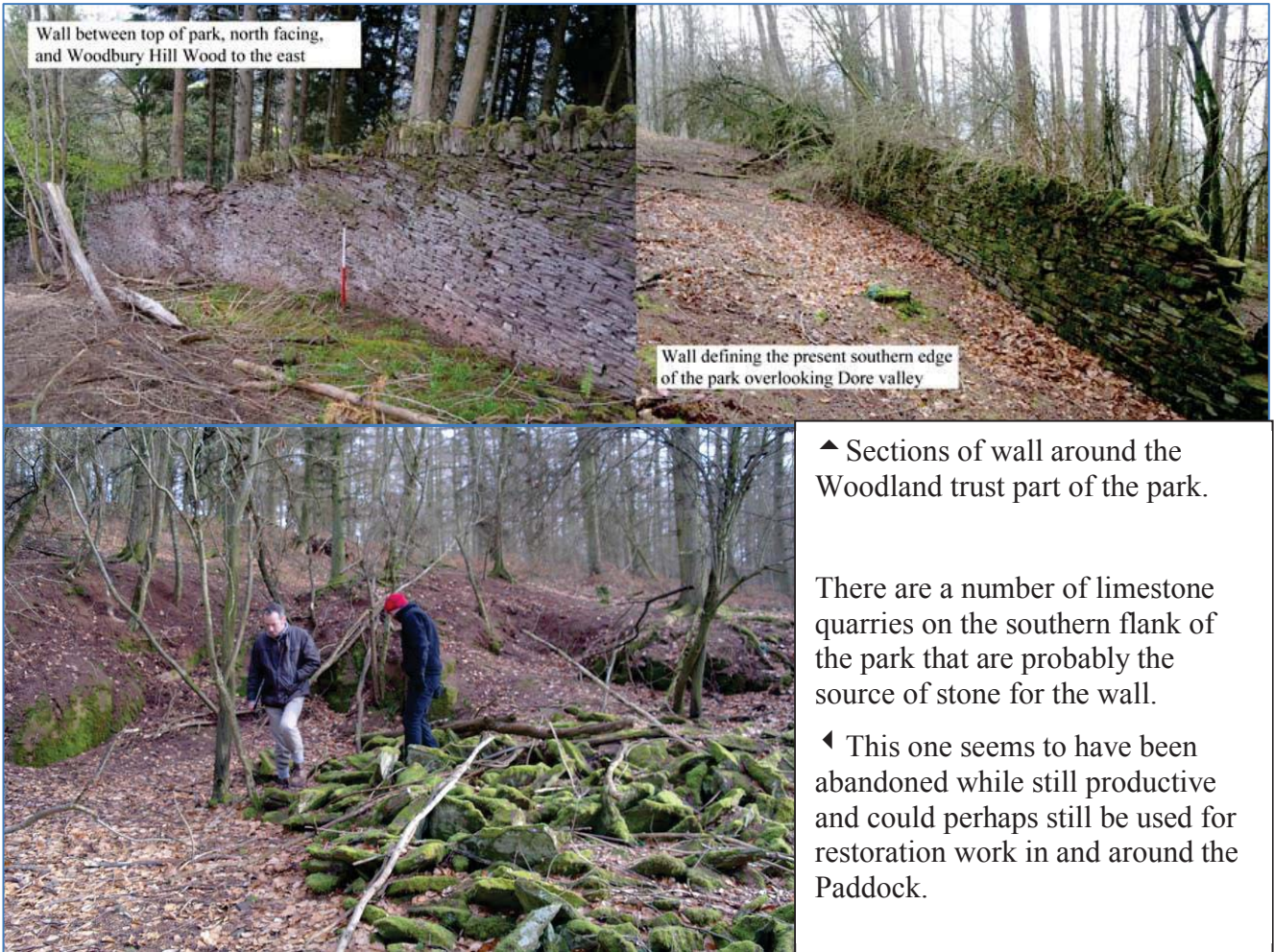
## 5.8 Area F: The Woodland Trust Land

The SW part of Moccas Park RPG that straddles the ridge (see map 15) was all one with the main Moccas Park until the estate sold it and the adjacent Woodbury Hill Wood to the Forestry Commission in the late 1950s who promptly felled all the broadleaves and planted mixed conifers (mainly Japanese Larch) with some beech. In 1983 the FC then disposed this block as it was ‘uneconomic’ to an investment company who in turn sold it to a private investor. The Woodland Trust then bought that part of the block within the RPG in c2004.

The major part of the Larch has now been felled for wood pasture creation plan opening up stupendous views over Moccas Park and the surround countryside (including on the front cover of this report). A slight haze of bluebells appeared with the bracken after the clear fell:



In 1772 the park extended over the ridge and down towards the river Dore with the Lodge Farm at its SW corner. By 1815 this corner of the park had retreat up the hill to create new enclosures for an expanded Lodge Farm and a new deer proof stone wall boundary built much of which survives today defining the southern boundary of the RPG. Parts of a wall survive on the northern side of the ridge defining the parks boundary with Woodbury Hill Wood.



▲ Sections of wall around the Woodland trust part of the park.

There are a number of limestone quarries on the southern flank of the park that are probably the source of stone for the wall.

◀ This one seems to have been abandoned while still productive and could perhaps still be used for restoration work in and around the Paddock.

## 6. Statement of Significance

Even after five weighty reports –Debois (1993 & 2003), Harding and Wall (2000), Hoverd (2003) and Seymour (1994) – Moccas has still not released all its secrets and it is still possible to review the documentation in the Hereford Record Office, including the account books of Sir George Amyand Cornwall, and find new and valuable insights into the development of the estate and, in the broader sense, the history of Herefordshire and beyond.

Further background and details of the archaeology, history and design of the Moccas estate which underpins this statement of significance is laid out in Appendix 1.

### 6.1 Archaeology

Moccas is very well endowed with interesting and important archaeological sites, which add considerably to its history and throw an important light on the development of the estate. Few local estates have such a full collection of garden buildings, which, albeit demolished, can be placed within the landscape today. Equally, the continuous story of residential occupation from motte and bailey castle to Georgian mansion is very unusual. In most cases these sites need little attention but knowledge of their presence must be cascaded down the management structure of the estate and their position plotted. A copy of this section of this report, together with the *Archaeological Survey* mentioned above should be kept available for everyone involved in the management of the estate.

### **6.1.1 The Middle Ages**

The Dark Age history of West Herefordshire, lost in the ‘Celtic twilight’, may well be illuminated at Moccas where the parish church, with its Dubrician associations, has produced burials well beyond the curtilage of its present graveyard and within our study area. Antiquarian references also suggest there was a second larger church here. By embracing the Meres in our study area we have been able to revisit the site of the motte and bailey castle and commission a geophysical survey, which shows more that this ambiguous earthwork is more complex and extensive than previously thought (Appendix 5). It has been suggested above (section 4) and in Appendix 1, that the Georgian Court adjoins a later castle, which was demolished to build the present house. This sort of succession, if proven, adds to the significance of Moccas. The early agricultural history of Moccas is also evident in some remnant historic cultivation patterns and the remains of enclosed field systems found within the study area and revealed by the LIDAR in map 13.

### **6.1.2 Recreational use**

The Deer Park has been the main focus for much evidential research in the past but this study has drawn attention to the Little Park, a specific genera of parkland subject to much recent interest. It seems that Moccas has the epitome of a ‘little park’ with a perfect amphitheatre, viewing platform and a managed water-source. This is an exceptional find. Similarly the walled paddock, unnoticed before, appears to relate to the chivalric aspirations of the Vaughans and early Cornewalls whose equestrian pursuits continued until the time of Sir George Amyand. Below the Paddock lays the Meres another ambiguous site with a sluice and long culvert to control the water flow. Family tradition suggests that it regulated a duck-shoot but the date of its creation remains ambiguous. It seems to be missing from Sir George’s accounts and may, therefore, be earlier. Flooding meadows was very much in fashion in 17<sup>th</sup> century Herefordshire and just over the Dorstone ridge in the Golden Valley, it was a member of the Vaughan family, Rowland, who publicised this technique in the reign of James I. Our geophysical survey will throw some light on its origin and it may be the only working example of ‘flooding’ still operating in the county.

### **6.1.3 The landscape garden**

As the Appendix (1) to this section suggests, the landscape garden to the west of the court, inspired by Brown has left many clues in the present landscape. There are a number of veteran sweet chestnuts and oaks, still struggling in the arable, but also a suite of fishponds with their dams, carriageways, relict shrubberies and the scattered remains of a Georgian bath-house and kennels. Similarly, the pleasure grounds, enclosed by one of the longest ha-has in Herefordshire contain many excellent trees, the remains of an early yew-walk, an ice house and grotto, a large walled garden and the remains of a mid-19<sup>th</sup> century alpine garden in a rocky dell.

## **6.2 History**

The excellent archaeological record of Moccas is complemented by a very full history. Not only is there a very good deposit of estate archives in the Hereford Record Office, especially for the late 18<sup>th</sup> and early 19<sup>th</sup> centuries, but the picture is completed by the accounts and records of numerous visitors. There are good cartographic records and paintings by Hearne, Sandby and probably W.S. Gilpin. Much use has been made in this study of Sir George’s account books, which are so explicit in terms of estate management they probably warp the true history of the estate. Much more could be gleaned from them, which would no doubt illuminate estate management in the time of the Napoleonic Wars and contribute something important to the social and economic history of the country at a significant juncture in its story. In a sense this work has already commenced in the several recent monographs, specifically focussed upon the estate.

Moccas breathes continuity. It is almost a cliché to compliment a family on the long tenure of a fine estate, but, cliché or not, this is certainly the case for Moccas. Moreover, even before the 17<sup>th</sup> century its history runs as an uninterrupted stream from the Celtic monastery to the appearance of

the Vaughans in the 15<sup>th</sup> century. Both Vaughans and Cornewalls hold a central position in the history of Herefordshire. The monuments of the latter in Westminster Abbey suggest that they made many sacrifices in the service of the state, which occasionally ended in heroic circumstances e.g. Captain James Cornwall (d.1744). His brother Velters is now forgotten, except in Hereford Cider Museum where he is recognised as the man who saved the county's favourite tippel and its greatest export – cider. We now know that he also had a fine garden.

However, Sir George must earn most of our admiration. He turned his wealth, accrued from the city and slaving, into something permanent that we can appreciate today. His elegant Court, where Adam and Keck were architects, required a new landscape. As a man of means Sir George could afford the best, so Brown and Repton turned up, but, although he accepted their advice, he followed his own instincts. His wife's soirees attracted artists and scholars. Hearne and Sandby painted beautiful views of the landscape and even greater names produced portraits for the house. Above all else he socialised with the connoisseurs of the newest fashion in landscape design – Uvedale Price and Richard Payne Knight. So Moccas has a pivotal position in one of the most important aesthetic debates of the Romantic era – the 'picturesque controversy'. Influenced by the 'gentlemen professors' Sir George created the landscape that was much admired in the late 19<sup>th</sup> century and, albeit, somewhat degraded, today. It was the picturesque appreciation of veteran trees that preserved the Deer Park and Hearne's portraits of some of the veterans can probably be attributed to the extensive patronage he owed to Richard Payne Knight.

Sir George's accounts enable us to date virtually every landscape feature at Moccas between 1770 and 1819. This is fairly unique because landscape historians are generally reliant upon fragmentary sources and a few maps. At Moccas we can study the process and see how Sir George planned his campaign of imparking. It was very slow and rather hesitant, and the final picture was only revealed in a piecemeal manner. As Goethe noticed 'English gardens are not made to a plan, but to feelings in the head'. Moccas, with its full documentation, provides a corrective for many of the assumptions that we have often been forced to make about the creation of the English landscape garden.

### **6.3 Design**

There seem to be three great creative periods in the design of Moccas, of which the last between 1770-1835 is the greatest.

#### **6.3.1 The Deer Park**

In the late 17<sup>th</sup> century the neglected medieval deer park, which had occupied the top of the ridge in Dorstone parish, gradually slid down the north slopes of hill into the purview of the Cornewalls, the new owners of Moccas Court. They planted on a large scale, oaks and sweet chestnuts, which joined some existing trees to become today's unique collection of veterans. Probably, at about the same time the arable land at the bottom of the park was added to it to form the Lawns and connect with the Little Park, which may have been in existence earlier. Moccas Park is considered to be one of the largest and most diverse examples of wood pasture remaining in Britain, ranking in national importance alongside the New Forest, Windsor Great Park and Sherwood Forest. Conservative management thereafter, kept it in perfect equilibrium between the past and the future.

#### **6.3.2 The *Ferme Ornée***

After some hesitation the Cornewalls decided to settle at Moccas rather than Bredwardine. The proximity of the Deer Park was probably the key motivation. Its convenience was soon matched by its sombre beauty, providing an ever-present backdrop to the lowland estate. Perhaps, around this time, in the early 18<sup>th</sup> century, the Scar may also have begun to impinge upon the family's developing sensibility for landscape. If it was slow in developing, 1756 saw the publication of Edmund Burke's *Philosophical Inquiry into the Origins of our Ideas of the Sublime and Beautiful*

which either directly, or by hearsay, must have triggered some recognition that at Moccas there was a rare counterpoint between the two emotional experiences. The verdant demesne at Moccas sat beautifully between the sublime, shared between the Scar and the Deer Park. From within the essentially pastoral landscape that encompassed the Court, visitors could enjoy the higher experience of the sublime. Velters Cornwall, the hero of the yeomen farmers of Herefordshire lived in the epitome of a productive and beautiful landscape idealised by the contemporary pastoral poets such as Dyer and Thomson.

Garden writers like Pope and Addison were also flagging-up the beauties of the perfect English countryside and soon this sort of self-conscious landscape was being referred to as ‘rural gardening’ or the *ferme ornée*, typified by the efforts of Philip Southcote at Woburn in Surrey. The most explicit account is provided by Stephen Switzer who described in *Ichnographia Rustica* (1718) ‘its Profit in Lawns and Paddocks for grazing, in Corn Fields and Kitchen Gardens, and in little Woods, Coppices, and Hedge Rows mix’d therewith, and abounding with Pheasants, with Hares, and all other useful games, and stocked with Apples, Plums, Pears and Filberts’. Pope and Southcote corresponded about the elements that gave a farm ‘the air of a garden’ and agreed that the setting – the ‘unbounded Felicities of distant Prospects’ - made all the difference. But for the few poems penned by Pope’s associate, John Lockman, we would have no perception of Moccas as a *ferme ornée* although both Lambe Davis’s survey and Sandby’s prospect provide the perfect framework. The poems provide the interior view of the ‘hospitable seat’ of the Tory ‘backwoodsman’ Velters Cornwall (pages 11-12 above).

Evidence on the ground for gardening activities among the lesser gentry, during the first flush of the English landscape movement, is fairly rare. Usually there is a definitive view like the panorama of Painswick House by Thomas Robins (1748) or, nearer Moccas, a useful collection of letters, like the correspondence of Richard Bateman of Old Windsor with Benjamin Fallowes, Lord Bateman’s steward at Shobdon Court, near Leominster. Thus, Moccas with its poems, prospect and a map is comparatively well documented and with them an argument could be made for the restoration of the landscape around the Court as it appears in 1772. However, since a great deal of this land is now inside the ha-ha, this would not be practicable. Nevertheless, as a *ferme ornée* Moccas joins a very select club of gentry landscapes managed in the ‘Farm-like way of gardening’.

### 6.3.3 Brown, Repton and the Picturesque

As we have seen Moccas never had a Brown landscape in the sense that the great contractor-designer never move the soil or planted any trees at Moccas. It did, however, have an extensive area of parkland, to the west of the Court, inspired by Brown, which was probably not completed until the death of the 2<sup>nd</sup> Sir George in 1835. We have chosen this as the *terminus ante quem* for our partial restoration. In many respects, Moccas remains an important landscape because Brown was turned way and the first Sir George carried out the improvements. His account books give us a rare insight into how a Brown landscape might be interpreted in the picturesque era. It turned out to be a piecemeal but thoughtful approach without Brown’s solecisms - the dreaded clumps and the impenetrable belts (Appendix 1).

Repton’s involvement at Moccas seems to have been equally marginal; he was employed on the terraces of the Court and was especially concerned with capturing a view of the Scar – even if it required a little earth moving. Undoubtedly, the background noise from the picturesque lobby – Price, Knight, Gilpin, Hearne, and Cranston – inspired Sir George to rely upon his own creative instincts and not to fall into the hands of those ‘mechanic improvers’ who provided ‘ready-made taste’. He would have known something about his neighbour, Dr John Matthews’ experience, further own the Wye at Belmont who was named and shamed for employing Repton and persuaded to write an apology in a *Sketch from the Landscape* (1794). Thus, Sir George’s endeavours at Moccas are important because of the excellent documentation and equally because of the connections that can be made directly with the picturesque controversy. This is one of the



few landscapes where Richard Payne Knight was consulted (Appendix 1) along with Price. In effect, as it turned out, Moccas is a clone of Foxley – Price’s quieter agrarian picturesque – and Downton remain inimitable.

## **6.4 Parkland trees**

The core of the RPG is Moccas Park NNR which is considered one of the best examples of wood pasture remaining in Britain. However the plan area which is outside the NNR also has important assemblages of veteran and mature trees with a high concentration in the Little Park. This population of veteran trees which are scattered throughout the plan area constituting an important ecological buffer and stepping stones for the main park. With sympathetic land management and continuing the programme of planting future parkland trees the plan area has the long term potential to almost double the effective area of NNR quality parkland. The plan proposals herein will complement that of the SW ridge part of Moccas Park where the Woodland Trust has already embarked upon an ambitious programme of parkland restoration.

## **6.5 Ecology**

It is difficult to overstate the importance of enhancing the biodiversity of the land immediately surrounding the present core of Moccas park that is designated NNR added to which the Moccas Estate parkland, the subject of this report, physically links the NNR to the River Wye SAC and SSSI. As pointed out above all the non-designated areas of Moccas Park RPG have a crucial role to play in the ecological improvement and long term stability of the park as a whole.

Associated with the trees of the Moccas Park NNR are a wealth of plants and animals, many of the species being indicative of open woodland cover over a long period. 116 species of epiphytic lichen have been recorded including a number of uncommon species. The beetle fauna is particularly outstanding and has been well studied, with over 700 species having been recorded. Other invertebrate groups are also very well represented. The variety of breeding bat and bird species is also significant. The upper part of the NNR has a very fine and extensive display of bluebells – considered one of the finest in the country.

The plan area of Moccas Court parkland, the Meres, the Paddock and the Forsythes has the potential to buffer, enhance and extend this nationally important ecosystem. Restoring the parkland at Moccas to its historic extent and linking the NNR parkland northwards to the banks of the Wye would be a nationally significant achievement.

The proximity to the nearby Flitts NNR at Blakemere adds to the significance of the Meres wetland. The enhancement of the Meres with its fern habitat, ditches wet and species rich grassland together with new tree planting in the Little Parks and elsewhere will mark the beginning of one of the most interesting and exciting restoration projects in the county.

## **7. Issues and constraints**

### **7.1 SSSI condition**

The two sites with the RPG designated SSSI are the NNR part of Moccas Park (south of the road) and River Wye which is also SAC. The condition of the park SSSI is currently “favourable” although the Wye is “unfavourable but improving”. The interaction between such biodiversity ‘hot spots’ and the surrounding countryside is a factor which will contribute both to the long term health of the sites themselves and their ability to enhance the ecology of the wider countryside. The non-designated areas of Moccas Park RPG have a crucial role to play in the ecological improvement and long term stability of the park as a whole.

The creation of a wide ecological ‘corridor’ between the river Wye and NNR is an important objective within the overall plan proposals with the establishment of a future generation of veteran

trees, nurturing the existing trees, reverting some arable to pasture and improving the biodiversity of existing permanent pasture and wet grassland. The opportunity exists to control invasive non-native plants along the banks of the River Wye and in the Warren. This issue can realistically be tackled at Moccas Court for both Japanese knotweed and giant hogweed but is more problematic for Himalayan balsam because of the large reservoir of seed upstream of Moccas that remains as yet untargeted by neighbouring landowners or fishing organisations.

**7.2 Parkland and farmland**

North of the road farming has intensified in recent decades to the detriment of the veteran trees and the landscape while the area of permanent pasture has dwindled (maps 5, 9 and 10) to that of Little Parks.

**7.2.1 Arable land**

The opportunity exists for reversion back to parkland of large areas of arable land that were once imparked (see section 10.1). The challenge for the owners is to maintain a profitable farming business whilst gradually making changes to farming systems and land use in order to move gradually towards this ideal scenario. Realistically the timescale for this will be over several decades with the first step to be taken during the coming 10 year HLS plan period.

The benefits of arable reversion to recreate the ecological and landscape links between the Court and the Deer Park NNR have already been discussed above (7.1). Further benefits to the veteran trees in these fields are discussed in 7.3 below. Best farming practice in terms of how to reduce the impact of arable operations on water quality in the River Wye are discussed section 3.5 and include buffer strips, soil, manure, nutrient and pesticide management.

**7.2.2 Grassland**

The sward of Little Parks has been subject to regular spot spraying with an unselective broadleaved herbicide and also has a moderately high stocking level. The species poverty of the grassland is partly a consequence of this management and it should be noted for example that bluebells are present in areas of Little Parks fenced off in the 1970's. The ground around the roots of many of the trees in the Little Park is also compacted by livestock. These factors may be partly responsible for the trees there being under stress and some have been dying recently.



Left: sprayed thistles in Little Park. Right: Young parkland oak affected by spray drift

The opportunity exists for grassland in Little Park and other existing or reverted grassland in the plan area to be managed more extensively.

Management prescriptions for low input grassland in the plan area are given in Section 10.3.

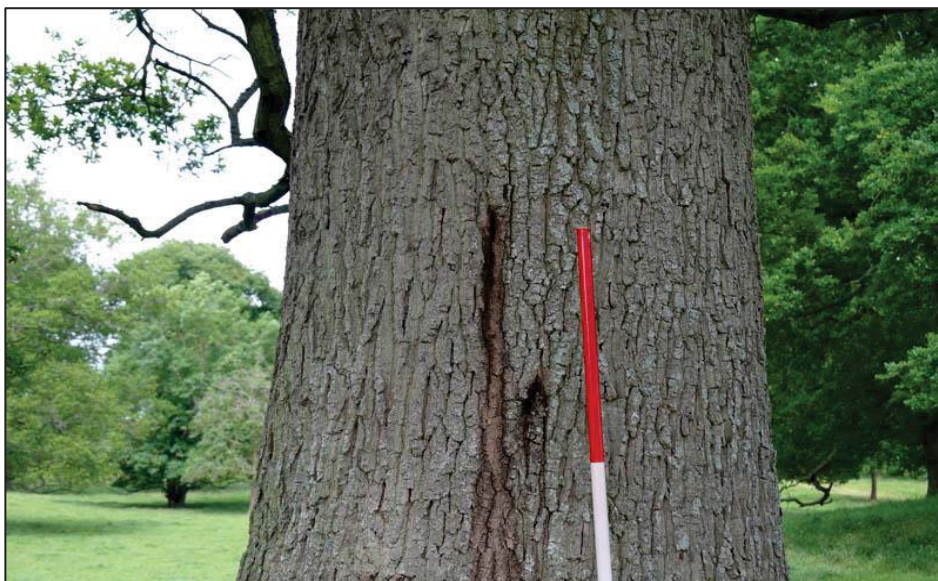
## 7.3 Veteran trees and woodland

### 7.3.1 Veteran Trees



Early spring and summer: Oak tree c24a girth 5.83 meters in Little parks.

There has been a significant decline in the quantity of mature trees since 1946, see maps 8 to 11. Furthermore a number of veteran trees have died recently (cf 2000 air photos) both in the arable and pasture areas and in the NNR. Many are showing signs of stress and are likely to succumb. There is a strong possibility that some are suffering from Acute Oak Decline (Nick Smith Forestry Commission and Graham Taylor *pers.comm.*) see FC web site in bibliography. See photo below of oak tree b92i in Little Parks.



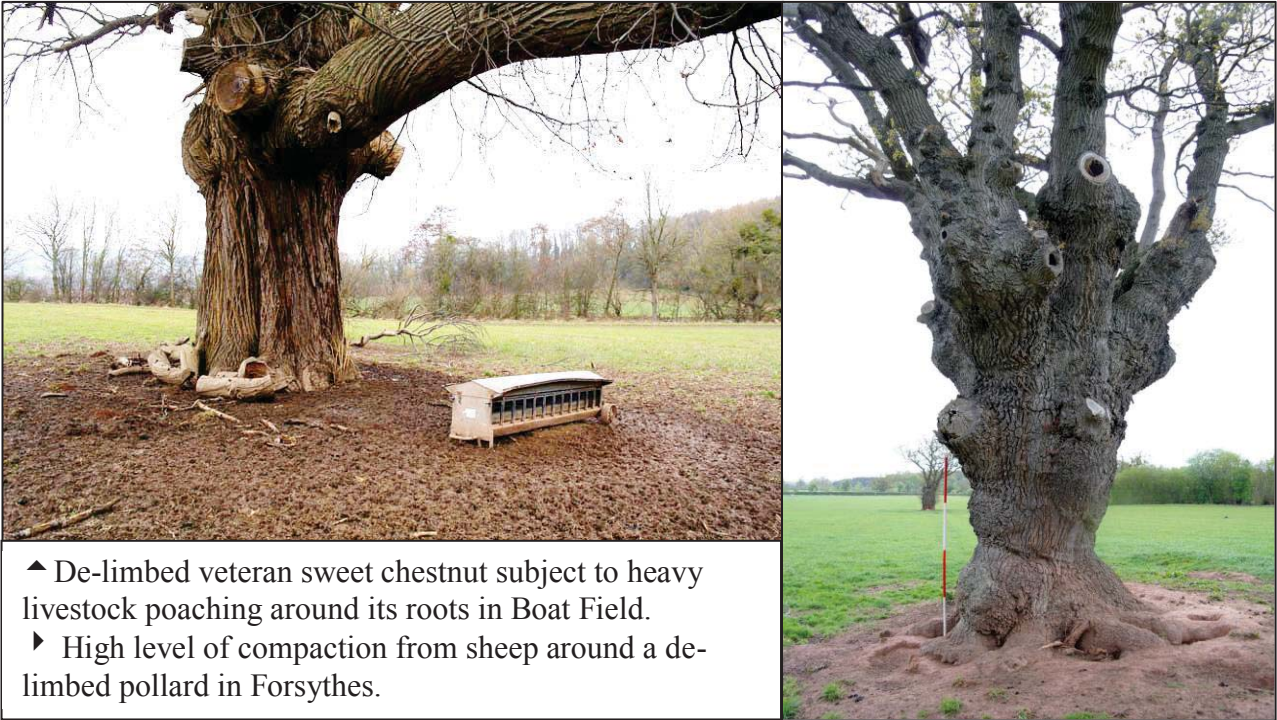
Monitoring tree health using our tree survey of 2013 as a baseline would be an excellent thing to start doing as well as to helping guide which tree species to plant in the future (Appendix 3 especially section 6) . Consideration could also be made of tree species with greater resilience to climate change. Following the simple fallen wood policy set out for the Deer Park NNR is another important issue for consideration (see also section 10.5 and Appendix 3 section 8).

In the arable fields the veteran trees have had their branches savagely chain sawed back to their trunks leaving large un-healable scars while the plough has advanced about their root systems. Such trees, being isolated in an arable landscape, have less to contribute to the landscape or the ecology of the park than those trees that are more intact.



Mutilated veteran sweet chestnut in Dog Kennel Field, the sawn-off branch has over 200 rings.

High levels of grazing can also have a negative impact on parkland especially as stock tend to congregate around and under trees. This can lead to compaction of the soil and local eutrophication to the detriment of the soil organisms and tree roots systems.



- ▲ De-limbed veteran sweet chestnut subject to heavy livestock poaching around its roots in Boat Field.
- ▶ High level of compaction from sheep around a de-limbed pollard in Forsythes.

### 7.3.2 Woodlands

Generally there is scope within the woodlands for management and restoration work that could be funded under the Forestry Commission’s England Woodland Grant Schemes or in HLS. There are several post war conifer plantations that were established within the parkland or in existing woodlands where veteran trees are now constrained by planted trees and would benefit from halo thinning as an immediate priority. As a general principle the return of woodlands to native broadleaved species and the felling of conifer plantations that have intruded on the parkland landscape are the main issues for consideration in this plan. The benefit to the landscape and to the veteran trees is to be balanced against the constraint of loss of income to the estate from premature felling of the conifer crop and loss of game cover.

The ecological value of some of the woodlands in the plan area (Crossend Coppice 6706 and Meres plantation 7342) has been much reduced by recent high pruning and ground cover removal, which has also deleteriously affected the shooting cover. Such woodlands would benefit from stopping high pruning of young trees in favour of thinning at key stages and re-planting of native under-storey shrubs including hazel, field maple and hawthorn.

The northern end of the Meres Plantation was planted in a Farm Woodland Premium scheme over part of the ploughed out castle site. Although the FWPS commitment is to retain the tree cover it is more important to revert this area to grassland to protect the “castle” site.

## 7.4 Wetlands, ponds and fishing pools

### 7.4.1 The Meres wetland

Adjacent to the NNR park is a stone walled (much collapsed and robbed) Paddock which was formerly permanent pasture until ploughed in the 1970’s together with the remaining ‘castle’ site and two open water courses were piped. In 2000 The Paddock was reverted to low input pasture as part of a WES along with the adjacent Meres. The Meres and Paddock are contiguous with the NNR and are now managed as part of the NNR although they fall outside the NNR and RPG designation.

The area is a now diverse mosaic of wetland, ditches, fen, scrub, trees, species rich grassland. The challenge in managing this area is that since 2005 the subdividing fences have all been removed and it is now grazed as one open unit including the Moccas Park NNR. Getting the stocking density of this land right is therefore critical not only for the habitats in the NNR but also for the restoration of the Meres. The aim would be to maintain and enhance the diversity of flowering plants in the species rich grassland and in the wetland areas of the Meres.

Currently there is a herd of fallow deer and farm livestock (cattle and sheep) grazing the area.

#### 2013 estimates (standard figures in brackets)

does and yearlings (0.15)	100	15 LUs	
mature bucks (0.5)	15	7.5 LUs	
yearling bucks + fawns (0.1)	25 + 80	10.5 LUs	
Prickets (0.15)	57	8.55 LUs	
cattle summer mths (1.0 for 6 mths = 0.5)	70	35 LUs	137 ha NNR + 20 ha Meres = 157 ha
welsh ewes summer months (0.15 for 6 mths)	400	30 LUs	
TOTAL		107 LUs	
Stocking Density estimate = 0.68 LU / ha			

The NNR is outside the scope of this report but Natural England has recently requested some changes to the stocking levels in the NNR/Meres and the effects on both sward height and species composition will be closely monitored and stocking densities reviewed annually.

Stocking densities for the land in the Meres should reflect these recent changes and should be agreed in consultation with the NNR Warden (Saul Herbert), the estate and the local grazier(s) to be sure that the objectives of the NNR and the HLS can be met.

An old stone sluice is evidence of former water management possibly for winter shooting, as a water feature or a water meadow system as discussed in section 5.6 above. Whatever its former function, the Meres is an important adjunct and buffer to the NNR park.

Increasing the number of future veteran trees in the Meres (and the Great Paddock), while desirable ecologically, should not be at the expense of the species rich grassland nor the generally open historic landscape of the fields.

**7.4.2 Ponds and fish pools**

There are a number of ponds in Brick Kiln Wood and one near Moccas Church. These have been restored, de-silted and additional new ponds created since the 2003 Debois report. They are all at an early stage of re-colonisation by flora and fauna and have yet to reach their potential as wildlife or landscape features.

The series of fish ponds on the south-eastern side of Dog Kennel field (3661) no longer all hold water (Ecological report to follow). They still have considerable wildlife value but would benefit from restoration to enhance this whole area that links the Pleasure Grounds to Dog Kennel Wood. The constraint here is that the boundary between areas managed by two different family Trusts runs along the ha-ha immediately above and below these ponds and also that a major financial commitment is required to restore these features.



The higher (left) and middle (right) of the three fishponds beside Dog Kennel field

The pond in Airfield has had its buffer and surrounding trees reduced in recent years and would benefit from these being restored to benefit water quality and to enhance the habitat.

**7.5 Boundaries – hedges and walls**

Generally hedges are in reasonable condition across the plan area and some very good hedge laying has been done in recent years for example round Brick Kiln Field. The major issue here is where sheep are grazing arable or temporary grassland fields they are damaging hedge bottoms and should be fenced out of all hedges.



A structurally diverse and species rich hedge with wild roses and arable weeds in grass margin, SW boundary of the Warren.

## **7.6 Drainage and culverts**

The culvert that runs from the Meres to the River Wye (map 18) is an important feature of Moccas Court and the water flowing into it holds the potential for the re-introduction of seasonal wetting of the Meres. The culvert appears to have been built without any inspection points and although it is still functioning well, a damaged section was noted in Kevin Gilman's hydrological survey of 2003 (see plan web page) and if the culvert is to continue to function effectively then the location and repair of this section is a priority.

The opportunity also exists to re-create the open drainage ditches across the Great Paddock (7918) with the added potential benefit of resolving the damaging flow of water through the Meres Plantation and the pinch point in the gateway in the newly laid hedge below.

## PART III: DEVELOPING MANAGEMENT POLICIES

### 8. Conservation Management Policies

#### 8.1 Moccas: Vision for the Moccas Court parkland

Our vision for the Moccas Court Parkland for the next 10 years is summarised in the series of three maps of restoration proposals (maps 19, 20 and 21) showing areas of arable and woodland to revert to parkland and the planting of new parkland trees.

8.1.1 On the Lambe Davis survey of 1772 only the Little Park was indicated as conventional parkland and, even, here the southern end was open with trees encircling the natural amphitheatre around the stone-lined pool. The rest of the area under consideration was employed productively as arable, pasture, orcharding or woodlands. We have assumed from the tone of Lockman's poems that this landscape was appreciated by visitors to Moccas in the time of Velter's Cornewall (c.1720-68) and we have argued that contemporaries, if pressed, would have called this a *ferme ornée*.

8.1.2 During the time of George Amyand Cornewall (1768-1819), who was influenced by local picturesque writers, the ornamental element of the Moccas Court landscape was considerably extended with generous pleasure grounds, defined by a ha-ha, carriage drives and footpaths, embellished woods and shrubberies and, above all, more parkland. On the whole the parkland was concentrated to the west of the Court, linking the pleasure grounds via the Little Park with the Deer park, as Brown had suggested in 1778. On the 1772 plan this meant imparking most of the Warren, the eastern end of West Field, Great Warren Field and part of Little Church Field and thirteen Acres. Outside the study area land was imparked either side of the south and east drives. Arable land, namely part of Brickkilns, Thirteen Acres and Little Church Field, was concentrated around Standard Farm. This situation was fairly short-lived and by the time of the tithe map of 1837, the whole of Brickkilns was back into arable rotation and this had been extended by c.1885.

8.1.3 In the absence of other detailed maps in the early 19<sup>th</sup> century we have taken the c.1885 O.S. map as our vision. As we have seen, it comes at a time when the parkland was diminishing, returning to some extent back to the situation depicted in 1772. But it was also the era of Kilvert and the Woolhope Club visits when we get a clear idea of how contemporaries appreciated the landscape created by Sir George Amyand Cornewall.

8.1.4 We would support a fairly complete restoration of the parkland in the western part of the Moccas Court landscape – in the Warren and Dog Kennel Field. This would include cutting back Depple Wood, where it has encroached upon the top of the Warren, and restoring the meadowland towards the river as open wood pasture, as it was in c.1885. This would restore the connexion between the pleasure grounds, via Little Park –where the coniferous plantations should be removed – to the Deer Park.

8.1.5 We are also conscious of the earlier appreciation of the Moccas estate as a *ferme ornée* and this requires a change in attitude to the plan area as a whole, not just the parkland but the arable fields and the small woodlands. We cannot turn the clock back to 1772 and landscape depicted on the Sandby prospect, but it should be possible to put back more 'intimacy and variety' – watch words of Uvedale Price – into the area, so that the transition from the pleasure grounds to the parkland is not so abrupt. Alleviating some of the starkness of the arable fields by replacing all fencing with hedgerows of diverse species would be a good start eg in Warren, Church, Airstrip. Planting some single trees and developing a small copse in field corners would also help, as would encouraging hedgerow trees, taking unproductive wet areas out of arable fields and managing flower rich grassy field margins. Extensive farming practices such as reducing herbicide use in parkland grassland, careful choice of livestock wormers and stocking density



parasite could contribute to improving habitats and an increasing the ‘intricacy and variety’ of the landscape.

8.1.6 Similarly the ponds, Dog Kennel Wood and Deppel Wood should be treated as part of the ornamental landscape by re-establishing the old footpath to Bredwardine, which seems to have given so many visitors pleasure in the past. These woods retain their amenity under-planting – laurels, rhododendrons, box, cherry etc. – these should be encouraged, not suppressed with brambles. Where standard trees prevail, their heads could be lifted to increase the light and thus encourage the ground flora. Here some of the rich detail of the *ferme ornée* could be persuaded to return.



From Bryant’s map of Herefordshire 1837

## 8.2 Conservation management policies

### 8.2.1 Implementing the Parkland Plan

- Hold initial briefing meeting for all staff to make sure they are aware of
  - the overall vision for the restoration of the parkland
  - the summary of recommendations
  - the individual policies relating to their particular job
  - the HLS agreement prescriptions and capital works plans that are agreed with Natural England
- Ensure all reports, surveys, plans and records relating to the park are easily available from the estate so that they can be referred to by tenants and those doing the work in the park.
- Consider having key maps and plans displayed on the walls to help with daily work routines.
- Set up an annual review of management policies in the study area to ensure that all aspects of the restoration work (including historical feature restoration, tree planting, thinning and felling, wildlife conservation, grassland and scrub management) are easy to co-ordinate.
- Whilst the HLS is in place this will be done with the help of Natural England's advisers but could also draw upon the expertise of local specialists already working with the estate and others with particular relevant expertise as required.

### 8.2.2 Archaeological features and sites

Some thoughts on the archaeology based upon the Hoverd Survey of 2003 *Herefordshire Archaeology Report* 68 are to be found above (Appendix 7) has the list of sites identified in that report). The recommendations in the Historic Environment Record Consultation Response in the letter, date 24<sup>th</sup> April 2013 from Keith Ray, County Archaeologist should be followed (Appendix 8)

- The report and particularly the map should be readily available in the estate office so that it can be viewed as a prelude to any heavy work. This also available on as part of the Historic Environment Record.
- Planting sites in a picturesque landscape can be flexible, so that archaeologically sensitive sites can be avoided.
- Particular care should be taken not to destroy the paths and carriageways that appear in all parts of the study area. Trees that are at risk of wind throw should be removed before the event.
- Interesting features found during tree planting, for example, should be photographed and plotted for future investigation, perhaps a community archaeological project.
- The regionally important sites in the study area are the water system in the Meres, the motte and bailey castle, the paddock wall, the Little Park and the area around the parish church. The water system and the castle are subject to detailed examination in separate reports with its own recommendations (Appendix 5 and 6).
- There are no scheduled sites in the study area.

### 8.2.3 Landscape repair and restoration

Much of this report is concerned with the restoration of a historic landscape, which can only be carried out with considerable intervention in the plan period. In the recent past much of this intervention has been carried out without any consideration of what makes the area distinctive, historically significant and most of all, beautiful.

- Anything that is old and been there for a hundred years or so ought to be given the benefit of the doubt - old trees, old boundaries, old structures, old land forms, old grassland, old ponds, old water sources etc.- all give character to the area.
- The veteran trees within the area contribute to its special character and must take priority in management policies. The diversity of tree cover should be maintained taking a cue from that which exists today e.g. sessile oaks (*Quercus petraea*) make an important contribution to the Little Park plus the ancient holly and the small leaved lime (*Tilia cordata*).
- Essentially, this report builds on three centuries of history of the landscape but there is much that is recent and works well, complementing our vision e.g. some of the recent hedgerows, the wide margins around some of the arable fields, planting in Little Park, the Shrubbery, the clearance of Meres.
- When work is planned in the study area, the site should be visited to look around and assess the impact, even for a simple task – use aesthetic judgement and if it looks out of place or ugly, do not do it.
- Look at the context and if the materials provided look out of place, find something more suitable. If a stake is needed use a wooden one, cut from a local source. Do not import alien gravel for drives or soil for in-filling or builder's yard materials for structures e.g. the Paddock walls, the ha-ha. The ponds could so easily be ruined by the use of heavy machinery. Everything is in the detail.
- We have chosen the late Georgian period as a point to which we would ideally like to return, with gestures towards the earlier *ferme ornée* because we think that the landscape created then basically survived until the First World War. We have aimed at restoring a picturesque landscape dating from c.1780- c.1835 – because it is a style we can still recognise at Moccas and is confirmed in the documentary material. Fortunately, as it is informal and irregular, and complements much of what we see today, it should be relatively simple to replicate.
- As a general rule straight lines are to be avoided e.g. edges of woods, lines of trees, fences, paths. The glory of Moccas on the Lambe Davis plan and the Sandby prospect was irregularity
- Natives are best with trees but the landscape did include a few exotics and in Dog Kennel Wood and Depple Wood there was a gardenesque under storey, which could be added to with knowledge and care.
- Any trace of heavy machinery – rutting, digging, and crushing – will destroy some of the beauty. Choose your day for heavy work.
- Remember that beneath the ground all over the park are possibly undiscovered and important archaeological remains – dig slowly and with knowledge of what might be there.
- Learn about the history of the park and the period in which it flourished – there is a great deal of information in the appendices to this report and the earlier Debois Reports.

- When in doubt ask someone who knows.

#### **8.2.4 Standards for restoration, repair and management work**

- Consider the overall aesthetic impact of any restoration, repair and management work and how this fits with the overall vision for Moccas as detailed in this plan.
- Continue with the established practice of using specialist conservation structural engineers, builders, stone masons etc to survey, prepare conservation specifications and to implement the restoration and repair of all man-made features in the landscape.
- If modern temporary features are to be installed in the study area, either remove them after the relevant event or seek guidance from English Heritage about their design and appropriateness within the picturesque landscape.

#### **8.2.5 Plan led approach to future development proposals or changes of land use**

The handling of any proposals that may arise in the future for the management of the study area should consider the following principles:-

- Consider how the proposals fit with the overall long term vision for the landscape, wildlife and archaeological features in the landscape
- Consider how each proposal fits with the objectives and prescriptions of any land management schemes in place at the time, such as HLS and Woodland Grant Schemes.
- Follow a well ordered process (as suggested above) to assess the impact of each proposal and to carefully plan any relevant mitigation, calling in specialists to assess the environmental and aesthetic impacts as appropriate. This process should include the following stages:-
  - Does the proposal have the potential to adversely affect the special qualities of Moccas?
    - Impact on the diversity of species of animal. Plant, fungi etc
    - Impact on balance of openness and enclosure of the landscape
    - Impact on key views and routes around the area
    - Impact on archaeology
    - Impact on habitat
    - Impact on landscape features g ponds, hedges, boundaries
  - If none of the above, subject to detail, design and opportunities for enhancement or mitigation, following the policies in this plan, the proposal is likely to be neutral to positive
  - If the proposal does have the potential for negative impact on any of the special qualities listed above, can it be improved by :
    - Changing the proposed location to one that is less sensitive ?
    - Reducing its mass and scale?
    - Changing its design?
    - Mitigation e.g. offering enhancement of the landscape as part of the proposal?

If so, these opportunities to improve the proposal should be investigated and pursued.

- These considerations are equally important for one off events that may be planned in the short term as for proposals for enduring changes in land management.

### **8.2.6 Visitor access and enjoyment of the historic landscape**

The environs of Moccas Court are a very special place and they deserve to be better known. However, it is a very fragile and therefore public access should take the form of guided visits for special interest groups. The greatest threat to places of beauty and scientific interest are people, but most sensible people understand that, especially if access is allowed for educational purposes.

- Visitors with academic and professional interests should have access on application – their knowledge will increase the understanding of the area.
- With the Court, the pleasure grounds, the court parkland and the Deer Park there a great asset here, which, could pay for itself with thought and sensibility.
- An interesting route around the landscape should be identified – perhaps an easy and a more strenuous walk – a guide could be made available for booked parties. Antiquarian, natural history and other learned societies would certainly appreciate a visit, as they did in the past.
- Artists would find much to interest here – some sort of display showing the Hearnes and other images.
- A guide book – single sheet, marking a route with key objects of interest with some informative text – would be useful.

### **8.2.7 Maintaining and developing an archive for the historic landscape**

The Moccas archive in the Hereford Record Office is one of the best country house collections in the county. It is catalogued, but not by subject. It is particularly strong on the 18<sup>th</sup> and 19<sup>th</sup> centuries. It is unique since at its heart are the account books of Sir George Amyand Cornwall which provide such an in depth account of the management of a country house estate in the late Georgian era. There is much here to be exploited. There are also some family records e.g. letters etc and much additional estate material, which has hardly been touched for this study. Moccas was a well-visited estate both by artists and the *literati*, these images and accounts could be collected and, perhaps, even some transcriptions of John Lockman's flattering poems, could be commissioned.

## **PART IV: RESTORATION RECOMMENDATIONS**

### **9 Recommendations**

Codes in brackets relate to possible HLS/ELS options. Restoration recommendations are illustrated on Maps 19 – 21.

#### **9.1 Little Park 8609, 2930, 2231, 8623 & 9728**

- Continue to replace any young trees when they fail (approx. 8 replacements currently required in existing enclosures) (STT).
- Plant more young trees in Little Park where the c.1885 map shows tree positions (STT, TP)
- If any of the large oaks show signs of decline, a substitute should be planted as soon as possible. Note the likely presence of Acute Oak Decline illustrated in section 7.3.1 on page 52 of this report.
- Dig out pond so that there is open water most of the year ensuring graded edge for pond margin vegetation. Repair and stabilise stone abutment of NE side of pond and take care not to interfere with the structure of the culvert while allowing water to flow from there into pond. Pond edge plants such as yellow flag and sedges could be introduced from local sources.
- Revert the 2 coniferous areas to parkland retaining veteran with some of the young broadleaves present (HC13, TRE) NB Cross End B (2 on Debois plan) is outside the plan area but was not part of the original Little Park).
- Plant more young trees at the north end of Little Park to recreate the historic parkland tree pattern from the c.1885 map (STT, TP).

#### **Interim measures for consideration include:**

- halo thinning of veteran trees within the two plantations as an immediate priority (TRE)
- continuing to thin the two plantations to selected broad leaved trees to be future parkland trees
- Fell the double rows of Western Red Cedar which make an especially harsh outline along some of the edges of the plantations. (TRE)
- Manage the modern track on the north side of the parkland running through the plantations, carefully; with heavy traffic it could easily scar the parkland and destroy its character.

#### **9.2 Depple Wood 8555 & 1501**

- Manage the existing woodland to encourage the diverse ground flora, which already exists there (HC8, CBT, TRE – or EWGS).
- Work towards replacement of poplars and other coupes of post war plantation trees within Depple Wood with native broad leaved trees (HC8 or EWGS).
- By terracing into the hill-side the path network could be made continuous and avoid the boggy area below West Field (HAP).
- Continue to keep view clear from the viewpoint on the boundary of the wood in West Field, looking both ways, over the trees on the slope to Brobury (NW) and back to the parish church (SE) (TRE, CBT)
- Improve access to the cascade and enhance its setting (E ;dumped spoil, CBT)

- Encourage a more informal woodland edge on S side, perhaps planting suitable trees and shrubs within an extended buffer strip which should cease to be used as a track (EC4, TSP, TT, removal of old wire fences etc)
- A fishermans track is already in place along the West Field/Warren boundary which is close to an early boundary that occurs on the 1772 survey. Consider hedge restoration and hedgerow tree planting and a wider buffer strip (HR, TSP, TT, EE3 or HE10) to enhance this approach to the wood.

Although Depple Wood is not accessible to the public, and the southern end is outside the plan area, it remains an important part of the historic landscape. In the future, if paying visitors came to the Court, it would form significant ingredient in the 'Moccas experience' connecting with other walks in the Deer Park and further afield.

### **9.3 The Warren 1163 [including plantation 1785]**

Restore the parkland character and this important viewpoint [view point on map 19] by

- Fell the conifer block in parcel 1785 which now extends Depple Wood eastward into the former park and plant with a low density of native broadleaves, predominantly oak and sweet chestnut, with a view to eventually re-creating the parkland that occupied this western flank of the highest point of the Warren. Retain mature broadleaved trees. Either through HLS options HC13, TRE, STT, TP, FSH or within a Woodland Grant Scheme.
- Restoring the pattern of dense trees that connected Dog Kennel Wood with Depple Wood. This is reflected on the c.1885 map, which again should be taken as a model for replanting. The whole northern part of the field should be taken out of arable cultivation and the fences and tracks reorganised accordingly (HC13, TRE, STT, TP, FSH, GF).

This new grove would again embrace a double view. Coming up The Warren along the edge of Depple Wood, a splendid view of the Scar would be obtained as the highpoint was reached. Similarly, in reverse there would be a prospect of the Deer Park and the Dorstone Ridge and, with Depple Wood reduced, a view westwards towards Brobury. All this would be particularly satisfying for visitors coming from the Court, through the quiet retreats of Dog Kennel Wood.

- Improve the protection of the three remaining veteran chestnuts in the field corner between West Field and The Warren (marked as 27-29 on Debois Plan) which are vulnerable to arable operations and recent muck storage. Consider increasing the size of this grassy field corner or incorporate into a wider soft woodland edge all along the boundary with Depple Wood as in described in 9.2 above (HC13).
- Giant Hogweed has been noted in 2013 in the W corner of the Warren near these 3 chestnut trees and should be sprayed with Roundup immediately to prevent it seeding. Follow up treatment in future years will be required (E). This weed has been successfully treated on the banks of the River Wye by the Wye and Usk Foundation since 2010 and any occasional remnant populations should be reported to them. None were noted in 2013 on the river bank itself.

## 9.4 Boat House 2522 and River Field 4192

Revert Boat House and River 16 to pasture within the plan period. This would improve the prospect from the house and enable the trees on the c.1885 map to be replanted. The boundary fence between the two fields could also be removed / made as inconspicuous as possible. (HC13, STT, TP).

Interim measures for consideration include

- Restore River 16 to pasture (HC13)
- Include the top (S) end of Boat House (Little Ham) to the new area of parkland to be reinstated between Depple Wood and Dog Kennel Wood (as above 9.2).
- Replant some parkland trees according to c.1885 map (STT, TP) see map 19.
- Protect remaining parkland trees with much wider buffer strips (HC5), cease all branch removal and review dead wood policy
- Thin the small mixed plantation at 3001 to selected broadleaved trees and provide another grove in this field which hints at the parkland that has disappeared (STT, TP, TRE).

In 1772 the Little Ham extended along the river to the yew-walk, which ran along the river in front of the old Court. In c.1885 there were three field boundaries and to-day there is one. This gives flexibility in terms of usage but it would improve the prospect from the Court and its pleasure grounds if it was removed. This is the most famous view at Moccas, it needs to remain perfect. There is ample room to walk from the Court along the river but the walk should also return along the river bank to Depple Wood, with a spur through the new grove on the Warren bank to Dog Kennel Wood.

- Coppice the riverside willows and alders in rotation to improve the view of the river and to prolong their life (CBT, TS1/2).
- Himalayan balsam is abundant in Boat House (2522) and River 16 (4192) but is hard to control since it constantly re-invades from sources upstream.
- Japanese knotweed is also still present on the banks of Boat House (2522) and should be systematically treated with herbicide until it is eradicated (E).

## 9.5 Dog Kennel Wood 4876

Keep the canopy open to allow the ground-cover flourish but clear brambles and scrub. As this is an extension of the pleasure grounds there is an opportunity for gardening here - a list of suitable shrubs and flowers could be provided and the positioning of seats and alcoves indicated.

## 9.6 The Fish Ponds

Investigate feasibility of repairing the dam walls in order that the ponds hold water for longer, avoiding the use of heavy machinery. The middle pond is the immediate priority for this work (HAP, PAH, PR, PRP, TRE).

Keep the pathways across the dams open and avoid scrub encroachment, whilst avoiding over manicuring the pond margins which have wildlife value and which would spoil the natural beauty of the area.

Re coppice alders along the boundary with Dog Kennel Field (CBT)

The ha-ha is not included in the plan area, but where it approaches the ponds from the north and south needs attention. Initially killing-off the Ash saplings, which are pulling the bricks apart on the southern section, would help but some rebuilding also needs to take place. Elsewhere the ha-ha seems to be in reasonable condition).



## 9.7 Dog Kennel Field 3661

Dog Kennel Field should be reinstated as parkland as it forms a significant historic link between Little Park, Dog Kennel Wood and the area of parkland to be re-established on the brow of The Warren. A key link would be restored between the Court, pleasure grounds and the parkland, which has been eroded since the Second World War. Since the Church Field will remain in arable during the plan period, the reconnection of the parkland can only take place by restoring Dog Kennel Field to its parkland status.

The boundary between Dog Kennel Field and the Little Park should be removed.

As an interim measure restoration of parkland on the northern and eastern sides of Dog Kennel Field could complete the ecological link between the River Wye and Moccas deer park NNR if implemented in conjunction with the other interim recommendations (see 9.4 above).

## 9.8 Church Field 4632

In the longer term future this should be added to the park but in the plan period two clumps of trees marked on the c.1885 OS map should be reinstated (STT, TP). Planting of hedgerows along fence lines would recreate the *ferme ornee* character of this area (PH).

## 9.9 Airfield 5110

Recent restoration of the pond close to the churchyard has yet to settle down and re-colonisation by flora and fauna has been slow. The wet area at the west end of the pond has the potential to be a buffer for the pond from arable operations and should be re-planted with willows or alders and pollarded regularly to maintain the views of the church from the west. (STT, TP or TST, TT).

There is room in the southern corner of the field for more planting to create a small area of woodland see c.1885 map (STT, TP) and to replant hedges as in 9.8 above and see map 20.

## 9.10 Crossend Coppice 6706

This woodland is of ancient origin and, with Depple wood, is one of the only two to appear on the Davies Lambe map of 1772 (map 9). The 1953 census of woodlands (Appendix 2) records it as mainly of oak 80 to 100 years growth. Between the 1946 and 1963 aerial photographs (see map sequence 10) the wood was clear felled and planted with beech. There is fairly rich ground flora including a fine display of bluebells (photo 7.3.2 above). Recent high pruning and removal of the shrub layer has considerably reduced the ecological and shooting cover value of this wood. There are bluebells and foxgloves in the ground flora but thinning the woodland and replanting the under-storey with hazel are recommended either in HLS (HC8) or EWGS.

## 9.11 Kennel Cover 8687 & 8483

Repair the damaged section of culvert (HAP)

Manage the woodland to favour broad-leaved trees (HC8 or EWGS).

## 9.12 The Meres 9351

(Formerly in many parcels 7566, 9465, 8560, 9350, 0753, 0246, 0947 & 8539.)

- The west end of the castle site should have any recently planted trees removed and the area returned to the grazed area of the Meres. (TRE)
- Removing the fence at this end and setting it further south will also relieve the pressure on the pinch point near the recently restored hedge (FSH)
- Thin remaining area of plantation to selected trees that will become next generation of veteran trees with view to taking down the fence in the long term (Farm Woodland Premium scheme)

- Restore the sluice at the entrance to the culvert and flood the area in the winter as a historic feature. Early grazing would still be economically beneficial and seasonal flooding would have other wildlife advantages (HAP).
- Pollard the remaining willows in the Meres. The recently pollarded willows are attractive, and this sort of traditional management could be extended (TS1/2)
- On the c.1885 O.S. map a scatter of trees are noticed on the higher land of the Meres. These could be replanted (STT, TP)
- Manage the fen like area of the decoy with very light summer grazing to allow plants to flower (HK15 or similar)
- Manage the species rich areas of the castle mound and the lower Meres as extensive grassland with the same low stocking density as in Moccas deer park (HK15 or HK7) See section 7. 4 for details of recent alterations to stocking density.

### 9.13 The Great Paddock 7918

- The long term objective would be to completely rebuild the wall which would include heightening it in places (WR2010, WRQ – local quarries exist that could provide stone)
- The immediate priority is to conserve the high wall to the south where around 130 meters have recently collapsed, and where adjacent lengths are now vulnerable to further collapse, employing the stone still lying on the site where possible, or from local quarries (HAP).
- Other areas where the wall remains at reduced height should be retained and monitored and measures taken to avoid further deterioration (WR, WRQ)
- The boundary trees and a few field trees marked on the c.1885 map should be replaced to provide future veteran trees and continuity with the parkland habitat , taking care not to plant too close to the walls(approx. 10 trees in total can be justified in this respect) (STT,TP)
- Re-establish the two open ditches which were piped in the 1980s in their original location (WDC).

Like the waterworks in the Meres, the enclosed Great Paddock is perhaps one of the most important man-made landscape features at Moccas.

### 9.14 The Forsythes 1435

- Restore one of the field divisions with a hedgerow containing the trees shown on the 25” O.S. map of c.1885 (PH, FSB, TSP, TT).
- Cease all cutting of branches of the veteran trees, create and maintain wide exclusion around the two in field veteran trees, avoid high stocking densities when grazed, monitor tree health and ground compaction.

## 10. Management Prescriptions

### 10.1 Arable reversion to low input grassland

Restoration of parkland from arable land should involve:

- Preparation of suitable seedbed
- Use of seed mix for neutral soils, without ryegrass.
- A mix of native grassland species should be used to create a fine sward (such as the species rich parkland grassland mix from Cotswold )including
  - 5% common bent
  - 5% crested dogstail
  - 2% sweet vernal grass

- 3% meadow foxtail
  - 10% smaller catstail
  - 30% sheep's fescue
  - 20% red fescue
  - 25% smooth meadowgrass
- Locally typical wildflowers to be included in the mix such as yarrow, sorrel, common knapweed, bird's foot trefoil, self heal (consult with NNR warden and NE for species lists in Deer Park and see Appendix 4 for species lists in 2013 ecological survey).
  - Alternatively natural regeneration may be successful depending on the seed bank. Germination trials using samples of soil from the sites can be useful to help determine likelihood of success.
  - Manage as low input grassland see 10.3 below.

## 10.2 Plantation reversion to parkland

Restoration of parkland from woodland should involve:

- Careful marking of all remaining veteran trees in the plantations
- Retention of selected broadleaved trees that could grow on as parkland trees, ideally in their c.1885 locations.
- Application for felling licence.
- Felling of plantation trees
- Levelling stumps and preparation of the ground ready for grassland establishment
- Grassland seeding most likely required in this situation but natural regeneration may be possible
- Management of very low input grassland as in 10.3 below

## 10.3 Extensive or very low input grassland

- Cut or graze. Cutting should be late in the season once most flowering plants have set seed; grazing should be at a stocking density to allow some flowers to set seed (see section 7.4 for Meres and Deer Park) and to avoid poaching in wet weather.
- No bagged N fertilisers should be used and P indices should be kept at 0 or 1 to encourage wild flowers. Use of small dressings of well-rotted farm yard manure may be allowed as are top dressings of lime if this has been the practice in the past
- Only use herbicide for spot spraying problematic patches of pernicious or invasive weeds. Weed wiping to control creeping thistle can work well if grazing can be arranged to achieve young thistles being taller than other flowering plants in the sward early in the season. A derogation may be needed to weed wipe in certain Stewardship Options. allowed in the ELS / HLS options
- Encouraging a much wider range of sward heights throughout the growing season which benefits insects, small mammals and other wildlife – through grazing management and reducing the stocking density / type of stock used for grazing
- Resisting the urge to “tidy up” parkland grassland areas so that they gradually become more like the habitat in the Deer Park NNR which has high ecological value because of its mosaic of grassland, scrub and trees.
- Encourage flowering plants by enhancing the sward with hay from a neighbouring seed source

## 10.4 Meres: seasonal re wetting and restoration of sluice

A computer model of the Meres derived from LIDAR shows the area and boundary shape of open water that would be impounded for different heights of a dam placed at the location of the sluice (map 17). This model also shows that much of the Meres would be inundated were the culvert ever to become blocked.



The zero point for the LIDAR height data is the ground surface on either side of the ditch just upstream of the sluice and this level is 40 cm below the top of the stone work where the recess ends, see photo left.

The maximum possible extent of the resulting water body then covers 1.5 hectares as depicted on the second in the digital flooding sequence in map 17 and also the pale blue line of figure 3 of the archaeology report on the Meres Appendix 6.

To avoid water erosion of the structure, the water level should be kept at or 20 cm below the top of the sides of the sluice. This arrangement will impound only about 0.2 hectares, the open water extending about 10 meters either side of the main ditch according to this simulation. The exact extent of the water body once above the ditch bank is a sensitive function of height so this can only be an approximate estimate.

A specification for the restoration of the sluice should be prepared to include

- Dismantling loose stone, removing tree roots etc. under archaeological supervision to allow proper recording and recovery of any datable material with watching brief by an archaeologist.
- Details of masonry repairs themselves.
- Excavation of the culvert entrance, again under supervision, to allow it to be repaired.
- Excavation of the channel between the sluice and culvert and repair the masonry side walls as this must be watertight to avoid erosion of the dam itself.
- The sluice gate should be adjustable to adequately control the flow when letting out the impounded water so as not to subject the culvert to any extra strain.
- To avoid too much silt getting into the culvert a silt trap should be installed in the main ditch just upstream of the sluice.
- Since the continued functioning of the culvert along its course from Meres to the banks of the Wye (see map 18, a distance of some 850 meters), is crucially important, the condition of the culvert should be inspected along its length using the entrance, exit and the two inspection points (the Little Parks pond and that in the Kennel Cover wood).

Once restored, the flooding should only be seasonal and not later than late February so as not to impact on ditch, fen and wet grassland vegetation.

Low input grassland should be managed as in 10.3 above.

## 10.5 Existing Parkland trees

The survey of the parkland trees and the many issues that arise are detailed in Appendix 3 below and in section 7.3.1 above. It is clear that some of the trees are stressed and a few diseased including the possible presence of Acute Oak Decline. Past and current management of the trees themselves and the land immediately surrounding them has been and is hostile to their term survival. To turn this situation around and to secure the long term future of the parkland trees in the plan area the following are minimum requirements:

- the protection of the full extent of the root zone of veteran trees where ploughing ceases
- reducing other stresses on veteran trees eg. from pesticide drift
- cessation of pruning and lopping of branches on veteran trees
- fencing off vulnerable veteran trees where soil compaction from sheltering stock is a particular issue
- Keeping feeders (not permitted in any case in certain ELS and HLS options) and mineral licks and water troughs well away from tree canopies
- planting more young trees and native shrubs either singly or in clumps to recreate previous planting patterns.
- Monitor tree health using the veteran tree survey of 2013 as a baseline.
- Measure and monitor ground compaction in sample areas of the park.
- Retain any fallen wood, keep entire branches intact. Only remove brush less than approximately 3 cm diameter and leave where it falls under tree crown

## 10.6 New planting

Long term restoration of the plan area parkland should be guided in the main by the first edition of the 25 inch to the mile Ordnance Survey map c.1885 which plotted the then distribution of trees. Comparison with later aerial photographs and our tree survey shows the locations of all marked trees to be fairly accurate and furthermore conifers were distinguished from broadleaved trees. A sentinel clump of conifers appears near the highest point in the Warren (map 11).

We therefore use this map as a template for planning the establishment of new parkland trees in keeping with the continuity of landscape development and consistent with the ecological objectives. The grid references for all the recommended new trees are derived by creating points in a vector layer in GIS co-incident the tree symbols depicted as this OS map edition, see maps 19, 20 and 21. These point locations are available as a GIS data table and can be uploaded to a GPS unit

The distribution of trees species plotted in Appendix 3 section 6 will inform the decisions as to the appropriate tree species to plant. For example, while oaks overwhelmingly predominate in the Little Parks, Sweet Chestnut and Beech were clearly dominant in the Warren and Dog Kennel. Of particular interest is the sole surviving native lime (Appendix 3 section 7) in the plan area. In order to maintain genetic continuity it would be desirable to propagate from the existing trees in the RPG.

- See restoration maps 19 to 21 below for planting plans based on the c.1885 OS map .
- Use local provenance plants and consider establishing a tree nursery for growing on seed and plant material collected within the RPG.
- Attempt propagation from the remaining native lime tree (Appendix 3 section 7).
- Protect new trees in appropriate guards and avoid agriculture inputs in their vicinity.
- Regularly monitor the health and growth of the new trees

## 10.7 Estate woodlands.

The woodlands within the plan area, excluding plantations recommended herein for reversion to parkland, cover a total area of 11.4 hectares. They comprise a diverse range of stands in age class, structure and species composition and are a valuable component of the estate in landscape terms, ecologically and in timber and wood productive potential. The woods are in general under-managed and many stands require thinning and/or coupe selection felling and re-stocking.

They should each have detailed plans for their management and it would be beneficial for them to be entered into a Forestry Commission scheme given the complexity of their stands and the management detail they require. One further advantage of the EWGS schemes is the availability of a Woodland Planning Grant.

Some general recommendations can be made :

- Most of stands require thinning which should favour the native broadleaves already present.
- Aim to diversify the age structure of larger with periodic canopy openings by group selection felling.
- Restocking by natural regeneration augmented where necessary by site-native broadleaves.
- Strengthen the understorey where necessary (example Crossend Coppice) by planting appropriate coppice species such as hazel and field maple.
- Retain selected mature trees for future veterans.

## 10.8 Walls

- Try to recover as much stone from the collapsed walls and reuse where possible
- Use stone from local quarry in Moccas if possible
- Bring stone from further afield as a last resort
- Rebuild the wall in the exact style and to the height of the remaining intact sections. The walls to the north of the Horse Paddock have been considerably reduced in height whereas those to the south have sections showing the original height.

Piers will be necessary at junctions of restored sections to stabilise and stock proof the restored wall. Some Snapshots of the wall between the Great Paddock and the Park NNR below:



## 11 HLS Options and Capital Works 2013 – 2023

### 11.1 HLS Annual management options

As submitted by the estate July 2013 for plan area (Areas C and D).

Field No.	Field Name	Area (Ha)	Arable Trees	Restn Wood land	Creantn. grass target features	Restn. of Park land	Orchards	Restn spp. Rich Grass	HK7 with EK3	Grass Target Features	Cattle supp.
			<b>HC5</b>	<b>HC8</b>	<b>HK17</b>	<b>HC13</b>	<b>HC20</b>	<b>HK7</b>	<b>HK7</b>	<b>HK15</b>	<b>HR1</b>
7342	The Meres Plantation	2.00						1.00			1.00
9531	The Meres	14.77						8.37	5.5		8.37
7918	Horse Paddock	5.76								5.76	
8483	Kennel Cover	0.63		0.63							
8687	Kennel Cover	1.23		1.23							
6012	Crossend Orchard	0.95					0.95				
6706	Crossend Coppice	1.47		1.47							
8555	Depple Wood	4.78		4.78							
8609	Little Parks	13.35		0.33		12.72					12.72
8623	Little Parks Woods	0.58									
9728	Little Parks Woods	0.32									
1435	Forsythes	6.34									
1163	Warren	10.17	3		1.35						
1785	Depple Wood	1.14				0.56					
2231	Little Parks Woods	1.19									
2930	Little Parks	2.08			2.08						2.08
3661	Dog Kennel	7.70			7.70						
4192	River 16	7.12	1		0.50						
4632	Church	8.45									
4876	Dog Kennel Wood	1.76		1.76							
5110	Airfield	7.67									
1501	Depple Wood	0.47		0.47							
2522	Boat House	9.93	6								
3001		0.05									
		109.91	225	1087	2664	2826	238	1374	350	748.8	960

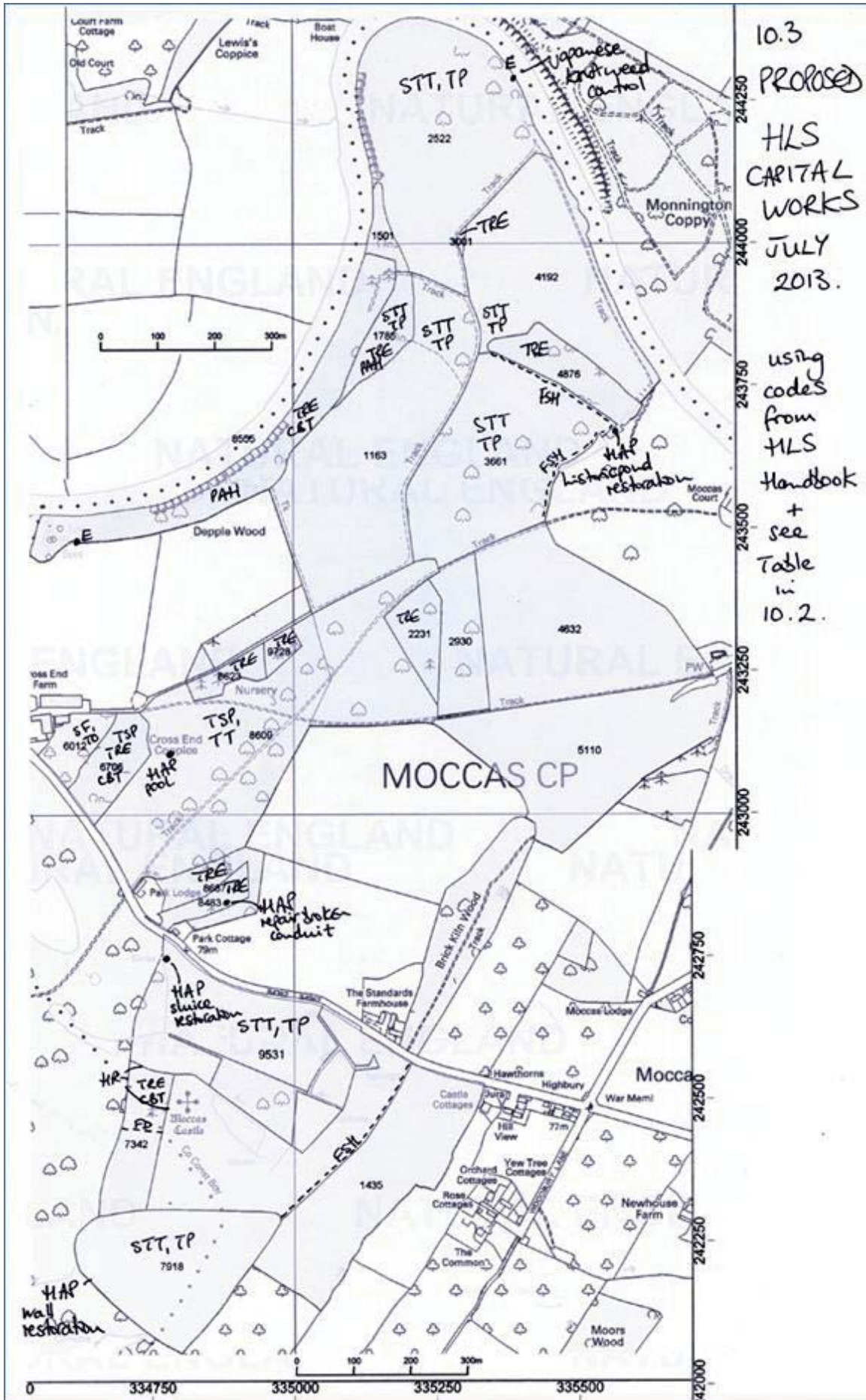
## 11.2 Capital works

**Annex 5: Indicative HLS capital works plan for July 2013 application**

Field number	location reference	STT - plant parkland tree	TP - parkland tree guard	TSP - planting trees	FSH - to protect groups of trees / ponds	TRE - tree removal (est.)	CBT - coppicing trees (est.)	HR - hedgerow restoration	HR - fence removal	FD - Deer Fencing	E - eyesore removal	SF - planting of fruit trees	TO - Orchard tree guard	PAH - pond / woodland mgt. plan	HAP - protection of historic features	TOTAL
7342	The Meres Plantation	16	16			15	40		82	75						
9351	The Meres	10	10													
7918	Horse Paddock															
8483	Kennel Cover						41									2000
8687	Kennel Cover															
6012	Crossend Orchard												1	1		
6706	Crossend Coppice				40		30									
8555	Deeple Wood						75				2					
8609	Little Parks	18	10													2500
8623	Little Parks Woods						40									
9728	Little Parks Woods						43									
1435	Forsythes															
1163	Warren	10	10													
1785	Deeple Wood	3	3			68								1		
2231	Little Parks Woods					114										
2930	Little Parks															
3661	Dog Kennel	28	28		1100											3500
4192	River 16	12	12													
4632	Church															
4876	Dog Kennel Wood					10										
5110	Airfield															
1501	Deeple Wood					60										
2522	Boat House	1	1													
3001	Woodland Plan					15										
Total Amount		98	90		40	493	145	0	82	75	3	1	1	4		27200
Es/unit or %		7.50	64.00		1.60	25.00	29.00	106.00	0.60	4.00	120.00	17.00	3.30	400.00		1.00
Total Es		735	5760		64	2750	4205	0	49.2	300	360	17	3.3	1600		55368.5



### 11.3 Capital works map



10.3  
 PROPOSED  
 HLS  
 CAPITAL  
 WORKS  
 JULY  
 2013.

using  
 codes  
 from  
 HLS  
 Handbook  
 + see  
 Table  
 in  
 10.2.

## 11.4 Special Projects

The projects for consideration include:-

- Seasonal rewetting of The Meres including restoration of sluice stonework and installation of wooden sluice boards
- Repair of damaged section of culvert / conduit in Kennel Cover
- Restoration of open ditches in Meres and Paddock
- Restoration of the stone walls in the Paddock
- Restoration of fish pools near Dog Kennel Wood
- Restoration of pool and associated stone abutment in Little Parks

These projects could be funded using the HAP code in HLS but quotes for the work must be obtained from contractors familiar with conservation grade work before the HLS agreement is agreed later in 2013

## 12. Long Term Recommendations

The HLS programme sets out annual management work over 10 years and 2 years of capital work starting in 2013. This work aims to make significant improvements to the landscape, historical and ecological features over that time.

Work in subsequent decades whether funded by the successor to the Environmental Stewardship Scheme or not should aim to continue this work which is leading towards the vision for Moccas Court as described in Section 8.1 and which broadly speaking includes reversion of land in the RPG to parkland and the replanting of trees according to the c.1885 map.

The next phase of the restoration plan after 2023 to achieve this vision would include :

- Restoration of grassland and planting of further parkland trees in River 16, Boat House and the remainder of Warren
- Further thinning and felling to restore Little Parks Woodlands (2231, 9728 and 8623) to grassland with additional parkland tree planting
- Restoration of additional sections of the stone wall round The Horse Paddock
- Restoration of the top fishpond between Dog Kennel and the Pleasure Grounds
- Restoration / replanting of hedgerows in and round Church and Airstrip Fields, between Warren and Dog Kennel.
- Restoration of open ditches in Horse Paddock

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### Abbreviations

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HCL-Hereford City Library

HJ-Hereford Journal

HT-Hereford Times

HRO-Hereford Record Office

IPM-Inquisitions Post Mortem (PRO)

ODNB-Oxford Dictionary of National Biography

OS-Ordnance Survey

PRO-Public Record Office (National Archives)

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## Appendix 1 Preparatory to the statement of significance

### 6.1 Archaeology

6.1.1 Introduction. An Archaeological Reconnaissance Survey was carried out of the study area by Herefordshire Archaeology in March 2003. This was published as *Herefordshire Archaeology Report 68*. At the beginning of the study a Historic Environment Record Consultation Response was sought for Cross End Farm and this was received on 24<sup>th</sup> April 2013. At about the same time a member of the survey team, with *Report 68* in his hands, reviewed all the HER sites (see Appendix 7) within the plan area and found that they all still existed, in a stable condition. One or two new sites were added to the list. The following is an assessment of the most significant sites.

6.1.2 The Parish Church of St Michael. The parish church possibly has Celtic or Dark Age origins. There are suggestions of an earlier larger church, perhaps two, in a substantial enclosure, part of which was used as a burial ground. Evidence of burials around the church has been recorded (HSM 34125). Southern and western extensions of the enclosure extend into our study area. This is a significant feature in the early landscape of Moccas.

6.1.3 The Motte and Bailey Castle. Soon after the Norman Conquest a motte and bailey castle was erected in the Upper Meres (HE6561). It was discovered by the Rev. Sir George in the mid-19<sup>th</sup> century and recorded in the *Transactions of the Woolhope Naturalists Field Club*. It was an earthwork structure with a small motte at its eastern end. During the 1970s it was damaged by ploughing and most of the motte was destroyed. Sometime later most of the bailey was submerged in a new plantation. Notwithstanding its degraded condition, the castle marks a significant moment in the history of Moccas, which appears to have been an ecclesiastical holding until the arrival of Nigel the Physician, who created a secular estate with the motte as its focus. The excavation of one of the ditches might throw considerable light on the early medieval history of the parish and is recommended by Hereford Archaeology as a community project. A geophysical survey of the castle site has formed part of this project – see below.

6.1.4 The site of the earlier House Albeit not mentioned on the *Archaeological Survey* but clearly of significance in understanding the development of the estate, is the house that pre-dated the present Court, which on the Lambe Davis plan is a building with two wings looking towards the Wye. On the landward side it looked into a courtyard with detached stables and services either side. It is very reminiscent of the design of Lower Eaton Court, overlooking the Wye, near Hereford, which dates from c.1740. However, Velters Cornwall in a letter to his neighbour at Tibberton refers to his house as a ‘chateau’, which may suggest it retained earlier fabric. On the Sandby prospect the Court is depicted as a straggling vernacular building with a gothic arch at its west end. The Georgian Court appears to have been built some distance to the west of the original house at the end of the yew walk shown on Lambe Davis and still surviving today. Behind the walk, to the south is a stretch of walling, perhaps relating to the earlier structure; the site needs further investigation.

6.1.5 Ridge and Furrow, and Hollow-ways Ridge and furrow occur in the Little Park (HSM 8609) and represents an agricultural landscape that existed before imparking. In the case of Little Park, evidence from elsewhere, suggests this was in the late Middle Ages, during a period of agricultural retreat. A well preserved area of ridge and furrow exists close to Kennel Covert (HSM 34082) and from its orientation suggests that it was associated with the extensive area of ridge and furrow found in the Lawn. This is important evidence for any discussion of the evolution of the Little Park. Similarly, the two hollow ways that cross in the park (HE 34089, 34090) are further evidence of a pre-park landscape.

6.1.6 The Walled Paddock. This is not noticed in the archaeological record but encloses field 7918 above the Upper Meers. It seems to relate to equestrian activities taking place in the late 17<sup>th</sup> and early 18<sup>th</sup> century and is a raised area, potential visible from the Court. It could be a place for equestrian display or simply a secure area for corralling expensive mounts. It may also have been associated with a building, before the stable block next to the house was built in c.1790. It was enclosed against the park and the continuous dry-stone wall that encloses it, would represent considerable expenditure, if not in money, at least in labour. It is a significant element in the chivalric landscape of Moccas and indicates the importance of horses in the life of the early family, be it Vaughan or Cornwall. It should be given statutory protection.

6.1.7 The Culvert from the Meers Equally noteworthy as an archaeological feature is the canal and culvert from the Lower Meers, which travels to Depple Wood. This has also been the subject of a geophysical study during this project – see below. This may also be an early feature, providing a managed overflow from the water system in the Meers, which is in itself and archaeological relic, with its carefully dug canal and radiating arms. There is no specific documentation for it in the archive of Sir George Amyand Cornwall and thus, it may relate to an earlier period. The culvert certainly provided water for the stone lined pond (HSM 34084) in the Little Park probably used for venereal rituals – an additional element in this quasi- ceremonial area. Later in the 18<sup>th</sup> century the water source provided a picturesque incident on the Depple Walks, forming a contrived cascade. The canal leat that superseded the culvert is noticed in the Little Park (HSM 34085). Albeit directly unrelated to the Deer Park the water system having its origins in the Meers is a significant archaeological feature and needs to be better understood.

6.1.8 The viewing Platforms. The *Archaeological Survey* draws attention to two viewing platforms overlooking Little Park (HSM 34088 & 34091), which may relate to the activities known to have taken place in other little parks. These engaged an audience, perhaps drawn from the nearby Court, who watched the proceedings from a raised stand. If so, this is a very significant, and apparently, rare feature and adds to the complexity of this detached piece of parkland.

6.1.9 The Fish Ponds. Two fishponds (HSM 34017-8) were marked by Lambe Davis in 1772, at this date isolated from the house. The pools themselves may be medieval or later, but were later integrated into the pleasure grounds. At the bottom of the pools Lambe-Davis marks a small red building, probably a bath house, said, 1782, to be in ‘the plantation’ e.g. Dog Kennel Wood which was laid out as an ornamental shrubbery, and through it a walk to Depple Wood was made. The bath house was at the far end of the yew walk, running westwards along the bank of the Wye. Archaeological investigation is needed to prove its designation.

At the western end of Dog Kennel Wood, on its NW corner, overlooking River 16 (4192) there is a scatter of early bricks on the field edge. This the site of a small building marked on the O.S. map of c.1885, where a narrow strip of water is also visible, either side of the building. It seems likely that this marked the site of the original dog kennel, which gave its name to the woodland, and was subsequently moved to Kennel Cover, next to the lodge at the entrance to Little Park. In 1782 the Dog Kennel was also said to be in the ‘plantation’. A small enclosure, rather indistinct, is marked on Lambe-Davis, which may have contained the kennels. Pools, Kennels, including the late Georgian ones in Kennel Cover, and the bath house are important archaeological elements in the recreational landscape at Moccas.

6.1.10 The Carriageways. The survival of carriageways within the study area is very complete. The most conspicuous being the carriageway from the Court, through Little Park to the Keeper’s Lodge, and the other, from Cross End Farm, also via Little Park to the parish church and onwards to the stables. These drives are close to the recommendations made by Brown on his 1778 survey.

The *Archaeological Survey* also notices a drive or carriage ride that begins in the pleasure grounds to the west of the Court (HSM34114), which crosses the dam above the lower fishpond and turns sharply towards the river reaching a beach under the Scar, close to a point where there was a ferry and where Elizabeth Greenly, for one, crossed the river on horseback (p. above). Another ‘carriage ride’ follows the path through Dog Kennel Wood and drops down into Depple Wood. Such carriage drives were very common in the picturesque era, giving women, in particular, an opportunity to engage with the landscape. Uvedale Price put one around the perimeter of the Foxley valley and Repton provide one for the Foley household at Stoke Edith, Herefordshire, which took in the high country of the Woolhope Dome. Carriageways are significant element in social archaeology and although disused, the clues to their presence should be maintained.

6.1.11 Moccas is well endowed with interesting and important archaeological sites, which add considerably to its history and the integrity of its design. In most cases these sites need little attention but knowledge of their presence must be cascaded down the management structure of the estate. The danger comes from ignorance and the massive damage, just a few minutes’ work, in the wrong area, with large machinery can inflict. A copy of this section of this report, together with the *Archaeological Survey* mentioned above should be kept in the estate office or given to tenants.

## 6.2 History

6.2.1 Moccas breathes continuity. Here we are not dealing with an estate long detached from its original ownership, with its great house demolished, suffering from institutional or municipal neglect and marooned perhaps, in the outer suburbs of a large city, but a landscape as complete as is was 300, 600 perhaps even 1600 years ago. A follower of Dyfrig, a vassal of Hugh de Fresne, a tenant of Henry Vaughan or Sir George Cornwall would all immediately recognise the landscape. All the key elements, the Wye, the Scar, the tree-covered Dorstone Hill have hardly changed. At a more detailed level the mixture land use around the Court would be familiar, the arable fields, the woods at Depple, the marshy reed covered Meers and the Lawn Pool would also be recognisable. The extent of the park land would, perhaps, surprise those who lived before Sir George Cornwall, as would the smart brick Court and its pleasure grounds.

6.2.2 The estate has been managed in a very similar way since the Dark Ages. For over a thousand years it has produced good grass and wood, and with knowledge, some grain. This annual growth has produced increment for its owners, but not always sufficient to maintain their desired lifestyle. Since at least the 17th century the Vaughans and Cornwalls have supplemented their life at Moccas with income from further afield. This has taken many forms – rentals from elsewhere, government office, military service, banking and even a church benefice or two. But Moccas has been the chosen site for genteel life and it seems that few members of the Cornwall family have had a second home, apart from a house in London, and in Sir George’s case, a house in Hereford. In the late 17<sup>th</sup> century and early 18<sup>th</sup> century Bredwardine appears to have been a counter attraction but Velters Cornwall decided that notwithstanding the ancient associations of Bredwardine Castle, Moccas was a more desirable place to live. We might guess that it was the situation that made the difference. Topographically, Bredwardine was confined and lacked the stunning prospects of Moccas. Like Rotherwas, to the South of Hereford, where James I quipped that ‘Not everyone can live at Rotherwas’ Moccas was in similar position, with the Wye on its garden front, a deer park perched on an adjoining hill to the south and surrounded by well drained alluvial lands. Moccas had the additional advantage of the Scar, which as the 18<sup>th</sup> century progressed came to be seen, since the publication of Edmund Burke’s *Philisophical Enquiry into the Origin of our Ideas of the Sublime and Beautiful* (1756), as a very desirable ingredient in the home scenery. The sublime became the highest landscape category, a complement to the beautiful, so evident in the pastoral apron that lay just beyond the front-door of the Court.

6.2.3 We could wish for better documentation of the landscape activities of the Cornewalls in the early 18<sup>th</sup> century but we have sufficient to understand how Velters Cornwall, a rustic hero of mid- Georgian Herefordshire, displayed his estate to his influential political friends. The survival of John Lockman's poems, an early survey of by Lambe Davis and a chance panorama painted by a passing artist, Paul Sandby, reveal the essence of the place. It reflected the aesthetics of a Tory 'backwoodsman' who from his 'old chateau' next to the Wye – presumably a hybrid Medieval/ Tudor house – Velter's maintained a 'hospitable seat', supplying his guests with 'vinous cyder' – the drink of Herefordshire – and allowing them to wander in a pastoral landscape with trim hedges and flowery meads feeding contented Herefordshire cattle. The 'craggy cliff' loomed over the tea parties on the terrace from which the energetic visitor set out to tackle the 'brambly steep' of the Deer Park to savour another sublime experience – 'the Welsh Alps'. This was not an estate gilded with City money, with tasteful garden buildings from the hands of a dilettante architect, nor was the smart house set in vapid lawns, laid out by a Kent or Bridgeman. In terms of 'ornaments' all it had to offer were an ancient mansion, bath house below some cow trodden ponds, a yew walk and a few seats with traditional husbandry and estate management producing the rest of the aesthetic experience.

6.2.4 We suspect that George Amyand Cornwall came with city money and city taste to Moccas but succumbed quickly to its naïve charms. In an earlier age Sir Robert Harley believed that 'clownish rusticity' was the Herefordshire disease. Only Sir George's compulsive account keeping, reveal his earlier career, otherwise he embraced the Georgic idyll lock-stock and barrel. However, the account books give us a rare insight into his world picture, his interest in racing, in 'ancient music', politics, books and above all else his Home Farm. It seems likely that his wife Catherine aspired to more and she no doubt welcomed Robert Adam, Lancelot Brown, Humphry Repton, Sir Joshua Reynolds and George Romney, among other metropolitan figures, to Moccas. But Sir George side-lined both Adam and Brown and paid less for his architecture and landscaping than his wife anticipated. In a sense, like Velters but with a little more self-consciousness, he took a deep interest in managing his demesne and became a model farmer. The *ferme ornée* became more productive, but he took his cue from Uvedale Price's concept of the 'agrarian picturesque' and achieved profits within clear aesthetic boundaries.

6.2.5 The working landscape was viewed from well-defined walks, woods were enhance with evergreens and flowering shrubs e.g. rhododendrons, flowering cherries, pink thorns and Vibernums – all found today within Dog Kennel Wood. For surprise effect in delaying the appearance of scenery and for framing pictures, box, holly and yew were also employed, especially in Depple Wood. Since meat prices were at an all time high during the French Wars, and timber was in short supply, more land on the western edge of the court park was put down to parkland and the arable retreated. Both Brown and Repton deplored the presence of arable within the purview of the great house, but, of course a different message came from the 'gentlemen professors' of the Picturesque, Price and Knight whose walks around the Moccas demesne during one of Lady Catherine's soirées would surely include this current patriotic issue. No doubt, they also generated a long list of other imperatives, which found their way into Sir George's in-tray. They were both men of Old Siluria – the fanciful patriotic name adopted for Herefordshire by those who admired Iola Morganwg – and were promoting, what today would be called 'local distinctiveness', which in 18<sup>th</sup> century terms meant rejecting London fashions in terms of landscape aesthetics and, in the case of Moccas, letting it reflect its specific glories.

6.2.6 Sir George's financial crisis (p. above), seems to have accelerated his desire to enhance his estate with more woodland. He was not alone, elsewhere in Herefordshire, at Holme Lacy the Duke of Norfolk and at Kentchurch, the Scudamore trustees, were replanting intensively after recent sales of naval timber. In 1802 Nelson – with Lady Hamilton - made a tour of the Wye Valley woodlands, eventually ending up at Downton, but was depressed by the lack of suitable naval timber. As a result parks up and down the Welsh Border were over-planted with patriotic timber, also designed to provide a nest-egg for the next generation of cash-strapped heirs. As it turned out the development of ironclads denied them their bonanza and much of the best timber

waited until the First World War to be harvested, albeit a fair amount survived to be admired today.

6.2.7 With George's son (d. 1835) the parkland at Moccas achieved its furthest extent. Neglected by his immediate heirs, it was allowed to mature and, as we have seen (p. above), the Woolhope Club and Kilvert, among others, rediscovered Moccas, and especially the Deer Park, finding it literarily stuffed with veteran, and other interesting trees. But like visitors in other periods, they tended to take the court landscape for granted. Had they reflected a little, they would have realised that without it, the sublime pleasure of the Deer Park would have been diminished. It seems the Rev. Sir George managed, in his tours, to orchestrate the whole ensemble, so that it seemed a seamless whole, with the pleasure grounds and the court park used as a prelude for what was to come.

6.2.8 Similarly Kilvert often took a detour in the Deer Park after an evening at the Court, before taking the old way via Depple Wood to Bredwardine or in reverse he came down the river in a punt. Kilvert and the Woolhopians were imbued with the picturesque aesthetic, which held sway throughout the 19<sup>th</sup> century. Indeed, Dr. Bull and the Rev. Kilvert were besotted with Romantic poetry, and had a pertinent quote for every eventuality. Both were visually satiated by their experiences at Moccas, and the bachelor vicar also, it seems, found his social needs provided for. A picnic at a gypsy camp, beside the Lawn Pool, with Sir George making the sandwiches in his mourning weeds, must be seen as the ultimate *fin de siècle* experience – a golden age of endless summers, found also in the impressionist images of Renoir and Seurat. The modern age has handed the parkland over to scientists and foresters, and with no firm landscape aesthetic, the court park has succumbed to the empirical demands of modern farming, which has eroded its registered status. Hopefully with the restoration of parkland trees and an awareness of how the *ferme ornée* worked in the past – its foot paths and carriage ways, hedges, view points and under planting - the situation will be improved. It must be said that trusteeship and divided ownership are not ideal for managing English parkland – bring back Sir George and the Rev. Sir George, to whom we owe the best of what survives today.

6.2.9 The good archaeological record of Moccas is complemented by a very full history. Not only is there a very good estate archive, especially for the late 18<sup>th</sup> and early 19<sup>th</sup> centuries but the picture is completed by accounts and records of numerous visitors. There are good cartographic records and paintings by Hearne, Sandby and probably W.S.Gilpin. Much use has been made in this study of Sir George's account books, which are so explicit in terms of estate management they probably warp the true history of the estate. Much more could be gleaned from them, which would no doubt illuminate estate management in the time of the Napoleonic Wars and contribute something important to the social and economic history of the country at a significant juncture in its story. In a sense this work has already commenced in the several recent monographs, specifically focussed upon the estate.



## 6.3 Design

6.3.1 The court parkland at Moccas has in recent time played second fiddle to the Deer Park and it was only the presence of Brown and Repton that secured it II\* rating – along with the Deer Park - in the first Register issued in 1986. In this report Brown is categorically said to have designed the parkland, whilst Repton is said to have been consulted about the terraces on the riverside of the Court. In the second edition of the description (1998), Paul Stamper is much more circumspect and has the benefit much more recent work on Moccas, including the first Debois *Report* (1993) and Hazel Fryer's *Garden History* piece (1994), specifically on Repton in Herefordshire. However, only a small paragraph is concerned with Moccas Court parkland and the focus of the report is upon the pleasure grounds within the ha-ha, the Monnington Walk and most of all the Deer Park. In the summary that heads the new register description, the Deer Park, accompanied by Brown and Repton - who are simply attributed with 'proffering schemes and advice' - remain the two key criteria for its II\* status. So does the court parkland have any design and is it a significant and, perhaps, an undervalued element in the whole ensemble?

6.3.2 Moccas has a landscape that is there by design but it is not a designed landscape in the sense that it began as a concept in someone's mind and was worked into a plan or even just articulated as a verbal description. Indeed, many of its virtues and best qualities have emerged spontaneously in response to different pressures and needs – even inertia has worked well for Moccas. Moccas was never a great estate although Sir George Amyand built-up a portfolio of property that came close to that scale. Because it was a 'middling' estate, there has always been an element of farming involved. Even the Deer park came by accident, borrowed from an adjoining estate and coaxed down the hillside to Moccas. It came to the Cornewalls via the Vaughans, who had an estate at Bredwardine and elsewhere, proportionate to its scale. Initially, the Cornewalls were equally land-rich but Velters Cornwall found himself with a diminished estate and this increased the pressure upon him to farm or lease for farming land close to the Court, which is reflected on the Lambe Davis plan of 1772. He also had a 300ha deer park producing timber and providing some grazing, but otherwise unproductive.

6.3.3 But for the poems of John Lockman we would have little understanding of how Moccas worked as an ornamental landscape. His poems suggest that guests at Moccas took for granted the farming landscape but also found in it something rewarding that complemented the stunning backdrop of the Scar and the Deer Park. This was a stereotypical vision of pastoral countryside promoted, not only by poets, but also by the Claudian painters and the taste for Georgic literature popular at the time. Pope's *Windsor Forest*, Dyer's *Gonger Hill* and Thomson's *Seasons* all celebrate pastoral countryside in a sublime setting. Grand tourists travelling through the mountainous regions of Europe also reinforced this vision. Christopher Hussey saw the roots of the picturesque movement in this milieu but contemporaries had another fashionable word for pastoral form of gardening – the *ferme ornée*. The most famous representative of this style was Philip Southcote's Woburn Farm, in Surrey. Its creator felt that intensive cultivation as well as animal husbandry was not an impediment to giving an estate the 'air of the garden'. Fields with grassy margins, hedgerows and ponds could all be ornamental as well as functional. Pope put it another way and praised the landowner:

'Whose ample lawns are not asham'd to feed  
The milky heifer and deserving steed;  
Whose rising Forests, not for pride show;  
But future buildings, future Navies grow.  
*Moral Essays*

Like all fashionable styles, it was possible to go over the top and the gardening could easily eclipse the farming. William Shenstone who planted herbaceous flowers in his hedgerows and the corner of fields experienced this crisis, where pleasure reduced profit so much on his small farm, the Leasowes, near Halesowen, that he became bankrupt. This was roundly condemned. On the

other hand farming for profit could just as easily extinguish the aesthetic bonus but contemporaries could easily distinguish the golden mean. Both Southcote and Pope agreed that the setting of the *ferme ornée* made a great difference, as did the proprietor with a painterly eye, who discreetly organised his grounds as a series of pictures, framing prospects.

6.3.4 Moccas had the prospects but we might suspect that Velters Cornwall lacked the sensitivity or self-consciousness to manage them but even so, as Lockman stressed, the fine scenery broke into view at every turn of the field. Fortunately, in these early days of the English landscape movement, a little rustic neglect was regarded as an antidote to the formal landscapes that had dominated national gardening since the late 17<sup>th</sup> century. Velters did not plant flowers in his hedgerows but the charming orchards, ponds, coppices and even a little barley provided the correct ambiance to convince Lockman, who was on intimate terms with the father of the English landscape garden – Alexander Pope – that this was no counterfeit.

6.3.5 A cursory glance at Lambe Davis suggests that the landscape around the Court – the study area – was more than just a productive unit. It was encircled by a network of country lanes, well-settled with farms and cottages – much as it is today – but over the inner core the Court and the parish church held sway. This was a bosky paradise, the epitome of the pastoral idylls of the day. The pleasure grounds of the Court were modest, stretching along the banks of the river but beyond the Court to the south there was a ring of orchards, closes and meadows, enclosed with hedgerows. Outside this there was a change in landscape character with a ring of arable fields – Great Church Field, Little Church Field, Thirteen Acres and Brick Kilns – all irregular and also enclosed with hedges. These open fields helped to give some distance between the court landscapes in the inner ring, sheltering the Court and the parkland beyond, beginning with the Little Park. The modern distaste for arable fields was not shared by our ancestors, for whom food shortages were and ever present threat. Moreover, as Richard Jeffries highlights, in an age of horse ploughing, there was always a grassy margin around the fields and this was where the outstanding flora of pre-industrial England flourished. He notices in Wiltshire the pink pimpernel, blue bottle flowers, great scarlet poppies, ‘eggs and butter’ and lesser and greater convolvulus that climbed the hawthorn hedges, flourishing in the margins left by the horse-plough.

6.3.6 We have noticed that the Rev. Sir George frequently attended Woolhope meetings with a garland of wild flowers from Moccas – he was a contemporary of Jeffries – and when the Club walked the edge of Depple Wood in 1891 they admired the last stand of the ivy leaved bellflower (*Wahlenbergen hederacea*) in Herefordshire – a creeping plant with delicate blue flowers, the denizen of damp woods. As Lockman emphasised, the real beauty of Moccas in the mid-18<sup>th</sup> century was the contrast between the core small scale domestic landscape – beautiful in the Burkeian sense – and the expansive and sublime setting that surrounded it.

6.3.7 As Sir George Amyand discovered Moccas would not have been improved by importing a designed landscape from the purveyors of fashionable taste like Brown and Repton. Moreover, Sir George was a serious hobby farmer, which reinforced his determination not to impark his demesne but to maintain a viable Home Farm. The arable remained and so did the hedgerows, the green field margins and the flora. Certain elements of Brown’s plan of 1778 were copied. Innovations in carriage design enabled light vehicles to traverse in comfort rough gravel or grassy drives. So the line marked by Lambe Davis from Cross End Farm to the Court was given easier curves and pushed through the Little Park. Brown also drew attention to the Warren and the escarpment, which provided fine views of the Scar. Much of Sir George’s new planting would take place here, to the west of the Court, connecting, as Brown suggested, the inner parkland with the Deer Park. Brown also identified the potential of the wooded ridge, which later became Dog Kennel Wood and, as we have noticed above p. it is possible that a carriage drive emerged from the west end of the Court and passed this way to Depple Wood. With its interesting geology, diverse flora and pastoral views towards Bredwardine, over lands that also belonged to Sir George, a route this way was essential and became a key element in the recreational walks of the 19<sup>th</sup> century.

6.3.8 It is significant that Sir George adopted very few of Brown's ideas for the landscape to the east of the Court. The agrarian picturesque flourished here with a mixture of arable, pasture, orchards and small woods, which exist today. The long belt that Brown proposed, sealing Moccas off from the populous countryside outside, with which it had been so firmly connected in so many ways, was ignored. Both Uvedale Price and Richard Payne Knight had a special aversion for the Brownian belt as a symbol of the destruction of the 'connexion' between a landowner and his tenantry. This was a sensitive issue in the age of revolutions when the equilibrium that existed for generations between the tillers of the soil and the landowners was under threat from a number of other directions. Whereas at Wellington, in lowland Herefordshire, the angry smallholders and labourers erected a gallows, to deter the enclosure commissioners, social harmony prevailed at Moccas. Moreover a belt produced a gloomy edge to a park and cut out the borrowed landscape – so important at Moccas. No doubt, one of the attractions of Lady Catherine's house parties was the non-threatening bucolic atmosphere that prevailed at Moccas, which clearly Kilvert enjoyed too. Gypsy picnics beside the Lawn Pool, close to the public thoroughfare, were blatant displays of upper class privilege and frivolity. You could get away with this at Moccas where the lack of iron gates set between brick walls, and impenetrable belts, defended by man traps, signified that agrarian harmony prevailed.

6.3.9 Sir George considerably extended the pleasure grounds at Moccas, creating one of the longest ha-has in Herefordshire, which also enclosed his walled garden. There was also room for extensive shrubberies and secret gardens to the east of the Court. He also annexed a rocky dingle running down to the river to the east of Home Farm – a picturesque vignette, which could readily be dressed –up as alpine scenery or a fernery. There may also have been a grotto here – referred to in 1787. As far as we know Sir George accepted no professional advice for this. He paid regular bills to Kennedy and Lee of Hammersmith, his nurserymen, and, between 1784-6, also bought 'evergreens' and laurels from James Cranston of the Kings Acre Nursery, Hereford. Cranston was Uvedale Price's head gardener before he set up as a nurseryman in the earlier 1780s. He served his apprenticeship with Kennedy and Lee and was a skilled surveyor, advertising in the *Hereford Journal* his readiness to 'layout grounds' and Price recommended him to his friends in this respect because he was cheaper and better than Repton. There is no documentation that suggests he had a hand in laying out the grounds at Moccas albeit, as Price was so well known at Moccas, informal advice may have been proffered. Sir George also employed a series of gardeners beginning with Mr. Scobie, but they seem to be no more than artisans. In the layout of the new gardens along the river frontage, Repton may have been involved. At this time Repton is found collaborating with Cranston at Garnons, the Cotterell estate across the Wye to the south-east of Moccas. The entry in Sir George's account book for 1793 states: 'Began the walk by Repton's advice from the house and moved the rails further from the house'. A further reference in *The Theory and Practice of Landscape Gardening* (1803) also refers to the 'trifling removal of a ridge' to open up a beautiful view of a reach of the river Wye. This seems to refer to landscaping in the south-west corner of the pleasure grounds above the fish ponds and adjoining the meadows and Dog Kennel Wood.

6.3.10 It seems very likely that Sir George followed the advice of his friends Price and Knight who, after the publication of the *Essay on the Picturesque* and *The Landscape*, both in 1794, became minor celebrities and were regarded locally as the 'gentlemen professors of correct taste'. There was a strong anti-professional bias in their writings, which rejected the misplaced advice of 'mechanic improvers' who recommended wholesale and expensive changes after only a single visit to the estate concerned. A cultivated man like Sir George whose taste had been educated by familiarity with Italianate and Dutch landscape paintings, facilitated in an age before public galleries by visiting other country houses, would have a far better appreciation of the picturesque potential of his estate than a professional landscaper. These men, according to his friends, took all the local colour and distinctiveness out of familiar landscapes and it was much more desirable to follow your own good taste. This is basically what Sir George did and is reflected in every page

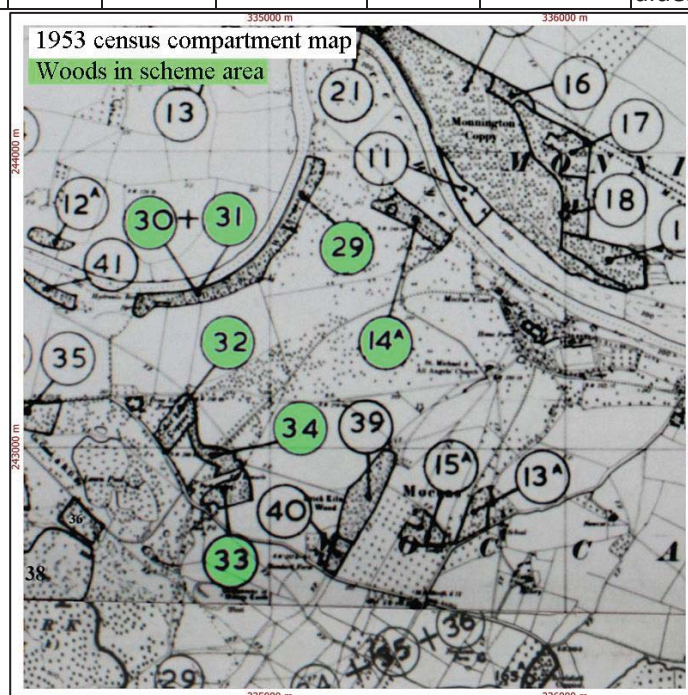
of his account books. He certainly tipped the balance of the *ferme ornée* that he inherited in favour of something more embellished but, as we have seen, the concept of the ‘farm-like way of gardening’ was given new life by Price and eventually by his disciple John Claudius Loudon (1783-1843) who at Tew Lodge, Oxfordshire, between 1808-11 integrated practical farming with picturesque landscaping. Sir George, it seems, was ahead of the game and from c.1790 began extending the parkland to the west of the Court, adding shrubberies and walks and within the ha-ha planting ornamental trees in a gardenesque manner. One final potential source for his inspiration comes from an entry in Elizabeth Greenly’s diary in which she mentions a visit to Moccas in 1802 by William Sawrey Gilpin, nephew of the great Gilpin. This was early in his career, which only took-off as a landscape gardener in c.1806 after a serendipitous visit to Uvedale Price who encouraged him to change his career from a watercolourist to a landscaper. He may have been at Moccas on the recommendation of Price but since he rarely gave written instructions to his clients – a Pricean conceit – he may not have left many clues in the Moccas archive. As he worked out very strict rules about planting trees in the picturesque manner in his book *Practical Hints on Landscape Gardening* (1832), he could have easily guided Sir George’s hand or that of his son, at this time.

6.3.11 The landscape that emerged in the late 19<sup>th</sup> century at Moccas is already in existence on Lamb Davis’s plan of 1772. Brown and Repton came and went but their advice was used with discrimination by Sir George Cornwall who discovered from his friends, Price and Knight, that he already had a fashionable landscape, which merely needed tweaking to correspond with the agrarian view of the picturesque. He may have been helped by artisans who came with Price’s blessing – the nurseryman, Cranston and the painter, Gilpin – but the outcome, measured by the accolades of the Dr. Bull and Kilvert, was a perfect example of the picturesque – and so it is today, and again with a few delicate tweaks, it will remain.

## Appendix 2 1953 woodland census compartment data

Data from the Herefordshire 1953 census of woods survey sheets woods within the Moccas Estate plan area.

Stand No.	acres	name	type	age	volume cu ft/ acre	main species	secondary species	% species in stand	Surveyor's remarks
29	2	Depple Wood	BHF	60-80 years	2400	oak		oak 100.	
30	6	Depple Wood	BHF	uneven age	700	ash	oak	ash 50; oak 30; SC elm 10; alder syc 10.	Oak 60 to 120 years. Elm, Ash 60 to 80 years Other species 20 – 60 years
31	3	Depple Wood	scrub			OB	OB	elder; box; rhodo; thorn; yew; willow.	
32	4	Crossend Coppice	BHF	80 -120 years	1700	oak		oak 100; elm; NS.	
33	3	Kennel Cover	MHF	uneven age	1900	EL	elm	EL 50; elm 20; syc 10; oak ash beech NS SC SS 10.	EL is a planted crop, approaching 20-30 yrs; some syc of the same age occasionally occurs in mixture. Oak, Elm 80 to 120 years.
34	3	Wildernes s, Little Park	felled						A felling has taken place leaving only parkland appearance. Being converted to parkland
14A	4	Dog Kennel Wood	BHF	uneven age	1400	oak	ash	oak 40; ash 40; SC 10; EL birch NS SP elm alder syc 10.	Oak, ash, elm, SC 80 to 120 years



## Appendix 3 The tree survey

### 1. Tree survey method

The trees in the plan area were recorded using a Garmin 60cx hand held GPS (with an accuracy of between 3 and 6 meters depending on conditions), a surveyor's measuring rod and digital camera. This allows the location of each tree to be plotted automatically as a vector and data layer within the project Geographic Information System (GIS) with attribute information such as species, girth, comments and associated digital images. We have also generated an Excel spreadsheet version of this data which on the report web site and reproduced in section 10 below.

Distant and close up photographs were taken of each tree with a graduated surveying rod next to the trunk enabling the image to be calibrated and used to make measurements, for example, of tree height and girth although a tape is used to determine girth where possible. Most trees have several photographs so the date stamped images constitute a digital archive of the state of each tree which will be useful for future monitoring.

Each tree's digital image file name includes that tree's identifier so tree images are searchable in the database. Photographs were also taken of general views of the trees in groups and/or from afar in all just over 1,000 photographs were taken and are available in digital form on the accompanying DVD which also includes the tree database in Excel and as a shape file with table for importing into GIS.



The above images of oak tree c03e serve as an example and involve a far and close up view with a graduated rod in the image plane of the trunk, the image files being time stamped 30-JUN-13 16:28. The height and condition and shape of the crown is recorded and can be measured against the rod and compared with any future image.

The girth is also measured with a tape and the reading photographed. The close image is imported into a measuring software (GIS or image processing program) scaled using the rod. The diameter measurement is multiplied by  $\pi$  to estimate girth. In this case the two measurements are within

5%. For more irregular trees there be less agreement but the image will always remain as a quantitative record.

The GPS waypoint is recorded at the same time as the photography whose mutual synchronicity helps avoid any possible confusion between images and tree locations which can happen with closely spaced trees which can be similar to the GPS location error.

In this sort of case the GPS location can be confirmed upon importing the GPS waypoints into GIS and ensuring that the correct tree crown location from the ortho-rectified aerial image and the GPS point are co-incident by visual inspection. The readout from the GIS database for tree c03e is SO3505443326 which is accurate for this survey to + or – 3 meters.

## **2. The tree image database**

The survey image files themselves need to be uniquely associated with the correct tree. This is done by amalgamating the 4 character tree identification string (derived in section 3 below) with the image file name given by the camera.

In the above example the photographs of the whole tree, close up of the trunk and the tape reading of girth have file names c03e\_SAM\_1495.JPG, c03e\_SAM\_1496.JPG and c03e\_SAM\_1498.JPG respectively so that multiple images of the same tree can be easily accessed either manually or by database query. This latter can be used, for example, to open the correct image by clicking on the tree location in GIS.

There are 874 such images of the 203 trees recorded totalling 5Gbytes and are on the DVD that accompanies this report in a folder “treeimagedatabase”. As with any digital image from a modern camera the data associated with each image such as speed, aperture, ISO, and critically for this application time and date, can be extracted from each image file.

## **3. Generating an identification system for tree records**

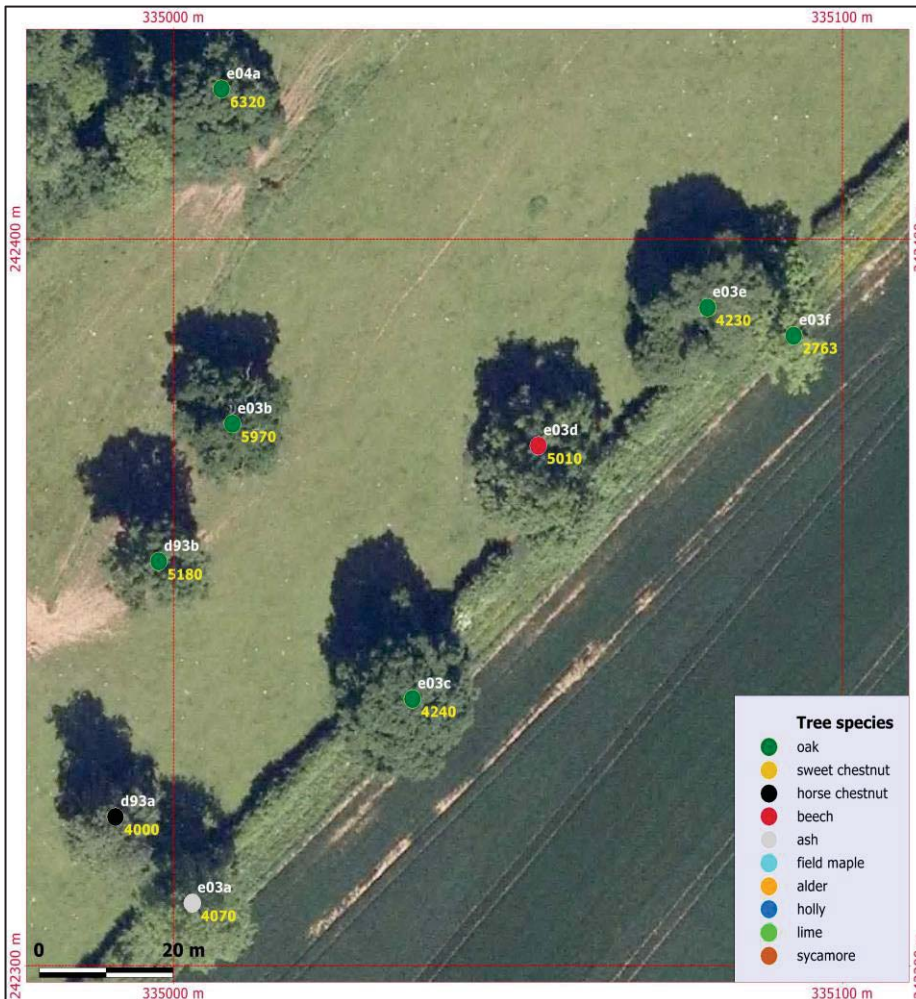
Every recorded tree is assigned a unique 4 character identifier based upon its geographic location established by GPS and refined using the 25 cm resolution ortho-rectified digital aerial photography as above.

Taking tree c03e, the prefix letter identifies its location within one of the five 1km squares which encompass the plan area and two middle digits identify the 100 meter square it is in. The suffix letter uniquely identifies each tree within its 100 meter square by labelling each tree alphabetically from west to east within the particular 100 m square. Tree c03e is the fifth out of nine trees within 100m square SO350433 with the 1km SO3543 which we have labelled c.

Both the tree identification string and the associated 10 figure grid reference are generated automatically within GIS.

Within the GIS a table of tree images can be linked to the ‘tree layer’ vector points so that each tree image can be automatically displayed when a tree is selected.

An example of the report GIS is shown below:



Close up of the Lower Meres and Forsythes showing veteran tree locations from GPS.

The white text is the individual tree identification string and yellow text is the girth in mm.

Tree species are colour coded according the legend. Oak, beech, horse chestnut and ash in the frame.

Screen grab of the database of the trees in the frame with details of GPS readings, time of record, 10 figure grid reference, girth, unique ID and tree digital image file name.

time	GPS Way...	GR	species	girth mm	treeID	imagefile
13-MAY-13 12:10:34	051	SO3508042391	oak	4230	e03e	SAM_0064.JPG
13-MAY-13 14:35:29	070	SO3509342387	oak	2763	e03f	SAM_0181.JPG
13-MAY-13 14:40:52	071	SO3503642337	oak	4240	e03c	SAM_0183.JPG
13-MAY-13 12:15:24	052	SO3505442372	beech	5010	e03d	SAM_0067.JPG
13-MAY-13 12:19:49	053	SO3499142321	horse chestnut	4000	d93a	SAM_0071.JPG
13-MAY-13 12:27:44	054	SO3499842356	oak	5180	d93b	SAM_0074.JPG
13-MAY-13 12:33:50	055	SO3500942375	oak	5970	e03b	SAM_0082.JPG
13-MAY-13 12:40:36	056	SO3500742421	oak	6320	e04a	SAM_0088.JPG
13-MAY-13 12:19:49	053	SO3500342309	ash	4070	e03a	SAM_0187.JPG

#### 4. Monitoring

One of the difficulties in trying to reconstruction the past landscape is lack of accurate information in space and time, hence our heavy reliance upon particular maps, air photos and documentation. Future changes to the landscape and to individual trees as a function of age, management, disease, weather patterns should be much easier to record and quantify using the tools at our disposal especially those of a digital nature.

The land managers of future generations will have better, more accurate and through information upon which to base decisions. The data collected in this report we hope will act as a baseline against which to monitor progress in the restoration of the Moccas estate landscape building upon and extending the methods herein described.





- ▲ From the tree data base a group of oaks in Little Parks with their IDs and girths in meters. The foreground oak has its 10 figure grid reference.
- ▼ Group field maple trees also in Little Parks with two veteran oaks in the distance. Field maple is a slow growing tree so the recorded girth values typically around 2 meters or less are indicate ages much older than their equivalents for oak. Field maple has not been studied sufficiently to ascribe ages to girths.

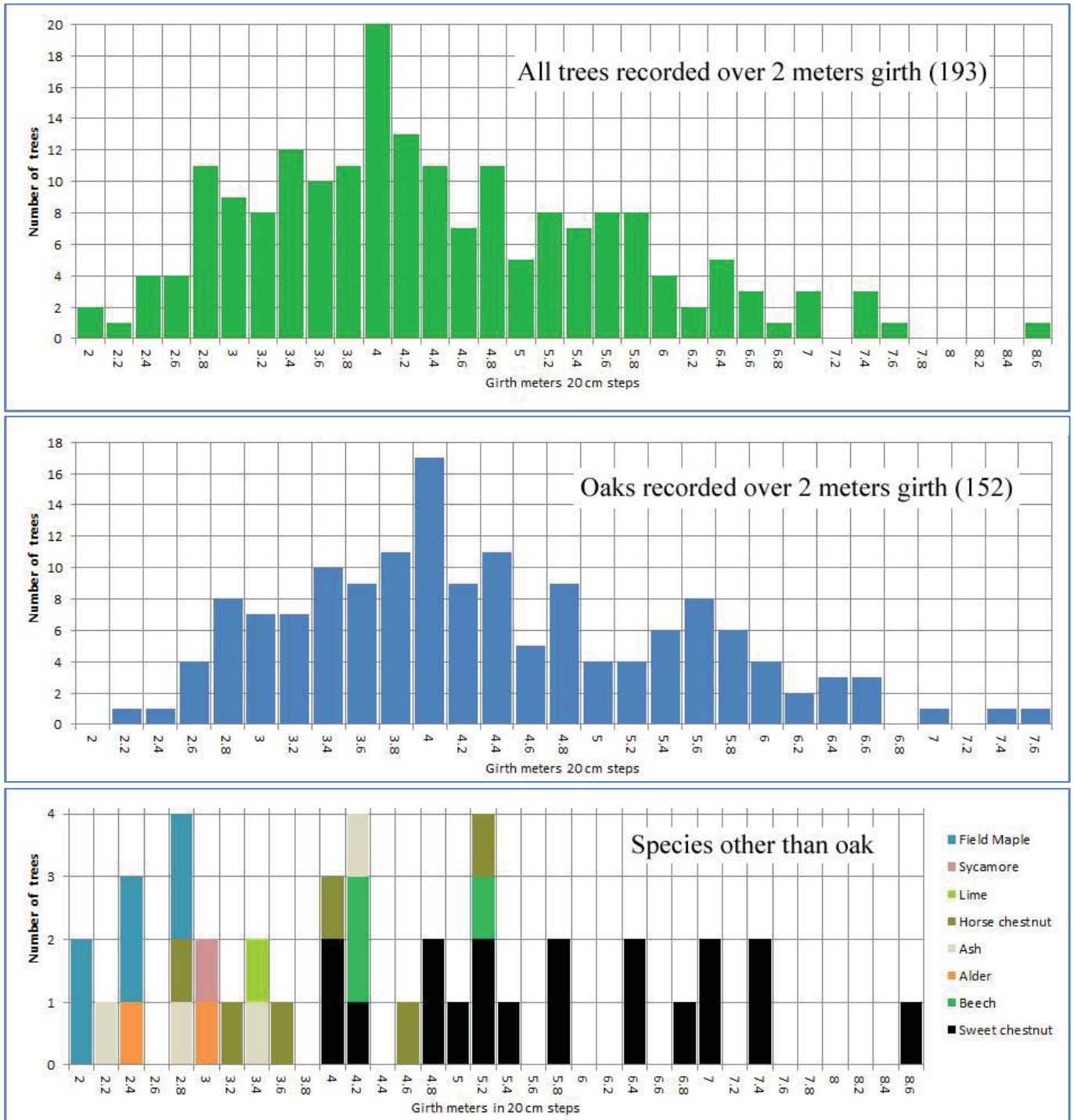


Photographs annotated with the tree identification strings

## 5. Tree data analysis

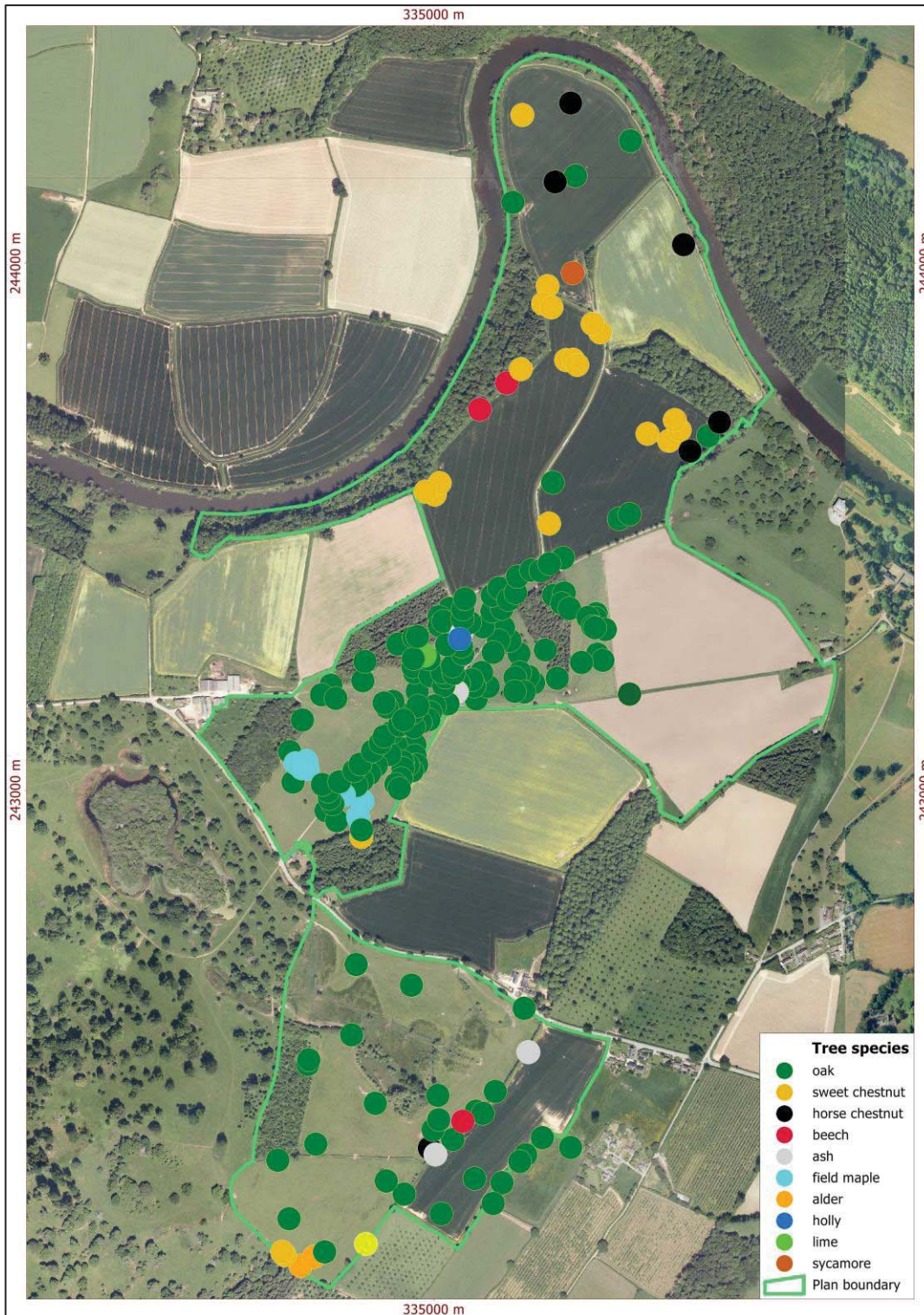
The tree data base for the plan area can be analysed in a variety of ways. The following are girth/frequency histograms: The tree of the greatest girth is the sweet chestnut c46a in Dog Kennel measuring 8.48 meters. In the growth rate is similar to that known for the county's oaks this gives an estimated age of about 420 years (established around the year 1590).

Girths were usually measured using tape and or where this was impractical derived from digital image with survey rod as length reference. 203 mature parkland trees were recorded include a few which had died or blown over and were significant hulk and fallen wood habitat.



## 6. Spatial distribution of trees

Export from the tree database GIS with exaggerated tree symbol colour coded for species. Little Parks is overwhelmingly oak but also has the occasional ash, holly and thorn as well as only field maples in a tight linear cluster closely aligned with 'the Wilderness' and area of historically high concentration of trees. The sweet chestnuts are strongly concentrated in the Warren and Dog Kennel and absent from the Little Parks with a small cluster adjacent to the park in the Paddock. This distribution map will be useful for guiding new planting.



## 7. The Little Parks lime tree

Although not a large tree (girth = 3.3 meters) the single specimen of the ancient woodland indicator small leaved lime *Tilia cordata* in Little Parks is significant as it is possibly be a vegetative remnant of the ancient woodland cover of the area. Most planted limes are the common or European lime. New lime trees could be established by propagation from this tree to conserve the genetic inheritance and what is possibly a prehistoric lime derivative.

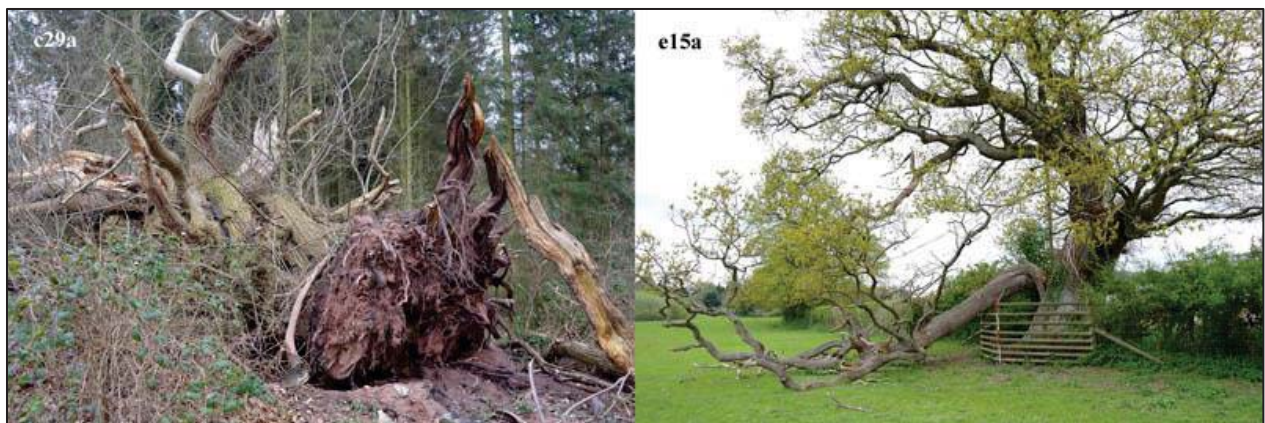


The only parkland lime, located next to the westerly plantations in Little Parks. Note the characteristically erect florets of small leaved lime.

## 8. Fallen trees and branch wood

The senescent decay of trees, fallen branchwood and slowly rotting wind-blown trees have been an important part of the natural cycle of decay and renewal for millennia and for which a multitude of organisms have evolved to process and depend upon. Over most of the countryside utilitarianism and tidy-mindedness have rendered this habitat a rarity and with it an important part of natural biology.

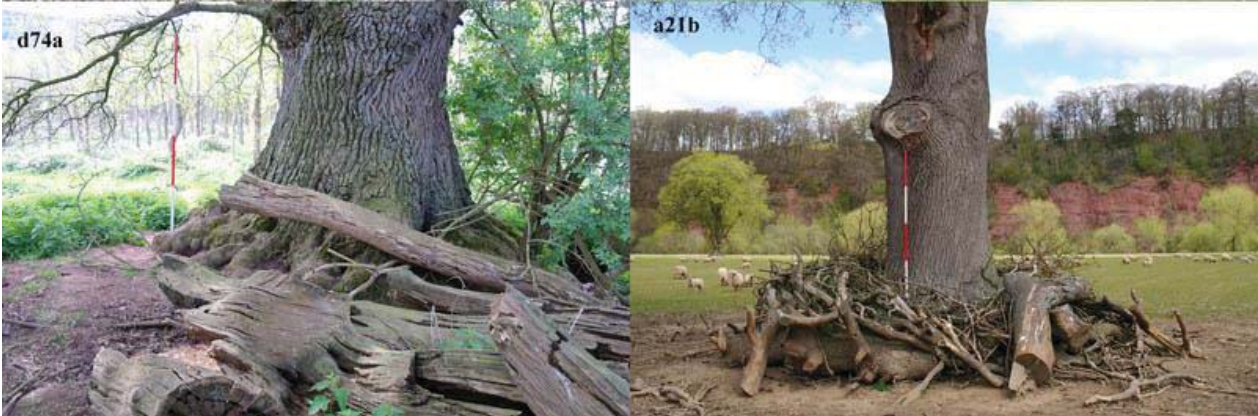
Naturally managed parkland is one of few places where this habitat can be retained long term and is a key feature of the management of Moccas Park NNR to maintain continuity for rare species.



It is important for the future management of the estate that the amount of fallen wood is allow to increase and the strong desire to cut up and tidy up be resisted. The larger are the pieces of fallen wood the more valuable they are as habitat. Therefore whole limbs that become partially detached as oak e15a in the Meres above or the windblown sweet chestnut c29a on the edge of Depple Wood (and formally part of the Warren) should be left as they are as much as possible.

Small twigs, brush and stems less than 3 cm diameter are short lived, are not really useful as habitat and can be removed.

Branch wood is less valuable as habitat if it is cut up and the practice of heaping cut up branches against the trunks of trees (a21b below right in Boat House field) should be avoided. Leaving fallen timber where it will (d74a Upper Meres below left) adds to the sense of naturalness in parkland and is part of the picturesque tradition.



### 9. Tree photo gallery

Some trees from the tree image database:



## 10. List of the 203 recorded trees

OK=oak, SC=sweet chestnut, BE=beech, Field Maple=field maple, AL=alder, HC=horse chestnut, Li=lime, HO=holly, AH=ash, PO=poplar, TO=turkey oak, g m =girth in meters. girth = 0 means not measured or fallen.

ID	tree	Grid reference	g m	ID	tree	Grid reference	g m	ID	tree	Grid reference	g m
a11a	OK	SO3515044115	2.63	c01c	OK	SO3502643164	4.67	c29b	SC	SO3521643957	6.32
a12a	SC	SO3516844282	7.38	c01d	AH	SO3504343186	3.23	c29c	SC	SO3522343916	0.00
a21a	HC	SO3523044154	5.18	c01e	OK	SO3507743197	3.32	c29d	SY	SO3526443981	3.00
a21b	OK	SO3526944166	4.01	c01f	OK	SO3508043173	5.82	c31a	TO	SO3537243182	4.25
a23a	HC	SO3525944304	4.48	c02a	OK	SO3501543224	2.98	c32a	OK	SO3531143258	5.74
a32a	OK	SO3537344232	3.27	c02b	OK	SO3502243214	3.24	c32b	OK	SO3532143247	4.82
a40a	HC	SO3547444036	4.48	c02c	OK	SO3502443276	2.43	c33a	OK	SO3530243310	3.35
b70a	OK	SO3472543073	3.85	c02d	OK	SO3503543236	4.14	c33b	OK	SO3530643308	5.29
b70b	OK	SO3473143015	5.59	c02e	OK	SO3503743222	2.82	c33c	OK	SO3530743327	3.83
b70c	FM	SO3473643051	0.00	c02f	OK	SO3504743202	2.52	c33d	OK	SO3530843335	2.46
b70d	FM	SO3474843041	2.80	c02g	HO	SO3504943287	0.00	c33e	OK	SO3532643305	4.54
b70e	FM	SO3475743055	1.50	c02h	OK	SO3505243273	4.43	c35a	OK	SO3535243515	4.02
b70f	FM	SO3475943041	2.39	c02i	AH	SO3505243299	0.00	c35b	OK	SO3537243524	5.19
b70g	OK	SO3478843011	4.05	c02j	OK	SO3505543259	3.94	c38a	SC	SO3530243885	6.34
b71a	OK	SO3475043133	6.13	c02k	OK	SO3507243210	3.69	c38b	SC	SO3531643869	6.84
b71b	OK	SO3478643181	6.44	c02l	OK	SO3509043223	5.48	c46a	SC	SO3540643676	8.48
b80a	OK	SO3482043016	4.33	c03a	OK	SO3501043313	2.52	c46b	SC	SO3544743663	4.68
b80b	OK	SO3484843037	4.05	c03b	OK	SO3501043329	4.30	c46c	SC	SO3546743683	3.92
b80c	OK	SO3485243009	2.85	c03c	OK	SO3501843321	2.65	c46d	HC	SO3548743643	3.57
b80d	OK	SO3485943049	4.78	c03d	OK	SO3503043344	5.63	c47a	SC	SO3545843702	5.72
b80e	OK	SO3486343019	4.78	c03e	OK	SO3505443326	3.16	c56a	OK	SO3552243672	4.72
b80f	OK	SO3487743031	4.38	c03f	OK	SO3505443344	3.70	c56b	HC	SO3554343698	3.18
b80g	OK	SO3488343074	3.42	c03g	OK	SO3505943363	5.49	d70a	AL	SO3474642097	2.95
b80h	OK	SO3489043046	2.76	c03h	OK	SO3506843318	3.92	d71a	SC	SO3471142124	3.92
b80i	OK	SO3489843090	4.85	c03i	OK	SO3509343310	3.97	d71b	SC	SO3471642118	4.90
b81a	OK	SO3480443199	3.17	c05a	SC	SO3500143561	6.64	d71c	OK	SO3472442187	3.17
b81b	OK	SO3481343174	6.56	c05b	SC	SO3501143583	4.76	d71d	AL	SO3477242115	2.32
b82a	OK	SO3486543208	4.59	c07a	BE	SO3508743723	4.03	d71e	OK	SO3479242124	3.63
b82b	OK	SO3486943244	3.63	c11a	OK	SO3510343197	4.43	d72a	OK	SO3470342298	3.27
b90a	OK	SO3491643068	3.56	c11b	OK	SO3515443187	5.27	d73a	OK	SO3477542328	4.38
b90b	OK	SO3492843011	5.50	c11e	OK	SO3517143187	3.51	d74a	OK	SO3476042480	5.64
b90c	OK	SO3492843084	4.64	c12a	OK	SO3511243261	3.86	d74b	OK	SO3476242488	0.00
b90d	OK	SO3493443003	6.98	c12b	OK	SO3512343284	4.82	d79a	OK	SO3479542961	4.71
b90e	OK	SO3493743022	3.40	c12c	OK	SO3514443284	3.76	d79b	OK	SO3479842998	5.73
b90f	OK	SO3494043054	4.94	c12d	OK	SO3515443213	5.87	d81a	PO	SO3487042139	0.00
b90g	OK	SO3494143041	2.81	c12e	OK	SO3516143259	3.84	d84a	OK	SO3488842406	5.41
b90h	OK	SO3495043048	2.91	c12f	OK	SO3516343223	4.36	d85a	OK	SO3484342536	7.46
b90i	OK	SO3495843037	5.53	c12g	OK	SO3517943216	4.68	d86a	OK	SO3485142669	3.55
b90j	OK	SO3496343087	3.90	c12h	OK	SO3518943204	4.15	d89a	OK	SO3480142984	2.69
b90k	OK	SO3496443066	2.97	c13a	OK	SO3511043340	3.78	d89b	OK	SO3480742974	5.69
b90l	OK	SO3496743048	4.35	c13b	OK	SO3511143370	4.75	d89c	OK	SO3481542942	3.33
b91a	OK	SO3490543102	5.36	c13c	OK	SO3512443383	3.99	d89d	FM	SO3482942991	2.67

b91b	OK	SO3490543166	3.46		c13d	OK	SO3512943345	3.42		d89e	FM	SO3485542949	2.36
b91c	OK	SO3491043158	3.80		c13e	OK	SO3513243308	3.85		d89f	SC	SO3486142911	4.01
b91d	OK	SO3492043110	3.78		c13f	OK	SO3514143361	3.74		d89g	OK	SO3486242924	3.81
b91e	OK	SO3492143169	4.03		c13g	OK	SO3515543375	3.83		d89h	FM	SO3486342979	1.54
b91f	OK	SO3493443123	3.10		c14a	OK	SO3515943406	4.33		d92a	OK	SO3490942259	5.07
b91g	OK	SO3494243133	3.10		c14b	OK	SO3518543417	5.03		d92b	OK	SO3494342233	6.44
b91h	OK	SO3495943147	3.08		c17a	BE	SO3513843773	4.17		d93a	HC	SO3499142321	4.00
b91i	OK	SO3496243120	3.82		c17b	SC	SO3516543799	5.19		d93b	OK	SO3499842356	5.18
b91j	OK	SO3496843187	2.02		c22a	OK	SO3521243266	0.00		d96a	OK	SO3495742630	4.07
b91k	OK	SO3496943160	4.34		c22b	OK	SO3523443212	5.36		e01a	OK	SO3501442196	3.83
b91l	OK	SO3497443128	3.33		c22c	OK	SO3528043242	6.24		e02a	OK	SO3507742263	5.65
b91m	OK	SO3499043134	3.85		c23a	OK	SO3522743370	4.51		e03a	AH	SO3500342309	4.07
b91n	OK	SO3499343147	2.75		c23b	OK	SO3524843374	3.31		e03b	OK	SO3500942375	5.97
b92a	OK	SO3493143277	3.63		c23c	OK	SO3524343354	0.00		e03c	OK	SO3503642337	4.24
b92b	OK	SO3496043234	2.74		c23d	OK	SO3525843345	3.76		e03d	BE	SO3505442372	5.01
b92c	OK	SO3496043249	0.00		c23e	OK	SO3529343328	3.10		e03e	OK	SO3508042391	4.23
b92d	OK	SO3496143290	3.42		c24a	OK	SO3520343416	5.83		e03f	OK	SO3509342387	2.76
b92e	OK	SO3496343223	3.31		c24b	OK	SO3521943430	3.94		e04a	OK	SO3500742421	6.32
b92f	OK	SO3496943292	2.75		c24c	OK	SO3524543440	3.55		e12a	OK	SO3511242216	5.40
b92g	LI	SO3498243256	3.33		c25a	SC	SO3521943506	5.64		e12b	OK	SO3512942255	6.09
b92h	OK	SO3499043249	3.53		c25b	OK	SO3522643584	5.45		e12c	OK	SO3516342295	4.63
b92i	OK	SO3499343217	3.91		c28a	SC	SO3525143816	7.25		e13a	OK	SO3517442308	5.58
b95a	SC	SO3498343567	5.29		c28b	SC	SO3526443817	6.95		e14a	OK	SO3511642429	6.29
c01a	OK	SO3500243160	2.96		c28c	SC	SO3527243807	5.10		e15a	OK	SO3517142586	5.27
c01b	OK	SO3501843198	2.24		c29a	SC	SO3520743923	0.00		e15b	AH	SO3517942503	2.63

# Moccas Court

## Ecological Assessment

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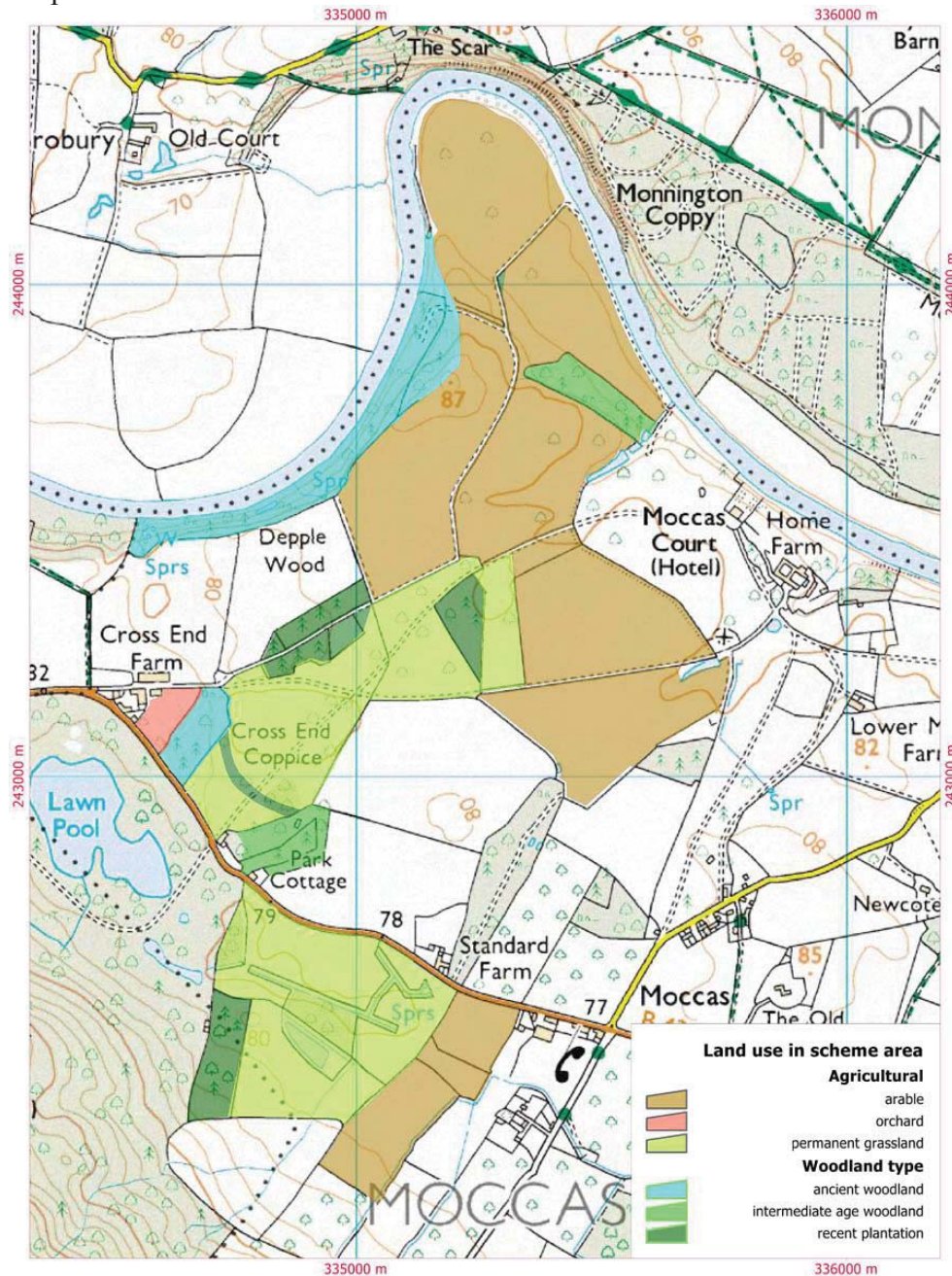
# 1. Introduction

This assessment was commissioned as part of a parkland plan for Moccas Court, Herefordshire in 2013 to provide information for a proposed Higher Level Stewardship (HLS) scheme. It is designed to be read as an appendix to the full parkland plan which is available at <http://www.r5r.eu/me.html>

The survey area excludes Moccas Deer Park NNR which is well surveyed and documented elsewhere (see bibliography in 2013 parkland plan) and is in a separate agreement with Natural England.

The area of detailed study for the 2013 parkland plan is shown below with current land use indicated:

Map 1



In 2003 the Debois Landscape Survey Group wrote a report on Moccas Court Herefordshire, entitled "Landscape around the Court (2003)", which included a detailed ecological assessment by John Thompson of a larger area of the parkland including land shown in Fig 1 above (ie land to the north of the B4352 and south of the River Wye). This land was reassessed in 2013 and this

report records any significant changes in the intervening 10 years and makes recommendations for the HLS.

The land to the south of the B4352 was not included in the 2003 report and so a more detailed survey of this area, described below, has been done in 2013.

## 2. Methodology

A walk over survey of the area in Plan 1 was done in April 2013 and is presented as an update to the 2003 Phase 1 ecological survey. A more detailed survey of the wetland and grassland south of the road, in the Meres, Horse Paddock and in Forsythes was done in May 2013. This followed guidelines given in the JNCC Handbook for Phase 1 habitat survey 2010.

## 3. Update of ecological observations and land management advice on land to north of road

All land use has remained the same since the 2003 survey other than where mentioned. Where management is affecting the ecological value of the features outline recommendations are made. More detailed recommendations are given in section 9 of the 2013 parkland plan.

Field No.	Field names	Notes and observations	Recommendations linked to section 9 of the 2013 parkland plan
8609, 2930, 2231, 8623, 9728	Little Park	<p>Veteran tree canopies in plantations are being restricted.</p> <p>New parkland trees planted in guards. Restoration of the Wilderness (now mapped separately as 8609) in CSS. Young trees being affected by herbicide spray drift.</p> <p>Sward is devoid of broadleaved component / structure</p> <p>Very little dead wood retained in parkland</p>	<p>Halo veteran trees as immediate priority or fell plantation trees and revert to parkland.</p> <p>Cease spraying anywhere near trees.</p> <p>Manage grassland more extensively to increase range of height and structure to benefit invertebrates.</p> <p>See deadwood policy in parkland plan Section 7.3.1</p>
8555, 1785, 1501	Depple Wood	<p>Veteran trees in plantation 1785.</p> <p>Pheasant pens are relatively discrete in 8555 but are altering woodland ecology.</p> <p>High pruning of poplar and under-storey management in 1501 reduces ecological value of woodland.</p>	<p>Revert 1785 to parkland, felling plantation trees and planting young parkland trees. Re-create ecological link to Dog Kennel Wood see below.</p> <p>Restore 1501 to native broadleaves with appropriate Forestry Grants.</p>

		Himalayan balsam present.	Control H Balsam by spraying /pulling
1163, 2522, 4192	The Warren, Boat House and River 16	Veteran trees have been heavily pruned and poorly buffered from arable operations, manure storage etc. and some show signs of stress / are dying  Japanese knotweed still present on banks of River Wye. Giant hogweed in Warren dealt with July 2013.	Manage SW field corner of Warren with 3 vet trees as extensive grass, Restore low input grassland and plant parkland trees throughout or at least to link Dog Kennel Wood to Depple Wood. Buffer zones round arable trees to be based on root protection zones rather than current much reduced canopy areas.
3001	In River 16 field	Young plantation with trees growing well.	Thin to selected broadleaved trees and manage as parkland clump.
4876	Dog Kennel Wood	Being sympathetically thinned and managed with varied native and ornamental under storey appropriate to the parkland setting and good woodland flora.	
Next to 3661	Fish ponds	Top two ponds no longer hold water and ecological value of aquatic habitat reduced. Middle dam breached by ash tree ? Top pond silted. Network of 3 pools is potentially good habitat for amphibians and insects that could be improved further	Find out why the dam leaks, whether the ash tree needs removing and what needs to be done to restore this pond. Top pond could be de-silted a few years after middle pond is restored to spread disturbance over time.
3661	Dog Kennel	This field recorded as improved grassland in 2003. Currently arable operations are seriously impacting on veteran trees.	Restore to low input species rich grassland and plant parkland trees in guards or clumps.
4632	Church field	No change since 2003 survey	Replanting hedges and parkland trees would improve ecological links between this part of the estate and the deer park
5110	Airstrip field	Pond creation, ditch restoration, tree planting and fine hedge laying in CSS. Pond near Church has been de-silted and some bankside willow coppiced / removed.	Keep spray drift away from young trees and ponds.  Plant a grass buffer strip round pond near church and replant some bankside trees.
6706	Crossend coppice	High pruning and understory management has reduced ecological and sporting value of this woodland in short	Thinning woodland and planting more hazel and field maple in under storey would be beneficial.

		term.	
6012	Cross End Orchard	This well managed orchard has been gapped up and restored in CSS.	Leaving more dead wood to be beneficial for insects. Loosen tree ties to prevent damage to growing trees.

#### 4. Ecological survey of Meres, Horse Paddock and Forsythes

Field numbers relate to the maps used during the production of the 2013 parkland plan. The Meres has since been re-mapped to reflect the removal of fences and is now registered as field number 9351. For details of the 2013 veteran tree survey please see Appendix 4 of the 2013 Parkland Plan

#### 4.1 Description of the site

##### 4.1.1 Horse Paddock 7918

During WW2 and in the 1980s and 1990s this was in the arable rotation, growing potatoes and cereals but was reverted to permanent grassland c 2000. It is managed as pasture and is contiguous with the Deer Park NNR and Meres which is all grazed as one block, by deer, cattle and sheep.

There is uncertainty as to whether the field was re-seeded or naturally regenerated. The semi-improved sward now includes occasional thyme leaved speedwell, cat's ear, ribwort plantain, sweet vernal grass as well as white clover and rushes in wet flushes where drains are not functioning.

Two mature field trees remain. There is a dingle where the stream flows in at the southern end of the paddock and the water is piped from there to 8539. The stream to the west of this is also piped from where it enters 7918 close to the collapsing stone wall although this now breaks out again in 7342 as described below.

The stone walls are in poor condition as historical and ecological features and there is potential to restore them to their original height and extent.

##### 4.1.2 The Meres now 9351

This is a diverse ecological rich mosaic of wetland, wet ditches, fen, scrub, veteran trees, young trees and grassland.

The Meres – Moccas Species list

Wet marshy fen areas #	Grassland areas *
Meadowsweet	Marsh thistle
Water mint	sorrel
Marsh arrow grass (r)	Field wood rush
Ladies smock	Yarrow
Soft rush	Black knapweed
Hard rush	Bittercress spp
Jointed rush	Hairy sedge
Flote grass	Lanceolate plantain
Flag iris	cowslip
Water cress	pignut
Fools water cress	Glaucous sedge
spearwort	Dandelion spp
marsh foxtail	Common cat's ear
Duckweed spp	Hawkbit spp

Starwort spp	bugle
kingcups	Thyme leaved speedwell
Burr reed spp	
Great hairy willow herb	
Flattened rush	
Plicate sweet grass	
Lesser pond sedge	
Ragged robin	
Water forget me not	

30.4.13 T Dixon, D Lovelace, C Hanks and also 14.5.13

\* These species occasional or freq in 9351 grassland areas including the “castle mound” unless marked r = rare

# These species occasional or freq in **a** and **b** and the ditch network unless marked r = rare .

The area supports, snipe, teal, widgeon, mallard, redstart and reed warbler among other birds. In the past there has been a duck pool d, a decoy, and more recently willow and poplar plantations at a and b on the site.

The area between the Horse Paddock and d was also taken into the arable rotation and was reverted to grassland c 2000 and is semi improved grassland with more species rich area on top of the “castle mound”. Until 2005 field 9351 was subdivided and some areas were under grazed and reverting to more common habitats of scrub and woodland. Between 2005 and 2010 the fences were gradually removed, the poplars were felled and the woody edges to the pool in 8539 were thinned, so that by 2010 the area was completely open. Naturally regenerated broadleaved trees were protected from stock in individual exclosures. Now the issue is tending towards overgrazing and the Natural England warden is working with the owner and grazier towards a stocking density (deer, sheep and cattle) that maintains and enhances the full range of habitats in the Meres and the Deer Park NNR. For full discussion see section 7.4.1 of 2013 parkland plan. Temporary fencing of the fen area may be necessary in the summer months to maintain its botanical diversity.

#### 4.1.3 Meres Plantation 7342

This area of young broadleaved (ash, oak, birch) woodland is being managed in a Farm Woodland Premium Scheme including over part of the “castle” site at the northern end. Here one mature oak remains and some sycamore and native scrub has naturally regenerated. The piped ditch from west side of 7918 breaks out of the ground in this woodland flowing towards a see (map 2) and causing a wet pinch point near the recently laid hedge which is badly poached in wet weather.

The young oak and ash to the south of the plantation have not grown well, there has been much squirrel damage and a large part of the wood has been used for pheasant rearing. In 2013 trees were high pruned, as opposed to being thinned and the under storey layer cut back. The remaining ecological value of this parcel is mainly in its potential to produce one or two oak trees to mature over the next decades and centuries in the Meres to complement the adjacent Deer Park NNR.

#### 4.1.4 Forsythes 1435

This is an arable field with a temporary ley in 2012/3 being grazed by sheep. There are two remaining veteran trees. Hedges are grazed out by sheep at the base particularly the western boundary.

### 4.2 Phase 1 habitat map

See Map 2 below

### 4.3 Evaluation and Recommendations

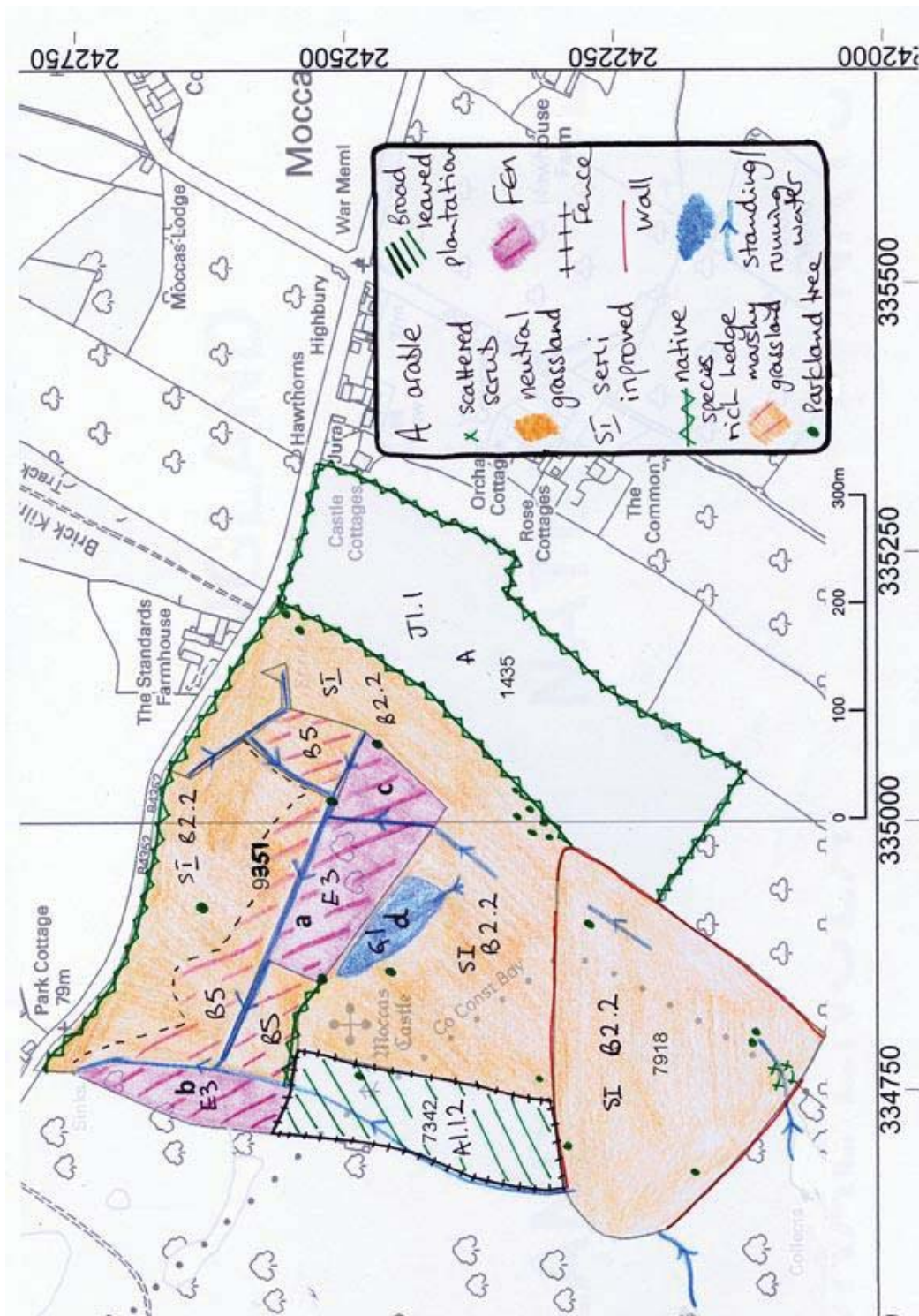
Field	Field names	Evaluation	Recommendations
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No.			linked to section 9 of the 2013 parkland plan
7918	The Horse Paddock	<p>Stone walls are deteriorating especially on N side and these are good habitats for insects, plants and other wildlife.</p> <p>Piped ditches are not functioning properly and are contributing to poaching at north side of Meres plantation.</p> <p>Only 2 field trees remain.</p>	<p>Repairs to great paddock stone walls and re-instating the open ditches would enhance the ecological value of this field.</p> <p>Replant field trees where not too close to walls</p>
9465, 8560, 0753, 0947, 0246, 9350, 8539, 7566	The Meres (now 9351)	<p>A rich mosaic of habitats (see section 4.1 of this report) in an important location in the Wye Valley. The potential to enhance the adjacent NNR Moccas Deer Park and proximity to the nearby Flitts NNR in Blakemere makes this a site of regional ecological importance for a range of wildlife.</p> <p>Fewer field trees than on c.1885 map. Dead wood pile remains from willow pollarding and poplar felling</p>	<p>Continue to work with NE to establish best stocking density for these habitats together with those in the deer park to benefit invertebrates, birds, amphibians, lichens, bryophytes etc.</p> <p>Plant more field trees, retain some dead wood</p>
7342	Meres Plantation	<p>Plantation woodland has been high pruned and ground cover cut back in preference to usual first thinning. Semi natural vegetation at N end is in conflict with the historic “castle” site see sections 7 and 9.12 for recommendations.</p>	<p>Thin woodland at S end to wood pasture density over next 20 yrs and select trees to mature as next generation of veterans to link with deer park</p>
1435	Forsythes	<p>Veteran trees in lines of former hedgerows are vulnerable to arable operations. Hedge to W side is being eaten out at the base by sheep.</p>	<p>Consider reversion to grassland &amp; replanting of hedgerow / trees, buffer vet trees and fence sheep out of hedge bottom.</p>

## 5. Conclusion

Moccas Court has one of the most important collections of veteran trees in the Country in the Deer Park NNR. The rest of estate, including the land in this survey, has huge value in buffering, enhancing and extending this habitat across a wider area of Herefordshire. There is potential to better link the Deer Park NNR to the River Wye SSSI by reversion of arable land and plantation woodland to parkland and the planting of more young parkland trees. This work began in the Countryside Stewardship Scheme and there is scope to continue this and other projects such as the seasonal re-wetting of parts of the Meres to further increase the ecological value of this unique site.

Map 2 – Phase 1 habitat map



**Moccas Court - Castle, Herefordshire**  
**Electrical Resistance Survey Report**

**MCH131**

**MJ Roseveare, ACK Roseveare**  
**27<sup>th</sup> July 2013**



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***Mapping Our Heritage***



## Non-Technical Summary

A conservation plan of Moccas Park to support application for entry into the Higher Level Stewardship scheme is being formed and as part of this work a geophysical survey was commissioned of a low glacial mound overlooking The Meres. This was known to have supported low earthworks and a tump, photographed by Watkins in 1925. Agricultural improvements in the second half of the 1900s obliterated all signs of these structures and created ambiguity about the position and nature of these structures.

Aerial photographs exist which show clear soil or crop marks across the mound which has more recently been partly covered by a plantation providing cover for game birds. An electrical resistance survey was undertaken to examine the remaining available of the mound to attempt to map any surviving buried structures.

The results have been startling, revealing not just the probable defensive circuit observed by earlier visitors to the site but also more extensive structures lower down the mound. The tump has also been located and with that reasonable evidence for this being one of the latest structures upon the mound and perhaps not a medieval motte. The defensive structures on the mound and perhaps some elements of the more extensive structures around it appear typical of prehistory and specifically perhaps an Iron Age promontory fort.

## 1. Introduction

1.1 A conservation plan of Moccas Park to support application for entry into the Higher Level Stewardship scheme is being formed, including potential restoration of an area of wetland known as The Meres. Within this there are indications of former water management structures and recently evidence has been found for an adjacent fortified site levelled in the mid 20<sup>th</sup> century.

1.2 A geophysical survey (electrical resistance) was undertaken of this site, located upon what was originally a low promontory on the south side of the meres and suggested by 19<sup>th</sup> and early 20<sup>th</sup> century accounts to have been the site of a castle.

1.3 The site is within the eastern extension of the deer park, south of the meres and below the north-facing slopes of Woodbury Hill.

## Constraints and variations

1.4 There were no constraints or variations from the specification (Roseveare, 2013).

## 2. Context

### Archaeology

2.1 Although it is clear that earthworks surviving at this location till the mid twentieth century could have been interpreted as a bailey and (very) small motte, no direct evidence exists for these remains actually being a castle. The location of the fortified site mentioned in the thirteenth century documentary sources has not been confirmed and an unspecified location somewhat closer to the twelfth century church could be considered reasonable. However, an identification of the site as a motte and bailey castle associated with the de Fresne family seems to have come about by the mid nineteenth century.

2.2 The mound was regarded generally as insubstantial and no traces of mortared or cut stone were found. Robinson's 1869 statement (in Harding & Wall, 1999) that "*the foundations have long formed a quarry for road metal*" implies that quantities of stone had been previously removed but, given he had assumed the crenellation works of the late thirteenth century occurred at his location, this could be a consequential deduction.

2.3 The Ordnance survey map of c1885 has the site marked as "*Moccas Castle (Site of)*" and "Moat". It shows multiple lengths of earthwork, one of which almost forms a complete squashed egg-shaped circuit, and a small mound at the east end. One tree is marked adjacent to (north of) the mound and three more sit on the south western banks.

2.4 Alfred Watkins' photograph of 1925 (Harding & Wall, 1999, reproduced below) shows the mound (which was thought to be the motte) with some mature trees on it and another fallen to what is probably the north, down towards the mere edge. The field of view is too narrow to see any further earthworks or to place the mound exactly.

2.5 Kay, who undertook a survey of the site in 1953 (before deep ploughing) thought (in Harding & Wall, 1999) it seemed "*unlikely, from the surface evidence remaining, that any portion of the 'castle' was of masonry construction*".



2.6 On the 1971 aerial photograph, the mound is visible, also the lines of the outer banks and a small rectangular structure in the western part are visible (parch marks in the grass). One large tree remains (on the southwestern side over the inner encircling bank).

2.7 The general impression is, therefore, of a defensive enclosure c. 125m by 100m (potentially of prehistoric origin) sited above and adjacent to a mere, with two separate small structures of uncertain date or function either contained within or overlying it.

2.8 Today there is nothing visible to suggest that there was ever a monument here, this and the surrounding area being heavily ploughed over in mid 1900s. This included the complete surface destruction of the mound and indeed, all other structures previously depicted.

2.9 Rectification of the 1971 (and also an RAF image) to modern features with any accuracy fails because there is a lack of features that can be sufficiently accurately co-located to provide control points. Rectified plots, e.g. DWG 02 of this report, should not be relied upon for locating buried structures.

## Environment

<b>Superficial 1:50000 BGS</b>	Hummocky (Moundy) Glacial Deposits, Devensian - Diamicton, Sand And Gravel - not low-lying areas HMGDD
<b>Bedrock 1:50000 BGS</b>	Raglan Mudstone Formation – Siltstone and Mudstone, interbedded (RG)
<b>Topography</b>	Low natural mound
<b>Hydrology</b>	Locally impeded drainage due to surface clay
<b>Current Land Use</b>	Pasture
<b>Historic Land Use</b>	Wood pasture, then arable
<b>Vegetation Cover</b>	Grass
<b>Sources of Interference</b>	None

## Physical

2.10 The site of the supposed castle is on a low mound directly adjacent to the locally low-lying area known as the Meres.

2.11 The undulating north-facing slopes on this side of the mere were once cultivated and evidence from a 1971 aerial photograph suggests fairly aggressive conversion from pasture to arable use. This included the levelling of previously surviving earthworks that had been assumed to be the site of a castle.

2.12 The site is currently partly occupied by an enclosed plantation used as a game bird rearing enclosure.

## Geological and hydrological

2.13 The meres' situation of the site at the foot of Woodbury Hill means that much water naturally drains into this area and hence marshy ground with at least seasonal bodies of open water would have been present, especially prior to Renaissance or Georgian water management works. The landform is typical of post glacial dumped material, in this case fingers and mounds of Devensian Till deposits of sand and gravel, upon one of which the site is located.

2.14 Clayey soil is predominant across the site and represents a plough soil formed by the turning in of formerly pastoral soils derived from the clay of the till deposits.

2.15 Following the formation of a basic model of possible water levels for different states of the meres area (Roseveare & Rouse, 2013) it is apparent that the site sat just above a likely high water level at 77 m OD.

2.16 The weather prior to survey had been moderately damp, with spells of drier weather. Light rainfall was present throughout the survey and overall the surface soils were probably recharging rather than draining.

2.17 Ground conditions were generally good, though with some small localised stony areas limiting probe penetration (and apparently co-incident with anomaly [8]). There is a correlation between random noise in the data and these ground conditions, the drier ground promoting higher levels of noise which is to be expected.

### 3. Methodology

#### Objective

3.1 This electrical resistance survey was intended simply to prospect for any buried structures that might have survived agricultural activities and could locate the mound and other earthworks that had been observed.

#### Survey

##### Hardware

<b>Measured Variable</b>	Apparent electrical resistance (twin probe)
<b>Instrument</b>	Geoscan Research RM15A with MPX15
<b>Configuration</b>	Twin probe array, 0.5m AM spacing, current 1mA, gain x10
<b>QA Procedure</b>	Continuous observation
<b>Resolution</b>	1.0m x 1.0m

##### Monitoring and quality assurance

3.2 There is no dedicated quality management data available from this instrument but continuous observation throughout survey, examination of the sensitivity of the measurement to frame movement and monitoring of background resistance values between grids and days allows some measure of quality assurance.

3.3 A suitably qualified Project Geophysicist was in the field at all times and fieldwork and technical considerations were guided by the Senior Geophysicist.

#### Processing

##### Procedure

3.4 All data processing is minimised and limited to what is essential for the class of data being collected, e.g. suppression of single point defects (drop-outs or spikes), etc. The process stream for this data is as follows:

<b>Process</b>	<b>Software</b>	<b>Parameters</b>
Spike reduction	Proprietary	3 x 3 datum median thresholding filter with the threshold set to 5 Ohm (DWG 03)
Trend reduction	Proprietary	90m 3 <sup>rd</sup> order Butterworth highpass filter
Smoothing	Golden Software Surfer	3 x 3 datum median thresholding filter with the threshold set to 3 Ohm (DWG 04)
Imaging and presentation	Manifold GIS	Including interpolation to 25cm

3.5 General information on processes commonly applied to data can be found in standard text books and also in the 2008 English Heritage Guidelines “*Geophysical Survey in Archaeological Field Evaluation*” at [http://www.helm.org.uk/upload/pdf/Geophysical\\_LoRes.pdf](http://www.helm.org.uk/upload/pdf/Geophysical_LoRes.pdf).

3.6 All archived data includes process metadata.

## **Interpretive framework**

### **Resources**

3.7 Numerous sources are used in the interpretive process which takes into account shallow geological conditions, past and present land use, drainage, weather before and during survey, topography and any previous knowledge about the site and the surrounding area. Old Ordnance Survey mapping is consulted and also older sources if available.

### **Standards & guidance**

3.8 All work was conducted in accordance with the following standards and guidance:

- David et al, “Geophysical Survey in Archaeological Field Evaluation”, English Heritage 2008
- “Standard and Guidance for Archaeological Field Evaluation”, Institute for Archaeologists 2008.

3.9 Archive formation is in the spirit of the following document which is, however, dated and not of direct relevance to the form and structure of data collected during non-gridded multi-sensor survey:

- Schmidt, A. et al, 2001, “Geophysical Data in Archaeology: A Guide to Good Practice”, ADS

3.10 In addition, all work is undertaken in accordance with the high professional standards and technical competence expected by the Geological Society of London and the European Association of Geoscientists and Engineers.

3.11 All personnel are experienced surveyors trained to use the equipment in accordance with the manufacturer’s expectations. All aspects of the work are monitored and directed by fully qualified professional geophysicists.

## **4. Discussion – Electrical Resistance**

### **Principles**

4.1 Electrical resistance within soil is generally a measure of pore size and water content, large-pored materials having different dynamics than those with small pores. In addition, clays contribute significant electro-chemical effects through ion exchange at the surface of soil particles and tend to be significantly more conductive than silts and sands. The constant hydraulic cycle imposed by rainfall and drainage into deeper strata ensures that there is a significant temporal aspect to any survey of electrical resistance.

4.2 In general, significantly reduced electrical resistance can be associated with fills and wetter ground, although there are exceptions to this. Enhanced resistance is in general terms the converse situation, i.e. drier materials. These, however, are both relative terms and within small areas or complex archaeology the definition of ‘background’ may not be possible. In addition, the presence of shallow but variable geology can impart strong trends of equal or greater anomaly strength and a linear feature can produce an anomaly with strongly variable character along its length.

4.3 Detection of buried structures is seasonally dependent with the anomalies from structures changing and quite frequently disappearing as the seasons rotate. Anomaly polarity will often

change alongside strength. A good season for detection of one class of structure may not be the best for another.

4.4 In addition to this, paradoxes are possible because the technique is dependent upon the strength and location of current flow in the ground, not the physical layout of structures. A very high resistance material close to the surface will force the majority of current to flow between it and the surface which produces, paradoxically, a low resistance anomaly. Similar effects can be observed where impervious materials retard the flow of soil moisture, thus the anomaly caused by a high resistance wall may be dwarfed by lower resistance next to it.

4.5 Finally, the temporal character of moisture flow in the ground has a huge effect upon electrical resistance. Surveys conducted after heavy rain will not produce the same results as ones conducted in dry weather.

## Instrumentation

4.6 The measurement is called apparent electrical resistance because the numerical value and the shape of anomalies are dependent upon the configuration of probes in the array used. The technique, at least in this form, does not measure resistivity which is a volume and material specific measure not directly available from most planar surveys.

4.7 The twin probe array used for this survey is the archaeological norm, however, other arrays have their advantages and disadvantages. For all arrays, the relative separation of the different probes determines anomaly form. For the twin probe, increasing the separation of the mobile pair of probes increases the nominal depth of investigation by sensitising the measurement to deeper current flow.

## Character & principal results

4.8 Throughout this section the images appended at the end of this report should be consulted. In particular, DWG 05 indexes the anomaly numbers listed in the table below.

## Geology

4.9 The mound, most likely a stony deposit with a clay matrix in parts, appears to be better drained (higher near surface resistance) than the surrounding land and this would be expected. Off the mound to the east there is an extensive area of low resistance (approximately half that of the mound) that continues beyond the eastern edge of the survey and into the area thought to have been below the pre-Georgian water level [1] of the mere. To the south, and beyond two bands of lower resistance [14] and [15] resistance rises again, perhaps towards a 'background' level [3] for the area at the time of survey. However, the area of uniform ground is low, hence any estimate of 'background' has to be cautious and this interpretation might, if there are further structures to the south for example, be at least partly incorrect.

## Land use

4.10 Right across the survey there is a strong striation from past ploughing although it is interesting to note this includes a series of low-resistance linear structures at approximately 6m centres. This is a common spacing for ridge and furrow cultivation and although it is not evidence for this mode of cultivation, it could possibly suggest that there has been an earlier phase of cultivation.

4.11 There is no clear evidence for drainage although linear low resistance anomaly [22] could easily be the trench for a land drain at the foot at the northern slope.

## Of archaeological interest

4.12 See DWG 05 for the locations of the anomalies listed below.

Anomaly ID	Description
1	This is the modelled water level at 76.75m OD, approximately the level of the base of a cut draining the mere northwards and therefore the highest level to which the mere could have risen prior to later (probably Georgian) drainage works (Roseveare & Rouse, 2013). Along the northern edge a variation of 77m +/- 0.25m has virtually no effect upon the position of the shoreline which is parallel to the southern edge of [6]
2	The small size of the survey makes it difficult to establish an estimate of 'background' resistance. The apparent resistance of this area, on the flank of the mound of till is probably mostly from natural sources, predominantly the stony material within the mound
3	See [2]; here again the apparent resistance seems likely to have a predominantly natural origin and to therefore be indicative of 'background'
4	This low resistance region, along the northern edge of the mound and just below the summit, would be typical of increased soil moisture trapped behind a relatively impervious material lower down, in this case [6]
5	A high resistance ring of approximately 13m diameter is situated on the east-facing slope of the mound. In this position it is almost certainly the mound photographed by Watkins in 1925 and also the annular structure apparent on the aerial photograph of DWG 02. In this position it seems unlikely to have had a defensive purpose and the anomaly itself is less than 1.5m wide, i.e. too narrow for a ditch. Being of high resistance it could mark wall footings, but no masonry is evident from Watkins' photograph. Of critical importance to understanding the site is the observation that the anomaly appears to be caused by a structure that overlays all others, so later than these. On the aerial photograph there appears to be a circular area within a ring and it is possible that the high resistance anomaly is the structure that divides the crop or soil mark into these two parts
6	Along the northern edge of the survey high resistance was encountered within the slope and this seems likely to be due to base of a bank or a spread of rubble. It's relatively impervious nature is implied by [4] above it
7	DWG 02 shows there to have been a squarish structure at the western end of the knoll and although this lies beyond the survey and beneath the plantation it is possible that the edge of it was detected here. If so, like the other marks evident on DWG 02 appear to be, it is a high resistance structure, e.g. probably stony
8	Within the extent of [6] an extremely resistive area was encountered and the ground surface noted to be stony. It is assumed that this is due to material from underlying structure, e.g. a stony rampart, being present immediately beneath the surface. There is a similar although less resistive area within [10]
9	In line with high resistance area [21], thought to perhaps be the innermost bank or rampart, a strongly low resistance area was encountered. The reason for this is unclear, except that soil moisture is presumably trapped within some structure here. It appears to be too high on the mound to be a spring
10	Continuing the line of [6] and [8] southwest is a further band of high resistance which logically is marking the same buried structure, probably a defensive bank. It's relationship with [21], on the opposite side of possible ditch [16], is therefore interesting

Anomaly ID	Description
11	This very low resistance area implies that there might be a fill below [6] and [8], e.g. perhaps a section of ditch if [6] is a defensive bank. How this relates to [12] / [13] is uncertain although logically they could be connected and indeed parts of the same structure
12	Whether this is a distinct area of [13] is uncertain, however, there is the impression that the anomalous area has a rectangular form that is partly within [17]. It might suggest some other structure was once here
13	This band of low resistance dominates the eastern margin of the survey and is broadly where lacustrine silts from the mere at its higher level would be expected. Whether this also marks an artificial structure like a fill is therefore unclear although as it curves westwards it appears to become two ditch-like fills [14] and [15]
14	This could mark either a natural band of damp ground or, as suggested in [13], perhaps ditch fill. It appears to vary between 2m and 3m width although this is difficult to gauge
15	See [14]; this is the parallel example and apparently marking a structure of similar width
16	A slightly amorphous but pronounced band of low resistance loops around the southern margin of [20] and [21] and separates the latter from [10]. Given its situation interpretation as a ditch fill seems reasonable although bands of damper ground can have natural causes. However, in this case, it seems to be too high up the mound to be affected by the surrounding natural slopes
17	This well-defined band of slightly elevated electrical resistance about 4.5m wide is one of the more enigmatic anomalies and unlike those higher up the mound is does not appear to correlate with earthworks seem prior to agricultural improvements
18	Within the circuit of [17] and bounding it's inner (uphill) edge is this narrow low resistance linear anomaly typical of a ditch or trench about 1m wide. It is defined to varying degrees along its length but it appears to be a continuous structure. Various interpretations could be made, ranging from moisture trapped against the uphill side of [17] to ditch fills, e.g. for drainage, or even a robber trench for a wall. It is fairly certain that this and [17] should be considered to be two aspects of the same construction
19	Passing up the southern flank of the natural mound is an amorphous low resistance area typical of damp soil, contained perhaps within a hollow. It is possible that this marks a holloway giving access from the northern hillside into the interior of the structures on the mound. No similar structure is apparent on the aerial photograph of DWG 02
20	Uphill of low resistance area [16] is this band of slightly elevated resistance which might have a natural origin or could alternatively (and logically) mark the site of a bank enclosed by [16] if this is a ditch fill
21	See [20] which appears to be the same structure
22	A narrow low resistance anomaly typical of a trench or narrow ditch extends away eastwards from the southern extent of fill [15]. It could mark a land drain or perhaps a former field boundary ditch

4.13 Anomalies [6], [8], [10], [20] and [21] perhaps can be grouped into one set of (probably) defensive bank structures, protected to the south by a ditch [16] and along the northern edge by the mere itself and perhaps a further ditch [11]. It is interesting that if these structures are defensive they do not form a continuous circuit, with [20] and [21] inside any enclosure defined

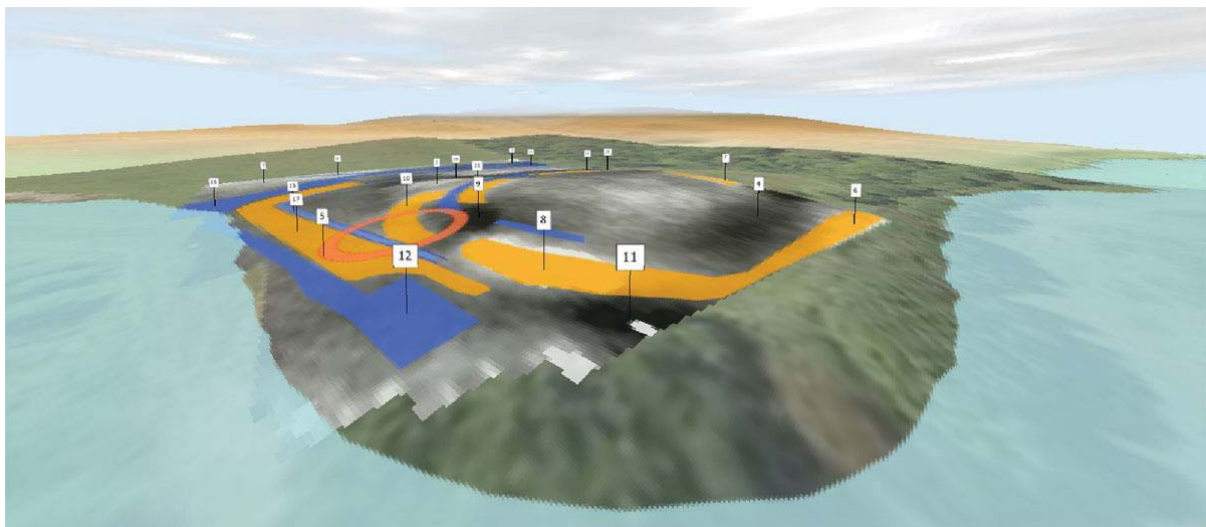


by [6] and [10]. This might be misleading and due to partial loss through plough damage, but it does suggest greater complexity than was depicted on the 1885 OS mapping and apparent on the 1970s aerial photograph (DWG 02). Indeed, the simplicity of the latter is perhaps misleading.

4.14 It is tempting to interpret [19] as an entrance hollow but there is little evidence to support this except perhaps the possible gap between [20] and [21].

4.15 All the other structures and especially [13], [17], and [18] appear to be of a different phase and perhaps also function. Although it is possible that [17] is the base of a stony bank it could also be some sort of metalled road, perhaps bounded on the uphill side by a ditch [18] for drainage. However, having any sort of access here is rendered doubtful by the presence of the mere in its higher form.

4.16 The ring [5] appears almost to be an afterthought and therefore seems unlikely to be part of the defensive structures. However, it does appear to have coincided with the mound photographed by Watkins in 1925 and described then as a motte. However, if it was a motte then all the other structures must be earlier, i.e. presumably pre-Norman in this context.



- The site alleged to be a castle does contain significant buried structures of archaeological interest.
- Agricultural improvements in the 20<sup>th</sup> century removed earthworks but might have had less effect on buried structures than supposed and indeed might actually have buried some.
- It is likely that three phases of activity are evident and can be summarised thus:
- One is a complex of probable defensive structures encircling the upper part of the glacial mound. The size and situation of this, on a low promontory overlooking the mere in its pre-drained form is very similar to Iron Age promontory forts seen in Cheshire.
- A second is lower group of structures, potentially also defensive, detected east and south of the mound. These could also be prehistoric, though a later, e.g. medieval, origin cannot be discounted.
- A further structure is evident as a ring of high resistance on the eastern shoulder of the mound, overlaying the other two sets of structures and apparently coincident with the mound photographed in 1925. By association it must postdate the other structures and therefore is perhaps less likely to be medieval than previously thought.
- There is more to be found at the site, as is evident from the edge [7] of a structure projecting into the survey from below the plantation to the west. In addition, there is currently no information about the context of any phase of structure at the site, e.g. associated settlement, etc.

## Caveats

4.17 Geophysical survey is a systematic measurement of some physical property related to the earth. There are numerous sources of disturbance of this property, some due to archaeological features, some due to the measuring method, and others that relate to the environment in which the measurement is made. No disturbance, or ‘anomaly’, is capable of providing an unambiguous and comprehensive description of a feature, in particular in archaeological contexts where there are a myriad of factors involved.

4.18 The measured anomaly is generated by the presence or absence of certain materials within a feature, not by the feature itself. Not all archaeological features produce disturbances that can be detected by a particular instrument or methodology. For this reason, the absence of an anomaly must never be taken to mean the absence of an archaeological feature. The best surveys are those which use a variety of techniques over the same ground at resolutions adequate for the detection of a range of different features.

4.19 Where the specification is by a third party ArchaeoPhysica will always endeavour to produce the best possible result within any imposed constraints and any perceived failure of the specification remains the responsibility of that third party.

4.20 Where third party sources are used in interpretation or analysis ArchaeoPhysica will endeavour to verify their accuracy within reasonable limits but responsibility for any errors or omissions remains with the originator.

4.21 Any recommendations are made based upon the skills and experience of staff at ArchaeoPhysica and the information available to them at the time. ArchaeoPhysica is not responsible for the manner in which these may or may not be carried out, nor for any matters arising from the same.

## **Bibliography**

Harding & Wall, 1999, “*Moccas, an English deer park*”, English Nature

Roseveare, 2013, “*Moccas Court, Herefordshire - Specification for Geophysical Survey & Limited Test Pit Excavation*”, ArchaeoPhysica, unpublished

Roseveare & Rouse, 2013, “*Moccas Court, Herefordshire – The Meres – Archaeological Assessment*”, ArchaeoPhysica, unpublished

## **Appendices:**

### **Survey metadata**

#### **Project information**

Project Name	Moccas Court - Castle, Herefordshire
Project Code	MCH131
Client	D Lovelace
Fieldwork Dates	9 <sup>th</sup> – 10 <sup>th</sup> May 2013
Field Personnel	D Rouse ACK Roseveare
Processing Personnel	MJ Roseveare
Reporting Personnel	MJ Roseveare ACK Roseveare
Final Report Date	27 <sup>th</sup> July 2013

## **Qualifications & experience**

4.22 All work is undertaken by qualified and experienced geophysicists who have specialised in the detection and mapping of near surface structures in archaeology and other disciplines using a wide variety of techniques. There is always a geophysicist qualified to post-graduate level on site during fieldwork and all processing and interpretation is undertaken under the direct influence of either the same individual or someone of similar qualifications and experience.

4.23 ArchaeoPhysica meets with ease the requirements of English Heritage in their 2008 Guidance “Geophysical Survey in Archaeological Field Evaluation” section 2.8 entitled “Competence of survey personnel”. The company is one of the most experienced in European archaeological prospection and is a key professional player. It only employs people with recognised geoscience qualifications and capable of becoming Fellows of the Geological Society of London, the Chartered UK body for geophysicists and geologists.

## Safety

4.24 Safety procedures follow the recommendations of SCAUM (now FAME) & the IAGC (International Association of Geophysical Contractors).

4.25 Principal personnel have passed the Rescue Emergency Care – Emergency First Aid course and CSCS cards are being sought for those members of staff currently without them.

4.26 All personnel are issued with appropriate PPE and receive training in its use. On all sites health and safety management is performed by the Project Geophysicist under supervision by the Operations Manager. A preliminary risk assessment will be prepared and made available to interested parties upon award of tender.

4.27 Health and safety policy documentation is reviewed every 12 months, or sooner if there is a change in UK legislation, a reported breach of such legislation, a reported Incident or Near Miss, or changes to ArchaeoPhysica’s activities. Anne Roseveare, Operations Manager, has overall responsibility for conducting this review and ensuring documentation is maintained.

4.28 We are happy to confirm that ArchaeoPhysica has suffered no reportable accidents since its inception in 1998.

## Archiving

4.29 ArchaeoPhysica maintains an archive for all its projects, access to which is permitted for research purposes. Copyright and intellectual property rights are retained by ArchaeoPhysica on all material it has produced, the client having full licence to use such material as benefits their project.

4.30 Access is by appointment only. Some content is restricted and not available to third parties. There is no automatic right of access to this archive by members of the public. Some material retains commercial value and a charge may be made for its use. An administrative charge may be made for some enquiries, depending upon the exact nature of the request.

4.31 The archive contains all survey and project data, communications, field notes, reports and other related material including copies of third party data (e.g. CAD mapping, etc) in digital form. Many are in proprietary formats while report components are available in PDF format.

4.32 In addition, there are paper elements to some project archives, usually provided by the client. Nearly all elements of the archive that are generated by ArchaeoPhysica are digital.

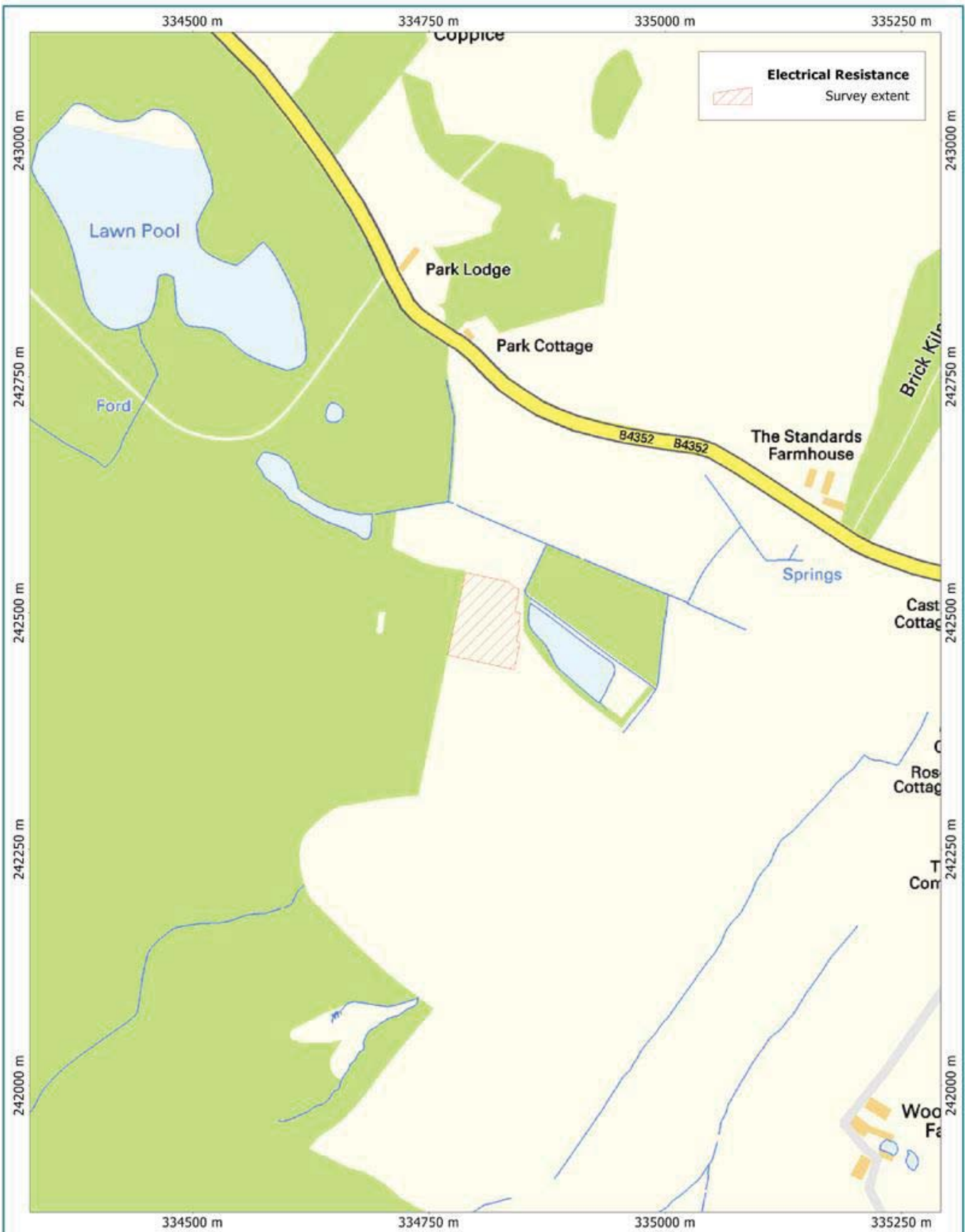
4.33 It is the client’s responsibility to ensure that reports are distributed to all parties with a necessary interest in the project, e.g. local government offices, including the HER where present. ArchaeoPhysica reserves the right to display data from projects on its website and in other

marketing or research publications, usually with the consent of the client. Information that might locate the project is normally removed unless otherwise authorised by the client.

### **A note on the drawings, below**

4.34 All the drawings below have been imported into this document as images from the project GIS and therefore the quoted scale should not be relied upon. Accurately scaled versions of these are available as PDF files. To accurately locate individual anomalies or features it is best that raster or vector data from the GIS is used, rather than measuring off plans.

4.35 The Ordnance survey co-ordinates of DWG 02, the aerial photograph, are indicative only and not to be relied upon scaling, position or for comparison of the aerial image with the geophysical data. This is because there is a shortage of reliable control points for image rectification and an accurate rectification has not been possible.



Moccas Park - Castle and Meres - Herefordshire  
 DWG 01 Site Location



Orthographic Centre X: 334809.38 m Centre Y: 242490.30 m Scale: 1:5000 @ A4 Spatial Units: Meter. Do not scale off this drawing  
 File: MCH131.map from PERSEPOLIS 27/7/2013 Copyright ArchaeoPhysica Ltd 2013 OS OpenData Crown Copyright & Database Right 2013




Moccas Park - Castle and Meres - Herefordshire  
DWG 02 Source: Lovelace, 1971c

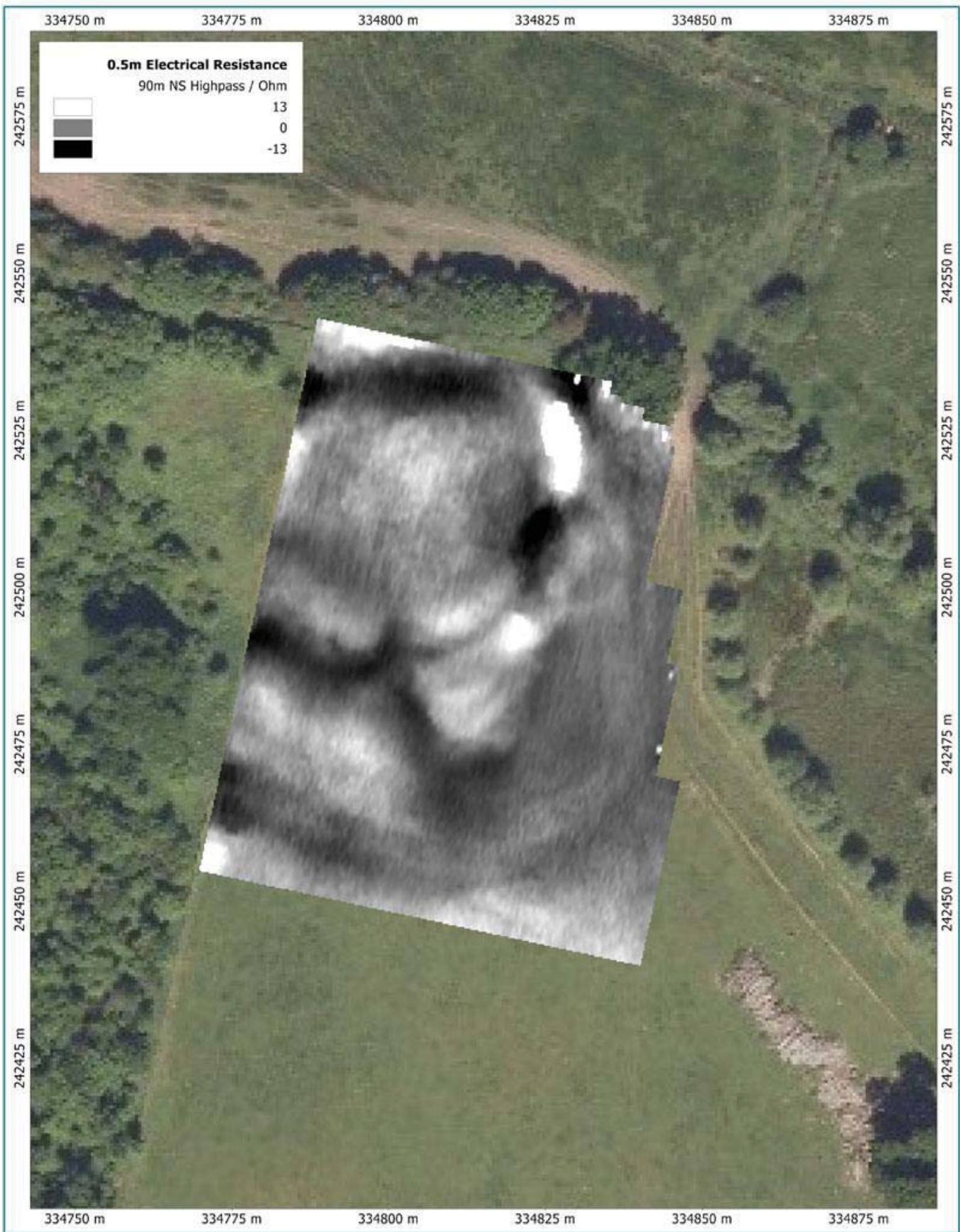


British Grid Centre X: 334799.12 m Centre Y: 242499.88 m Scale: 1:750 @ A4 Spatial Units: Meter. Do not scale off this drawing  
File: MCH131.map from PERSEPOLIS 27/7/2013 Copyright ArchaeoPhysica Ltd 2013 OS OpenData Crown Copyright & Database Right 2013



Moccas Park - Castle and Meres - Herefordshire  
 DWG 03 Lightly Despiked Electrical Resistance Data (0.5m Twin)  ArchaeoPhysica Ltd

Orthographic Centre X: 334815.13 m Centre Y: 242494.81 m Scale: 1:750 @ A4 Spatial Units: Meter. Do not scale off this drawing  
 File: MCH131.map from PERSEPOLIS 27/7/2013 Copyright ArchaeoPhysica Ltd 2013 OS OpenData Crown Copyright & Database Right 2013



Moccas Park - Castle and Meres - Herefordshire  
DWG 04 Highpass Filtered Electrical Resistance Data



Orthographic Centre X: 334815.13 m Centre Y: 242494.81 m Scale: 1:750 @ A4 Spatial Units: Meter. Do not scale off this drawing  
File: MCH131.map from PERSEPOLIS 27/7/2013 Copyright ArchaeoPhysica Ltd 2013 OS OpenData Crown Copyright & Database Right 2013





Moccas Park - Castle and Meres - Herefordshire  
 DWG 05 Catalogue



Orthographic Centre X: 334815.13 m Centre Y: 242494.81 m Scale: 1:750 @ A4 Spatial Units: Meter. Do not scale off this drawing  
 File: MCH131.map from PERSEPOLIS 28/7/2013 Copyright ArchaeoPhysica Ltd 2013 OS OpenData Crown Copyright & Database Right 2013

**Appendix 6 Archaeological assessment of the Meres**

**Moccas Court, Herefordshire**

**The Meres – Archaeological Assessment**

**MCH131**



**MJ Roseveare, D Rouse**  
**17<sup>th</sup> July 2013**



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## Table of Contents

<b>1</b>	<b>Introduction</b> .....	<b>1</b>
	Overview .....	1
	Site location.....	1
<b>2</b>	<b>Context</b> .....	<b>1</b>
	Environment .....	1
	Physical .....	1
	Geological and hydrological .....	1
	Water management .....	2
	Other structures.....	2
<b>3</b>	<b>Objectives and methods</b> .....	<b>3</b>
	Objective.....	3
	Sources .....	3
	Method.....	3
<b>4</b>	<b>Discussion</b> .....	<b>3</b>
	Sluice and outlet .....	3
	Test pit in channel .....	4
	LiDAR models, elevations, contours and lakes.....	5
<b>5</b>	<b>Conclusions</b> .....	<b>8</b>
<b>6</b>	<b>Appendices</b> .....	<b>8</b>
	Bibliography.....	8



## 1 Introduction

### Overview

1.1 A conservation plan of Moccas Park to support application for entry into the Higher Level Stewardship scheme is being formed, including potential restoration of an area of wetland known as The Meres. Within this there are indications of former water management structures and recently evidence has been found for an adjacent fortified site levelled in the mid 20<sup>th</sup> century.

1.2 A limited programme of site inspection, survey and test pitting was undertaken to examine the structural evolution of the area. Separately a geophysical survey (electrical resistance) was undertaken of a promontory on the south side of the meres which early twentieth century accounts suggest to be the site of a castle. This is reported on under separate cover.

### Site location

<b>Country</b>	England
<b>County</b>	Herefordshire
<b>Nearest Town</b>	Hereford
<b>NGR Co-ordinates</b>	334800, 242560

1.3 The site is within the eastern extension of the deer park, south of the road passing through the estate and between this and the north-facing slopes of Woodbury Hill. The area is now improved pasture but was formerly a mixture of pasture and arable.

## 2 Context

### Environment

#### Physical

2.1 Today the site is a relatively low-lying area with some areas of at least seasonal wetland, some isolated trees, some older than the current landscape and much newer growth. There is substantial evidence for relatively modern drainage, e.g. a network of ditches tapping springs along the northern site margin and depicted on the 1887 Ordnance Survey 1:2,500 mapping.

2.2 The north-facing slopes in the southern part of the area were once cultivated and evidence from a 1971 aerial photograph suggests fairly aggressive conversion from pasture to arable use. This included the levelling of previously surviving earthworks that have been assumed to be the site of a castle.

2.3 The evidence of surviving trees in the eastern part of the area suggests much of the area was once wood pasture (Lovelace, *pers. comm.*) although the park overall was heavily influenced by Georgian ideas of rural idyll. Humphrey Repton is known to have produced a Red Book for the Moccas Estate and his influence seems to be apparent in the planting of woodland clumps, reconstruction of the road, the construction of a lodge and an associated drive southwards from the estate core up onto Woodbury Hill.

2.4 The meres themselves seem relatively disconnected from the wider ornamental landscape, in keeping with their likely origin as major natural features with a landscape given a veneer of sophistication fairly late in their history. Drainage and control of the meres also seems to be a relatively late development, perhaps contemporary with the Georgian gentrification of the surrounding landscape. These water control features are the subject of this report.

#### Geological and hydrological

2.5 The meres' situation of the site at the foot of Woodbury Hill means that much water naturally drains into this area and hence marshy ground with at least seasonal bodies of open water must always have been present. The landform is typical of post glacial dumped material, in this case



fingers and mounds of Devensian Till deposits of sand and gravel. Peat is found in the lowest lying areas and was probably once more widespread. The hummocky nature of the till in this area tends to restrict drainage and to generally impede the flow of water away from the northern slopes. Examination of Ordnance Survey maps reveals several major drainage ditches and canalised streams extending across the landscape beyond the site.

2.6 The topography of the area means that there is no obvious direction of overall flow, although the LiDAR data implies the former existence of natural channels extending both west and north from the study area. It is likely, however, that there are complexities in the relationships between these features.

2.7 A small artificial channel once extended east from the meres and connected these with other channels collecting water east of the site. However, it is uncertain whether this was to convey water to the meres or to provide a means of overflow to the lower land to the east, or indeed, both depending upon the season.

2.8 Given the situation it is evident that the meres are ultimately natural pools, albeit altered over time to accommodate variations in function. The existence of Renaissance or Georgian era water management works would be consistent with contemporary ideas of land improvement but as this study seems to show this should not be overstated. However, drainage with a secondary recreational purpose, e.g. wild-fowling, is likely.

#### Water management

2.9 A sluice structure was recorded (Hoverd *et al*, 2005) by Herefordshire Archaeology and this appears to be a Renaissance or Georgian era introduction to regulate the height of water impounded within the meres, and its subsequent release into a culvert discharging into the Wye a considerable distance to the west. There is no direct evidence to date this structure and, while the scale of engineering (and surveying) required is typical of the Georgian era, similarities have been noted with Roland Vaughan's seventeenth century works at New Court in the Golden Valley.

2.10 Vaughan's work was chiefly to improve hay meadows by periodic submersion but at Moccas the sluice structure would have facilitated the 'drowning' of only a minor area of land. The LiDAR data demonstrates that closing the sluice would have had little impact upon the surrounding land which is mostly much higher than the dam and hence the sluice and dam are not good evidence for ideas similar to Vaughan's in the Golden Valley.

2.11 During a walkover in March 2013 two further structures of relevance to understanding former water management practices were found: a cut at a higher level than the culvert but aligned in a similar direction northwards and an inlet or overflow channel at the east end of the meres.

#### Other structures

2.12 Harding *et al* (1999) record (page 42) the existence of a mound or motte south of the meres which was photographed in 1925 but has since been completely levelled. This sat upon a broad mound of natural glacial origin, the form of which has been considerably smoothed during agricultural reclamation but upon which the RCHME had previously recorded earthworks. Recent geophysical survey (Roseveare, 2013) has confirmed the existence of substantial quantities of buried structures that lend some credence to the assertion that there was a castle here.

### 3 Objectives and methods

#### Objective

3.1 The primary goal of this work was to examine the available evidence, incorporating Herefordshire Archaeology's earlier work on the sluice (Hoverd *et al*, 2005) and to attempt to develop a basic conceptual model for how the meres have developed over time. Conventional paleo-environmental studies, e.g. electrical tomography and coring, have not been undertaken due to limited resources at this stage.

3.2 Fundamental to this work was the need for accurate reconstruction of water body depths extents before and after creation of the dam and sluice and to understand how these relate to the modern landscape. The sources used to support this are discussed below.

#### Sources

3.3 Environment Agency LiDAR data (2m horizontal gridded resolution DTM) has been used to underpin the 3D modelling elements of the project, allowing water levels to be projected onto the present surface model, examination of the landform and the remote detection of earthworks. Geo-location and information on spatial character has been provided by recent colour aerial mapping from GetMapping, with a horizontal resolution (pixel size) of 0.5m.

3.4 The principle source for the sluice and culvert structures is Herefordshire Archaeology's earlier work (Hoverd *et al*, 2005) which describes these structures in detail.

3.5 Important to understanding the site is a former artificial channel aligned due north from NGR (334770, 242756), about 15m north of the sluice. Judging by its alignment and size it appears to be an earlier outlet from the mere and is now blocked by the road. A small archaeological investigation was made of the base of this feature.

#### Method

3.6 The LiDAR data has been examined as height and slope data. To allow direct reconciliation of these with physical structures key elevations have been surveyed in by Leica Viva 1205+ total station and related to the LiDAR data by reducing elevations to the LiDAR DTM by means of approximately 120 control points in areas of the parkland under clear skies. Three key levels have been identified: a. the sill level of the sluice structure; b. the top of the sluice structure and c. the likely base of the former channel running northwards. The first two bracket the water heights controlled by the sluice and the last is the highest level possible if there was no drainage into the culvert.

3.7 By general appearance and its existence at a higher level the former channel appears to predate the sluice structure. Indeed, although a later track has obscured the situation it would appear that the sluice and particularly the cut for the outlet culvert are set partly into the bottom of this channel. A test pit measuring 1.0m x 1.5m was excavated into the base of the channel at a location away from possible later modification by track or culvert.

3.8 Examination of the sluice and dam was by limited cleaning and examination of the extant stonework and probing below water level to ascertain the sill level.

### 4 Discussion

#### Sluice and outlet

4.1 This was found to be as described by Herefordshire Archaeology with little sign of further degradation of the structure. An iron grille was noted embedded vertically in the ground just west of the structure and this might have once been used to prevent fish or small animals from entering the sluice structure. Any restoration should recover this grille.

4.2 The dam is a simple earthen bank protected by a stone revetment on the water side. The other side is not revetted and backs into the end of the natural hollow of the mere's bed. The

exact relationship between this and the higher channel has been lost but the topography would dictate that the channel opened from a mere edge further north than the dam. There is no evidence that the dam, and by association the sluice, was once taller and indeed the thinness of the dam would limit the stability of a taller structure. Likewise there is no evidence for masonry having extended further than is visible today.



Figure 1: Sluice structure from southeast, i.e. upstream (after Hoverd *et al*, 2005)

4.3 The sill level was found to be 74.25m OD (reduced to LiDAR elevation) which is lower than any point on the LiDAR surface in the vicinity of the mere. There is thus no doubt that the mere could be completely drained if so desired. The height of the present top of the sluice structure is 75.4m OD (reduced to LiDAR elevation) which implies the mere to have had a maximum depth of a little over 1m with the dam in place.

4.4 At the time that the investigation was carried out, the sluice was holding approximately 0.2m of water over about 0.1m depth of silt which was hand excavated prior to obtaining the sill level.

#### **Test pit in channel**

4.5 The uppermost deposit within the channel consisted of loose to moderately compacted leaf litter (context 001) to a depth not exceeding 0.12m deep. The profile of the trench showed that the deposit filled a shallow depression that reflected the shape of the profile of the channel.

4.6 Immediately underlying the leaf litter was a moderately compacted deposit of greyish silty topsoil up to 0.14m deep that was virtually free of stones or other inclusions (context 002). A single piece of white glazed blue transfer ware pottery, probably dating to the later 18th or 19th century was found at the interface with the deposit below.

4.7 Underlying the topsoil was a spread or deposit of moderately or loosely compacted, rounded/sub-rounded sandstone cobbles and gravel (003) within a matrix of fine dark brownish

grey silt with occasional to regularly occurring black flecks (mica or Manganese?) The deposit was approximately 85% cobbles and stone to 15% silt matrix. The total depth of the deposit averaged around 0.15m deep. The top level of the deposit was surveyed in and found to be 77.0m OD (reduced to LiDAR elevation), i.e. 2.75m above the sill level of the sluice and 1.6m above the highest water level retained by the sluice.

4.8 Immediately underlying the cobble/gravel deposit were some of the smaller tree roots from adjacent trees. The roots were within the top part of a deposit of reddish-orange silty clay (004). The silty clay was moderately compacted and within the area of the trench contained no stone. This appeared to be a natural deposit.

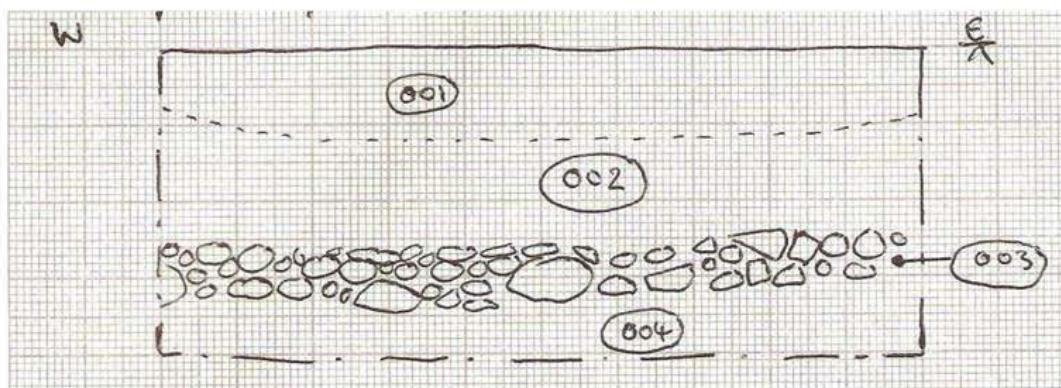


Figure 2: Sketched profile. A large square is 15cm (D. Rouse)

4.9 There is thus little evidence for a constructed base to the channel apart from the deposit of stone (003) and nor are there signs of fluvial erosion. The quantity of water passing through the sluice today, if spread across the width of the channel, would amount to no more than a few centimetres depth in the channel. This being the case, the channel may never have carried a significant flow of water.

### LiDAR models, elevations, contours and lakes

4.10 The third aspect of the work is the attempt to understand the significance of these results within the wider landscape defined by the LiDAR DTM. What does it mean to have a water level at 77.0m OD and separately at only 75.4m OD?

4.11 In addition, what can the landform reveal about the likely former extents of these water bodies and how they relate to other features, e.g. the site of the 'castle'? Can these relationships provide any information about the date?

4.12 Examination of the LiDAR data reveals that the mere sits within a broad saddle and is one of several depressions, Lawn Pool being the next towards the west. There is good evidence for a former natural channel approximately 34m wide extending towards this from the mere for about 150m. Evidence for a further channel is found of the road where, under a small plantation, a similar feature about 30m wide extends towards the northeast and into an area of lower lying land.

4.13 These natural channels and (partly) extant meres are consistent with natural post-glacial drainage features constrained by till deposits and rising ground. Their layout is especially evident when slope (rather than elevation) data is examined, e.g. Figure 3, because their likely edges are marked by the relatively steep slopes. In this particular case the interpretation is made more convincing by these scarps having a constant elevation and therefore capable of retaining a body of water.

4.14 Artificial structures are also evident when examining LiDAR slope and many individual ditches, tumps, former ponds, tracks and other structures are visible. Of most interest to this



study is the clear expression of the artificial channel extending north from above the sluice. This approaches and is cut by the road before continuing straight on and opening into the former natural channel beneath the trees north of the road. It is convincingly evident that it was excavated to link these two features and presumably to allow the mere to overflow (at 77m OD) into the lower ground to the north.



Figure 3: LiDAR slope. White to black implies slope angle from flat to 30 degrees, dark blue is the 77m contour & light blue the 75.4m contour. The area is approximately 950m wide.

4.15 This being the case there are two clearly defined levels which constrained the height and therefore extent of water bodies in the past, one at 77m OD (channel base) and the other at 75.4m OD (dam top). Intrinsic to this is a sequence of construction; the channel must have been excavated earlier than the construction of the sluice for there to have been a higher level of water to maintain.

4.16 These two levels are depicted on Figure 3 and there is a striking correlation between the LiDAR slope data and the 77m OD water level (dark blue). The channel would appear to have been excavated to prevent water from rising above the region of maximum slope, i.e. above the banks of what can probably be assumed to be the original natural mere. It thus prevented flooding of surrounding ground, but why?

4.17 A possible answer is provided by a geophysical survey (Roseveare, 2013) undertaken during this project on the south side of the mere across an area thought to have hosted a castle. This revealed at least two lines of defences, the lower of which appears to rise from

approximately 76.5 - 77m OD. By association, the channel, with its base at 77m OD, would have prevented water from rising higher against the defensive structures and logically is therefore broadly contemporary with these.

4.18 The natural level of the mere can therefore rise to at least 77m OD, i.e. 1.6m above the maximum level maintainable by the sluice and will do if the outlet culvert is ever blocked.

4.19 Examination of Figure 3 suggests that the water level associated with the top of the dam is not directly associated with any other landscape features, e.g. no obvious artificial lake edges. Indeed, the water at the top of the dam would back up the drainage ditches and form irregular pools rather than a single body of water. At a slightly lower water level much of the spine drainage ditch would still be underwater.

4.20 These drainage ditches (perhaps 'water furrows', Lovelace, *pers. comm.*) are depicted on the 1887 Ordnance Survey 1:2,500 mapping and thus predate twentieth century agricultural improvements. The spine ditch being unnecessary if there was a body of water implies that a lake had ceased to exist in a useful form by this time. For there to be nothing visible of its outline today suggests that there might never have been an edge, or that the feature has been filled, either by natural silting during its existence or later filling.

4.21 An alternative interpretation is that the dam and sluice was not to maintain a lake but to allow a volume of water to be impounded for the purposes of flushing the culvert; the consequences of this become blocked being severe and difficult to rectify. The slightly awkward linkage of dam fabric with the culvert inlet might in this context imply the dam was created as an afterthought. Seasonal ponding of water, e.g. to form a decoy pond, might have represented a secondary use of the feature, with the resulting water body of limited and informal extent.

4.22 The extent evident on Figure 3 is in any case a maximum, constrained by the height of the dam and providing a maximum water depth of about 1m. The maximum depth attainable now without silt removal is only about 0.4m.

4.23 To return briefly to the nearby efforts of Rowland Vaughan; if the sluice and culvert are of seventeenth century date then their purpose was likely not to flood meadows for hay because the land affected was the bed of the natural mere and hence normally underwater. In addition the maximum area affected by any scheme of seasonal inundation would amount to about 2 hectares which hardly seems to warrant the degree of engineering required to construct the culvert to the Wye. Georgian era water management works seems a more realistic interpretation and by draining the mere the water level within Lawn Pool could also be controlled. This could discharge into the mere via a ditch linking it to the western natural channel of the mere, an arrangement that seems to have been perpetuated by the drainage ditches evident today.

## 5 Conclusions

5.1 Principal conclusions are listed below and in no particular order.

- All the meres are likely to have been natural post-glacial drainage features and are associated with palaeo-channels.
- There is no direct evidence of date for the water management features although their sequence is apparent. Indirect evidence for date, based upon interaction with the castle site and likely function, is available, with dam and culvert likely to be Georgian era and the higher level cut potentially medieval.
- The dam appears to have never been taller than at present, its lightweight construction precluding the retention of a greater depth of water.
- The sill level of the sluice is the lowest point on site, i.e. it was intended to permit complete drainage of the area. It is also below the water level of Lawn Pool.
- There is no evidence for the creation of a lake behind the dam and the impounded water appears to have an *ad hoc* relationship with extant topography. It seems likely that only a small informal body of water was intended, and that perhaps only seasonally, e.g. as a decoy pond.
- It is possible that the primary purpose of the dam was to impound water for flushing the drainage culvert, this likely to have been necessary due to its great length.
- Before creation of the culvert the mere level was prevented from rising higher than 77m OD by an artificial channel connecting it with a palaeo-channel north of the road. Given that this level apparently coincides with the defensive structures of the castle on the southern bank of the mere a medieval data seems likely.
- It is necessary for the culvert to be maintained to prevent serious flooding of the local landscape and possible damage to the adjacent road.

## 6 Appendices

### Bibliography

Harding *et al*, 1999, "*Moccas: an English deer park*", English Nature

Hoverd *et al*, 2005, "*Moccas Park: Archaeological recording of a sluice*", Herefordshire Archaeology Report No. 196

Roseveare, 2013, "*Moccas castle, Herefordshire - Geophysical Survey Report*", ArchaeoPhysica, unpublished

## Appendix 7 Archaeological database of Moccas Estate 2003

*From: Appendix 1 of Archaeological Survey of Moccas Estate 2003 by Tim Hoverd*

[Link](#) to main report

### Appendix 1: Site Database

HSM NO	EASTING	NORTHING	VEGETATION COVER	FEATURE/SITE TYPE-DESCRIPTION	PRESERVATION
34082	34769	41909	PASTURE	Ridge and Furrow	GOOD
34083	34865	42918	PASTURE	Bank and Ditch	GOOD
	34783	42963	PASTURE		GOOD
	34725	43085	WOODLAND		FAIR
	34720	43182	WOODLAND	Cannot be traced further	POOR
34084	34763	43144	PASTURE	Pool, stone lined on N,E,and W sides	FAIR
34085	34752	43148	PASTURE	Bank and Ditch (Leat)	GOOD
	34751	43111	PASTURE		GOOD
	34758	43044	PASTURE	Filled with modern rubble	POOR
	34770	43017	PASTURE	Leat turns north/east	POOR
	34825	43002	PASTURE	Cut by drive	FAIR
	34884	42984	PASTURE	Turns to the south	FAIR
	34896	42923	WOODLAND	Turns to run east	POOR
	34912	42926	WOODLAND	Cannot be traced further	POOR
34086	34897	43082	PASTURE	Low bank 25m long (possible remnants of ridge and furrow)	POOR
34087	35000	43117	PASTURE	Similar to 34086	POOR
34088	35237	43193	PASTURE	8m square raised platform with circular depression in centre	GOOD
34089	35133	43400	PASTURE	Holloway, 3m wide	POOR
	35080	43370	PASTURE	Turns to south/west	FAIR
	35052	43288	PASTURE	Bank on eastern side	FAIR
	34979	43203	PASTURE	Cut by holloway 34090	GOOD
	34916	43187	PASTURE	Cut by track	GOOD
	34768	43175	PASTURE	Cut by track	GOOD
	34726	43189	PASTURE	Joins modern metalled track	FAIR
34090	34979	43200	PASTURE	Holloway 4m wide runs west	GOOD
	34986	43248	WOODLAND	Continues to run	GOOD

			D	west	
	34963	43293	WOODLAN D	Cannot be traced further	FAIR
34091	34909	43212	PASTURE	Semi-circular platform c. 7m long	GOOD
34092	34658	42979	PASTURE	Western end of large ditch	GOOD
	34737	42861	PASTURE	Eastern end of large ditch	GOOD
34093	35613	42979	PASTURE	Ditch 3.5m wide, cut by drive and runs under village hall	FAIR
34094	34640	42855	PASTURE	Ditch 2.5m wide running east	GOOD
34095	35676	42848	PASTURE	Lynchet, runs east for 25m, steps to n for 1.5m runs under carriageway 34096	GOOD
34096	35733	42861	PASTURE	Carriageway 2.5m wide and 0.4m high	GOOD
	35763	42908	PASTURE	Carriageway continues	GOOD
	35959	43126	PASTURE	Carriageway continues	GOOD
34097	35751	42789	PASTURE	Lynchet runs under carriageway and continues for 10m.	GOOD
34098	35668	42810	PASTURE	Ditch 2m wide and 0.2m deep infilled at 35712 42814	FAIR
34099	35916	43046	PASTURE	Ridge and Furrow aligned NE/SW	GOOD
34100	35927	43061	PASTURE	Platform, 6m long and 3.5m wide aligned NE/SW	GOOD
34101	35913	43165	CRICKET PITCH	Ridge and furrow aligned NE/SW	GOOD
34102	35975	43182	PASTURE	Headland, 5m wide runs east	FAIR
	35873	43216	PASTURE	Continues and is cut by drive	FAIR
	35861	43215	PASTURE	8m wide gap in headland	FAIR
	35824	43242	PASTURE	Terminates on scarp edge	GOOD
34103	35923	43270	PASTURE	Ridge and Furrow southern extent aligned NE/SW	GOOD
	36006	43249	PASTURE	Ridge and Furrow northern extent	GOOD
34104	36061	43210	Improved	Lynchet, 6m wide	POOR

			Pasture	and v eroded runs East for 60m	
34105	36294	43209	Improved Pasture	Drainage ditch 2m wide running south.	POOR
34106	36292	43265	PASTURE	Bank on scarp edge	POOR
	36286	43287	PASTURE	Bank continues	POOR
	36266	43307	PASTURE	Bank cannot be traced further	POOR
34107	36224	43330	PASTURE	Hedge Bank 3m wide and 0.5m high runs north for 15m.	GOOD
34108	35827	43310	PASTURE	Bank 3.5m wide runs west for 30m.	FAIR
34109	35783	43309	PASTURE	Carriageway from church to stable block	GOOD
34110	35701	43301	PASTURE	Bank enclosing churchyard cut by Ha Ha.	FAIR
	35733	43319	PASTURE	Bank continues	POOR
	35762	43321	PASTURE	Bank cannot be traced further	POOR
	34659	43283	ARABLE	Runs SSW for c. 70m	POOR
34111	35740	43327	PASTURE	Ridge and Furrow aligned NNE/SSW	GOOD
34112	35752	43461	PASTURE	Low mound 6m long, 4m wide and 1m high	GOOD
34113	35759	43532	PASTURE	Lynchet runs of SW corner of Mansion	GOOD
	35710	43536	PASTURE	Runs out into slope	GOOD
34114	35763	43562	PASTURE	Cambered carriageway	GOOD
	35691	43611	PASTURE	Carriageway continues and turns towards the river	GOOD
	35695	43643	PASTURE	Carriageway runs along built terrace	GOOD
	35608	43696	PASTURE	Carriageway meets and crosses carriageway 34116	GOOD
	35567	43762	WOODLAND	Carriageway continues	GOOD
34115	35729	43586	PASTURE	0.5m square flagstone set into carriageway	GOOD
34116	35608	43695	PASTURE	Carriageway running SSW/NNE	GOOD
	35590	43642	PASTURE	Runs out on hill crest	FAIR
	35633	43742	PASTURE	Turns tightly to run parallel to river	GOOD
	35438	44157	ARABLE	Carriageway may	FAIR

				split one arm running south	
	35291	44345	ARABLE	Access cut from carriageway to beach	GOOD
	35175	44365	ARABLE	continues	FAIR
	35347	43831	ARABLE	Continues but is met by carriageway 34114	FAIR
34117	35595	43696	WOODLAND	Earthen dam with stone on northern face crossed by 34114	GOOD
34118	35556	43671	WOODLAND	Earthen dam with robbed stone revetting on north side	FAIR
34119	35555	43670	WOODLAND	Carriageway crosses dam 34118 but cannot be traced	POOR
34120	35504	43556	PASTURE	Ridge and furrow aligned E/W runs to the south of this location	GOOD
34121	35518	43516	PASTURE	Ridge and furrow aligned N/S	GOOD
34122	35525	43397	ARABLE	Lynchet or boundary bank	POOR
	35555	43369	ARABLE	Continues but turns to SE.	POOR
	35659	43283	ARABLE	Hits northern boundary of churchyard 34110	POOR
34123	35701	43271	ARABLE	Surface find, small flint flake, debitage	GOOD
34124	35682	43253	ARABLE	Surface find, small flint flake, possible retouch	GOOD
34125	35714	34265	ARABLE	Truncated remains of human burial	POOR

## Appendix 8 Historic Environment Record Consultation letter from Dr. K. Ray



Mike Williams  
The Glyn  
Norton Wood  
Norton Canon  
Hereford  
FR4 7BP

### Places and Communities Directorate

G.F.Hughes

Your Ref:  
Our Ref: CHE727  
Please ask for: Dr Keith Ray or Natalie Cook  
Direct Line / Extension: 01432 260470  
Fax: 01432 261970  
E-mail: [kray@herefordshire.gov.uk](mailto:kray@herefordshire.gov.uk)  
[natalie.cook@herefordshire.gov.uk](mailto:natalie.cook@herefordshire.gov.uk)

24<sup>th</sup> April 2013

Dear Mike,

**HISTORIC ENVIRONMENT RECORD CONSULTATION RESPONSE FOR:**  
***Cross End Farm, Moccas***  
***AG00460535***

Thank you for your request for information and advice about the historic environment features on this holding, received in this office on 02/04/2013. Please include a copy of this letter and all of the attached information when submitting your completed FEP to Natural England.

**Please find the following attached:**

- A map showing the known nationally and locally important Historic Environment features on this holding that can be managed under the scheme.
- A completed HER consultation pro forma table for the features identified on the map. This includes our advice on the importance, priority and management recommendations for each feature. This pro forma is specifically designed to enable you to copy and paste certain fields directly into the e-FEP. Instructions on how to do this can be found in the countryside section of the ALGAO website ([www.algao.org.uk](http://www.algao.org.uk)). However please ensure that you always also submit the full HER consultation pro forma to Natural England with your application as this contains additional fields.

**In addition, the following advice has been provided that may prove useful during the application process:**

**The potential for enhanced management of the historic environment:**

The overall priorities for managing the historic environment on this holding are:

- For HE6561 (Parcel 7342) remove trees and scrub with care over the castle monument and revert area to pasture with re-fencing to enable the monument to be managed as a single entity. In addition to this ensure the area (Parcel 8539) which is in pasture be maintained under a stable grass




sward and avoid operations that will alter the monument such as burrowing, scrub growth, poaching and ground disturbance.

- There is also scope for a degree of restoration of the castle itself, which is known to have been bulldozed to create arable within living memory. This would need to be undertaken as a special project and would involve a measured geophysical survey and limited archaeological investigation prior to controlled re-excavation of lengths of the ditch.
- For HER 52420 and 43040 seek to protect waterlogged archaeological deposits from drying out by maintaining raised water levels throughout the year. There is also scope to restore the wetland features, if carried out sensitively, and accompanied by the requisite Palaeo-Environmental investigations.
- For the Registered Park and Garden of Moccas conserve and maintain the historic parkland planting across the holding. Where parkland is in cultivation it is advised that these areas (see proforma for land parcel numbers) should be reverted to pasture to help improve the landscape character of the parkland. In addition for HER records 34118, 34117 and 11132 (fishpond and earthwork dam) it is advised that a programme to reduce and maintain existing scrub be implemented and to coppice/pollard bank side trees and prevent erosion of pond and dam banks.

First edition Ordnance Survey maps are available online at [www.old-maps.co.uk](http://www.old-maps.co.uk) or from the HER upon request.

Please do not hesitate to contact me if you have any queries on any aspect of this consultation response.

Yours sincerely,

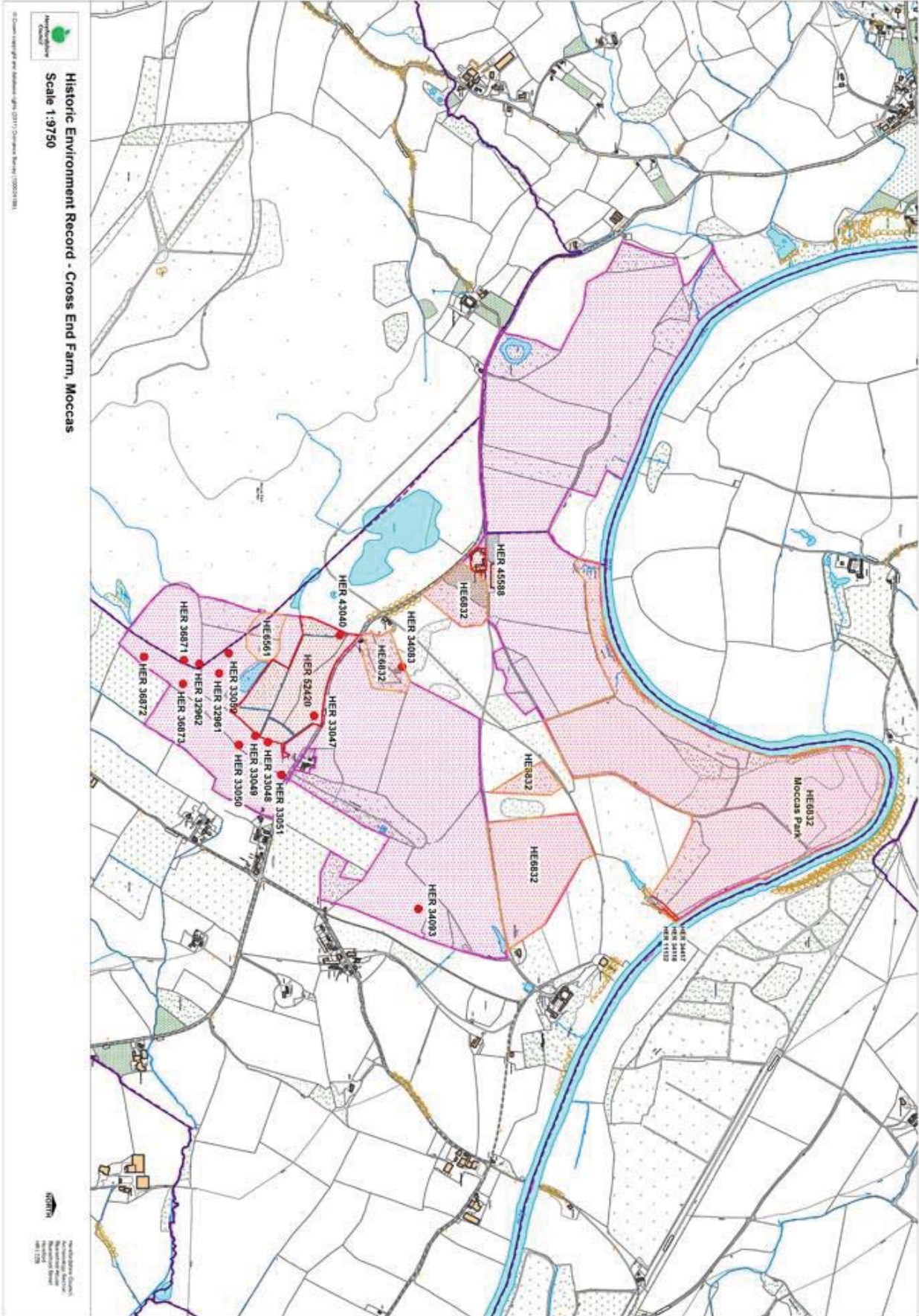


A handwritten signature in black ink, appearing to read 'Dr Keith Ray', with a horizontal line underneath.

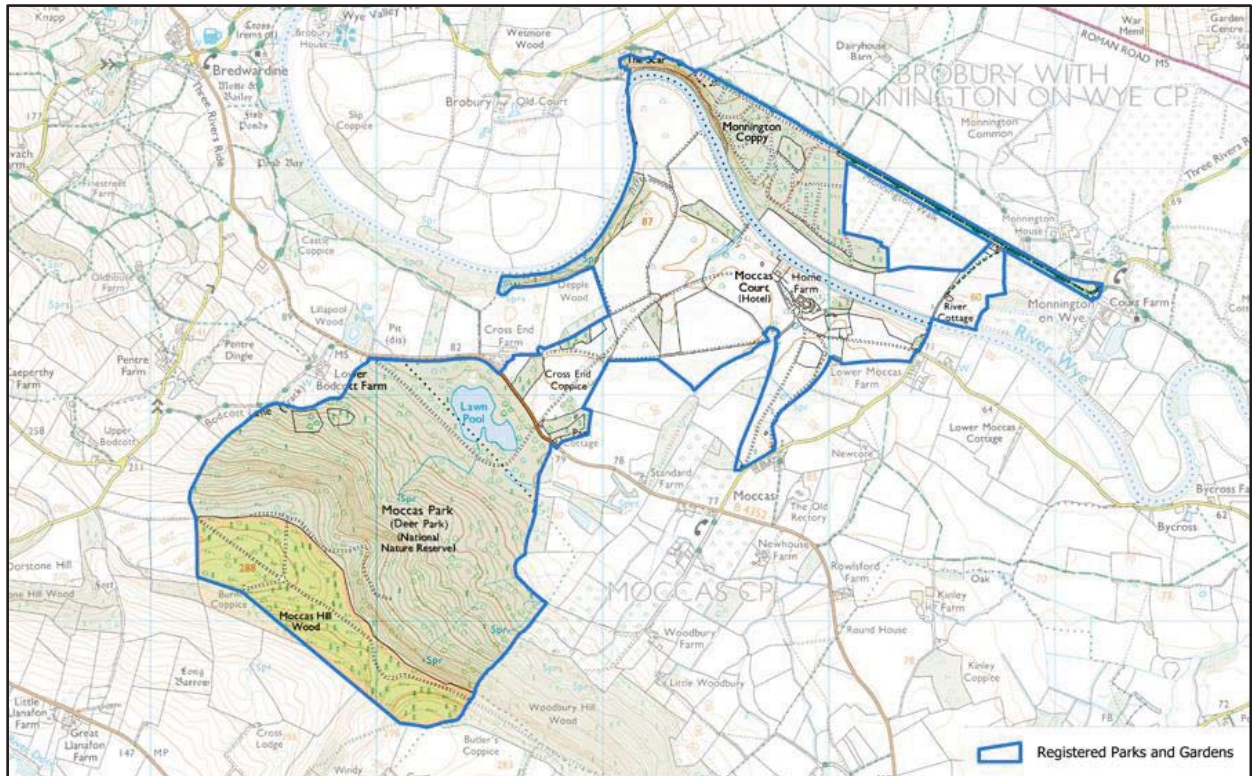
**DR KEITH RAY**  
**COUNTY ARCHAEOLOGIST**

# Appendix 9 Historic Environment Record sites

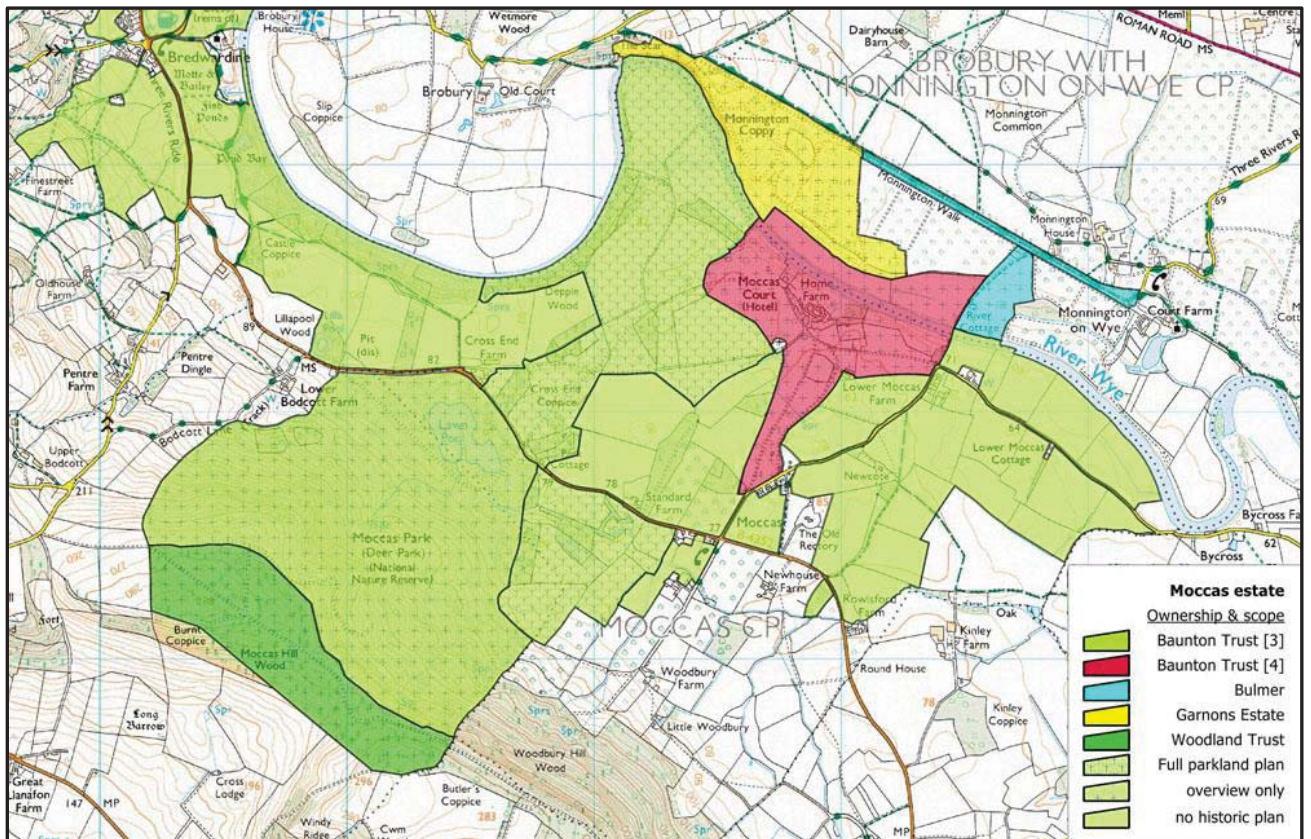
See report web page for detail description and recommendations



## Maps 1a and 1b Location of RPG, ownership and scope

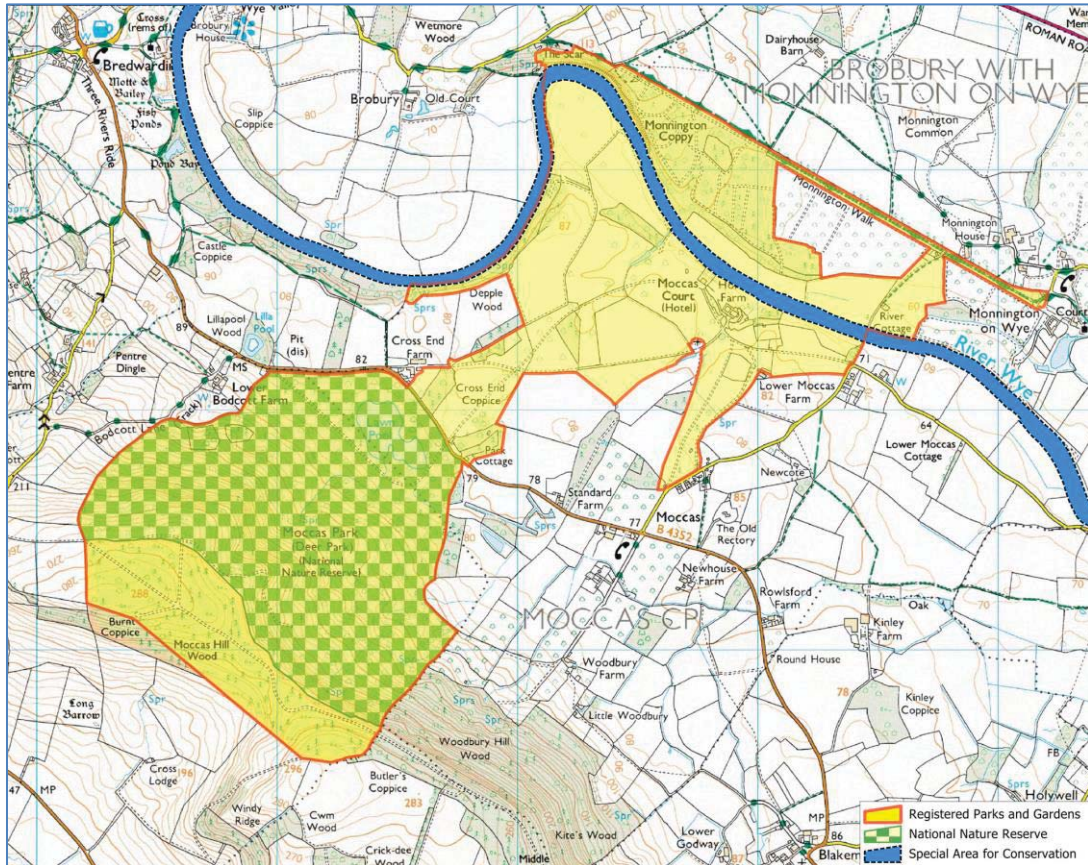


Map 1a Location of Moccas registered park and garden (RPG)

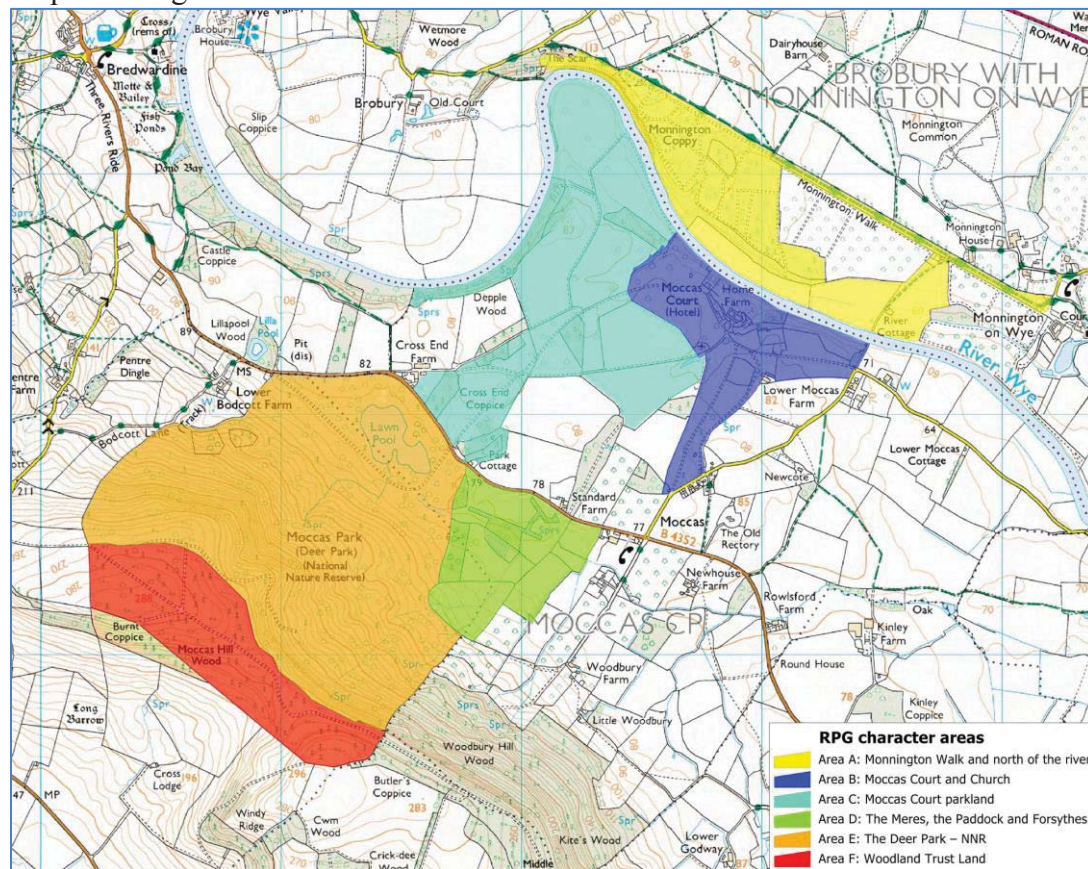


Map 1b Land ownership of Moccas estate and Moccas RPG with scope of present study.

## Map 2a and 2b. Designations and Character Areas



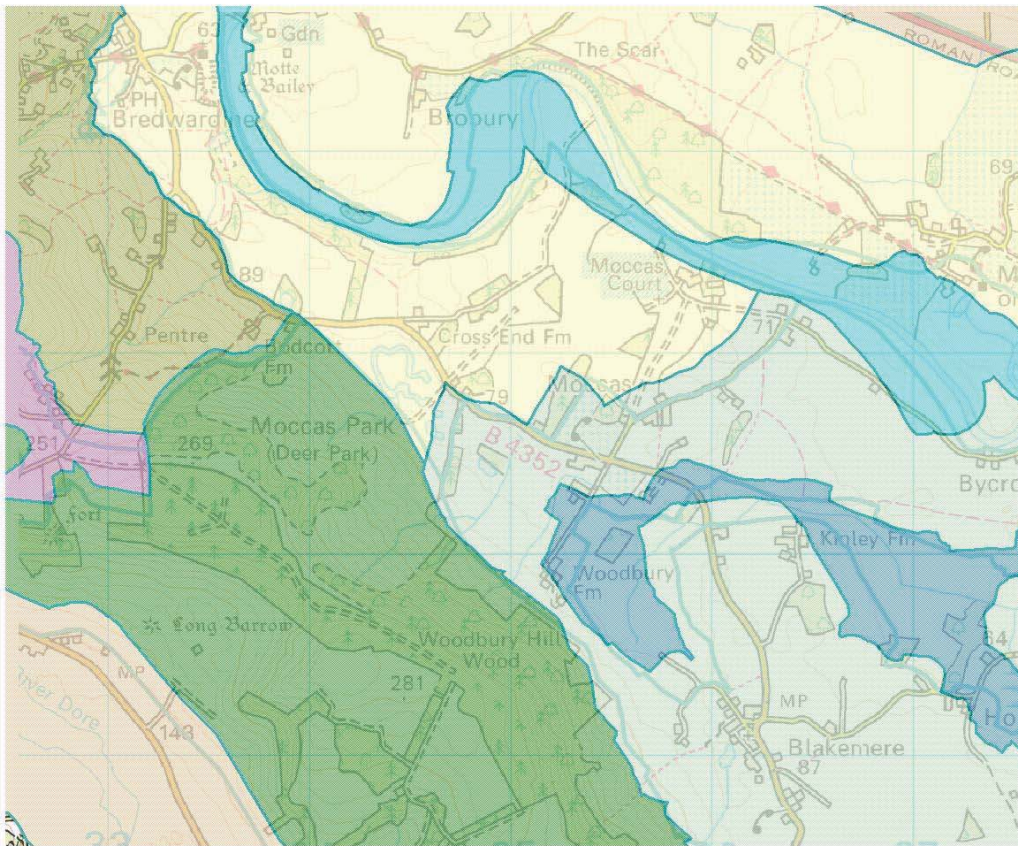
Map 2a Designations



Map 2b Character Areas

### Map 3 Landscape classifications

## Herefordshire Council's landscape types for Moccas and vicinity

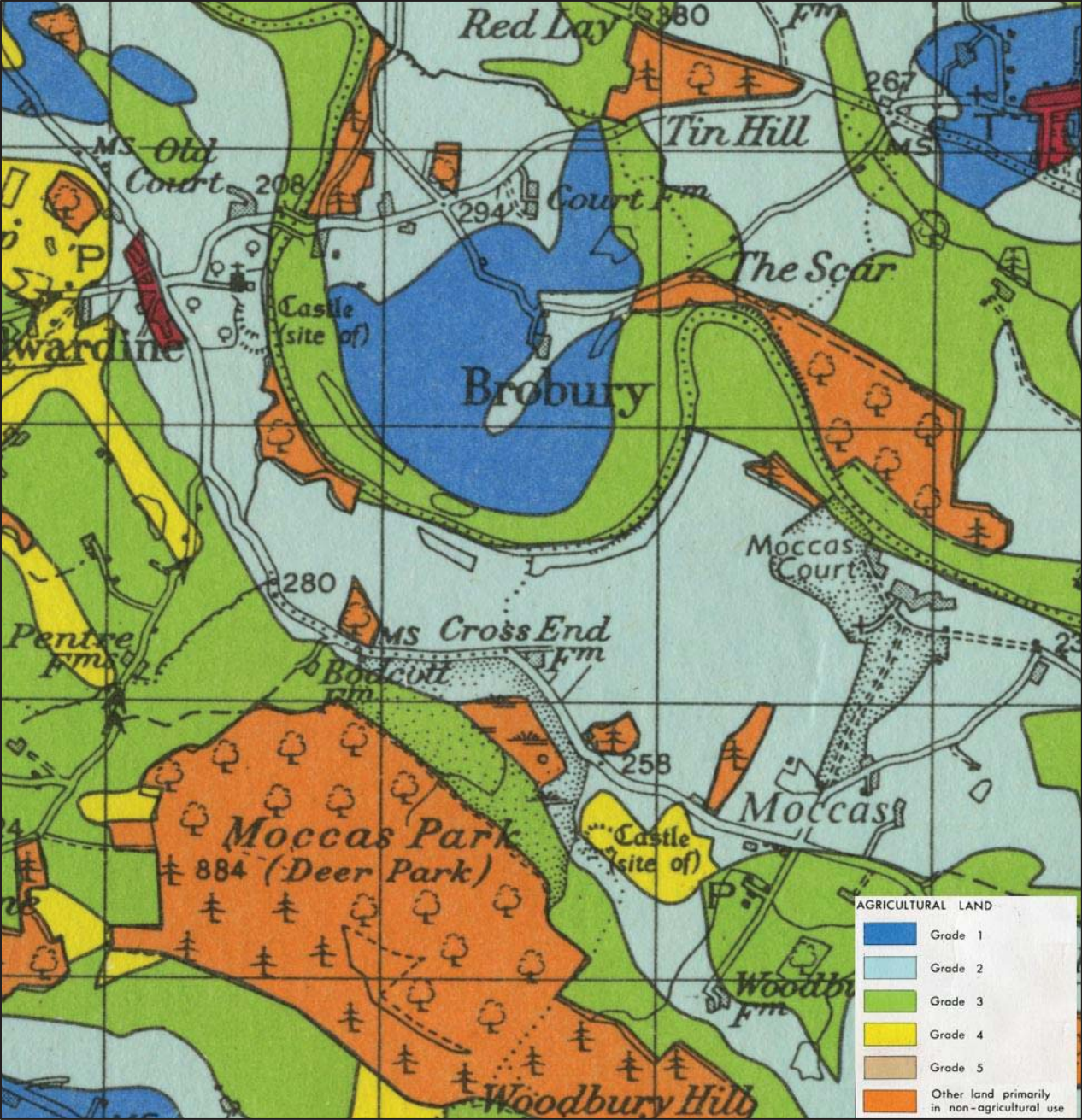


#### Landscape types

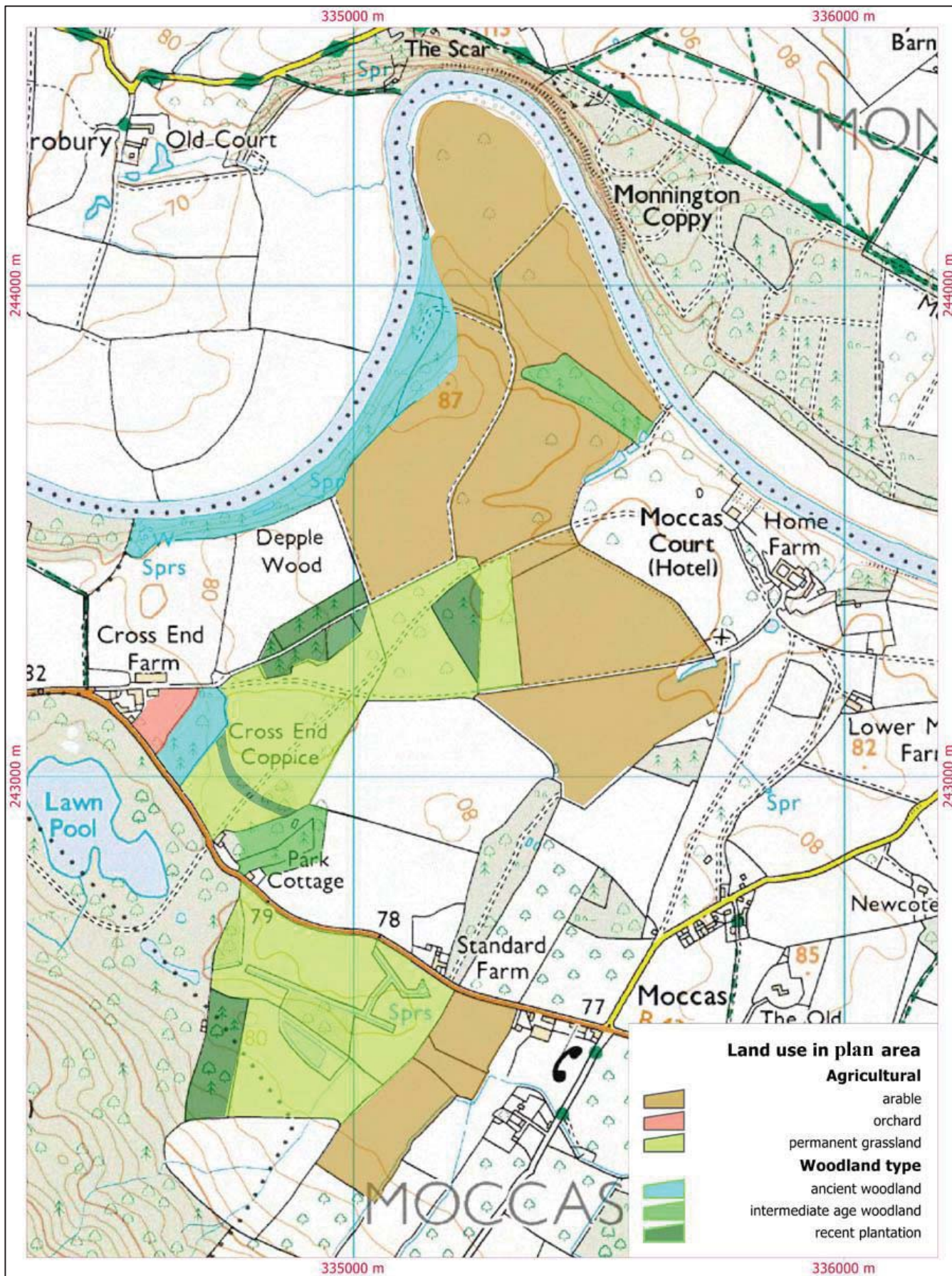
- Wooded Estatelands
- Principal Timbered Farmlands
- Riverside Meadows
- Wet Pasture Meadow
- Principal Wooded Hills
- Wooded Hills & Farmlands
- Enclosed Moors and Commons
- Principal Settled Farmlands

From the Landscape Character Assessment exercise by Herefordshire Council

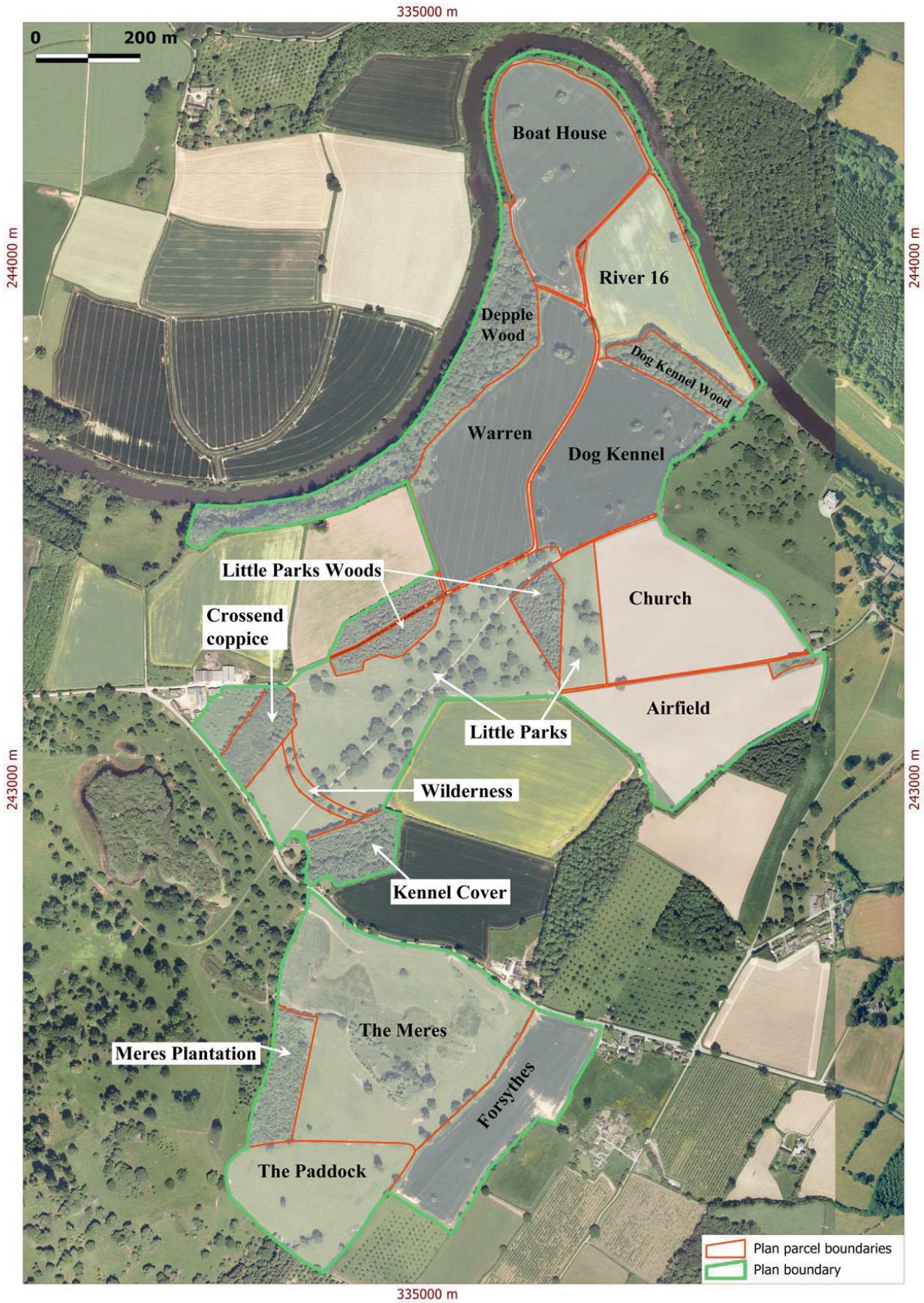
Map 4 Agricultural land classification



Map 5 Land use in the plan area

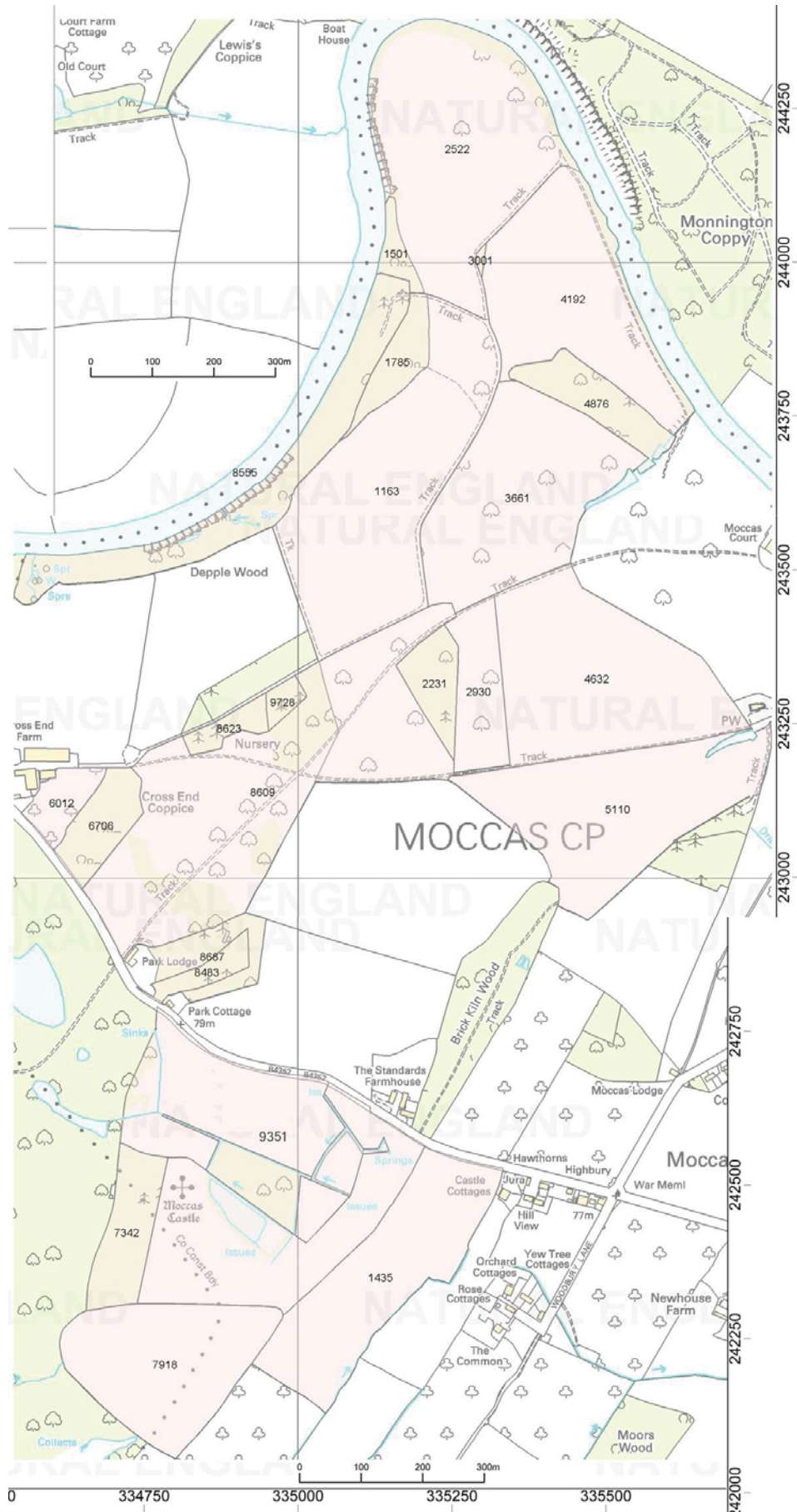


# Map 6 Field names

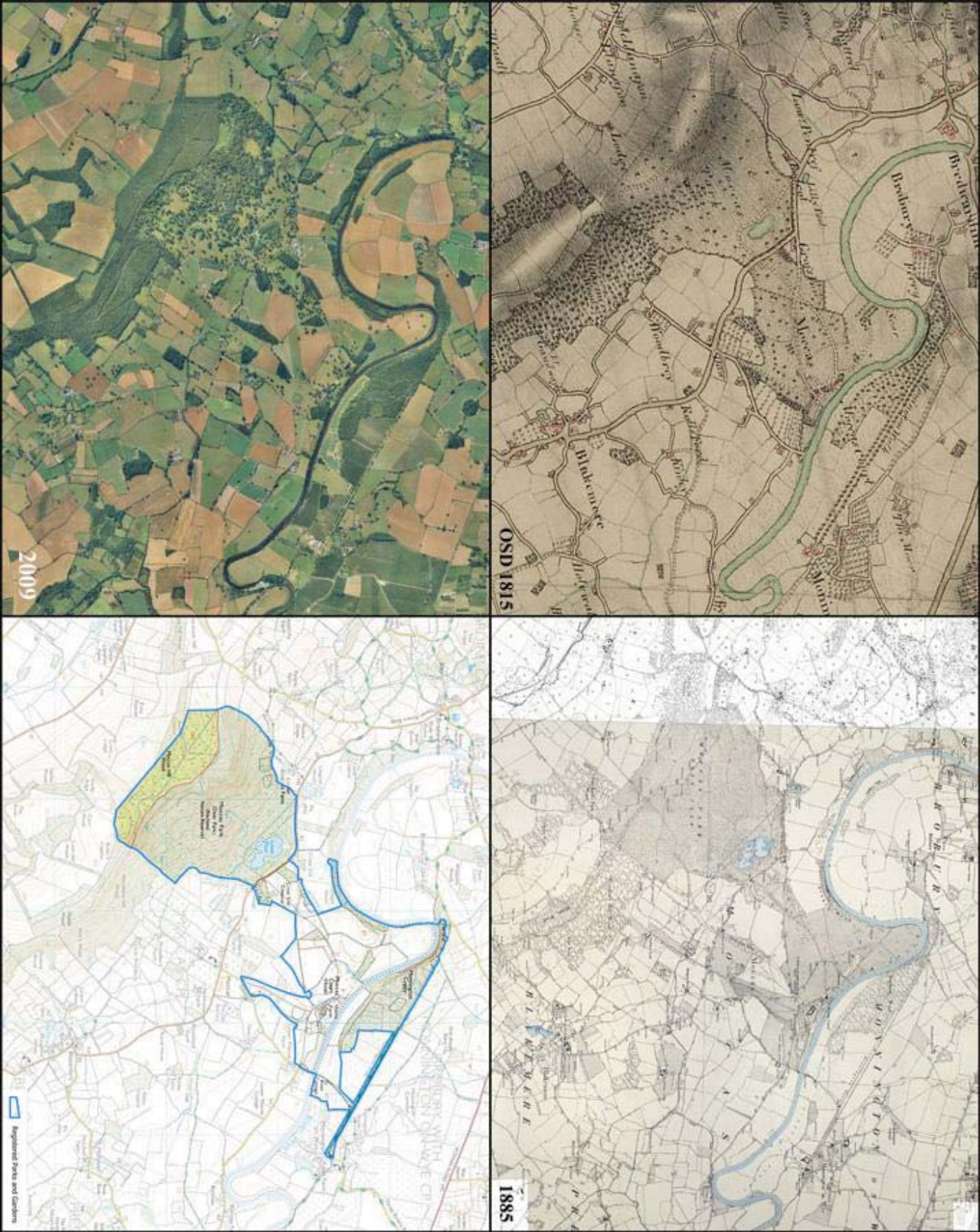




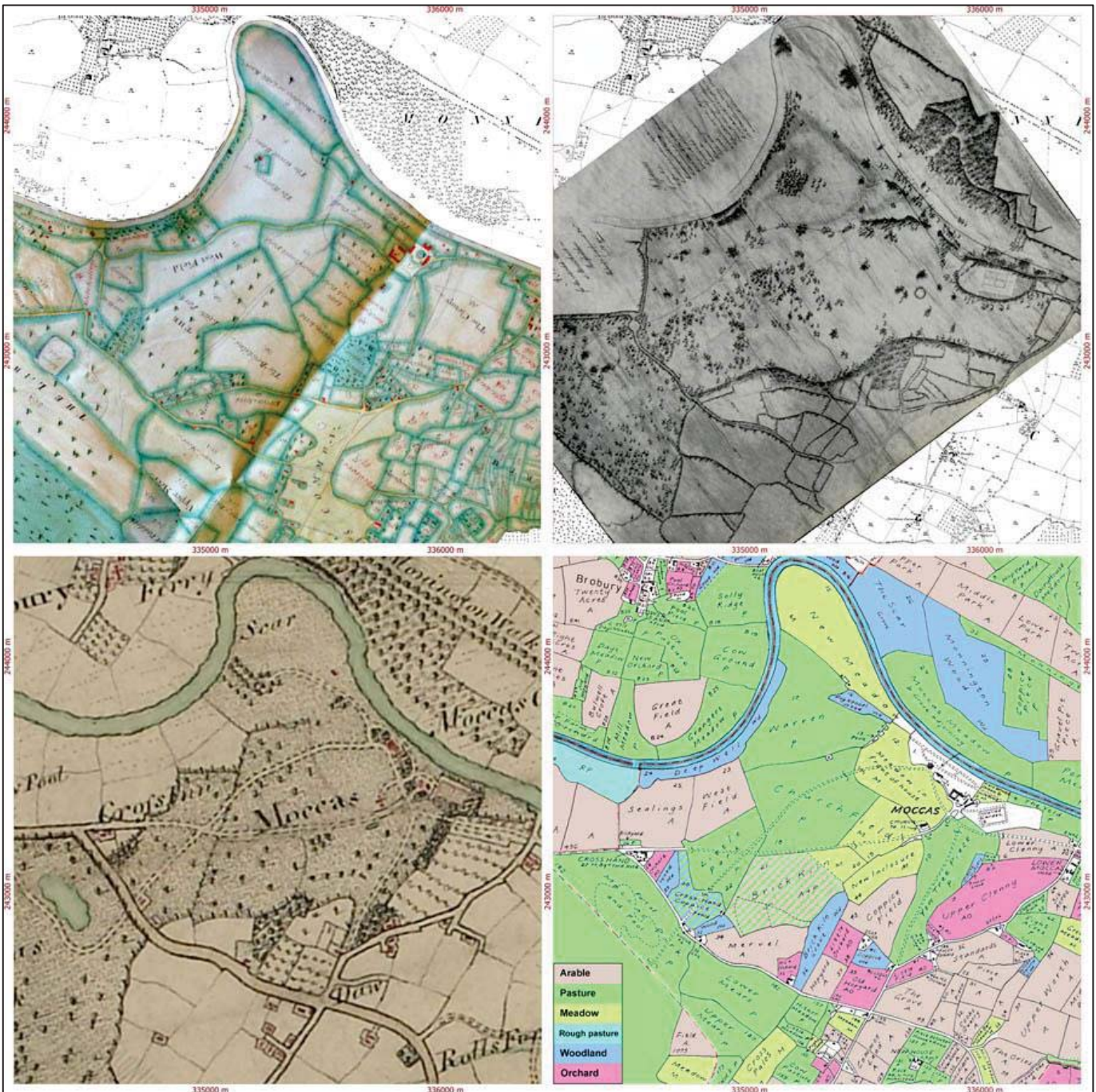
# Map 7 Land parcel numbers



Map 8 Sequence for Moccas Park and surroundings from 1815



## Map 9 Sequence for plan area 1772 to 1837



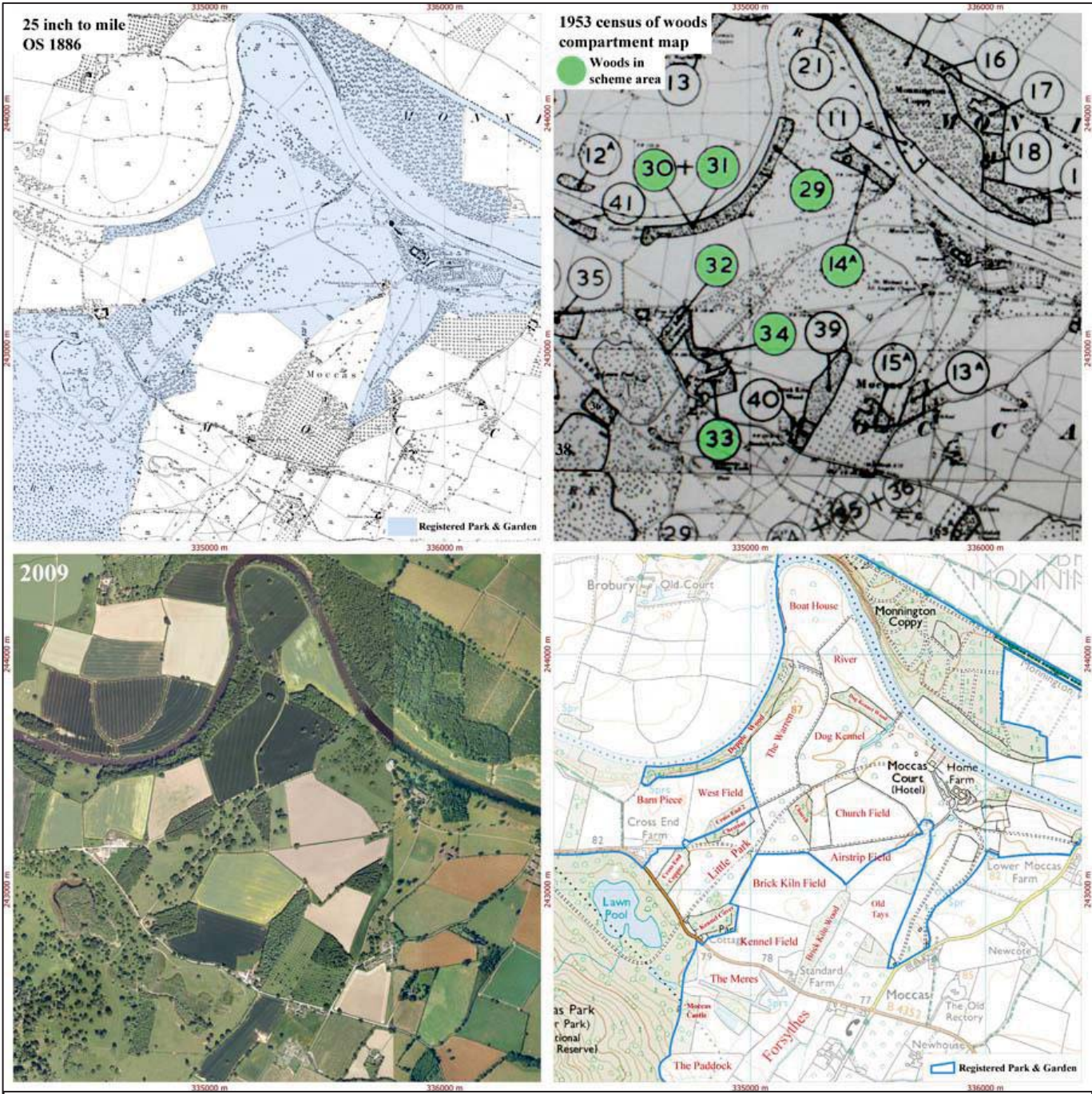
Top left: Lambe Davies map of the Cornwall estates 1772

Top right: Lancelot Brown's plan for the 'intended alterations' to Moccas Park 1778

Bottom left: Ordnance Surveyors Drawing c1815

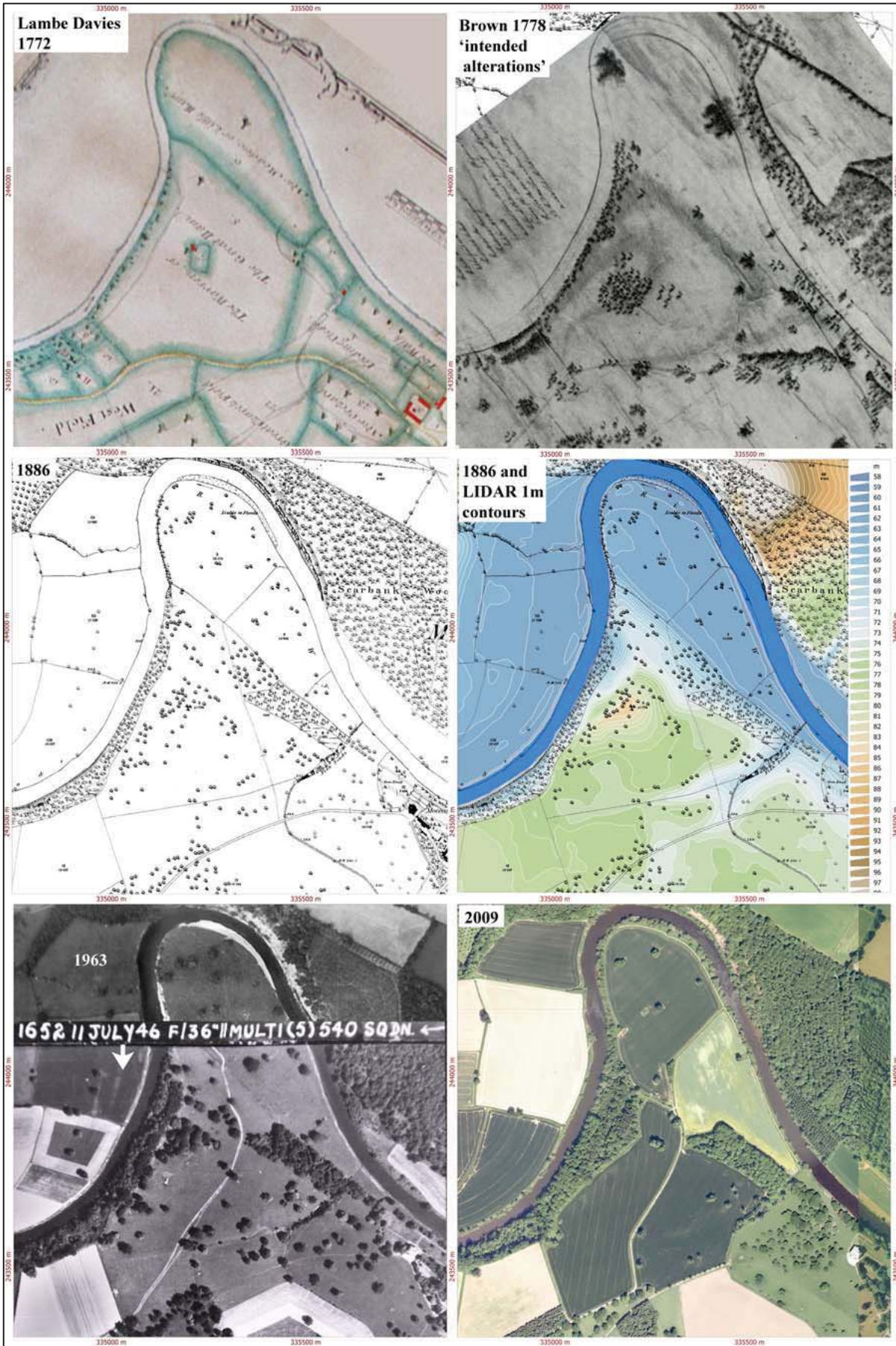
Bottom right: Composite of Tithe Maps for Moccas, Dorstone, Monnington and Brobury 1837, Geoff Gwatkins transcription colour coded for land use

# Map 10 Sequence for plan area 1837 to present

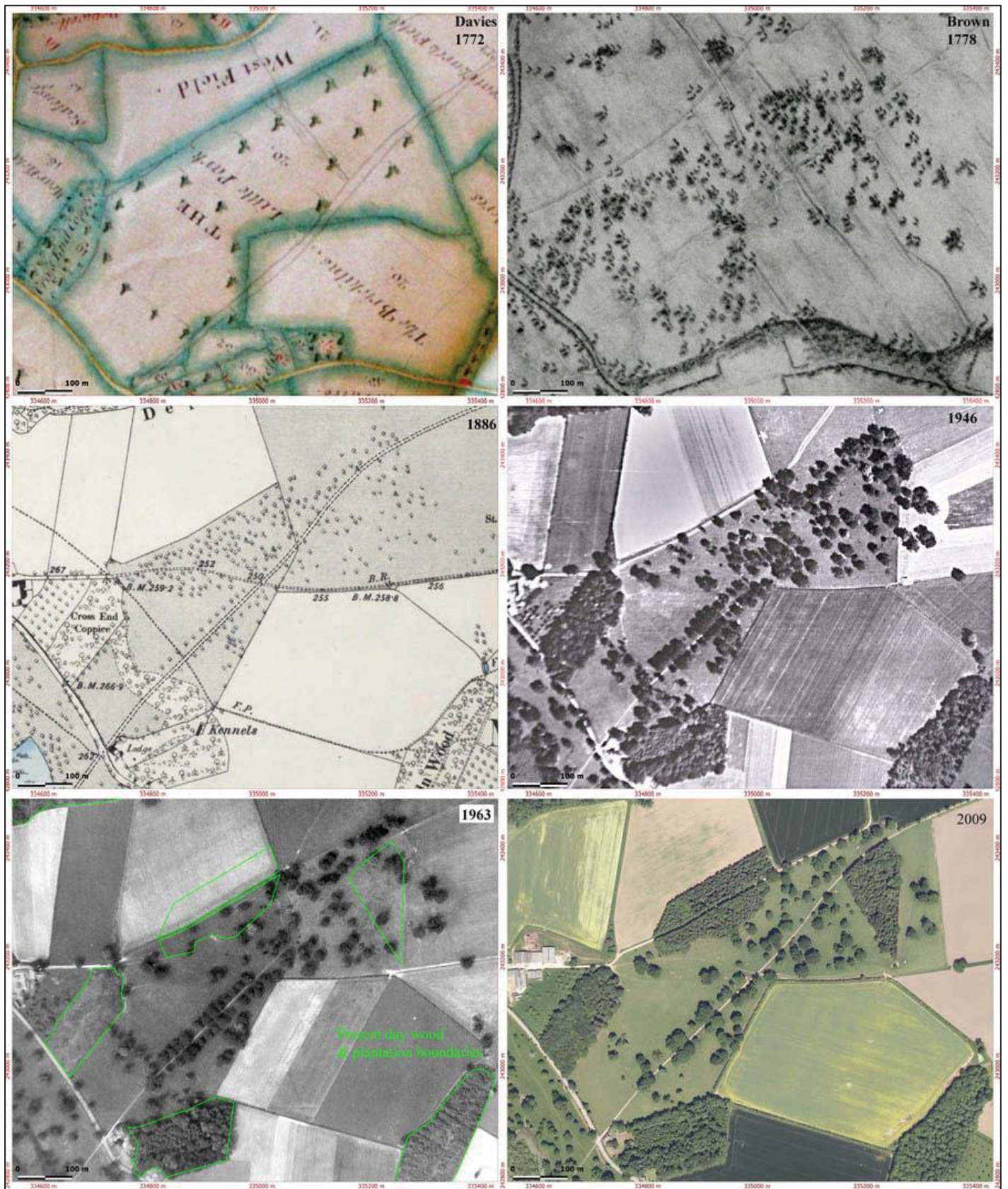


Details of the woodland compartments from the survey's notes of the 1953 census see Appendix 2.

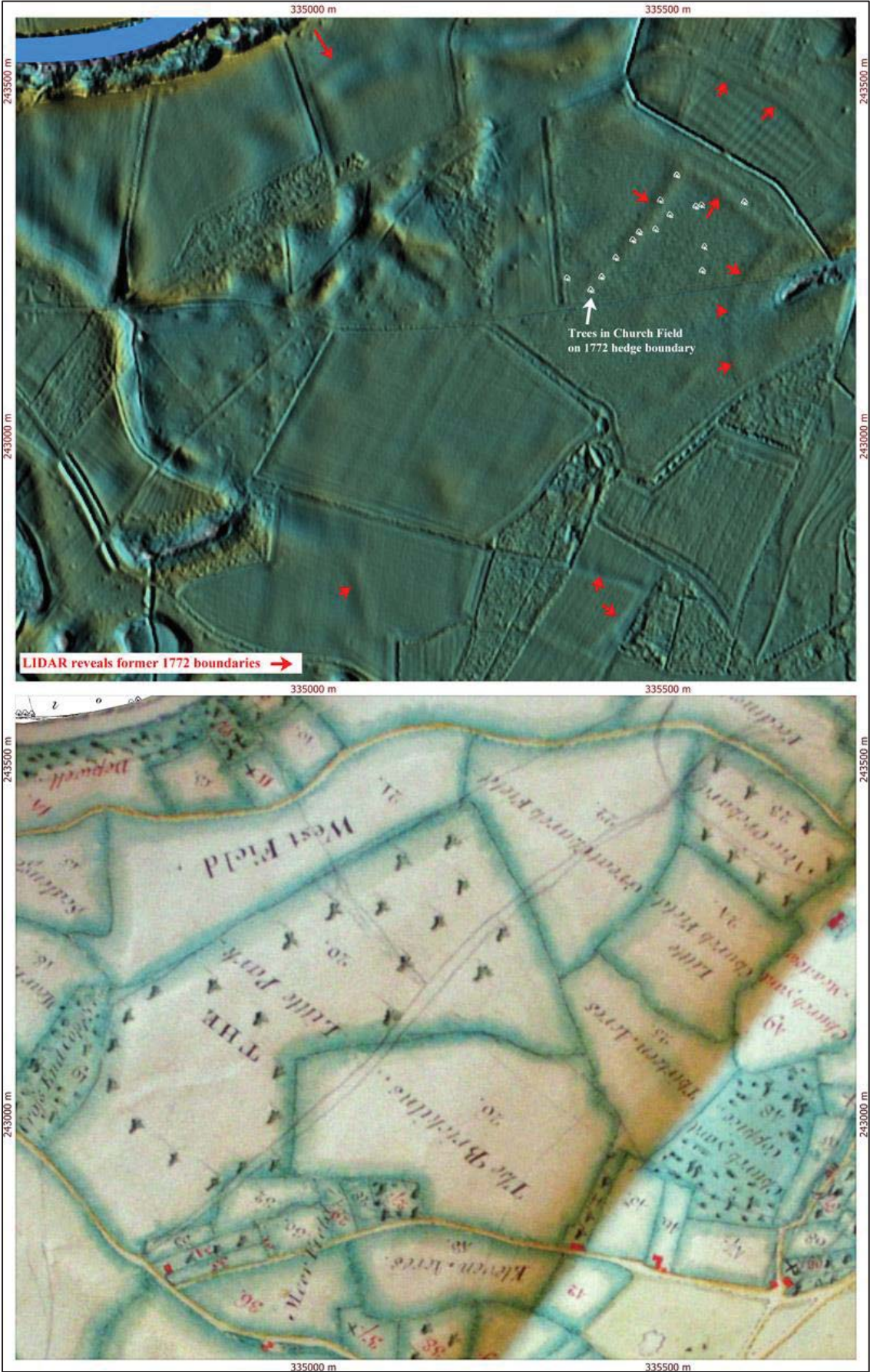
# Map 11 Sequence for northern 'loop' area



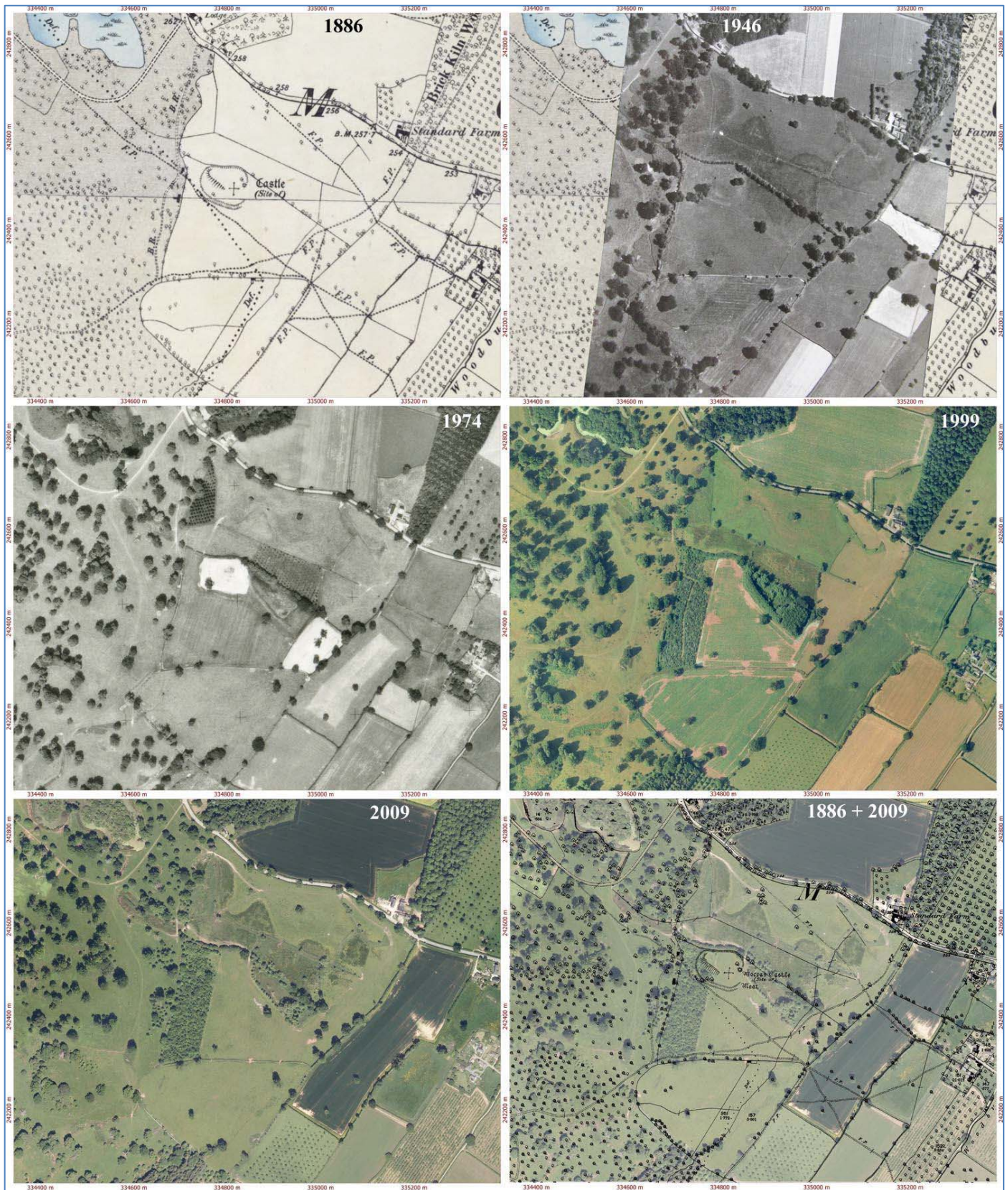
## Map 12 Sequence for Little Park 1772 to present



Map 13 LIDAR and 1772 map of Little Park and vicinity

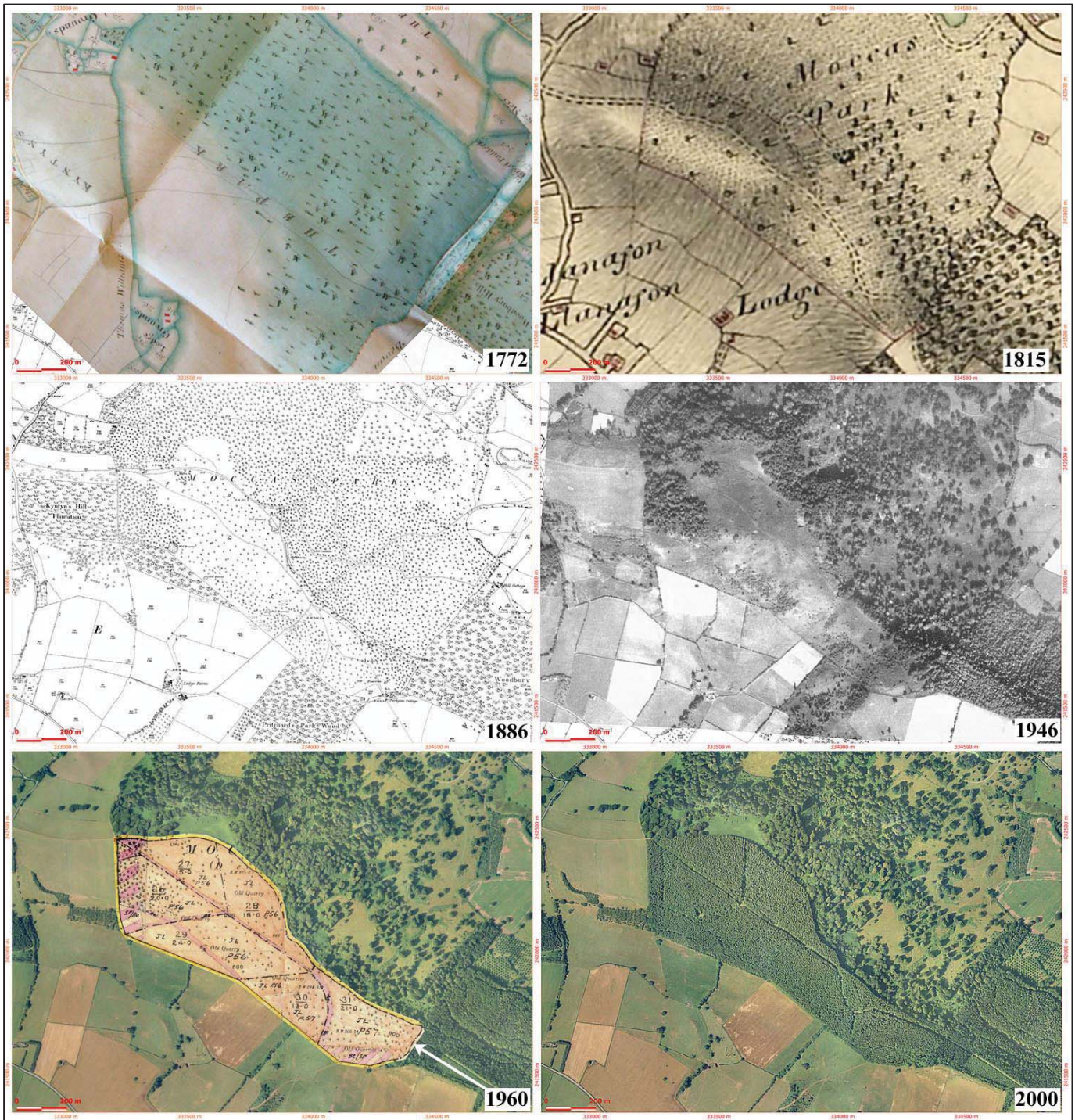


# Map 14 Sequence for the Meres, the Paddock and Forsythes





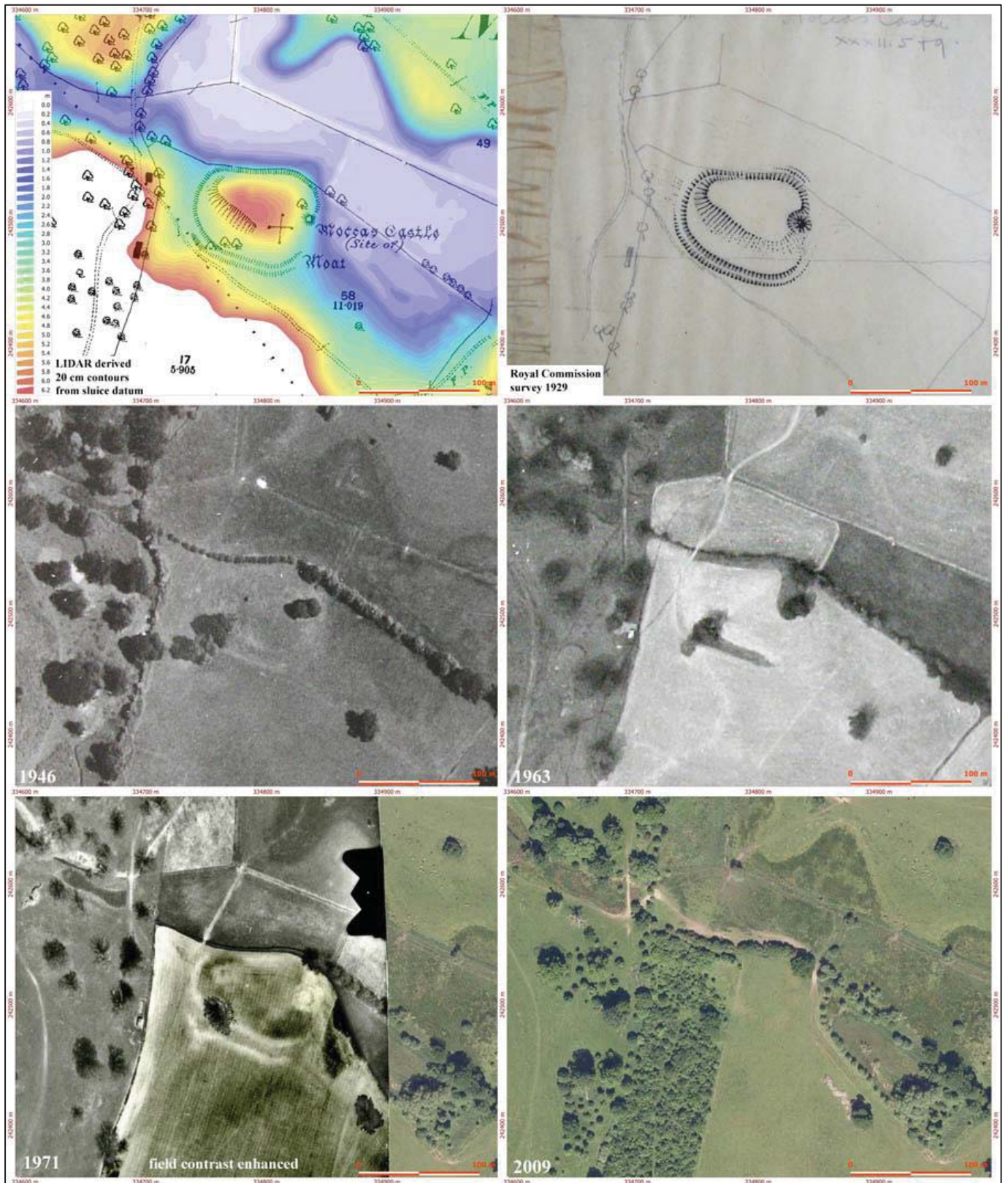
## Map 15 Sequence for SW ridge part owned by the Woodland Trust



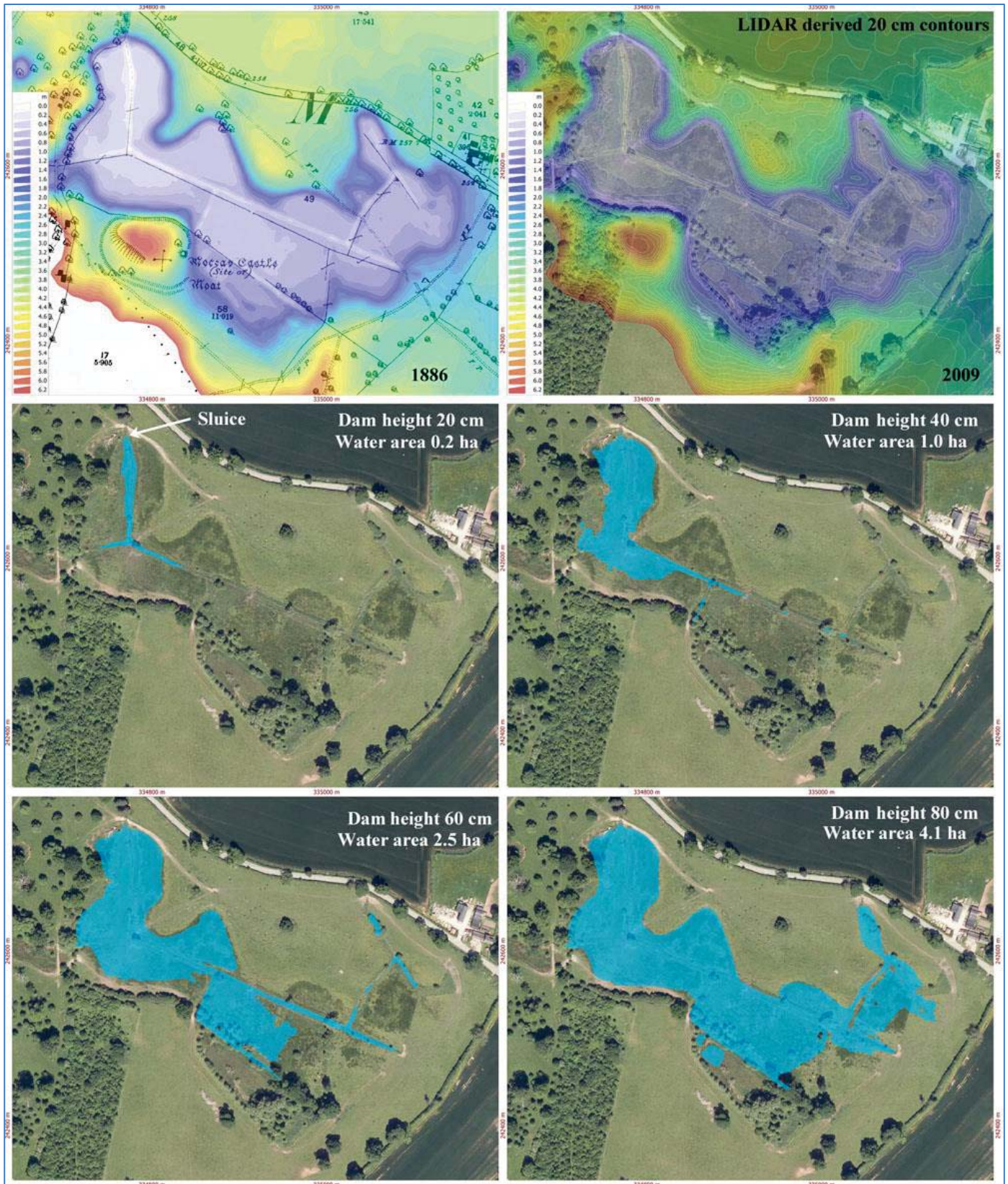
### Map and air photo sequence 1772 to 2000.

Note the 'Lodge' on the 1815 Ordnance Surveyors Drawing. Since the 2000 air photo above, much of the Larch has been clear felled pending restoration to wood pasture.

# Map 16 Sequence for Moccas castle and its environs



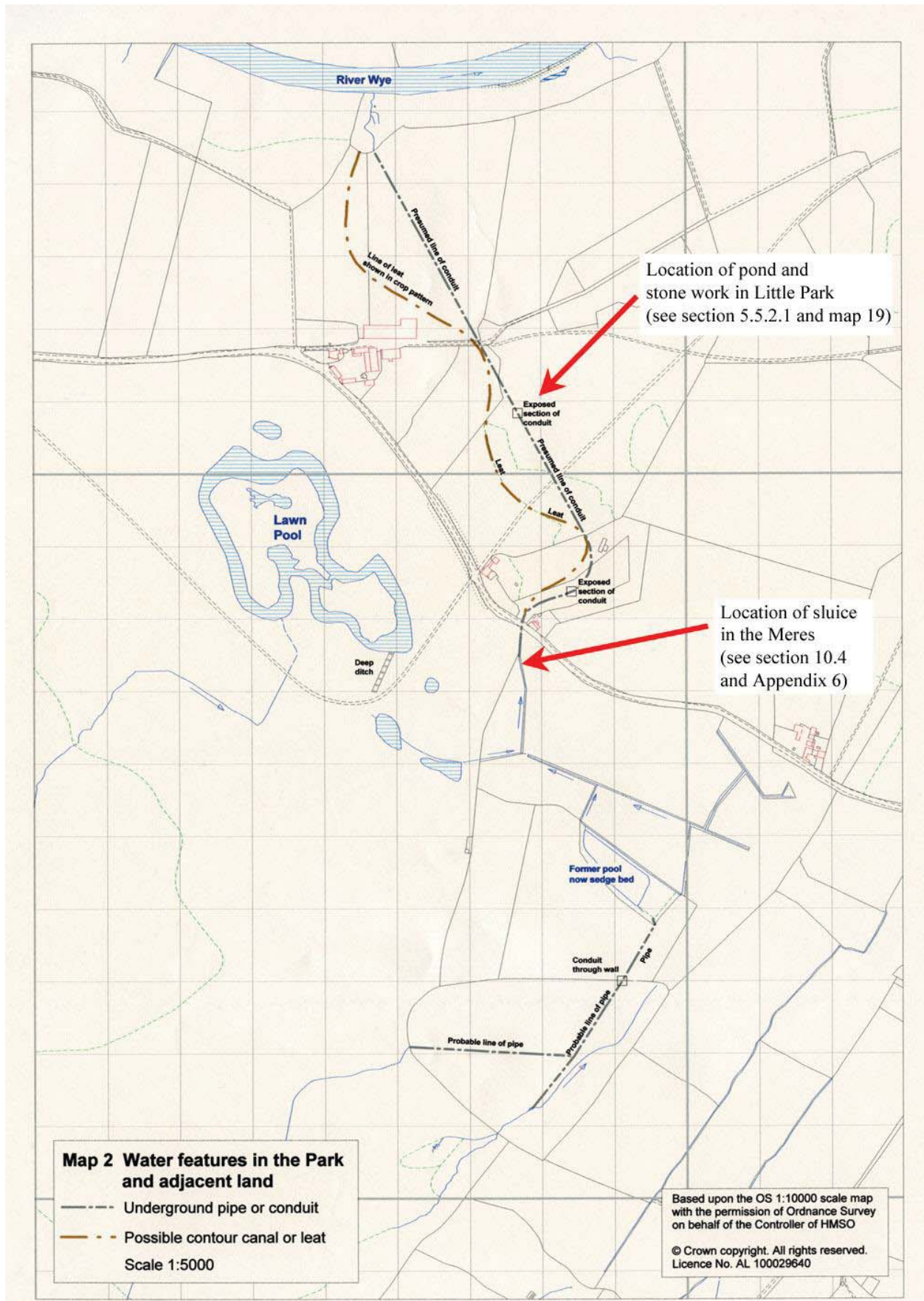
**Map 17 Dam height and calculated extent of impounded water in the Meres.**



Height data from LIDAR was converted to 20 cm contours with zero being the lowest ground surface. For the impoundment simulation successive increments of 20 cm were colour-coded blue

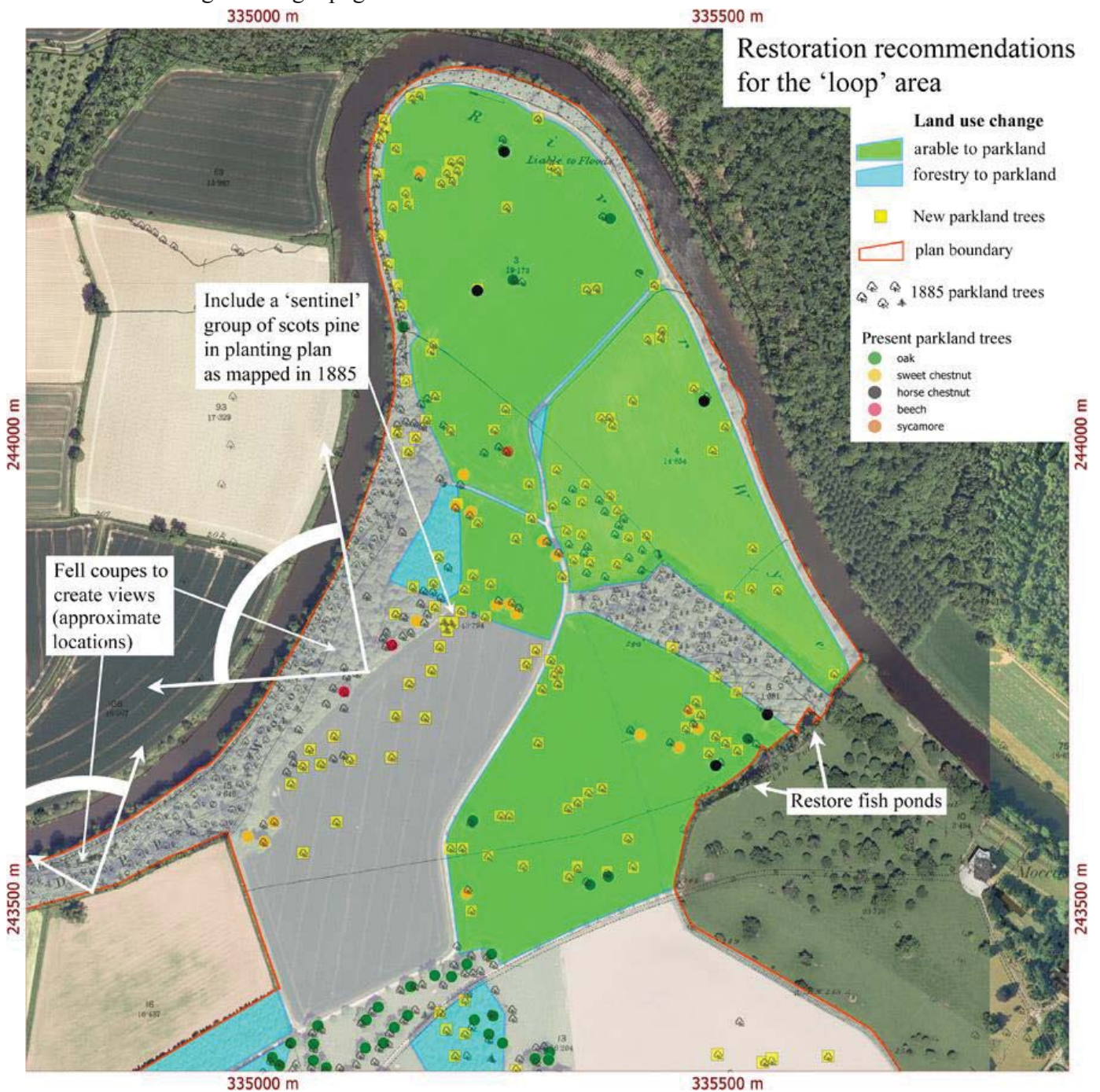
# Map 18 Path of the culvert from the Meres to the Wye

Annotated copy of map 2 of the 'Hydrology of Moccas Park' Kevin Gilman 2003



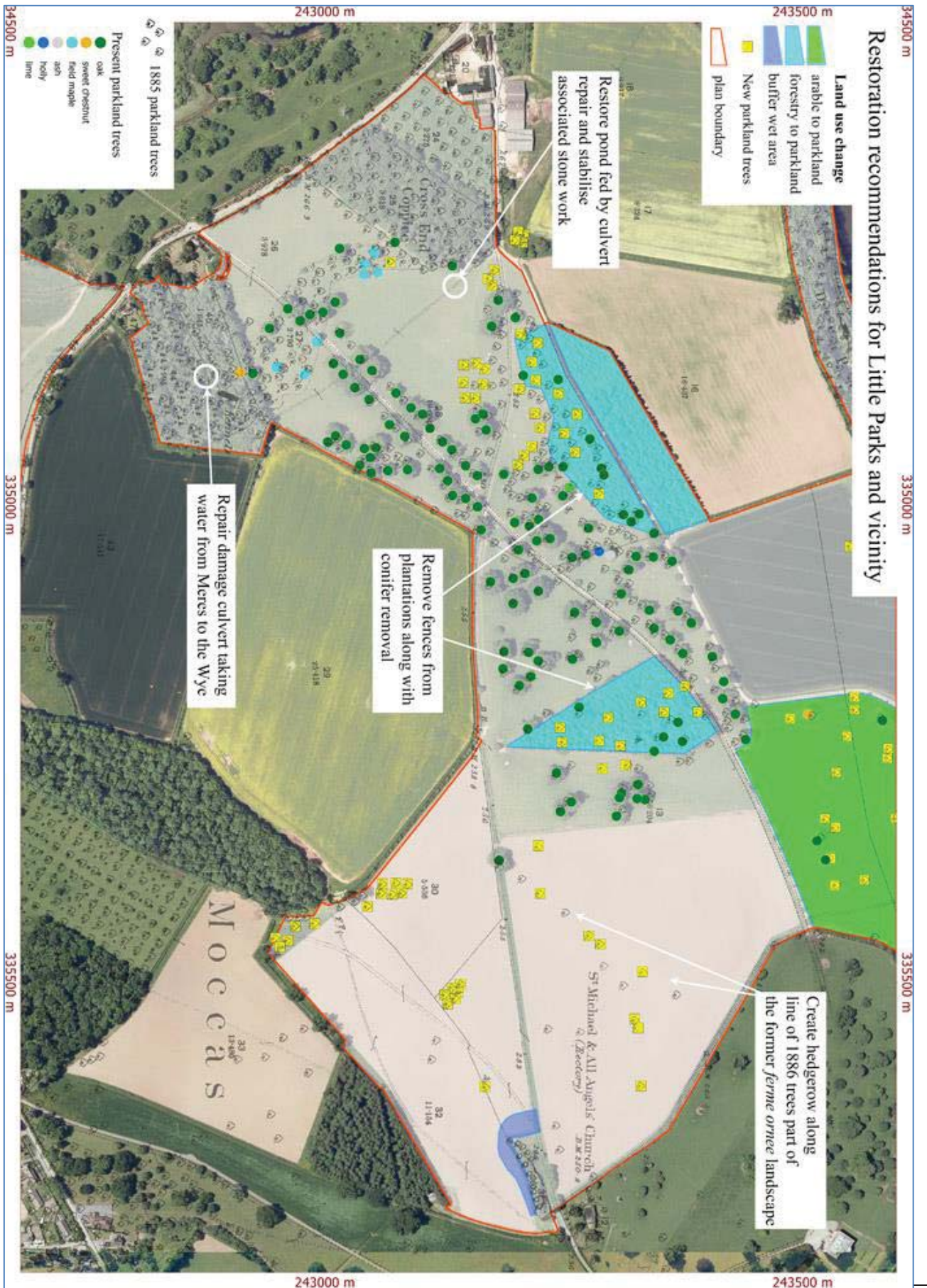
## Map 19 Restoration recommendations for the northern 'loop area'

A higher resolution version of this map is on the report web page as a jpg image file and as an embedded image on single page A3 word document.



## Map 20 Restoration recommendations for the Little Parks and vicinity

A higher resolution version of this map is on the report web page as a jpg image file and as an embedded image on single page A3 word document.



## Map 21 Restoration recommendations for the Meres, the Paddock and Forsythes

A higher resolution version of this map is on the report web page as a jpg image file and as an embedded image on single page A3 word document.

