TRANSACTIONS

OF THE

WOOLHOPE

NATURALISTS' FIELD CLUB

HEREFORDSHIRE

"HOPE ON" "HOPE EVER"

ESTABLISHED 1851

VOLUME 51

2003

Woolhope Naturalists' Field Club 2003

Registered Charity No. 521000

website: www.woolhopeclub.org.uk

TABLE OF CONTENTS

Proceedings, 2003 1

An Appreciation of Jim Tonkin 9

Biographical Details of Contributors 10

The post-Civil War history of the site of Hereford Castle, by John C. Eisel 11

Friendly Opponents: Herefordshire and the 1892 Birmingham Corporation Water Bill, by Lewis Jones 37

Hall Wood, Much Marcle, Herefordshire: Aspects of the History and Ecology of an Ancient Semi-Natural Woodland, by Tim Barfield 44

Hedgerows and Enclosure in Central Herefordshire, by Rebecca Roseff 58

Middle Pleistocene glaciation in Herefordshire, by Andrew Richards 86

REPORTS OF SECTIONAL RECORDERS

Archaeology, 2003, by R. Shoesmith 97

Buildings, 2003, by J. W. Tonkin 121

Natural History Section, 2003, by Beryl Harding 124

Ornithology, 2003, by Beryl Harding 127

Mammals, 2003, by Beryl Harding. 132

Index, 2003 134

LIST OF ILLUSTRATIONS

Page

The post-Civil War history of the site of Hereford Castle

Fig.	1	The original of Sylvester's map of 1677	13
	2	The Bowling Green in its early days before the pavilion was built	19
	3	A view of the School of Art and Science, with the portico in full view	21
	4	The north elevation of the Bridewell in 1787	22
	5	Proposed north elevation of the Bridewell, 1787	23
	6	Map that accompanied the sale particulars of 1853	27
	7	An evocative view of The Fosse from the opposite end of Castle Pool	29

Friendly Opponents: Herefordshire and the 1892 Birmingham Corporation Water Bill

Fig.	1	Plan showing path of the aqueduct through Herefordshire	39
	2	Plan of aqueduct near Graham's Cottage, Leintwardine	41
	3	Aerial photo of Graham's Cottage showing aqueduct and spoil area	41

Hall Wood, Much Marcle, Herefordshire

Fig.	1	Position of Hall Wood and Little Hall Wood in Much Marcle	45
	2	Diagram and section across the moated enclosure in Hall Wood	46
	3	Map of Hall Wood and Little Hall Wood dated 1741	48
	4	The old trackway between Hall Wood and Little Hall Wood	49
	5	Distribution of woodland types and *Tilia cordata* in Hall Wood and Little Hall Wood	52
	6	Ancient boundary *Tilia cordata* coppice on south edge of Little Hall Wood	55

Page

Hedgerows and Enclosure in Central Herefordshire

Fig.	1	Relief map of the area around Hereford with Marden to the north	65
	2	Map of hedges to the west of Sutton Walls and south of Marden	69
	3	Map of hedges to the east of Sutton Walls	71
	4	Map of hedges around the Vauld	75
	5	Young maple encroaching on an 'enclosure lane'	76
	6	Dogwood suckering in 'enclosure lane'	78
Table	1	Hedge No. 565, Cheat Lane, pre-1765	70
	2	Species composition of enclosure track-side hedges	74

Middle Pleistocene glaciation in Herefordshire

Fig.	1	The limits of the Late Devensian glaciation, approx. 18,000 years ago, as mapped by previous work on the region	87
	2	The topography and drainage of north-east Herefordshire and the positions of high-level gravels of the 'older drift'	88
	3	Stage 1. The maximum extent of the Risbury formation ice-sheet. Damming of the Mathon River forming a lake in the Cradley Brook valley and Glacial Lake Bromyard	91
	4	Stage 2. Re-advance of the Risbury Formation ice-sheet against the St. Maughans Plateau, forming Glacial Lake Humber	92
	5	Stage 3a. Ice-marginal drainage at Sutton St. Nicholas	93
		Stage 3b. Proglacial lake sediments at Portway deformed by minor oscillation of the ice-sheet	
Table	1	The stratigraphic relationships of the Risbury Formation and the Mathon Formation of Herefordshire	89
	2	Middle to Late Pleistocene stratigraphy of Herefordshire, relating to the stratigraphic scheme established for the Severn and Avon Valleys	90

LIST OF OFFICERS
2003/2004

President: Mr. J. G. HILLABY

Vice-presidents: Dr. J. C. EISEL, Mr. B. S. SMITH, Mrs. R. E. SKELTON, Mr. P. THOMSON

Committee:
Dr. Mrs. A. D. BRIAN, Mr. G. CHARNOCK, Mrs. J. E. O'DONNELL, Dr. F. W. PEXTON (*to retire 2004*); Mr. J. G. CALDERBANK, Mrs. R. A. LOWE, Dr. P. A. OLVER, Mr. D. A. WHITEHEAD (*to retire* 2005); Mr. C. E. ATTFIELD, Miss J. R. JONSON, Mr. G. REES, Mrs. R. E. RICHARDSON (*to retire 2006*)

Hon. Secretary - - -	Mr. J. W. TONKIN
Hon. Assistant Secretary/Treasurer	Mrs. M. TONKIN
Hon. Treasurer - - -	Mr. S. C. COOPER
Hon. Auditor - - -	Mr. D. HAIGH
Hon Librarians - - -	Miss. J. R. JONSON, Mr. G. REES
Hon. Field Secretary -	Mrs. B. H. HARDING
Hon. Editor	Mr. J. W. TONKIN

SECTIONAL RECORDERS

Archaeology - - -	Mr. R. SHOESMITH
Botany - - - -	Mr. P. THOMSON
Buildings - - -	Mr. J. W. TONKIN
Entomology - - -	Dr. Mrs. A. D. BRIAN
Geology - - -	Mr. P. THOMSON
Herefordshire Field-Names -	MR. G. SPRACKLING
Industrial Archaeology - -	Dr. J. van LAUN
Medieval Settlements - -	Mrs. R. E. SKELTON
Mammals & Ornithology - -	Mrs. B. H. HARDING

Address of Hon. Secretary:	*Address of Hon. Asst. Secretary:*	*Address of Hon. Editor 2003/4:*
Mr. J. W. TONKIN	Mrs. M. TONKIN	Mr. J. W. TONKIN
Chy an Whyloryon	Chy an Whyloryon	Chy an Whyloryon
Wigmore	Wigmore	Wigmore
Leominster	Leominster	Leominster
HR6 9UD	HR6 9UD	HR6 9UD

Articles intended for inclusion in future issues of the Woolhope Club *Transactions* should be submitted to the current editor: Mrs. R. A. LOWE, CHARLTON, GOODRICH, ROSS-ON-WYE, Herefordshire, HR9 6JF. Please request a copy of *Notes for Contributors to the Transactions* or see the website.

Proceedings 2003

SPRING MEETINGS

FIRST MEETING: 11 January: Dr. J. C. Eisel, president, in the chair.

Mrs. Rosamund Skelton, B.A., M.R.T.P.I., gave an illustrated talk on 'Living in Bedlam in Little Hereford.' She explained that the area of land on Bleathwood Common in Little Hereford known as Bedlam takes its name from a Bethlehem charity for the care of the sick. The name of the 18th-century donor is not known. In 1748 an exchange of land took place with the Dansey family in order to provide houses for the poor. A map of 1775 shows the area of just over an acre called Poor's Acre and at the time of the tithe map, 1845, there were twelve cottages there. They were let on 99-year full repair tenancies at 6d. and 1s. per year and surrenders had to be made to the vicar. The cottages were built between 1746 and 1775. An extant sketch and notebook of the 1850s show the cottages of different sizes, of poor quality timber-framing with wattle and daub chimneys. The occupants included agricultural labourers and a shoemaker. By using the parish registers and the census returns it showed that Bedlam Row was a fairly healthy place in which to live, with some living to over eighty but there was infant mortality and illegitimacy. In 1875 there was a change of parish officers and the rents were unpaid. The Charity Commission was asked to make a survey and in 1876 they conveyed the land to J. R. Bailey, the lord of the manor and M.P., who in 1877 ordered the tenants to quit but a court case followed in November 1878. Four of the eleven tenants who had lived there for twenty years and had not paid their rents appeared in court. Counsel's advice was taken and it was felt that the land had never belonged to the parish, and the judge agreed that as no rent had been paid for twenty years he could not enforce. No legal documentation seems to have survived later than 1878. By 1902 five houses remained and today only one. The purchase money passed to the Charity Commission which stated that it was to be used for the poor. What was it used for?

SECOND MEETING: 1 February: Dr. J. C. Eisel, president, in the chair.

Dr. P. A. Olver gave an illustrated talk on 'Continents Adrift, Continents Aground: A Geology of Herefordshire.' Using maps of the world he explained what had been happening over the past one million years and how the British Isles have moved around, been separated and joined up again. He pointed out the mid-ocean ridges in the Atlantic, Pacific and Indian oceans where the magma swells out and pushes the continents apart. To this there is a compensatory motion through the islands of Japan where the ocean floor is being pushed down, the materials melt and come up as volcanoes and earthquakes. As a result the Pacific is getting smaller, the Atlantic bigger and to a smaller extent the Indian Ocean too.

He referred to the various periods of rock formations, the likely conditions at the time, the movement of the British Isles and sites in Herefordshire and adjacent counties where the rocks can be seen. The Malverns, Pre-Cambrian, were formed more than 750 million years ago when there were oceans to the SE. and NW. of Herefordshire; the one to the SE. was getting smaller whilst the one to the NW. was expanding. The area was suffering earthquakes as lavas can be seen on the top of Caer Caradoc at Church Stretton. The Long Mynd and Stanner Rocks

are the same age as the Malverns. Pedwardine and Capel Curig are from the Ordovician period. The rock found in Perton Quarry is the same as the Aymestry limestones found in the two ridges around the Wigmore Basin and used in the church there. The lime modules found in the Old Red Sandstones at Bishop's Frome make good fertilisers, while some found on the top of Pyon Hill were taken there by capillary action. The first plants are found in the Devonian rocks.

There are thin limestone bands in the Olchon Valley and cornstone on top of the marls in the Pyons. Euroclydon used Upper Old Red Sandstone and Kilpeck Devonian stone. There are dolerite intrusions at Bartestree. The Devonian was a period of major mountain building. On the Severn estuary there is Old Red and New Red Sandstone at Portishead and Triassic rocks at Westbury-on-Severn and Bromsberrow. The ice sheet of 26,000 years ago came up to the western side of the A49 and there are a number of kettle holes near Dilwyn, Stretton Sugwas and Shobdon. He also spoke about the Wye being diverted to the S. and the glacial Wigmore Basin.

THIRD MEETING: 1 March: Dr. J. C. Eisel, president, in the chair.

Mr. J. W. Tonkin, B.A., F.S.A., gave an illustrated talk on 'Houses post-1603 in the Diocese of Hereford, but outside Herefordshire.' This talk was a follow-up to the one given on 6 October 2001 and covered the 17th to the 20th centuries. He referred to the changes in the building materials. In the 17th century timber-framing was still in use, in the 18th century it was of poorer quality and in the 19th had virtually disappeared. Brick was the main material. Good sandstone roofs were replaced by tile and slate. Houses in the 18th century were constructed with bays with a projecting centre with a pediment above. There was dentilling under the eaves and parapets to hide the attic windows. The mullion and transom windows of the 17th century were replaced by sash windows and the Venetian and at the end of the 19th century by the Romantic Gothic now known as the Picturesque. The 19th century was dominated by the Victorian period which looked back to the time of Elizabeth and produced some of the poorest building ever in the back-to-back houses, but also brick and a mixture of architectural styles. The work of Lutyens and Shaw appeared at the end of the century. The 20th century saw the introduction of concrete, the prefabricated houses of the post-Second World War period and modern plastics and even aluminium.

These features were illustrated by slides which included: The Feathers, Ludlow, 1603; Great Castle House, Monmouth, 1673; Cound, 1704; Mawley Hall, 1730; Kyre Park, 1754; Oakley Park, 1800-4; Judge's Lodging, Presteigne, 1829; Stokesay Court, 1889; Almshouses, Knighton, 1900; pre-fabs post-1945 and Apple Cottage, Ashford Carbonell of the 1980s.

SPRING ANNUAL MEETING: 29 March: Dr. J. C. Eisel, president, in the chair.

The assistant-secretary reported that the club now had 748 members.

Dr. J. C. Eisel reviewed the activities of the club during the year and gave his address 'Post-Civil War History of the Site of Hereford Castle' which is printed in these *Transactions*.

Mr. J. G. Hillaby, B.A., was installed as president for 2003/04.

FIELD MEETINGS

FIRST MEETING: 15 April: WELSHPOOL AREA

After coffee at the Overton Grange Hotel members visited the new purpose-built resource centre at Ludlow where they were taken around the new building (which is not yet operational) by Ms. Kate Andrew who was until recently the Curator of Ludlow Museum and is now the principal heritage officer at Hereford Museum. She explained in detail the function of the resource centre which will house the special collection of fossils of the Ludlovian strata of the Silurian period. The work of John Norton was especially mentioned.

The greater part of the afternoon was spent at Leighton near Welshpool where the church and model farm were visited. On the journey Mr. Brian Heatley explained that at Domesday Leighton was referred to as Lestune and that the Corbett family had a half-timbered hall there in Elizabethan times. The Corbett family sold the estate to Christopher Bullin of the Liverpool firm of Leyland and Bullins who were bankers 1807 to 1901. In 1846, John Naylor, a nephew of Christopher Bullin, was given the estate and £100,000 as a wedding present. He drew up a plan and between 1846 and 1851 built a new hall, a church and a model farm as well as farms and cottages.

The hall was designed by W. H. Gee and built 1850-6 of Cefn stone in the Gothic style and is now divided into two houses. The church is also by Gee, 1851-3, of Cefn stone in the Decorated style with a tower at the NW. and a broach spire. There are thirty-two different patterns of floor tiles. There was a summer-house on the top of the hill with a funicular railway to it. It has been restored by the present owner.

The model farm was sited well away from the hall and church and had a sophisticated water-power system using turbines to drive machinery around the various buildings and sewage system from the farm buildings to a sewage tank in the woods from where a system of copper pipes fertilised and irrigated the fields. There was also a school, now two houses, a gas works and tradesmen's buildings to serve the whole estate.

SECOND MEETING: 27 May: OXFORD AND BANBURY AREA

This meeting was a follow-up to the F. C. Morgan lecture given by Dr. Alison McDonald on 26 October 2002. After coffee at the Red Lion at Wolvercote, Dr. McDonald led members on a walk around Picksey Mead pointing out some of the rich flora of this hay meadow including the rare great burnet and various grasses. A fuller account is given in the Proceedings of 26 October 2002.

In the afternoon Upton House was visited. The original house was built of the local Hornton sandstone in 1695 by Sir Rushout Cullen. In 1735 the door surround and segmental arch of Clipsham stone was added by William Bumstead. In 1927 the house was bought by Walter Samuel, 2nd Viscount Bearstead, who employed the architect, Percy Morley Horder, to remodel it. He removed the towers, added wings on either side and changed the interior to that of a house of the 1920s. The garden was largely designed by Kitty Lloyd Jones.

Walter Samuel was a banker and chairman of Shell and a collector of paintings, porcelain, furniture and tapestries. Throughout the house were seen paintings by Hogarth,

Stubbs, Canaletto and Brueghel; English and Sèvres porcelain; 18th-century furniture and a collection of Shell Oil posters of the 1930s by leading artists including Sutherland.

THIRD MEETING: 14 June: CORVEDALE AREA, SOUTH SHROPSHIRE

The first visit was to the Heath Chapel, last visited by the club in April 1980. It is an isolated relic of the deserted medieval village of Heath. It consists of a nave and chancel dating from *c*.1140 with chevron decoration on the S. doorway. The font is 12th-century of the tub-type; the murals on the S. wall depict St. George and the Dragon and date from the 13th and 14th centuries. The box pews are 17th-century as are the communion rails still in their Laudian form.

At Nordybank, last visited by the club in 1966, members walked up to the Iron-Age hill fort with a single bank and ditch from where there were fine views of the surrounding countryside.

Elsich Manor, visited by the kind permission of the owners, occupied the whole afternoon. Mr. S. Owens who was born there and whose family had owned it acted as guide. The house is Elizabethan incorporating the remains of an earlier building. It is constructed of stone with a timber-topped turret, mullioned windows and diagonally-set chimney-stacks. Inside were seen good timber-work and fireplaces. It has been sympathetically restored and a garden created around it. It had been the home of the Baldwin family from whom Stanley Baldwin, three times Prime Minster in the 1920s and 1930s was descended.

The final visit was to Diddlebury Church which contains a large amount of Saxon work especially the long and short stone-work on the quoins of the NE. end of the chancel at the base; the herring-bone pattern of the stone-work on the N. wall of the nave, on the interior only, being one of the finest examples of the 11th century. The chancel and tower are mainly Norman and there are 17th-century memorial tablets to the Bawdewyn family.

FOURTH MEETING: 15 July: DROITWICH AND BROMSGROVE AREA

Members had coffee at Chateau Impney which was built in 1875 by John Corbett, M.P. (1817-1901), as a wedding present for his French-born wife and modelled on the chateaux of the Loire Valley. It is surrounded by 120 acres of parkland with lakes, waterfalls and over 3,000 varieties of trees. Members were allowed to view the spacious stair-case and the ground-floor rooms.

The next visit was to Tardebigge Church rebuilt by the architect Francis Hiorn of Warwick in 1777. The spire is 135ft. high and was restored in 1902 whilst the church was being Victorianised in 1879 when the chancel was added by Rowe. Much of the woodwork is by Mr. Pancheri of Bromsgrove and craftsmen employed by the earls of Plymouth. The village hall is now a public-house.

Despite the high temperature most of the party visited the famous flight of thirty locks constructed on the Worcester and Birmingham Canal about 1815.

A two-hour walk was spent in the grounds of Hewell Grange which is one of the last great country houses to be built in England. It was erected 1884–91 for the earl of Plymouth

(Lord Robert Windsor-Clive) to designs by Thomas Garner and George Bodley. It is built of red sandstone in the Jacobean style of three storeys with mullioned and transomed windows. Since 1946 the house has been used as a prison. The grounds are registered as Grade 2* by English Heritage and a £1,000,000 pound restoration scheme is being managed by the Hereford and Worcester Gardens Trust in which the inmates of the prison are involved. During the walk were seen the remains of the Tudor house and the ruins of the early 18th-century house by Francis Smith of Warwick, now clad in scaffolding. There was evidence of work by William Shenstone, 'Capability' Brown and Repton. Features noted were the 'real' tennis court by Thomas Cundy, a Regency quarry garden, the Rous Lench steps up to the water tower, a yew maze, a large arboretum, a lake and a ruined boat-house.

FIFTH MEETING: 5 August: STAINED GLASS IN HEREFORDSHIRE CHURCHES

This was the president's choice to look at the stained glass in some of the churches in Herefordshire. At Credenhill Church the object was to view the window depicting Thomas Cantilupe and Thomas Becket of *c.*1300, and, according to the latest research, being some twenty years before the canonisation of Cantilupe. In Brinsop Church in the W. window was seen 14th-century glass showing St. George and also a window by Sir Ninian Comper in memory of William Wordsworth. At Eaton Bishop Church in the E. window of the chancel was seen the finest 14th-century glass, 1320–40, in the county. Also there are five lights portraying the Madonna and Child, St. Michael weighing the Souls, a bishop, Archangel Gabriel and the head of Christ. At Madley Church the NE. and SE. windows contain collections of fragments of early glass. The E. window of three lights has six medallions which have backgrounds of blue glass on circles of red and white with ruby surrounds.

After a picnic lunch the next visit was to Sellack Church to see the E. window dated 1630 R.S. with yellow the dominant colour. At Abbey Dore Church was seen the E. window dated 1634 when the church was restored by John, 1st Viscount Scudamore of Holme Lacy. Here the dominant colours are yellow, brown, blue and red. Both of these two windows are in the Gothic Decorated style and show the inspiration of Archbishop Laud.

Throughout the day there was discussion on the design, colours and subject matter and the historical background.

AUTUMN MEETINGS

FIRST MEETING: 4 October: Mr. J. G. Hillaby, president, in the chair.

Dr. George Nash gave an illustrated talk on 'The Anatomy of a castle: Weobley Castle Project (Phase 1).' He explained that the project was inaugurated by the Weobley and District Local History Society which had obtained funding to carry out the survey. As he lived in Weobley he volunteered to organise and supervise it. The owner of the site and English Heritage granted permission for it to be carried out with the involvement of the county archaeologists. It was agreed to include the landscape and the standing buildings around the castle site comprising the moat, motte and bailey.

The site was divided into five areas of importance. The earthworks were surveyed under the direction of Mark Corney, the geophysical by Richard Tabor and radar penetration by John Milson. A number of Woolhope Club members as well as those of the Weobley and District History Society took part covering botany, buildings and the history of the site. Reports of the various disciplines were put together for two publications, one an academic one to be published in BAR and the other out of funding.

A display board is to be erected on the site and it is hoped that a second phase involving excavations in particular areas will take place in the future. There seems to be evidence of fish-ponds, water works and a possible mill site.

Using a series of slides Dr. Nash pointed out the position of the site and various features in and surrounding it.

SECOND MEETING: 25 October: Mr. J. G. Hillaby, president, in the chair.

Ms. Kate Andrew, M.Sc., A.M.A., gave an illustrated talk on 'A 21st-century Collection and Learning Centre.' She referred to her experiences in this country and Canada and the setting up of the Ludlow Museum and Resource Centre which was visited by the club on 15 April last. She explained that the Herefordshire District Council purchased the old B.T. Station in Friars Street, Hereford: a Lottery bid had been awarded to provide a resource and learning centre in the building. By the end of 2004 it is hoped that the whole of the museum collection in Broad Street will be moved there. It will eventually become an education centre and open to the public.

Ms. Andrew referred to a number of national standards which will be adopted to preserve and conserve the collections which include archaeological artefacts, textiles, eggs, insects and minerals; risks include theft, fire, flood, pests and pollution. Some half a million items have to be moved, sorted and properly conserved.

A further £1.6 million is needed for an extension for the Hatton and other collections.

THIRD MEETING: 8 November: Mr. J. G. Hillaby, president, in the chair.

This was the forty-first F. C. Morgan lecture. Dr. J. C. Leonard, M.D.,F.R.C.P., gave an illustrated talk on 'Post-Reformation Monuments in parish churches from Herefordshire to the Peak.' The slides depicted tombstones dating from 1530–1830 in the counties of Herefordshire, Shropshire, Staffordshire and Derbyshire, and showed the architectural changes from the 16th century when the Renaissance influence is seen on the tomb-chests; the large-scale Elizabethan monuments of the late 16th century; the recumbent effigies on tomb-chests and kneeling and other postures of effigies of the 17th century followed by 18th-century wall monuments without effigies, Baroque and Rococco sculpture and finally Neo-classical and Greek Revival.

Of those of interest in Herefordshire were those at Eye, Sir Richard and Lady Cornewall (1540); Bosbury, John Harford (1573); Bacton, Blanche Parry (1590); Castle Frome, William Unett and his wife (1640); Much Marcle, Sir John and Lady Kyrle (1650); Kinnersley, Francis Smallman and his wife (1635); Holme Lacy, James Scudamore (1668); Llangarron, William Gwyllym (1697); Hope-under-Dinmore, Earl and Countess Coningsby (1760); Shobdon, Viscount Bateman (1804) and Much Dewchurch, Richard Symons (1850). Sculptors such as Roubiliac, Flaxman and Westmacott appear on the monuments from the mid-18th century onwards.

FOURTH MEETING: 6 December: Mr. J. G. Hillaby, in the chair.

Due to illness the Winter Annual Meeting was adjourned until 10 January 2004 .

Ms. Margaret Feryok, B.A., gave an illustrated talk on 'Dykes and Offa's Dyke.' She described the history of the Saxon period in the Welsh Marches which led to the building of the dyke. She traced its course and explained what archaeological investigation has revealed about the monument. She also briefly mentioned the short dykes in the Welsh Marches, other long-distance dykes in Britain and a few examples of such earthworks in Europe, to compare Offa's Dyke with monuments of a similar scale.

For further information see her chapter on the dyke in the recently published book *Mercia* by Sarah Zaluckyj.

WOOLHOPE NATURALISTS' FIELD CLUB

Receipts and Payments Account for the year ended 31st December 2002

INCOME

2001			2002		2001			2002	
£			£		£			£	
6,022		Interest on Investments	4,173		463		Insurance	475	
-		Income Tax Refunds			6,049		Stationery, Printing & Binding	6,617	
	6,022			4,173	89		Meetings Expenses	30	
8,250		General Subscriptions	7,653		1,035		Postage & Telephone	877	
402		Sale of Publications	312		193		Subscriptions & Donations	144	
2,498		Grants, Donations & Legacies	3,659		314		Repairs & Renewals	302	
3,734		Victoria County History (net surplus)	600		300		Honoraria	300	
-		Archaeology Research (net surplus)	38		118		Accountancy	194	
144		Field Meetings (net surplus)	78		110		Bank Charges	-	
455		Field Names/Air Survey (net surplus)	-		-		Field Names Survey (net deficit)	589	
2		George Marshall Fund (net surplus)	1		1		Natural History Section (net deficit)	-	
-		Natural History Section (net surplus)	31						
	15,485			12,372		(8,672)			(9,528)
					-		Less refund of Previous year expenses	(110)	
	21,507			**16,545**					
					12,835		TOTAL SURPLUS in the year	**7,127**	

ASSETS

2001			2002		2001			2002	
	1,040	Herefordshire County Council Loan		1,040			General Funds		
					174,994		Balance brought forward	184,093	
	44,741	National Savings Investments		46,172	9,099		Add surplus in the year	6,526	
						184,093			190,619
		Bank Accounts					Designated Funds		
122,873		Reserves	130,049		4,750		Victoria County Fund b/f	8,484	
7,466		General	7,123		3,734		Add surplus in the year	600	9,084
3,319		Subscriptions	2,022			8,484			
260		Natural History Section	291		284		George Marshall Fund b/f	286	
944		Archaeological Research Section	983		2		Add surplus in the year	1	287
2,402		Field Names Survey	1,813			286			
1,048		Field Meetings	1,126						
	138,312			143,407		**192,863**			**199,990**
8,484		Victoria County History	9,084						
286		George Marshall Fund	287						
	8,770			9,371					
	192,863			**199,990**			D. H. Davies, F. C. A. 26 July 2003 Independent Examiner		

Note: £933 3.5% War Loan current value approx. £670

An Appreciation of Jim Tonkin

The editorship of the *Transactions* of a learned society such as the Woolhope Club is a responsible and often onerous task. This issue marks a change of editor, the first for almost forty years. As the new incumbent, I am deeply conscious of the enormous debt we owe to Jim Tonkin for so many years of hard work, and I hope to be a worthy successor. I am pleased to have the opportunity to convey the Club's warmest thanks to Jim, and to present an appreciation written by our current President, Dr. John Eisel.

Roz Lowe

Jim Tonkin

'Cometh the hour, cometh the man' and, fortunately for the Woolhope Club, in 1963 Jim and Muriel Tonkin moved to Herefordshire when Jim was appointed headmaster of Wigmore High School. They joined the Woolhope Club immediately, and a paper by Jim (on an old house, of course) appeared in the *Transactions* for 1964.

In 1967 he took over as editor of the *Transactions*, and one of his first jobs was to implement the decision of the Club Committee to increase the size of paper to the old quarto size. This change in size was announced to the Club at a meeting on 14 October 1967, an announcement made by Jim as he had also become President of the Club for the first time.

As an editor Jim's attention to detail was such that the standard of the *Transactions* was—and is—well known and much admired. To achieve this standard much detailed work was needed, with Muriel ably helping with such things as reading proofs across the kitchen table—a real team effort.

Jim has contributed many papers to the *Transactions* and a regular report as sectional recorder for old buildings, but could have contributed many more had he not spent his time on editing the *Transactions* to the benefit of the Club. We look forward to him using the extra time that he now has to write up his knowledge of vernacular architecture for the benefit of future generations.

John C. Eisel June 2006

Biographical Details of Contributors

John C. Eisel
Dr. John C. Eisel F.S.A. was educated at Hereford Cathedral School and took his first degree at King's College, London. After training as a teacher, he lectured in mathematics, first at Dudley Technical College and latterly as head of mathematics at Herefordshire College of Technology until he took early retirement in 1994. Among his research interests are the history of change ringing and the development of bell frames, and he has published widely. He is deeply interested in the history of his adopted county, in particular the development of Hereford itself, on which he has written a number of papers. He is also an expert on the history of the local pubs! For many years a member of the Club committee, he is now serving his third term as President.

Lewis W. Jones
Lewis Jones was born in Birmingham in 1943. He was educated at Handsworth Grammar School, and studied history at St. Edmund Hall, Oxford, and at the London School of Economics. For many years he has lectured at the University of Central England in Birmingham and at its antecedent colleges. Lewis is a member of the English Folk Dance & Song Society, and of the West Gallery Music Association, and has published booklets and articles on traditional music.

Tim Barfield
Tim Barfield is a botanist with an interest in history, who studied at Nottingham and then at Durham University where he received a Masters Degree in Ecology. He has worked for the Herefordshire Nature Trust on surveys of streams and woodlands, and is currently employed as a Conservation Officer for English Nature in the East of England. Professional areas of interest include the classification of vegetation and fungal ecology.

Rebecca Roseff
Rebecca Roseff is an environmental archaeologist who specialises in soils and erosion. She studied the river Lugg between 1989 and 1992 for a PhD. thesis. She was Sites and Monuments Record officer for Herefordshire Council between 1998 and 2006. More recently she has become fascinated by field systems and landscape evolution and researches this using maps, documents and hedgerows.

Andrew Richards
Andrew Richards has a First Class Geography (Hons.) degree from the University of London, and M.Phil. and PhD. from University of Cambridge (Thesis title: 'The Pleistocene Stratigraphy of Herefordshire'). He lectured at the School of Earth Sciences, Kingston University and Department of Geography, University of Limerick. He changed career in 2004, and is now a primary school teacher at Leominster Junior School.

The post-Civil War history of the site of Hereford Castle

By JOHN C. EISEL

In many works Hereford Castle is said to have been demolished immediately after it was surveyed in 1652 and that the castle mound was immediately disposed of. However, this is inaccurate and the true history is much more complicated. This paper is an attempt to set the record straight.

In the 16th century John Leland, the King's Antiquary, visited Hereford, and gave one of the earliest topographical descriptions of the city. He described the castle, saying that it 'tendithe toward ruine' and no doubt its condition had deteriorated further by the next century. On 2 October 1630 the castle and its appurtenances were granted by Charles I to Sir Gilbert North, subject to a rent charge of 20s. p.a. to be paid to the Exchequer. North, in his turn, conveyed it on 3 December 1630 to William Page, one of the Barons of the Exchequer, and Edward Page, his son and heir.[1]

In the troubled times of the Civil Wars in the middle of the 17th century the city changed hands several times and the castle was garrisoned. Repairs were made to the roofs of the keep and the main gatehouse by stripping the lead from the roof of the chapter house of the cathedral, leading eventually to the destruction of that most beautiful building. After Colonel Birch took the city for Parliament in December 1645 he spent some three months in repairing the castle and thus making it a secure base for his operations against the Royalists in the locality.[2] On 1 August 1646 Edward Page conveyed the castle to John Birch, and on 12 April 1647, less than a year later, Birch sold the castle to the members of Parliament of the county, led by Sir Robert Harley, as Trustees for the benefit of the county. Birch was paid £600, the money being advanced by Sir Robert Harley at 8 per cent interest.[3]

Later in 1647 the castle played a part in an episode that reflected badly on the discipline of Colonel Birch's regiment. In March 1647 Birch agreed to send his former regiment to Ireland, on certain financial terms. The departure was delayed for a considerable time, disaffection was rife, and in July 1647 the regiment mutinied, seized Birch, his brother and also the castle of Hereford, together with £2,000 and the provisions in the castle. In January 1648 the regiment was still in Hereford, causing disruption and refusing to disband and this did not finally happen until October 1648.[4]

Late in 1652 the castle and its appurtenances were valued as belonging to the late King. The surveyors described '…a certain dwelling house, now standing in the said Castle, called the Governor's Lodge, consisting of three rooms below stairs, and three above, besides garrets and necessary rooms; with two little rooms adjoining the said house, towards the entering into the said Castle,…' There were also the materials of the keep, valued at forty pounds, and the old, ruinous gatehouse on the N. side, valued at £25, while in the castle were two old ruinous houses '…one of the which said Houses hath been used for the Maine Guard in the said Castle, the other House for quartering of Soldiers in the said Castle…'[5] These houses were valued at £20, giving a gross value of £85. It was stated that the castle was then a garrison under the command of Lieutenant Colonel Rogers '…yet because the same was lately given us in charge,

therefore we do return this survey thereof.'[6]

At about this time one Richard Stallard leased the Castle House and Green from the Trustees for 21 years, at an annual rent of £10.[7] In Stallard's lease there were covenants that he had to give up any part of the premises when the Trustees should think fit to build workhouses for the use of the county and to reserve the use of the stone of the castle for the use of the county.[8] Although part of the castle was leased to Stallard, other parts of it continued to house a garrison. In October 1657 there was a disturbance at the Sun Tavern in High Town, caused by two notable Royalists. Soldiers arrived and the two leading rioters were taken prisoner and removed to the castle where they were held in custody.[9] In 1660 the castle was demolished, although this should not have affected Stallard as this part of the castle was not leased to him. An account book that survives shows that work of demolition started on 14 April, and that workmen were gathered from a wide area. Craftsmen were paid 1s. per day and labourers 9d. The account book is fragmentary, but the work was carried out under the supervision of Captain John Green, and the book also records payments to the soldiers in Captain Green's company of foot that was stationed in Hereford.[10] Some of the stone was used to build a new hall for the College of Vicars Choral and some to build a new Tolsey for the city.[11] During his tenancy Stallard himself demolished a building on the W. side of the wall dividing the bailey from the motte.[12]

In 1662 the Rivers Wye and Lugg Navigation Act was passed, in which Sir William Sandys, Windsor Sandys and Henry Sandys undertook to make the rivers navigable.[13] Stallard had leave from the Sessions to sell his lease to Sandys but they did not agree and so this did not happen.[14] This is not too surprising as just over two years later Sandys' rights under the 1662 Act were transferred to a group of gentlemen including at least two of the Trustees of the castle site.[15] However, little work to make the rivers navigable was carried out under the Act and such work as was done is said to have failed within a few years.[16,17]

At the Trinity Sessions in 1670 Stallard surrendered his lease, the court agreeing to remit his arrears of rent and he was given until Lady Day to remove his goods out of the castle and the houses belonging to it.[18] The Castle House was taken away from Stallard in order to make a house of correction for the county, although this did not happen immediately.[19] With the surrender of Stallard's lease the Castle Green and Castle House became separated for a number of years, and in 1673 the pasture within the castle was let until Candlemas to John Pill Esq. for 30s., and he was to be allowed to continue as tenant until the court decided otherwise.

A map of proposals for the Castle Green was prepared by John Sylvester in 1677: on this the Castle House was still referred to as a dwelling house, and it was stated that part of this had been burnt.[20] The proposals envisaged a terrace of houses all the way round Castle Green, facing outwards, with a road around the outside and gardens on the inside, the internal space to be used as a market. There was provision for a church at the W. end, and the old gatehouse on the N. side is clearly indicated. (Fig. 1)

In 1678 the Quarter Sessions decided that the house of correction should be moved to Hereford Castle, although the work was soon suspended. However, it was then decided that a gaol be erected adjoining it, and part of the house was to be used to enlarge the gaol.[21]

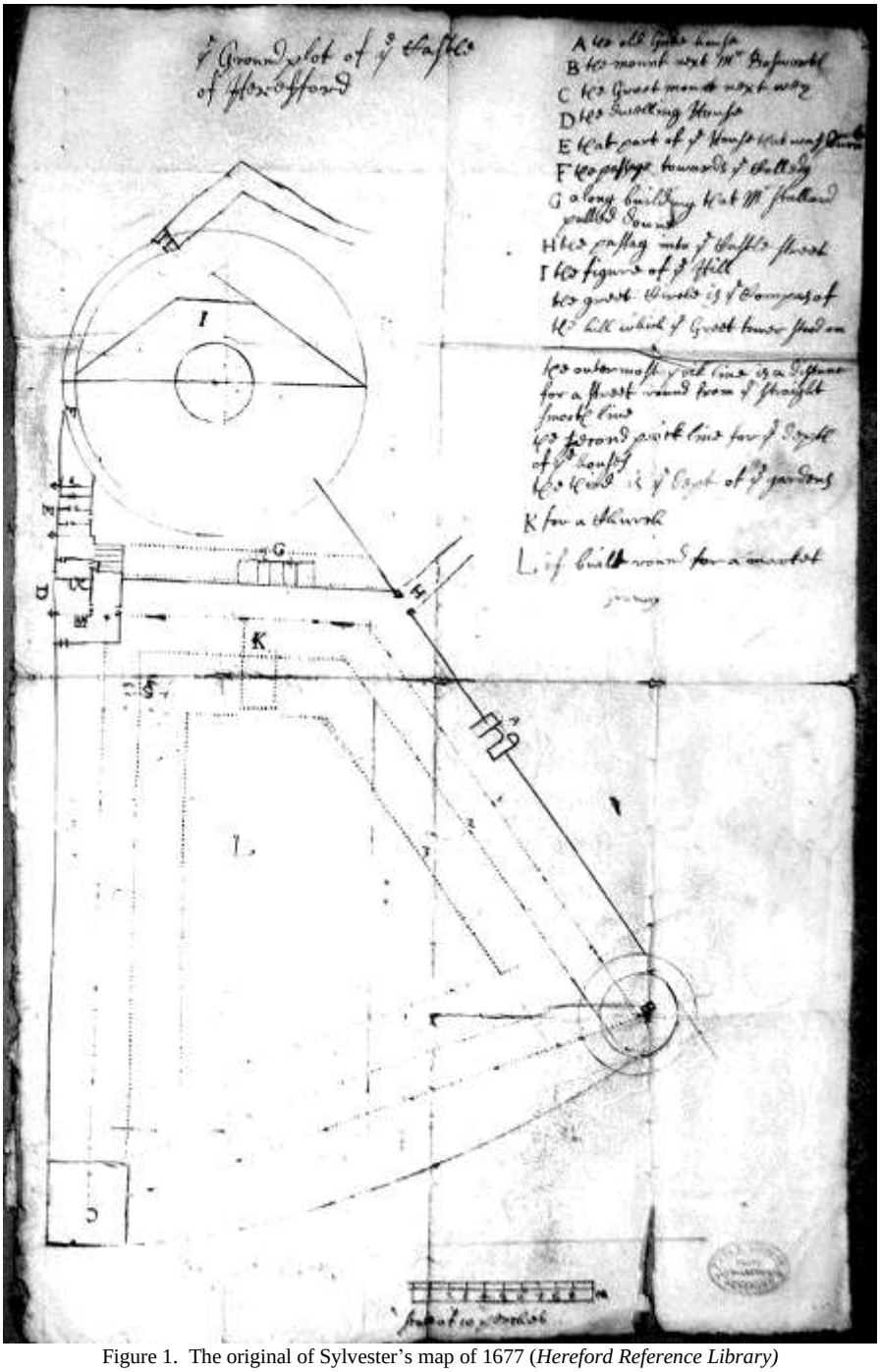

Figure 1. The original of Sylvester's map of 1677 (*Hereford Reference Library)*

In 1682 Simon Sheldon, weaver, was appointed master of the house of correction, taking over from Richard Philpotts who had to give up the livery of the garden belonging to the house of correction to William Winter, the county gaoler.[22] But the gaol in Castle Green does not seem to have lasted long, if indeed anything was done about it, for in 1687 Sir Thomas Jenner Kt., Baron of the Exchequer, Assize Judge, ordered that a new gaol be built for Hereford County, while in 1690 Mr. Thomas Carpenter, under sheriff for the county, complained that the common gaol of the county was very ruinous.[23] The following year money was spent on building the new gaol in St. Peter's Square.[24]

One of the Trustees of 1647 was Edward Harley (later Sir Edward), and he was one of the promoters of the 1695 Act of Parliament on the navigation of the Rivers Wye and Lugg. This provided that should there be any surplus money after the rivers had been cleared it should be used '…for the building of warehouses or storehouses and tenements, for the habitation of warehouse keepers or store keepers, in and upon the site of the Castle of Hereford (the same having been purchased for the said County, in the names of certain persons in trust for them).'[25] This Act was as unsuccessful as its predecessor and there was never likely to be any surplus.

On 12 January 1703 Thomas Alderne wrote to the Justices and proposed that he be allowed to rent Castle Green and appurtenances for £8 p.a. for 70 years, or at £3 without the Bridewell house, and that if he should have the Record Room he would fit up another place as convenient.[26] This calls attention to the fact that in 1674 the Justices decided that the old gatehouse of the castle should be made fit for the records of the county, and Mr. Aubrey (one of the magistrates) undertook to do this for £20 and having the decayed materials belonging to the castle. Earlier in the year Mr. Aubrey and Mr. Harford had been given charge of the timber and materials belonging to the castle and were allowed to pull down any parts that they thought to be in danger of falling. This would appear to be the material referred to by the magistrates. Mr. Aubrey seems to have worked slowly as four years later the magistrates were still ordering that the gatehouse should be repaired.[27] This seems to have been used as the Record Room for the county until well on in the 18th century, although there was constant trouble. It was broken into in 1690 and repairs were carried out in 1709 to prevent boys breaking into the Record Room.[28] This was a serious problem, and in 1801, explaining the loss of various old documents, it was stated that:

> '…the loss of them is made out by the account of several old people in Hereford who state that the Record Room belonging to the Castle which was situated in the Castle Green being permitted to fall into a very ruinous condition and the windows entirely demolished, the Records and documents kept in it, except those parchments stolen thereout by boys to make bombs and fireworks a thing commonly done on the 5th Nov^{r}. mouldered away and perished from the effects of damp.'[29]

It is clear from Thomas Alderne's offer that the Bridewell had either been moved, or was likely to be moved, from its premises at Castle Green.[30] However, at the Easter Quarter Sessions in 1704 the magistrates ordered that Robert Unett Esqr. should 'have all the Counties Estate within the Site of the Castle att the rate of thirteen p^{ds} five shillings for seaventy yeares according to the speakers promise.'[31] But Unett did not fulfill his contract and at the Easter Sessions 1705 the magistrates decided to let the Castle Green to the best bidder not under £13 5s. At the same time three of the magistrates were deputed to employ workmen to secure the Gaol and Bridewell. A marginal note in the minutes of the Quarter Sessions, possibly added later, refers to this as the 'Old Bridewell'.[32] This was overly optimistic and at the Quarter Sessions in January 1706/7 it was ordered that two of the magistrates contract the lease of

Castle Green to 'M^{r}. Sheldon the apothecary or the best bidder not under the rate of 8^{li} for a Tearm not under 12 & not above 41 yeares, the Bridewell to be into the Bargain as soon as the new Bridewell be fitted up the lease to Commence at Candlemas next.'[33] However, Mr. Sheldon was unsuccessful, as at Easter 1707 the Castle Green and appurtenances, except for the Record Room, was let to Robert Dobyns Esq., Deputy to the Chief Steward of the city,[34] for a 41 year term at £8 5s. p.a. The Old Bridewell was part of the deal.[35] In 1710 it was reported that Dobyns had pulled down a wall and steps on the N. side of the castle and disposed of the stone.[36] This displeased the magistrates and the lease must have been terminated, for in 1712 the Castle Green and appurtenances (except the Record Room) was leased to the Honourable James Brydges for 42 years at an annual rent of £8 5s.[37] Brydges had been a member of Parliament for Hereford since 1698, and on the accession of George I in 1714 he was created Viscount Wilton and Earl of Carnarvon. Then, on 30 April 1719, he was created Marquis of Carnarvon and Duke of Chandos. In 1723, with the lease of the Castle Green in his possession, he considered building a house in Castle Green, on the cliff above the river. However, as the Bridewell would have interfered with his layout the idea was shelved.[38]

The plan of Hereford drawn up by James Hill in 1716 shows that, despite Robert Dobyns' depredations, there was still a wall along the N. side of the Castle Green and that something of the old gatehouse was still there. There was no wall along the E. side of the Green but the two buildings in the centre were still in evidence, as also were the foundations of the keep (see below).[39]

In 1735 the magistrates agreed that the lease of Castle Green, the old House of Correction, and the room over the Record Room, which were sub-let by the Duke of Chandos to Timothy Geers, one of the magistrates, be transferred to Timothy Geers for the remaining 21 years of the lease.[40] Later that year it was recommended that two of five named justices be asked to view the state of the old House of Correction in Castle Green, and get estimates '…of the necessary expence of making the same a convenient and secure place for the confining the of prisoners committed to the Custody of the Keeper of the said House of Correction…'[41] At the Michaelmas Sessions in 1745 it was recorded:

> 'Ord^{d}. That the Treas. do pay to Rob^{t}. Unett Esq^{r}. and Herb^{t}. Aubrey Esq^{r}. or to one of them the Sum of Ten pounds for the Compleating the repairs of Bridewell and that they or one of them be desired to see the same well applied & to Acc^{t}. at the next sessions after the Work done.'

It was probably in 1747 that the Old Bridewell resumed its former use, as in that year the magistrates decided, in regard to the 'Bridewell House & Garden, adjoyning to County Gaol'.

> 'Ord^{d} that the Trea[sure]r be impowe'd to le this House and Garden to the best Bidder or for the most money that can be got for the same, & that he takes Care the same be imediately [*sic*] lock'd up, that the Keys be delivered to him. '[42]

THE SOCIETY OF TEMPERS

At the Michaelmas Sessions in 1752 the Order Book of the Quarter Sessions records:

> 'This Court doth as much as in it lyeth give leave for the making a commodious Walk round the Castle Green Lord of Oxford the Surviving Trustee of the Ruinous Castle of Hereford being present and consenting thereto And this at the Instance of the Mayor Corporation and Inhabitants of the City of Hereford.'[43]

This marks the taking over of the Castle Green by the Society of Tempers, and the careful phraseology was probably because Timothy Geers' lease had not expired. The description of the castle is perhaps surprising, implying that something was left, and it may well be that the remaining stonework, except for the Bridewell, was cleared at this time.

The aim of the Society of Tempers was to promote amiability and good temper, their first rule being:

> 'To bear and forbear. To avoid personal and malicious reflections, and to put no forced, unkind, or false interpretation on what is said or done. None of the members shall on any pretence enter into controversy, or dispute about Party, on pain of expulsion, after admonition to the contrary by the President or Vice-President.'[44]

The first minute book of the society, covering the period 1752-86, has disappeared and only the minute book covering the period 1786-1831 is now in existence.[45] As a consequence the activities of the society in the earlier period are only known from other sources. One of the main supporters of the landscaping of the Castle Green was Lord James Beauclerk, bishop of Hereford, whose name was mentioned in laudatory terms in a poem on the Castle Green, published in 1759.[46] Another name mentioned in the same poem was that of 'Bagnall', evidently the Rev. Dr. Gibbons Bagnall, headmaster of the College School. Isaac Taylor's map of Hereford, published in 1757, shows that the Castle Green had by then been laid out with the walks which are familiar today.[47] There is no evidence of walls around the Castle Green, the two buildings in the centre which were still shown on Hill's map of 1716 had disappeared, as had the old gatehouse on the N. side of the enclosure. A pavilion was erected at the SW. corner against the E. side of the Bridewell, not evident on Taylor's map but stated in 1761 to have three arches with two classical piers under a pediment.[48] In 1775 this was repaired, with a Mr. Grenous receiving £12 5s. for stucco and work on the cornice.[49] The description of the pavilion is confirmed by the depiction in George Powle's engraving 'South East View of the City of Hereford, from the Bassom', published on 1 January 1778. In this the fence along the river edge of the Castle Green is indicated as being Chinese in style.

It appears that the Castle Green was improved and maintained by general subscriptions, as well as by the Society of Tempers. But the initial enthusiasm waned, and the following advertisement appeared in the *Hereford Journal* on 7 May 1772:

> 'HEREFORD, the Annual Subscription to the Castle-Green, by the Death or Removal of many of its original Subscribers, being now inadequate to the Expense of keeping it in Repair: All Persons who are disposed to contribute to the Preservation and Improvement thereof, either by Benefaction or annual Subscription, are requested to signify their Intentions to Doctor Campbell or Mr. Skyrme, who have undertaken the Care thereof; and will publish an Account of Benefactions, yearly Subscriptions, and Disbursements.'

Dr. Francis Campbell was a founding member of the Society of Tempers, was treasurer from 1760 and became president in 1770. He served as mayor of Hereford in 1763.[50]

As a result of the above advertisement, accounts were occasionally published, sometimes covering as much as three years. These show that gates had been fitted to the entrances to the Castle Green, for there were regular payments for locking these, usually about £1 1s. per year. Other payments included the annual rent of £1 1s. and payments to various specified persons, the purpose of which was not normally given but clearly for work done about the Castle Green. Income was by donations from the Society of Tempers and other subscribers, and for rent for letting the grass keep. However, there were still problem in getting enough money to carry out

necessary work, and a further appeal for subscriptions was published in the *Hereford Journal* on 18 March 1779, and another on 22 May 1783.

NELSON'S COLUMN

During the tenure of the Tempers, Nelson's column was constructed in the centre of Castle Green. He was made a freeman of Hereford during a visit in 1802, and his death was much lamented in the city. It was proposed that a monument be made, and on 19 March 1806 it was announced that the Palladian Lodge of Freemasons would lay the foundation stone of Nelson's column. The ceremony duly took place on 2 April and a long report of the proceedings appeared in the *Hereford Journal* on 9 April. A procession of freemasons, civic dignitaries and part of the first Regiment of Herefordshire Volunteers went to the Castle Green, where the foundation stone was laid, appropriate speeches were made, and the military fired three volleys, after which the whole assembly returned to the City Arms Hotel and spent the rest of the day in festivities.

The construction of the column, to the designs of Thomas Hardwick,[51] proceeded slowly and the *Hereford Journal* of 31 August 1808 reported that the stone for Nelson's column had been '…purchased by Mr. Downes, and is now ready to be brought to Hereford when the state of the river Wye will permit.' The column was not completed until the following year. Nor, indeed, were the subscriptions adequate, as appeals for further subscriptions appeared in the *Hereford Journal* in January 1812, and as a consequence an urn was substituted for the proposed statue.

This was one mark of respect to an outstanding personality, and another was that for many years the bells of the city churches were rung muffled on the anniversary of his death. Thus the *Hereford Journal* of 28 October 1840 recorded:

> 'On Wednesday last, the bells of All Saints, in this city, rung their annual muffled peals in commemoration of the lamented death of one of our most celebrated naval heroes, Admiral Lord Viscount Nelson. It is now 35 years since the gallant admiral fell in the ever memorable battle of Trafalgar.'

The fact that it was found necessary to provide the Castle Green with gates implies that there had been problems with vandalism. On occasion there was trouble with the neighbours as well: in 1804 the occupier of the Castle Mills cut down trees on land that had been rented by the Society of Tempers and a meeting on 11 April decided to bring an action against him in the Court of King's Bench.

This vandalism reached a peak in the early 19th century, and the minutes of a meeting of the Tempers on 5 November 1818 recorded:

> 'It having been a Subject of much regret among the Inhabitants of this City & its neighb^{d}. that the Castle Green Walks & premises sho^{d}. remain in so objectionable a state, arising cheifly [*sic*], from the wilful Destruction, which every Improvement hitherto attempted, has met with, & partly from the Want of a regular method to preserve the same; it was suggested this day by the Society of Tempers that some effectual means sho^{d}. be adopted, as well to preserve the property under Lease to themselves, as to afford the public the advantages of enjoying the promenade;…'

As a result a committee was set up and this reported back to the society at a meeting held at the

'Hotel'—the City Arms—on 18 March 1819, recommending that a cottage be made by converting the 'Alcove', and that estimates be obtained for converting the shell into a cottage of four rooms and one of two, together with a veranda to form a shelter from the rain and heat. The idea was to employ a person to look after the Castle Green. However, nothing came of the idea and at a meeting of the society on 5 November 1822 it was decided not to renew the lease:

> 'It having been signified by the Secretary that the Term of years granted in the last Lease by the Magistrates of the County for the Castle Green has now expired: & the endeavours made by this society towards the Improvements of the Green having proved abortive, it was unanimously
>
> 'Resolved
>
> 1. That no renewal of the Lease be sought for in the Name of this Society
>
> 2. That our Treasurer be authorized to receive any Communication from the Magistrates on this subject - & to report the Decision of the Tempers made at this their annual General Meeting.'

Thus the occupation of the Castle Green by the Tempers ended on something of a sour note. The society was nominally in existence until 1831, although there is no record of any meeting taking place in the intervening time, and it was finally wound up at a meeting that took place at the Hotel on 4 November 1831.

AFTER THE TEMPERS

The value of the Castle Green to the city was recognised, and almost immediately a committee of important citizens was set up to look after it, under the chairmanship of the Mayor of Hereford, Dr. John Bleecke Lye. An advertisement outlining the proposed improvements and asking for subscriptions appeared in the *Hereford Journa*l on 7 April 1824. Regular lists of subscribers were published, and in one of these that appeared on 7 July it was stated that the committee had started to clean out the Castle Pool, and that it was ready to sell the soil to anyone who would carry it away, at the cost of 1s. per cart load.[52] There were problems with vandalism during the course of this work, and the *Hereford Journal* of Wednesday 14 July 1824 reported:

> 'On Friday night some worthless vagabonds broke down the dam which had been made at the head of the Castle-pool, under the superintendance [*sic*] of the Committee for the improvement of our Castle Green, to prevent the access of water, and for the purpose of clearing the pond of the mud which had been accumulating for several years – in consequence of this wanton and wicked act of mischief, the pool filled with water from the mill-pond, and the work, which was successfully advancing, completely suspended. It is impossible to comprehend the motive for this disgraceful outrage, but we hope the perpetrators of it will be punished, as we understand a reward of 10 guineas is offered for their discovery.'

This did not delay the work much, as on 28 July 1824 a report in the *Hereford Journal* indicated that nearly 1,000 loads of 'excellent manure' at 1s. per load had been removed from Castle Pool, a figure confirmed by interim accounts published on 18 May 1825.

Occasional reports were published in the Hereford newspapers. One that appeared in an advertisement in the *Hereford Times* of 3 July 1847 included the annual accounts. These show that subscriptions amounted to £42 10s. which, with other receipts, totalled £51 10s. The wages of the green keeper were £27 and most of the rest of the money was disbursed on sundries.[53]

There was a warning that the funds should be increased as heavy expenditure was likely to be incurred in the future because of the river undermining the bank. At that period the green keeper lived in a house attached to the Old Bridewell,[54] but Curley's map of 1858 shows that the cottage opposite the Fosse had been built by then and presumably the green keeper had moved there.

The committee continued to work until 1855, when there was a crisis. A meeting was called by the mayor, Charles Anthony, and the following motion was agreed, proposed by Mr. John Gwynne James and seconded by Dr. Bull:

> 'That it is most desirable that the Castle Green, one of the chief attractions of Hereford and its neighbourhood, should be maintained in its present state, and this meeting feels that this end cannot be better secured than by appointing those whose have hitherto managed it to resume their duties, and they therefore request the old committee, consisting of Messrs. Aston, Godsall, Gililand, Jenkins, Llanwarne, Pulling, Parry, Spozzi, Tully, and Wright, with the addition of the Mayor and the Dean of Hereford, for the time being, to act as a committee for this purpose.'

It was further agreed that no subscriber should be entitled to vote at the annual meeting unless his subscription amounted to 10s.[55]

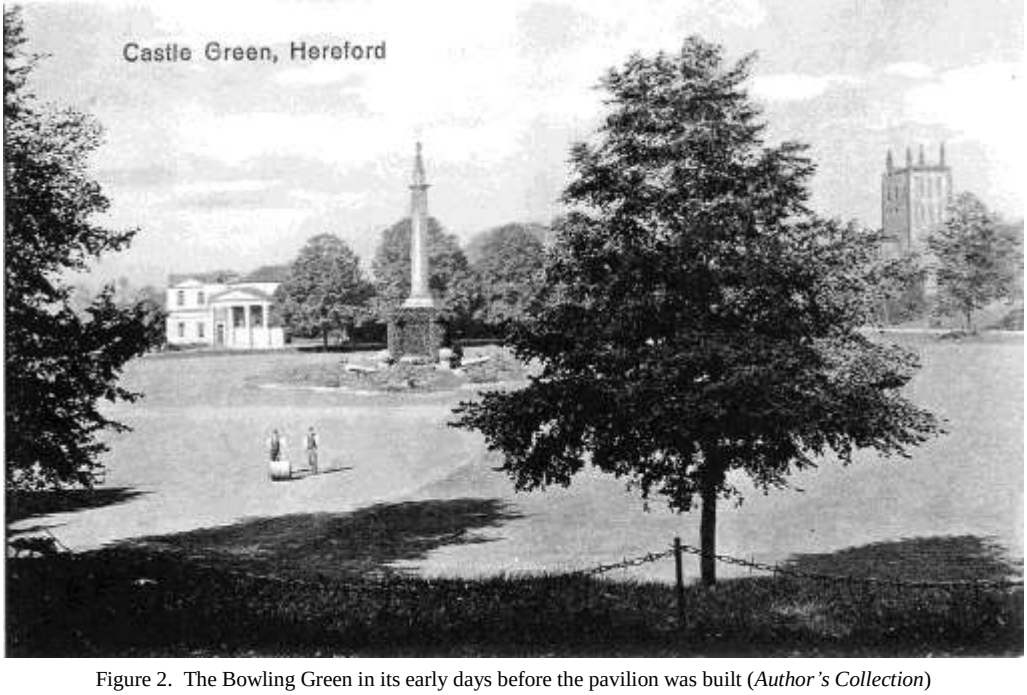

Figure 2. The Bowling Green in its early days before the pavilion was built (*Author's Collection*)

A major expenditure was the salary of the green keeper, and in 1867, when Mr. Arthur Thompson was Treasurer and Secretary, the green keeper was Elisha Dobbs.[56] The committee continued to manage the Castle Green until 1873, but gave up in that year due to the difficulty of obtaining subscriptions. The magistrates then leased it to the Town Council for 200 years at

a peppercorn annual rent of £1, on the condition that £20 be spent each year on maintenance and upkeep. Would that it was only that now![57] The Town Council kept Elisha Dobbs on as Constable and Greenkeeper but in 1882 John Wilson was appointed green keeper and the rough pasture of the Castle Green was transformed under his care. In 1886 three old elm trees were sold and cut down, and during the process of conversion one trunk was found to have a number of bullets embedded in it.[58]

Following a public meeting on 15 March 1908, the Corporation agreed to a request that a bowling green be established on Castle Green, and the present green was laid out.[59] At first it was merely a specially mown area, but it was then enclosed and the present boarded pavilion was built in about 1930.[60]

At this point the later history of the 'Alcove' or pavilion should be considered. Although it was not shown on Brayley's map of 1806 it was still in existence in 1819 when the Society of Tempers considered making it into a cottage and it must be assumed to have been still there when the Tempers decided not to renew their lease. A proposal was made to erect a warm bath and a lease was obtained from the magistrates at a nominal rent. The *Hereford Journal* of 25 August 1824 reported:

> 'We understand that the proposal for erecting Warm Baths near the cottage about to be placed in the Castle Green, has met with general approbation in this city, and there is every probability this desirable and useful measure will be carried into effect. It is at present intended to raise the necessary sum for completing the Baths by shares of 5l. each, and it is calculated that the subscribers will be amply remunerated by the receipts arising from the trifling charge that will be made for the use of the Baths.'

It is likely that it took some while to raise sufficient capital to enable the project to go ahead, and it was not until 1829 that it was announced:

> 'Hereford Baths. The warm bath is now open. The rules for the regulation of the baths and reading room may be seen at the keeper's house. '[61]

The baths were down by the river, and the reading room seems to have been behind the portico facing onto Castle Green.[62] An engraving of a view of the cathedral from Putson, published in 1825, shows a two-storey building close to the river, evidently the baths, but no sign of the portico. From this it seems that, despite the similarity of the columns to those depicted in Powle's engraving of 1778, the old 'Alcove' was demolished and replaced. By the late 1850s the baths and reading room had run into financial trouble and in 1858 discussions were held between the Castle Green Reading-Room and Baths Society and the Herefordshire Natural History, Philosophical, Antiquarian and Literary Institution.[63] This latter had been founded in 1836[64] and at this time had its meeting room on the corner of Broad Street and High Street, where it kept its library and museum.[65,66,67] A proposal for merger was discussed at a meeting of the Baths Society on 22 April 1858 and agreed, being confirmed at meetings on 24 June and 29 July. Under a complicated legal arrangement the building was underleased to the trustees of the amalgamated society for the remaining 69 years of the lease and the premises were mortgaged for £250. The first general meeting of the amalgamated society was held on 24 January 1859, and at this the accounts for year 1858 for the Reading Room and Baths Society were approved. These showed the small surplus of £1 17s. 1d. for the year.[68]

Figure 3. A view of the School of Art and Science, with the portico in clear view (*Author's Collection*)

It seems likely that it was at this time that the building was raised behind the portico and over the top of the baths, to hold the museum of the Philosophical Society, but no documentation has so far come to light. However, it would appear that the new society did not flourish, and an approach was made to the Woolhope Club. On 15 January 1862 deputations from both organisations met to consider the union of the two societies, and the meeting passed a resolution recommending their union. This was discussed at length at the Annual General Meeting of the Woolhope Club on 20 February and the following motion was proposed by Mr. Chandos Wren Hoskyns, and seconded by Dr. Bull:

> 'Pending any further arrangements respecting a Museum of Herefordshire specimens, geological, &c., that the Philosophical Society be requested to inform the Committee of the Woolhope Club on what terms they would admit them to a separate or joint use of the Museum-room.'[69]

The upshot of this was that the idea of a merger was shelved, but the subsequent offer by the Philosophical Society of the joint use of the Museum Room and the services of their keeper at an annual rent of £10 was accepted at a meeting of the Woolhope Club on 22 May 1862. As a consequence the next Annual General Meeting of the Woolhope Club was held in the Museum on Castle Green on 12 March 1863, and at that meeting a bill for £13 in payment for a glass case was authorised. The Annual General Meeting in 1864 was also held at the Museum, but at that meeting it was resolved that notice should be given to the Philosophical Society that on 1 August the Club would give up that part of the museum occupied by them. As a consequence the Club held its 1865 Annual General Meeting at the City Arms, although clearly there was no ill-feeling between the two societies as after dinner the members of the Woolhope Club attended a soirée held by the Philosophical Society.

The withdrawal of the Woolhope Club left the Philosophical Society in a weakened financial position and there was barely enough money to pay the interest on the loan, let alone

maintain the property. The baths had been allowed to fall into disrepair,[70] little use was made of the museum and library, and the soirées were poorly frequented. A meeting was held on 6 November 1869 to consider a proposal to wind up the society, and a merger with the Hereford Permanent Library in St. John's Street was even considered. Sketch plans of how the library premises could be altered were drawn up that month. However, this came to nothing, and the rooms on Castle Green were shut up, and no subscriptions were collected. As the interest on the mortgage was not paid the mortgagee decided to foreclose on the mortgage, and early in 1875 he came to an agreement that the premises and contents would be sold to the Town Council for a sum that would cover the debts of the society.[71]

After the transfer to the City Council the building was used to house a School of Science and Art, and the green keeper's cottage was probably incorporated into the School at this time and a new green keeper's cottage built. The School eventually became a School of Arts and Crafts. During this time the buildings were gradually altered, the building behind the portico being rebuilt and raised, the portico itself was filled in and finally built over. A new College of Art was built in Folly Lane in the 1960s and the premises at Castle Green were vacated in 1969. These have had a variety of uses since, and part of the building, which has been extended at the front, is now used as a Canoe Centre.

LATER HISTORY OF THE OLD BRIDEWELL

Taylor's map of 1757 shows clearly that the former Castle House was then in use as a Bridewell. Its history at this period has been detailed in these pages, and it has been pointed out that about the year 1787 there was a proposal to alter and extend the accommodation, but this was not implemented.[72] As part of this an accurate scale drawing of the outside of the building was made by Thomas Symonds, and this is the only known depiction of the outside before the 19th century alterations. It is dated 1787. A drawing of the proposed N. elevation after alteration also survives.[73]

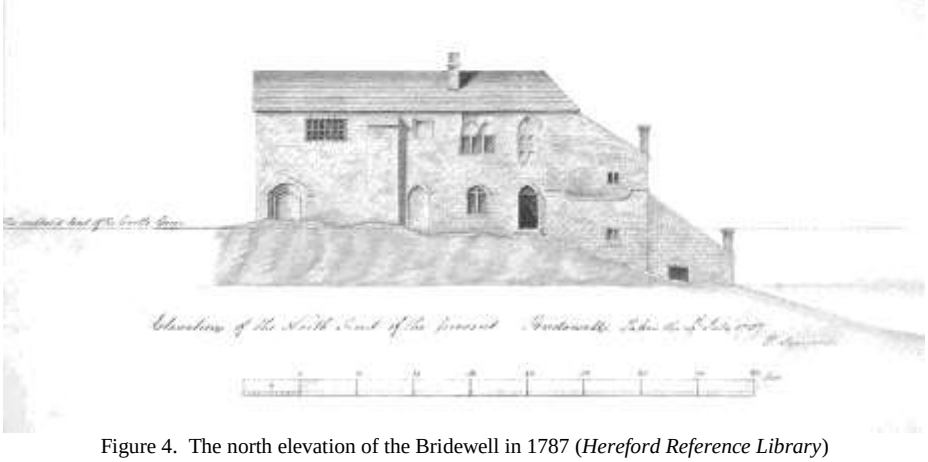

Figure 4. The north elevation of the Bridewell in 1787 (*Hereford Reference Library*)

It is assumed that the Bridewell continued as such until 1800 when the Magistrates decided to sell the building. It was advertised in the *Hereford Journal* on 10, 17 and 24 September 1800,

when it was stated that the premises were '…well calculated for erecting Wharfs, being situate on the West side and adjoining to the Castle Green, in Hereford.' It was auctioned at the New Inn in Hereford on 25 September 1800 and was bought for £500 by Henry Hawkins, a bargemaster who formerly had a wharf close to Wye bridge.[74] However, he did not enjoy his new property long, as on 21 December 1803 the newly-built barge called *The Castle of Hereford* was advertised for sale, as was a dwelling house and coal wharf, adjoining Castle Hill and Green '… now in the occupation of the Proprietor, Widow Hawkins.'

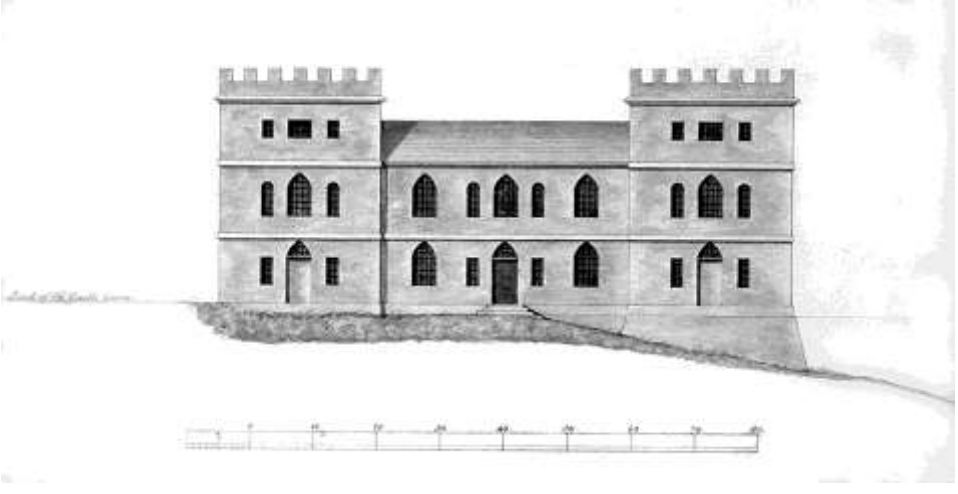

Figure 5. Proposed north elevation of the Bridewell, 1787 (*Hereford Reference Library*)

The subsequent ownership is not known, but its use as a coal wharf continued. On 21 May 1828 there was an advertisement in the *Hereford Journal* by Messrs Jas. Ward & Co. of the Bridewell coal wharf, while on 28 September 1831 an advertisement requested payment for coal that had been had from the Bridewell Wharf. There was an advertisement about the Old Bridewell Coal Wharf on 11 July 1838 and on 16 January 1839 Thomas Harris, late of Eign, advertised that he was at the Bridewell Coal Wharf.[75] However, with the decline of river transport at this period the usage as a coal wharf probably did not continue long after this, and it then became a public house. There is no relevant entry that can be identified in the 1851 census, the only three households named being located at 'The Quay'. The first of these, evidently adjacent to the green-keeper's cottage, was occupied by Charles Jones, aged 65, a coal merchant. However, Lascelle's *Directory of Herefordshire* of 1851 states:

> 'At the Outer Ward of the Castle, which overhangs the river, there are Public Baths, and a Subscription Reading Room, adjoining which is the residence of the Keeper of the Green, a public house adjoining the latter. The front wall was part of the Castle, where there still remain many traces of its original strength.'

No name is given to the public house and there is no entry in the classified part of the directory, so it must be assumed that this enterprise was not successful. It was then used as a private house, and the alterations to the N. front seem to be of the later 19th century.[76] In 1906 Mr. William Parlby bought the house, and it has continued in the possession of his family ever since.

CASTLE HILL

The history of the area around the keep of the castle differs from that of the Castle Green and Bridewell and is tied in with a small area adjacent to the river known as the Barbican or Barmingham.[77] This was also assessed in 1652 by the surveyors who valued the castle itself:

> 'The Barbican…All that piece and parcel of ground, with the appurtenances, known by the name of the Barbican, alias the Bargaineham, lying and being within the parish of St. John's, within the liberties of the city of Hereford, in the county of Hereford, and adjoining to the Castle of Hereford, abutted on the E. by a certain common washing place, called the Bargaineham; on the S. by the river Wye; on the west by a certain orchard, commonly called the College Orchard, now belonging unto Lieutenant Colonel Rogers; on the N. by the old ruinous wall of the Castle of Hereford aforementioned; containing per estimation forty perches,[78] more or less, which we value to be worth per annum forty shillings.
>
> Memorandum…That there was a dwelling-house upon the said Barbican, but, standing so near the Castle of Hereford, was pulled down in the time of the wars, the residue of which said ground was then a garden and bowling alley, all which was ruined at the same time.
>
> Memorandum…The said parcel of ground, called the Barbican, is said to be holden by one Bryant Newton, by virtue of a lease granted to him by the city of Hereford; but for so much as no evidence was produced to make good the claim of the said Newton, or of the city of Hereford, although summoned thereto, and because the said Barbican was given to us in charge, to be surveyed, as under a rent to the state of the late Charles Stuart, we return the same valued as above.'[79]

The mention of a bowling alley suggests that the house that was demolished was a public house, and a tradition has been preserved that there was formerly a public house on the site of the present Vaga House.[80]

However, other evidence suggests that the cottage may not have been there all that long. In 1663 one Henry Traunter, a brickmaker of Hereford, said to be then 91 years old, petitioned the Mayor and the Justices of the Peace for a place in the almshouses. The basis of his petition was that after King Charles I lifted the siege of Hereford by the Scots in September 1645 he was given a personal grant by His Majesty to build a cottage on the waste belonging to the castle, which he did at a cost of some £50, but

> 'wch Tennement by yor petic[ione]r soe erected was by the Comaund of Wroth Rogers late Governor of the Castle & Citty of Heref pluckt downe demolished & Carried to the Colledge of Herefford to repaire breaches & ruines there to the utter ruine of yor poor petic[ione]r & his Chardge.'[81]

A cottage on the waste near the castle which was then garrisoned would have had a ready clientele if it was run as a public house. It is not known if Henry Traunter was successful in his plea.

In August 1697 the Common Council ordered

> 'That Mr. Church and Mr. Taylor may have part of the Wast ground on the East End of the Barmingham on the backside of the Castle House or Bridewell'[82]

while in the following month it was

> 'Ordered that Mr. Thomas Church and Mr Jonah Taylor pay six pounds annually to the Citty for the land allotted them to build on now the Barminghams.'[83]

This is nearly as much as the rent for the Bridewell and Castle Green together. It is possible that Mr. Church and Mr. Taylor did not built on the land granted to them, as on 27 October 1704 the Common Council ordered that the mayor and other named members of the Common Council

> 'or any three of them…doe view the garden formerly in the poss[ess]ion of John Trehearne next the Castle and make a report thereof what p[ar]te is fit to be lett to Wm Lovingham or any other p[er]son who will take the same.'[84]

The Mayor and Corporation also claimed jurisdiction over the other side of the Castle Hill as in September 1697 the Common Council

> 'Ordered that Mr Mayor does cause to be pulled downe the House under the side of the Castle Mount near St. Ethelberts Well.'[85]

However, Taylor's map of 1757 still shows a house and enclosure on this side of Castle Hill.

Later leases show that John Traherne, a clothworker, (mentioned above) was succeeded by Thomas Symonds, and then by Philip Symonds, brother of Thomas, although it seems that the leases granted by the Mayor, Aldermen and citizens of Hereford covered a greater area, including the castle motte. At this period the motte on which the keep of the castle stood was substantially complete, with the footings of the walls still in place. These show clearly on James Hill's survey of 1716, with a pentagonal retaining wall at the base of the motte, and a further pentagonal wall with towers at the corners at the top of the motte, surrounding the inner keep.[86] William Stukeley's sketch of Hereford from the W., taken in 1721, shows the motte as a prominent feature on the city skyline.

There was a change within a few years, however, when there was a confederacy between the various barge owners on the river to enhance the price of coal. To defeat this and because Commissioners under the Act of 1695 had never erected any warehouses on the Castle Green, the Corporation leased land to Philip Symonds, mercer, with the intention of building wharfs on the river. In the Guildhall collection of local authority deeds is a lease to Philip Symonds, mercer, dated 1 May 1725, of a piece of ground

> 'bounded with the way between it and the Mount on the North the way from Castle Street to the Barminghams on the East the River Wye on the South and the Outhouses belonging to the Vicars Choral of the Cathedrall Church of Hereford on the west parts thereof And also all that the scite of the Barbican and all the wast ground thereabouts belonging to the said Mayour Aldermen and Citizens the said Philip Symonds his Executors or Administrators not prejudicing or enclosing there nor stopping up the drain to the Castle Pool and allowing liberty to all persons whatsoever to take gravel from the Mount there til the said Mount shall be levelled…'[87]

Because there was some doubt about the ownership of all this land, a petition was made to the Quarter Sessions at Easter 1725:

> 'Upon a representation made unto this Court by Philip Symonds of the City of Hereford Mercer Robt. Ravenhill of the same City Mercer Charles Mayo of the same City Goldsmith, Thomas Foord of the same City Innholder and Joseph Trumper of the same City Glover of a Confederacy among the Bargemen to Enhance the Prizes of the Coals brought up the River Wye to the City of Hereford and of great Frauds in the weight of Coals, and th[a]t for preventing the same and other abuses they the s^{d}. Philip Symonds Rob^{t}. Ravenhill Charles Mayo Tho: Foord & Joseph Trumper Have taken a Lease of the

> Scite of the Barbican and waste ground thereab[ts]. within the limits of the s[d]. City from the May[r]. Aldermen & Citizens of Hereford and are now upon building a Wharf upon the river Extending from the Colledge Orchard Eastwards along the Waterside And for as much as the boundaries of the City ground where the s[d] Wharf is to be built lye Contiguous with th[a]t of the County Now for the obviating any Dispute th[a]t may hereafter Arise Concerning the same and for Encouraging so Publick and useful an undertaking, This Court Doth as much as in it lies Consent to the building the s[d] Wharf saving the right of the County to the wast ground or Lands adjoyning.'[88]

The lease to Philip Symonds, quoted above, is the first of a series of leases of the wharf which survive in the Guildhall papers, and the next is a lease to the same Philip Symonds, dated 17 January 1734, which reserves the right of digging for gravel to the mayor, aldermen and citizens of Hereford.[89] This seems to be the lease referred to at a meeting of the Common Council that was held on 17 Jan 1734/5 when the lease of the Barbican came up for renewal:

> 'Ord[rd] That Philip Symonds be at Lib[er]ty to renew his lease of the Barbican & Garden ground where the Wharf at the River Wye & s[eve]ral Buildings have lately been erected by him & his Copartners for the Further Term of Twenty one years, paying the sum of 5[l] for a fine as formerly & by & under the same rent & convenants as in the former lease.'[90]

Subsequent leases were granted to members of the Trumper family—Joseph in 1748, his widow in 1757 and 1764, and Joseph jun. from 1778. The entry fine gradually increased, culminating in one of £300 paid by Joseph jun. in 1798, although the annual rent remained at 5s.[91] These leases reserved the right to enter to take gravel until the site was level, and draining Castle Pool.[92] This drain was referred to in the minutes of a meeting of the Commissioners for Paving, Repairing, Cleansing and Lighting which took place on 23 October 1782.

> 'Ordered that the rubbage left at Castle Hill when the new drain was made be removed.'[93]

Despite the claim of the Corporation to rights over the removal of gravel, at the Quarter Sessions held on 6 May 1786 the Justices of the Peace ordered that no person should carry away any soil or gravel or deposit any soil or rubbish thereon, and this was publicised in the *Hereford Journal* on 18 May 1786. The Castle Hill was not reduced to ground level until the late 1780s when Mr. Joseph Trumper jun. held the lease.[94] He was present at a meeting of the Common Council that took place on 30 August 1787, and made his presence felt, as the minutes record:

> 'An application having been this day made by the Dean and Canons for converting the Castle Hill into a Burial Ground, & it appearing that the same has been granted in Lease by this Corp[n] for upw[ds] of 60 yrs & that Mr. Jos Trumper has now a Lease thereof of wh [ich] ab[t]. 12 years are unexpired This House cannot accede to such Application, especially as Mr Trumper being present, refuses his assent thereto.'[95]

After the sale of the Bridewell in 1800 the County Magistrates sought counsel's opinion, complaining that their rights of access to Castle Hill were being denied and setting out the facts of the matter so far as were known. However, since the Magistrates could not produce any leases or deeds relating to the transactions with the civic authorities, and the civic authorities either could not or would not do the same, and both parties had exercised rights over removing the gravel from the mound, the counsel's opinion was that there were no grounds for an action for ejectment.[96] With this the Magistrates effectively gave up their claim to ownership of the Castle Hill.

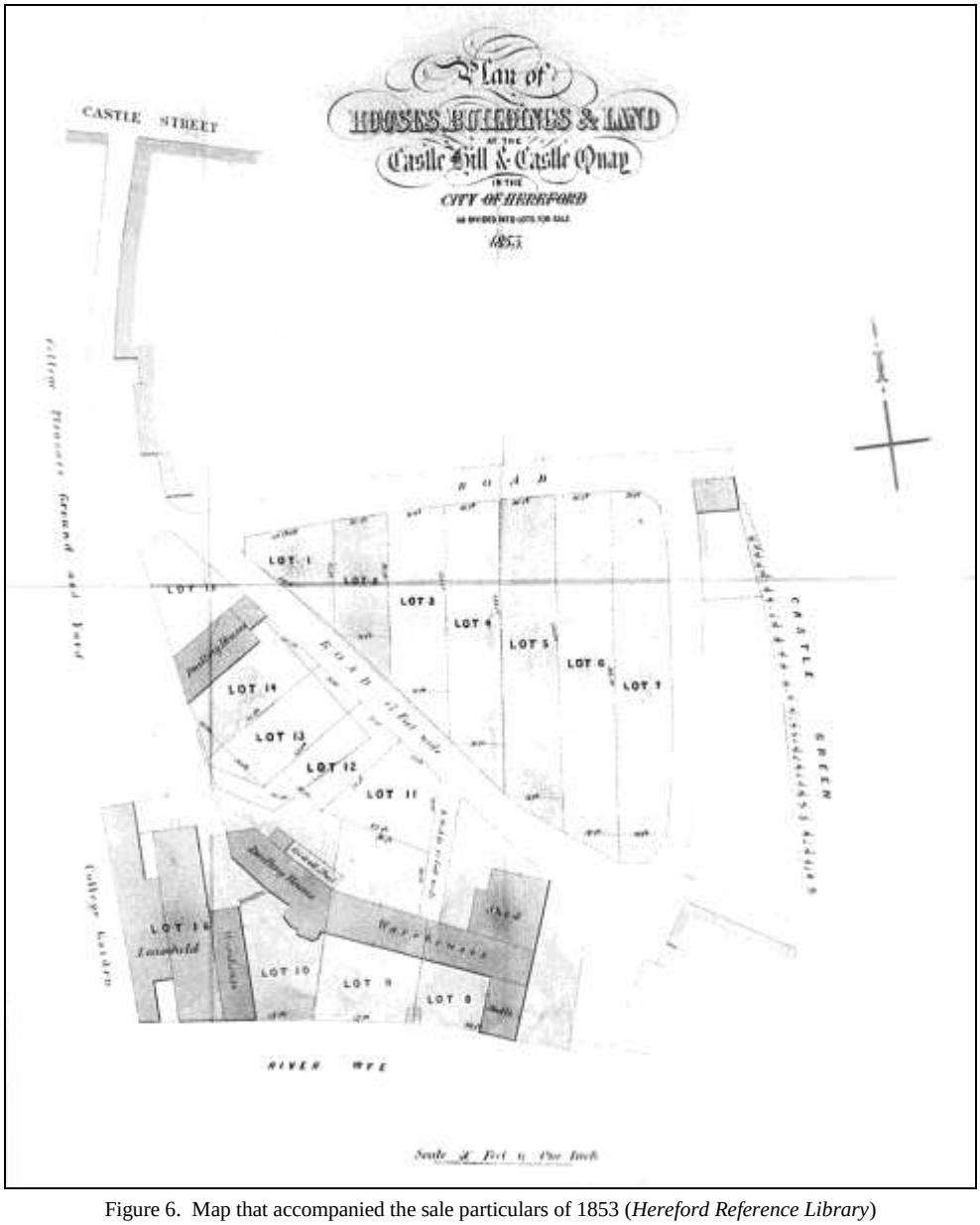

Figure 6. Map that accompanied the sale particulars of 1853 (*Hereford Reference Library*)

Meanwhile the wharf and the associated warehousing continued in use. Although it was leased by Joseph Trumper it was sublet by him to the bargemasters and in 1785 James Biss advertised that he was moving his business to the Castle Quay from a quay near to the Wye Bridge.[97] On 27 November 1796 the Common Council ordered that a view be taken of the Castle Wharf and premises then leased to Joseph Trumper, in order for a removal, but on 29 March 1797 the

Common Council ordered that his lease of Castle Wharf be renewed to him for 21 years at an entry fine of £300.[98] On 20 November 1800 Joseph Trumper's lease of the wharf was again renewed by the Mayor and Corporation, and on the same day the mayor, aldermen etc. granted him a licence to assign the lease to James Biss. A lease was granted to James Biss on 15 October 1807[99] but he died in 1813 and his business was carried on for a while by his widow Susannah.[100] An advertisement in the *Hereford Journal* of 23 April 1815 stated that she was then declining business in favour of Mr. Easton, but curiously enough her lease on the wharf was then renewed for 21 years, being dated 29 April 1815.[101] Clearly Susannah Biss then sublet the wharf to John Easton. However, in 1821 the freehold of the property was sold to Susannah Biss, who then promptly sold it on to Miss Dorothy Carless, although the mortgage was held by Susannah Biss. The complicated arrangements for the subsequent inheritance of the property made it inevitable that there would be difficulties and in 1852-3 it was the subject of a court case in Chancery. The upshot was that the property was offered for sale by auction on 8 December 1853, divided up into 16 lots, 15 of which were freehold, the other being buildings adjoining the College Garden which were leasehold from the Custos and Vicars Choral of the Cathedral.[102]

The land, which included the site of Castle Hill, was lotted into small plots for development.[103] The plan also shows that there was a terrace of three recently-built small cottages to the N. of the warehouses. These were occupied by William Pulling, Susannah Biss's son-in-law, as also was the site of the Castle Hill. The result of the auction was not reported in the local papers, and perhaps there was no interest as the next available information is a deed of 1856 conveying the freehold premises and assigning the leasehold premises from John Farmer to Richard Underwood, a solicitor in Castle Street.[104] Subsequently the site was developed, and Vaga House was built on the part of the site that was described in the sales particulars as '…one of the most eligible Building Sites in Hereford, the situation being sufficiently elevated to be out of the reach of floods; having a southern aspect to the Wye, and commanding a view of the beautiful and extensive scenery that is presented from the south walk of the Castle Green.' In 1861 Vaga House was occupied by Mary Morris, aged 53, a schoolmistress.

As for Castle Hill itself, or at least the site of it, this was not developed and in 1858 it was stated that:

> 'Another walk has been made on the site of the lower keep of the Castle, in the form of a semicircle, on which is a mound, called Castle Hill.'[105]

The layout of the gardens is shown on the first edition 1:500 OS map of 1886. It was later used as a nursery, and then in the late 1960s it was developed as Redcliffe Gardens, with a water feature fed by an overflow from Castle Pool, and a bandstand more or less on the site of the building demolished by Richard Stallard some three hundred years before. This landscaping was not successful—the bandstand tended to act as a focus for anti-social behaviour—and in the mid 1990s the bandstand was demolished and the rubble used to fill in the water feature, which was then grassed over.

The only other 20th century developments in the area has been the building of a bungalow across the other side of the road leading to the Castle Green, on the banks of the river, and the house called Athelstan on the corner of Quay Street and the drive leading to Vaga House, covering the site of the three small cottages.

CASTLE POOL AND THE FOSSE

The history of Castle Pool is not the same as that of the Castle Green but has been touched on above. In or about 1652 Mary Bosworth[106] leased part of a ditch belonging to the castle for 2s. 6d.[107] and this lease was recited in 1683 when Robert Dobyns Esq. was granted a lease of part of the moat, as was Sir Edward Harley.[108] Meanwhile, in 1674 Thomas Carpenter Esq. was granted a lease of the Castle Pool.[109] All that can be said for sure is that the Castle Pool and other surviving parts of the moat were let out, for what purpose is uncertain.[110]

Figure 7. An evocative view of The Fosse from the opposite end of Castle Pool. (*Author's Collection*)

When Castle Green and its appurtenances were leased out in the early 18th century, the Castle Pool was leased out separately, the surviving leases from 1714 onwards being granted by the Common Council of the city and not the Quarter Sessions. How this came about is not at present known.[111]

When Taylor's map was published in 1757 the shape of the Castle Pool (marked as 'Castle Moat', the mill pond to the E. being marked as 'Castle Pool') was more or less as it is today, except that it narrowed somewhat at the W. end and was fed from the E. by a branch off the mill pond which survived until the pond was filled in and the water supply culverted after the 1854 Improvement Act. By the time that Curley published his map in 1858 the Castle Pool was quite regular in shape, and this may have been done when the pool was cleaned out in 1824.

In the early 19th century there is an interesting entry in the records of the Quarter Sessions relating to an agreement between Thomas Bird, as Clerk of the Peace, and the Rev. Richard Prosser D.D., archdeacon of Durham, dated 29 July 1818

'Ordered that all that North part or side of the Castle Green in the City of Hereford facing

> the pool there from the West End of the said pool to the place called Hobb's Mount and 10 yards to the Eastward of Hobb's Mount and bounded on the West End by the Walk into the said Castle Green on the South Side by the Upper Gravel Walk in the said Castle Green and by a Mill pound on the East End and by the s^{d} pool on the North part thereof should be set to the s^{d} Rich^{d} Prosser for the term of 31 years commencing on the 14th Day of the present Month of July at the yrly Rent of 6^{d}.'[112]

Hobb's Mount is, of course, the NE. corner of the Castle Green, and is marked with this name on the first edition of the 1:500 OS (1886). It has later been called Hogg's Mount, but the reason for this change is not clear.

This lease did not affect the Castle Pool itself, and as has been discussed above, it was cleaned out in 1824. In the same year the *Hereford Journal* of 28 July reported:

> 'A plan of the intended cottage about to be erected in our Castle Green has been received from Mr. Smirke, and the building will be commenced as soon as a contract has been entered into.'[113]

'Mr. Smirke' was Robert Smirke, later Sir Robert, who had previously designed the Shire Hall, and the 'cottage' was the house that was later called The Fosse.

This cottage was also referred to in the report about the warm baths that appeared in the *Hereford Journal* of 25 August 1824 where there was mention of '…the cottage about to be placed in the Castle Green,…'. Whether the building was commenced immediately is not certain. When Wood's survey was published in 1836 it did not record any house in this position, only what appears to be the overflow from the Castle Pool. However, the survey marks the position of the warm baths at the SE. corner of the Castle Green, and so must have been carried out after 1829.

ST. ETHELBERT'S WELL

This is of considerable antiquity and is marked on Speed's map of 1610 as lying to the N. of the motte of the castle. According to John Leland this part of the castle was also surrounded by the moat, and so it is reasonable to assume that the well lay on the slightly higher ground to the N. of the castle ditch. Leland stated:

> 'The dungyn of the castel is hy and stronge, and in the dyke not far from yt is a fair spring cawlled S. Ethelbertes Well.'[114]

Clearly St. Ethelbert's Well was a landmark that would be recognised by the citizens in 1697, referred to by the Common Council of the city:[115] It was so notable that when William Stukeley visited Hereford in 1721 he sketched it. At that time the elaborate wellhead was partly buried in the ground, and an earlier sketch gives an indication of what it may have looked like. However, despite this elaborate feature it is not identifiable on Taylor's map of 1757. When Brayley's map was published in 1806 the layout of this area was much as given by Taylor, even the building encroaching on Castle Hill being still there, although the mound had vanished, having being finally cleared in the 1780s.

A map of 1802 clearly marks the position of St. Ethelbert's Well, showing that at that time it was within the boundary wall, with steps leading down to it.[116] At this period the site of St. Ethelbert's Well received the attention of the Paving Commissioners, and the accounts for the year ending 25 March 1813 record a payment of £65 to Mr. Thomas Cox for 'making Drain from St. Ethelbert's Well to the River Wye.'[117]

Wood's survey of the city of Hereford was published in 1836, and this shows that the boundaries were then as they are now, the intrusion onto the area of Castle Hill having been removed. Also that a well is clearly marked in a position which was blank in earlier maps, at the point where the present St. Ethelbert's well now is. The inference is that this was built into the wall in the first quarter of the 19th century but close to the original position of the well.

However, the original site of the well was not completely lost, and in 1911 Mrs. Leather stated that it had been cleaned out by Mrs. E. M. Underwood in 1904, when a number of pins were found.[118] It would seem that Mr. Cox's drain was not then working. In 1918 it was stated:

> 'A mutilated sculptured head of St. Ethelbert, part of an effigy which formerly stood at the west end of the Cathedral, is fixed above the well. A circular stone within the garden of Mr. Custos Eckett's house marks the exact spot of the spring.'[119]

Jakeman and Carver's Directory of 1914 shows that the Rev. R. Eckett, lived, not surprisingly, at St. Ethelbert's House, on the corner of Quay Street and Castle Hill.

NOTES AND REFERENCES

[1] Hereford Reference Library (HRL hereafter), Pilley 151, ff.11–24. The source is roundabout. Thomas Bird, the antiquarian, was Clerk of the Peace and abstracted information from records of the Quarter Sessions that are no longer in existence. He collected original deeds and other materials relating to the castle from various sources, and transcribed these, which are in his MSS *Herefordiana* Vol. III, 1827 in HRL. Walter Pilley later transcribed part of Thomas Bird's MSS, and this is Pilley 151. After the death of Thomas Bird the deeds themselves passed through various hands until they were purchased by Walter Pilley, and these are Pilley 2326 (HRL). While Pilley 151 has been used for convenience, the information therein has been cross-checked with the other sources.

[2] Roe, *Military Memoir of Colonel John Birch*, Printed for the Camden Society (1873), 31. In March 1646 Colonel Birch sent to the Committee of Hereford an account for £162 for fortifying and repairing the castle of Hereford. Historical Manuscripts Commission, 14th Report.

[3] *Op. cit.* in note 1, f47. The actual ownership of the castle is not clear. On the back of the deed of transfer was an endorsement, signed by Sir Robert Harley, which declared that upon the payment of £600 at 8% interest the premises should be for the use of the county. Because the money and interest had not been repaid, at the request of the Quarter Sessions, counsel's opinion was sought in February 1726. The Quarter Sessions received a report on the ownership of the Castle Green and appurtenances and decided that: 'This Court is fully of Opinion th[a]t the Right & Title thereof is vested in the present Earl of Oxford as heir to the surviving Trustee for the Use of the County.' Herefordshire Record Office (HRO hereafter), Q/SO/5, f165a. A letter was drafted by John Wainwright, legal adviser to Edward Harley, second earl of Oxford, and this stated that the money charged on the premises had not been repaid and continued: 'That as I have the right of my Father and Ancestors I have allsoe their regard and inclination for the Publick service of the County of Hereford and shall in any proper and reasonable method shew myself ready to prefer that to my private interest.' In other words, he was not pressing either to establish his title to the premises or for repayment. See *Trans. Woolhope Natur. Fld. Club* (*TWNFC* hereafter), 1954, 291–2 for a transcript of the documents. The accrued money still had not been repaid in 1742 and on 12 April 1742 it was calculated a total of £5,160 was owed to the estate. Eventually, in 1748 a draft deed was drawn up for the approval of Edward, 3rd Earl of Oxford and Mortimer, wiping out the debt. 'Now therefore this Ind^{e} Witnesseth that the s^{d} Edw^{d} Earl of Oxford and Mortimer for and in consideration of the great Regard and affection wch he beareth to and for his Native County the sd County of Hereford And for diverse [*sic*] other good Causes and Considerations him thereunto moving Doth hereby exonerate and discharge so far as in him it lyeth the said p[rem]ises and every part thereof from the said 600^{li} and all Interest due for the same or on account thereof…to the Intent that the s^{d} Castle Lnds & p[rem]ises being forever hereafter be & remain to & for the Publick use…' See Pilley 2326.

[4] *Op. cit.* in Note 2, 232–234.

[5] One of these has been identified as the chapel of St. Martin within the castle. See Shoesmith, R., *Excavations in Castle Green*, CBA Research Report 36 (1980), 5–6.

[6] Summarised from Duncumb, Rev. J.T., *Collections towards the History and Antiquities of the County of Hereford I* (1804), 286–288.

[7] Stallard's lease was said to have been made by Sir Robert Harley and Sir Bennett Hoskins, two of the Trustees, about five years after the property had been bought from Birch. *Op. cit*. in note 1, f49. The surviving Order Books of the Quarter Sessions begin in 1665.
[8] *Op. cit.* in note 1, ff49–50.
[9] Johnson, Richard, *The Ancient Customs of the City of Hereford*, (1882), 205–6.
[10] HRO, P73.
[11] *Op. cit* in note 1, f51. This is taken from an abstract entitled *Matters of Fact relating to the last Purchase of the Castle of Hereford*, the original of which is in HRL, PC 2326. Internal evidence proves that this abstract was compiled no earlier than 1670, but probably not long after. The two relevant sections are:
'Great part of the Stone of the Castle was also by Orders of Sessions disposed to the Colledg of Hereford to build their new Dining Hall and some to the Citty of Hereford to build the Tolsey.
The Gravell of the Castle Mound hath been disposed off by Orders of Sessions.'
It has been stated that these extracts were dated 1653 (*TWNFC* 1884, 162, and repeated many times since), but while this date appears on the abstract, it relates to earlier events and other circumstantial evidence puts the date of these events in the early 1660s. It is certainly true that the College Hall was rebuilt at about this time. The vicars choral were dispersed in 1645, and there is a gap in the College Act Books between 17 October 1645 and 28 March 1660, when they reassembled (Hereford Cathedral Library, 7003/1/2 & 3). Nor do any accounts survive for the period before March 1670 (7003/2/1/1). The Act Books are mainly concerned with the granting of leases and admissions to the college. However, on 24 January 1666/7 a lease of a house called The Starre was granted to Mr. Thomas Holmes '…his fine 5^{li}, & he to be at the charge of soe much lime as will be useful for the finishing of the inside of the Colledge new hall, & to bring it to the Colledge…' (7003/1/3 f21). There are relatively minor payments for work to the hall in the early 1670s, and the work on the hall seems to have been finished by 1676 as on 1 September in that year the Act Book records: 'Whereas Mr Humphrey Fisher Vicar of the Colledge of Hereford hath taken great care & paines in finishing the building of the hall belonging to the sd Colledge, & is thereby out of purse 4^{li} 13^{s}. Therefore wee the Custos & Vicars of the sd Colledge assembled in Chapter doe order th[a]t the sd Humphrey Fisher be repayd the sd sum of money by the stewards of the rents for the next yeare, & th[a]t he be returned the thanks of the house…' (Ref. 7003/1/3 f63). If the stone from the castle was reused in the rebuilding of the College Hall, then it would almost certainly have had to be reworked.
[12] See Sylvester's map, *TWNFC* (1884), opposite 162, where this information is given. The name has always been read as 'Holland', but is clearly 'Stallard'. See Smith, Brian, *Herefordshire Maps 1577 to 1800* (2004), 98.
[13] Stockinger, Victor Richard, *The Rivers Wye and Lugg Navigation. A Documentary History 1555–1951*. (1996), 61–76.
[14] *Op. cit.* in note 1, f5, also HRL, PC 2326.
[15] *Op. cit.* in note 13, 79.
[16] *Ibid.*, 88.
[17] Windsor Sandys may have maintained his connections with Hereford, as in 1668 a person with this unusual name was stated to have owned property in Hereford close to the Wye Bridge. *TWNFC* XXXII (1947), 170–1.
[18] Despite the several buildings leased by Stallard, the Hearth Tax Return of 1665 only records a single hearth under his name.
[19] *Op. cit*. in note 1, 51.
[20] The original map is in Pilley 2326. The version published in *TWNFC* (1884) opposite 162 is a facsimile of a copy of the original that is pasted in at the back of Pilley 180 in HRL. Reference to the original makes it clear that the word 'granary' is an addition in another hand. There was a joiner called John Sylvester who worked in Hereford at this period but it is not clear if he was the proponent of this scheme. HRO, F.C. Morgan's transcripts of Hereford Documents. 24–27, f289. In 1677 Captain Andrew Yarranton published his book *England's Improvement by Land and Sea*, and in this proposed, among other schemes, that linen weaving be established in Hereford, and that as a first step a granary be established to provide a ready supply of corn and malt for the public bake-houses and brew-houses that would be built to supply those who worked in the industry. The coincidence of date and proposals make some connection between Sylvester's map and Yarranton's proposals very likely.
[21] HRO, Q/SO/2 ff 97b, 98a, 121b, 227b.
[22] *Ibid.* ff156a, 159a.
[23] *Ibid.* f222b, Q/SO/3 f4a.
[24] HRO, Q/SO/3 ff60b, 86a, 93a.
[25] *Op. cit*. in note 13, 98.
[26] *Op. cit*. in note 1, f71.
[27] *Op. cit* in Note 21, ff23v., 89b–90a, 97b–98a, 121b–122a.

[28] *Op. cit* in Note 24, ff3b–4a; Q/SO/4 f120a.
[29] *Op. cit*. in note 1, unpaginated.
[30] It is stated in R. Shoesmith & R. Crosskey, 'Go to Gaol….In Hereford', *TWNFC* (1994), 108 that the House of Correction was moved in 1704. However, I have been unable to trace the source of this statement in either the minutes of the Common Council (HRO, HLC/A/1) or the minutes of the Quarter Sessions (HRO, Q/SM/5&6) which cover this period.
[31] HRO, Q/SM/5.
[32] HRO, Q/SO/4 f76a, also Q/SM/6 (unpaginated).
[33] HRO, Q/SM/6 (unpaginated).
[34] Johnson, R., *The Ancient Customs of the City of Hereford* (1882), 229.
[35] HRO, Q/SO/4, f95a.
[36] *Ibid*. f125a.
[37] *Ibid.* f165a.
[38] Collins Baker, C.I. & M.I., *James Brydges, First Duke of Chandos* (1949), 213.
[39] In HRL.
[40] HRO, Q/SO/6 f12a. There seems to be a mistake in the arithmetic.
[41] *Ibid*. f16a.
[42] *Ibid*. f147b, also *op. cit* in note 30, 108–9.
[43] *Op. cit.* in Note 40, ff129a, f193a.
[44] *TWNFC*, (1884), 164.
[45] HRL, Minute book of the Society of Tempers 1786–1831, HA 112/1. Quotations from this are given without further reference.
[46] HRL, Herefordshire Pamphlets Vol. 15.
[47] The landscaping is likely to have been extensive, and the relative thin covering of archaeological deposits in the Castle Green may be explained by the levelling of the Green. The surplus material could then have been used to build up the ramparts on the north and east sides of the green. Joseph Jones jun., writing in 1858, had no doubt about this building up of the ramparts, even if his interpretation of the source of the material is perhaps suspect. 'The site of the Castle, though now retaining the name of the Castle Hill, is much depressed in level, vast quantities of earth having been transferred to the eastern ward to raise the north and east walks of the Green.' Jones, Joseph jun., *Hereford Cathedral and City of Hereford. A Handbook* (1858), 85.
[48] WRO, BA 10470/2/294.
[49] *Hereford Journal* (*HJ* hereafter) 27 April 1775. Presumably the name given is a phonetic spelling of 'Greenhouse'.
[50] Johnson, R., *Ancient Customs of the City of Hereford* (1882), 235.
[51] *TWNFC*, (1957), 178.
[52] The ownership of the Castle Pool was claimed by the Common Council of the city, and is discussed below.
[53] In 1851 the green keeper was Richard Hill, aged 65, who had been born at Ashperton and lived with his wife and niece.
[54] Lascelle's *Directory of Herefordshire* (1851), 7.
[55] Collins, W.T., *Modern Hereford* Part II (1911), 110–111.
[56] Littlebury's *Directory of Herefordshire* (1867).
[57] HRO, HLC/Fg/1. Catalogued as the minutes of the Castle Green Committee 1872–6, these minutes cover the negotiations of a special committee for 1872–3 only, and the rest of the volume contains the minutes of the Railway Station Committee.
[58] Littlebury's *Directory of Herefordshire* (1876), also o*p. cit* in note 55, 112. Collins repeats a suggestion that the bullets were from guns discharged during the Civil War, conjuring up visions of either target practice or an execution. Contemporary photographs show sheep grazing on the Castle Green.
[59] *Ibid*.
[60] A post card in the writer's possession shows the bowling green being prepared for use, without a hedge or other boundary (Fig. 2).
[61] *Op. cit*. in note 55, 111. Clearly the Castle Green Reading Room and Baths Society was in existence by this time, although its surviving minute book (HRL, LC 367) only starts with a committee meeting on 27 September 1830. At that meeting it added the following rules to those already agreed:
'Any person countermanding a bath ½ an hour before the time it is ordered shall not be called upon to pay.
Any person producing a medical certificate countersigned by one of the Committee may have a bath on a Sunday.'
[62] The reading room seems to have been built about 1830. See letter by W.J. Humphrys in the *Hereford Times* of 27 March 1875. The warm baths are marked in approximately the correct position on the river bank in Wood's Survey of

Hereford, published in 1836, but there is no evidence of the reading room. Clearly the survey took place a number of years before it was published.

[63] This was normally referred to as the Hereford Philosophical Society, but its name is given in many different versions!

[64] The first President was the Very Rev. John Merewether, Dean of Hereford, who served from 1836 until 1842. A keen member was Richard Johnson, Town Clerk, and at the soirées in January and February 1845 he delivered a lecture on the Ancient Customs of the City of Hereford, published as a booklet later that year. He subsequently developed this into his well-known book, the first edition of which was published in 1868.

[65] Cassey's *Directory* (1858), 114 states: 'The MUSEUM, High-street contains numerous interesting objects; it is supported by subscription; being open on Wednesdays and Saturdays from 11 a.m. till 2 p.m; non-subscribers are charged sixpence each. Attached to it is a reading-room well supplied with papers; this is open from 8 a.m. till 10 p.m.'

[66] It is said that at a meeting of this society in the winter of 1851 the speaker, the Rev. W.S. Symonds, rector of Pendock, spoke of the success of the Cotteswold, Tyne-side, and Berwick Field Clubs in studying the fauna and flora of their respective districts and that this formed the initial impetus that led to the formation of the Woolhope Club, the first meeting of which was held on 13 April 1852, and the first Field Meeting on 18 May 1852. See *TWNFC* 1852–65, 1, 381. However, no record of this meeting has so far been found but the minutes of a meeting of the committee of the Philosophical Society held on 7 July 1851 show that at that meeting R.M. Lingwood Esqr. gave notice of his intention to withdraw from that Society at the expiration of that year. This suggests that something was afoot, as in 1852 R.M. Lingwood became the first President of the Woolhope Club. HRL, Minutes of Philosophical Society 1849–1858.

[67] In 1856 a proposal was made for the Woolhope Club to share the premises of the Philosophical Society in High Street. The Woolhope Club had begun to collect interesting specimens and wished to find somewhere to house them and so on 22 January 1856 a Museum committee was formed which conducted negotiations between the Club and the Philosophical Society. However, the Club considered the proposed rent of £15 to be too great, as the Club would also have to bear the greater part of the salary of a Curator, and after the Committee reported to a meeting on 16 September 1856 the matter was shelved. *TWNFC*, (1852–65), 168, also *TWNFC*, XXXIII (1949), 86.

[68] HRL, LC 367. Assuming that the lease was originally for a term of 99 years, this implies that it was granted in 1828, tying neatly with the opening of the baths in 1829.

[69] *TWNFC*, (1862), 283. The statement that the 'Hereford Literary and Philosophic Society' was absorbed into the Woolhope Club in 1852, made by William Collins in *Modern Hereford* Part II (1911), 111, and repeated *ad nauseam* by later writers, is clearly incorrect.

[70] Collins states (incorrectly) that the baths closed in 1860. There was clearly competition from the baths run by the Hereford Society for Aiding the Industrious, which opened hot baths at its premises in Bath Street in 1851, heated by waste steam from the mill engine. *TWNFC* XXXIX (1967), 467. Also *op. cit*. in note 55, 111.

[71] Summarised from letter in the *Hereford Times* of 24 March 1875. The sketch plans for the altered library premises are in the records of the Philosophical Society in Hereford Reference Library.

[72] *TWNFC*, XLVIII (1994), 108–9.

[73] These drawings were made as part of the proposals but became detached and are now in Hereford Reference Library. (Hereford Scraps II, f.53). Curiously, there was a Mr. Symonds at the Bridewell in 1784 *(HJ* 28 October 1784), but the draughtsman is almost certain to have been the Thomas Symonds who was Surveyor of the Cathedral Fabric from 1777 until 1786. He was asked to resign after the fall of the west tower of the cathedral in 1786. Aylmer, G, & Tiller J. (eds.), *Hereford Cathedral. A History*, (2000), 256–58.

[74] In the *Hereford Journal* on 14 January 1801 The Ship, a public house in Ross Road, 'late in the occupation of H. Hawkins' was advertised as being to let. Unless it is merely a coincidence of names, it seems that Henry Hawkins had more than one line of business.

[75] There was a coal wharf at Eign, where the Eign brook discharged into the river. The site was just below where the railway bridge crosses the river, and has now been developed for houses.

[76] *Castle Cliffe, Hereford*. Hereford Archaeology Series (HAS) 202 (May 1994).

[77] The Barlinghams or Barminghams were places on the river where the women of Hereford washed their clothes, the best-known being immediately above Wye Bridge on the south side. See *TWNFC*, (1944/5), 230.

[78] A perch was a measure of 30¼ square yards, so this piece of ground was estimated at 1210 square yards or a quarter of an acre.

[79] Price, J., *An Historical Account of the City of Hereford* (1796), 246. Although this survey is undated it must have been carried out at the same time as the main survey.

[80] *TWNFC*, (1918), 87.

[81] HRO, F.C. Morgan's transcripts of Hereford Documents. 24–27, f289 (upper).

[82] HRO, HLC A/1 Minutes of the Common Council 1693–1736 f43.

[83] *Ibid*. f44.
[84] *Ibid*. f156.
[85] *Ibid*. f45.
[86] In HRL maps collection.
[87] HRO, GH 1/181.
[88] HRO, Minutes of the Quarter Sessions 1719–1728 Q/SM/8 (unpaginated).
[89] HRO, GH 1/146.
[90] HRO, HLC/A/1, f606.
[91] HRO, GH1/147–156.
[92] This was to take the overflow from Castle Pool and not to drain it dry.
[93] *Op. cit*. in note 55, 15. The spelling 'rubbage' for 'rubbish' is a phonetic spelling of the local pronunciation.
[94] In 1801 it was said that 'it has not been reduced & levelled more than 12 or 15 years.' Pilley 151, unpaginated. Clearly this would have taken place after 1786.
[95] HRO, HLC/A/4. The date of 13 August given in Collins, William *Modern Hereford* Part II (1911), 9, is incorrect. The Dean and Chapter were evidently trying to take advantage of the fact that the mound had been cleared.
[96] *Op cit*. in note 1, unpaginated. The opinion was dated 9 July 1801. It seems more likely that the Common Council had no leases to produce, and covered this by a simple refusal to co-operate, covered by a decision made at a meeting of the Common Council on 19 January 1801.
'Ord[d] That the Town Clerk of this City do write to the Clerk of the peace for the County of Hereford on the subject of an Order made at their last Mich[aelm]as Quarter Sessions respecting their Claim to the Castle Hill, That this House consider themselves as the Guardians of the Rights and privileges of this City & its possessions and that consistent with such Trust and their Duty they are of the opinion they cannot with propriety enter into any Disclosure of their Title thereto which they think themselves bound to protect and defend.'
HRO, HLC/A/6, unpaginated.
[97] *HJ* 17 November 1785.
[98] *Op. cit*. in note 55, 12.
[99] HRO, GH 1/157, 158
[100] Two trows, *Friends* and *Prudence*, were transferred to the ownership of Susannah Biss. G. Farr, *Chepstow Ships* (1954), 70–1.
[101] The Corporation attempted to sell the freehold of the Castle Wharf by auction on 10 December 1816. The description given on a broadsheet advertising the sale states (incorrectly) that Susannah Biss's lease had eighteen and a half years out of twenty-one still to run. MS notes on the back of the broadsheet (in HRL) state that the property was put up for sale at £800 but no bids were received.
[102] On 4 February 1779 a house was advertised in the *Hereford Journal* as being to let, and the advertisement concluded:
Also to be SOLD A large Brick Building (held under the College), consisting of a Stable, Hay-loft, Cyder-house, and a Granary; situated on the Castle-Wharf.

(*Drawing of a hand*) Inquire of Mr. William Symonds.

This clearly refers to these premises.
[103] Sale details are in HRL.
[104] The bundle of deeds of Castle Quay for 1800 – 1856 are in HRO, AE38/11.
[105] Cassey's *History, Topography and Directory of Herefordshire* (1858), 111.
[106] It seems that Mary Bosworth lived in Castle Street, for at a View of Frank Pledge held on 20 October 1662 presented 'Mrs. Boswort widow for making a sawpit in the Castle stret and leaveing it open to the danger of Children and others.' HRO, F.C. Morgan's Transcripts of Hereford Documents 25, xxvi iii v iv. She was almost certainly the widow of Roger Bosworth, described as a popular physician of Hereford, and a supporter of the Parliamentarian cause. He was a Sequestration Commissioner for Hereford, M.P. for Hereford from January to April 1659, and from April 1660 until his death in November 1660. Clearly he was a man of substance. For details of his career see Williams, W.R., *The Parliamentary History of the County of Hereford* (1896), 91. In the Hearth Tax Returns of Michaelmas 1665 Mrs. Mary Bosworth paid tax on 10 hearths, implying a very substantial dwelling. A clue to where she lived may be found in Sylvester's plan of 1677 where what is now called Hogg's Mount is marked as 'the mount next Mrs. Bosworth'. This, together with the fact that she leased part of the moat, suggests that her house was in the vicinity of what is now called Castle House. She was buried in the north Transept of the Cathedral. See Havergal, Rev. H.T., *Monumental Inscriptions of the Cathedral Church of Hereford* (1881), 21. Thanks to Mrs. Rosalind Caird for this latter reference.

[107] *Op. cit*. in note 1. f49.
[108] *Op. cit* in note 21, ff176, 181b. Sir Edward Harley was one of the Trustees.
[109] *Ibid*., ff15b, 20a.
[110] This would not have included the mill pond on the east side of the castle—see Eisel, J.C., 'The Castle Mills', *TWNFC* (2000), 58–67.
[111] A series of leases survive for a quarter acre garden plot on the north side of Castle Street and the 'Fishpond or pool known as the Castle Pool'. The entry fine varied considerably, but the annual rent was constant at 2s. The first of these leases is dated 24 December 1714 and is a lease for three lives to the Earl of Carnarvon, the other two lives being those of his two sons. The next lease is to Timothy 'Geer', and is dated 25 September 1745. Most of the subsequent leases, starting with one of 1776 to Francis Woodhouse, seem to be related to the Society of Tempers. The final lease in the series was to Ann Cam, and is dated 20 August 1813. HRO, GH/1/160–171.
[112] HRO, Q/CM/2.
[113] Various plans by Smirke are held in the Royal Institute of British Architects (RIBA) Drawings Collection but none of this building. Letter dated 9 September 2002, Natasha Whiteley, RIBA Library and Information Centre.
[114] Leland, John, *Itinerary* ed. Smith, L. T., Vol III (1906), 47.
[115] *Op. cit*. in note 82, f45.
[116] HRO, GH1/182.
[117] HRL, Herefordshire Pamphlets Vol. 34.
[118] *Folk Lore of Herefordshire*, 1911, 12.
[119] *TWNFC*, (1918), 87.

Friendly Opponents: Herefordshire and the 1892 Birmingham Corporation Water Bill

By L.W. JONES

It is now over one hundred years since the passing through parliament of the Birmingham corporation water act, the legislation under which water was brought to the midland city from the Elan valley in Wales. The citizens of Birmingham have enjoyed the benefits of this soft, excellent Welsh water since the opening of the completed dams in 1904. What has been largely forgotten, however, is that, at first, Birmingham's Welsh water scheme met with opposition from down river, and particularly from Herefordshire.

Hereford's opposition to Birmingham was very different from that of Welsh nationalists and the London county council. From these sources came a deep resentment at what was seen as a pre-emptive strike by Birmingham city council. Such opposition was more vaguely formulated, but much less sympathetic, than that from Herefordshire. The Herefordshire opponents, like Welsh interests in and near the catchment area, were usually reasonable and pragmatic. They were alert and judicious in the protection of their own interests, but generally well-disposed to the needs of Birmingham. They saw little reason to spend money on opposition when collaboration and agreement could be secured. Therefore, despite differences, for the last century the people of Birmingham have had good reason to thank their western neighbours for their friendly and constructive approach.

The course of events can be briefly summarised. The deposition of the Birmingham corporation water bill was first officially reported to Hereford town council in early December 1891.[1] On 30 December 1891 the Wye conservators unanimously agreed to oppose Birmingham's bill.[2] On 9 January 1892 the county council appointed a committee to investigate the bill and to oppose it if necessary.[3] In early February 1892 the town council asked its waterworks and lighting committee to petition against the bill and to report again to the whole council as soon as possible.[4] At this meeting, held on 1 March 1892, it was announced that a petition against the Bill had been lodged.[5] By early March the county council had joined the petitioners against the bill. On 9 March 1892 the Wye board of conservators agreed to call a joint meeting of local opponents for 17 March.[6] On 12 March the county council agreed to attend. A special meeting of the town council on 18 March sanctioned the use of ratepayers' money to oppose the bill.[7] On 8 April 1892 a public meeting of ratepayers unanimously supported the town council's opposition to Birmingham.[8] The next day the county council agreed to spend money for the purpose of opposing the bill.[9]

Meanwhile, Hereford's interests were also being protected by its representatives at Westminster. In the House of Commons, on 8 March 1892, at the time of the bill's second reading, Sir Joseph Bailey, the M.P. for Hereford, seconded an unsuccessful motion from Wales to delay the measure for six months.[10] In early March 1892 Sir Henry James, an M.P. who had 'a long-standing connection with Hereford' threatened to demand 'provisions for preserving the substantial use and enjoyment to the public of those waters, and other rivers affected by the bill, to the same extent and in like manner as if the measure were not passed, or a full equivalent of such enjoyment.'[11] In the event, however, 'after some explanation on the part of the promoters Sir Henry withdrew his threat.'[12]

In Herefordshire there was little articulated opposition towards the 1892 Birmingham corporation water bill. 'A Welshman' admitted to having written to the press 'somewhat warmly' on the subject, but, for his pains, he was immediately taken to task by another reader.[13] A London correspondent warned of 'serious danger.'[14] But when the two local newspapers belatedly attempted to drum up a story their editorial hostility found but a single echo in their letters columns.[15]

In contrast, there were several expressions of good will towards the midland city. According to one aged ratepayer, the scheme was likely to be as 'harmless' to Herefordshire as it was 'beneficial to Birmingham.'[16] 'What did it matter to them?' another of Birmingham's friends asked the county council,[17] adding later that the council was 'not interested in opposing the bill' as long as their legitimate interests were met.[18] The council's chairman also hinted that the county might be willing 'to let the people of Birmingham have what they require' provided that the needs of Herefordshire were also met.[19] Naturally enough, the debate contained proud references to the need to protect 'the river Wye...the beauty of the district.' But even these tended to be tempered with more hard headed considerations, such as the part played by the river in attracting 'rich residents...and many tourists.[20] When a speaker asked the county council to support Hereford, 'their grand old mother city,' he was met with 'laughter' from colleagues who clearly thought his sentimentality excessive.[21]

There was thus a general desire for an 'arrangement with the Birmingham corporation'[22] and the chairman of the county council declared that the necessity to keep their options open was 'the only reason' for petitioning against the bill.[23] It was recognised that 'the Birmingham...council was a rich and powerful body'[24] and that opposition would be 'heavily handicapped' by Birmingham's 'monetary influence.'[25] The avoidance of 'any large expenditure' was also a major objective of both the town and the county council, with the latter body attempting to put a £100 limit on its opposition. In the opinion of one county councillor, even that amount would have been better spent on the construction of a local bridge.[26] There was thus a widespread desire to 'share the expense' of opposition with others, such as the county councils of Monmouthshire and Breconshire.[27] The town council's waterworks and lighting committee was also careful not to retain the services of a consultant engineer without the consent of the full council.[28] When the final bill came through, the county council prudently refused to pay part of it until it had been revised.[29]

Fishing interests on the Wye petitioned against the Birmingham corporation water bill in February 1892 and were joined by the Wye conservators in March.[30] Soon the objectors gained a powerful ally in the board of trade in whose opinion 'insufficient provision is made...for the protection of...fishery interests.'[31]

By April the Wye conservators, satisfied with concessions made by Birmingham, asserted that they would be content with 'mere money compensation.'[32] In May, however, fishery owners on the Wye began an opposition, alleging that rod fishing would be badly affected.[33]

Soon the Herefordshire opponents had settled the matter to their satisfaction. In April, Martineau, the chairman of Birmingham corporation's water committee, agreed to provide a fund to replace lost spawning grounds, and the sum of £7,500 was eventually agreed for this and similar improvement purposes.[34] By the end of May most other local objections had been amicably resolved.[35] By June the Wye conservators were petitioning the House of Lords to 'be heard against any alteration' in a bill with which they were by then satisfied, and soon all other local opposition had been similarly withdrawn.[36]

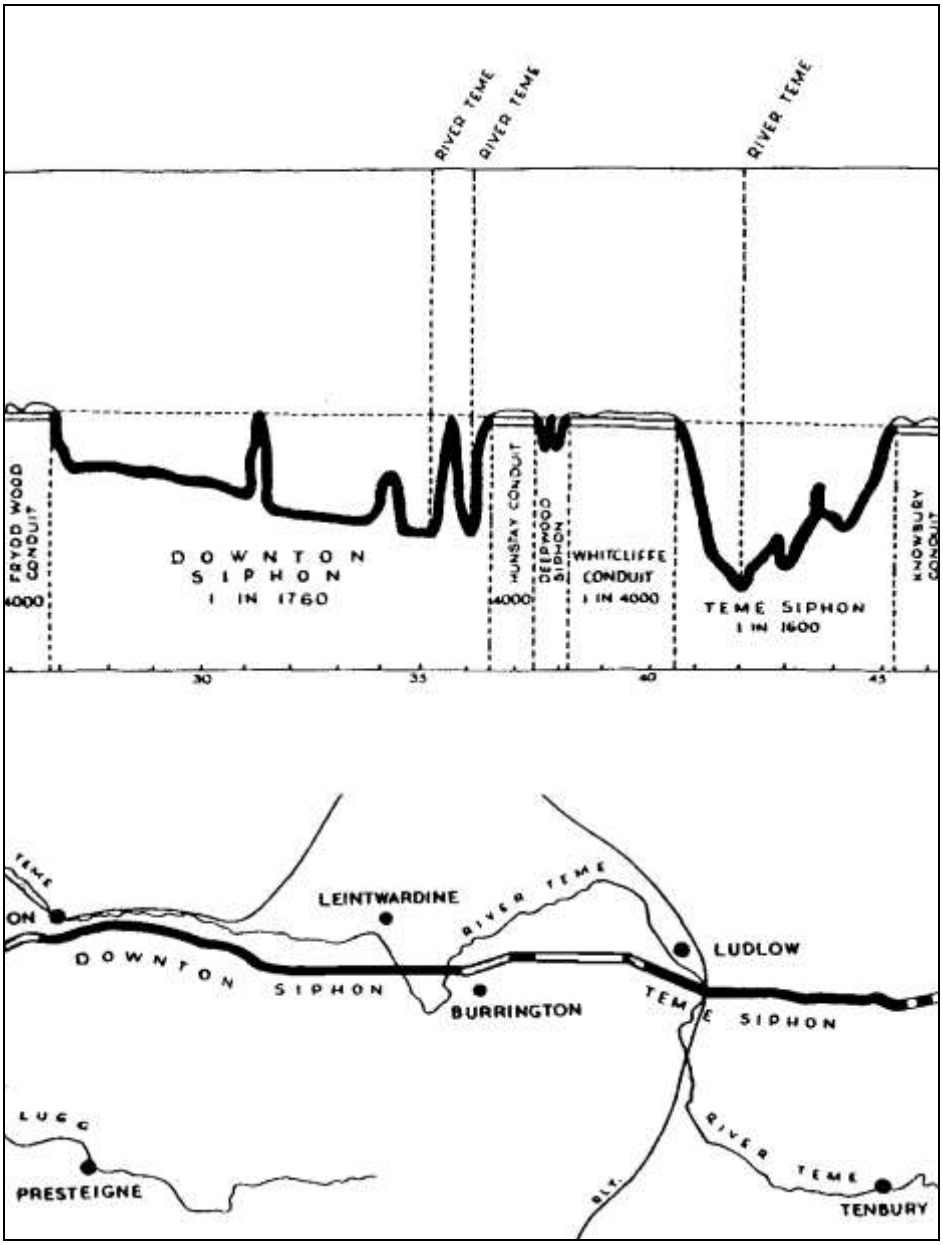

Figure 1. Plan showing path of aqueduct through Herefordshire

The debate on the fisheries question in Herefordshire, like the discussion of the other aspects of the Birmingham corporation water bill of 1892, was somewhat muted. In their petition to parliament

against the bill the Wye conservators argued that the fisheries would be seriously injured 'by diminishing the supply of fish' from the spawning grounds on the Elan and Claerwen rivers. One of the conservators, the Rev. G.H. Cornewall, declared that 'the scheme would be exceedingly detrimental to the Wye and its fisheries.[37] There was also a 'strong protest' from one fishery owner reported to the county council.[38]

But, again, there was only one letter to the press on the subject, and that was on the mechanics of how to control the entry and exit of the salmon from the lakes behind Birmingham's proposed dams.[39] There was also an intervention from the political left, with councillor Hawkins telling the county council that 'the working class...derived very little benefit...from the fisheries', and councillor Corner adding that 'the poor people' of Herefordshire did not eat the fish from the river, but 'herrings, bloaters and mackerel.'[40] The opinion was also expressed on several occasions that this was a problem for the fisheries owners, and that the ratepayers should not 'put their fingers in their pockets to stop the bill in the interests of other people.'[41]

The essentially pragmatic attitude of the Hereford opponents can be seen too in their ultimate acceptance of the proposal in the bill that places within fifteen miles of Birmingham's aqueduct should have the right to purchase water from it. At first both Hereford county council and the Wye conservators petitioned against this and later the county council's chairman objected to the 'bartering away' of water.[42] The issue generated no press correspondence, however, except for one writer to the *Hereford Journal* who complained about the prospect of water meant for the Wye being used to supply 'the whole of the Black Country.'[43]

A major demand of Wye fishery interests, and of the town of Hereford, was that an adequate amount of compensation water should be regularly discharged from the Elan dams. For alderman Beddoe, indeed, the chairman of Hereford town council's waterworks and lighting committee, this was 'the principal matter.'[44]

Eventually an increase in the amount of compensation water from 22.5 to 27 million gallons a day was secured. According to Mansergh, the engineer retained by Birmingham to build the dams, 'the "compensation water" amounts to about one-fourth of the total collectable quantity, and this "fourth" is now becoming the recognised proportion in rivers whose waters are not used for manufacturing purposes.'[45] The county council, however, was advised that two-thirds was to be taken, which their chairman argued was double the proper amount.[46] Amid such discrepancies it is perhaps no surprise that alderman Beddoe, pragmatic as ever, should point to the need for 'some automatic appliance' to monitor compensation amounts accurately.[47]

According to Birmingham's alderman Barclay, 'all that we ask for (is) the unused storm water of the uplands.'[48] However, what if there were no storms, but a drought? According to Mansergh, 'In ordinary dry summers the total flow of the Elan...will be under six million gallons a day, so that at such times the compensation water will be nearly four times the volume of the natural stream....In years like 1887 (when the drought was exceptionally severe) the flow...will fall very much below six millions, probably to something like half that volume....In such times the compensation water would be nine times the natural flow.'[49] 'Therefore', argued Mansergh, 'if we give out as compensation water 22 million gallons a day we are doing good to the river. ...We shall mitigate floods to some extent from that area, and increase the dry weather flow most materially.'[50]

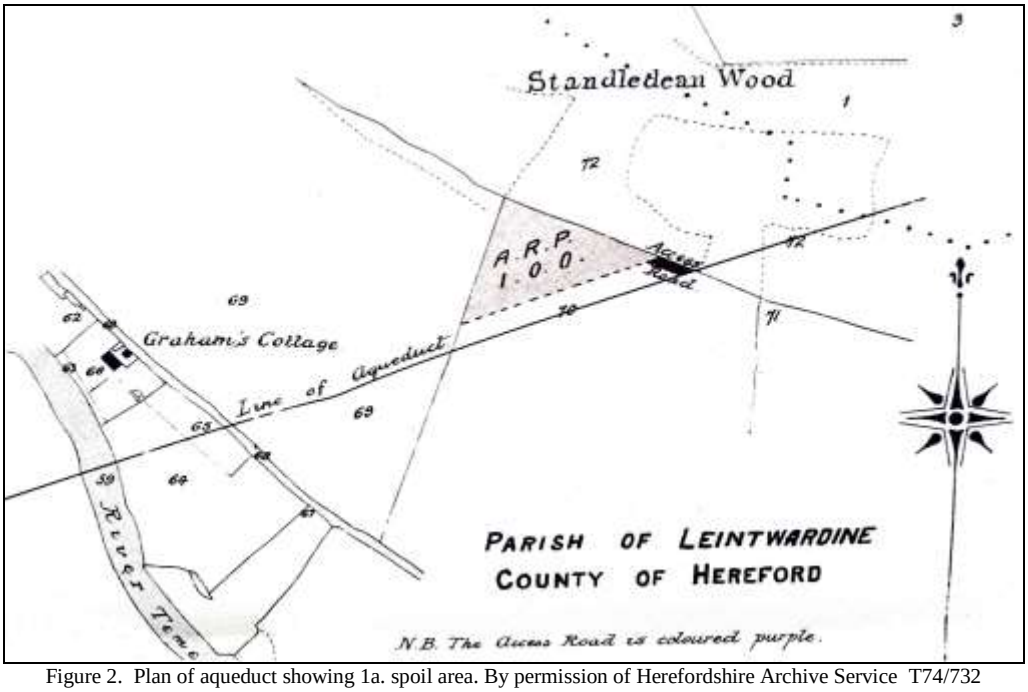

Figure 2. Plan of aqueduct showing 1a. spoil area. By permission of Herefordshire Archive Service T74/732

Figure 3. 1995 Aerial photo of Graham's Cottage showing aqueduct and triangular spoil area ©CPAT 95-MB-0847

Eventually, an outcome acceptable to the Herefordshire opposition was arrived at. Twenty-seven million gallons a day were to be discharged into the Wye from Birmingham's Welsh dams. In addition, 'for a period not exceeding twenty-one days, on receipt of notice from the Wye

conservators, five million gallons a day might be kept back to be discharged with the daily allowance in a regular stream during forty-eight hours, thus creating a little "spate" in the river.'[51]

An interesting postscript to the question of compensation water occurred in 1904-5, when the Birmingham corporation planned to ask parliament to allow them to cut it from 27 to 20 million gallons a day. At first the Wye conservators agreed to this in exchange for compensation of £8,000. Local interests, however, rose in vociferous opposition and consent was rapidly withdrawn.[52] Clearly, some people in Herefordshire, having witnessed the negotiation of what they considered a fair agreement, were in no mood to see it broken, and the great city of Birmingham was forced to accede to their wishes.

Finally, there was concern in Herefordshire at various other aspects of the Birmingham corporation water bill of 1892, but no extended local debate on any of them. There was, for example, a general wish to avoid pollution from the building works.[53] More specifically, both the county and the town councils petitioned against the continuation of lead washing in the Elan valley by a small mining company until the required safety assurances were received.[54] In the north of the county there was a fear that the laying of pipes would 'greatly affect the roads in the Burrington district,' and, in the same area, people were reportedly worried about possible flooding arising from temporarily diverting water from the Elan valley into the Teme.[55] The *Hereford Times*, however, was unsuccessful when it tried to raise apprehensions about the dangers of holding enormous quantities of water behind dam walls.[56] A final demand, that Birmingham should pay for any damage arising from burst pipes, was satisfactorily met by the bill's promoters.[57]

In summary, therefore, the people of Herefordshire, in considering the 1892 Birmingham corporation water bill, tempered a co-operative and generous altruism with a shrewd and effective defence of their own interests. In the end the Wye was defended and Birmingham got its water. Today, a later generation in both Herefordshire and Birmingham has good reason to be grateful to them.[58]

REFERENCES

Figure 1 is reproduced from *City of Birmingham Waterworks: A Short History of the Development of the Undertaking, with a Description of the Existing Work and Sources of Supply*. by James Upton Limited, Birmingham. No date.

[1] *Hereford Times*, 5 December 1891.
[2] *Hereford Journal*, 2 January 1892.
[3] *Id.*, 16 January 1892.
[4] *Hereford Times*, 6 February 1892.
[5] *Hereford Journal*, 5 March 1892.
[6] *Id.*, 12 March 1892.
[7] *Id.*, 19 March 1892.
[8] *Id.*, 9 April 1892.
[9] *Id.*, 16 April 1892.
[10] *Birmingham Mail*, 9 March 1892. In the Elan Valley, Sir Joseph Bailey had leased the mining rights under 1,200 acres of land to a Lead Mining Company. In July 1892, Birmingham's Water Committee reported that 'the whole of his manorial and other interests, extending over about 10,000 acres, in the lands within the watershed, were purchased.' Birmingham Water Committee Minute 4452, Birmingham Reference Library.
[11] *Birmingham Mail*, 9 March 1892.
[12] Birmingham Water Committee Minute 4452, Birmingham Reference Library.
[13] *Hereford Times*, 9 January 1892.
[14] *Id.*, 23 April 1892.
[15] *Id.*, 12 March 1892; *Hereford Journal*, 12 February 1892.
[16] *Hereford Times*, 12 December 1892.
[17] *Id.*, 19 March 1892.

[18] *Id.*, 16 April 1892.
[19] *Id.*, 9 April 1892.
[20] *Id.*, 19 March 1892.
[21] *Id.*, 9 April 1892.
[22] Id., 6 February 1892.
[23] *Id.*, 19 March 1892.
[24] *Id.*, 9 April 1892.
[25] *Hereford Journal*, 12 February 1892.
[26] *Hereford Times*, 9 and 16 April 1892. The final cost to the Town Council of its opposition to Birmingham, however, was £1,311 3s. 2d. See Hereford Town Council, Waterworks and Lighting Committee, Minute 251, Herefordshire Record Office.
[27] *Hereford Times*, 12 March 1892.
[28] *Id.*, 6 February 1892.
[29] Herefordshire County Council, Reports adopted by Council, 29 September 1892, Herefordshire Record Office.
[30] *Birmingham Mail*, 26 February and 10 March 1892.
[31] *Id.*, 31 March 1892. For a copy of the Board of Trade's Report, see Water Bills, Copy of the Report by the Board of Trade upon the Birmingham Corporation Water Bill, (1892), Birmingham Reference Library.
[32] Minutes of Speeches and Evidence on the Birmingham Corporation Water Bill, (1892), House of Commons, 6 April 1892, Birmingham Reference Library.
[33] *Loc. cit.* in note 12.
[34] *Op. cit.* in note 32, House of Commons, 1 April 1892; *Birmingham Post*, 27 July 1892.
[35] *Op. cit.* in note 32, House of Commons, 19 May 1892.
[36] *Op. cit.* in note 32, House of Lords, 13 June 1892; *loc. cit.* in note 12.
[37] *Hereford Times*, 12 March 1892.
[38] *Id.*, 19 March 1892.
[39] *Hereford Journal*, 12 March 1892.
[40] *Hereford Times*, 19 March and 16 April 1892.
[41] *Id.*, 19 March 1892.
[42] *Id.*, 12 March and 16 April 1892.
[43] *Hereford Journal*, 5 March 1892.
[44] *Hereford Times*, 6 February 1892.
[45] Birmingham Corporation Water, In Parliament Session 1891, Reprint of Proof of Evidence by J. Mansergh in Support of the Bill, (1897), 52–3, Birmingham Reference Library.
[46] *Hereford Times*, 9 April 1892.
[47] *Hereford Journal*, 6 February 1892.
[48] Barclay, (Sir) T., *The Future Water Supply of Birmingham (Elan Valley Scheme): A Lecture*, second edition, (1892), 20, Birmingham Reference Library.
[49] Mansergh, *op. cit.* in note 45, 28–29. A footnote added later by Mansergh claims that "since we have been at work in the valley, the flow has fallen to under four million gallons a day." For other estimates of the dry weather flow see Woolhope Naturalists' Field Club Second Field Meeting, Tuesday June 23rd 1896, Visit to the Works of the proposed Birmingham Water Supply from the Elan Valley in Wales, 152. There is a copy of this in Birmingham Reference Library. See also City of Birmingham Water Department, *A Short History of the Development of the Undertaking, with a Description of the Existing Sources of Supply*, (1926), 9, Birmingham Reference Library.
[50] *Op. cit.* in note 32, House of Commons, 4 April 1892.
[51] *Birmingham Mail*, 18 May 1892. For an account of the provision for "spates" see also Woolhope Naturalists, *loc. cit.* in note 49.
[52] *Birmingham Post*, 2 January 1905 and *Western Mail*, 2 January 1905 and 6 February 1905 in Newspaper Cuttings (re Elan Valley Waterworks), part of MS 944, vol. 2, 155–170, Archive Dept., City of Birmingham Reference Library.
[53] *Hereford Times*, 19 March 1892.
[54] *Id.*, 12 March 1892.
[55] *Id.*, 16 April 1892.
[56] *Id.*, 16 April 1892.
[57] *Id.*, 19 March 1892 and *op. cit.* in note 29, 20 February 1892.
[58] For a more general treatment of the passage of the Birmingham Corporation Water Bill of 1892 see ch. 2 of L.W. Jones, *Birmingham Community Power Around 1900: A Study of Decision-Making*, M.Phil. thesis, University of London, 1992.

Hall Wood, Much Marcle, Herefordshire: Aspects of the History and Ecology of an Ancient Semi-Natural Woodland

By TIM BARFIELD *with* OLIVE BENNEWITH

Ancient woods are defined by ecologists as those sites that have had continuous woodland cover since at least 1600 A.D. and only been cleared for underwood, coppice, or timber production. 'Ancient semi-natural' covers all ancient woods which do not obviously originate from planting. It is these woodlands which are generally of greatest value for nature conservation and they can be of particular local historical interest. The relationship between the history and ecology of ancient woodlands can provide fascinating ground for study and one such account for a particular Herefordshire woodland considered to be noteworthy in this respect is given here.

BACKGROUND

The subject of this account, Hall Wood, is to be found tucked away in the eastern corner of the parish of Much Marcle (at GR SO 673 333), and lies at the eastern edge of the Woolhope Dome. It is the only area of ancient semi-natural woodland remaining in the parish (Fig. 1), and although situated in Herefordshire, is more closely associated with the small hamlet of Hallwood Green which lies immediately across the county boundary in Gloucestershire.

The study site totals approximately 23 hectares, a moderate area compared with many other ancient semi-natural woods in the county, and comprises two parts: Hall Wood forming the main, and Little Hall Wood which is a spur in the lower SE corner narrowly separated from the adjoining woodland of Yewtree Coppice and Stone Redding. In this account 'Hall Wood' will refer to both Hall Wood and Little Hall Wood. The woodlands are a Site of Special Scientific Interest (SSSI) and in private ownership.

TRACING THE HISTORY OF HALL WOOD

Initial Clues to its Ancient Status

Work by woodland ecologists has shown that clues to the historical status of woodlands can be gained initially from relatively simple evidence, using characteristics such as name, situation, shape and certain physical features such as earthworks. [1]

Many ancient woods bear the name of an associated place of habitation or of some local ancient feature. Hall Wood, for example, lies immediately next to the hamlet of Hallwood Green which contains the venerable building of Green Farm dating from the beginning of the 16th century which was originally built for a member of the Walwyn family from nearby Hellens in Much Marcle.[2] The hamlet may be of medieval or pre-medieval origin, and the implication from its name is that Hall Wood predates it. However, it is unwise to presume too much from this alone as reference to documentation from the l8th century reveals that the present day Hallwood Green was then known as Holly's Green. It may be more fruitful instead to investigate the nearby estate of Hellens which has a history dating back before the 13th

century.[3] The focus of the estate is Hellens, which is in view of the south-western edge of Hall Wood, and it is reasonable to infer that the wood was named after this building.

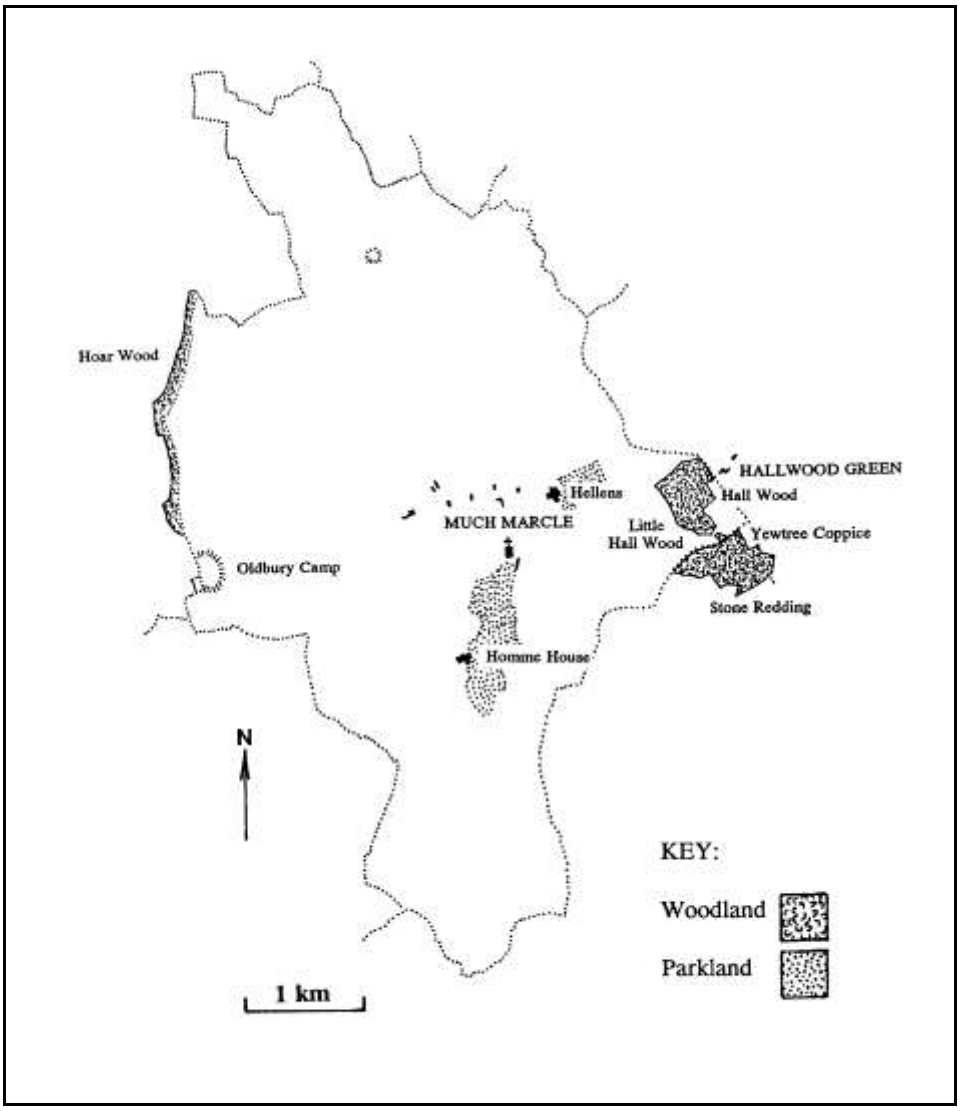

Figure 1. Position of Hall Wood and Little Hall Wood in the parish of Much Marcle

Consideration of the etymological basis of the village name of Marcle as in Much Marcle and the adjoining parish of Little Marcle may have some relevance here. This is of Old English derivation comprising '*mearc-leah*' meaning boundary wood.[4] No such woodland now remains in Little Marcle Parish, but it is tempting to speculate that for Much Marcle it might allude to the site of Hall Wood, which is situated along the parish boundary. However caution

is needed here, as the parish is likely to have been considerably more wooded when the village was originally named. For example as late as the l8th century the historian Blount who visited Hellens remarked that it was '...in a place from the town (Marcle) now overgrown with woods.'

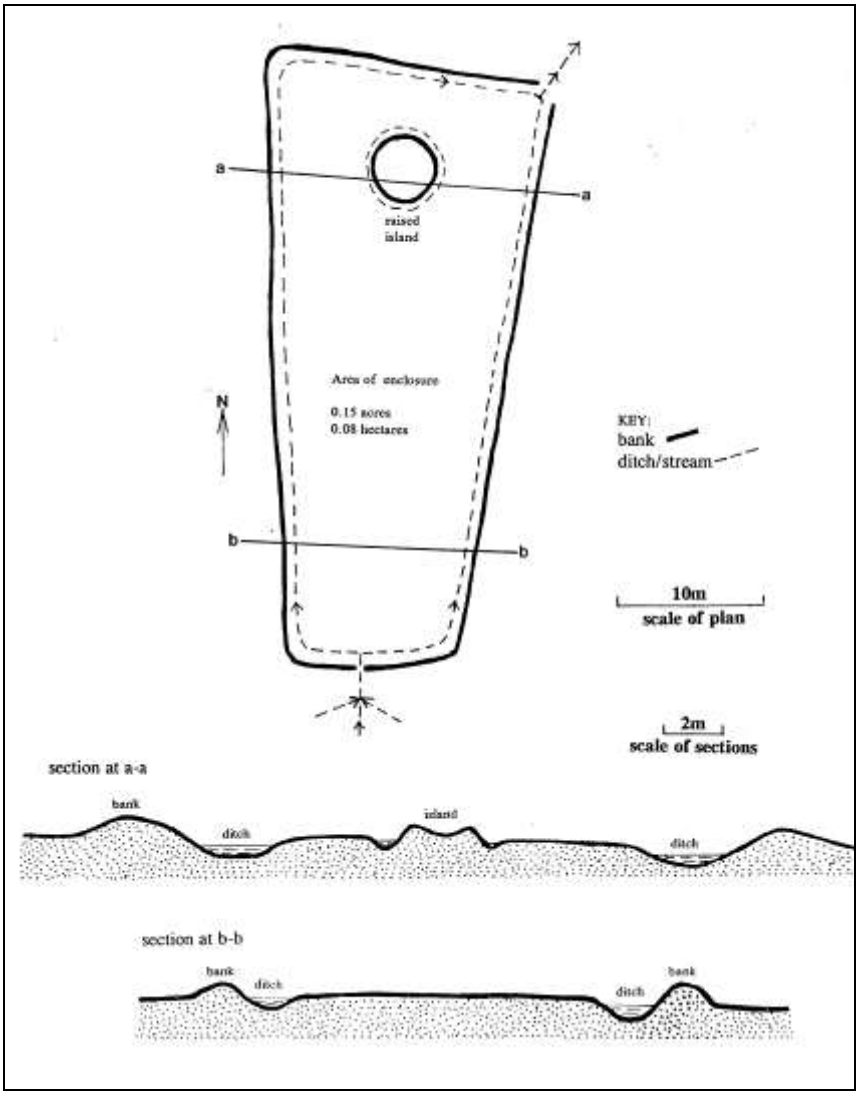

Figure 2. Diagram and section across the moated enclosure situated in Hall Wood

As regards siting, Hall Wood lies in an extreme corner of the parish relatively remote from the village centre, which is often a characteristic location of ancient woodland sites. The eastern side has a distinct zig-zag boundary, which in part may have been due to paring back of the wood to provide additional land to establish Hallwood Green. Hall Wood contains a variety of

associated bank and ditch systems of historical interest. These originally served as woodland boundary features and can date back to the middle ages. The oldest generally tend to be of relatively large size, whilst later earthworks become progressively smaller with more acute outlines.

Earthwork features at Hall Wood have been described by members of the natural history section of the Woolhope Club. The best developed examples can be seen from the track and paths which circumscribe the southern and western sides, where banks may approach 6 feet in height. Documentation referring to ditches in Hall Wood has been found dating back to the 16th century and is discussed later.

An unusual feature is a moated earthwork situated in relict coppice woodland NW. of Green Farm. This is connected via a long and narrow overgrown ditch to a water-filled pond located to the S. just outside the wood. The central feature is a circular raised earthwork some fifteen feet across (Fig. 2). Preliminary investigations by Dr. A. Brian have revealed the presence of charcoal fragments from surface soil of the raised area indicating this was the site of burning activities—possibly for charcoal production. Eighteenth-century documentary evidence described later suggests the remainder of the moated area might have served for the storage of bricks.

Documentary Evidence Provided by Maps

Cartographic evidence can be a good source of information on woodland history. The Nature Conservancy Council *Inventory of Ancient Woodlands* makes use of information provided by the Ordnance Survey first edition maps of the early 19th century which have been reproduced by David & Charles.[5] The premise here is that few woods were planted before the production of these maps and where plantations are present they can usually be identified. Hall Wood appears on the appropriate first edition map and shows the same boundaries as those which can be seen to the present day.

Early woodland maps may be of great value. Reference to documentation in the Herefordshire Record Office reveals a map for Hall Wood dating from 1741 which may be the earliest recorded map for the wood (Fig. 3).[6]

What is apparent from this is that the woodland boundaries were almost identical to those today; even down to the orchard present in the eastern corner of the wood. A road or track is marked running between ‘Halwood’ and ‘Little Halwood’ (Fig. 4). This was apparently gated at each end and the purpose as stated was to provide access for the traveller to Hallwood Green (then known as Holly’s Green). The hamlet appears to have been much reduced in size, but Green Farm is distinctly visible. Also evident is that the area now covered by the adjoining woodland of Yewtree Coppice and Stone Redding was then pasture land. This woodland has originated in the past two hundred or so years, and unlike Hall Wood is not ancient.

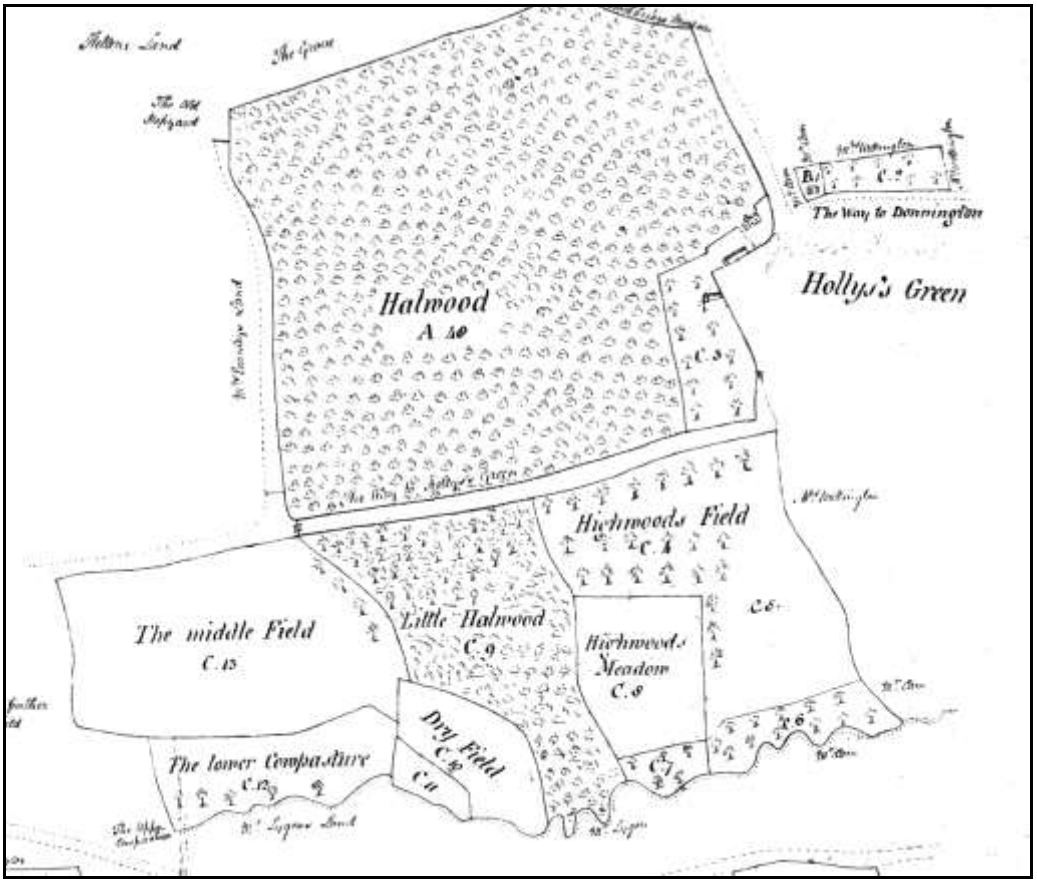

Figure 3. Map of Hall Wood and Little Hall Wood dated 1741 (reduced copy) © Herefordshire Archives

In 1741 the area of the Woods was the same as that in 1840 according to the tithe map for Much Marcle.[7,8] Great Hallwood was approximately 39 statute acres, and Little Hallwood approximately nine acres. Comparison with information from the 1902 Ordnance Survey first series six inch map shows that during the period 1840-1902 part of the south-eastern section of Little Hallwood was cleared.[9]

Figure 4. The old trackway between Hall Wood and Little Hall Wood looking SW. High forest structure of the surrounding woodland is visible with its dense bramble understorey

Written Documentation

Evidence from old written documents provides a unique link with the past history of our ancient woodlands. Careful interpretation can reveal much as to how our forbears practised their craft of woodmanship and may give explanation to the present appearance of some sites.

The task of locating, unearthing and interpreting such material can be a time-consuming business. A great deal of research is required for example to trace individual woods back before the sixteenth century. Hall Wood is however well blessed with respect to documentation and the information presented here has been obtained from two sources: Herefordshire Record Office, and papers collected by Miss C. Radcliffe-Cooke in the possession of the late Mr. Johnson, formerly of Green Farm, Hallwood Green. These were concerned with the enclosure of Much Marcle *circa* 1790, for which Edward Walwyn of Hellens was the prime mover.

As a start, the Domesday survey of 1086 gives reference to the manor of Much Marcle, but in common with the rest of Herefordshire it does not refer to specific woodlands. However, in mentioning that 58 acres of woodland had just been cleared from the same manor, it does tell us that the Parish was more wooded at this time.

The earliest specific reference to Hall Wood however dates from the 13th century and concerns a quitclaim (literally quitting claim to a property or parcel of land) between Henry son of Walensur, and Walter de Helyun, his heirs and assigns:

> 'All right etc., in a messuage and croft with an enclosure and all other app[urtenance]s., situated in the Manor of Much Marcle ...extending at one end of the road leading to Boscum from Halewood.'[10]

A wooden effigy, possibly of the same Walter de Helyon, is to be found resting in St. Bartholomew's church, Much Marcle. An information sheet nearby tells us that Walter de Helyon was a landed and wealthy gentleman whose family had been stewards to the Audley family who occupied Hellens. The Helyons eventually came to own Hellens and in 1348 Walter made over the Hellens property to his only child Joanna who was married to Richard Walwyn of Stoke Edith. During these times Hall Wood would have formed part of the Hellens Estate and eventually became the property of the Walwyn family. Its subsequent history was henceforth to become closely interlinked with the various generations of Walwyn who came to possess Hellens.

Hallwood is mentioned twice in the sixteenth-century court rolls for the manor of Marcle Audleys which formed the nucleus of the Hellens estate. Both references involve disagreements.[11] In 1513:

> 'a ditch between Halwod and Woddfeld, in default'

(Woodfield is an area of land immediately to the W. of Hall Wood)

And in 1524:

> 'Also they present that John Edwards and William Edwards jnr, have cut down a small oak in the Lord's Wood called Hallewode'

The charges were more serious in 1620, when:

> 'John Webbe and Christopher Walwen unlawfully cut down and sold the undergrowth of *[in] Anglice* Vallet wood, in the wood called Hallwood, to the value of £30, and sold them by command of Leisonius Thomas. Therefore it is ordered to seize Thomas...'

In 1695 there was a reference to Holwods Coppice and Holwood 'a coppice wood adjoining' the latter probably being Little Hall Wood. In 1698 various trenching and ditching took place at the woods.[12]

In 1787 Great Hallwood, Little Hallwood and Welch Grove were valued jointly at £600. During the 18th century, underwood, hop-poles, bark and oak and elm timber were sold.[13] The sale of bark was evidently quite important economically, for correspondence of 1774 refers to:

> '...some timber should be fell, and soon, or the bark will not be good for anything.'[14]

Mr. Walwyn , the owner of the woods, wrote in 1793:

> 'I know the Coppice Bark is worth 10 shillings a ton more than the Common Stock Bark.'[15]

Although, because of its good quality, the underwood fetched good prices in 1791,[16] the yearly value of the woods had not increased since 1695.[17] Nevertheless, the woods must have been greatly valued by Mr. Walwyn, for in 1791 he wrote:

> 'The stooling of the Coppice and Poles in Hallwood must be done by a handy Workman – The falling of the Polls will be no great deal of work, and I had rather pay an extraordinary Price than run the hazard of having it not done well –You will also see that the Men waste no timber in falling the Oaks – as Brown has not been at Hellens you must send after him and set out the Ditching at Hallwood.'[18]

In 1788 a twenty-year coppice cycle was in operation in the woods,[19] rather longer than the average for the county, that being about 15 years. Hop-poles and bark were still being sold from the woods during the 19th century.[20]

The woodland was also used for the storage of brick, possibly explaining the purpose of part of the moated earthwork described previously, as a letter from Edward Walwyn to Thomas Williams in 1794 says:

> 'I promised to spare John Peters seven hundred of brick, one half from the Clamp at Hellens. And the other half from the clamp at Hall Wood which you and Thomas Daw may deliver to Peters when he wants them. But you may not touch one of the drest brick which lies directly under the Tile for I shall want all of them myself. I shall not spare any more bricks out of the new clamp to anybody. the new tax upon them will increase the price.'

The same correspondence refers to the stopping-up of roads after the inclosure award of 1797, and this may have included the trackway between Hall Wood and Little Hall Wood:

> 'James(?) Jones affixed stopping-up notices and they were inserted in the *Hereford Times* three times.'

On 15 May 1795 Edward Walwyn wrote to his bailiff:

> 'when the bark strippers are at work in Hallwood all those that grow upon their own Bote (or Buts?) are not titheable, so that those poles as well as the bark that comes from them must be kept separate from the rest.' [21]

BIOLOGICAL FEATURES

Evidence from the preceding text has confirmed the ancient status of this woodland. Some of the particular biological features that reflect its ancient history will now be described.

Vascular Plants

Records presented here refer to the management of Hall Wood for its coppice and timber products and such 'coppice-with-standards' management was widespread throughout the woodlands of medieval England. Use of coppice products may have included hop-poles and faggots for firewood, bark was used for tanning, and timber was required for house and ship building and clog making. With the advent of cheaper and more convenient forms of fuel in the 19th century however, this type of management largely fell into neglect across much of the country. Hall Wood was also affected by these changes and although the majority of the wood is likely to have had a well developed coppice structure at various stages of rotation, the best evidence for this former management is now largely restricted to the northernmost part of the wood (Fig. 5).

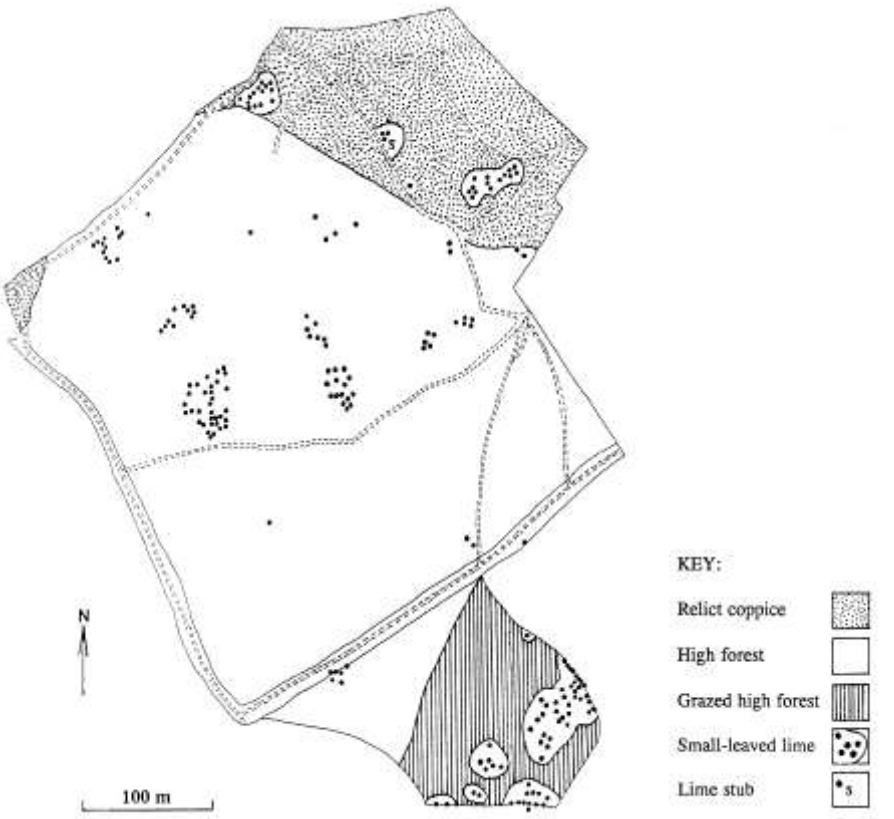

Figure 5. Approximate distribution of (i) woodland structural types, and (ii) small-leaved lime (*Tilia cordata*) in Hall Wood and Little Hall Wood

This area has relict coppice with hazel (*Corylus avellana*) and field maple (*Acer campestre*) and a canopy characterised by ash (*Fraxinus excelsior*) which is sparse elsewhere in the wood. Oak (*Quercus robur*) though is rare here.

In contrast the majority of Hall Wood now has a high forest structure which has been 'promoted' from former coppice-with-standards. This is dominated by singled stools and maidens of sessile oak (*Quercus petraea*) and oak hybrids with concentrations of the small leaved lime (*Tilia cordata*) in places. Ash occurs locally on flushed soils. The shrub layer is noticeably very sparse with only the occasional hazel, holly (*Ilex aquifolium*) and yew (*Taxus baccata*). Recent management activities have further emphasised this type of structure.

As a general description Hall Wood is something of a typical type of lowland English oakwood. In more detailed terms the site can be classified using the National Vegetation Classification (NVC), which is a new system of plant community classification developed at Lancaster University in association with the Nature Conservancy Council.[22] The high forest areas comprise W10 oak/bracken/bramble (*Quercus/Pteridium aquilinum/Rubus fruticosus*) woodland whilst the coppice area has closer affinities to W8 ash/field maple/dog's mercury

(*Fraxinus/Acer/Mercurialis perennis*) woodland. The former is characteristic of mildly acid soils whilst the latter has a more calcareous influence.

The associated flora and its abundance within these types of woodland is quite different and readily noticeable on the ground. Most of the high forest is overwhelmingly dominated by bramble with occasional fronds of bracken, but in localised wetter situations damp-loving species such as remote sedge (*Carex remota*), meadowsweet (*Filipendula ulmaria*) and marsh bed straw (*Galium palustre*) occur. Access through large parts of the woodland is difficult due to the bramble growth. Little Hall Wood, although also high forest, differs in that much is open to grazing. Associated underwood is consequently largely absent and the general lack of bramble provides a striking contrast to adjoining fenced woodland. In springtime, stands of wild daffodil (*Narcissus pseudonarcissus*) provide a fine display here. In comparison the area of old coppice in the N. of the site has a somewhat richer associated flora including yellow archangel (*Galeobdolon luteum*) and tufted hair-grass (*Deschampsia cespitosa*) characteristic, and base-loving plants such as early purple orchid (*Orchis mascula*) present.

Including trees and shrubs, a total of 145 vascular plant species have been recorded from Hall Wood—a large number of these being associated with the open and damp conditions of the paths and tracks or occurring at the edges of the wood where dense bramble is absent. Work in some English counties has shown that certain vascular plants have an affinity for ancient woods and are rarely found in woods of more recent origin,[23,24] and this brings together well aspects of woodland history and biology. Although some of these so-called ancient woodland indicators appear to be characteristic across the country (where they occur) others seem to differ on a more local or regional basis. Detailed work has not yet been undertaken to identify such indicators in Herefordshire but the following species provisionally considered as such for the west midlands region have been recorded from Hall Wood: [25]

wood anemone	*Anemone nemorosa*
remote sedge	*Carex remota*
thin-spiked wood sedge	*C. strigosa*
wood sedge	*C. sylvatica*
meadow saffron	*Colchicum autumnale*
spurge laurel	*Daphne laureola*
wood spurge	*Euphorbia amygdaloides*
giant fescue	*Festuca gigantea*
woodruff	*Galium odoratum*
yellow-archangel	*Lamiastrum galeobdolon*
bitter-vetch	*Lathyrus montanus*
hairy wood-rush	*Luzula pilosa*
wood melick	*Melica uniflora*
wild service tree	*Sorbus torminalis*
small-leaved lime	*Tilia cordata*

Thin-spiked wood sedge is an uncommon species typical of ancient heavy clay woods that has a centre of distribution in the central and western midlands. Meadow saffron is often found at

the edge of woodlands (as here) and is also known to be present in some county woodland sites of more recent origin showing it is more ubiquitous.

Small-leaved lime is a tree which is generally recognised as having a particular affinity with ancient semi-natural woodland.[26,27] Until about 1990 the lime in Hall Wood occurred predominantly as relict coppice stools. These had probably not been cut for 40–50 years and some had poles at breast height in excess of 150cm. diameter. Most have now been singled in recent management works, opening out the previous heavy shade cast by their canopy. An interesting single lime stub (which is a small pollard), is present in the northern part of the wood having a breast height girth of 259cm. and is 170cm. tall to the bolling—this being the height above ground at which the branches of a pollard are cut.

The approximate distribution of lime in Hall Wood, determined by pacing and measuring from known points, is shown in Fig. 5. The identification of individual trees can be difficult with some large old coppice stools and should be noted when interpreting such maps. Nevertheless it is clear in this instance that the majority of trees are discretely clumped and isolated individuals are relatively rare confirming the gregarious nature of the species. In certain parts of the wood lime is present to the exclusion of many other trees and shrubs and it is possible this characteristic may have been exaggerated by selective past management practices. The southern part of Little Hall Wood holds a particular concentration of lime, and strangely shaped contorted stools fringe and grow atop boundary banks which separate the wood from the adjoining meadow (Fig. 6). These are further emphasised by the heavy grazing of the woodland flora here.

Two enormous small-leaved lime pollards grow on the village green at Hallwood Green next to Hall Wood. These are notable both for their size and double bollings. One of the trees apparently always bears its leaves and flowers before the other each springtime. Such variation is a typical feature of native stock and it is possible that these may once have been trees in a woodland setting that was cleared when Hallwood Green was in the making.

Wild service tree (*Sorbus torminalis*) is another distinctive and uncommon woody species that has a similar affinity for such ancient sites. It is scattered throughout Hall Wood as saplings and young trees (although has not been mapped), and by suckering has reached particular concentrations in parts of Little Hall Wood.

Figure 6. Ancient boundary lime coppice (*Tilia cordata*) at the southern edge of Little Hall Wood. The heavily grazed nature of the woodland interior is apparent

Insects

Preliminary survey work by Dr. P. Kirby and Ms. S. Lambert during 1987 has identified various invertebrate species from the wood. Similar to the vascular plants described previously, these also include a number of species known to be associated with ancient woodlands. The following are of note here:

Alosterna tabacicolor	A longhorn beetle associated with dead wood.
Ischnomera sanguinicollis	A notable beetle species.
Brachyopa scutellaris	An uncommon hoverfly. Larvae developing in sap runs.
Criorhina berberina	A local hoverfly.
Ctenophora pectinicornis	An uncommon cranefly.
Xylophagus ater	A very local fly. Larvae under the bark of dead logs and stumps.

Many of these uncommon species have a requirement for dead wood, both as old trees left *in situ* and rotting logs and branches on the woodland floor, confirming the importance of retaining such features wherever possible as part of any woodland management works that might be carried out here.

WOODLAND SURVIVAL AND CONSERVATION

From times past when Herefordshire was first being settled we can envisage the original wildwood cover being cleared in a piecemeal fashion to provide land for early settlements and farmsteads. Although this process doubtless continued to various degrees through the subsequent centuries, the definition of what may have constituted original wildwood became blurred, and the location and extent of woodland areas in the county, at least until the 17th century, is known to have been variable. In recent times, however, it has been the massive scale of loss of the ancient woodland resource which has been such a major cause for concern, both in terms of depletion of nature conservation and landscape interest and also historical value. For example it is estimated that as much as 53% of Herefordshire's ancient semi-natural woodland resource which existed in 1920 has been lost by a combination of replanting and clearance.[28] Fortuitously Hall Wood survived these changes, and considering the very early references to this site, along with other supporting evidence, we can speculate that it may indeed constitute primary woodland i.e. a remnant of the original wildwood. Considering the great pressures that have been directed to ancient woodlands as outlined here it is pertinent to consider the factors that may have contributed to Hall Wood's survival into the present day.

Difficult terrain has formed a basis for survival of many ancient woodland sites and in this instance the position of Hall Wood in a localised hollow, the presence of a small outlier of the Preston Brook on the northern periphery, and the underlying heavy clay soils which remain wet even in high summer are likely to have been significant contributory factors.

Uppermost however has been the value placed upon Hall Wood by its numerous generations of owners, and this is evidenced by historical documentation presented referring to the importance of its woodland products in providing income and employment. In the period when Hall Wood was owned by Hellens and the old entrance road through the Marcle estate to Ledbury stretched eastwards from the house's main gate, it would have constituted an important landscape feature, being in full view of the house, and doubtless have also been highly valued for this reason.

In the present day, designation of Hall Wood as an SSSI and the attention now focused on ancient woodlands as a national asset will undoubtedly have an important part to play in the continued conservation of this unique historical site.

ACKNOWLEDGEMENTS

Much of the section 'WRITTEN DOCUMENTATION' has been taken from the research and writings of Olive Bennewith, to whom I extend grateful thanks; the responsibility for any errors or omissions must however lie with me. Special thanks go to Dr. Anthea Brian for help and assistance in this project, and particularly for her generous hospitality during field visits. Dr. Brian and members of the Woolhope Naturalists' Field Club also kindly provided the details in Figure 2. I would additionally like to extend thanks to the following people: F. A. Aberg, the Brook family, staff at Herefordshire Record Office, Ms. Sue Holland, Mrs. Johnson, Mr. Noel King, Dr. Peter Kirby, Ms. Sarah Lambert, Mr. Patrick Robinson, Mr. Roy Walker and Mrs. Ann Waters.

REFERENCES

[1] Rackham, O., *Trees and Woodland in the British Landscape* (1976); Peterken, G.F., *Woodland Conservation and Management* (1981).
[2] Mrs. Johnson—Personal Communication.
[3] Munthe, M., *Hellens-A Herefordshire Manor* (1957).
[4] Ekwall, E., *The Concise Dictionary of English Place Names* (1951).
[5] Nature Conservancy Council., *Herefordshire Provisional Inventory of Ancient Woodland* (1986).
[6] Herefordshire Record Office (HRO), F35/RC/Miii/la.
[7] *Ibid.*
[8] HRO, Tithe Map and Apportionment for Much Marcle.
[9] Herefordshire & Radnorshire Nature Trust, *A Herefordshire Woodland Survey* (1984).
[10] HRO, G37/ii/78.
[11] HRO, F35/RC/iv/cc/38.
[12] HRO, F35/RC/Miii/1b.
[13] HRO, F35/RC/Miii/13 & 322 .
[14] HRO, F35/RC/iv/P/9.
[15] HRO, E69/244.
[16] HRO, E69/226.
[17] HRO, RC/Miii/20.
[18] HRO, E69/228.
[19] HRO, E69/282 & F35/RC/M3/322.
[20] HRO, F35/RC/Miii/16.
[21] Both these letters are in papers collected by Miss C. Radcliffe-Cooke in the possession of the late Mrs. Johnson, concerning the enclosure of Much Marcle *c*.1790s.
[22] Rodwell, J.(ed),. *British Plant Communities 1: Woodlands and Scrub* (1991).
[23] Peterken, G.F., 'A Method for Assessing Woodland Flora for Conservation using Indicator Species', *Biological Conservation 6* (1974), 239-245.
[24] Peterken,G.F.& Game, M.,(1984). 'Historical factors affecting the Numbers and Distribution of Vascular Plant Species in the Woodlands of Central Lincolnshire', *Journal of Ecology* 72 (1984), 155–82.
[25] *Op. cit*. in note 5.
[26] *Op. cit*. in note 1.
[27] *Op. cit.* in note 23.
[28] *Op. cit*. in note 5.

Hedgerows and Enclosure in Central Herefordshire

By REBECCA ROSEFF

This paper describes a study of the historical development of the landscape in parts of the parishes of Sutton and Marden in the Herefordshire plain. Field surveys were combined with archival research allowing conclusions to be drawn about hedge development, enclosure and species distribution. Some of these conclusions can be applied to other areas of Herefordshire.

INTRODUCTION

This study of Sutton and Marden parishes in Herefordshire was carried out in order to understand the relationship between hedgerow species and the history of settlement, enclosure and land use. The area was chosen because it is covered by an excellent collection of maps, documents and aerial photographs. It is important to note, however, that the results relate only to the central plain of Herefordshire which had a high medieval population and experienced intensive agricultural use from the earliest times. Other regions of Herefordshire are different and are not dealt with here.

Previous Hedgerow Studies

The study of hedges and landscape has been continuous since the 1930s, incorporating cultural, political and ecological aspects (Baudry *et al*, 2000). However, only one short published account of Herefordshire hedges exists (Hickling, 1973).

Management and ecological factors have been objectively recorded and analysed since 1978 by the Countryside Survey and reported in a number of papers (Barr and Gillespie 2000). Archaeological studies have attempted to date hedges, in order to use them as an independent tool to understand enclosure. Pollard, Hooper and Moore (1974, 77) famously found a strong correlation between the number of species in a 30m. section of hedgerow and its age. Subsequent authors (Deckers *et al*, 2004; Williamson, 2002; Vipond, 2000; Doogue, 1994; Fretwell, 1983; Johnson n.d.; Hickling, 1973) have shown that the original composition of the hedge planting, management factors and location obscure the link between age and number of species. Fretwell (1983) however was able to distinguish broadly between enclosure, ancient, track and S-shaped hedges on the basis of shrub composition. Vipond (2000) and Doogue (1994) found a slight correlation between ancient hedges and field maple and hazel. Hooke (1981) gives three examples of hedges of over 1,000 years having ten or more species per 30m. and Johnson (n.d.) found a very broad correlation between age of hedge and number of species. This paper both confirms and extends the findings of these authors.

The Herefordshire study (Hickling, 1973) looked at species present, not percentage composition, in 30m. stretches in hedges dating from 1772 to 1886 in Moccas and Bredwardine. It found a variety of plants including hazel, holly, ash and maple in all hedges and concluded that the planters used a similarly occurring combination of species that could still be detected today. The early planters may have been influenced to use a wider range of species by Humphry Repton, who was advising the Moccas Estate between 1793 and 1795.

Field Boundaries in the Past

Neolithic field boundaries survive in Ireland (Pryor, 2003, 136) and there are numerous examples in England dating from the Bronze Age to the Roman period (Rackham, 1994, 72-76). All however are walls, banks, ditches or alignments. No living prehistoric hedges have been definitely identified.

Hedges and enclosures are mentioned in the earliest British documents that exist. From the 6th century monks and noblemen of Wales and Ireland cleared waste and enclosed land, to the consternation of the villagers. A wealthy nobleman of Macha, Armagh was

> 'Cursed by everyone in the district, as a farmer who surrounds his lands with hedges, changing all the open straight roads.'[1]

In the 6th century Tyssilio planted hedges in north Wales, (*ibid*., 434) and the 7th-century Ine's laws of Wessex state that 'some have hedged their share of common meadow and some have not' (Dodgshon, 1980, 76). These texts imply that hedges were well known and that both enclosed and open-land farming existed in the post-Roman period. It is impossible to know if the hedges referred to were live or dead.

Current research suggests that by the late Saxon period the landscape of England had developed into three broad types: open upland pasture; enclosed wooded or wood pasture ('bocage') areas and open field ('champion') areas (Hooke, 2004). Wooded areas are explained as being places last settled due to poor soils and conditions (Miller and Hatcher, 1978, 94) and/or with weak lordship, largely free tenants and partible inheritance (Williamson, 2003; Taylor, 2002; Williamson and Bellamy, 1987). The little published work on Herefordshire settlement concludes that both enclosed wood pasture and open, nucleated settlement countryside occur (Gray, 1915; Sylvester, 1969). Since these publications Geoff Gwatkin's reproduction of the tithe maps of Herefordshire show that even in the 19th century many, if not most, areas had been farmed in common fields divided into strips, implying communal cultivation, though fields were often small. Roderick explains the small irregular fields as being the result of late medieval assarting both extending and creating additional communal fields (Roderick, 1950). Other studies have shown that some dispersed settlement that would be classified as bocage type is merely depopulated nucleated settlement (Skelton, 2001; Pratt, 2001).

The Archenfield area of Herefordshire may have been different. This area is featured in several charters in the *Liber Landavensis* as an unhedged open landscape, with dykes, ditches and mounds deriving from an earlier period forming important boundary markers.[2] The charters were written in the early 12th century but purport to deal with a period several centuries earlier (Rees, 1840; Davies, 1978). Within the open areas, cultivated land and woods were discrete entities, but there is no indication that they were enclosed. On this charter evidence most fields and hedges in Archenfield are likely to be medieval or later.[3]

Herefordshire also has 23 Anglo-Saxon charters but only the 958 A.D. Staunton-on-Arrow and the 972 A.D. Acton Beauchamp charters have boundary clauses (Sawyer, 1968). The Staunton charter describes one hedge, 'Aethelwold's' and gates, suggesting a boundary hedge rather than enclosure (Finberg, 1961). The Acton Beauchamp charter refers to streams, banks and the Salters Way (Pratt, 1997). These are features similar to those found in the Llandaff charters, again implying an open, unenclosed countryside. In contrast the Anglo-Saxon charters of W. Worcestershire mention hedges several times. This area has been

interpreted as a wood pasture landscape where woodland was plentiful and a large number of settlements had already been established by the 10th century, hence the need for hedges to separate crops from animals (Hooke, 1981, 252). It implies that some Worcestershire fields and hedges are Anglo-Saxon or earlier.

In contrast in central England an open field, sheep-corn economy existed in the medieval period (Thirsk, 1967). Here the majority of hedges would date to the enclosure of the open fields.

In the case of Marden, documentary evidence shows this was an area of large open medieval fields in the S., but with a more dispersed area of smaller manors in the N., that could possibly be defined as bocage, though even here there were common fields.

The History of Enclosure

Ownership of fields by groups or individuals began with farming in the neolithic age. In England simple, unencumbered ownership by individuals is said to have occurred around Roman urban settlement (Collingwood & Myers, 1937, 163, 210) but from the late Anglo-Saxon period and throughout the Middle Ages land was held feudally. Tenants owed services to their immediate manorial landlords who in turn owed services to their overlords and so ultimately to the Crown. In return the Crown and lords provided protection and legal rights for their tenants. Although the services became commuted to money payments the last relics of the system, landholding by copyhold (that is, recorded in copies from the manorial court rolls) lingered in some places until abolition by the Law of Property Act 1922.

Manorial rolls show that in the 13th century there were two main types of tenant: the freeholder with rights to sell and pass on land, with light obligations and low rent, and the customary tenant with a higher workload and/or rent. It is likely that this division was already in place before the time of the Domesday survey. The lord and other landholders practised arable farming partly or totally in communal open fields, restricted from permanent enclosure by the community who had rights of common grazing over the whole shared field after harvest. They may have had gardens, pasture or meadow close to their homestead. Such 'closes', parks, woods and possibly the outer boundaries of communal fields and some roads were enclosed, though in some cases at least this was with a dead hedge.[4]

Enclosure of arable fields was driven by considerations of economy and changes in ownership patterns in the open fields, but was also affected by the loss of rough grazing in manorial waste land when the lord allowed small-scale enclosure there. When people had nowhere else to graze stock they needed to confine their animals (and keep other's out) in their own individual strips. Hedges may also have compensated for the loss of waste providing a source of fuel, fodder, fruit and hazel sticks.

Three forces acted to restrict enclosure: common grazing; the difficulties in buying, selling or exchanging strips under copyhold tenure and inertia, i.e. a preference for continuing in the traditional ways.[5] Amalgamation of holdings and enclosure was easier with freehold land. In the later medieval period lords may have enclosed land in order to attract tenants and obtain higher rents.

Copyhold land tended to turn into leasehold tenancies as and when the lord could force the change through. Leasehold tenure was already evident before the Black Death, usually on demesne land that the lord had ceased to farm in hand. Changes in land tenure increased after the Black Death due to population decline. The lord adjusted and changed terms on holdings

in order to attract and keep tenants (Dyer, 1991; Williamson and Bellamy, 1987). Demesne land was often let 'at the will of the lord': these tenants had little security and rents could rise and fall rapidly.[6] The rise in wool and other markets led to a more profit driven agriculture that, combined with slight legal changes, also tended towards enclosure (Gonner, 1966). By Elizabethan times farm tenancy and leasehold were common (Leadam, 1897). They remained the most common form of tenure well into the 20th century when landlords began to sell the farms and cottages on their estates, often to the sitting tenants, in response to a number of economic and cultural factors.

In England the main period of land ownership change was the 16th and 17th centuries (Wordie, 1983). Tawney believed these centuries represented:

> 'The small cultivator's struggle to protect his interests against the changes caused by the growth of the great estates.'[7]

Consolidation of holdings could be gradual however, not necessarily involving pain. In Archenfield, Taylor (1997) found the enclosure took place almost naturally as people died or moved on over a couple of centuries from the 16th century onwards. After the mid 17th century however there was much larger amalgamation of lands from the small farms into estates.

The History of Enclosure in Central Herefordshire

Less than five per cent of land was formally enclosed by Act of Parliament in Herefordshire. Marden had one of the largest inclosure acts, with 36% of land enclosed in this way (Oliver, 2003) though the majority of land there was enclosed in other ways.

A detailed survey of Leominster priory lands makes clear that in some parishes there was a pattern of enclosure by the 16th century.[8] Small strips of pasture and meadow were enclosed while arable was farmed in larger blocks in common fields. It would seem that animals were being kept in, rather than kept out of communal fields. Another factor was the need to rotate animals in order to keep pasture in good health: small enclosed pastures facilitated this. The implication is that hedges around pasture and meadow are likely to be older than those around arable.

Duncumb (1805) estimates that two-thirds of Herefordshire was freehold and one-third held by some other tenure. There is no direct correlation between tenure and inclosure awards. Though it is probably true to say that leased land was often enclosed, some freehold and customary land remained in open fields. The 1840 tithe awards show that there were one or two large landowners in the majority of parishes, no doubt with much of their land leased out, and a host of people owning their house and just one or two small fields. By this time the land is largely enclosed but a significant percentage remains unenclosed. There are a number of reasons for the large number of small landowners: piecemeal disposal of land by the lord; partition and subsequent sale after inheritance; exchange of land in open fields for small, enclosed fields and economic distress.

In Sutton and much of Marden common field agriculture and feudal tenancies prevailed into the post-medieval period. Deeds of 1590 suggest that most land in Marden lay in open fields, even that of wealthy landowners, though small enclosures of one acre near to the house existed.[9] The terms inland (free or demesne land) and sokeland (tenant land, carrying obligations) were still being used. In 1607 an Inclosure Act allowed tenants in Marden and

surrounding parishes to enclose one-third of their land (not including common or waste) because when the fields were thrown open 'after sickle and sythe all sorts of people turn out their cattle and eat up all the grass.'[10] The Act says that this part of the world is different from many places in that stock, especially sheep, are housed throughout the year, and that the meadow and pasture are intermixed with the arable.

A stipulation of the 1607 Act states that every portion that was enclosed lost its portion of common grazing. It explains how one of the forces constraining enclosure, the common grazing, was overcome.

The 1608 landscape described in a manorial survey of boundaries is little changed from that of today: the woods, streams and bridges are in the same place but it was noticeably less enclosed.[11] Within the manor bounds there were communal fields, some of which were enclosed by hedges and with gates. Between these the boundaries were marked by stones, long boundary hedges, streams or ditches. This implies much of the land was open for if it had been enclosed the clauses would have mentioned the fields of individual owners and tenants, as indeed it does on one occasion. It explains the tortuous course of the parish boundary shown in places on the later tithe map. In these cases, this land was not enclosed in 1608 but went from marker to marker. It was subsequently enclosed, and the tithe maps show the boundary as it went around the enclosed strips.

A 1649 rental of the manor of Marden states that of 501 acres, which is fourteen per cent of the parish, half was enclosed held by sixteen tenants paying an annual average rent of 10s. 5d. and half was unenclosed in smaller parcels (42 tenants) with an average of 7s. 4d. annual rent.[12] In Marden, the annual freeholder and copyholder rentals earned the manor very little—£4 3s. 1½d.—compared to the leasehold and 'at will' tenancies that yielded around £300.

An estate map of Marden made *circa* 1725 for the lord of the manor, Earl Coningsby, shows that a similar situation prevailed over the whole parish.[13] About fifty per cent of the land was enclosed though it retained the strip pattern structure suggesting the enclosure was comparatively recent. The larger landowners had enclosed some of their land, though twelve tenants still held strips in the open fields and had only enclosed their home crofts (Sheppard, 10). All land was used and cultivated and there was very little waste.

The 1818 Inclosure Act referred to several parishes: in Marden it applied to 1,956 acres. The main fields and tracks remained but new straight, boundaries creating large rectangular fields were made in the open fields and communal meadows. Recent 19th- and 20th-century development has adapted the existing pattern by rationalising and removing some boundaries and creating others by joining one hedge to another.

The Documentary Evidence for Hedge Planting and Management

The word 'hedgehog' was first recorded around 1450, showing that hedges, though possibly dead hedges, were common by then. Explicit references to hedges, though, are rare in medieval England and when mentioned, may well be referring to a dead hedge (Pollard, Hooper and Moore, 1974, 38). Rogers's (1866) huge survey of medieval prices in England lists just two references to buying quicksets before 1400: one of 1,000 plants costing 1s. 3d. in 1382, and another in 1316. These records suggest live hedge technology was known but probably was not common.

Anthony Fitzherbert's treatise on husbandry of *circa* 1534 shows some people were using

hedges rather than shepherds as a way of managing animals. He advises the farmer to balance the work of ditching and planting the hedges against the need to pay a herdsman 2½d. per animal and 1d. per pig, plus a shepherd. Quickset hedges, he says, save the farmer money, even on a twenty-year lease. He recommends planting whitethorn got from the wood, though crab, holly and hazel are also good. Blackthorn is bad as it spreads and tears the sheep's wool. This could also be said of hawthorn and suggests that hawthorn was allowed to grow up taller in Elizabethan times. John Evelyn's book *Sylva* (1664) remained the standard text for managing trees for generations (Rackham, 2003, 12). Evelyn may well have copied Fitzherbert's book for he says much the same thing. Evelyn talks of hedges primarily as a way of keeping stock out of young plantations, but also as a means of providing timber and fruit. He, with other 17th-century writers such as the Herefordian John Beale (whom Evelyn used as a source) and Celia Fiennes, make it clear that hedges are common and normal things of some antiquity. For example, from *Sylva*, 'Timber trees should be liberally distributed amongst the Tenants, and dispos'd of about the Hedge-rows...', 'Acorns set in Hedge-rows have in thirty years born a stem of a foot diameter...' and talking of oaks '...beside the number which are to be found in the Hedge-rows, and Woods.'

Evelyn says 'white-thorne' (or haw) raised from seed is the best plant for hedges interspersed with timber trees such as beech, ash, maple or fruit trees. He suggests planting a holly every fifth or sixth plant between thorns, so that they eventually spread out and create an even pricklier barrier. He recommends elm as an especially beneficial hedgerow tree that can be easily converted into a hedge by cutting. Some particular Herefordshire practices are mentioned, such as planting a crab every 20 feet in the thorn hedge to provide root stock for orchards, and collecting elm in sacks to feed swine and cattle.

At about the same time as *Sylva* was written, a Hampton Bishop court roll of 1658 charges inhabitants to hedge their part of the meadow between Thomas Walwyn's lands and Hampton Meadows.[14] This hedge today is largely hawthorn (interestingly with one rare plant of Midland Hawthorn, *Crataegus laevigata*) with blackthorn and the occasional willow.

Nineteenth-century reports on Herefordshire agriculture describe 'fences' on farms mostly in terms of newly planted 'white-thorn', 'quickset or hawthorn', or 'hawthorn quick' hedges, planted at three-years growth from the nursery and protected from stock until grown up, by ditches, post and rail or hurdles (Clark, 1794; Duncumb, 1805). Clearly planting new hedges was a common activity at this time, though the writing indicates there were also older hedges to be managed. Clark (1794, 30) describes how established hedges were laid by cutting the plant almost through in order to encourage young shoots to grow up round the stump. He also says elm hedgerow timber is 'most plentifully dispersed' over most of Herefordshire because it recovers best from the three-year lopping regime. The 'boughs' from the cutting were used to mend the hedges. Lodge (1793) says exactly the same thing, indicating both writers have used the same source. Lodge (p. 23) makes it clear that elms and poplar trees are cropped, the excuse being to procure wood for repairing hedges.

> 'But in a country where quickset hedges are reared so easily, and grow so luxuriantly, this should be no excuse'

In 1794 men were paid 6d. to 10d. a perch (locally of seven yards) for planting a hedge and digging the ditch and four to six pence a perch for laying a hedge, at a time when agricultural workers were paid 6s. a week in summer and a gallon of drink and 5s. a week in winter with three quarts of drink (Clark, 1794, 29). To earn the rough equivalent one person would need to

plant and ditch seven yards or lay fourteen yards a day.

Nineteenth-century farm records of the Amberley estate, Marden record both hedge planting and laying of this type. On March 6th 1814, £1 2s. 6d. was paid for '7 days rising quick and 8 days setting quick', in all paying three people a total of nineteen days in the same year for planting hedges, the equivalent of 365m. of new hedge. Money was also spent on maintaining hedges, on April 18th 1814 John Stephenson was paid 16s. 5d. for hedging in Cow Leasow (i.e. about 252m. of laying), 9s. 5d. in (name unclear) Orchard and 14s. 3d. in the Croft.[15]

Methods for planting enclosure hedges were clearly set out in Inclosure Acts and awards. Typically they had a ditch, two feet deep and three feet wide, with a bank, and were planted with whitethorn, blackthorn, occasionally crabsets and 'other quicksets', and were protected by post and rail fencing until the hedge was established.[16] These accounts and others in the county of this period show 'quick' which generally meant hawthorn, though sometimes blackthorn, was the standard hedge-planting shrub of the late 18th to 20th centuries.[17]

In this present study the methods described above can clearly be seen, though curiously crab apples have only occasionally been noted and few standard trees away from tracks. Perhaps crabs being short-lived have died and not re-colonised or perhaps they were never planted.

To summarise: In Marden in the medieval period arable fields were usually farmed communally, and some of these may have been enclosed with live or dead hedges. There were also live or dead hedges along the parish boundary, and enclosing park, wood, orchards and gardens. After the Black Death there was an increasing move to enclosing land. Pasture was generally the first to be enclosed. By the 17th century about fifty per cent of the land was enclosed. The remaining part was enclosed by Acts of Parliament (in 1808 and 1818) and by piecemeal enclosure with live hedges.

MARDEN STUDY

Location, Topography, Soils

The area of study lies in the central Herefordshire plain to the E. of the river Lugg between 55m and 65m OD, covering *c.*2,205 hectares (ha.) (Fig. 1). The ground is level or gently sloping W. to E. with the occasional short steep hill or ridge. Most of the soils are alluvial or silty clay loams, with a neutral or slightly acid pH. The majority derive from the underlying Devonian mudstones, though there are isolated remains of river terraces that lie well above the current level of the river (Brandon, 1989). Four modern parishes cover the area. Sutton, consisting of Sutton St. Nicholas and Sutton St. Michael, and Withington lie to the SW. on low-lying land near the river. Marden is the largest parish and in the N. has a more varied topography including hill and wood. Preston Wynne occupies low-lying land to the NE. The manor of Marden also included wood allotments on Dinmore Hill amounting to about 100 ha.

History of Land Use in Marden

Current agriculture makes use of the irrigation potential of the nearby river Lugg, the flat land and silty soils. It now supports strawberry cultivation, wheat, potatoes and ley grass with small areas of orchard and set-aside scattered throughout. There is less than twenty-five ha. of wood in thirty-two square kilometres. In the 19th century the OS and tithe maps show a similar

intensive land use of orchard, meadow and arable. The earliest map of Marden shows that *c.*1725 the whole of the area was even more intensively used. The arable land was divided between common fields and closes, and was cultivated in strips. About one-third was used for orchard or hops, and the rest for arable or grass: there was very little waste or wood.

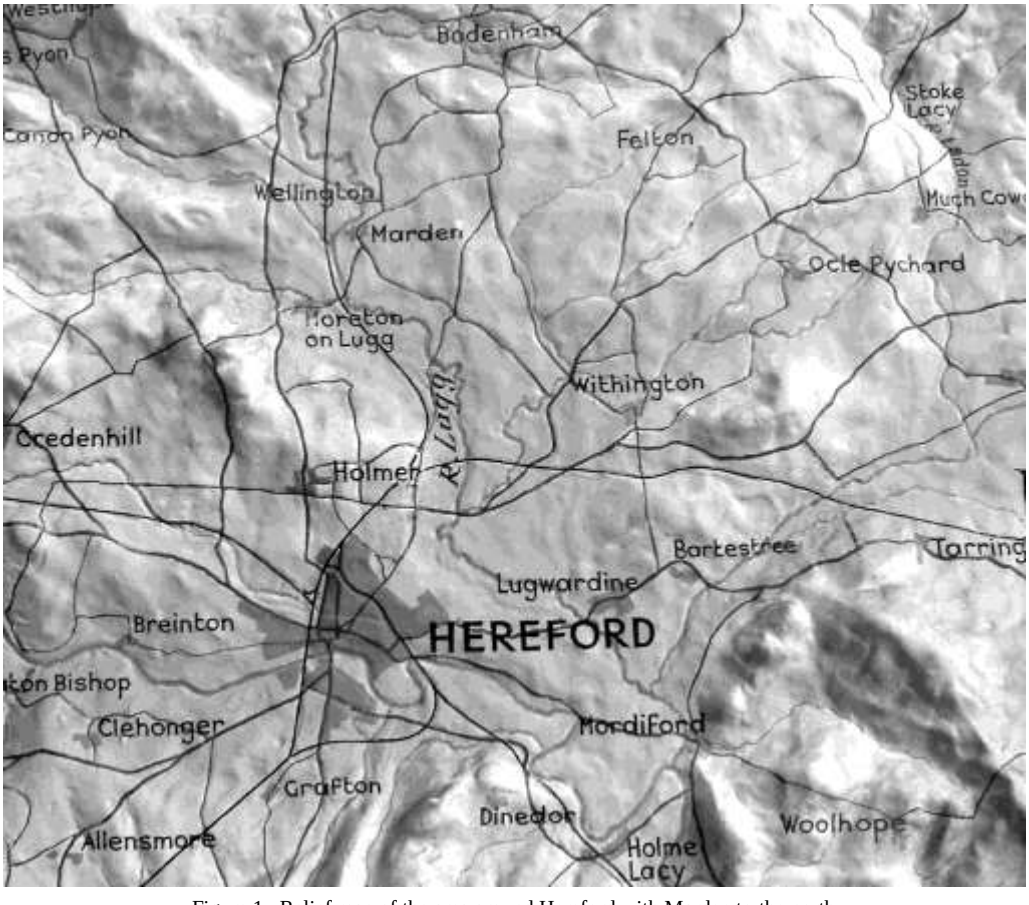

Figure 1. Relief map of the area around Hereford with Marden to the north

Land ownership at the time of the tithe award showed a more egalitarian society, consisting of about twenty-five farmers with twenty or more fields and 280 people with less, most having just one or two plots: there were no large landowners (Gwatkin, 2003). This represents a significant change from the Coningsby map of *c.*1725 when much of the parish was owned by the lord of the manor.

The suitability of the topography and soils for agriculture combined with archaeological evidence suggests that comparatively intensive cultivation actually dates back as far as the neolithic period, and that the area has been continuously cultivated for 4,000 years or more. An alluviation study on the Lugg at Wellington gravel quarry showed continuous

sedimentation from the neolithic to the medieval periods, which was interpreted as the result of ploughing, with higher deposition rates in the Iron Age and late Anglo-Saxon period (Dinn and Roseff, 1992). The Wellington site had evidence of multi-period occupation from the neolithic period to the Roman period. Bronze Age ring ditches or possibly houses were excavated in the field adjacent to St. Michael's church.[18] A large hill fort, Sutton Walls, is located in the middle of the study area. Two 5th-century cemeteries lie on small gravel hills:[19] a 7th-century mill was recovered at Wellington.[20] Marden church is curiously located on the flood plain on the edge of the parish, possibly indicative of a church that had begun life as an early medieval monastery. An enclosure dated to the early 11th century lies adjacent to the S. of St. Michael's church:[21] a large aisled building adjacent to Freen's Court was dated to the 11th century.[22]

At Domesday there was no wood listed in any of the parishes except Marden which had 'woodland which pays 20s.' This may have been the area of woodland on Dinmore Hill which was part of the manor of Marden *c.*1725. If so it implies that even in the early medieval period Marden had little woodland which again suggests continuous cultivation. Marden was an important place—it was a royal Manor with some parts sub-tenanted to other people. In Domesday, there were nine principal tenants holding land in Marden: these landholdings were probably the origin of the nine sub-manors which recur in Marden's history.

At Domesday the arable was no doubt the better-drained land away from the river and marshy areas, though these wet places would also have been used for grazing or hay. The better-drained land lies to the E. of the river and on gentle slopes throughout the area. Over the course of the middle ages as the population rose, all land would have come into cultivation (or been used for hay) and there would be little waste or wood by the 14th century.

A 1292 gift of one messuage, twenty-seven acres of arable and two acres of meadow for a chantry chapel in Sutton St. Nicholas clearly describes each acre strip separated from each other by neighbours, with nine strips in Westfield, nine in Middlefield and nine in Eastfield (Martin, 1953, 15). It makes it clear that a three-field system of open field agriculture pertained. A 1708 tithe account for Sutton St. Michael indicates the three-field system was still in operation with a rotation of corn, pease and fallow with hay (Martin, 1953, 41). The enclosure map shows the open fields continued right up to 1808 but were now called Upper, Middle and Lower Field.

Map Evidence

The straight, rectangular field shape of today essentially derives from the extensive strip field systems present *c.*1725. Though there has been re-organisation, rationalisation and the removal of most of the strips, but major divisions between medieval open fields and a few of the smaller divisions and the roads remain. Most of the roads were field or common access tracks in 1725, and were extended in the next century to make through roads.

The medieval common fields themselves were located close to the nine different manors and vills. Because intervening areas of waste were subsequently brought into cultivation, it is impossible to identify the boundaries of these medieval common fields, though their broad location is shown on the Coningsby map.

The three major fields in Sutton St. Nicholas (Upper, Middle and Lower) can be seen most clearly covering 400 ha. of gently rolling, arable land. Where land is level fields were broadly aligned with streams (e.g. from Sutton Rhea SO 5365 4455 to the Little Lugg SO 5415 4365) or in straight lines from points like the church, using drainage ditches.

Around both Suttons, fields and roads generally are straight, aligned NNW/SSE. and WWS/EEN. This alignment is far clearer in 2004 than it was in 1725, due to the re-organisation at enclosure. Prior to this the strips were arranged N-S. and E-W. and conform to the roads. The reason for this alignment is to some extent topographic: the river Lugg and Sutton Rhea flows N. to S. and other streams further N. flow from W. to E.

The settlement of Sutton St. Nicholas resembles a planned village with its three medieval fields adjacent to the E. The maps show a designed landscape fitted around natural features into which the Norman church and village of Sutton St. Nicholas fit. Tracks lead from the village in all directions, but only two are through routes: one N-S. and one road leading W. to the river.

The field pattern of the study area is not the same throughout. The fields in the N. are smaller, there are areas of curving boundaries and several large separate houses. Though open fields can be seen (e.g. Ashgrove, Hill, Birling, Vald, Oditch, Buery, The Lakes, Nash), their boundaries merge into each other. Sheppard (n.d., 24) considers that the difference is due in part to the number of small landholders (seven) in the N. in Marden at Domesday compared to just two in the S., leading to a different way of setting out fields and expanding into the waste. In the N. the N/S. alignment is less clear. Most of the curving features are natural: streams, hills or marsh, not able to adapt to the straight. The Venn's Green area (SO 547 489), Vern Park (SO 52 50), Venn's Wood (SO 58 49), Cheat Hill Wood (SO 560 488) and the S. boundary of Nash Hill Field, however, are independent of contour. Their curving boundaries may mean they were defined when there was plenty of land to spare, i.e. before Domesday. Sadly, no continuous hedges survive on any of these features, though there are good banks and ditches in part around both Venn's Wood and the park, and the S. boundary of Nash Hill Field, which is a hollow way.

In this river-meadow type of landscape, tracks to riverside grazing dating to the medieval or even prehistoric period might be expected. However, although tracks are shown leading to the meadows on the map dated *c.*1725, they cross strips in places, and elsewhere go through the remains of commons, indicating they are post medieval. Cheat Lane, which runs 8km. from Ullingswick (SO 58 49) westwards in a straight line to Marden Church and the riverside meadows, is a more convincing candidate for an early track, but it has been altered in the post-medieval period and any earlier features removed.

People taking wood from Dinmore to Marden had to cross the river. The only obvious route today is the A49, leading to the W-E. road across the meadows and Laystone Bridge. This is a direct route, though it involves crossing nearly two km. of regularly flooding land. Deep-cut tracks descend Dinmore wood on the SE. suggesting there may have been a rather more convenient river crossing further N., possibly utilising the ford once present at The Vern (Brian, 1996) and the old road through Ashgrove road to Ashgrove Farm along the parish boundary.

Summary: The Age of Hedges in Marden

Archaeology, documents and map analysis shows this area has been cultivated for at least 2,500 years but most of the hedges are comparatively recent. A minority of boundaries, and possibly their hedges, date to the Anglo-Saxon and medieval periods, and more arguably, one or two tracks to prehistory. About half of the hedges date to the 14th to 18th centuries, most being later rather than earlier. The majority of the remaining hedges are 19th-century.

MARDEN FIELD STUDY

Methodology

Hedges were dated definitely to *ante*-1608; *ante*-1725; 1818; *post*-1820 and *ante*-1840; *post*-1840 and *ante*-1888; and *post*-1888 using documents and maps.[23] Earlier hedges were less securely dated using the relationship between archaeology site and boundary. The continuous lines on the Coningsby map of *c.*1725 and on later maps have been taken to mean the physical presence of a hedge or fence; the hatched lines acknowledgement of ownership and tenant but not a boundary. It is not possible to know for certain if this was the case, but it seems most likely that it was. For example, two boundaries with continuous lines on the Coningsby map *not* shown on the tithe are clear ditches or small tracks visible today as earthworks showing that there was a physical boundary.[24] It maybe that some solid lines were dead, not live, hedges, but where enclosure is concerned a live hedge gives a statement of permanence, is more secure and efficient and makes more sense than a dead hedge. For these reasons it seems likely that solid lines represent a hedge.

Within these categories a random selection of dateable hedges were surveyed. Hedgerow shrubs and ground flora were recorded metre by metre in 30m. sections and the structure of the hedge noted; 2,580m.of hedges were recorded in this way spread through the area and the historical period. Intervening areas were recorded by walking, observing and making notes into a tape recorder. About 20km. of hedge were recorded by this second method. The results were entered onto a database. In the results below individual hedges are numbered (arbitrarily) and described, so the sites can in theory be re-surveyed in future years.[25]

Field observations were made over several days between June 2004 and June 2005. Rose was not included as it is present in most hedges. Species are given their Latin name when first mentioned and thereafter their common names. Field maple (*Acer campestre*) is referred to as maple for brevity's sake. In this study two types of elms were distinguished. Wych elm (*Ulmus glabra* Hudson) was distinguished from English elm (*U. procera* Salisb.) according to Clapham, Tutin and Moore (1989) by the presence of (generally) larger cuspidate leaves (often tricuspidate in the present study) and a prominent auricle at the leaf base. The two types are in fact very different in this area when in full leaf. Wych elm has larger leaves and is darker green than English elm.

Results of Field Survey

The ground flora in all hedges, unless otherwise stated, was unremarkable consisting of field and ditch weeds such as thistles (*Circsium vulgare*), goosegrass (*Galium aparine*), sorrel (*Rumex acetosa*), nettles (*Urtica dioica*) and hogweed (*Heracleum sphondylium*).

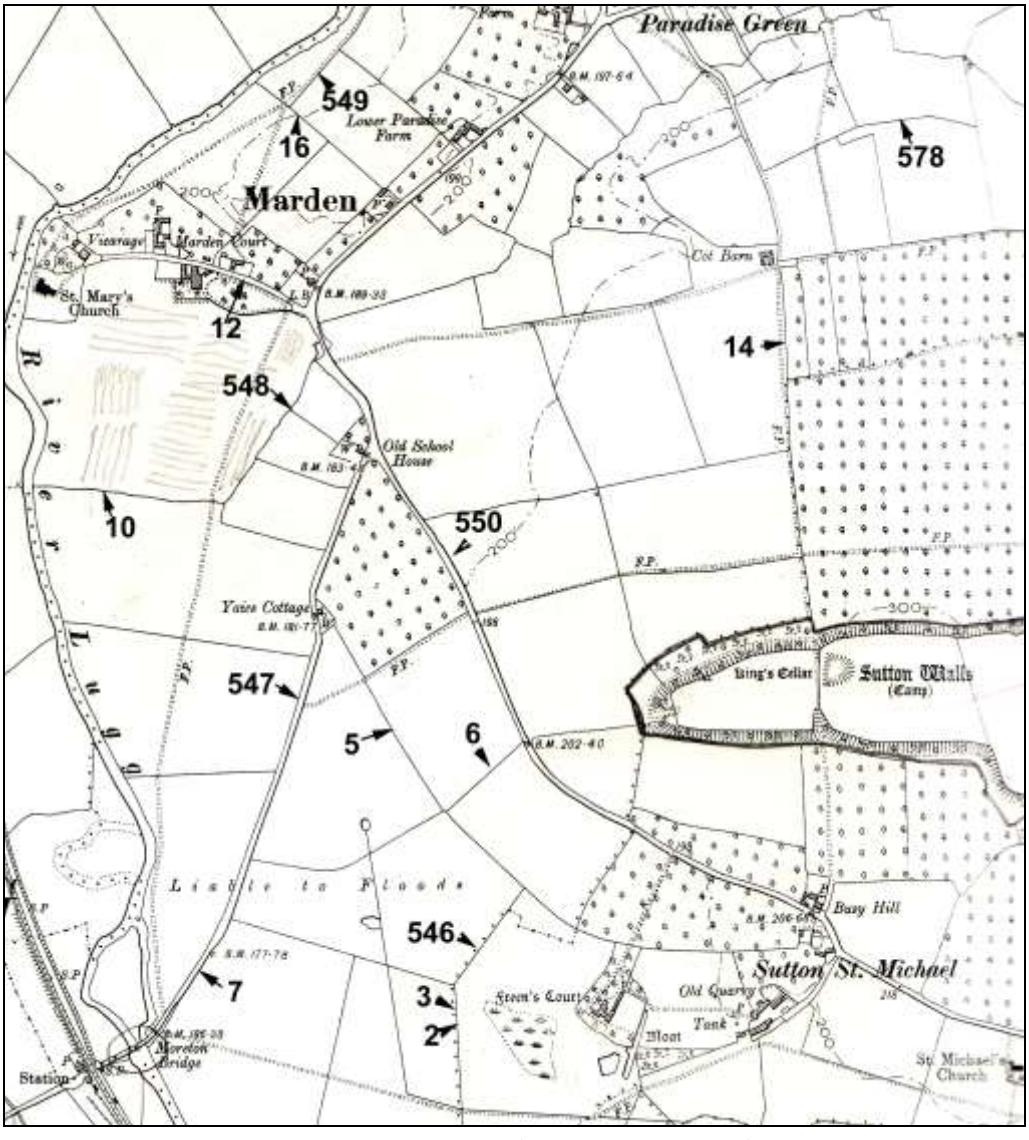

Figure 2. Hedges mentioned in the text to the west of Sutton Walls and south of Marden (*OS map 1905*)

Hedges medieval or earlier; Age: 1,000 years +

It is not possible to say that any hedge in Marden dates from the medieval or earlier period. However, six features were recorded which may retain vestiges of medieval vegetation. Hedge 1 grew beside a relict road leading to the Ashgrove early medieval cemetery; Hedge 565/6 lay beside Cheat Lane, an 8km. road from uplands to river; hedge 550 is on the road from Marden to Sutton; hedge 14 is beside a sunken lane leading to an Iron Age hillfort; hedge 12 is by the road to Marden Church and hedge 589 lies on a parish boundary stream. All these hedges

contained between four and six species per 30m. with less than 50% hawthorn (*Crataegus monogyna*). The example below is typical.

Plant	% per 30m
hawthorn	10
blackthorn	9
hazel	14
maple	30
ash	36
oak	1

Table 1. Hedge No 565, SO 5524 4888 N roadside, Cheat Lane, pre 1725

These are not particularly good examples of early hedges: one is gappy (No. 1) and all may well have been replanted. One slight difference, however, from later hedges is the presence of holly (*Ilex aquifolium*) (No. 1) and holly, aspen (*Populus tremula*) and bartsia (*Odontites verna*) on Cheat Lane. A small wood (Venn's Wood) represents one area of possible relict prehistoric vegetation in this flat, cultivated landscape. It has a rounded shape implying it was enclosed from waste; it is on a hill of largely gravel subsoil and therefore poor for arable and has a good wood bank. These three factors point to it being medieval or earlier. The wood ground flora has bluebell (*Hyacinthoides non-scriptus*) and dog's mercury (*Mercurialis perennis*), which, unusually for Herefordshire, were not recorded in any of the hedges in this study. In addition a group of small leaved lime (*Tilia cordata*) coppice grows at the top of the hill.

Hedges described on the 1608 Manor Boundary document

The hedges mentioned in the 1608 document are all referred to as 'bounds' hedges, and mark the edge of the manor and/or parish. [26] The bounds of Marden manor were not completely surrounded by hedges. Other features used were Chartbridge by Bodenham church; the top of Collymeadow hill (now called Ashridge); meres (mere stones or other markers); commons; brooks; the river Lugg and roads. Hedges are mentioned twelve times. Four go around woods and today consist of a bank and ditch and no hedge; two remain as ditches with no hedge; two have been destroyed and one could not be located. One 'bounds' hedge goes around John Woldringe's land (No. 596) and marks the parish boundary. It is an upland hedge, 200m. long, running along the E. edge of Gates wood in the S. and upland arable fields in the N. It seems likely that it was created when this part of the manor was carved out of upland wood in the Anglo-Saxon period. The boundary itself is snaking, and consists of a ledge of about 1m. drop that was no doubt at one time a ditch or track, now worn away. The hedge on the W. of the ditch consists largely of hazel; there is also some holly which is not seen elsewhere in the lowland, arable hedges.

The adjacent hedge to the W. was recorded as a control (No. 597). The field was not titheable so it was not mapped as part of the tithe survey and no record of it exists before 1888.[27] It is impossible to say how old it is, though it seems likely it post-dates by many years the adjacent parish boundary hedge (No. 596). In 1888 it was a straight hedge with large trees running to wood on the N. side. Hedgerow species are similar to the 1608 parish boundary hedge, but there is more hawthorn and blackthorn and no holly. The main distinguishing

feature, however, is the structure; the older parish boundary hedge being curving with a significant ditch, the younger hedge being straight with no ditch.

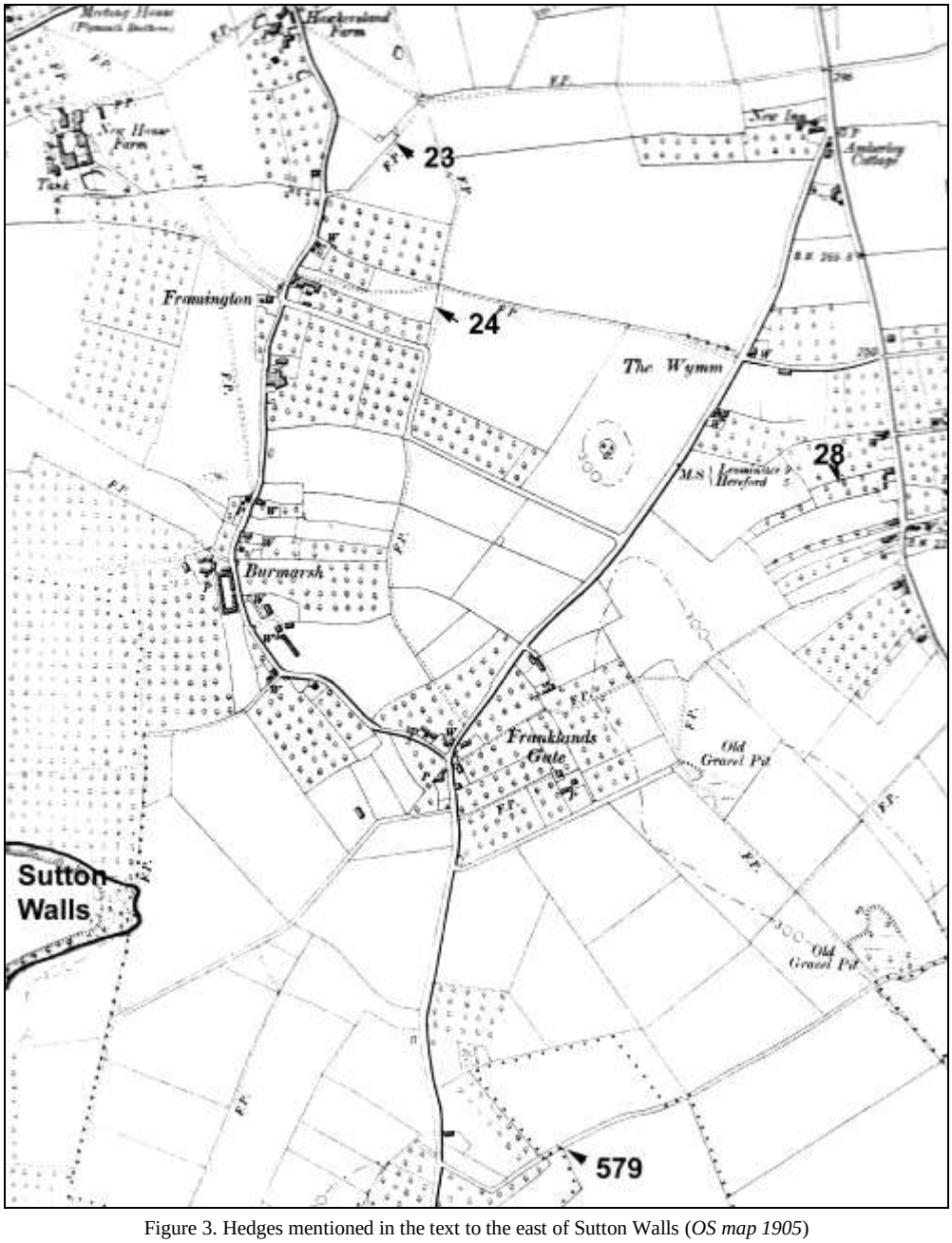

Figure 3. Hedges mentioned in the text to the east of Sutton Walls (*OS map 1905*)

596 parish boundary hedge SO 4872 5135		**597, hedge adjacent to 596, control**	
hawthorn	8	hawthorn	16
holly	7	holly	0
blackthorn	15	blackthorn	34
hazel	65	hazel	50
dogwood	2	dogwood	0

Two common field hedges are described in the 1608 survey: Preston Field and Thinghill Field. The location of Preston Field boundary hedge is unclear; the Thinghill field hedge however must be the present day road going N-S. to Thinghill Grange, shown on the tithe map, with the fields W. of it sloping down to the Little Lugg stream (SO 5532 4470). The road is straight, running along the side of the hill. The hedge on the W. side lies above a pronounced ledge, with a drop of about 1m. This hedge is 75%–90% English elm, with some maple, occasional blackthorn, hawthorn and ash.

Hedges shown on the c.1725 map, Age: 1,000 to 284 years

These boundaries were divided into

- Boundaries that surrounded the medieval open fields
- Medieval field access tracks
- Enclosure of the medieval strip.

Medieval common field boundaries (Hedges Nos. 24, 3, 556, 564.1, 564.2, 578, 10, 548, 579) were identified from the *c.*1725 map where communal fields are named and mapped. Some of these are green lanes today. These hedges varied from between three and five species per 30m. and are largely thorn and/or English elm, with small amounts of maple and hazel (*Corylus avellena*). The example below is typical.

No 564.1 SO 5380 4915 edge of medieval field	
hawthorn	51
hazel	13
maple	20
English elm	15

Hedges on field access tracks (Nos. 562.1/2, 557, 5, 559), which were dead-end lanes leading to the open field, are more species rich than field boundary hedges. They have five to six species per 30m. and are not dominated by hawthorn. Hedge 559 is typical.

No 599 SO 5255 4989	
hawthorn	29
holly	39
blackthorn	2
maple	25
dogwood	2
elder	1

Some roads on the *c.*1725 map cross fossilised medieval ridge and furrow, implying they were made after the Black Death and the contraction of arable farming. Hedges on these roads (Nos. 561, 2, 547, 563, 7) are comparatively species rich with between three and six species per 30m. Like others pre-dating the *c.*1725 map they were dominated by hawthorn and English elm with small percentages of hazel, ash (*Fraxinus excelsior*), oak (*Quercus species*), maple, elder (*Sambucus nigra*) and sycamore (*Acer pseudoplatinus*). One example (No. 547.3) just before Moreton Bridge, had about 20% maple or about eight plants in 30m. The distribution suggests that this has spread comparatively recently from one plant. Its distribution implies maple has colonised at a rate of 2m. maple/30m./100 years.

Strip enclosure hedges are, in theory, later than the above two types as they date from piecemeal enclosure of medieval open fields which took place from the 16th century. Generally they have between two and four species per 30m.; hedge 588 is typical.

No 588 SO 5680 4655, strip field Preston Wynne	
hawthorn	37
hazel	37
English elm	27

Two examples of strip enclosure (Nos. 28, 558) had between five and seven species, but include cottages in the enclosure and may represent the personal choices of smallholders.[28] One other (No. 549) had seven species, though this was also dominated by hawthorn.

Enclosure Hedges Planted circa 1819

These hedges are securely dated to the period 1808 to 1820, when two Acts of Parliament led to the enclosure of 792 ha. Different types of hedges were made during the enclosure process:

- Field hedges created in arable fields
- Field hedges created in the common grazing marshes
- Track hedges through strips of arable, orchard or pasture
- Track hedges through wood
- Track hedges through common grazing ‘marshes’

Field hedges not on tracks and through arable were all hawthorn with elder; typically eight elders in 110m., and typically 2 ash per 30m., giving an invasion rate of 1 ash/30m./100 years. One N./S .boundary (at SO 5635 4645) had 18% maple.

Field hedges through pasture were entirely thorn; sometimes over 100m. was recorded with no other species present at all.[29] In some hedges there was the occasional oak or ash, and maple was present, in some cases, up to nine per cent.

Field hedges through marsh are primarily hawthorn, with the occasional large willow (*Salix fragilis*); some around 5m. in circumference suggesting they date to the original planting of the hedge. There is nothing to show in the hedge shrubs or ground flora that these ancient marshes have ever been anything but improved pasture.

Track hedges were more species rich than field hedges and had between one and five species per 30m with one hedge (No. 554.2), having nine species.

Hedge No.	**Grid Ref. SO**	**Side**	**Land Use 1818**	**% hawthorn**	**No. species/30m**
553.1	5309 4875	field	Arable	100	1
584	5390 4320	E.	Pasture	95	2
580	5425 4299	S.	Pasture	93	2
585	5450 4385	E.	Marsh	80	3
553.2	5309 4875	W.	Arable	60	4
560.1	5220 4880	S.	Arable	31	2
586	5620 4580	E.	Marsh	28	4
554.2	5311 4885	S.	Arable	25	9
551	5230 4844	N.	Arable	18	3
551.3	5240 4844	N.	Arable	15	2
563.3	5250 4895	N.	Arable	13	5
554	5311 4885	S.	Wood	14	6

Table 2. Species composition of enclosure track side hedges.

Discussion: Enclosure track side hedges

Wood and marsh track hedges are generally more species-rich than arable and pasture but there is no direct correlation. The most species-rich hedge (No. 554.2) is a new track through arable and some 200m. from a wood. It includes hazel, which elsewhere in this survey is shown to be a comparatively slow coloniser. Ash is particularly notable on 19th-century track hedges. It is a shade-tolerant sapling, and can grow in very dense stands when there is a parent tree nearby and germination conditions are good. Field maple is also common on track hedges. Young saplings can be seen bunched around the parent plant (see Fig. 5) and occasionally maples have been laid giving rise to a 5m. maple stand. The track through the wood (No. 554) had English elm, ash, hazel and maple, the last at least 150 years old, growing on the hedge bank, showing that people charged with making the hedge used what was around them. There was also a 10m. stretch of Scottish laburnum (*Laburnum alpinum*) to the E. of No. 554 (at SO 5362 4899). This is a tree that has been observed by the author and others (Trueman, Mortan and Wainwright 1995, 140) growing in pure stands on hedge banks in late enclosed upland areas

throughout mid Wales. Presumably it was a fashionable tree of the 19th or early 20th century and planted by improving landlords.

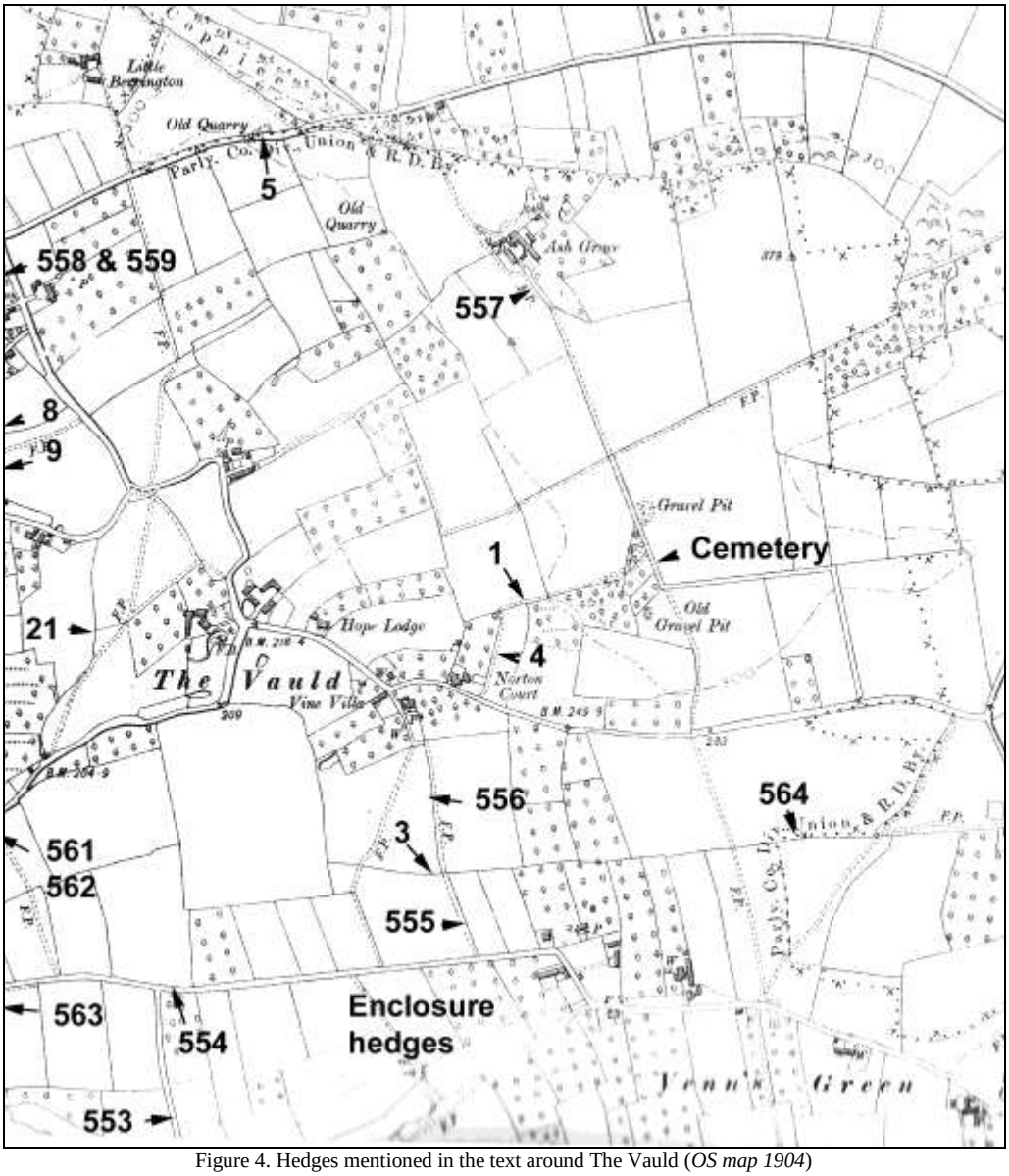

Figure 4. Hedges mentioned in the text around The Vauld (*OS map 1904*)

English elm was not present except on the track through the wood and on one arable track (No. 551.3). This same track to the W. was all blackthorn (*Prunus spinosa*) and hawthorn for more than 1,000m. It suggests that the short section of 85% English elm (at SO 527 485) may

be the remnants of an earlier post-medieval hedge.

Hedges after 1820

All these hedges are over 80% hawthorn with just the occasional willow, ash, elder or hazel. This is with the exception of a total 100% hazel hedge (No. 21, SO 5299 4955). This hedge is beside a stream that in 1725 was a small marsh area. It shows that people did plant hazel in the 19th century. There is little structure to hedges of this period, just a slight mound with the hedge planted on top.

Figure 5. Young maple encroaching on 'enclosure' lane SO 5510 4590

DISCUSSION AND CONCLUSIONS

Without cutting and laying, a hedge becomes a line of trees or (if not grazed) an area of scrub, connected only by brambles (*Rubus fruticosus*) and old man's beard (*Clematis vitalba)*. For a hedge to survive it must therefore be valued by people over centuries. For this reason hedges on manor and parish boundaries—features that have been important for a long time—are likely to be the oldest hedges. In the Marden area, however, streams and deep ditches form this function and few medieval or earlier boundary features survive.

The earliest features, the hillfort, the 5th/6th-century cemeteries and the 7th-century mill are overlain by later boundaries and are not central to the parish today. Domesday shows the main medieval manor centres were established by the 11th century. It suggests that colonisation and/or settlement shift occurred in the 8th to 11th centuries. The majority of medieval fields and tracks must date from this period, though the hedges on them are later. It is clear that some medieval common fields were bounded with temporary fences, possibly due to the particular Marden farming practice of housing animals throughout the year, noted above. Others, however, had live hedges; the 1608 survey talks of the 'bounds hedge' of common

fields on two occasions.

No bluebell, dog's mercury, wood anemone (*Anemone nemorosa*) or wood sorrel (*Oxalis acetosella*) grow in any observed hedges even where there had been wood less than 100 years ago. This was quite surprising as elsewhere in Herefordshire bluebell and daffodil (*Narcissus pseudonarcissus*) have remained for over 150 years after the wood has been destroyed, and dog's mercury is a common species in hedgerows.[30] Though fertilizers and herbicides may have destroyed the ground flora, its absence is notable even in the green lanes where spraying is unlikely. The lack of woodland ground flora suggests all hedges were planted in arable land, long after the clearance of woodland.[31] The shape and layout of hedges, with the exception of those by streams, show they were designed and planted. The difference in field pattern between the north and south of the study area discussed above has not been detected in the hedgerow species, though this may be due to poor survival of boundaries in the northern area.

The earlier 16th- to 18th-century post-medieval enclosure hedges consisted of thorn and/or English elm. By contrast the 19th- and 20th-century hedges were planted with hawthorn with lesser amounts of blackthorn. Invasion rates by other species is low, typically one metre of maple in thirty metres of a hedge in 200 years with lower rates for hazel, and faster for elder (one elder/30m./100 years rate). Track hedges, on the other hand, even those less than 200 years old, have comparatively varied flora. Typically there are 3–5 species per 30m. with large quantities of ash and/or sycamore with many young saplings (e.g. Nos. 560, 563.3). Ash and/or sycamore dominant hedgerows are likely to be recent phenomena, with the original hedge shrubs reduced to a small component. Maple is scattered throughout, found on ancient boundaries (e.g. No. 589) and new hedges alike (e.g. Nos. 584, 586). Its presence is explained by proximity to a parent tree, which in Marden is often near a water course where perhaps patches of woodland were retained in the past. Dogwood was found in pure stands in recent hedges and its presence is due largely to suckering not planting (see Fig. 6).

New hedges made through waste or wood (e.g. Nos. 553, 554 and Ash Ridge, No. 5) are generally more species rich than those through arable or grass. There is good evidence that species such as hazel and maple that were growing in surrounding areas were planted on hedge banks along with elm and thorn. In addition some wood species such as aspen that are hard to eradicate continue to grow and invade the hedge.

There is little in the hedgerow composition to suggest hedges were planted as a resource, even though population figures imply villagers were short of fuel between the 17th and 19th century, and probably in the 14th century. The predominant species are thorn and/or English elm; neither are particularly good fuel plants though elm may have been used as fodder. The 1649 manor surveys (Coningsby, 1813) covering 203 ha. (14% of the parish) listed 521 trees worth 1s. 4d. each, but these specifically belonged to the landlord.

It is not known whether villagers had any rights in Queen's Wood, the 90 ha. of woodland that the manor owned on Dinmore Hill *c.*1725. If managed as coppice, the area was just enough for the Marden's 1664 hearth tax population of around 101 households, at a fuel consumption rate of 2.5 tonnes of fuel/hectares/year.[32] In reality, not all villagers would have been able to afford wood from Dinmore; the poor suffered fuel shortage. A few may have resorted to stealing the lord's hedgerow trees (Shakesheff, 2002).

Figure 6. Dogwood suckering in 'enclosure' lane SO 537 461

Indicator Species

This section discusses indicative features of plants as found from this study.

English elm

Appendix 1 lists the content of English elm in all recorded hedges. It shows it is found in earlier post-medieval hedges, either because it was planted or it has spread from one or two individuals, due to its ability to flourish in the cutting regime. It was recorded only once in a later enclosure hedge (No. 551.3). A substantial English elm element indicates post-medieval enclosure dating around 1600 or earlier.

Hazel

Hazel is only present in post-medieval hedges in small amounts, except near wood, waste and some green lane examples. It implies hazel spreads slowly in arable field conditions. This study has found the rate to be two plants in 500m. in 200 years. There is evidence however that hazel was deliberately planted, in medieval field division hedges; No. 564 for example, (approximately 25% hazel) and the 100% new hazel hedge in Monmarsh beside a stream that was planted about 200 years ago (No. 21) and also by the smallholder cottage (SO 5415 4699, tithe 868/871). Documentary evidence records the deliberate planting of hazel as a hedge crop in post-medieval Wales (Linnard, 1982, 111). Total hazel hedges have been observed elsewhere in Herefordshire, particularly in the W. of the county, in places by water and on the Welsh border where pure hazel hedges on 19th-century banks are a common feature.

Field Maple

Field maple has invaded 19th-century hedges, and in much of the parish it clearly seeds easily and flourishes. In planted elm or thorn field hedges maple has invaded at a rate of 1m. maple/30m. hedge/200yrs. In hedges through waste colonisation is greater, e.g. 5m.

maple/30m. hedge/100 years (No. 553) and the hedge before Moreton bridge, at 2m. maple/30m./100 years (No. 547.3). There is a tendency for maple to bunch; this is due to one tree producing seed that has germinated near the parent (Fig. 5) or to a small tree being laid into a hedge. Maple has also been observed suckering vigorously on hedge banks, though not in the study area.

Holly

In Sutton and Marden holly is only sparsely present, and where found is probably due to seeding in the shady conditions of wood or track. Elsewhere in Herefordshire the profusion of holly in upland areas (e.g. Dilwyn, Craswall, Westhope Common) suggests it has been planted or emerged as a winter fodder crop (Spray, 1981).

Dogwood

Dogwood, though not common, was present in recent track hedges in pure stand stretches up to 20m. in length (e.g. Nos. 560, 551.3, 553). It was also recorded sparsely in hedges near wood or waste. Dogwood is not stock proof and has little use as a crop except for peg-making by gypsies;[33] it is a light-loving shrub and the plant both suckers and grows from seed. Between Middle and Upper Field, Sutton (Fig. 6) dogwood can be seen suckering and spreading out into and along the green lane today. This example proves that dogwood can spread by suckering to give pure stands in less than 200 years. Where found it is probably due to natural processes, from birds dropping the seed; they are fond of the fruit, which germinates well in a hedge as it is shade tolerant, and then spreads by suckering.

Hawthorn

Hawthorn was planted almost exclusively in later 19th- and 20th-century hedges. Grazing pressure in the field and management preferences must account for the mono-species nature of these field hedges. It is also an invasive light-loving species, naturally suited to the hedge environment, but spreads best in open ground as the scrub by the river near hedge No. 549 shows. It is unlikely to invade hedges rapidly and its presence in all the recorded hedges is due to purposeful planting. In Herefordshire it occasionally supports mistletoe.

Blackthorn

Blackthorn grows in small quantities in hedges older than the early 19th century, and either has been planted or naturalised. It was not the favoured 17th- to 19th-century hedging plant except the one example of Brickhouse lane (No. 551).

Oak

Oak is a quick invader into a gappy hedge or waste ground, though is not prolific, presumably because it is grazed off or shaded out. It has been planted or encouraged as standards.

Ash

Ash was not planted as a hedging plant as it is not stock proof, but it seeds easily and can be seen in profusion in new hedges, particularly those that have grown up and become gappy. In hedge 585, which was planted around 1819, 18 ash plants are present in 105m. of hedge. Ash is often left as a standard by farmers though dropping limbs and uprooting causes problems. It was valued in the past by wheelwrights (Blythe, 1969).

Willow and Elder

Willow and elder are both quick colonisers; the latter broadly at a 1m./30m./100 years rate, though it can be faster than this. Both are comparatively short-lived trees and will leave gaps

in the hedge into which other species can colonise.

Damson

Damson trees (*Prunus institia)* are locally common in Herefordshire hedges, and were observed in this study in 19th-century hedges at Burmarsh (SO 536 474). Woldring (1998) has shown that damsons are a separate species and can be grown from seed, i.e. a damson stone will produce a damson tree, though they also sucker freely. Damsons were probably introduced by the Romans and/or in the early medieval period and have naturalised. (Roach 1985) They are often grown in orchards and hedgerows near houses, for fruit and apparently for dye[34] (Mabey, 1996). Their presence at Burmarsh was interpreted as being purposefully planted and subsequently suckering.

Dog's Mercury

Dog's Mercury grows in profusion in Herefordshire in woods, on disturbed ground such as quarry pits, and badger setts in shady spots where little else can be seen growing. It presumably likes the lime in the bedrock brought to the surface and can grow in shade. It is found in many hedges in Herefordshire, but not in the central plain area under study, with the exception of Venn's Wood. Its absence may be yet another indicator of the long-term intensive agriculture of this region.

ACKNOWLEDGEMENTS

I am grateful to Roz Lowe, George Peterken, Gerald Dawe and Penny Oliver for reading and improving the text and to Tony Reeve, Lisa Moffett and Ann Shoring for information on damsons.

ABBREVIATIONS

HRO Herefordshire Record Office
HL Hereford Library
HSM Herefordshire Sites and Monuments Record Number
SMR Sites and Monuments Record
TNA The National Archives
WRO Worcestershire Record Office

APPENDIX 1: HEDGE LOCATION & PERCENTAGE ENGLISH ELM

Number	Grid Ref	Age	Type	% English Elm
551	5230 4844	184	Track	85
12	5135 4713	400	Road to church (road is older than hedge)	70
579	5358 4610	284+	Track between medieval fields	70
563.1/2	5250 4895	284+	Field access track crosses strips	63
562	5280 4920	284+	Field access track	50
556	5335 4935	284+	Field boundary	50
23	5330 4760	284+	Field boundary	50

Number	Grid Ref	Age	Type	% English Elm
547.3	5158 4652	400	Road crossing ridge and furrow, S. end	48
554	5311 4885	184	Track in wood	35 (dominant)
588	5680 4655	400	Strip field enclosure	27
564	5380 4915	284+	Field boundary	24
578	5240 4722	400+	Field edge	10
549	5165 4735	284+	River ledge	3
547	5158 4652	400	Road crossing ridge and furrow	2
548	5168 4672	1000+	Stream edge	2
16	5170 4730	164-284	Hedge	1
558	5275 5000	400+	Strip by garden, cut by road	Present
1	5360 4950	116	Floodplain	0
2	5180 4570	284+	Stream	0
3	5180 4580	164-284	Floodplain	0
546	5199 4599	164-284	Floodplain	0
5	5150 4640	164-400	Floodplain	0
6	5180 4630	164-284	Floodplain	0
9	5270 4975	116	Floodplain	0
10	5230 4670	1000	Ditch	0
13	5232 4725	400	Track	0
14	5230 4700	1000+	Track	0
550	5180 4660	1000+	Roadside	0
551	5230 4844	184	Track	0
552	5253 4860	284+	Strip edge on Con	0
553	5309 4875	184	Track	0
555	5345 4896	164-284	Strip enclosure	0
557	5360 4994	284+	Field access track	0
559	5255 4989	1000+	Field access track	0
560	5220 4880	184	Track	0
561	5270 4901	400	Track crosses strips	0
563.3/4	5250 4895	184	Track	0
21	5299 4955	200	Stream edge	0
566	5590 4875	284+	Track	0
565	5524 4888	284+	Track	0
559	5255 4989	400+	Access track	0
24	5345 4730	400	Field edge	0
4	5350 4935	400	Strip enclosure	0
8	5265 4980	400	Strip enclosure	0
7	5160 4630	284+	Road flood plain	0

APPENDIX 2: PLANT SPECIES MENTIONED IN THE TEXT

Ash (*Fraxinus excelsior*)
Aspen (*Populus tremula*)
Black poplars (*Populus nigra*)
Blackthorn (*Prunus spinosa*)
Bullace (*Prunus x fruticans*)
Damson (*Prunus institia*)
Dogwood (*Cornus sanguinea*)
Elder (*Sambucus nigra*)
English elm (*Ulmus procera*)
Hawthorn (*Crataegus monogyna*), a standard
Hazel (*Corylus avellena*)
Holly (*Ilex aquifolium*)
Hybrid poplar (*Populus species*)
Lombardy poplar (*Populus nigra* 'Italica')
Common lime (*Tilia x europea*)
Maple (*Acer campestre*)
Oak (*Quercus species*)
Privet (*Ligustrum vulgare*)
Small leaved lime (*Tilia cordata*)
Willow (*Salix species*)
Wych elm (*Ulmus glabra*)
Bartsia (*Odontites verna*)
Bluebell (*Endymion non-scriptus*)
Dog's mercury (*Mercurialis perennis*)
Rose (*Rosa canina*)
St John's wort (*Hypericum perforatum*)
Trefoil (*Trifolium species*)
Wood brome (*Bromus ramosus*)
Yellow rattle (*Rhinanthus serotinus*)

BIBLIOGRAPHY

Baudry, J.R., Bunce, G. H. and Burel, F., Hedgerows: 'An international perspective on their origin, function and management', *Journal of Environmental Management* 60, 7–22.
Barr, C. J., and Gillespie, M. K., 'Estimating hedgerow length and pattern characteristics in Great Britain using Countryside Survey data', *Journal of Environmental Management*, 60 (2000), 23–32.
Blythe, R., *Akenfield* (1969).
Brandon, A., G*eology of the country between Hereford and Leominster*. Memoir for 1.50,000 Sheet 198, British Geological Survey, (1989).
Brian, A., '"As to the river Lugg" – its vanished mills, broken weirs and damaged bridges', *Trans. Woolhope Natur. Fld. Club*, vol. XLVIII pt. 1 (1996), 37–96.
Buckley, G. P., (ed), *Ecology and Management of Coppice Woodlands* (1992).
Clark, J., *General view of the agriculture of the County of Hereford* (1794).
Clapham, A. R., Tutin, T. G., Moore, D. M., *Flora of The British Isles* (1989).
Collingwood, R. G. and Myers, J. N. L., *Roman Britain and the English Settlements*, Clarnedon Press, Oxford (2nd. edition).
Earl Coningsby, *Collections concerning the Manor of Marden*, HA, B64/1, (1813).
Darby, H. C. and Terrett, I. B., (eds), *The Domesday Geography of Midland England* (1971).
Davies, W., *An Early Welsh Microcosm. Studies in the Llandaff Charters* (1978).
Deckers, B., Hermy, M. and Muys, B., 'Factors affecting plant species composition of hedgerows: relative importance and hierarchy', *Acta Oecologica*, vol. 25 pt. 1 (2004), 23–37.
Dinn, J. and Roseff R., *Alluvium and archaeology in the Lugg Valleys* in Needham and Macklin (1992), 141–155.
Dodgshon, R. A., *The origin of British Field Systems An Interpretation* (1980).
Dohar, W. J., *The Black Death and Pastoral Leadership. The Diocese of Hereford in the 14th century*, Philadelphia: University of Pennsylvania Press (1995).
Whiteman, A (ed) 1986 *The Compton Census of 1676 A critical edition* Records of Social and Economic History, New Series – X, British Academy Oxford University Press, Oxford.

Doogue, D., The composition of the hedges of Leinster, Ireland, with particular reference to the taxonomy and ecology of the genus Rosa Linnaeus, PhD. thesis, Trinity, Dublin (1994).
Duncumb, J., *General view of the agriculture of the county of Hereford. Drawn up for the consideration of the Board of Agriculture and Internal Improvement* (1805).
Dunn, C. P., (ed), *The Elms, Breeding, Conservation and Disease Management* (1999).
Dyer, C., *Farming Practices and Techniques, The West Midlands*, in Miller (Ed), (1991), 636–648.
Dyer, C., *Making a Living in the Middle Ages. The People of Britain 850–1520* (2002).
Evans, J., *Coppice forestry – an overview*, in Buckley, (1992) 18–29.
Evelyn, J., *Sylva* (1664).
Faraday, M. A., *Herefordshire Militia Assessments of 1663* (1972).
Fenwick, C., (ed), *The Poll Taxes of 1377, 1379 and 1381* (1998).
Finberg, H. P. R., *The Early Charters of the West Midlands* (1961).
K. Fretwell, *Hedges* in Skelton (1983).
Gil, L., Fuentes-Utrila, L. P., Soto, A., Teresa Cervera, M., Collada, C., 'English elm is a 2,000-year-old Roman clone', *Nature*, vol. 431 (2004), 1,053
Gonner, E. C. K., *Common Land and Inclosure* (1966).
Gray, H. L., *English Field Systems* (1915).
Gwatkin, G., *The complete list of landowners from the tithe maps of Herefordshire* (2003).
Hickling, R., 'Field day on hedgerow analysis in Moccas and Bredwardine parishes', *Herefordshire Archaeology News* 27 (1973), 6–7.
Hollingsworth, P. M., Hollingsworth, M. L. and Coleman, M., *The European Elms: Molecular Markers, Population Genetics and Biosytematics*, in Dunn (1999), 3–21.
Hooke, D., *The Early Medieval Landscape*, West Midlands Regional Research Framework for Archaeology (2004).
Hooke, D., (ed), *Anglo-Saxon Landscapes of the West Midlands: The Charter Evidence* (1981).
Johnson, W., *Hedge Dating and Hedgerow Flora*. Information Booklet No V, Worcestershire Nature Conservation Trust Ltd (*c.*1990).
Leadam, I. S., *The Domesday of Inclosures 1517–1518* (1897).
Linnard, W., *Welsh Woods and Forests; History and Utilization* (1982).
Lodge, J., *Introductory Sketches, towards a Topographical History, of the County of Hereford* (1793).
Lovelace, D., 'A Study of Tudor Bringewood', unpublished report for the Forestry Commission (2003).
Mabey, R., *Flora Britannica* (1996).
Martin, S. H. M., *Sutton St Nicholas and Sutton St Michael, Hereford* (1953).
Miller, E., (ed), *The Agrarian History of England and Wales*, vol. III 1348–1500 (1991).
Miller, E. and Hatcher, J., *Medieval England; Rural Society And Economic Change 1086–1348* (1978).
Morris, J., *The Age of Arthur; A History of the British Isles from 350 to 650* (1977).
Needham, S. and Macklin, M., (eds), *Alluvial Archaeology in Britain* (1992).
Farquhar-Oliver, P., *Parliamentary enclosure in Herefordshire* (2003).
Orwin, C. S. and Orwin, C. S., *The Open Fields* (1938).
Palliser, D. M., *The Age of Elizabeth* (1983).
Pollard, E., Hooper, M. D., Moore, N. W., *Hedges* (1974).
Pratt, C. W., 'The Charter Bounds of Acton Beauchamp', *Trans. Woolhope Natur. Fld. Club*, vol. XLIX pt. 1 (1997), 33–47.
Pratt, C. W., 'An interpretation of a Tudor manorial survey of Acton Beauchamp with reference to the history of the landscape', *Trans. Woolhope Natur. Fld. Club*, vol. L pt. 2 (2001), 184–224.
Pryor, F., *Britain BC* (2003).
Rackham, O., *The Illustrated History of the Countryside* (1994).
Rackham, O., *Ancient Woodland. Its history, vegetation and uses in England, New Edition* (2003).
Rees, W. J., *Liber Landavensis, Llyfr Teilo* (1840).
Roach, F. A., *Cultivated Fruits of Britain; Their Origin and History* (1985).
Roderick, A. J., 'Open-Field Agriculture in Herefordshire in the Later Middle Ages', *Trans. Woolhope*

Natur. Fld. Club, vol. XXXIII pt. 2 (1950), 55–68.
Rogers, J. E. T., *A History of the Agriculture and Prices in England, 1259–1547* (1866).
Sawyer, P. H., *Anglo-Saxon Charters* (1968).
Shakesheff, T., 'Wood and Crop Theft in Rural Herefordshire, 1800–1860', *Rural History*, vol. 13 pt. 1 (2002), 1–17.
Sheppard, J. A., 'The origins and evolution of field and settlement patterns in the Herefordshire manor of Marden', *Dept Geography, University of London Occasional Papers* No. 15 (*c*.1975).
Skelton, R. E., 'Dispersed or nucleated? Settlement in the parish of Little Hereford North of the River Teme 1086–1845', *Trans. Woolhope Natur. Fld. Club,* vol. L Pt. 2 (2001), 144–161.
Skelton , R. E., et al., *The Peterchurch Survey* (1983).
Spray, M., 'Holly as Fodder in England', *The Agricultural History Review,* vol. 29 pt. 2 (1981), 97–110.
Sylvester, D., *The Rural Landscape of the Welsh Borderland. A Study in Historical Geography* (1969).
Taylor, C., 'Nucleated settlement: a view from the frontier', *Landscape History*, vol. 24, (2002) 53–77.
Taylor, E., *Kings Caple in Archenfield* (1997).
Thirsk, J., (ed), 'The Farming Regions of England', in Thirsk (ed), *The Agrarian History of England and Wales,* vol. IV, *1500–1640* (1967).
Thorn, F. and Thorn, C. (eds.), *Domesday Book 17 Herefordshire* (1983).
Trueman, I., Morton, A. and Wainwright, M., *The Flora of Montgomeryshire* (1995).
Vipond, P. M., 'The landscape and settlement of south-west Cheshire: a case study of seventeen townships in the Dee Valley', PhD. thesis, Liverpool, (2000).
Whitehead, D., 'Brampton Bryan Park: A Documentary History*'* in *Landskip and Prospect Report for English Nature* (1996).
Williamson, T., *Shaping Medieval Landscapes, settlement, society, environment,* (2003).
Williamson, T., *Hedges and Walls*, (2002).
Williamson, T. and Bellamy, L., *Property And Landscape; A Social History Of Land Ownership And The English Countryside* (1987).
Woldring, H., 'On the Origin of Plums: A study of sloe, damson, cherry plum, domestic plums and their intermediate forms', *Palaeohistoria*, vol. 39/40 (1997/98), 535–562.
Wordie, J. R., 'The Chronology of English Enclosure 1500–1914', *The Economic History Review,* vol. XXXVI pt. 4 (1983), 483–505.

REFERENCES

[1] Morris 1977, 434.
[2] Of 1,408 features mentioned in the charters most are natural, such as rivers or streams (321 mentions, or 23%,) or hills or valleys (121). Man-made linear features are common such as roads (54) dykes and ditches (94). Woods are mentioned 39 times and there are occasional mentions of named trees such as thorn, ash, apple and yew. Hedges are not mentioned though fields (11), cultivated land (2), villages (40) and land units (uncia 22) are. (calculated by the author from Rees 1840).
[3] It is interesting to note that ridge and furrow shown on aerial photographs and recorded on the SMR, and the field name 'furrow' occur all over Herefordshire, except in Archenfield. Both features are indicative of medieval ploughing.
[4]A dead hedge is either a wall, fence or a collection of brushwood piled into a linear boundary. In Marden a memorandum of agreement dated to 1608 (HRO, B43/28) reads, 'John Addis is to have 12 kine if he keep the hedge adjoining to the Olde Lee during the limited time of enclosing it' indicating the fence was partial and/or temporary, that is, it was a dead hedge. Paling accounts of Brampton Bryan park show that the park pale was frequently taken up, repaired and moved to other parts of the park. Paling was a constant chore carried out by tenants in lieu of rent (Whitehead 1996).
[5] There is, of course, an equally strong force for 'keeping up' with new developments regardless of their efficacy.
[6] Dr. Janet Cooper, personal communication.
[7] R. H. Tawney quoted in Palliser 1983, 184.
[8] The National Archives, Kew (TNA), LR2/217. Leominster Priory held lands in a number of parishes in Herefordshire.
[9] Coningsby 1813, 116.
[10] Herefordshire Record Office (HRO), BE/80.
[11] TNA, LR2/217, box of documents covering several years.
[12] Coningsby 1813.
[13] HRO, J94/1. Date assumed to be 1725 in text hereafter.
[14] HRO, AA59/ Bishops Estates. I am grateful for Dr. Anthea Brian for bringing this to my attention.
[15] HRO, B43/19.
[16] Information from nine Inclosure Acts dating from 1774 to 1863, from notes collected by Penny Oliver.
[17] e.g. at Westhope, 1795 agreement, Worcestershire Record Office, BA81/705:24/5/1375.
[18] Herefordshire Sites & Monuments Record (henceforward HSM) 1026.
[19] Ash Grove quarry, HSM 6544 and Franklands Gate, HSM 31109.
[20] HSM 5522.
[21] HSM 1026.
[22] HSM 10000.
[23]1608 manor bounds survey (TNA, LR2/217 pages 95, 96), *c*. 1725 estate map (called the Coningsby map) which covers about 30 sq km at *c*. 1:2376 scale (HRO, J94/1); an 1818 enclosure map, the 1840 tithe map and an 1888 first edition Ordnance Survey map; all documents held in HRO.
[24] The track through 678 east of Moreton Bridge and the track through 663a Bell Field.
[25] Archive lodged in Herefordshire Record Office, as yet uncatalogued.
[26] TNA LR2/217 pp. 95, 96.
[27] It was in Dinmore and belonged to the Knights Templar who were exempt from tithe.
[28] Hedge 558 surrounds a garden today, and the biodiversity may have been purposely increased by the owner.
[29] This hedge surveyed 18/1/2005.
[30] For example, at Eaton Bishop SO 4405 3965 daffodils persist in the hedgerow, shown as a small patch of wood in 1888 but no longer present in 1964.
[31] The only exception is the field access track hedge No. 559 near the deer park, which may have developed in a waste area near the park.
[32]Well-managed coppice can yield 2.5t./ha./year (Evans 1992). Witness statements recorded in a number of documents relating to Bringewood Chase (in the north of Herefordshire) dated to the last quarter of the 16th century stated that household needs were 2.5 tonnes p.a. (Lovelace 2003).
[33] Joe Weaver, personal communication.
[34] The dye use has not been substantiated and experiments by Anne Shoring and the author suggest they give only a weak pink colour which fades with time, hardly worth the effort.

Middle Pleistocene glaciation in Herefordshire

By ANDREW E. RICHARDS

The Pleistocene history of Herefordshire has, until recently, been largely ignored. The mapping by the British Geological Survey identified glacial deposits in the lower Lugg valley older than the Late Devensian ice-lobe, the limit of which had been debated for some years. This paper aims to present, through a sequence of simple palaeogeographical reconstructions, evidence for Middle Pleistocene glaciation in Herefordshire.

Much of the early work on glaciation in the county has been recorded in the *Transactions* of the Woolhope Naturalists' Field Club and discusses landform development in the Dimlington Stadial of the Late Devensian Substage, around 18,000 years ago (Grindley, 1911, 1918, 1936, 1954; Dwerryhouse and Miller, 1930; Wills, 1938, 1950; Pocock, 1940; Luckman, 1970; Hodgson, 1972; Cross and Hodgson, 1975).

Prior to mapping by the British Geological Survey (BGS) from 1981–1989, there was disagreement regarding the extent of the Late Devensian ice-lobe in the region, with a number of authors extending this limit to the Bromyard area (Fig. 1). However, the BGS established that glacial deposits east of the River Lugg and north of Hereford (Fig. 2) are compositionally and stratigraphically distinct from those associated with the 'Herefordshire Lobe' of the Late Devensian end moraine, and adopted the concepts of 'newer' and 'older drift' to describe the deposits, as originally proposed by Charlesworth (1929). Their geographical situation, general appearance and composition suggest that they are distinct from, and older than, Devensian deposits of the region to the west (Sumbler, 1984).

Brandon (1989) presented further evidence for subdivision of the glacial deposits of Herefordshire, mapping at least four separate terrace aggradations in the lower Lugg valley between Bodenham and Hereford. Like corresponding terraces in the lower Wye valley (Hey, 1991), these gravels are demonstrably older than the Late Devensian end moraine and younger than the higher level glacial deposits of northeast Herefordshire.

The authors work on the 'older drift' had two main aims: firstly, to present the mode of formation of the 'older drift' and establish their provenance; secondly, to distinguish independent geological units within the 'older drift' and establish correlations with Pleistocene deposits in surrounding regions.

THE STRATIGRAPHIC UNITS OF THE 'OLDER' DRIFT

Richards (1994, 1998) formally defines the 'older drift' of Brandon (1989) as the Older Drift Group. This Group includes three stratigraphically distinct units: a unit which incorporates sediments derived from ice-marginal deposition at various stages of ice-sheet retreat, and two further units which represent fluvial deposition before, and subsequent to, this glaciation. Following correlation of the glacial deposits within the Older Drift Group with pre-Hoxnian glacial deposits on the west side of the Malvern Hills, Richards (1994, 1998) formally designates Formations and associated Members within the Older Drift Group (Table 1) and incorporates these units within a regional Middle to Late Pleistocene stratigraphic scheme (Table 2). This table presents a record of landscape development in Herefordshire for the last 500,000 years. This paper will illustrate a sequence of key phases during Middle Pleistocene glaciation in Herefordshire.

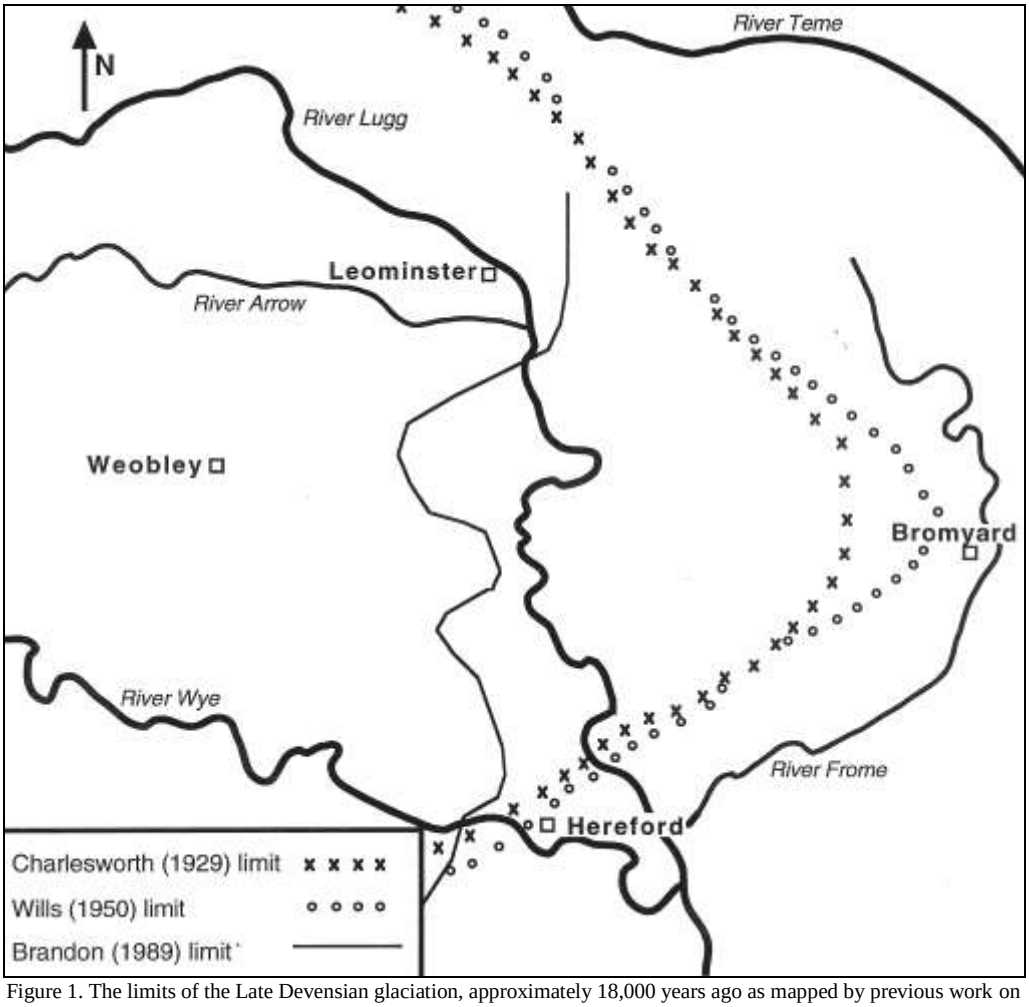

Figure 1. The limits of the Late Devensian glaciation, approximately 18,000 years ago as mapped by previous work on the region

PALAEOGRAPHICAL RECONSTRUCTIONS OF THE MIDDLE PLEISTOCENE GLACIATION OF HEREFORDSHIRE

Much of the material mapped by Brandon (1989) as 'older drift' consists of glacial sediments. Brandon (1989) suggested that these sediments were deposited by an ice-sheet which advanced from the north-west. A small group of deposits, at Portway, are reported to be derived from an ice-sheet emanating from the Black Mountains (Brandon and Hains, 1981).

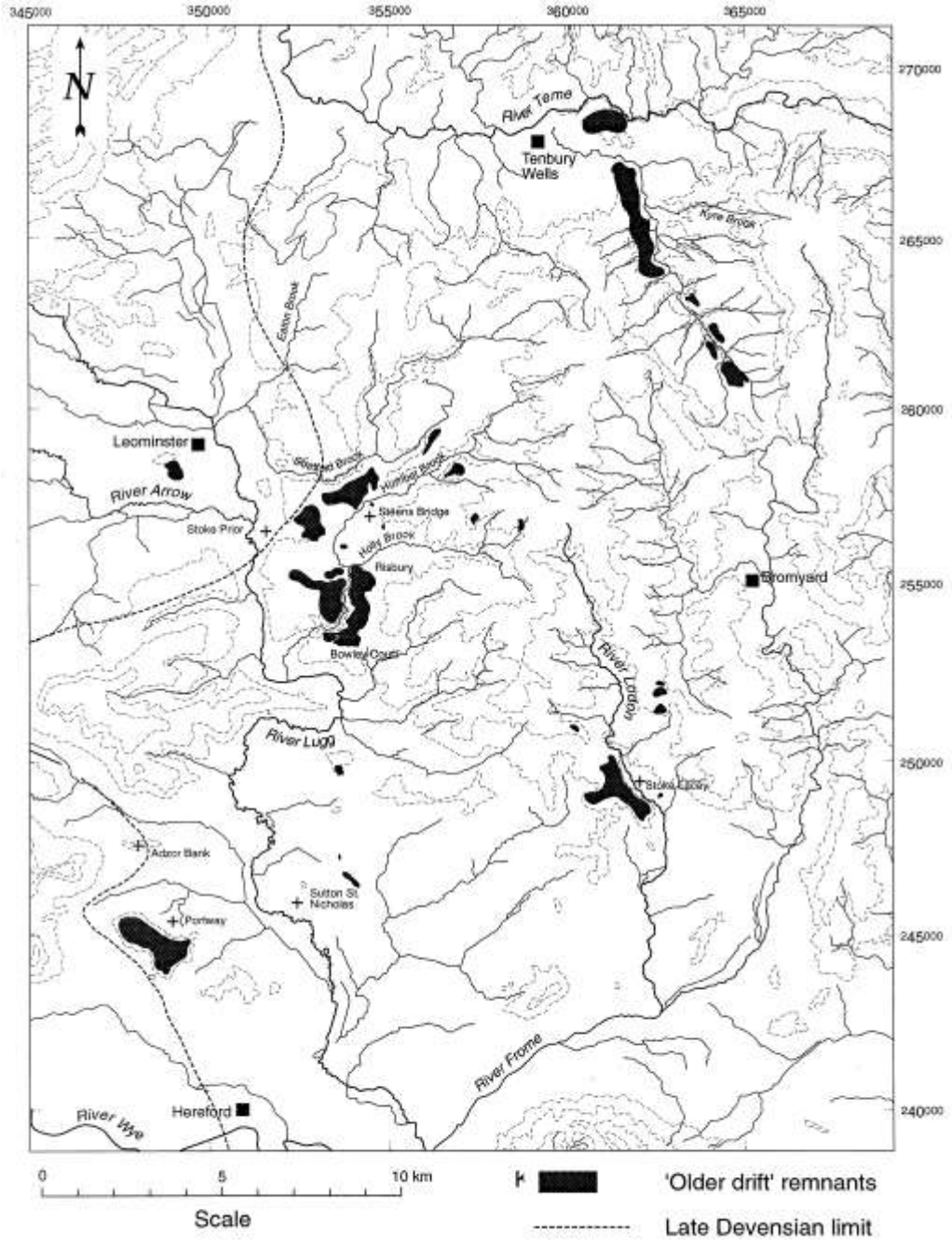

Figure 2. The topography and drainage of north-east Herefordshire and the positions of high level gravels of the 'older drift'

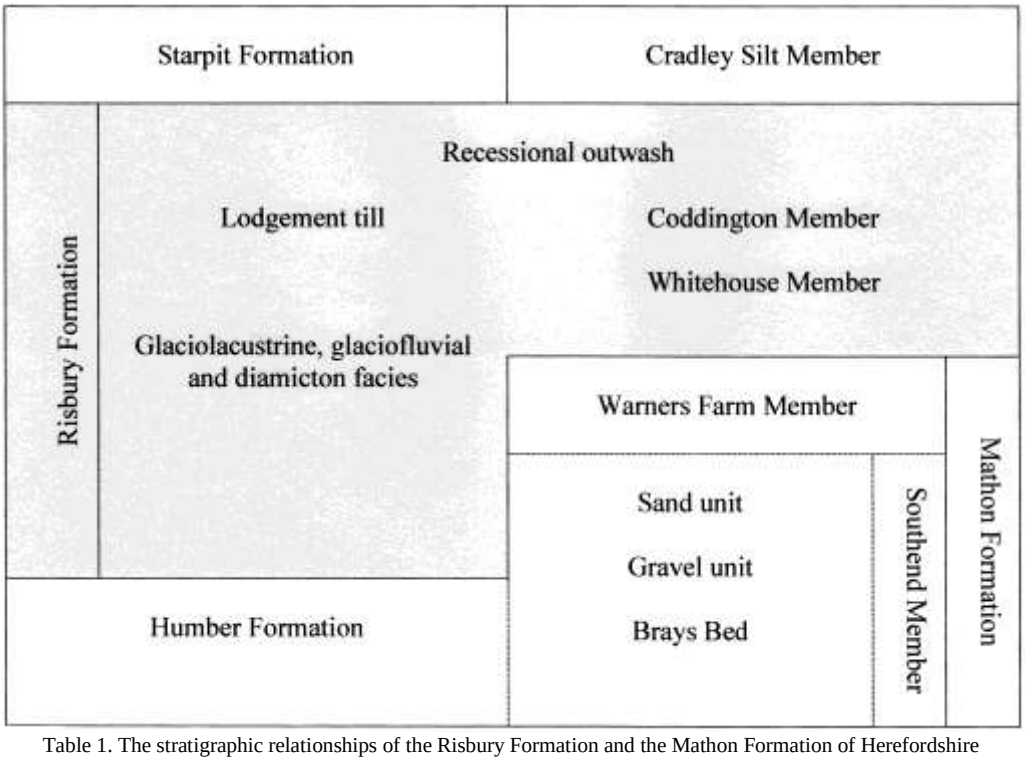

Table 1. The stratigraphic relationships of the Risbury Formation and the Mathon Formation of Herefordshire

These glacial deposits were formally designated the Risbury Formation by Richards (1994, 1998), as part of the stratigraphic reassessment of the 'older drift'. The bulk of the Formation consists of poorly sorted gravels, sands, silts and clays which include high proportions of locally derived Lower Older Red Sandstone (LORS) calcretes, mudstones and sandstones. Rounded to sub-rounded and tabular Lower Palaeozoic siltstones and sandstones comprise between 25 and 40% of the small pebble fraction and there are small quantities of quartzite and igneous pebbles. In contrast, gravels of the Portway Member of the Risbury Formation include gravels which are dominated by locally generated LORS clasts, with Lower Palaeozoic and igneous material comprising less than 5% of the small pebble fraction.

The Risbury Formation consists of a range of glacial deposits. Accurate mapping and sedimentological analysis of excavations and existing sections revealed a variety of glacial tills, glaciofluvial and glaciolacustrine sediments, many of which have been contorted, during and after deposition (Richards, 1994, 1998). These deposits record the various positions of a lobe which extended from an ice-sheet emanating from central Wales. On retreat from its maximum extent in the area immediately west of the Malvern Hills, the lobe re-advanced in a number of areas. Landscape evolution associated with Middle Pleistocene glaciation, will be discussed with reference to these key stages.

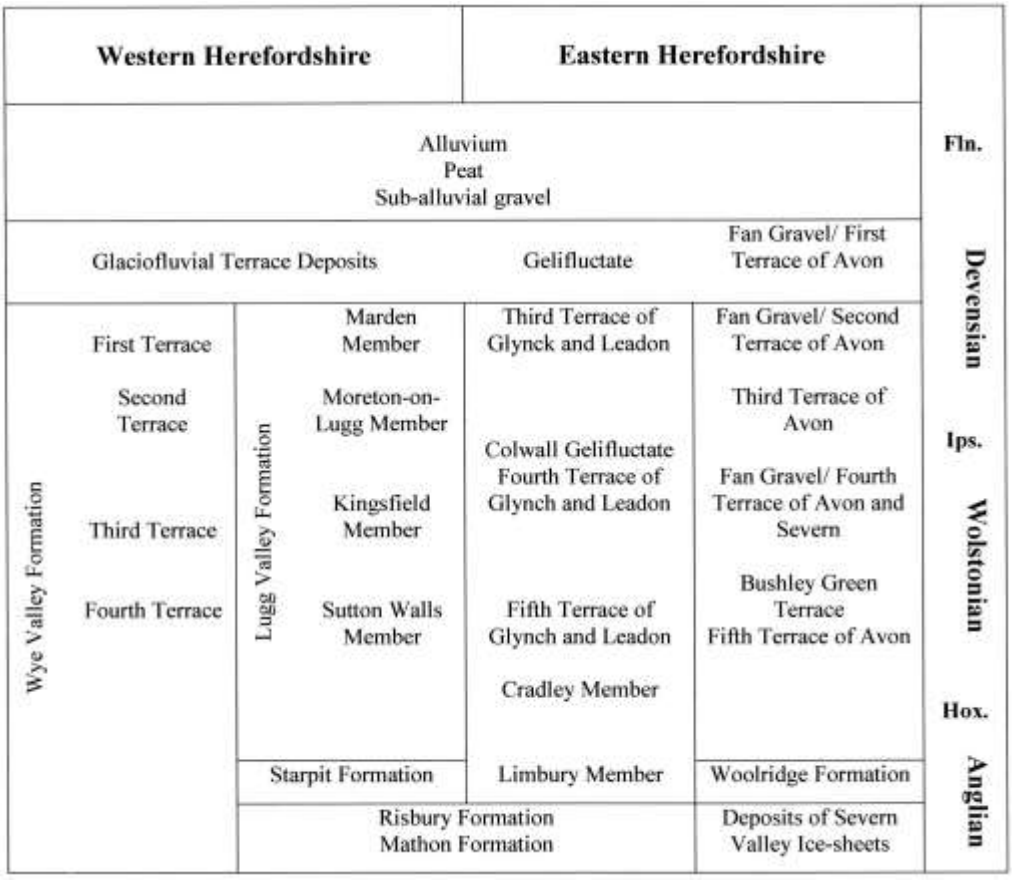

Table 2. Middle to Late Pleistocene stratigraphy of Herefordshire, related to the stratigraphic scheme established for the Severn and Avon Valleys (Richards, 1994; Barclay et al. ,1992; Hey, 1991). Stage names after Mitchell et al. (1973). Wolstonian after Gibbard and Turner (1990)

Stage 1. (Fig. 3) The Middle Pleistocene ice-sheet formed a lobe between the higher ground formed by the more resistant St. Maughans Formation (LORS) to the north, the Silurian inlier of the Woolhope Dome to the south and extended as far as the Cradley Brook valley, immediately west of the Malvern Hills. This ice-sheet reworked pre-existing northerly derived fluvial gravels of the Mathon Formation and in the Cradley Brook valley, glacial deposits interbed with cold stage fluvial deposits derived from the southward flowing Mathon River. (Coope *et al.*, 2002).

Evidence for glaciation in the Cradley Brook valley is outlined in Richards (1994), Barclay *et al.* (1992) and Coope *et al.* (2002). This sequence records the presence of a northerly derived Cold Stage fluvial system, the Mathon River, which became increasingly affected by the Middle Pleistocene ice-sheet. The 'Coddington Till' records glacial incursion and a glaciolacustrine unit, the 'Whitehouse Silts' represents the damming of the fluvial system by the ice-sheet.

Drainage of the ice-dammed lake is likely to have been funnelled through the Glynch

Brook valley on retreat of the ice-sheet, with associated recessional outwash forming the Limbury Gravels. A further suite of sediments, the Woolridge Gravels, is likely to have formed as recessional outwash from a 'West Midlands' ice-sheet which flowed along the eastern side of the Malvern Hills during or just after the 'Welsh' advance reached its maximum extent in the Cradley Brook Valley.

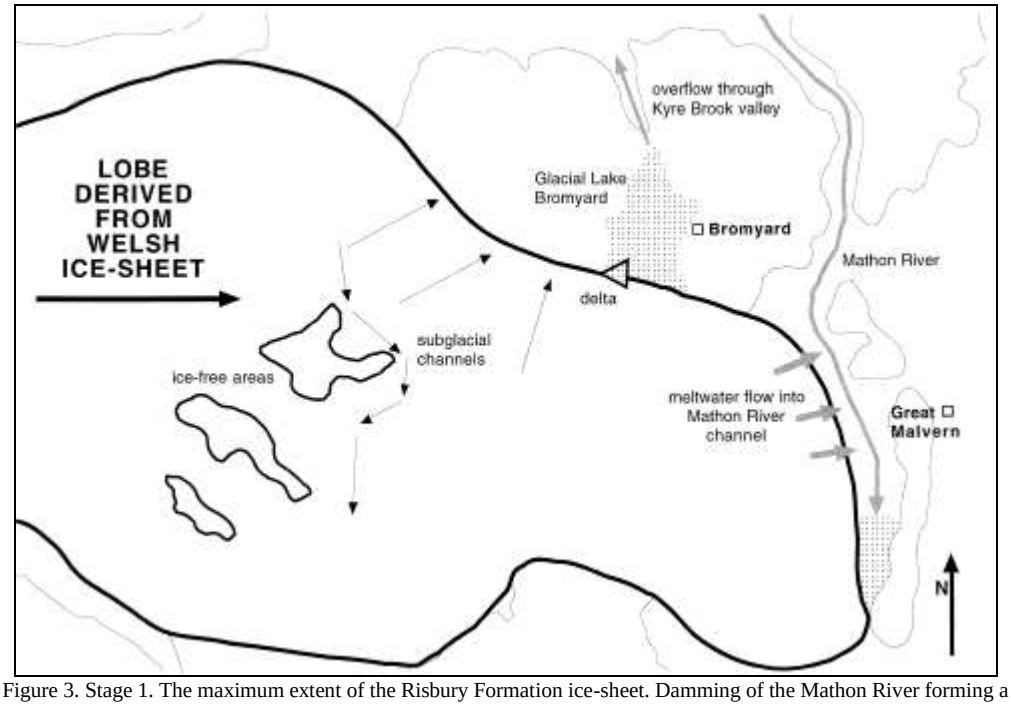

Figure 3. Stage 1. The maximum extent of the Risbury Formation ice-sheet. Damming of the Mathon River forming a lake in the Cradley Brook valley and Glacial Lake Bromyard

At its maximum extent, the Middle Pleistocene ice-sheet reached approximately 170m. OD against the resistant plateau, formed by the St. Maughans Formation (LORS) southwest of Bromyard at Cricks Green (SO 626 517). Meltwater from the ice-sheet fed an ice marginal lake which covered approximately 8km.^{2} in a basin-shaped depression directly west of Bromyard. The former lake levels have been inferred from a sequence of glacio-deltaic sediments at Newton Farm. There is little additional sedimentological or morphological evidence for this water body which is likely to have been relatively short-lived. When water levels reached a critical point, a period of catastrophic drainage ensued which may have incised the gorge immediately north of Bromyard. Subsequent drainage may have followed the course of the present Frome valley, or it may have swung northwards.

However, there is evidence for a catastrophic drainage event in the Kyre Brook Valley (SO 642 624). The valley floor is covered with gravels and sands which, while highly dissected, display irregular, large-scale 'ripples'. Exposure in these terrace deposits reveal a distinct facies change from medium-fine grained sand waves to coarse gravel mega-ripples, which while containing lithologies derived from Clee Hill and areas to the north, suggest high flow velocities propagated from the south. It is suggested that catastrophic drainage from

Glacial Lake Bromyard flowed over the col at Collington, into the Kyre Brook valley and reworked gravels derived from a pre-existing, northerly derived fluvial system, formerly associated with the Mathon Formation. Similar features formed after catastrophic meltwater release from the Laurentide ice-sheet in North America *(vide* Baker, 1973; Fraser and Bleuer, 1988; Kehew and Lord, 1987).

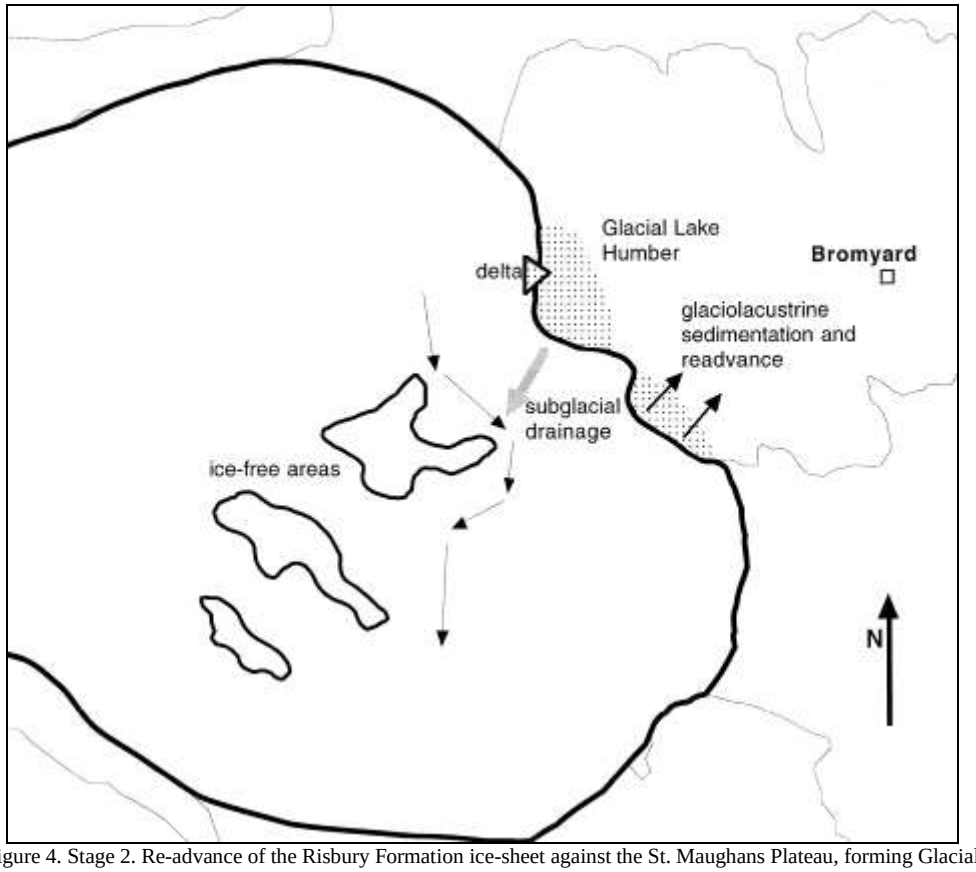

Figure 4. Stage 2. Re-advance of the Risbury Formation ice-sheet against the St. Maughans Plateau, forming Glacial Lake Humber, ponding and an ice-pushed ridge in the Stoke Lacy area

Stage 2. (Fig. 4) From its maximum extent at Cricks Green and the Cradley Brook Valley, the ice-sheet retreated and during a brief period of re-advance oscillated against the high ground of the St. Maughans Plateau at Stoke Lacy (SO 623 484) and Stoke Prior (SO 520 565). In both areas, re-advance of the ice-lobe was followed by a period of stagnation, the impoundment of meltwaters against the higher ground of the St. Maughans Plateau and subsequent oscillation in the ice-margin.

Evidence at Stoke Lacy suggests melting of the ice-sheet and ice-marginal ponding, before a phase of re-advance in which coarse proglacial gravels were deposited. Mapping on the ridge at Stoke Lacy has revealed the complex arrangement of these proglacial deposits, in places they are highly inclined and contain lenses of sand and diamicton. This ridge is thought

to have been subject to pushing at the margins of the re-advancing ice-sheet. Compression, to form an 'ice-pushed ridge', is likely to have been accompanied by reversed shear planes developing in the marginal portions of the ice-sheet. On retreat of the ice-front, blocks of the ice-sheet which were intersected by these shear planes, may have become dislocated to stagnate *in situ* forming blocks of melt-out till, as exposed at Windmill Hill (SO 366 487), and recessional outwash.

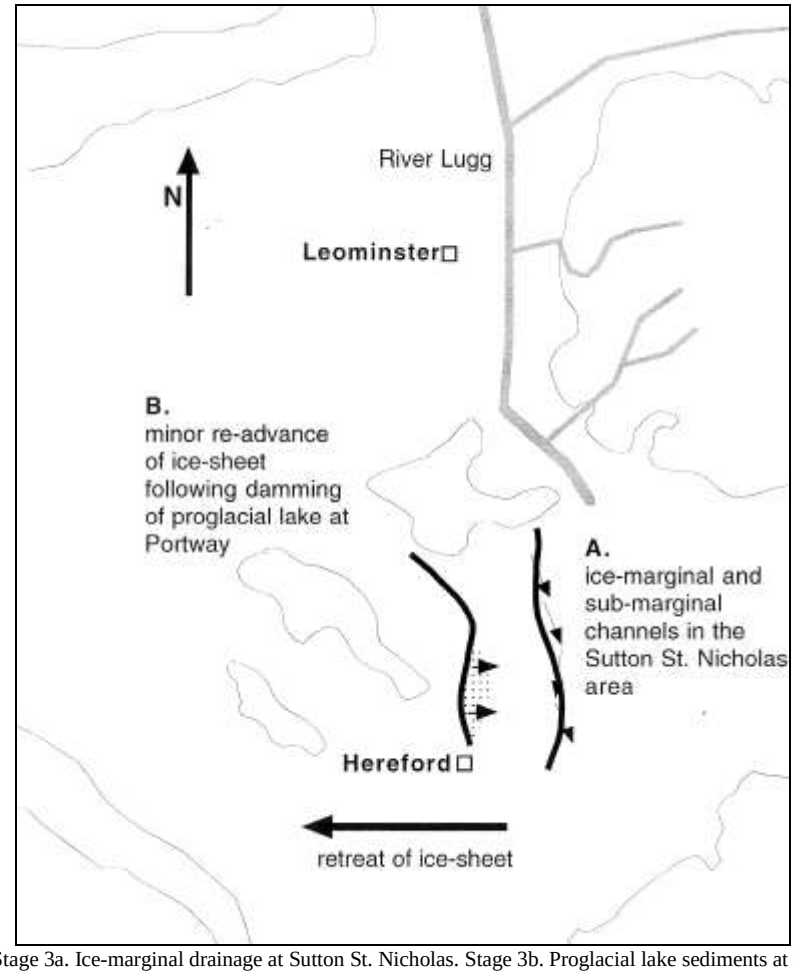

Figure 5. Stage 3a. Ice-marginal drainage at Sutton St. Nicholas. Stage 3b. Proglacial lake sediments at Portway are deformed by minor oscillation of the ice-sheet

At Stoke Prior the ice-sheet re-advanced both south and west of the St. Maughans Plateau, initially depositing levels of subglacial till and up to 5m. of coarse gravels before melting to form a glaciolacustrine body, confined by high ground rising to the east. The lake was fed by a large prograding delta formed above the col at Stoke Prior (SO 520 565). When the glaciolacustrine body reached a critical level, the ice-dammed lake drained through a tunnel beneath the ice-sheet as a 'jokulhlaup', incised into the pre-existing channel of the Humber Brook at Risbury Bridge (SO 539 550). This drainage took place through a confined subglacial channel under very high flow regimes, allowing erosion through 6m. of coarse subglacial gravels and an additional 4m into the underlying St. Maughans Formation bedrock.

Stage 3a. (Fig. 5) A series of glaciofluvial gravel remnants in the Sutton St. Nicholas area (SO 549 465) represent phases of deposition in an ice-marginal channel, during a further phase of re-advance of the Middle Pleistocene ice-sheet. All parts of this channel were partially supported by the ice-mass and a regional slope formed by the eastern flank of the pre-existing Lugg channel. High velocity, ice-marginal sedimentation took place both subaerially and within subglacial 'chutes'. At Franklands Gate (SO 542 464), the subaerial/ submarginal channel became deformed into a series of simple and recumbent folds during a minor oscillation of the ice-front.

Stage 3b. (Fig. 5) Risbury Formation deposits at Portway (SO 485 454) document a further oscillation in the Middle Pleistocene ice-margin. Following the deposition of a broad, braided outwash system which included debris transported within ice-rafts, the ice-sheet readvanced, depositing till and damming the northerly flowing meltwater to form a proglacial lake. The period of stagnation was short-lived and the fine grained glaciolacustrine sediments were deformed by an oscillation of the ice-front to form a sequence of large scale sheath folds, thrust nappes and faults. The brief phase of re-advance was followed by ice-sheet stagnation. Sediment gravity flows were released and high volumes of meltwater from beneath the ice-sheet fed an outwash sandur which flowed in a southerly direction at the margins of the ice-sheet.

THE PROVENANCE OF THE MIDDLE PLEISTOCENE GLACIATION

While Brandon (1989) prescribes movement of the Middle Pleistocene ice-sheet from the northwest, till fabric analysis and the measurement of principal stress planes from glaciotectonic phenomena suggest that the various phases of movement of this ice-sheet occurred were dominantly from west to east. The lithological composition of the Risbury Formation also suggests that the ice-sheet moved from central Wales. The high proportions of northerly derived, lower Palaeozoic, Carboniferous, Triassic and Precambrian pebbles contained within the Risbury Formation were reworked by the ice-sheet from a pre-existing, northerly-derived Cold Stage fluvial system. Owing to their location west of the present Lugg valley, the gravels of the Portway Member do not contain these reworked pebbles, but the member does represent glacial deposition during the same phase and not by a separate, smaller lobe from the Black Mountains, as suggested by Brandon and Hains (1981). Conclusively, clear evidence for a westerly provenance is provided by the lack of glacial deposits on the high ground to the north of the St. Maughans Plateau, or capping the areas northwest of Leominster which remained ice-free during late Devensian glaciation.

Therefore, the spatial distribution of the Risbury Formation in addition to their compositional, structural and sedimentological characteristics, suggest deposition by a westerly derived ice-sheet, probably following a path duplicated by the 'Herefordshire lobe' of the late Devensian ice-sheet over 400,000 years later.

CONCLUSIONS

1. Herefordshire can be demonstrated to have been affected by ice-sheet development, emanating from central Wales, during at least two Cold Stages of the Pleistocene Epoch.
2. The glacial deposits of the Risbury Formation document the maximum extension of a lobe from the Middle Pleistocene ice-sheet across Herefordshire as far as the Malvern Hills.
3. During the retreat of the Middle Pleistocene ice-sheet, a series of localised readvances can be recognised, during which ice-pushed ridges, ice-marginal melt-water channels and two large ice-dammed lakes were produced near Bromyard and Stoke Prior .
4. The Risbury Formation represents the only evidence of large-scale, pre-Hoxnian ice-sheet development in western England and Wales

REFERENCES

Baker, V.R., 'Palaeohydrology and sedimentology of Lake Missoula flooding in eastern Washington', *Geological Society of America Special Paper 144*, (1973), 79 pp.
Barclay, W.J., Brandon, A., Ellison, R.A. and Moorlock, B.S.P., 'A Middle Pleistocene palaeovalley-fill west of the Malvern Hills', *Journal of the Geological Society, London,* 149 (1992), 75–92.
Brandon, A., *The Geology of the country between Hereford and Leominster*, (1989), Memoir of the British Geological Survey, Sheet 198 (England and Wales).
Brandon, A. and Hains, B.A., *Geological notes and local details for* 1:10000 sheets SO43 NE, SO44 SE, SO53 NW and SO54 SW, Hereford City, (1981), Keyworth: Institute of Geological Sciences.
Charlesworth, J.K., 'The South Wales end-moraine', *Quarterly Journal of the Geological Society of London,* 85 (1929), 335–358.
Coope, G.R., Field, M.H., Gibbard, P.L., Greenwood, M. and Richards, A.E., 'Palaeontology and Biostratigraphy of Middle Pleistocene river sediment in the Mathon Member at Mathon, Herefordshire, England', *Proceedings of the Geologists' Association*, 113 (2002), 237–258.
Cross, P. and Hodgson, J.M., 'New evidence for the glacial diversion of the River Teme near Ludlow, Salop', *Proceedings of the Geologists' Association,* 3 (1975), 313–331.
Dwerryhouse, A.R. and Miller, A.A., 'Glaciation of Clun Forest, Radnor Forest and some adjoining districts', *Quarterly Journal of the Geological Society of London.* 86 (1930), 96–129.
Fraser, G.S. and Bleuer, N.K., 'Sedimentological consequences of two floods of extreme magnitude in the late Wisconsinan Wabash Valley', *Geological Society of America Special Paper* 229 (1988), 111–129.
Gibbard, P .L. and Turner, C., 'Cold stage type sections: some thoughts on a difficult problem', *Quaternaire*, 1 (1990), 33–40.
Grindley, H.E., 'The Glaciation of the Wye Valley', *Trans. Woolhope Natur. Fld. Club, (*1911), 163–164.
Grindley, H.E., 'The gravels of the Basin of the Lower Lugg and their relation to an earlier river system', *Trans. Woolhope Natur. Fld. Club,* (1918), 227–230.

Grindley, H.E., 'Notes on the glaciation of the Teme Valley', *Trans. Woolhope Natur. Fld. Club*, (1936), 227–230.
Grindley, H.E., 'The Wye Glacier', *Centenary Volume of Trans. Woolhope Natur. Fld. Club* (1954.).
Hey, R. W., 'Pleistocene gravels of the lower Wye Valley', *Geological Journal*, 26 (1991), 123–136.
Hodgson, J.M., 'Soils of the Ludlow District', *Memoir of the Soil Survey of Great Britain*, (1972), 139pp.
Kehew, A.E. and M.L. Lord., 'Glacial-lake outbursts along the mid-continent margins of the Laurentide ice-sheet', in *Mayer, L. and D. Nash (eds): Catastrophic Flooding. The Binghampton Symposia in Geomorphology: International Series*, 18 (1987), 95–120.
Luckman, B.B., 'The Hereford Basin', in *Lewis C.A. (ed) The Glaciations of Wales and adjoining regions* (1970), Longman, London.
Maddy, D., 'The English Midlands', in Bowen, D.Q. (ed) *A Revised Correlation of the Quaternary Deposits of the British Isles*, Geological Society Special Report 23 (1999), 28–44.
Mitchell, G.F., Penny, L.F. and West, R.G., '*A Correlation of Quaternary Deposits in the British Isles',* Geological Society of London Special Report 4 (1973).
Pocock, T.I., 'Glacial drift and River terraces of the Herefordshire Wye', *Zietschrift Gletscherk*, 27 (1940), 98–117.
Richards, A. E., 'The Pleistocene Stratigraphy of Herefordshire', (1994), Unpublished PhD thesis, University of Cambridge.
Richards, A. E., 'Re-evaluation of the Pleistocene stratigraphy of Herefordshire', *Journal of Quaternary Science*, 13 (1998), 115–136.
Sumbler, M.G., Sheet SO 65 (Bromyard) with special emphasis on potential resources of sand and gravel, (1984), *Geological reports for the DoE: Land Use Planning.*
Keyworth: British Geological Survey.
Wills, L.J., 'The Pleistocene development of the Severn from Bridgnorth to the sea', *Quarterly Journal of the Geological Society of London*, 94 (1938), 161–242.
Wills, L.J., *The palaeogeography of the Midlands*, (1950), University Press, Liverpool. 147pp.

Reports of Sectional Recorders

Archaeology, 2003

By R. SHOESMITH

In the following report I have again provided a section for each of the archaeological groups working in Herefordshire that have provided information. In each group section all their main sites are recorded alphabetically, while sites that have not produced any archaeological evidence are listed at the end of each section. The reports on some sites may be or have been included in a relatively large variety of national journals, but inclusion in the Woolhope Club *Transactions* is the only simple and straightforward summary available for residents of Herefordshire and neighbouring counties. In each section I have indexed each report by city, town or parish and site name with a six-figure grid reference where appropriate. References and further reading, again where available, are included at the end of each entry. Some of the references are to internal unit publications, some of which are available in the City Library; others may be consulted in the Sites and Monuments Record maintained by the County Archaeological Service of the District Council. Where County Sites and Monuments Record numbers are given they are prefixed by HSM; Scheduled Ancient Monument numbers are prefixed SAM. For convenience the report of the County Archaeological Service is treated separately.

Once again I would like to offer my most grateful thanks on behalf of the members of the Woolhope Club to the staff of all the organizations who have willingly provided the information that has made this report a valuable source on work in the county.

GROUP AND UNIT REPORTS

HEREFORD CATHEDRAL

College Hall

Following completion of the restoration work on the S.-facing bay window, listed building consent was obtained for the internal restoration. The old and rather shabby partition that concealed the kitchen and store and all the fittings were completely removed. The old floor was cleared away and a new tile floor was laid. A new partition, designed by the architect, Michael Reardon, has the appearance of a large Georgian screen. This conceals a brand new kitchen and store and is an important feature in the new, more balanced design. As part of this design, both fireplaces have been opened up giving an impression of the development of the hall since it was built in the 17th century. Fortunately no excavations were necessary and photographs were taken of the work in progress.

The 1993 New Library Building excavation.

The assessment of the archaeological evidence from the 1993 excavation by Worcester Archaeological Service in association with Bradford University has now been completed. This will prepare the way for the final stages of the post-excavation work and a final report. The final stages were put out to tender and the work is now being undertaken by the Worcestershire Archaeological Service. It is anticipated that the final report, which will be ready late in 2006,

will include a series of radio-carbon dates that will help to confirm that the mass burials found during the excavation are the result of the Black Death.

The Lady Chapel

Work continues on the total re-facing of the external E. face of the Lady Chapel; a photographic record was made before work started and continues as work progresses. The E. windows were photographed prior to their removal for cleaning and repair and are now back in place.

In December 2002 a void had appeared to the E. of the cathedral, immediately outside the compound associated with the repairs the E. face of the Lady Chapel. This was apparently similar to other voids that had appeared in this area in previous years. Clearance of the first void had exposed a lead-lined coffin in a brick-lined vault (1823: Mrs. Mary Powell); the second was caused by a decayed sandstone slab that had been used to seal an earlier void. In both cases it was possible to refill the holes without disturbing any remains.

Excavation of another hole established that it lay over the remains of some five individuals, the nearest to the surface being about 0.15m. deep. The void was probably caused by the scouring effect of ground water running along and under the paved area immediately to the E. of the Lady Chapel.

The background to the use of the Cathedral Close as a burial ground, and the lowering of the ground level in 1850/1 has been detailed elsewhere (Aylmer, G., & Tiller J., eds. *Hereford Cathedral, A History*, (2000), 293–310). In the area to the E. of the Lady Chapel the ground level was probably lowered by about 0.7m. Mrs. Powell's gravestone was moved from there to its present position in the Chapter House Yard.

Early in 2003 permission was obtained from the Investigating Authority for the Hereford Area of Archaeological Importance to carry out limited excavations in this area where the public had access. The purpose of the excavation was to remove loose fill, try to establish the cause of the collapse and to stabilise the ground. The excavation was undertaken by hand by workmen from Capps and Co. On clearance the void was seen to be directly underneath the turf. An area of approximately 1m. square was deturfed and the loose material underneath was removed to a depth of about 0.5m. It was mainly soil with occasional small stones and gravel. A few small pieces of (presumably) human bone were observed in the soil, but there were no other finds and no indications of any articulated skeletons or of any grave cuts. At 0.5m. deep the ground was considered to be reasonably stable and it was agreed that no further excavation was needed. The lower parts of the hole were filled with broken stone from the E. face of the Lady Chapel and the soil, together with the bone was placed on top. The turf was then relaid.

The area examined was immediately adjacent to Mrs. Powell's grave, but the cause of the void was not immediately obvious. It was probably due to the gradual compaction of loose soil in a grave or vault leaving a gap directly underneath the turf. In this case the ground was sufficiently well packed that there was no necessity to excavate as far down as the burial. The excavation was limited to 0.5m. deep and did not expose any signs of a vault.

Negatives

Ken Hoverd, who took many of the record photographs around the cathedral during the past twelve years, has retired to France. His collection of negatives has since been transferred to the Cathedral Library.

Statue of Sir Edward Elgar

It is proposed to erect a statue of Sir Edward Elgar in the northern side of the Close. An archaeological assessment report has been produced.

ARCHAEOLOGICAL INVESTIGATIONS LTD.

ALMELEY, St. Mary's Church (SO 333 515)

The Parochial Church Council's decision to build a toilet at the church involved the excavation of a sewer trench in part of the churchyard. The aim was to identify and record any previous use of the site. Fragments of human skeletal remains from five individuals were recorded, removed and left inside the church for later reburial. A very small piece of badly abraded Roman pottery, identified as Severn Valley Ware dating from the 1st to 4th century, was recovered (Ward, B., Hereford Archaeological Series, henceforth HAS, 583)

BROCKHAMPTON, Holy Trinity Church (SO 598 316)

A building survey and watching brief resulted from the proposed renovation and conversion of the church into a dwelling. The building survey combined the results of on-site recording and observations with rectified photography. This displayed visible phases of construction possibly dating from before the 15th century up to the 19th century. However, it also indicated that there may be hidden or lost phases of construction. The survey of the graveyard involved the use of an electronic survey instrument combined with written recording and photography. The watching brief included drainage ditches and the reduction of the church floor level. From the excavation inside of the building stained/painted glass, lead window cames and a range of metalwork, including coffin handles, nails and studs, were found. Also found within the building were dis-articulated human remains and two lined graves, one of stone and the other of brick. They were located side by side at the E. end of the church (Poole, B. & Rouse, D., HAS 592)

CREDENHILL, Hillfort (SO 455 440)

The Woodland Trust contracted with the Unit to undertake a suite of multi-disciplinary studies. The project comprised three key elements, including whole-site ground mapping and assessment, detailed record survey and a field assessment survey. A detailed earthwork survey was undertaken of the hillfort itself and this identified a number of features such as springs and erosion from drains. The Iron Age levels are known from earlier excavations to be buried quite deeply around the edge of the inside of the fort and the ponds that can be seen today probably relate to later phases of use of the site. Clearly the springs (one on each side) would have weighed in favour of the choice of the site had they been active then. The work on the fort and the study of the defences suggests that there may have been three contemporary entrances to the E., the SE. (the two obvious ones) and the SW. (on the basis of the configuration of holloways). The present N. entrance needs further work to establish its antiquity. There are three holloways that pick the shallowest route to the two entrances on the E. side of the fort and the postulated one at the SW. angle. There is no clear evidence for a similar route to the northern entrance (or gap). The gap on the W. side of the fort is most probably a later breach with a terraced track leading up the inside of the fort. The path to this runs along the top of the counterscarp bank. The remaining holloways appear to all be associated with quarrying and probably predate the latter part of the 19th century (Boucher, A. & Eisel, J., HAS 595).

HAREWOOD END, Harewood Park Estate (SO 530 280)

The Unit carried out an archaeological evaluation on the proposed site of a new principal dwelling at Harewood Park. The main aims were to identify and record any archaeological features present and to determine the extent of the cellars and the original floor plan of the earlier building as well as identifying any evidence of earlier dwellings on the site. Evidence of extensive cellars came to light during this evaluation. Large 16th-century cellars relating to an elaborate early Tudor mansion were identified running across the majority of the site. Evidence for the re-use and modification of the Tudor cellars during the 18th-century construction could also be seen. Landscaping and terracing was identified both on the site and from early maps (Poole, B., HAS 602).

HEREFORD, 43 Bewell Street (SO 509 404)

The Unit carried out an archaeological evaluation of the site in advance of redevelopment. Several refuse deposits dating between the 13th and 16th centuries were encountered along with a wall and associated surfaces of late medieval date. Three auger holes established that stratified archaeological deposits reached a depth of 4m. below the present surface. Two flagstone floors were uncovered, probably dating from the 20th century (Porter, S., HAS 600).

HEREFORD, Cantilupe Street Gardens (SO 513 397)

The project was undertaken in response to proposals by Herefordshire County Council to place a submersible water pump in the site. The evaluation comprised a single 1m. square 0.95m. deep trench. Evidence was found for 18th-century landscaping of the area extending to the full depth of the excavation (54.25m. OD). Above this landscaping was late 20th-century construction debris. It is most probable that earlier archaeological deposits still remain *in situ* below the level of the excavation (Poole, B., HAS 611).

HEREFORD, County Hospital (SO 507 397)

The Unit carried out excavations following the demolition of existing building and prior to the construction of the new Rehabilitation unit. In addition, archaeological work was carried out under watching brief conditions on service runs throughout the area. The site is part of the former St. Guthlac's Priory (SMR 6498), dissolved by Henry VIII in 1539. Work on the site indicated the approximate limit of the burial ground to the SE. A number of burials were recorded, two of which were radio-carbon dated to the 12th to 13th centuries.

The course of a substantial ditch running NE-SW. on the line of the parish boundary was first identified during evaluation excavations in the late spring of 2001 and confirmed during monitoring of piling in the Poor Law area. Three large pieces of carved masonry were recovered from modern deposits backfilling a duct and wall footings may have been part of the priory church; decorative masonry was recovered from the rubble. The limit of the graveyard to the NE. was identified and a burial in this area included a lead alloy mortuary chalice. Work on the service trenches revealed a number of burials including one in a stone cist and another with stone head supports (Crooks, K. H., HAS 601).

HEREFORD, County Hospital (SO 515 400)

The Unit was commissioned to conduct a building recording survey on the Poor Law block at Hereford County Hospital. The aim was to establish a possible constructional date and phasing for the building and to determine whether the cellar pre-dated the standing. The survey showed that the building was of 18th- to 19th-century origin, and that the cellar was contemporary with the building (Rouse, D., HAS 563).

HEREFORD, General Hospital (SO 514 394)

An evaluation excavation at the site of the former General Hospital in Nelson Street was commissioned in advance of the development of the site for housing. A total of eight trenches, positioned to evaluate the spread of archaeology across the full area of the site, were excavated. The site lies near to Hereford Castle and is on the bank of the river Wye. The position of the site on a gravel terrace near a river crossing made it likely that occupation was present, possibly from an early date. A mill, founded in the 13th century, was present to the W. of the site until 1865 and occupied the position of the present lodge. Of the trenches excavated three contained archaeological features. The features in one trench were undated, but features in the two other trenches were dated to the 13th to 14th century or earlier. Footings of walls found in three other trenches could relate to the lunatic asylum known to have occupied the site in the early part of the 19th century. A notable aspect of the medieval features at the E. end of the site was the difficulty in being able to distinguish their fills from the natural soils in their vicinity (Crooks, K. H., HAS 587).

HEREFORD, 10 Widemarsh Street (SO 510 401)

The Unit monitored the excavation of foundation holes for internal structural supports on the site and archaeological deposits were recorded *in situ.* During the 20th century the site was used as a pub, a free library and most famously as the 'Doll's Hospital.' The excavations exposed a stone wall of post-medieval date, whilst the foundation trenches in the cellar revealed the remains of two medieval pits. The pits contained large quantities of pottery, animal bone and organic matter indicating that they had been used for the disposal of domestic refuse. Finds of note include a large stone mortar, a worked bone weaving tool, and a stone pestle or wet stone (Porter, S., HAS 572).

LEDBURY, The Seven Stars Inn (SO 702 378)

The Unit was contracted to undertake a watching brief and building survey at the Seven Stars Inn after a fire. The aims were to adequately record the structure of the building by annotating the architect's drawings prior to alteration, and to record the associated ground reduction and excavation for services and drains. A soil layer, showing clear evidence for early medieval activity; the remains of a late 11th- or early 12th-century building; a cobbled surface cut by the present building; three tanning pits and two wells and a series of earlier clay and stone floors were found. Post-holes were probably associated with garden features relating to the present building (Rouse, D., HAS 599).

LEOMINSTER, Fox's Court (SO 496 588)

Archaeological monitoring was carried out during the excavation for footings for a development of four bungalows. The site lies in a known medieval plot and close to the presumed line of Leominster's medieval defences. No deposits or features of medieval date were encountered during the course of the work. An articulated skeleton of a horse was determined to be of post-medieval date. Two sherds of medieval pottery and a piece of medieval roof furniture were recovered from the topsoil (Crooks, K. H., HAS 598).

MUCH COWARNE, Paunceford Court (SO 620 472)

The earliest historical evidence for activity on the site relates to the early medieval settlement of Cowarne Magna (Much Cowarne). The building recording survey was undertaken in late May 2003 prior to renovation work. The main aim was to identify and record all materials and construction methods utilised during the construction of the Court and to analyse the phasing

and development of the building. Six phases of construction were identified ranging from the grey stonework possibly dating from the end of the 17th century to late 20th-century quick metal construction during heavy production periods (Poole, B., HAS 584).

No features of archaeological significance were encountered during the following excavations and watching briefs:

BARTESTREE, The Convent (SO 568 407) (Ward, B., HAS 573)
BISHOPSTONE, Wipsiderry (SO 421 431) (Ward, B., HAS 574)
BROMYARD, No. 6 Club (SO 654 546) (Crooks, K., HAS 564)
BROMYARD, 52 Old Road, (SO 652 547) (Ward, B., HAS 586)
COLWALL, Park Farm Barns, (SO 738 424) (Rouse, D., HAS 578)
HEREFORD, City Electrics, (SO 511 403) (Crooks, K. H., HAS 588)
HEREFORD, 19 High Town (SO 510 402) (Porter, S., HAS 581)
HEREFORD, 71–73 St. Owen's Street (SO 514 397) (Porter, S., HAS 571)
HEREFORD, B.T. Cable, St. Peter's Square, (SO 510 400) (Ward, B., HAS 593)
IVINGTON, Camp Farm (SO 484 547) (Porter, S. HAS 614)
LEDBURY, New Public Toilets, (SO 710 377) (Porter, S., HAS 580)
TARRINGTON, The Old Barn, (SO 618 405) (Porter, S., HAS 608)

ARCHENFIELD ARCHAEOLOGY

BRIDGE SOLLERS, Victorian Bridge (SO 412 424) [HSM 38267]

The Unit was commissioned by Herefordshire Council to carry out a programme of archaeological monitoring and recording in the area to the NW. of the late Victorian bridge which was to be demolished due to structural damage. An earlier archaeological evaluation of the area immediately to the N. of the existing bridge abutment revealed a layer containing significant amounts of medieval pottery. In 2003, an area on the E. river-bank of approximately 20 x 20m. was stripped of topsoil and a series of trenches dug, producing significant quantities of stratified medieval pottery. This may relate to the shrunken medieval settlement of Lulham. Given the opportunity, more extensive and structured excavation might have produced structural evidence to support the presence of settlement. An area on the W bank was also excavated, but no significant finds or features were observed. The bridge itself was surveyed, although not in great detail. Photographs were taken throughout its demolition (Lovell, C., & Feryok, M., Archenfield Archaeology, henceforth, AA/03/53).

BROMYARD, Old tanyard and Quaker burial ground (SO 655 545) [HSM 31059]

An evaluation of a site near the centre of Bromyard was undertaken by the Unit in April 2001 as the site was to be developed into new housing. Lying between Pipe Street and Frog Street, the site was most recently occupied by a car-park and at the end of the 19th century had been a tannery. It also lay within an area thought to have been within the medieval borough, as described in the late13th-century Red Book of the Bishop of Hereford. The work consisted of three trial trenches distributed across the site and a brief examination of the standing structures.

Although few in number, the animal bones and horn-cores recovered from the Tanyard provided useful information regarding the morphology of the cattle during the post-medieval period. The horn-cores represent the kind of deposit to be expected in an industrial area of a town where tanning and allied trades such as horn-working would have been practised. The remains of a wooden tan pit were also uncovered on the site. No deposits or structures of a definitely medieval date were observed, but nonetheless the broad conclusion of the project was that the area had been occupied during the 13th to 14th centuries.

An excavation on the same site in late 2003 and early 2004, also encroached upon an early 18th-century Quaker burial ground to the rear of 16 Broad Street. A total of fifteen graves were recorded from the burial ground, with twelve orientated E-W. and three N-S. Of the twelve E-W. graves, eleven that were to be disturbed by development were excavated. The skeletons were mostly buried in a supine position with the skulls, due the natural contours of the area, facing slightly to the S. Of the eleven excavated E-W. graves, seven had the remains of coffins. The coffins were identified by faint beige stains, iron nails, and iron or brass coffin handles. The N-S. graves were outside the excavation area and were left *in situ*. Two of the graves were investigated, establishing that, stratigraphically, they were of a later date than the E-W. graves they inter-cut. Only one of the N-S. graves had evidence of a coffin (Lewis, D., Sherlock, H. & Pikes, P.J., AA/04/29).

KINGTON Pound Farm (SO 289 542) [HSM 32136]

The Unit conducted a programme of archaeological building recording and groundwork monitoring prior to the restoration of the house and farm buildings. The work was carried out, in various stages, during the spring, summer and autumn of 2003.

The house at Pound Farm is a grade II* listed timber-framed building (SMR 6188) with what the Royal Commission on Historic Monuments described as the remains of five 14th- or 15th-century cruck trusses. The house was completely re-faced in the 19th century. Dendrochronological analysis in 2002 indicated that the timbers used in the construction of the building were felled between 1451 and 1461 A.D.

The house comprises the remains of a four-bay hall building of which four of the five original crucks survive *in situ*. A bay added to the house at the southern end, in a later phase of the history, now makes this a five-bay building.

At the time of the survey one of the cruck frames and most of the western stone elevation had collapsed bringing down with it parts of the first floor and the middle section of the stairs. The whole of the building at the N. end has collapsed (Lewis, D. & Williams, R., AA/04/50).

LEOMINSTER, Focus Site, Mill Street (SO 499 594) [HSM 31729]

The Unit carried out a programme of archaeological evaluation at Mill Street, preceding the development of the site into a new DIY Store and Garden Centre with associated infrastructure. This project was highly commended by the judges of the *Current Archaeology* award for developer-funded archaeology, part of the British Archaeological Awards and featured in *Current Archaeology* in December 2004.

The fieldwork began in 2001 with a series of trial pits. In the autumn of 2003 a geophysical survey of the site took place, followed by a period of excavation. During the excavation it quickly became apparent that a large amount of archaeology lay within the area of excavation, and a very complex site began to emerge with many intercutting features. The area was developed during the 13th century when a timber-framed building with sandstone

foundations was erected. There was also a second, more substantial building which fell into ruin around the end of the 14th century. The large quantity of medieval glazed ceramic roof tile is what indicates the importance of this discovery; this must have been a very high status building, almost certainly connected with Leominster Priory. A raised trackway re-using broken roof tile was uncovered running N-S. across the site in the direction of the Priory, providing a causeway across waterlogged ground. X-rays of iron finds have revealed three large keys with remains of metal coating, and part of a spur and rowel; these also date from the medieval period.

Further excavation revealed a complex ditch system: periodic flooding since medieval times provided excellent preservation conditions, burying the features beneath layers of silt. One of the most exciting discoveries on site was a section of medieval wattle fencing in the base of a ditch. The ditch must have remained open and full of water for a long time: the preservation conditions were so good that the stakes that had been driven into the ground looked freshly cut. Fish scales found with the wattle suggest that these ditches might have been associated with the priory's fishery. If so it is interesting that the site seems to have gone out of use at the time the pottery sequence began at the Castle Moat site, to the S. of Leominster and also associated with the priory.

Cut-marks on cattle and goat horns indicate that at some point there may have been a tannery nearby, but this was not the only evidence for industry on the site. The medieval buildings were constructed on a thick layer of river silt, and beneath this layer was a linear timber and stone structure thought to have been a revetment for a water-course (perhaps associated with an earlier course of the river Lugg). Behind this was a large dump of charcoal and slag, providing strong evidence for a large-scale ironworking industry. Carbon-14 dating of the timber by Waikato University in New Zealand returned a result of between 70 A.D. and 240 A.D. with a 68% probability of a date between 120 A.D. and 240 A.D. There is, therefore, a large-scale Romano-British smithing industry on the banks of the Lugg.

Finds associated with these contexts, and equally exciting, may provide further evidence of activity during this period. A pair of goat-horn cores with attached frontal fragments were recovered from the slag deposit. These horn cores came from a large male animal, and were much larger than those recovered from the medieval deposits. What is most interesting is the way the frontal bone has been carefully trimmed fore and aft of the horns suggesting that it was a trophy of some kind, possibly a votive object. At the Uley shrines in Gloucestershire, where large numbers of goats were sacrificed to a native form of the god Mercury, it was suggested that particularly impressive horns may have been cut off as ritual trophies. The Mill Street example has been detached with much more care than those found at Uley or the medieval specimens from this site.

Environmental evidence showed that in this period the area was open, damp grassland on which livestock grazed. The river was quite fast flowing, but there were some places with slower flowing water with tall stands of water-side vegetation. The open grassland nature of the area persisted through constant changes in the course of the river throughout the range of dates provided by carbon-14 samples, that is up the 7th century A.D (Lovell, C., AA/03/35).

No features of archaeological significance were encountered during the following excavations and programmes of archaeological monitoring:

EARDISLEY, Primary School (SO 313 491) [HSM 38272]. (Lovell, C., AA/03/63)

KINGSLAND, Kingsland School (SO 345 261) [HSM 38271]. (Lovell, C., AA/03/62)

LINTON BY ROSS, Eccleswall Court (SO 653 233) [HSM 38274]. (Lovell, C., AA/04/65)

LLANCILLO, Llancillo Hall (SO 362 251) [HSM 32138]. (Lovell, C., AA/03/52)

MUCH DEWCHURCH, Pool Farm (SO 481 312) [HSM 30020]. (Lovell, C. & Pikes, P.J., AA/03/57)

STOKE LACY, Nether Court (SO 620 494) [HSM 38268]. (Sherlock, H., AA/03/49)

Building recording of 18th-century barns was carried out at Merryhill Barns in Haywood, and of 17th- and 18th-century barns at Pool Farm in Much Dewchurch; building recording survey of the house and outbuildings was also carried out at Llancillo Hall in Llancillo.

An archaeological desk-based assessment was carried out at Stoney Street Industrial Estate, Madley, a site within the area formerly occupied by RAF Madley, a Second World War airfield.

BORDER ARCHAEOLOGY

AILEY, Barn 6 Oldcastle Farm (SO 336 485)

A standing building recording and archaeological observation were carried out in June at this site, which lies some 2km. W. of Kinnersley. The part timber-framed farmhouse is of 17th-century date with late 18th- or 19th-century additions.

The barn is of brick, stone and timber-framed construction and appears to date from the early 18th century; the design does not conform to that generally used in the construction of post-medieval barns in this area. More recently, the barn has seen use as a threshing shed with storage restricted to the first floor.

Two construction phases were identified: the W. sandstone elevation and S. gable followed by the addition of brick pillars and first-floor modifications, including the squared timber-frame panels and weather-boarding on the S. elevation and E. gable end, respectively.

An archaeological observation was conducted in conjunction with the standing building survey. A reduced excavation of the floor level within the ground floor area was observed but no significant archaeological deposits, features or structures were recorded (Report No. 2003–06–04).

BRIMFIELD, Court Farm (SO 480 171)

In April, Border Archaeology carried out a standing building recording and archaeological observation at this site, which stands on a small N.-facing crest, close to St. Michael's Church, 0.25km. S. of Brimfield itself. Two buildings were included in the survey—a barn and stable block. Abutting the farmhouse to the W., the barn is a late 18th- or early 19th-century brick and timber structure. The stable, located W. of the farmhouse and oriented N-S., is of probable early to mid-19th-century date, with much of its internal fabric still in place, including a cobblestone floor and roof timbers. Together with other 19th-century outbuildings, these two buildings are typical of the rural Herefordshire vernacular style. Despite the presence of some timbers in this building, it should be noted that the development of brick and timber-framed buildings within Herefordshire extends with frequency throughout the late post-medieval

period. The archaeological observation of groundworks on the site revealed no significant archaeological deposits, features or structures (Report No. 2003-04-02).

HOPE-UNDER-DINMORE, Pigeon House Orchard (SO 505 523)

The foundations of two ranges of substantial masonry buildings located in a field approximately 200m. SE. of Bury of Hope Farm, formerly known as Pigeon House Orchard, were revealed in March during archaeological observation of water pipeline trenching.

The first of these (building A) comprised a three-quartered section of walling oriented N-S. (cross axis) and E-W. (long axis) forming the western side of a building. The outer and inner leaves were constructed of randomly uncoursed sandstone rubble bedded into a clay matrix. This portion of walling seemed to form a dog-leg section of the southern portion of an L-shaped building, as represented on the 1812 plan of the Bury of Hope Estate. Running adjacent, but on a slightly different alignment, was another sandstone wall of similar construction, although its position suggests it was part of a different phase of building activity.

Due to the paucity of internal partitioning, it was difficult to determine whether this was a single or multi-celled structure. One of the few surviving internal features comprised a series of slender sandstone slabs set on end and running approximately 1.4m. with cross slabs set 0.4m. apart dividing the feature into a series of compartments, at least two areas of compartmentalisation being visible, with a third slightly less distinct compartment at the E. end. The remains of a flat stone base were also visible. These limited remains probably formed one of a series of stalls representing a longitudinal feeding passage dating to the period when the building formed part of a barn and stable range, i.e. prior to its conversion to cottages in 1851.

The second building (building B) was located approximately 7.0m. to the E. and consisted of a substantial section of wall and a stone surface. The remains of the wall were L-shaped with the maximum height of the remaining section being 0.40m. extending approximately 5.0m. N-S. and 6.5m. E-W. Beyond this the wall seems to have been destroyed by demolition. The outer leaves of masonry of the W.-facing elevation were constructed of randomly uncoursed rubble bedded in a clay matrix. A projection of stone to the S. appeared to form a plain buttress with a simple sloping profile. No through stones were observed in the overall plan of the wall and it appeared to have been laid without the use of quoins. A well-laid stone surface, consisting of a series of tightly compacted pitched stones and contained within two lines of sandstone blocks, appeared to form part of a hearth/fireplace contained on the end wall of the southern portion of the building. A series of regularly placed edging stones formed the eastern boundary of the fireplace. The eastern section of the wall continued for *circa* a further 3.50m. and was represented by shallow fragmentary stone remains. At this point the building formed a corner, continuing in a northerly direction, this section of walling probably forming the southern portion of an elongated structure, probably a long-house and cow-house interconnected.

The extent of the W. end of building B was confirmed by test slots located in the area between the two buildings but no conclusive eastern extent was identified for building A. To the S., NE. and E. of building B was a probable demolition deposit resulting from the removal of the buildings in 1868. To the E. of building B was a substantial surface of tightly packed small angular stones comprising a path/track that seemed to run between the present entrance to the field and building B.

Extensive cartographic and documentary research showed that these buildings originally formed two L-shaped ranges of outbuildings grouped around a rectangular courtyard, which originally comprised a building described as a 'pigeon house,' a barn and stables. These outbuildings appear to have always belonged to Bury of Hope Farm, the grange farm of the manor of Hope-under-Dinmore, which was held throughout the medieval period by Leominster Priory. A survey of the manor of Hope-under-Dinmore taken in 1327 makes reference to a dovecote, and it is tempting to suggest that this structure was located in the field later known as Pigeon House Orchard.

However, it is not possible to establish with certainty whether the dovecote mentioned in 1327 actually lay in Pigeon House Orchard and whether the buildings which occupied the site in the early 19th century were medieval in origin. The absence of any reference to these outbuildings in three 17th-century surveys of the Bury of Hope estate suggests that the buildings in Pigeon House Orchard which are shown in early to mid-19th-century maps of the Bury estate could well date from the 18th century. It should also be noted that the farmhouse and adjacent barns at Bury of Hope Farm are known to have been extensively rebuilt in the mid-18th century.

Extensive alterations appear to have been made to the outbuildings in Pigeon House Orchard during the first half of the 19th century, firstly by Thomas Berrington, owner of the Bury of Hope estate from 1809 to 1837, and subsequently by the Arkwright family, who converted part of the outbuildings into cottages in 1851. The cottages were leased to the Shrewsbury and Hereford Railway Company, to provide lodgings for the Inspector of Works and labourers employed in the construction of the railway, which ran immediately E. of Pigeon House Orchard. The Pigeon House Cottages and associated outbuildings were completely demolished in 1868, in connection with the building of a new roadway running NW. from the village towards the Bury of Hope Farm (Report No. BA0425LUHPD2).

ROSS-ON-WYE, 33 High Street (SO 604 242)

In April, the Unit undertook a standing building recording at this property, which is situated within the medieval core of the town opposite the 17th-century Market House. In plan, the building line appears to delineate a medieval burgage plot.

Four phases were identified. The frontage (including the ground-floor shop area and the first and second floors) is late Georgian (c.1820), a Georgian moulded alcove being noted on the W. elevation, close to the street frontage. The large rear section of the shop, extending some 30m., comprised a single-pitch corrugated roof supported by a modern brick elevation on the E .side. The W. elevation revealed evidence of phased medieval and post-medieval building activity, the lower section of which comprised mortared hewn sandstone blocks supporting 16th- to 17th-century brickwork. This elevation extended along the rear area of the shop. Finally, the large warehouse to the rear of the building was once separate from the High Street frontage. A number of timbers within this structure, including support joists and roof trusses, appear to have been re-used. The warehouse, judging from much of the elevation fabric, including stone and brick sections, is late medieval (*c*.15th century) or early post-medieval. Externally, the party wall between No. 33 and No. 34 revealed a number of important features, including blocked door and window openings (Report No. 2003-04-01).

WELLINGTON HEATH, Burtons Farm (SO 701 401)

An archaeological observation and photographic survey were undertaken in January at Burtons Farm in response to a planning application for proposed alterations to the farmhouse and other works. The property is of 16th-century origin although the existence of some medieval components was considered likely.

The farmhouse is a two-storey timber-framed building partly re-faced in brick. An original 16th-century element is indicated by the close studding on the NE. elevation, overlooking the farm-yard. A later phase (17th-century) is represented by square timber-framing, located to the rear of the building. In plan, the building is typical of a large medieval house with a possible open hall set between two cross-wings. The hall probably dates from the 16th century, while the cross-wings show much evidence of 17th-, 18th- and 19th-century alteration. Internally, the building has also undergone alteration, especially during the recent past.

The archaeological observation focused on a lawn area that appears to have several features indicating a Georgian layout, including a ha-ha on the southern boundary. Despite the importance of the house and associated farm buildings, no significant deposits, features or structures were revealed.

The standing building recording was limited to a photographic record owing to a lack of period features. The sitting room was radically altered during the mid to late 20th century and all that remained around the development area within the house were two 19th-century ceiling joists. Externally, the rear (northern) elevation retained many features, including a squared timber frame extending across the elevation. Located over this elevation on the SW. side was a wedged timber jut that appeared to be contemporary with the rear northern elevation. This area too had been partially impacted by alterations (Report No. 2003-01-05).

The following sites revealed no archaeologically significant findings:

BROMYARD, 34 Old Road (SO 652 547) (Report No. 2003-07-04)

DORSTONE, The Bell (SO 311 418) (Report No. 2003-03-04)

WIGMORE, Plough Farm, Ford Street (SO 415 690) (Report No. BA0311CPWI)

WIGMORE, Brinshope Farm (SO 422 678) (Report No. 2003-05-01)

MARCHES ARCHAEOLOGY

BROMYARD, Leisure Centre, Cruxwell Street (SO 654 548)

A watching brief on additions to the 1991 building revealed the medieval topsoil at the rear of the plot cut by four late post-medieval features. Towards the frontage all deposits above the subsoil had been removed, probably in 1991. An early feature remains undated but was cut by one of two early post-medieval wells. These, along with a pit, may have been associated with the early occupancy of the last standing building on the site, Angel House, demolished in 1973, which may have dated to the early post-medieval period. There is very little likelihood of survival of features below the Leisure Centre unless they were originally at least 0.4m. deep (Tavener, N., *Marches Archaeology Series* henceforth MAS 312) [HSM 34725].

HEREFORD, Friars Street (SO 506 399)

An excavation and watching brief uncovered a series of medieval features interpreted as activity associated with settlement focused on the Friars Street frontage. However, it seems likely that the medieval activity on the site was not the usual backland activity associated with formal burgages on the W. side of Friars Street but was perhaps more akin to squatting probably in crude shanty dwellings which would leave little physical evidence. After the medieval period the site was used for agricultural or horticultural purposes until the 18th and 19th centuries when the Friars Street frontage was developed formally. The rest of the site was developed in a piecemeal fashion during the 19th century (Wainwright, J., and Tavener, N., MAS 270) [HSM: 32114].

LEINTWARDINE, The Abattoir, 22 High Street (SO 404 740)

An evaluation trench was dug to investigate the area of a proposed extension to the abattoir. Post-medieval cultivation soil had built up over the area to a depth of *c*.0.9m. Below this several Roman pits and other features were found. These included the foundation trench for a timber building. Pottery dated most of this activity to the 1st to 2nd centuries A.D (Kenney, J., MAS 305) [HSM 35756].

LEOMINSTER, Technology Park, Southern Avenue (SO 500 577: centre)

Ten evaluation trenches combined with a watching brief on the soil stripping for a new road revealed one ditch, possibly medieval and one pit radiocarbon dated to 430–660 A.D. There were also two shallow channels or furrows that may have been associated with the medieval cultivation of the area. The extent of the alluvium as noted in the trenches gives an indication of the limits of the flood plain in earlier periods (Kenney, J., MAS 288) [HSM 33541].

LEOMINSTER, Industrial Estate, Eastern Access Road (SO 504 583 to 506 584)

Two trenches were excavated as part of a larger programme of evaluation which had previously taken place in July 2000. No features or deposits of archaeological significance were revealed. Thick alluvial deposits were found overlying natural gravels, above which there were simple sequences of subsoils and topsoils (Fielding, S., MAS 290).

LYONSHALL, The Church of St. Michael and All Angels (SO 333 565)

A watching brief on the installation of electricity cables for floodlighting encountered only graveyard soils and a spread of rubble probably associated with the heightening of the W. tower in the 1870s. No articulated human remains were encountered. The trenches were 0.5m. deep at the most and significant archaeological remains could exist deeper than this level (Stone, R,, MAS 310) [HSM 36937].

ROSS-ON-WYE, Bridstow, Wilton Castle, (SO 046 284)

An overall phasing and interpretation of the structures was carried out, with detailed phasing provided of the SW. tower and W. curtain wall which are to be conserved. The earliest phase, probably late 12th century, is represented by a moat and the E. curtain wall with one surviving tower. In the second phase, of the late 13th century, a SW. tower was constructed to provide a lordly suite of private accommodation. The third phase, in the mid 14th century, was a NW. tower, N. curtain wall and possibly a now lost NE. tower. The construction of the W. wall constitutes a separate phase, but whether this occurred before phase three or was contemporary with it, is at present unclear. In the late medieval period a new house was constructed and the E. tower became a dovecote. After the destruction of the house during the Civil War the ruins

were left until the site was redeveloped with a new house and outbuildings in the 18th/19th centuries (Fielding, S., MAS 276) [HSM 33542].

WESTON-UNDER-PENYARD, Land between Upper Weston & Little Weston (SO 633 234: centre)

An excavation found evidence for stock enclosures and boundary ditches of the late Iron Age, Roman and medieval periods. An earlier geophysical survey showed anomalies interpreted as round houses but the excavations did not validate these interpretations and the paucity of features and finds on the site suggests that the area has only ever been utilized for agricultural purposes. It appears to have been on the peripheries of a settlement from the late Iron Age onwards, when the focus of settlement was about 1 km. to the NE (Wainwright, J., MAS 307) [HSM 35368].

WHITCHURCH, The Church of St. Dubricius, Whitchurch (SO 556 175)

Conservation work to the Gwillim Memorial in the churchyard necessitated the recording of the table tomb within the memorial enclosure. A photographic record of the table tomb and coat of arms set in the W. wall of the memorial enclosure was made. The inscriptions on the tablets of the tomb and ledgers in the enclosure were transcribed (Wainwright, J., MAS 314) [HSM 32129].

WOOLHOPE, Land at the rear of 'The Crown' (SO 611 359)

A watching brief on development revealed only an undifferentiated brown soil, consistent with orchard use. After consultation with the Local Authority's Archaeological Adviser it was agreed that no further observations were required (Appleton-Fox, N., MAS 285).

HEREFORDSHIRE ARCHAEOLOGY

In 2003, the county archaeological service for Herefordshire Council continued to operate a series of grant-aided projects begun in earlier years, in addition to its core advisory and recording work. Two among these projects were the Herefordshire Aerial Archaeological Survey Project (funded by English Heritage), and the Historic Herefordshire On-Line Sites and Monuments Record access project (funded by the Heritage Lottery Fund). A further two were the pilot project to gauge the extent and nature of archaeology in Herefordshire woodlands (grant-aided by the Forestry Commission), and a third season of site investigations in the summer at Croft Castle (grant-aided by the National Trust).

A new project programme investigating archaeology, landscape change and conservation in the main Herefordshire river valleys began with a pilot project focused upon the Arrow Valley. This project was undertaken in partnership with the Arrow Valley Farmers group, and was funded jointly by LEADER+ (European Union and DEFRA) and by English Heritage. Community involvement was a central feature of this project, which included a wide variety of actions and activity in addition to the fieldwork reported by the site entry below. Among the significant further actions was a survey of the geomorphology of the river undertaken by staff from the University of Wales, Aberystwyth, and conservation management work by local volunteers—for instance on the motte at Staunton-on-Arrow, followed by the placement of an interpretation panel at the site (See below, and White, P., *The Arrow Valley, Herefordshire. Archaeology, Landscape Change and Conservation. Herefordshire Studies in Archaeology 2*, (2004)—henceforth HSA 2).

Meanwhile, the survey programme of National Trust properties continued with a survey of the Brockhampton Estate (see below, and K. Ray, 'Brockhampton Estate, Bromyard', in *West Midlands Archaeology* (Council for British Archaeology), 46 (2003)). New surveys of parkland were also carried out at Brampton Bryan Park, Kentchurch Park, Moccas Deer Park, and Moccas Park (see below, and T. Hoverd 'Moccas, Herefordshire: Anatomy of a Deer Park', in *West Midlands Archaeology* (Council for British Archaeology), 46 (2003)).

Given the multiple entries among those following, 'woodland survey' is used as short-hand for the second-phase pilot study surveys of Herefordshire woodlands. Individual entries deriving from discoveries made in the current aerial archaeology survey await systematic analysis, and will appear in a subsequent series of entries. 'HAR' denotes 'Herefordshire Archaeology Report'. This is the report series of the county archaeological service. A full list of titles is available upon application to the County Archaeologist.

ALMELEY, Highmoor Wood (SO 318 525)

Structures recorded in a woodland survey illustrate a limited use of the woodland resource since the late medieval period. The presence of saw-pits, charcoal-burning platforms, and quarries was minimal. A sizeable earthen bank could represent a woodland boundary bank, but may be a degraded park pale, perhaps associated with a deer-park within the Newport Estate (Williams, D.N., HAR 87). [HSM 37283].

ASHPERTON, Hansnett Wood (SO 660 425)

A woodland survey indicated that although the wood existed from at least the early post-medieval period, it was most likely created within former parkland associated with the Canon Frome estate. A focal point within the woodland is Broomy Lakes, which name may refer to a series of ornamental pools located within a ravine, and marked by a dam at the eastern end recorded in the survey. The survey also identified two apparent viewing platforms on the western slope, overlooking the lakes, and a series of carriage rides (Williams, D.N., HAR 76). [HSM 37931].

AYMESTREY, Sned Wood (SO 406 662)

Structures were recorded in a woodland survey that illustrate the intensive use of the woodland resource since the late medieval period. These included saw-pits, charcoal-burning platforms, quarries and woodland management boundaries (Williams, D.N., HAR 75). [HSM 33462].

BRAMPTON BRYAN, Brampton Bryan Park (SO 355 715)

An archaeological survey was carried out in Brampton Bryan deer-park, in partnership with (and with grant-aid from) English Nature, and with the kind permission of Edward, Victoria and Susan Harley. A total of 158 features of archaeological interest was recorded. Of especial importance was the tracing of the evolution of the deer-park, since this had existed in entirely different locations during the medieval period, and because the earliest deer-park was found to have been turned over to arable cultivation actually during the medieval period.

The later sequence of deer-park development into the 18th-century park that survives well today was found to be broadly as noted by John Phibbs in an unpublished study of the designed landscape in 1996. However, some important qualifications to that account are now possible. For example, there is no evidence in the park for an early location for the present Park Lodge. Nor is there any evidence to substantiate local tradition and recent speculation that there was a motte and bailey castle near the NE. park entrance. The hillock in question is a quarried natural outcrop.

Also important is the evidence for the interrelation of medieval deer-park areas, woodland areas defined by wood-banks, and pillow-mounds. Some interesting features were noted, such as a deer-leap at the western edge of the park. As to be expected from the documentary evidence (see David Whitehead, 2000), there is substantial evidence for the harvesting of trees for charcoal production. In total, 43 charcoal-burning platforms were located in the survey. Of particular note is a series of large platforms that show signs of extended use. These are located within a side valley on the western side of the park. They are moreover associated with substantial platforms for buildings and a mound that appears to be an associated midden (Hoverd, T., HAR 69; Whitehead, D., 'Brampton Bryan Park, Herefordshire: A Documentary History', in Whitehead, D. and Eisel, J (eds) *A Herefordshire Miscellany*, (2000), 163–177). [HSM 33858].

BRAMPTON BRYAN, Pedwardine Wood (SO 354 704)

A woodland survey recorded earthwork features that illustrate the intensive use of the woodland resource in the late and post-medieval periods. These included saw-pits, charcoal-burning platforms, quarries and woodland management boundaries. Three large and well-defined holloways were recorded leading from the deserted medieval settlements of Upper and Lower Pedwardine, and an anomalous elongated oval mound was also noted (Hoverd, T., HAR 80). [HSM 38143].

BROCKHAMPTON BY BROMYARD, Brockhampton Estate (SO 687 560–centre)

A survey of the National Trust Brockhampton Estate (that includes parts of the parishes of Norton and Whitbourne) resulted in the discovery of over 200 features of archaeological interest. These included extensive former woodland boundary banks in the environs of Brockhampton House, a deserted settlement with building platforms in the valley of the Paradise Brook at Home House, several abandoned farmsteads, and much evidence for former field systems comprising lynchets and relict ridge and furrow cultivation. A particular feature of the survey is the number of recorded dams, leats, channels, orchard planting terraces and other features such as abandoned narrow rig cultivation that indicate the extent of estate management works of the 18th and 19th centuries (Ray, K., HAR 71). [HSM 76000 *et seq*.].

BROCKHAMPTON BY BROMYARD, Lower Brockhampton House & Chapel (SO 687 560)

A detailed earthwork survey was undertaken for the National Trust within the immediate environs of Lower Brockhampton House, a late medieval, moated hall house with later E. wing and associated 16th-century jettied timber gate-house. This resulted from the discovery during the Brockhampton Estate survey that a former course of the moat was traceable in a curving, silted channel to the N. of the present moat. That this was not a recent change in the disposition of waterworks was evident from early estate and tithe maps that indicate that the present arrangements are of some antiquity.

The earthwork survey suggests that the present moat surrounding the house and gate-house may be of late medieval date. The original moat was apparently significantly larger, encompassing a substantial area to the N. and E. of the present moat, whilst probably following the southern course of the present moat. As such, this is likely to predate the later medieval work and to represent a defensive work. The north-eastern corner of the postulated original moat appears to have been incorporated into a small moated island possibly built for the raising of water fowl.

A resistivity survey of the N. environs of the medieval chapel indicated the likely presence of an associated cemetery. Further resistivity survey of the area within the moat to the W. of the hall demonstrated the presence of foundations of a long-postulated but until now unproven W. wing. This means that, in confirmation of local tradition, the house did conform to an 'H' plan with flanking E. and W. wings, at least from the 16th century (Lello, R. and Williams, D., HAR 99) [HSM 938, 939, 7157, 4895].

CROFT, Croft Castle (SO 449 655)

A third season of excavation in the environs of the 17th-century turreted mansion concentrated on the area to the W. of the house. At the end of the 2002 season, a substantial stone foundation aligned N-S. had been found 2m. below ground level some 20m. W. of the western side of the 1820s bastioned terrace. The structure that formerly surmounted this foundation had been rebuilt in brick in the late 16th century.

A series of excavation areas revealed the sequence of construction of the W. formal gardens in the early 18th century. The excavations also traced the full extent westwards of the level terrace garden of the late 17th century. This area once formed the uppermost of the series of gardens descending the slope to the S. of the house. A two-storey gazebo had been inserted into its NW. corner in the later part of that century. A series of drains had been dug (and subsequently infilled) to facilitate drainage through the terrace wall as it crossed (and thereby truncated) a small side valley.

A N-S. ditch had been dug into the natural soils filling the northern end of this side valley. Accompanying the ditch upslope to the E. was an earthen bank that was found to contain only 12th- to 13th-century pottery. The massive stone foundation was found to have been inserted into this bank, probably later in the 13th century. The ditch deposits had become waterlogged, presumably when the garden terrace was first built. This preserved timbers and other organic material in the upper silts. The main feature noted was a series of bored oak pipes, the junctions of which were found to have been held in place with massive oak collars. Dendrochronological sampling of one of these timbers (Ian Tyers, ARCUS, University of Sheffield) produced a felling date of 1587. This fits well with the documentary evidence for Sir James Croft's expenditure on new buildings in the years immediately prior to his death in 1590. The pipe is thought to have fed an ornamental spout placed within the first formal gardens (Ray, K., HAR 100). [HSM 76000].

DINMORE, Queenswood (SO 505 510)

Earthwork features recorded in this woodland survey included saw-pits, charcoal-burning platforms, holloways and earthen banks marking woodland boundaries and internal divisions. In addition a large number of quarries and associated features relating to 18th- and 19th-century industrial processes were recorded. Of particular interest were the remains of a

building, possibly for housing a powder magazine, associated with a large quarry (Lello, R., HAR 73). [HSM 33410].

DINEDOR, Dinedor Wood (SO 524 364)

In this woodland survey, earthworks were recorded on the N. and S. facing slopes that included traces of an extensive field system on both flanks, perhaps associated with the hillfort. Other features illustrate the intensive use of the woodland resource in the post-medieval period, including holloways and earthen banks—the latter forming woodland boundaries and internal divisions (Lello, R., HAR, 86). [HSM 37150].

EARDISLAND, Admarsh Coppice (SO 420 570)

A sample archaeological field investigation was carried out as part of the Arrow Valley Project at Admarsh Coppice following the discovery in 2000 of a Bronze Age dirk by a local metal detectorist. The dirk was discovered in the upcast of an earlier drainage ditch that crossed the site. In addition to the metal working find fragments of presumed late prehistoric pottery were also recovered from an existing drainage ditch. The site is located in a naturally occurring bowl in the landscape that may be associated with a former spring or waterlogged area. A series of 1m. test pits were excavated across the site to assess the condition of the deposit from which the dirk would have been extracted during the ditch digging activity and to retrieve any further artefacts. A number of percussion cores were taken across the site following ground penetrating radar transects undertaken by members of the geomorphology team from Aberystwyth University.

The excavations and coring suggested that the area was subject to waterlogging that probably produced a seasonal water-filled pond but consisted of fairly free flowing water as there was very little organic material within the deposit. No further prehistoric artefacts were recovered from the excavation. Fragments of post-medieval pottery were recovered from the topsoil and the only features to be discovered were the remains of stone-lined drains, at least 0.5m. below the ground surface. Analysis of the dirk by Dr. Martyn Barber revealed that the blade appears to have been deliberately bent before deposition. It was a finished piece of metalwork but with no indication that it was ever hafted. It is believed to date from around 1400–1140 B.C. and was presumably a votive deposit (White, P., HAR 94; HSA 2) [HSM 34908].

EARDISLEY, Eardisley Camp (SO 287 520)

A survey was conducted over the earthwork known as Eardisley Camp. The site is located towards the end of a small S.-facing spur with wide ranging views over the upper Wye Valley and the northern and eastern scarp of the Black Mountains. The earthwork comprises a low but broad, circular bank with an internal ditch. There appears to be a level central ridge within the circuit of the bank and ditch and two entranceways, one on the southern side and one on the north-western side. This monument has been variously recorded as a medieval ring-work or Iron Age camp. Its form and location suggest that it was not constructed primarily for defence and it is therefore suggested that this earthwork could represent the remains of either a Neolithic henge or (just possibly) a Roman signal station (or both) (Hoverd, T., HAR 63) (SAM 85) [HSM 946].

FOWNHOPE, Cherry Hill Wood (SO 577 352)

A woodland survey recorded earthwork features including medieval field boundaries and intensive woodland management features from the post-medieval period. Intensive quarrying was also identified from the last 200 years (Williams, D.N., HAR 77) [HSM 35778].

FOWNHOPE, Nupend Wood (SO 578 355)

A woodland survey of Nupend Wood recorded features marking a steady progression from a medieval field system to early post-medieval woodland, and lastly to a site for the relatively large-scale production of lime in the Victorian period (Williams, D.N.,HAR 78) [HSM 34030].

KENTCHURCH, Kentchurch Deer Park (SO 426 255)

An archaeological reconnaissance survey undertaken within the Deer Park recorded primarily earthwork features relating to woodland management, former industrial processes, park landscaping and previous land use. There were three principal findings. Firstly, previously unrecorded field systems of presumed medieval date were noted to the N. and W. of the present mansion. Secondly, the circuits of three former courses of earthwork deer-park boundary were traced (and in part inferred) illustrating how the deer-parks were enlarged over what must have been a considerable period of time. Thirdly, a series of medieval and post-medieval wood banks, compartment boundaries and other features associated with woodland management processes were recorded. Evidence for intensive charcoal production and timber processing was also noted in several areas of the park. Considerable amounts of quarrying have taken place within the park for both construction purposes and the production of lime. A number of phases of woodland expansion, contraction and re-organisation were recorded (Hoverd., T. , HAR 70) [HSM 34329].

LLANROTHAL, Cwm Wood (SO 488 179)

During a woodland survey earthwork features were recorded in Cwm Wood and the adjoining Nunnery Wood including charcoal-burning platforms, quarries and woodland management boundaries. The standing remains of a number of ruined buildings were also recorded (Lello, R. HAR 82) [HSM 37169].

LLANROTHAL, Skenchill Wood (SO 480 183)

Earthwork features were recorded in this woodland survey including saw-pits, charcoal-burning platforms, quarries and woodland management boundaries. A small stone building of uncertain use was identified constructed within a quarry (Hoverd, T., HAR 81) [HSM 38071].

MOCCAS, Moccas Deer Park (SO 340 423–centre)

An archaeological reconnaissance survey was undertaken in partnership with English Nature, within the 139ha. of Moccas Deer Park. The survey involved recording earthwork features relating to woodland management, former industrial processes, park landscaping and previous land use. Previously noted field systems of presumed medieval date were found to be more extensive than hitherto recorded. Areas of ridge and furrow were found to cover much of the north-western portion of the park. Hitherto unrecorded early field systems marked by lynchets were located near the top of the dramatic NE.-facing scarp slope.

The circuits of two former courses of earthwork deer-park boundary were traced (and in part inferred) within the park. These are considered likely to be of medieval date. The park was expanded at least once, in the late 18th century, and from that time it should more properly be

regarded as a landscape park containing deer. The known site of the motte and bailey castle was examined, but there is very limited earthwork evidence remaining at the site due to recent intensive arable farming. The survey also identified hitherto unrecorded pillow mounds and a decoy pond. Extensive evidence for intensive charcoal production and timber processing was also noted. The hill-top and steepest slopes have been extensively quarried for building stone and the production of lime. A number of phases of woodland expansion, contraction and re-organisation were recorded (Hoverd, T., HAR 67) [HSM 32856].

MOCCAS, Moccas Estate (SO 355 432–centre)

An archaeological reconnaissance survey was undertaken in partnership with DEFRA. Substantial areas of the former landscape park have in recent years been turned over to arable, with a consequent loss of earthworks. The earthwork remains of a northern boundary bank enclosing Moccas Church and churchyard were noted, indicating that the church enclosure was far larger than its present circuit suggests. Extensive areas of well-preserved ridge and furrow that still survives within the parkland, were recorded. The routes of the 18th- and 19th-century carriageways were found to be almost entirely intact (Hoverd, T., HAR 68) [HSM 34081].

PEMBRIDGE/ STAUNTON-ON-ARROW, Upper Headlands, The Grove

A cropmark discovered in 1996 indicated traces of two concentric lengths of ditch located in the river valley of the Arrow near to an earlier channel of the river. This appeared to form an enclosure located on a small gravel knoll in the flood plain. As part of the Arrow Valley Project an investigation was undertaken to try to date and further characterise the cropmark site. Following a resistivity survey five trenches were excavated. Two trenches were located over the outermost entrance and ditch alignment, one trench over the inner ditch and two in the interior of the enclosure to detect any possible internal features. No such internal features were discovered but the profiles of the two ditches were revealed. The outermost ditch was broad and deep and the upcast had initially backfilled the ditch. The entire assemblage of pottery (five fragments of abraded Severn Valley ware and a small piece of Samian) was recovered from the uppermost deposit in the ditch.

No other artefacts were recovered in the lower gravel fills of the ditches. The inner ditch was narrower in width and shallower in depth but with steeper sides. The upper ditch deposits contained abraded Romano-British pottery similar to the sherds retrieved from the outer ditch. It is suggested that this site might date from the late Iron Age and the proximity to the river may indicate a ritual significance. More remarkable was the discovery of a previously undetected prehistoric settlement dating to the late Neolithic/early Bronze Age. In the trench nearest to the river channel a section of a ditched feature was discovered that had been cut by the later outer-most enclosure ditch. From the deposits of this earlier prehistoric feature were retrieved several small sherds of Beaker pottery. The pottery consisted of sherds from four different vessels. This small assemblage was studied by Dr. Alex Gibson of Bradford University who attributed a date of 2300–1700 B.C., with a slight preference for the later part of this range (White, P., HAR 95. See also: HSA 2) [HSM 30123].

PEMBRIDGE, Ox Pasture, The Leen (SO 381 594)

Aerial photography from the 1970s onwards has recorded the location of a rectangular, ditched enclosure, which has its SW. corner overlain by Rowe Ditch, a presumed post-Roman defensive dyke that crosses the Arrow Valley to the NW. of Pembridge village. Two 10m. long trenches were excavated across the line of the enclosure ditch as part of the Arrow Valley

project. The aim of the excavation was to assess the condition of the archaeology and to retrieve evidence that might provide a *terminus post quem* for the construction of Rowe Ditch.

The enclosure ditch was over 1.2m. deep from the ground surface and over 3m. wide. Above the initial gravel deposits was a silty layer that contained pottery, which has been analysed by C. Jane Evans. From the fill of this layer hand-made mudstone-tempered Iron Age pottery was recovered, that is likely to have been produced in the Martley area of Worcestershire. Nearly 40% of the ceramic assemblage from this site comprised this particular type of pottery fabric suggesting a late Iron Age date for the initial back-filling of the enclosure ditch. In the upper-most deposit were sherds from later pottery types dating broadly to the Romano-British period including black burnished ware, dated to after A.D. 120. By the time of the deposition of this later pottery the enclosure ditch was already filling up and it is possible to suggest that by the mid-second century the site had in fact been abandoned. The excavation also confirmed that Rowe Ditch, which cuts obliquely across the enclosure on a markedly different alignment, is most likely to be a post-Roman monument (White, P., HAR 96. See also: HSA 2) [HSM 22863].

PEMBRIDGE, Middle Field, The Leen (SO 377 586)

Recent aerial photography and the Historic Landscape Characterisation for Herefordshire revealed a landscape organisation that is dominated by the orientation of the field pattern upon a NW. to SE. axis. It has been speculated that this arrangement may have prehistoric origins and the Arrow Valley project provided an opportunity to investigate this. Cropmark features, that appear to form smaller ditched enclosures within the larger modern-day fields but that are aligned on the same axis as the modern-day fields, provided an immediate target for investigation. A 12m. by 1.5m. long trench was excavated over two parallel ditches and a 15m. square trench was opened over the junction of two ditches.

A large quantity of relatively high status Romano-British pottery was recovered from the parallel ditches including black burnished ware from late 2nd- to mid-3rd centuries A.D. as well as Samian ware. From the other trench further pottery was retrieved also dating from these centuries. A pit, that had been cut through the silted-up ditch, contained debris from small-scale industrial working and included molten glass and iron hob-nails diagnostic of Roman shoes. Romano-British pottery that can be attributed to the late 3rd century was also recovered from the pit. The assemblage of artefacts suggests that the site may represent a cluster of small enclosures perhaps located close to a high status farmstead with its larger-scale field system in the landscape beyond the excavations. From aerial photographs it can be judged that this wider system may cover an area of over 20ha. in the northern part of Pembridge parish (White, P., HAR 96. See also: HSA 2) [HSM 15214].

PEMBRIDGE, Top Hales, The Leen (SO 379 591)

Two trenches excavated as part of the Arrow Valley project sampled the condition of two separate cropmark features located on the northern edge of the Arrow Valley flood plain. The first trench concentrated on the SW. quadrant of a circular ring ditch, the western edge of which disappears into an area of wet silts deposited by a former river channel. The second trench was located over the western part of a small oval-shaped ditched feature nearer to the present-day river channel to the S. of the ring ditch.

The investigation had three aims. The first was to determine the relationship between the archaeological deposits and the former river channel. The second was to retrieve dating

evidence from the archaeological deposits and the third was to assess whether any buried soils survived under the upcast from the quarry ditches. No artefacts were recovered from the sections excavated across the oval-ditched enclosure although the excavation revealed a complexity of archaeological deposits at the eastern end of the trench, where the ditch had cut through a large pit. It is presumed that both features are prehistoric. However, given the absence of artefacts recovered, no evidence can be cited to support or contradict this possibility.

The trench excavated over the ring ditch revealed that the feature was sealed on the western side by a clay-silt derived from river sediments. Four sections were excavated across the line of the ring ditch. These revealed the profile of the ditch in the two eastern sections. However, it was evident from the two western sections that the river had at some stage eroded the outermost edge of the ring ditch. Very small, abraded pieces of Romano-British pottery were recovered from the river silts and it is suggested that erosion of the ring ditch occurred during the late or post-Roman period. No other artefacts were retrieved from the deposits within the ditch although a small oval pit was discovered in the NE. corner of the trench, in a location that was enclosed by the ring ditch. The pit contained over thirty pieces of knapped flint, possibly of later Neolithic date. The excavations also demonstrated that soil surfaces, which might have been expected to be preserved underneath the upcast for the mound, had subsequently been eroded by ploughing (White, P., HAR 102. See also: HSA 2) [HSM 30123].

PEMBRIDGE, Market Hall (SO 390 581)

Pembridge Amenity Trust requested the county service to investigate the base of the 16th-century Market Hall in Pembridge prior to its renovation. The aim of the work was to establish whether there was, or had been, a constructed (cobble or flagstone) floor within the hall. It appears that the base of the Market Hall consists of naturally deposited glacial till, with a grading of clasts down through the profile. The existing pillar base appears to have been placed into a shallow foundation, cut into the till. This was presumably done during the restoration work carried out in 1927. The shallow nature of this footing suggests that the till was highly stable and therefore that the material concerned does not appear to be levelling material brought to the site (Williams, D.N., HAR 91) [HSM 360].

PONTRILAS, Gilberts Hill Wood (SO 396 305)

The most interesting discovery in this woodland survey was evidence for the former existence of an ecclesiastical structure dating from the 14th/15th century. Worked masonry of this period was found around and within the remains of a post-medieval lime-kiln. The wood was heavily utilised during the post-medieval period. The most significant remains from this period are those associated with lime production. These included not only the kiln, but also associated quarries for the raw material, numerous charcoal-burning platforms to provide heat and even clay extraction pits that suggest the kiln may have been lined (Williams, D.N., HAR 89) [HSM 38000].

RICHARDS CASTLE, Haye Park Wood (SO 488 718)

Earthwork features recorded in this woodland survey included the courses of deer-park pales, and woodland management features such as charcoal-burning platforms, saw-pits, storage platforms, and compartment boundaries. Industrial activities featured the quarrying of building stone. Of particular interest was the previously noted earthwork remains of a large rectangular

enclosure. This is cut by the medieval park pale, and is therefore thought most likely to be an Iron Age or Romano-British farmstead site (Lello, R., HAR 79) [HSM 33651].

ROSS RURAL, Chase Wood (SO 602 222)

Earthwork features recorded in this woodland survey included holloways, charcoal-burning platforms, storage platforms, and woodland compartment boundaries. Industrial features were mostly those associated with the quarrying of building stone. Of particular interest are earthworks, of possible approach ways and fields, associated with the prehistoric Chase Camp, an Iron Age hillfort (Lello, R., HAR 84) [HSM 37208].

STAPLETON, Stapleton Wood (SO 324 665)

The earliest feature identified in this woodland survey was located at the top of Hell Peak. This consisted of a near vertical drop into the wood from pasture fields to the S. This has been interpreted as a possible stretch of a medieval deer-park pale associated with Stapleton Castle. Further features of medieval date were recorded in the SE. corner of the wood. These consisted of field boundaries, indicating that the wood has expanded in this area in the post-medieval period (Williams, D.N., HAR 74) [HSM 33683].

STAUNTON-ON-ARROW, Wapley Hill Woods (SO 347 622)

In this woodland survey, several of the features recorded within the woods concerned (The Warren, Crabtree Wood and Goden's Wood) are thought to date from the Iron Age and the medieval periods. However, the majority derive from the use of the woodland resource in the post-medieval period (saw-pits, charcoal-burning platforms, quarries and woodland management boundaries). The main exception to this was identified within the Warren, an area almost totally lacking evidence for woodland management. The most significant boundary identified there consists of two phases and surrounds the whole of the area known as the Warren. The first phase consists of an earth bank. In the second phase a stone wall was constructed on this bank. Although the date of the earlier bank is uncertain, it must pre-date the wall, which is known to have been built in 1725. This survey has also shown that the area now covered by the Warren was not wooded in the 18th and 19th centuries. Although a number of field boundaries were identified that date to this period they are few in number, encompass large areas and most likely represent the later use of the site as pasture. To the S. of the existing road, in Crabtree and Goden's Woods, there was in contrast an abundance of woodland management features, and the remains of a possible medieval field system (Williams, D.N., HAR 83) [HSM 34023].

STAUNTON-ON-ARROW, Mowley Wood (SO 350 598)

Earthworks recorded in this woodland survey included holloways, charcoal-burning platforms, storage platforms, woodland management boundaries and industrial activities. Several large quarries were noted that were probably used to supply building stone for the construction of a railway embankment and weir on the river Arrow during the 19th century. A large number of small quarry 'scoops' may have been the source of clay. Domestic occupation within Mowley Wood was recorded in the form of the remains of a ruined cottage on the S. side of the wood, and the remains of the site of a house and garden in the northern portion (Lello, R., HAR 88) [HSM 36938].

STORRIDGE, Halesend Estate Woodland (SO 741 493)

Woodland survey here identified evidence for former quarrying and woodland management represented by charcoal-burning platfoms, saw-pits and woodland boundaries. In addition to

these features large areas of ridge and furrow were recorded, particularly on the western side of the main ridge of Halesend Wood. Associated with this were numbers of field lynchets, headlands and field banks. This suggests that much of this area was under intensive arable cultivation during the medieval period (Hoverd, T., HAR 72. [HSM 35779].

WEOBLEY, The parish church of SS. Peter and Paul, (SO 401 518)

A topographical survey of the churchyard of the parish church of SS. Peter and Paul, was undertaken as part of a Local Heritage Initiative project in partnership with the Caring for God's Acre charity of the Diocese of Hereford and the local community. A plan of the churchyard was produced at a scale of 1:500. Based on field observations and archival research, an interpretation of topographic features was offered that identified changes in the boundaries of the churchyard, and the impact of natural processes, including geology and geomorphology. In addition, an explanation was offered for the position and alignment of the N. tower of the church that recognises problems faced by the builders in seeking a firm foundation (Lello, R., & Williams, D.N., HAR 97) [HSM 37023].

WHITNEY-ON-WYE, Whitney Wood (SO 259 477)

Earthwork features recorded in this woodland survey included saw-pits, charcoal-burning platforms, holloways and woodland boundary and internal division banks. In addition a large number of quarries and associated features relating to 18th- and 19th-century industrial processes were recorded. Of particular interest were the remains of a ruined cottage and garden plot, known locally as 'Vultures Nest' that were noted at the centre of the wood (Lello, R., HAR 85) [HSM 36982].

Buildings, 2003

By J. W. TONKIN

In the notes below the information in the R.C.H.M. Inventory has not been repeated though in some cases the two need to be read together.

LONGTOWN

LLANWONNOG FARM, SO 323 298 R.C.H.M.40 Tithe No. 1063

The above house is situated in the Monnow Valley just below the 500ft. contour facing SW.

The Royal Commission on Historic Monuments in their volume 1 (1931) *Herefordshire* date it to the late 14th century. From the place name it would seem to have had some sort of connection with a chapel dedicated to Wonnog, but I can find no mention of it in Ekwall or Johnson in their volumes on place-names, but it does occur in Davies, *Welsh Place Names*, which suggests that it is dedicated to St. Gwynnog.

The early part is L-shaped with the hall block originally open as the NW. wing and a later wing on the SE. On the NE. part are two windows, one with an original oak lintel, the other with reset stone jambs. In the NW. end of the hall block is a two-centred doorway with chamfered jambs and to the SE. is a single-light window. Along the wall is a stone seat. Inside the building is a doorway with a chamfered ogee head, SW. of the inserted chimney stack.

The remains of the central truss still exist with evidence of wind-braces and also of the cruck at the E. end of the hall. The central cruck is double chamfered typical of the 14th century.

The ceiling beam is hollow moulded with a roll moulding along the centre of the hollow, which presumably means the hall had a floor inserted *c*.1500 which is unusually early.

The wing seems to have been a separate dwelling at one stage, making this a typical unit house of the type found in Wales and the Marches.

MICHAELCHURCH ESCLEY

THE PIKE'S FARM. SO 291 381 Tithe No. 158

Surprisingly, this house is not listed in the Royal Commission on Historical Monuments, vol. 1 (1931), for it has certain details which date it earlier than their survival date of 1715. It lies on the 1,100ft. contour, facing S. with its main block running E-W. and the wing N-S.

Externally the main block has two mullioned windows on the ground floor of the N.-facing wall with a hooded drip-mould over the western window which probably dates it from the early 17th century. There are three windows above close under the eaves. This same block has a five-light window downstairs on the S.-facing wall and a four-light above. On the E. gable there is a small window at the N. end which lights the circular stairway on this corner inside.

The porch at the junction of the two wings has an elliptical-headed doorway with a short run of post-and-panel screening above it; a fairly unusual feature. There is a small dormer window above this, and a four-light window in the wall to the S. Down the hill from this is a

doorway and a small two-light window below that.

All the stonework is in thin slabs of red sandstone.

On the ground floor there is a hall/kitchen at the E. end of the E-W. block with a dairy to its W. and then a lobby with a bathroom and central-heating installation in it today. S. of that is a dining-room with a lounge beyond. The walls are unusually narrow for this area being only about 2ft. thick whereas the usual thickness is at least 2ft. 3ins.

Above this is a bedroom over the hall/kitchen with a circular stair descending from the NE. corner, a small bedroom to the W. of this over the dairy and another W .of this again over the lobby area. There is a small bedroom over the kitchen, but the lounge is open to the roof .

I would suggest that this building started life as a long-house i.e. with people and cattle under the same roof. There were still a few like this in the Olchon Valley when I first knew it in the 1960s.

It is recorded in the Tithe Survey of 1843 but must have been there for about two hundred years at least by that time.

The hall with a fireplace at the E. gable has three longitudinal beams with a 3in. hollow chamfer and a diagonal stop at the end and sixteen joists all chamfered with stops at the end. This probably indicates a building date of early in the 17th century between 1600 and 1630 which is the probable date of the drip-mould over the western window in the N. wall. Internally this four-light window has a wooden shelf and at the S. end is a five-light window.

The small room to the W. of this is separated from it by a post-and-panel screen. It has a central beam again with a 3in. hollow chamfer with nine joists running N-S., all chamfered and with a simple stepped run-off stop. At the W. end of the N. wall is a three-light window. It was probably a dairy.

To the S. of these two smaller rooms is the modern dining-room. There is a 5ft. 8ins. thick wall at the S. end with a fireplace and bake-oven in it with a heavy lintel 20ins. by 12ins. with a hollow chamfer. At the W. end a circular stairway goes up to the floor above. There is a window at the N. end of the W. wall.

To the S. through the thickness of the wall a doorway leads into the modern lounge which is open to the roof and was probably the byre or a room used for farm purposes of some sort. As there is quite a wide doorway at the N. end with a window of similar width opposite this could well have been a cattle passage and there could have been cattle ties for a small number of cattle. Alternatively it could have been a ‘barn’, a place for the storage of grain or some other farm crops.

Upstairs in the main block are two bedrooms over the kitchen/living room separated by a post-and-panel screen. The eastern is approached by the stairway in the NE. corner. A further post-and-panel screen partition separates the western room from the small room between it and the room over the lobby.

The roof has two trenched purlins on each side and the rafters are pegged to these a sign of wealth in the original builder. The tie-beam is about 11ins. deep and has fairly short carpenters’ assembly marks about 1in. long beneath each of the 9in. verticals to the principals. These have a V and an X on them and are probably part of a series which runs around the roof—a fairly unusual method, but by no means unique. These marks around the roof and across it on the truss look as though they should be from the period *c.*1620–40.

Thus from the construction and the carpenters’ assembly marks and, above all the plan, this house can probably be dated to the third decade of the 17th century or a little earlier or later.

The barn with its typical threshing bay is again of local sandstone slabs with timber along the top on each side, but quite long carpenters' assembly marks which look rather earlier than those in the house. The byre is of similar construction and probably of the same age. They both have corrugated iron roofs now, but were probably roofed with local stone originally. The byre has a wall thickness of 2ft. 4ins. just over the minimum width for stone walling, but the roof is modern. It certainly seems to have been built as a byre and its doorway has a 2in. chamfer.

Here is a complete farm set-up from the early 17th century surviving well after nearly four hundred years and which appears not to have been previously fully recorded.

As in the past, my thanks are due to a number of people who have drawn my attention to the buildings and those who have invited me into and allowed me to wander around and look at their houses and outbuildings.

Natural History Section, 2003

By BERYL HARDING

April 9. A green lane study was carried out S. of Sutton St. Nicholas Church in the flood plain of the Lugg. (Grid ref. SO 537 447–538 435). The lane consists of four parts forming a rectangle with the long axes approximately ¾ mile each. Within the rectangle is a small stream flowing S. to a network of streams draining from Withington Marsh via the Little Lugg W. to Lugg Bridge. We covered the western ¾ mile lane and recorded stretches of 50 paces with alternate 50 paces unrecorded. This was carried out on both sides of the lane.

The lane itself had extended through to the Lugg Bridge in the past for nearly two miles but is quite overgrown and impassable beyond the point of our recording. The part walked by us is flanked by a mixture of arable fields and pasture—presumably since the 19th-century Inclosure Acts—and no longer worked as part of the historic flood plain hay meadows system flanked by the various Rheas.

The present use of the lane is predominantly for farmers' access and as a bridleway. It has had a stone and bitumen surface now heavily mud-covered, with extra hardcore dumped at field entry points. The lane is level apart from a stone-bridged area rising over the remains of a section of Hereford-Gloucester canal which still contains some water and is heavily tree-lined each side for ½ mile.

There are no walls or ditches flanking the lane. To the W. the hedges have not been cut for some time giving a hawthorn-blackthorn hedge/thicket nearly 15ft. high along most of its length. Interspersed were four oaks, five ash, three field maples, three sycamores and one elm, still small enough to be free from elm disease. The hedges on the E. side had been cut low to 4ft. with one elm, five field maples, one spindle and two crack willows. They were not species-rich and typical of 19th-century enclosure hedges.

No ferns were seen. Forty-three species of herbaceous plants and six of grasses were recorded. It was difficult to identify the latter as it was too early for the flower heads to have developed.

The remainder of the lane complex may be recorded next season, but it is evident from their use by farmers that it is a U.C.R. (Unclassified road), marked white on the map and now among those most under threat. As it is used it seems unlikely to go the same way as its southern stretch to Lugg Bridge—although that is still retrievable with suitable clearance.

21 May. A visit was made to Weobley Castle bailey for a plant survey.

The castle has some 13th-century stone fortifications with round towers of which little survives, as occupation ceased in the 15th century. At present the ditches and banks are prominent and it was these areas that we looked at in particular.

An archaeological survey using geophysical techniques had been carried out recently to determine the whereabouts of old buildings within the complex. Last September a herbaceous plant survey was made yielding thirty-six species including the ferns Maiden Hair Spleenwort, Hart's Tongue and Hard Fern. The grasses were difficult to identify as it was beyond their flowering period. Pendunculate oaks are numerous.

The second plant survey was intended to complement the first at a different season. A further twenty-four were identified that day giving an overall total of sixty species. Again the grasses were not easy to identify as the bailey is grazed by cattle and the flower heads lost. We found Sweet Vernal grass, Meadow Foxtail, Brome grass and False Oat grass but otherwise they seemed to be of poor variety.

An attempt was made to relate the plant growth patterns to the conditions of moisture and soil types. Much of the flatter sward was colourfully covered with buttercups (ignored by the cattle due to their toxicity) and so too were the banks. All three species were present: Creeping, Meadow and Bulbous buttercup plus Goldilocks. Patches of nettle obviously grew around areas of covered and tumbled masonry as a result of mortar/lime enrichment.

We had hoped to find more obviously damp-loving plants in the ditches and around the site of the old mill, its leat and retaining pond. (The mill was abandoned in the 17th century.) The surface declivities of these were visible but no fine demarcations could be shown by plant growth as the coarse pasture grasses were dominant.

This was to be a morning visit only but even that was cut short by the cold, showery weather.

July 9 Three churchyard plant surveys were carried out.

St. Peter's Church, Staunton-on-Arrow: This is a Victorian rebuild adjacent to the castle mound in the village with fields to the W.

The circular churchyard is raised with drystone retaining walls. To the E. it flanks the road 5ft. below; to the S. there are hedges and low walls; to the W. the wall is above the castle moat with the old motte rising some 28ft. above and to the N. the walls flank the old school and village gardens. As usual, such drystone walls provide niches for small ferns such as wall rue and spleenwort as well as shelter for many invertebrates.

The gravestones were mostly *in situ*, of various stone types and with a rich lichen flora—only a few were of polished granite. The grass was mown with the cuttings left and is generally herb-rich. Pathways were mostly of grass with some gravel.

Apart from English yew and box, fifty-eight species of herbaceous plants were identified including Buckler and Male fern. Ants and moles were present. In the porch were very good lists regarding the flora and fauna known to be in the churchyard. To the W. an enclosed millenium garden had been made providing seats and a pleasant secluded spot for visitors and walkers on the footpath.

St. Peter's Church, Titley. The sheltered site was by a large house and within the rather spread out village.

The dimensions of the churchyard were peculiar in that the N. and W. sides were enclosed against the church walls and apparently forming part of the land of the adjacent property. The W. wall was beside a farm drive with buttress support so only the S. side with its entrance had any churchyard. The graves had been re-aligned. The grass was usually mown with the cuttings collected (no compost heap was visible) and the turf was herb-rich.

Both sides of the front of the churchyard had tall trees of Irish yew, sycamore, conifers, holly and three extremely large laburnum with some wych elm and rhododendrons. In all forty-three species of herbaceous plants were recorded including wall rue, polypody and very abundant spleenwort growing on the S. side of the tower. Fairy foxglove *(Erinus alpinus),* a

naturalised plant was also found by the base of the tower. *Veronica viliformis*, another introduced plant, occurred which can be a pest in churchyards as it smothers the grass. There were a number of yellow ant mounds which are a feature of churchyards, these were mostly beside the gravesides.

St. Michael's Church, Lyonshall. This church is within sheltered, wooded surroundings with part of the village nearby.

Beyond the W. tower is a bank separating the old and newer graveyards. To the SW. the entrance had a low wall as demarcation with the entrance drive shared by one or two houses. To the E. there is a low retaining wall between the older and newer churchyards, beyond which is a sloping field where *son et lumière* performances took place in the past. The E. and NW. wall flanks the moat of the castle motte, *c*.13th century, which is still partly water-filled. All this side of the churchyard is heavily wooded.

The older gravestones are in still *in situ* and lichen grows well. Within the churchyard are yew, beech, horse chestnut, sycamore and cedar with smaller box, holly, elm and dog rose. The grass is regularly mown and had been recently cut with the loss of flower heads making identification less than easy. Forty-three species of herbaceous plants were identified so the turf is fairly herb-rich. Wood sanicle and betony were found to the N. both woodland species.

September 16. The proposed visit to Wellington Gravel Pits had to be postponed.

Ornithology, 2003

By BERYL HARDING

A warm, dry Indian summer in 2002 saw successful late breeding by a number of species and some low-key nesting activity continued through the mild, if very wet, December, involving Wood and Feral Pigeons. However, after this mild, damp close to the previous year January 2003 started with a high pressure system and slight snowfall on the 5th followed by cold northerly winds and several night frosts which checked any further nesting activity. Flocks of Crossbills had moved into the northern coniferous woods of the county with some reaching further S. to Haugh Wood.

On the 14 January 30,000 Starlings were seen swooping round before settling to roost around Widemarsh Common. For those who felt hardy enough to bird watch at that time, flocks of up to 70 Lapwing were to be seen along the Wye and up to ten Goosander during January. At Wellington Grave Pits 140 Pochard were seen on New Year's Day and 247 Tufted Duck. On 5 January at Berrington Pool 200 Canada Geese and seventeen Heron were sighted—part of the heronry there. The Canada Geese peaked to 338 next day at Castleton on Wye. On 12 January 145 Teal were seen at Bodenham Lakes. At Holme Lacy Lake 158 Mute Swan collected there with fourteen Whooper Swan on 15 January. The middle of January became milder and then colder by the end of the month. February continued to see-saw violently, either cold and dry, or damp and dull with ten nights of frost. But by the end of the month thirteen nesting species were reported in the U.K. and a Mistle Thrush was starting to nest in Hereford.

March came in with a mild south-westerly air flow causing egg-laying by resident species of Grey Heron, Rook, Robin and thrushes. Peregrines were also nesting—records show that they are increasingly making use of man-made structures such as ecclesiastical buildings, bridges, chimneys, warehouses and pylons. Some pairs have even started prospecting in London. Ravens are also tending this way and so continuing to move E. Reports of sighting in Hereford are becoming frequent. Under another high pressure system, March gave a long, dry spell from the 7th to the end of the month with cold nights but sunny days peaking to 15°C in the sun. It was the sunniest March since records began in the 1600s and 2.3°C warmer than last March. It was also the driest since 1884 with nearly 40% less rain than usual.

The first Chiffchaff was heard at Orleton on 17 March and Sand Martins had returned by 22 March—although they may have only been passing through northward. Blackcaps are seen regularly now in winter but they may not be 'ours' but migrants flying S. who decide to over-winter here.

The March drought continued into the last week. The first report of the Cuckoo was heard by 14 April at St. Owen's Cross, Swallows by the 21st, House Martins by the 24th and Swifts by 28 April alerting us to their presence by their screams. They are one of the latest spring migrants to return from their wintering S. of the Sahara. The Sand Martins (one of the earliest arrivals) were well into nesting by 3 April and later in June at Winforton-on-Wye 350 were seen with 105 occupying nest holes. Nevertheless, their numbers are lower than in 2002. Three Oyster Catchers turned up at Kenchester Pool on 25 May!

Following a successful breeding season for most species in 2002 with generally mild winter weather, plus widespread, prolific yields of certain major wild fruits, including beech mast, hazel nuts, acorns, haws and some conifer seeds, the adult populations of some resident species in 2003 were high condition compared with the previous year South-easterly winds in April led to the early arrival of some migrants and early nesting attempts but, later in the month, poor weather in North Africa and Iberia held up many migrants heading from there.

May was cooler for most of the month with light showers which did not greatly alleviate the previous dryness. June had much warm, sunny weather—the warmest since 1976 and the sunniest since 1996. Such rain as did fall (2.5ins.) tended to dry off quickly so that the result was the equivalent of a dry month. The warm, dry weather continued for the first three weeks of July and again for most of August—by which time some trees were shedding their leaves and lawns had become brittle and brown.

The rearing patterns of bird behaviour vary greatly. Blackbirds live short, hectic lives (perhaps 4–5 years) and have two or three (sometimes four or five) broods of 3–5 eggs each year, so spreading the risk and hoping to increase the chances of at least one brood surviving. But it also reflects the fact that they cannot physically find enough food, or feed the chicks fast enough, to rear all of them. Both parents will feed and protect young for up to three weeks then the male takes the responsibility while the hen goes off to lay the next clutch of eggs. Barely half the nests produce chicks and just under half result in flying chicks with, on average, two to three young reared per pair per year—before predation or cold weather affects them later. Thus, retaining population numbers is only after great expenditure of effort.

Long-tailed Tits use co-operation. If a nest fails, the pair splits up and one or both go to help at other nests—apparently at the nest of a brother. Most helpers seem to be males, but the females may have been overlooked in the research. Pairs with helpers obviously raise more chicks and appear to be working for the benefit of the family so promoting the genes of their parents as much as their own.

Moorhens rear two or more broods of five to nine chicks each summer. Both parents incubate and feed the chicks which leave the nest soon after hatching but are unable to feed themselves for three weeks and then still need further supplementary feeding by their parents for another three to four weeks. Maintaining this feeding and starting a second brood is a challenge but help is available because the chicks from the first brood then assist in the feeding of the second, so working together as a multi-layered family.

Skylark numbers in the U.K. have fallen by more than half with a loss of more than one million birds in just twenty-three years. In the mid-1990s, the Government and conservation organisations set out targets to help Skylarks and other farmland birds in trouble, and thanks to funding from Tesco, the R.S.P.B. started researching reasons for this decline. Essentially, the way cereals are grown today with autumn sowing means that by the time Skylarks are nesting (April—late July) the crops are tall and dense by June—the opposite of their requirements for raising the second or third broods so necessary to maintain numbers. They consequently try to nest on the tractor tramlines making them vulnerable to predators, or to being run over. Also with this autumn planting there is the consequent loss, later in the year, of stubble fields with their waste grain and weed seeds—another scarce resource.

Obviously, it is economically unreasonable to expect farmers to revert to spring sowing but the R.S.P.B. research has found that leaving several unsown patches a few metres wide in

the field would provide the answer with little effect on total crop yields. It would involve more paperwork for farmers in subtracting the number of patches from the total area for which they receive a government subsidy. With shown improved results in the Skylark population from such farms using this method, the R.S.P.B. policy team working with the Government is pushing for initiatives of this sort to become more widespread so that, hopefully, Skylark numbers are going to recover in the future..

According to the R.S.P.B., average nest box recording results over much of the country were disappointing this year. Birds seemed to lay small clutches of eggs and up to one-quarter did not hatch, then young birds died, mainly of starvation, before fledging although the colder weather in the latter half of May also caused chilling. At the start of April, the previous dry weather meant that little insect food was available so the females were in poor condition at the time of laying so clutch size for the Blue and Great Tits were lower.

Herefordshire Nature Trust Nest Box Scheme Results.

No records took place for 2001 due to foot-and-mouth disease.

	2003	**2002**	**2001**	**2000**	**1999**	**1998**
Sites recorded	23	16		24	28	28
Boxes available	824	567		842	833	954
Boxes used	435	282		423	475	591
Percentage used	54.7	49.7		50.2	57.0	61.9

There has been a fall in the number of sites recorded over the years due to loss of habitat by felling, inaccessibility and fewer recorders.

Success rates in rearing to fledging in 2003.

Blue Tit	62.5%	in 23 sites overall
Great Tit	64.6%	at 22 sites
Marsh Tit	85.4%	at 6 sites
Coal Tit	28.2%	at 1 site
Pied Flycatcher	53.1%	at 13 sites
Nuthatch	64.0%	at 6 sites
Wren	22.2%	at 2 sites

There were no successful fledging results for Redstart and no boxes were taken up by Tree Creepers this year within the areas covered by the Nest Box Scheme.

Pied Flycatchers did not always complete their nest laying, probably due to insufficient food available after their migration. The poor performance in many recording sites by Pied Flycatchers has maintained a downward trend over recent years. The nesting attempts are fewer with lower numbers returning (this can be seen from the number of ringed adults returning) perhaps due to over-wintering difficulties and then there are lower clutch sizes. As ground feeders for 65% of the time, too many saplings can be obstructive although providing protection. This year there was a combination of food shortages, desertion and predation.

Records at one site at Mary Knoll has shown forty nests with 177 successfully fledged in 1990; down to nineteen nests with fifty-four fledged in 2000; and only fourteen nests with twenty-three fledged in 2003. At another site near Mansel Lacy the results were the most disastrous for twenty years. Predation was widespread, from the egg-laying stage to fledging, with mice more than weasels being the main culprits. Of the six boxes taken up by Pied Flycatchers thirty-one eggs were laid (a lower number than usual) and none were successful. With the Blue Tits twenty-seven nests had 201 eggs laid and none fledged successfully. The loss of all Pied Flycatcher young could well affect the future for this species on this particular site.

July and August continued dry and hot and September, although cooler, was also dry with the drought continuing until 28 October. The mix of harsh frosts and rain during the early part of the season in many parts of the country and later hot temperature and drought conditions is likely to have caused problems for some species. Blackbird and Song Thrush both had a poor breeding season in 2003. The cold and wet weather during the first part of the season may have caused early broods to suffer and later the hot weather is likely to have made it difficult for adult birds to get the preferred earthworms from baked ground.

However, at Canon Pyon Linnets were around in vast numbers from April to September with repeated breeding, daily singing and feeding. The oilseed rape fields seemed to be the main attraction! The dry weather may have caused some birds to abandon later breeding attempts and to gather in flocks earlier than normal—110 Goldfinches were seen at Castleton-on-Wye in mid-August.

The Garden Bird Watch run by the British Trust for Ornithology (B.T.O.) has 15,000 participants in Britain recording the numbers of birds visiting gardens to feed. From this survey, results of behaviour consistency can be seen in the annual cycles of the various species using gardens. For example, Goldfinches peak over the same three-week period during the late spring every year, while the graph for the Blackbird shows a consistent drop in garden reporting every September. Other patterns can emerge, such as the difference between the years and the regions under varying weather patterns or food availability. Reporting rates for species like Wren, Goldcrest and Long-tailed Tit highlight their susceptibility to poor winter weather. Difference between species also show up. For example, Chaffinch and Greenfinch begin their late autumn arrival in gardens over the same few weeks each year with the Chaffinch rate increasing to an end of year peak but that of the Greenfinch not peaking until early spring.

Collared Dove numbers always increase in December—no doubt in response to the ready supply of food and often monopolise bird tables. They are now the seventh most frequently seen bird in gardens during the winter.

Starlings still come top in the Garden Bird Table counts in winter with an average of 4.9 birds per garden nationally. However, in 1979 the average count was fifteen. The overall population is still declining and the clouds of starlings coming to roost in towns are much smaller. The ‘large’ winter roosts seen in Mortimer Road in Hereford in 2001 and 2002 were displaced by the Council felling the trees. This year the flocks chose Judges Close in Hereford instead, causing not only an evening clamour but a slippery mess on pavements, driveways, cars and windows from their droppings—what will happen in 2004? Those trees have a preservation order on them! Pied Wagtails seem to have changed one of their winter roosts in Hereford from Safeway’s car park to the bushes beside the city wall by the N. exit from

Maylords Orchards.

The Heronry Census began in 1928 with national surveys in 1954, 1964 and 1988. Another has been carried out in 2003—the 75th anniversary. Many sites have been overlooked in the past as the habitat choices are variable. However, it appears that there is a population increase. The Little Egret is continuing to spread into the midland and northern counties since first breeding in Dorset in 1996 and may soon appear at heronries generally. Will this have any effect on the Heron population?

Most House Martins' last departures were by the end of September. Eighty or more were seen on 21 September, mostly young, clinging to the church tower in Bodenham before their great travel effort.

The more unusual sightings at Wellington Gravel Pits have been a Swan Goose on 7 September, a Bar-headed Goose on the 17th and a Chiloe Widgeon in August and again in October—presumably an escapee.

The Short-eared Owl is mostly diurnal and can be seen quartering fields for their quarry, in winter they often move northward from their range seeking prey elsewhere when the field vole population diminishes. Tests have shown that the nocturnal Tawny Owl's acute vision is 100 times more sensitive than ours and they can reputedly locate prey several metres away by the light of a candle placed 150m. away. They mate for life and nest early in March to April but have to compete for sites, even topping squirrel dreys if necessary.

By mid-October, the winter thrushes had returned. It was the sunniest October on record for ten years and 6 November proved to be the warmest November day on record. Winter flocks of Lapwing were seen in October and November with thirty-plus in Hereford.

The good news reported this year from the Herefordshire Ornithological Club has been that Corn Buntings have been found at two new sites (located by the farmland bird surveys). With the increase in bracken in some of the upland commons it seems that Whinchat numbers may be increasing, but the few Grey Partridge numbers are still of concern. Along rivers Kingfisher sightings have been numerous

The year closed with more rainfall during December (just over 3ins.) but more was needed to penetrate the ground and bring river and ponds levels back to normal. In Hereford the annual rainfall was only about 61% of that received during 2002, and it was the hottest year on record for 250 years as well as breaking several monthly records.

Mammals, 2003

By BERYL HARDING

Amid the generally gloomy news regarding wildlife populations, it is heartening to read of the otter's return. More than twenty years of concentrated efforts by voluntary organisations, such as the Wildlife Trusts and Mammal Society groups have led to a five-fold increase in the areas occupied by our top wetland predator. Otters were badly affected when their food supplies were poisoned by chemicals seeping into rivers in the 1950s. With the destruction of much of their wetland habitat, their future looked bleak by the end of the 1970s, especially in England. A partnership approach to cleaning up rivers, restoring wetlands and improving fish stocks reversed the decline (also giving the water vole a helping hand). Nevertheless, the otter still remains a rare species.

Otters live in all types of wetland habitats including streams, rivers, lakes, ponds, marshes, reedbeds and coastal areas. They are solitary animals needing a home range to hunt, rest, and breed in. The home range on a river can be up to 40km. for males. Females need quiet undisturbed dens to raise their young and both need up to 33 resting and 'holt' sites. Hundreds of volunteers working with these organisations have been helping landowners to construct artificial otter holts either as underground dens or log-pile shelters.

They are carnivores at the top of the aquatic food chain. Ninety-five per cent of their diet is fish, with eels being their favourite. Otters will also eat amphibians, molluscs, small mammals and birds with an adult eating between 1.0–1.5kg, of food a day. All their prey require a healthy habitat with clean water which has improved markedly in many areas, thanks to water company investment, but run-off from fertilisers and pesticides can still remain a problem. Often there is not enough sheltering vegetation on the river-banks, or in-stream plant habitat for fish but organisations are working to improve this.

Unfortunately, a number of adults are killed in road accidents, as otters start to move back into areas where they have not lived for 30 years: this can be a serious threat to their re-establishment. Voluntary organisations are strongly urging the Highways Agency and local authorities to ensure that road schemes near rivers and streams, especially work on bridges, have tunnels or ledges below the bridges to help the otter to cross safely. However, after heavy rain otters are reluctant to swim into dark tunnels with no obvious end so they climb up the banks instead to cross the road. In the dark and wet, motorists are not able to see the dark animal, with fatal results.

A fourth Otter National Survey for England has shown that this animal is again present in every region of England. Signs of otters were found in 34% (total 1,137 sites) of the 3,327 wetland and river sites surveyed during 2000–2002. This is a 527% increase in the number of sites occupied in the late 1970s when the populations had declined to an all-time low. Rather than looking for the animals themselves in the survey, spraint signs were recorded, namely footprints and droppings.

The Wye had the most positive sites in the 1991–1994 survey and there has been a further expansion. Otters are now found on virtually every watercourse in the Wye catchment and have been seen in daylight walking on shingle banks of the Wye and on bank-sides in

various parts of the Lugg.

This all shows that, given favourable opportunities, healthy breeding populations can re-colonise large areas very rapidly if there is a nearby population nucleus. Joining up populations via a network of waterways is going to be crucial. The key areas are catchments in Wessex, N. Shropshire, S. Cheshire and the lower Severn as they provide links from the strong populations in Wales and the SW. A follow-up survey is due in 2007 and it is hoped that the next installment will bring more good news.

INDEX 2003

This index follows a similar plan to that adopted for the previous cumulative indexes, though it is perhaps slightly fuller. Most entries relating to the Woolhope Club itself have been put under more specific headings.

Arrangement is word-by-word. Illustrations are shown in *italic*. Named houses and streets, where included at all, are indexed under the place where they occur.

J. H. Bowman

Abbey Dore, church, glass 5
accounts (Woolhope Club) 2002 8
Acton Beauchamp, boundaries 59
Ailey, Oldcastle Farm, barn 105
Alderne, Thomas, request to let Castle Green 14
Almeley
  church, excavation 99
  Highmoor Wood 111
Andrew, Kate, on Ludlow Museum and Resource Centre, reported 3
Anglo-Saxon charters 59
annual meeting, spring 2003 2
aqueduct *39*, 40–1
Archaeological Investigations Ltd 99–102
archaeology (Sectional Recorder) 97–120
Archenfield, landscape 59
Archenfield Archaeology (group) 102–5
Ashperton, Hansnett Wood 111
Aymestrey, Sned Wood 111

Bagnall, Rev. Gibbons, Headmaster of College School 16
Bailey, Sir Joseph, MP 37
Barfield, Tim, biography 10
Barfield, Tim and Bennewith, Olive, 'Hall Wood, Much Marcle ...: aspects of the history and ecology of an ancient semi-natural woodland' 44–57
Bartestree, The Convent, 102
Beauclerk, James, Bishop of Hereford 16
bells, muffled to mark Nelson's death 17
Bennewith, Olive *see* Barfield, Tim 44–57
Birch, John, takes Hereford 11
birds 127–131
  garden 130
  nest boxes 139
Birmingham, water supply 37–43
Birmingham Corporation Water Bill 1892 37–43
Bishopstone, Wipsiderry, 102
black burnished ware 117
blackbirds 128
blackthorn, in hedges 63–83, 124
Bleathwood Common, Bedlam 1
Bodley, George 5
Border Archaeology (group) 105–8
boundaries
  Acton Beauchamp 59
  fields 59
  Marden, survey 1608 62, 71–2
Brampton Bryan
  Park 111–2
  Pedwardine Wood 112
Bridge Sollers, bridge 102
Brimfield, Court Farm 105
Brinsop, church, stained glass 5
Brockhampton (by Bromyard)
  estate 111
  Lower Brockhampton House 112–13
Brockhampton (by Ross), church, proposed conversion to dwelling 99
Bromyard
  34 Old Road 108
  52 Old Road 103
  Cruxwell Street, leisure centre 108
  glacial lake 91–2, *91*
  No. 6 Club 102
  old tanyard and Quaker burial ground 102
Bronze Age sites
  Eardisland 114
  Marden 66
Brydges, James, lessee of Castle Green 15
building materials, houses 2
buildings (Sectional Recorder) 121–3
Bumstead, William 3

Campbell, Francis, mayor of Hereford 16
canals, Worcester and Birmingham Canal 5
Cantilupe, Thomas, in stained glass 5

Castle Green Reading-Room and Baths Society 20
chantry chapel, Sutton St. Nicholas 66
charcoal production, 47, 111-118
charters, evidence for hedgerows 59
Chateau Impney 4
coal, price, 18th cent. 25
Colwall, Park Farm Barns 102
common grazing, loss 60
conservation, woodlands 56
coppicing, Hall Wood 50–1
copyholders 60
corn buntings 131
Corvedale, visit 4
county records, stored in Hereford castle gatehouse 14
Cradley Brook valley, glaciation 90
Credenhill
  church, stained glass 5
  hillfort 99–100
Croft Castle 113
Cullen, Sir Rushout 3

damson, in hedges 80
demesne land 61
deer parks 111-12, 115-6, 118
Diddlebury, church 4
Dinedor, wood 114
Dinmore 68, 78
  Queenswood 113–14
dog's mercury, in hedges 80–1
dogwood, in hedges 72–77
Domesday Book
  Marden 66
  Much Marcle 49
Dorstone, The Bell 108
dykes 7

Eardisland, Admarsh Coppice 114
Eardisley
  camp 114
  primary school 104–5
earthworks
  Brockhampton by Bromyard 112–13
  Credenhill 99
  Eardisley camp 114
  Hall Wood 47
  Whitney-on-Wye 120
Eaton Bishop, church, stained glass 5
Eisel, John C.
  biography 10
  'The post-Civil War history of the site of Hereford Castle' 11–36
elder, in hedges 80
elm, in hedges 73–79, 124
Elsich Manor 4
enclosure 60
  central Herefordshire 59–62
  lanes *76*, *78*
  Marden 62
Ethelbert, Saint, well (Hereford) 30–31
Evelyn, John, on trees 63

F. C. Morgan lecture, 41st 7
fence, wattle, at Leominster 104
Feryok, Margaret, on dykes, reported 7
feudal system 60
field meetings (Woolhope Club) 3–5
fields and field systems 59, 66
  boundaries 59
  open 59, 66, 67,72
fishery owners, opposition to Birmingham water bill 38, 40
flycatchers, pied 129–30
Fownhope
  Cherry Hill Wood 115
  Nupend Wood 115
freehold land and freeholders 60, 61
Freemasons, Palladian Lodge 17
fuel, hedges not planted for 77

Garner, Thomas 5
garrison, in Hereford Castle 11
Gee, W. H. 3
geology, Herefordshire 1–2
glaciation, Herefordshire 86–96
Glynch Brook valley 90–1
grazing, loss of common 60
green lanes, Sutton St. Nicholas 124

Hall Wood (Much Marcle) 44–57, *45*, *49*
  coppicing 51–2
  earliest reference 13th cent. 49–50
  earthworks 47
  insects 54
  lime coppice *55*
  maps 47–8, *48*
  moated enclosure 46, *46*
  tree species 51–4
Hallwood Green (hamlet) 44, 45, 47
Harding, Beryl
  Mammals, 2003 132–33
  Natural History Section, 2003 124–126
  Ornithology, 2003 127–131
Hardwick, Thomas 17
Harewood End 100

Harley, Edward 14
hawthorn, in hedges 63,64,70, 71–79
Haywood, Merryhill Barns 105
hazel, in hedges 79
Heath Chapel 4
hedges and hedgerows
  common by 1450 62
  dating 68–74
  to manage animals 63
  Marden 64, 67–77
  Moccas 58
  planting and management 62–4, 76
  Sutton St. Nicholas 124
  tree species in 69–80, 124
  wages for planting 63–4
Helyon, Walter de 50
Hereford
  10 Widemarsh Street 101
  19 High Town 102
  43 Bewell Street 100
  71–73 St. Owen's St. 102
  Bridewell 14–16, 22–3, *22*, *23*, 25, 26
  St. Peter's Square 102
  Cantilupe Street Gardens 100
  castle
    demolition 12
    gatehouse, store for records 14
    governor's house 11
    site 11–36
  Castle Green 12, *19*
    'Alcove' 20
    baths 20–22
    bowling green *19*, 20
    improvements
      18th cent. 16
      19th cent. 18–19
    map *13*
  Castle Hill 24–8, *27*
  Castle Pool 29–30
    clearance 18
  cathedral
    College Hall 97
    Lady Chapel 98
  Civil Wars 11
  City Electrics 102
  coal wharf 23, 25–8
  County Hospital 100–1
  diocese, houses 2
  Fosse, The 29–32, *29*
  Friars Street 109
  gaols 12, 14
  General Hospital 101
  Hobb's Mount 30
Hereford (contd.)
  hospitals 100–1
  house of correction 12, 14–15
  map of area *65*
  Nelson's Column 17–18
  Redcliffe Gardens 28
  St. Ethelbert's Well 30–1
  School of Art and Science *21*
  Vaga House 24

Herefordshire
  central, enclosure 61–2
  churches
    monuments 7
    stained glass 5
  geology 1–2
  glaciation 86–96
  opposition to Birmingham water bill 37–43
  settlements 60
  stratigraphy 86–90
Herefordshire Aerial Archaeological Survey Project 110
Herefordshire Archaeology (group) 110–20
Herefordshire Natural History, Philosophical, Antiquarian and Literary Institution 20, 21–22
herons 127, 131
Hewell Grange 4–5
Hill, James, survey of Hereford 15, 25
hill forts
  Credenhill 99–100
  Nordybank 4
  Sutton Walls 66
Hiorn, Francis 4
Historic Herefordshire On Line Sites and Monuments Record 110
holly, in hedges 70, 72, 73, 79
Hope-under-Dinmore, Pigeon House Orchard 106–7
Horder, Percy Moyle 3
houses, Hereford diocese 2, 97-120, 121-123
ice-sheets 2, 87–95, *87*, *91*, *92*, *93*
insects, in Hall Wood 54
ironworking, Leominster 104
Ivington, Camp Farm 102

James, Sir Henry, MP 37
Jones, Lewis W.
  biography 10
  'Friendly opponents: Herefordshire and the 1892 Birmingham Corporation Water Bill' 37–43
Kentchurch, deer park 115

Kingsland, School 104–5
Kington, Pound Farm 103
Kyre Brook valley 91–2

land ownership 61, 65
land use, Marden 64–5
landscape
  Archenfield 59
  project on change 110
  Saxon 59
Late Devensian glaciation *87*, *88*
Laystone Bridge 67
leasehold tenancy 60, 61
Ledbury
  New Public Toilets 102
  Seven Stars Inn 101
Leighton, visit 3
Leintwardine
  abattoir 109
  aqueduct *41*
Leland, John, in Hereford 9

Leominster
  Fox's Court 101
  industrial estate 109
  Mill Street, Focus site 103
  Priory lands, enclosure 61
  Southern Avenue, technology park 109
Leonard, J. C., on monuments in Herefordshire churches, reported 7
Limbury Gravels 91
lime trees, 52-4, 70, 82, *52*, *55*
Linton by Ross, Eccleswall Court 104–5
Little Hereford, Bedlam 1
Llancillo, Llancillo Hall 104–5
Llandaff charters 59
Llanrothal
  Cwm Wood 115
  Skenchill Wood 115
long-tailed tits 128
Longtown, Llanwonnog Farm 121
Lower Older Red Sandstone 89
Lower Brockhampton House 112–13
Lower Older Red Sandstone 89
Ludlow, Museum and Resource Centre 3, 6
Lye, John Bleecke, Mayor of Hereford 18
Lyonshall, church 109
  plant survey 126

Madley, Stoney St. Industrial Estate 105
mammals (Sectional Recorder) 132–3
maple, 52, 58, 63, 68, 70-79, 124, *76*
maps, as evidence 47
Marches Archaeology (group) 108–10
Marcle (*see also* Much Marcle)
  origin of name 45
Marden
  church 66
  enclosure 61–2
  feudal tenancies 61–2
  fields 60, 66–72
  hedges 64, 67–81
  land use 64–5
  manors 66
  map *69*, *71*, *75*
  soils 64
Mathon river 90
meetings (Woolhope Club) 1–7
Michaelchurch Escley, The Pikes Farm 121–2
Middle Pleistocene glaciation 86–96
Moccas
  deer park 115–16
  estate 116
monuments, Herefordshire churches 7
moorhens 128
Morgan (F. C.) lecture, 41st 7
Much Cowarne, Paunceford Court 101
Much Dewchurch, Pool Farm 104–5
Much Marcle
  church 50
  Domesday Book 49
  Hall Wood *see* Hall Wood
  origin of 'Marcle' 45
  tithe map 48

Nash, George, on Weobley Castle, reported 6
National Trust, survey of properties 111
natural history (Sectional Recorder) 124–26
Nelson's Column (Hereford) 17–18
nest boxes 129
Nordybank 4

oak, in hedges 70-79
Offa's Dyke 7
Older Drift Group 86–9
Olver, P. A., on geology, reported 1–2
open fields 77
  Sutton 60–2, 66–7, 72–3
ornithology (Sectional Recorder) 127–31
otters 132–3
owls 131

Palladian Lodge (Freemasons) 17
parks *see* deer parks
pasture 60
Paunceford Court 101–2

Pembridge
  The Leen 116–7
  market hall 118
  Top Hales 118
  Upper Headlands 116
Picksey Mead, visit 3
pied flycatchers 129–30
pigeon house, Hope-under-Dinmore 116–7
plants
  species in Hall Wood 51–4
  surveys 125–7
  varieties in hedgerows 58, 68–82
Pleistocene, Middle, glaciation 86–96
Pontrilas, Gilberts Hill Wood 118
Portway, Pleistocene deposits 87, 94
pottery
  black burnished ware 117
  Romano-British 116–8
  Severn Valley Ware 99, 116
proceedings (Woolhope Club) 2003 1–7

quarries 111, 112, 115, 116, 118

Richards, Andrew E.
  biography 10
  'Middle Pleistocene glaciation in Herefordshire' 86–96
Richards Castle, Haye Park Wood 118–
Risbury Formation 89, *89*, *91*, *92*, 94, 95,
rivers, to be made navigable 10
Rivers Wye and Lugg Navigation Act 1662 10, 11
rock formations 1–2
Roseff, Rebecca
  biography 10
  'Hedgerows and enclosure in central Herefordshire' 58–85
Ross Rural, Chase Wood 119
Ross-on-Wye
  33 High Street 107
  Wilton Castle 109–110

St Maughans Formation 90–2, *92*, 94,
Sandstone, Lower Older Red 89–91
Sectional Recorders, reports 97–133
Sellack, church, glass 5
settlements, Herefordshire 59
Severn Valley Ware 99, 116
Shoesmith, R., Archaeology, 2003 97–120
Skelton, Rosamund, on Bedlam, reported 1
skylarks 128–9
Smirke, Robert 30
Society of Tempers 15–17
soils, Marden 64
stained glass 5
Stallard, Richard, lessee of Hereford Castle 12
Stapleton, wood 119
starlings 127, 130
Staunton-on-Arrow
  church, plant survey 125
  The Headlands 116
  Mowley Wood 119
  Wapley Hill Woods 119
Stoke Lacy
  glacial deposits 92, *92*
  Nether Court 104–5
Stoke Prior, ice-sheet 92, 96
Storridge, Halesend estate woodland 119–20
strip enclosure hedges 61–2, 67, 73, 80
Sutton
  feudal tenancies 61
  open fields 66–67
  river meadows 67
Sutton St. Nicholas
  chantry chapel 66
  green lane 124
  ice-marginal drainage *93*, 94

tannery, Leominster 102
Tardebigge, church 4
Tarrington, The Old Barn 102
Tempers, Society of 15–17
Titley, church, plant survey 125–6
tits, long-tailed 128
Tonkin, J. W.
  appreciation of 9
  Buildings, 2003 121–3
  on houses, reported 2
Traunter, Henry, brickmaker 24
trees
  species in Hall Wood 51–4
  species in hedges 69–80
Tyssilio, plants hedges 59

Upton House, visit 3–4

wages, for planting hedges 63–4
water supply, Birmingham 37–43
Wellington gravel quarry, sedimentation 65–6
Wellington Heath, Burtons Farm 109
Weobley
  castle 6
    plant survey 124–5
  churchyard 120
Weston-under-Penyard, excavations 110
Whitchurch, church, Gwillim memorial 110

whitethorn, in hedges 63, 64
Whitney-on-Wye, wood 120
Wigmore
  Brinhope Farm 108
  Plough Farm 108
willow, in hedges 63, 74, 76, 79, 80
Wilton Castle 109
woodlands
  ancient 44–57
    conservation 56
  surveys 110–14, 118–20
wool industry 61
Woolhope, land near ‘Crown’ 110
Woolhope Club, proposed merger with
      Philosophical Society 20
Woolhope Dome 44, 90
Woolridge Gravels 91
Worcester and Birmingham Canal 5
Wye, conservators, opposition to Birmingham
      water bill 37, 38, 40