# A Medieval Fishpond at Bruern Grange

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## Introduction

On 8th October 1989 a measured survey was made by members of the Wychwoods Local History Society of a pasture field immediately east of Bruern Grange in the modern civil parish of Bruern, West Oxfordshire (O.S. Parcel no. 7375; National Grid ref. centred SP 257188). The primary purpose of this survey was to record and to gain a fuller understanding of the earthworks observed in the field. A secondary objective was to give society members further practical experience in earthwork survey using the technique of hachuring to portray breaks of slope, as a follow-up to a similar exercise carried out in May 1986 at Upper Milton in Milton under Wychwood. The survey method adopted was the 30m grid and offset system, which has already been described in the report of the Upper Milton project.<sup>1</sup> Information gleaned directly from the survey has received valuable amplification from the recollections of Mr R.Griffin, son of the former tenant farmer, and has been further supplemented by a limited examination of some of the more readily-accessible documentation.

#### **Discovery of Site**

Although the earthworks east of Bruern Grange were known locally and are depicted as an antiquity with the label 'Pond Bays' on the 1980 edition of the Ordnance Survey 1:2500, they were not distinguished on earlier maps. As a result the site was not registered in the County Sites and Monuments Record, operated by the Oxfordshire Museum Service at Woodstock, until 1988. The existence of the earthworks was first reported to the Museum by Ian Burrow, then Director of the Oxford Archaeological Unit, following a visit to the site in December 1987, and it was subsequently indexed under the reference number PRN.13,968.<sup>2</sup> Dr Burrow's intention of surveying the earthworks was thwarted by his departure for the United States, and responsibility for overseeing the survey was then inherited by the present writer.

## **Description of Site**

The field surveyed is locally known as Cook's Meadow.<sup>3</sup> The antiquity of this name and the identity of the individual commemorated are both unknown. It does not appear amongst the list of Bruern field-names supplied for the

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English Place-Name Society's Oxfordshire volume by Mr W. Mason, nor can it be matched with any of the names published from the 1551-2 survey in the Public Record Office.<sup>4</sup> The *Valor Ecclesiasticus*, Henry VIII's great enquiry into monastic income and ecclesiastical benefices carried out to assess resources taxable under the Act of First Fruits and Tenths of 1535, lists amongst the possessions of Bruern Abbey in Bruern itself a meadow called *Cokkysmore*, but this was only two acres in extent, and an identity between *Cokkysmore* and the present Cook's Meadow, which is more than four times that size, therefore seems unlikely.<sup>5</sup> Unfortunately Bruern is not covered by a tithe or enclosure award: being a former Cistercian estate, it was not subject to tithe payments, and it was enclosed before the introduction of the procedure of enclosure by private Act of Parliament. Moreover, no earlier estate maps have been located; so the standard sources which might have provided and located earlier field-names are simply not available.<sup>6</sup> The present name contributes nothing to the understanding of the site.

The field is shaped like a rough parallelogram, 3.47ha (8.58 acres) in extent (fig.1). A stream now flows along its northern side, rising from springs near Idbury and Fifield 3km to the west and draining eastwards to join the River Evenlode a little over 2.5km downstream at Shipton under Wychwood. Immediately east of Bruern Grange, at the point where it enters Cook's Meadow, the stream turns through two opposed right-angled bends (A-B on fig. 1). A steep bluff rises immediately beyond the stream along the margins of the next field to the north. The southern bank of the stream is lined by a hawthorn thicket, which has increased considerably in density within living memory. At the lowest point on the stream in the easternmost corner of the field is a modern footbridge (C), a successor to an earlier bridge a little further upstream. Mr Griffin remembered trout in the stream some 50-60 years ago.

The eastern boundary of Cook's Meadow, orientated from south-west to north-east, today forms part of the boundary between the civil parishes of Bruern and Milton under Wychwood (C-D). Just inside the field is a prominent dam, up to 1.5m high, aligned parallel with the parish boundary, some 65m long, its crest some 7-9m within the field (E-F-G). The profile of the dam is steep on its downstream side, with a slightly gentler gradient to the rear. At several points along the rear of the dam traces of stone revetting could be observed. The dam is cut through by the present stream at its extreme northern end (E), and is also breached at a point some 45m to the south-west (F). A small area of obliquely-pitched stone revetting is also exposed on both sides of this second breach, which appears to be roughly in the lowest point in the cross-section of the valley. A spring seepage (H) immediately below the breach of the dam, feeding into the parish boundary ditch, probably represents a vestige of the original natural watercourse prior to human interference with the valley. The southwestern end of the dam is marked by a third high-level breach (G), but this is only a gully cut through the top of the dam, not extending down to the valley floor. Prior to the



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outbreak of myxomatosis in 1953 Mr Griffin recalled that the dam had been occupied by numerous rabbit burrows.

Along the southern side of the field, linking with the dam, is a terrace which similarly rises abruptly some 1-1.5m above the valley floor (G-J). Its edge is defined by a sharp break of slope following a rather sinuous alignment, but roughly parallel with the field boundary hedge, which lies some 6-12m beyond. Between the break of slope and the field boundary a shallow but distinct trough or channel can be traced for a length of some 60m along the top of the terrace (K-L); it then curves around behind the dam, and descends to the level of the spring below the main breach. The source of this channel lies outside the field surveyed, and, due to the ploughing of the adjoining field to the south, its course cannot now be traced on the ground. However, it appears to have originated from a now defunct spring in the adjoining field, some 80m due south of the house of Bruern Grange. Mr Griffin recalled that there was formerly a hollow below this spring roughly in line with the present head of the trough, but that this had been levelled by steam cultivation. The terrace continues westwards for a further 25m beyond the point where the trough enters the field (K-J). Its edge then turns abruptly southwards through an angle of 80 degrees. Along the western end of the terrace is a low but distinct bank which partly encloses a shallow depression on top of the terrace (M). This hollow appears to have had an outlet to the north through a gap in the bank. The southern field boundary itself is accompanied by a narrow, shallow ditch on its southern side, a feature which is of some antiquity, but is clearly subsequent to the trough along the top of the terrace, and is probably no more than a drain to carry off surplus storm water (N-D).

The western edge of the field presented special difficulties to survey and interpret. For about one-third of its length in the south-western corner the original form of the boundary had been completely altered between the end of 1984 and March 1985, when the bounds of the garden of Bruern Grange were redefined in the form of a stone-revetted ha-ha (P-Q). The remaining undisturbed length is now densely overgrown and difficult of access, but it appears to incorporate the remains of a second dam (R-S), breached at about the mid-point of its surviving length by the entry of the stream into Cook's Meadow. Mr Griffin recalled that before the ha-ha was made the dam continued south-westwards, with elms growing along the top, flanked on either side by ditches with willows. The construction of the haha intersected a large stone-lined culvert with well-made voussoirs, the date and alignment of which is unknown.

The interior of the field is low-lying and generally flat, but some slight irregular mounds and hollows were recorded in the southern part; there is also a confused area of hollows in the south-western corner, below the level of the terrace. Other features recorded included a slight gully in the centre of the west end of the field, roughly in the old valley bottom, aligned from north-west to south-east, which was traced for some 25m (T-U). Mr Griffin

recalled that, in addition to numerous anthills (usually a good indicator of old grassland), there had formerly been an artificial mound roughly in the centre of the field, about 4-5m in diameter and a little over 0.5m high. This was levelled during the 1939-45 war, when the interior of the field was skim-ploughed and harrowed in preparation for ploughing for corn, though in the event cereal cultivation never actually took place. Small clumps of tufted hair-grass (*Deschampsia caespitosa*) have begun to colonise the lower parts of the field in the recent past.

The most recent significant change in the field occurred in 1980-82 when the Idbury-Shipton main sewer was cut through roughly parallel with its northern boundary, intersecting the dam at the east end. Unfortunately this operation was not watched archaeologically and so it yielded no new information on the nature of the valley floor or the structure of the dam. The profile of the dam was faithfully reinstated after the pipe trench was backfilled, and apart from a manhole in the north-western corner of the field and two parallel bands of parching within the north-east corner (V), the sewer trench has left remarkably little trace of its passing.

#### **Interpretation of Site: Date and Function**

The two dog-leg angles in the course of the stream at the point where it enters Cook's Meadow from the west, and the entrenched character of the stream along the north side of the field, both indicate beyond question that it has been diverted out of its natural course. The gradient across the floor of the valley was very slight, and time did not permit the taking of levelled profiles, but even by visual inspection the general trend of the valley bottom would appear to pass roughly through the long central axis of Cook's Meadow. The eastern dam was clearly intended to hold back the flow of water down the valley, converting the former valley bottom to a pond. The dam at the western end of Cook's Meadow would similarly have retained a second pond immediately upstream, occupying part of the present O.S. parcel no. 4700; a rapid inspection revealed a break of slope along the northern edge of this field which might have represented the edge of the pond, but again there was insufficient time available to include this within the survey.

The valley floor is overlain by a thin layer of alluvium overlying the impermeable Lower Lias Clay.<sup>7</sup> There would be no great difficulty in retaining water within a pond on this site, and probably little need for artificial devices such as puddling.

No ponds have existed on this site within living memory. There is no direct evidence on the site for the absolute date of either their construction or abandonment. A relative date is provided by the fact that the southern boundary hedge of Cook's Meadow cuts across the former course of the channel from the spring to the south, and since this channel is clearly contemporary with the ponds, they must antedate the hedge. However, this does not immediately get us much further, in view of the lack of documentary information on the progress of enclosure in Bruern.

Botanical investigation may offer an alternative approach. No comprehensive examination of Bruern's hedges has yet been carried out, and until this is achieved firm conclusions would be premature. Nonetheless, the hedge in question contained an average of four shrub species per 30m length, based upon eight samples which individually contained from two to eight species. Common hawthorn (*Crataegus monogyna*) occurred in every sample. Elder (Sambucus nigra), dogrose (Rosa canina) and oak (Quercus sp.) were also well-represented, being present in six, five and four of the samples respectively. Ash (*Fraxinus excelsior*) appeared in three samples, one of the trees being perhaps a couple of hundred years old, and blackthorn (Prunus spinosa) appeared in two samples. Sycamore (Acer pseudoplatanus), field rose (Rosa arvensis), hazel (Corylus avellana) and midland thorn (Crataegus laevigata) were all present in one sample only.<sup>8</sup> Species characteristic of the most ancient hedges in Oxfordshire, such as spindle, were absent. If we adopt Hooper's formula for dating hedgerows by their shrub species content expressed as 'age of hedge =  $(110 \times number \text{ of species}) + 30 \text{ years'}$ , 'this suggests that the hedge in question may have been planted in the first half of the sixteenth century. Many reservations have been expressed about Hooper's theory, but in the absence of any other dating evidence it always warrants consideration; and it is of interest that its application here yields a date very near the period when the land was passing from monastic to secular hands, an historical context in which reorganisation of the enclosure pattern may have followed the abandonment of the monastic ponds.

The cartographic evidence does not conflict with this view, but it adds no further information. No ponds are shown on the first edition of the Ordnance Survey 1:63,360 map of 1828, or on Richard Davis's county map of 1797 which, in the absence of any tithe, enclosure or estate plans, are the only cartographic sources available on a sufficiently large scale to stand any chance of portraying them, had they still then been in existence.

The general implication is that the ponds have certainly not been maintained as water bodies since the eighteenth century, and very probably went out of use 280 years earlier; but to progress any further we are forced onto the less secure ground of association and analogy, and at this point a consideration of their likely purpose is necessary.

Ponds on the scale of those represented at Bruern Grange are likely to be one of three things: ornamental lakes constructed as part of a landscaping scheme; ponds constructed for industrial purposes, particularly to provide power for water-mills; or ponds constructed for the storage of fish. The first option can probably be ruled out in the absence of any supporting documentation or any other obvious features relating to a local landscaping project. The apparent juxtaposition of two sizeable ponds in the valley bottom, one above the other, and the lack of any evidence for a mill structure, also seem to rule out the industrial interpretation. By a process of elimination, therefore, the most likely explanation of the earthworks is that they are the remains of former fishponds. Moreover, a very plausible context for fishponds is offered by their location within the former estate of the medieval Cistercian abbey of Bruern and their proximity to a house which still bears the name 'Grange', perpetuating the special Cistercian usage of the term to mean a consolidated monastic estate farm (fig. 2).

The Bruern Grange ponds do, indeed, display many of the standard features of medieval fishponds. The construction and management of medieval fishponds revolved around three basic principles: (i) the water level in each pond had to be controllable; in particular each pond had to be capable of being emptied when necessary; (ii) each pond had to be capable of being managed independently of any others in the system; (iii) there had to be some means of diverting flood waters, normally inherent in any natural stream regime, in order to avoid overtopping the dam.<sup>10</sup> Considerable skills of site selection, surveying of levels, dam and sluice construction were involved. The stream was commonly diverted out of the valley bottom at the initial construction stage, in order to drain the valley floor and to permit the construction of the dam and, where necessary, puddling of the pond bed. Side leats were built to divert surplus water around the edge of the pond, and the shallow channel on top of the terrace south of the Cook's Meadow pond is a classic example of this. The inlet to the pond was normally controlled by a sluice. The bed of medieval ponds quite frequently included an island, the purpose of which is presumed to be to provide safe nesting-sites for wildfowl; though no longer extant, the mound in the centre of the meadow recalled by Mr Griffin might well have been the remains of such an island. The outflow from the pond may have been over a slotted sluice in the middle of the dam, on the site of the present central breach; but this was not normally the most favoured position, since the overflow tended to erode the dam and if the sluice ever failed it released a deluge of water downstream and drained the pond. The shallow breach at the southern end of the dam is perhaps a more likely position, discharging into the side leat. Although the relative levels of water in the pond and side leat would need to be carefully monitored, there would be less erosion and a sluice collapse would be less disastrous. However, on present evidence it does not look as if a sluice here would permit the pond to be drained completely. A third alternative would be an underground culvert beneath the dam from within the pond bed, but this solution does not seem to have been adopted until a comparatively late period. The slight irregularities in the bed of the pond, where they are not due to modern disturbances, possibly result from the quarrying of silt for spreading as a fertiliser after the final draining of the pond.

The main outstanding problems in the interpretation of the earthworks concern the uncertainties over the location and form of the original inlet and outlet. The present stream course obviously post-dates the final draining of the ponds. However, although it must have supplied water to the lower pond, it is now difficult to determine the point of inlet or the arrangements for the diversion of surplus water from this source. The evidence may have

Figure 2



been destroyed in the disturbances in the south-western corner of the field. The lower pond was also clearly supplied from the spring south of Bruern Grange, and here the diversion leat is clearly apparent.

#### **Medieval Fishponds: Background**

Medieval fishponds as a class of archaeological monument were first recognised and described by Hadrian Allcroft in 1908,11 but they attracted little general interest before the late 1950s, when there was a new awakening to the potential of field archaeology to illuminate the middle ages. The important contribution of aerial photography was recognised in a volume first published in 1958, in which Professors Maurice Beresford and J.K.S. St Joseph illustrated and discussed the spectacular ponds of Harrington (Northants), along with several other examples included incidentally with other subjects.<sup>12</sup> In 1962 Dr C.F.Hickling published the first book on fish culture to incorporate a description of earlier fishpond management practices.<sup>13</sup> Fishponds were introduced to the local historian in a short article of Dr Brian Roberts published in 1966, in which he discussed their place in the medieval economy and landscape based upon his work in the Forest of Arden,<sup>14</sup> The first attempt to classify fishponds by form was made by Christopher Taylor in 1979.<sup>15</sup> The pace of investigation accelerated rapidly through the 1970s and 1980s, culminating in the publication of a two-volume collection of studies edited by Michael Aston in 1988,16 which contains extensive bibliographies.

The first attempt to provide a synthesis of the current state of knowledge of fishponds in Oxfordshire was drawn together in 1985 and was published in Aston's 1988 compilation. This identified 148 sites in the (post-1974) county.<sup>17</sup> It was recognised, however, that this total was certainly incomplete, due to the difficulties of carrying out systematic field-work or documentary research on this type of site on a county-wide basis. Indeed, the Bruern Grange pond is one of several examples which have been discovered subsequent to the 1988 publication.

How does the Bruern pond compare with other examples? So far as typology is concerned, it falls into Taylor's Type B, being formed by the construction of a dam across a steep-sided narrow valley, with the additional removal of spoil to make the pond deeper and flat-bottomed; such ponds are characterised by steep artificial scarps along their sides where the natural slope of the valley has been steepened or cut away.<sup>18</sup> The size of ponds created in this way varied enormously, depending on the height of the dam and the configuration of the natural topography. Examples previously examined in Oxfordshire range from 0.2ha to 4ha in extent, the Cook's Meadow pond, therefore, is one of the largest of its class yet identified in the county, though it pales into insignificance compared with the largest pond at Old Warden Abbey (Beds.), where a dam 5m high retained a pond of some 10.5ha,<sup>19</sup> or the monster ponds of Byland Abbey at High Kilburn and Cams Head (N. Yorks), 20ha and 18ha in extent respectively, the latter with a dam

nearly 400m long and nearly 9m high at its centre.<sup>20</sup> Even the largest known monastic ponds in their turn are small compared with the great merc of Kenilworth Castle, which, following the raising of the dam to a height of 4.5m some time prior to 1241, covered some 40ha.<sup>21</sup>

# The Local Context: Bruern Abbey and its Estates

It is well-established that the Cistercian abbey of Bruern was founded on a tract of open pasture or heath (the name is from the Latin *brueria*) by Nicholas Bassett in 1147, and that soon after 1170 the founder gave to the abbey the whole of his manors of Treton (the Domesday *Draitone*) and Nethercote, together with the church of Treton.<sup>22</sup> It appears likely that the bounds of the early medieval manor of Treton were largely coterminous with those of the present parish of Bruern (fig. 2), an area formerly regarded as extra-parochial and first constituted as a civil parish in 1858.<sup>23</sup> The ponds therefore lay on Bruern Abbey property from the later twelfth century to the Dissolution.

Unfortunately no cartulary has survived for Bruern, although a number of deeds relating to its holdings are scattered around the Public Record Office, British Library and Bodleian Library.<sup>24</sup> Because of the paucity of documentation and structural remains, by comparison with many Cistercian monasteries, neither the abbey itself nor its estates have been subjected to intensive study. This deficiency cannot be remedied here. However, some impression of the extent and nature of the abbey's holdings can be built up from standard sources such as the 1291 taxation of Pope Nicholas IV and the Valor Ecclesiasticus of 1535.25 From these and other sources it is evident that Bruern Abbev had built up a considerable block of properties in north and west Oxfordshire and east Gloucestershire, with detached holdings as far afield as Priddy and West Harptree in Somerset. These properties were fairly varied in character, including arable land, pasture, meadow, turbaries, rights to wood in Wychwood Forest, houses, dovecotes, cattle-sheds, sheepcotes and mills, appropriated churches and portions of churches. Some of the land was held in demesne, other parts leased out. A significant proportion of the abbev's income was drawn from livestock farming, particularly from wool production on the Cotswold pastures, and in the late thirtcenth and early fourteenth centuries the abbey was having dealings with merchants, not only in Flanders, but as far away as Florence, Lucca and Genoa.<sup>26</sup>

Some of the abbey's properties were organised in the form of granges, consolidated blocks of demesne land worked more or less independently of the manorial system of communal agriculture and servile labour. Their function was twofold: (i) to provide food and other raw materials for consumption within the abbey itself and (ii) to produce surpluses for sale for profit. From the very limited study undertaken so far, eight granges can provisionally be identified on the Bruern estates in Oxfordshire and Gloucestershire (fig. 3). It seems probable that the present Bruern Grange Figure 3



stands on or close to the site of the medieval Sandbrook Grange, which took its name from the very stream now passing through the fishponds.<sup>27</sup> The former church of Treton seems to have been maintained as the chapel of Sandbrook Grange up to the Dissolution.<sup>28</sup> Although there were fishponds at Bruern Abbey itself (fig. 2), we should not be surprised to find further

ponds at one of the nearest granges, as fishponds also frequently occur in association with monastic granges. The granges of Stoneleigh Abbey (Warwickshire), for example, display a large number and wide variety of ponds.<sup>29</sup> The most likely probability, therefore, is that the earthworks surveyed were part of a medieval fishpond complex attached to Bruern Abbey's grange of Sandbrook.

As a postscript, it is of some interest to note that in 1480 the monks of Bruern petitioned for licence to eat meat in Lent, claiming that the abbey was so far distant from the sea and from rivers that a sufficiency of fish could not be obtained.<sup>30</sup> In view of the evidence for fishponds at Bruern, it would be easy to dismiss this as yet another example of the cynical compromise of monastic ideals generally held to be characteristic of the later Middle Ages. However, recent work has thrown new emphasis upon the overwhelming importance of sea-fish rather than freshwater fish in the medieval diet. Chris Currie has emphasized the generally low yields of most medieval fishponds, while Chris Dyer has shown that because freshwater fish such as pike and bream were comparatively expensive, their consumption was largely restricted to aristocratic circles and reserved for feasts and special occasions.<sup>31</sup> The monks of Bruern may have been justified in their professed inability to procure sufficient freshwater fish for their needs despite the extensive ponds on their own doorstep. However, their complaint about distance from the sea carries less conviction, in view of the fact that other monastic houses deep in the midlands found no difficulty in obtaining sufficient supplies of sea-fish. In the fourteenth century, for example, Bicester Priory (Oxon.) was purchasing fresh, salt and dried fish from local markets in Bicester, Oxford and Wantage and from Stourbridge Fair near Cambridge. Pershore Abbey (Worcs.) was acquiring fresh sea-fish from Bristol, Gloucester and even Coventry; while Halesowen Abbey (Worcs.) was buying sea-fish in bulk from fishmongers in Boston; all three abbeys had fishponds of their own, those of Halesowen being especially elaborate.<sup>32</sup> The evidence of accounts is supported by archaeology; the excavation of the midden of the Austin Friars in Leicester, for example, revealed a total absence of freshwater fish despite the proximity of the River Soar, while salt-water species were represented in some quantity.<sup>33</sup>

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#### References

<sup>1</sup> James Bond, 'Earthworks at Lower Farm, Upper Milton, Milton under Wychwood, Oxfordshire', Wychwoods History no. 4 (1988), 4-13.

For an explanation of the record numbering and a description of the Sites & Monuments Record, see D.Benson, 'A Sites and Monuments Record for the Oxford Region', Oxoniensia Vol. 37 (1972), pp. 226-237, and C.J.Bond & J.M.Campbell, 'Environmental Record Centres as a source for Landscape Historians: the case of Oxfordshire', in P.Brandon & R.Millman (eds), Recording Historic Landscapes: Principles and Practice (Polytechnic of North London, Dept. of Geography, Occasional Publication no. 2, 1980, pp. 24-29). At the time of writing the manual system described in these papers is being recast as a computer retrieval system.

Information from Mr Griffin.

4 M.Gelling, The Place-Names of Oxfordshire, part ii,, English Place-Name Society Vol. XXIV (Cambridge University Press, 1954), p. 338.

J.Caley & J.Hunter (eds), Valor Ecclesiasticus, temp. Henr. VIII, auctoritate regis institutus, Vol. 2 (Record Commissioners, London, 1814), pp. 201, 203.

Cf. J.Field, English Field Names: a Dictionary (David & Charles, Newton Abbot, 1972); J.Field, 'Progress in Field-Name Studies', Local Historian Vol. 13 no. 7 (1979); James Bond, 'Oxfordshire Field-Names: a Progress Report on the County Survey', Oxfordshire Local History, Vol. 1 no. 4 (Spring, 1982), pp. 2-15.

O.S. 1:63,360 Geological Survey, Drift Edition, sheet 236 (1938).

I am grateful to Margaret Ware for these details.

For the principles and methods of dating hedges by species, see E.Pollard, M.D.Hooper & N.W.Moore, Hedges (Collins New Naturalist series no. 58, London, 1974), especially pp. 79-104.

B.K.Roberts, 'The Rediscovery of Fishponds', in B.A.R. British Series 182(i), (1988), pp. 9-16 (see reference 16 below).

A.H.Allcroft, Earthwork of England (MacMillan, London, 1908), esp. pp. 487-492.

12 M.W.Beresford & J.K.S.St.Joseph, Medieval England: An Aerial Survey, Cambridge Air Surveys II (Cambridge University Press, 1958; 2nd edn. with new photographs and extra references, 1979), esp. pp.67-69.

C.F.Hickling, Fish Culture (Faber & Faber, London, 1962; 2nd edn., 1971).

<sup>14</sup> B.K.Roberts, 'Medieval Fishponds', Amateur Historian Vol. 7 no. 4 (1966), pp. 119-126.

<sup>15</sup> Royal Commission on Historical Monuments (England) An Inventory of the Historical Monuments in the County of Northampton Vol. II: Archaelogical Sites in Central Northamptonshire, (H.M.S.O., London, 1979), pp. 1vii-1ix.

<sup>16</sup> M.Aston (ed.) Medieval Fish, Fisheries and Fishponds in England, British Archaeological Reports, British Series, no. 182 (i & ii), 1988.

<sup>17</sup> C.J.Bond & R.A.Chambers, 'Oxfordshire Fishponds', in Aston (ed.), B.A.R. British Series 182.ii (1988), pp. 353-370.

<sup>18</sup> RCHM(E) Northants Vol. II (1979), pp.1vii-1ix.

19A plan and brief description of the Warden Abbey earthworks by Evelyn Baker appears in the proceedings of the summer meeting of the British Archaeological Institute at Bedford in 1982, Archaeological Inl. Vol. 139 (1982), pp. 49-51.

<sup>20</sup> J.McDonnell & M.R.Everest, 'The 'Waterworks' of Byland Abbey,' Ryedale Historian Vol. 1 (1965), pp. 32-9; J.McDonnell, Inland Fisheries in Medieval Yorkshire, 1066-1300 Borthwick Papers no. 60 (Borthwick Institute of Historical Research, University of York, 1981), pp. 24-27, 30-33.

<sup>21</sup> M.W.Thompson, 'Two levels of the Mere at Kenilworth Castle, Warwickshire', *Medieval Archaeology* Vol. 9 (1965), pp. 156-161; M.Aston & C.J.Bond, 'Warwickshire Fishponds', in Aston (ed.), B.A.R. British Series 182.ii (1988), esp. pp. 420-422.

<sup>23</sup> F.A.Youngs, *Guide to the Local Administrative Units of England*, Vol. I: Southern England (Royal Historical Soc. Guides and Handbooks no. 10, London, 1979), p. 393.

A number of deeds and charters relating to Bruern Abbey's properties are published in T.Madox (ed.), *Formulare Anglicanum* (London, 1702), pp. 12, 17, 19, 22, 27-8, 46, 131, 157, 161-2, 183, 185, 218, 252-3, 257-8, 274, 278, 299, 301-2, 309, 313, 356, 370-1, 375, 377, 379. None of these, however, sheds any light on the site under discussion in this paper.

<sup>25</sup> T.Astle & J.Caley (eds.) *Taxatio Ecclesiastica Angliae et Walliae auctoritate P.Nicholai IV, circa AD 1291* (Record Commissioners, London, 1802), pp. 32, 44-5, 203, 219, 222, 236; for the *Valor*, see reference 5 above. Summaries of the documentary evidence available for the abbey's estates are also provided by Bishop T.Tanner, *Notitia Monastica* (London), 1744, pp. 424-5, and by Sir W.Dugdale, *Monasticon Anglicanum* (ed. J.Caley, H.Ellis & Rev.B.Bandinel), Vol. V (London, 1825), pp. 496-500.

<sup>26</sup> R.A.Donkin *The Cistercians: Studies in the Geography of Medieval England and Wales* (Pontifical Institute of Medieval Studies, Toronto, 1978), p. 195.

<sup>21</sup> Gelling, *Place-Names of Oxfordshire*, part i (English Place-Name Soc. Vol. XXIII, 1945-6), p. 10.

<sup>28</sup> Valor Ecclesiasticus Vol. ii, p. 201.

<sup>29</sup> Aston & Bond, 'Warwickshire Fishponds', in Aston (ed.), B.A.R. 182 (ii), esp. pp. 423-4.

<sup>30</sup> C.H.Talbot (ed.) Letters from the English Abbots to the Chapter at Citeaux, 1442-1521 (Camden 4th Series Vol. 4, Royal Historical Soc., 1967), p. 78. I am grateful to Jack Howard-Drake for bringing this reference to my notice.

<sup>31</sup> C.K.Currie, 'The Role of Fishponds in the Monastic Economy', in R.Gilchrist & H.Mytum (eds.), *The Archaeology of Rural Monasteries*, B.A.R. British Series Vol. 203 (1989), pp. 147-172; C.C.Dyer, 'The Consumption of Fresh-water Fish in Medieval England', in Aston (ed.), B.A.R. 182 (i), pp. 27-38; C.C.Dyer, *Standards of Living in the Later Middle Ages: Social Change in England, c. 1200-1520* (Cambridge University Press, 1989).

<sup>32</sup> See C.J.Bond, 'Monastic Fisheries', in Aston (ed.), B.A.R. 182 (i), pp. 69-112, for full references.

<sup>33</sup> C.R. Thawley, 'The mammal, bird and fish bones', in J.E. Mellor & T.Pearce, *The Austin Friars, Leicester*, C.B.A. Research Report no. 35 (London, 1981), pp. 173-5 & fiche 2.

