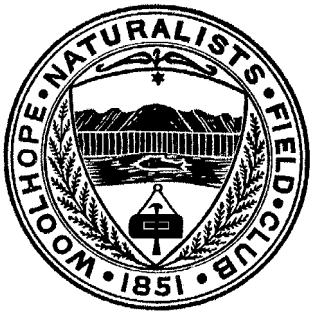
TRANSACTIONS

OF THE

WOOLHOPE

NATURALISTS' FIELD CLUB

HEREFORDSHIRE

"HOPE ON"  "HOPE EVER"

ESTABLISHED 1851

VOLUME 54

2006

Woolhope Naturalists' Field Club 2006

Registered Charity No. 521000

website: www.woolhopeclub.org.uk

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2006/07

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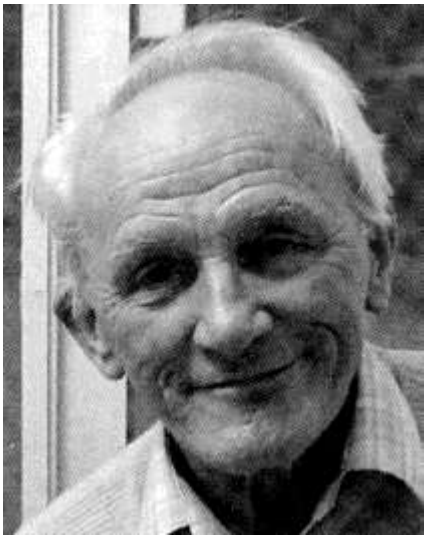
Obituary

Dr. FRANK W. PEXTON

1929 to 2006



Frank Pexton and his wife, Désirée, became members of the Club in January, 1987. He became a Committee member later that year. He was installed as President of the Club for 1990-91 on 31 March 1990, the subject of his Presidential Address on 30 March, 1991, being 'George Marshall.' He took part in all the activities of the Club including those of the Sections.

He was a Yorkshire man brought up in the Cotswolds who was always willing to help, being an active member of the Methodist Church at Burghill, Probus and the Hereford Civic Trust. Frank became a member of the Old Buildings Group, and was elected a member of the Vernacular Architecture Group, the national body which studies smaller old buildings.

In September 1993, he led a week's visit by members of the Club based on Easton College, near Norwich, and another in 1997 when members stayed at Newton Rigg College in Cumbria.

My wife and I accompanied him and his wife and sister on a three-week visit to China in 1993, so as a result of Woolhope meetings, V.A.G. meetings, the Old Buildings Group and these visits we got to know the Pextons very well. Thus it was with great sadness that we heard of his illness and death and our sympathy and best wishes go to Désirée, his widow. I am sure all members will join us in this. Désirée has very kindly given Frank's papers and many of his books to the Club Library.

J. W. Tonkin

Proceedings, 2006

SPRING MEETINGS

FIRST WINTER MEETING: 14 January: Dr. J. C. Eisel, vice-president, in the chair.

Dr. D. Boddington gave an illustrated talk on 'Bird Migration with special reference to Herefordshire.' He said that birds had no respect for county boundaries unless they followed physical features. An instant answer to a question put to the audience as to which birds they connected with migration was unanimously the cuckoo and the swallow. The definition of migration was explained, as a to-and-fro regular pattern which was common to the swallow and some whales, the former to seek longer daylight length to breed in, and the latter to give birth to a calf in warm semi-tropical waters of low nutritional content, prior to a swift return to the Arctic to put fat on the calf. The blubber would have caused birth canal problems in a 'home delivery.' Locusts are subject to intermittent but impressive food scarcity movements, the animals never to return, but last year's waxwing immigration, probably from mid-eastern Russia, was destined to be a return journey.

Migration from this county will either be on a broad front, as described in the Club proceedings of 1973, or on a narrow front as the regular small passage of osprey up the Wye valley. Birds will often follow or go from point to point over the types of habitat they intend to breed in. Dotterel on Kington Golf Course and meadow pipit on Bromyard Downs are examples, and this type of record comes under visible migration, while the seeping calls of migrating redwing around an October midnight are invisible but none the less definite, as are unusual behavioural traits. Birds with unusual markings will carry their recognising feature for all to see, and birds may be colour ringed and ringed with numbered rings, and there are various methods of catching them. At that point they are usually weighed and measured and these readings give clues as to origin and destination. Stopping-off points enable migrants to restore their fat stores, but sometimes they are forced to use muscle reserves.

The various methods by which they navigate were mentioned: set innate compass settings, solar use, stellar use, and barometric pressure changes all used to some extent. The migratory movements of our local birds were mentioned, both the long distance ones and those we like to think of as being perpetually with us, when they may well be having a year with a couple of hundred miles between two separate territories, such as a robin. Orientation experiments with starlings were mentioned and the movements of goldcrests and siskins. It was not far away in Malvern that a mixing of ornithological experience and radar work was re-interpreting 'angels' as flocks of birds. Only the Scandinavian race of the redwing has been recorded here, but it was upsetting to hear how many on their circular migration of Europe are still recovered as 'killed by hunters.' The cannon netting carried out when Sutton Sugwas tip was open regularly demonstrated the winter movements of common gull and black-headed gull from the Baltic States to this area. Less common vagrants will always keep our bird watchers alert, but these are not the main constituent of our county birds. Climate change will encourage those species that are absent in winter to adapt and stay, and mention was made of the contribution that northern Germany's blackcaps were making to our bird tables—helped by a little fat adjustment!

(Report by Dr. D. Boddington)

SECOND WINTER MEETING: 4 February: Mr. J.G. Hillaby, senior vice-president, in the chair.

Mr. J. Freeman, M.A. gave a talk, illustrated with hand-outs, on 'Place-Names and Field-Names in Welsh Herefordshire.' He began by defining 'Welsh Herefordshire' for his purposes as the Hundreds of Ewias Lacy, Wormelow (Archenfield) and Webtree, together with the parishes of Brilley and Clifford in Huntington Hundred, and went on to outline the characteristics of these areas as reflected in the history of their place-names. Ewias had relatively few Welsh major names but many Welsh field-names, while conversely Archenfield, with a rich early tradition of Welsh settlement-names, had fewer surviving Welsh field-names. After an outline of some of the historical evidence for the survival of the Welsh language in Herefordshire, statistics were presented to illustrate the detailed distribution of Welsh field-names in the county, as so far revealed by work on the English Place-name Society's survey of Herefordshire. Evidence from the nineteenth-century Tithe Awards was compared and contrasted with the admittedly uneven and incomplete picture attested by medieval and early modern sources.

The tentative conclusion was that the proportion of Welsh field-names gradually increased from 1200 to 1500, but that between 1500 and 1700 there was a significant rise in the proportion of Welsh names to English. After 1700 the proportion began to drop. If it could be assumed that the sample was representative, the conclusion might be drawn that the period between, say, 1450 and 1750, and especially in the seventeenth century, fields were being given Welsh names significantly more frequently than previously. This might be taken to corroborate A. T. Bannister's thesis of later Welsh re-immigration into south-western Herefordshire. Another interpretation, however, was that the fields always had Welsh names, or both Welsh and English names, but that in earlier times scribes were more reluctant to use Welsh for documentary purposes. Even so, there would still be evidence for an increasing self-confidence between about 1500 and 1700 on the part of the Welsh-speaking population to use their native language. It would be difficult, on the evidence collected so far, to argue for a progressive and uniform Anglicisation from medieval times onwards, which would seem to have happened only after 1700. In conclusion, several linguistic features of the Welsh field-names were discussed, with emphasis on difficulties of interpretation in an area of language contact.

(Summary by Mr. Freeman)

THIRD WINTER MEETING: 4 March: Dr. P. A. Olver, president , in the chair.

Mr. C. F. R. Potter, O.B.E., M.A. gave an illustrated talk on 'Herefordshire Scandals, Gleanings in the Church Courts 1660-1750.' He referred to Canon 109 and the matters dealt with in the church courts of the Hereford Diocese which are recorded in the Instance Acts of Office Court Books. The courts were held monthly during each of the three terms of the ecclesiastical year in the larger churches in each deanery before a judge. The variety of matters before the judge were those reported by the churchwardens. They are recorded in abbreviated Latin. The number of cases declined after the Civil War and ceased in 1850. The cases concerned defamation, tithes, disputes over probate, seats in church, disturbance in the church and churchyard, conduct of the clergy, clandestine marriages, fornication and adultery, divorce and separation, drunkenness, gaming and swearing and keeping the Lord's Day holy.

He illustrated his talk by various examples such as defamation in 1599 at Brierley, Leominster and 1639 at Kington; disorder in Hereford Cathedral on 5 November 1699 by

Thomas Owen, gent. and a separation case in the Sherbourne family of Pembridge in 1732-4. From 1703-15 there was a dispute between Ralph Wilson, rector of Llandinabo and the curate of Ballingham, and also for taking clandestine marriages at Kings Caple.

Penalties were imposed for not turning up at court in the form of excommunication. Penances had to take place in the church or the market-place. A penance meant one had to wear a white sheet, read out the crime and apologise. Accused could purge themselves and be freed.

It was an enlightening talk on church affairs in the late seventeenth and early-eighteenth centuries.

SPRING ANNUAL MEETING: 25 March: Dr. P. A. Olver, president, in the chair.
The assistant-secretary reported that the club now had 748 members.

The president reviewed the activities of the club during the year and thanked Mr. Tonkin for being the editor of the *Transactions* for forty years. The winter and summer meetings and those of the sections had been successful and supported.

He gave his address 'Old Red and Devonian Sandstone', to be printed in the *Transactions* for 2007 as part of the Royal Geographical Society bi-centennial celebrations.

He installed Dr. J. C. Eisel as president for 2006/2007.

FIELD MEETINGS

FIRST MEETING: 9 May: CLEVEDON AREA OF SOMERSET
Members stopped for coffee at Michael Wood Services on the M5 and then proceeded to Clevedon. At the Heritage Centre an exhibition portrayed the life of the area. Of particular interest was Clevedon Pier, which is one of only two piers to be listed as Grade I. It was built in 1869 and restored in 1997.

The afternoon was spent at Tyntesfield, which was purchased in July 2002 by the National Trust for over twenty million pounds. It acquired the house and its contents and some five hundred acres. At present only the ground floor is open to the public as conservation work is ongoing.

The original Regency house was purchased in 1844 by William Gibbs, a wealthy Victorian, and has been lived in by four generations. In 1862-4 it was rebuilt by William Gibbs on the profits of importing guano fertiliser from Peru. The work was carried out by John Norton and cost £66,000. In 1875 the large chapel lying to the north of the house was built by Sir Arthur Blomfield, and in the 1880s Henry Woodyer remodelled the staircase and dining room. Inside were seen family portraits, Gothic fireplaces and furniture by Crace and Son and Collier and Plunknett.

SECOND MEETING: 10 June: VAYNOR PARK AND WELSHPOOL
After stopping for coffee at the Overton Grange Hotel near Ludlow members travelled to the village of Berriew. On the outskirts a visit was made to view the outside of the vicarage dated 1616: T. K. Thomas Kyffin was the vicar at that time. It is timber-framed on a stone base with square panels, diagonal braces and a jettied upper storey. The porch has quadrant decoration. There is a brick addition. This was followed by a walk around the village which is well known for its seventeenth-century timber houses which were restored by the Vaynor estate about 1880. They surround the church, dedicated to St. Beuno, by E. H. Haycock jun. Dated 1876, it is a Victorianisation of the larger church of 1803-4 which had replaced a medieval one.

After a picnic lunch by the river the party travelled to Vaynor Park house and gardens by the kind permission of Mr. and Mrs. W. L. Corbett-Winder. It was approached up a long, narrowish drive. Here Mrs. Corbett-Winder welcomed members and conducted them on a tour of the gardens which contain mature old trees, old roses and herbaceous borders. There were spectacular views over the countryside.

In one of the rooms in the gatehouse Mr. Jeremy Rye gave a detailed and complicated history of the estate and families from very early times. The house is built of brick in Flemish bond, and in appearance looks Jacobean in style with a hall and two cross-wings, but it is a remodelling by Thomas Penson, the county surveyor, in 1840-53 of a house of *c.*1650 which had replaced one of fifteenth-century date. Mr. Rye took members around the house pointing out various features including seventeenth-century plaster ceilings as well as woodwork by Penson. There were a number of drawings and prints on display.

The club is grateful to Mr. and Mrs. Corbett-Winder for allowing members to visit their private house.

It had been a very hot day and members were pleased to have tea at nearby Glansevern Hall.

THIRD MEETING: 11 July: CORVEDALE AREA

After coffee at the Sun Inn at Corfton a visit was made to the Forester's Lodge at Upper Millichope. This building had been the home of the head forester of the Long Forest and has stone walls six feet thick. Originally the hall was at first-floor level with an undercroft below, and was entered from an external staircase in the gable wall at first-floor level. It was refurbished in the 17th century and has ball-flower ornament around the arched doorway which is re-used. The original building dates from *c.*1280.

Next visited was Shipton Hall, built about 1587 by Richard Lutwyche. It is constructed of local Wenlock limestone replacing an earlier 16th-century house. The Mytton family owned the property for three hundred years. Inside were seen Tudor panelling, plaster ceilings and chimney-pieces, some being the work of T. F. Pritchard. Nearby is the nine-bay Georgian stable-block, the dovecote possibly of the 13th century and the church rebuilt in 1589 but retaining some Norman features.

After a picnic lunch a visit was made to Holdgate to view the remains of the motte and bailey castle where a semi-circular 13th-century tower remains. It stands behind the present farmhouse. The church is Norman with an elaborately carved doorway of two orders, and has a circular font. Both are in the style of the Herefordshire School of Sculpture.

On the way from Tugford to Abdon Mrs. Skelton explained that this was a medieval Straker route and referred to the commoning on Brown Clee and Earnstrey Deer Park. A short visit was made to see Abdon deserted medieval site.

After tea at Hayton's Bent Village Hall a stop was made at Stanton Lacy Church where were seen the Saxon north and west walls decorated with plaster, and the canopied tombs set in the outside of the chancel wall.

This was another hot day and there had been a coach problem at the start.

FOURTH MEETING: 16 August: BIRMINGHAM AREA

This was the president's choice. Members travelled via Ledbury, stopped for coffee at the Hopwood Services, and proceeded to the parish church at Yardley dedicated to St. Edburgha. The chancel dates from the thirteenth century, the nave and the south and north transepts from

the 14th century, and the north aisle, tower and spire from the 15th century. The pulpit was given by Edward Est in 1627, and the alabaster tomb chest commemorates Thomas and Marianne Est, dated 1642. In the churchyard on the south side is the Old Grammar School, a long two-storied timber-framed, jettied building dating from the late 15th century. Members were able to view the surviving 15th-century roof.

Next visited was Blakesley Hall, a two-storied, timber-framed, jettied, L-shaped house with herring-bone decoration on the first-floor, built about 1590 for Richard Smallbroke, a prosperous merchant. In 1932, after passing through various families, it was acquired by Birmingham Corporation. During restoration work many original features have been discovered, including the rare 16th-century wall paintings in the Painted Chamber. It is furnished to reflect an inventory of the house in 1684, and is now used as a museum.

After a picnic lunch in the grounds the party moved on to Hay Hall, a remarkable survival within a modern industrial estate. It is now the offices of Reynolds Tube Co. which acquired it in 1917. It is a manor-house, H-shaped in plan with a hall and two cross-wings dating from the early fourteenth century, and lived in by the Est family. The tomb chest seen in Yardley Church is that of Thomas and Marianne Est who lived here. By 1538 the house was encased in brick with diaper patterns on the parlour wing, and a Keuper sandstone window and door frame. About 1820 an addition was made on the north-west, and the gardens laid out. During restoration work a number of original features have been found and preserved. Members were privileged to see this medieval great hall.

The final visit of the day was to Sarehole Mill, the only surviving water-mill within the Birmingham City boundaries. It dates from about 1700, although there has been a mill on the site since 1542. It was bequeathed to Birmingham Corporation in 1946, and in 1969 opened as a museum. J. R. R Tolkein lived nearby and used it in his books *The Hobbit* and *Lord of the Rings*. He contributed towards the restoration costs. Members were able to see the overshot water-wheel, the mill and the miller's house. The wheel was turning but not grinding due to lack of water.

Tea was taken at Beckett's Farm Restaurant. The president was thanked for seeking out and taking members to such interesting buildings which have been saved and restored, and open to the public in the city of Birmingham.

FIFTH FIELD MEETING: 9 September: FOREST OF DEAN

From the Doward car park members walked down to a limestone quarry where very fine-grained oolitic limestone contained occasional fragments of fossils, but as these were rolled about during deposition it was difficult to identify them. Then on to King Arthur's cave, formed in the Crease limestone when the climate was warmer and wetter than today, and the Wye flowed at a higher level. The history of the excavations was explained which showed that occupation had occurred some 20,000 years ago during the Ice Age and through to the Bronze Age, with skeletal remains of reindeer, woolly rhinoceros, bison, giant Irish deer and mammoth from the glacial periods and lion, hyena, and horse from the inter-glacials.

After coffee at the Inn on the Wye at Kerne Bridge, members proceeded to Clearwell Caves where they were shown around by the manager and owner Jonathan Wright. He and his father had used the caves for caving, but in 1968 had realised that they were of heritage importance, and started to clear them at the rate of one a year. Now all nine have been cleared and are impressive. He and his family have been Free Miners for generations. The caves had been formed naturally some three hundred million years ago, and after desert conditions and

subsequent heavy rainfall over the millennia, percolation and deposition of iron ore some 3 m. thick accumulated on the walls. The iron in the caves has been worked since the medieval period. Jonathan described some of the working conditions prevailing in the 19th century when women and children worked. Eight- or nine- year-old children were paid at the rate of 1s. a week, with adults paid by results—both after a ten-hour day. Candles were used for light with one lasting two hours, fixed in the mouth-held candle-holder. Trucks were pushed by women often doubled-up to move along the small tunnels on an 18-in. gauge railway. The iron ore is low in phosphorus and sulphur, and therefore of high grade and was much in demand. Water was not pumped out until 1943, and in 1945 3,000 tons of ore was still being extracted and sent to South Wales. Earlier it had been sent to Ironbridge.

Some forms of iron ore occur as powdered oxides as red, yellow, purple and brown ochre, and are still being extracted today for various industries. The red oxide was highly valued in the past and associated with burials for the dead in pre-Christian times. Nowadays the caves also provide winter roosting for the lesser horseshoe bat. Apart from group visits they are also used for Halloween and Christmas parties—and for Dr. Who filming!

After lunch the Scowles around the Bream area were visited. These are remains of shallow iron-ore workings used over the last few thousand years, which covered some twenty-two miles—now mostly infilled by the collapse of their roofs. The remaining tortuous tunnels and hollows are flanked by uniquely sculptured shapes of the un-worked limestone standing above, and mostly covered with ferns or small trees giving a dramatic landscape. Amid these old workings 4,500-year-old tools have been found.

Tea was taken at Speech House Hotel.

(Report by Mrs. Harding)

AUTUMN MEETINGS

FIRST MEETING: 30 September: Dr. J. C. Eisel, president, in the chair.

Mr. J. W. Tonkin, B.A. F.S.A. gave a illustrated talk on ‘The Buildings of Herefordshire Boroughs and Market Towns.’ He explained that so far he had discovered twenty-one boroughs founded between the 7th century and 1426. They are usually a day’s walk or twelve to fifteen miles apart. Of these, the market towns of Hereford, Bromyard, Kington, Leominster, Ledbury and Ross were the most important. The earliest (by the 7th century) was Hereford; Bromyard (1307); Kington (1267); Ledbury (1262) and Ross (1154-1285). Bromyard, Ledbury and Ross were bishop’s manors, and Kington and Leominster royal manors. By Domesday (1086), there were Clifford, Dorstone, Ewyas Harold, Richard’s Castle and Wigmore. Others such as Weobley (1138) are due to the influence of the de Lacy family.

Surviving documents such as charters, town, estate and probate records provide important information as evidence for many having been boroughs, for example, Eardisley (1223), Ploughfield (1262), and Lyonshall (1426).

The surviving buildings, particularly in the market towns, reflect their borough status and are situated at right angles to the street as opposed to along the street as in other places. The market halls at Kington and Ledbury, Pembridge and Ross, and almshouses and civic buildings show their importance.

The buildings used to illustrate the talk dated from the 12th century. These included the Bishop’s Palace in Hereford, the Forbury Chapel in Leominster, town and market halls, almshouses, Lady Hawkins’ Grammar School at Kington, toll-houses, court rooms, the cellar

of the old bishop's palace at Bromyard, and the hammer-beam roof of the castle at the short-lived borough of Brampton Bryan.

These buildings were constructed of all the building materials found in Herefordshire: timber-framing, sandstone, limestone, brick and Silurian shales. A list of the boroughs is included with their earliest date of mention:

Hereford	736-40; Cuthbert rampart 760
Leominster	*c.* 660; Llanlieni 1052 destroyed by Griffyd ap Llewellyn
Wigmore	Anglo-Saxon Chronicle 921
Richard's Castle	Castle *c.*1050
Ewyas Harold	Castle pre-1086
Clifford	Domesday 1086
Dorstone	Triangular market-place below castle pre-1186
Stapleton	Castle 1086+
Weobley	*c.*1138 de Lacy family
Ross	1154 referred to as a borough
Eardisley	1223
Huntington (Kington)	1172-1230; castle by 1228
Longtown	1186 new castle; borough by 1284
Ledbury	Market by 1135-5; bishop's borough 1262
Pembridge	1240 charter for market and fair mentions burgages
Ploughfield (Preston-on-Wye)	Borough in 1262
Kington	1186 castle; 1256 fair; 1267 paying 36/3
Bromyard	Bishop's borough by 1307
Brampton Bryan	Charter 14th century
Lyonshall	1426 mention of burgages
Ludford	Domesday 1086; early-17th-century market hall (Transferred to Shropshire in 1901)

SECOND MEETING: 28 October: Dr. J. C. Eisel, president, in the chair.

Professor Charles Watkins gave an illustrated talk on 'Uvedale Price and the Landscape.' He explained that the Price family had lived at Foxley since the 1680s. Uvedale Price, 1747-1829, inherited the estate from his father who died in 1761, and was looked after by his mother's family, the Barringtons. He took over the management of the estate in 1774, the same year in which he married Lady Caroline Carpenter, the daughter of Lord Tyrconnel.

Professor Watkins has transcribed 170 letters written by Uvedale Price . The majority of them are held at the British Library and were written to Lord Abercorn and Lord Aberdeen. The others are in the Pierpont Morgan Library in New York and were written to Sir George and Lady Beaumont. Much more correspondence could be hidden in private collections. He would be pleased to hear of any surviving.

The letters show the detailed development of Price's ideas of the Picturesque. Price urged landowners to cultivate the ancient trees and rutted tracks of their estates. He was opposed to open parkland with clumps of trees and surrounding plantations. The publication in 1794 of his *Essay on the Picturesque* caused a public controversary which lasted several years. It was led by Richard Payne Knight and Humphry Repton. From 1785 to 1828 Uvedale Price gave advice on landscaping to a number of estates. These included Bowood 1793, Packington

1796, the Forest of Dean 1806-09, Sandwell Park 1806 and Ingestre Hall in 1828, the year before he died aged 82. He was succeeded by his son Robert who was declared bankrupt and died in 1857 without any issue. The estate was purchased by the Davenport family which still owns it.

A full transcription of the letters is published in the sixty-eighth volume of the Walpole Society.

THIRD MEETING: 11 November: Dr. J. C. Eisel, president, in the chair.

Mr. Nigel Jefferies gave an illustrated talk on 'The History and Construction of the Hereford-Gloucester Canal.' He explained that Lord Bridgewater had employed Brindley to build the Bridgewater Canal at a cost of £220,000. This was the first canal of the modern era. In 1777 Robert Whitworth, a pupil of Brindley, suggested a canal from Stourport-on-Severn to Hereford via Leominster with a return link to Gloucester, a total length of seventy miles. In 1789 Richard Hall submitted plans for a Hereford-Gloucester canal with a branch to Newent, thirty-three miles in length with twenty-two locks. On 18 March 1790 the plans were approved and Josiah Clowes, who was appointed engineer, estimated that the cost would amount to £70,000. In April 1791 an Act of Parliament approved it.

A revised route by Hugh Henshall necessitated the construction of a third tunnel at Oxenhall, the other two being at Ashperton and Aylestone. An Act of Parliament in 1793 approved this, and by the autumn three and a half miles from the Severn at Over near Gloucester had been completed. The Oxenhall tunnel, a legging tunnel, was 2,192 yards in length. The northern portal is under the M50, and there is a lock-house some half-mile south of the southern portal. Its construction was so expensive that in 1796 a further £100,000 was needed, and another £4,000 to complete the canal to within one mile of Ledbury by 1798. Again there were financial difficulties. In 1827 Stephen Ballard was appointed engineer. His report estimated that a further £53,000 was needed. An Act of 1829 enabled the company to raise £50,000 by mortgage and £45,000 in shares. Work continued, and on 22 May 1845 the Hereford basin was filled with water and the canal was completed costing about three times Ballard's estimate. For some six years trade varied, but with the coming of the railways to Hereford from Shrewsbury in 1853, from Newport in 1854, and from Worcester in 1861 trade declined. In 1881 the canal closed to permit the construction of the Ledbury to Gloucester railway.

The canal can still be seen at Monkhide as well as the Skew Bridge, Monkhide, Wharfingers' House, Crews Pitch, and the bridge and wharf at Wellington. The Herefordshire and Gloucestershire Trust was formed in 1983 to achieve complete restoration of the canal.

WINTER ANNUAL MEETING: 16 December: Dr. J. C. Eisel, president, in the chair.

Officers for 2007 were appointed. The accounts for the year ending 31 December 2005 were presented and adopted. They follow these Proceedings.

Dr. Sylvia Pinches, the team leader, gave a talk 'Ledbury and England's Past for Everyone Project.' She outlined the history of the Victoria County History. It commenced in 1899, and since 1933 it has been based at the Institute of Historical Research at London University. Only one volume for Herefordshire has been published and that was in 1908. Local history has changed and the approach of the V.C.H. has widened. The Heritage Lottery Fund was approached to fund editorial teams for moribund counties, but this was not accepted, and a wider approach was wanted. Funds have been made available for fifteen projects in nine

counties, on specific places and topics. Herefordshire was selected. The project involves the V.C.H. and the University of Gloucestershire, and is focused on Ledbury and the area served by this market town. Market towns are now studied in a wider sense. It is a four-year project of which one year has passed. The aim is to produce a book on 'modern' Ledbury i.e. post-medieval, and is to be published in twelve month's time. A second volume is to be published on medieval Ledbury two years later. Each volume is to consist of 60-80,000 words, to be readable, but properly referenced. Also there is a website for all the material as this cannot all be included in the two books. There is much volunteer input, involving local people. The initial public meeting was held in December 2005, and about thirty out of seventy who attended became volunteers. There were Open Days in September 2006. Most of the initial thirty or so volunteers are still involved, and others have joined as well, so now there are about thirty-six volunteers. The volunteer group leader is Dr. Janet Cooper, the retired editor of the V.C.H. for Essex. Most of the volunteers had needed some training, and this involved visiting the Hereford Record Office and also the Old House in Hereford. There are six group projects as well as individual ones. The groups are very varied, and are researching buildings, transcribing the various censuses, collecting oral material, studying the parish registers, studying the street names and transcribing wills. Individual projects include Skyppe's Diary and the Barrett Browning Institute. Much help has been given by individuals who have offered their own research material, so that it is really a co-operative effort.

(Report by Dr. J. C. Eisel)

Other Club news

During the year a digital projector has been purchased for the sole use of the main club, and a lockable cabinet for the security of the library books kept in the storeroom at the Hereford Museum.

The LEADER+ project was finalised in June. From it the Archaeological Research Section purchased a digital projector which can be borrowed by other groups, a laptop computer, a digital camera, a GPS and a laser measuring device.

The Lottery-funded project to place the Contents and Indices of the *Transactions* of the Club on its website was completed in December.

Presidential Address for 2006

Please note that, as mentioned earlier, the report on the Presidential Address for 2006 has been held over until the 2007 *Transactions* when there will also be an account of the re-enactment of an early Woolhope Club geological field meeting.

WOOLHOPE NATURALISTS' FIELD CLUB

RECEIPTS AND PAYMENTS ACCOUNT
for the year ended 31st December 2005

		RECEIPTS		
2583		Interest on investments - Capital Reserve	2868	
2098		General	2595	
141				
	4822			5463
8262		General Subscriptions	6864	
532		Sale of Publications	96	
		Sundries	98	
8325		Grants, Donations & Legacies	1377	
		Herefordshire Taxes account	1346	
6125		Victoria County History - Net Surplus	9960	
		Archaeological Research - Net Surplus		
9526		ARS - Lottery Fund Net Surplus		
332		Field Meetings - Net Surplus	1	
169		Geology Section Net Surplus	305	
		Natural History - Net Surplus	12	
		FNS/MAS - Net Surplus		
	33271			20059
	38093			25522
		PAYMENTS		
578		Insurance	745	
9540		Stationery, Printing & Binding	232	
		Meeting Expenses		
597		Postages & Telephones	361	
149		Subscriptions & Donations	291	
897		Repairs and Renewals	1998	
300		Honoraria	300	
270		Accountants Fee	300	
1189		ARS a/c - Net deficit	229	
9		Natural Histpry a/c - Net Deficit		
		Field Meetings - Net Deficit		
		Lottery Grant Account Deficit	7144	
1920		Capital Reserve Grants		
	15449			11600
	22644	Total Surplus in year		13922

D. Haigh
17 March 2006
Independent Examiner

BALANCE SHEET AS AT 31st DECEMBER 2005

Last Year				
		ASSETS		
1040		Herefordshire County Loan		1040
49054		National Savings Investments		50869
		Bank Accounts:		
33531		Business Reserve	31240	
2086		General	1470	
819		Subscriptions	5715	
300		Natural History Section	312	
2116		Archaeological Research Section	1887	
1289		Field Meetings	1290	
231		Geology Section	537	
		Herefordshire Taxes	1346	
40372				43797
90466		Sub Total		95706
113507		Designated Accounts Special Reserve		119375
		Restricted Accounts		
16248		Victoria County History	26206	
10767	27015	ARS Heritage Lottery Fund	3623	29829
230988				244910

Note that the following assets of fluctuating or indeterminate value a
not included in this Balance Sheet:-
£933 3 1/2% War Loan current value approx £802
The contents of the library and stock of publications

		CAPITAL		
		General Funds		
83845		Balance brought forward	90466	
6620		Add surplus in year	8238	98704
		less transfer to Capital Reserve		3000
90466				95704
		Designated Funds		
112843		Capital Reserve	113507	
664		Add surplus for year	2868	
		Add transfer from Business Reserve	3000	
113507				119375
		Restricted Funds		
10123		Victoria County History	16248	
6125		Add surplus in year	9960	
16248				26208
1241		ARS Heritage Lottery Fund	10767	
9526		Add surplus for year less Deficit	-7144	3623
10767				
230988				244910

Biographical Details of Contributors

John McCann
John McCann was a professional photographer for 25 years, photographing modern architecture for architects, architectural journals and public bodies. In middle life he became more interested in vernacular architecture. As a mature student he took an Honours degree in History at King's College, London University. He is a former Inspector of Historic Buildings for Essex County Council and English Heritage, has lectured extensively for Cambridge University on vernacular architecture, and has published many articles in archaeological and historical journals. He is the author of *The Dovecotes of Suffolk* (1998) and (with his wife Pamela) *The Dovecotes of Historical Somerset* (2003).

Margaret A. V. Gill
After taking a degree in ancient history & archaeology, Dr. Gill became an authority on the Mediterranean Bronze Age writing many papers on Minoan/Mycenaean glyptic art, and later published the small finds of the Byzantine excavations at Saraçhane and Amorium. While serving as deputy director of the city museums of Newcastle-upon-Tyne, she produced articles on Newcastle and York silver, Tyneside pottery and the Beilby/Bewick engraving workshop. She was then appointed curator of Tunbridge Wells museum and art gallery. Since her retirement to Glasbury-on-Wye, she has interested herself in local church history and botany. Her publications include: *A directory of Newcastle goldsmiths* (1980), *Royal Tunbridge Wells in old picture postcards* (1983), *Tunbridge ware* (1985), *Flora of St.Peter's churchyard* (1996), and *A survey of ceramic tiles in the churches of Radnorshire* (2005). She is currently working on botanical illustrations for the Marcher Apple Network's *A Welsh Marches Pomona*.

John van Laun
Dr. van Laun F.S.A. is a Member of the Institute of Field Archaeologists. He took early retirement from running Northamptonshire's Outdoor Education Centre at Longtown in 1992. After obtaining a Doctorate in history at Hull University he established an industrial archaeology consultancy and has since undertaken commissions for many organisations including CADW and RCHM. He has published widely on topics ranging from 17th-century ironmaking, the pre-history of the modern railway to the Wye Tour of Joseph Farington (Yale 1998). He has also published industrial archaeological guides and *Early Limestone Railways* (Newcomen Society 2001), a seminal work on the evolution of railways. He was the founding secretary of the Railway & Canal Historical Society Tramroad Group and past Secretary of the Picturesque Society. John van Laun has run Extra-Mural Classes for Birmingham University and Cardiff University. He has also been an occasional Lecturer for Oxford University, Bristol University, Leicester University and WEA classes. He is a Fellow of the North of England Institute of Mining and Mechanical Engineers. He is the Woolhope Club Recorder for Industrial Archaeology.

Ryan Rowberry

Ryan Rowberry took his first degree at Brigham Young University in the United States. He was named a Rhodes Scholar in 1999 and read two degrees (M.Sc. in Comparative and International Education; M.St. in Modern History: Early Modern England 1450-1750) whilst at Trinity College, Oxford. Ryan is particularly interested in socio-legal aspects of medieval and early modern Herefordshire, the county from which his ancestors immigrated to the USA in the early 1840s. He is currently finishing his final year of studies at Harvard Law School.

Joan Grundy

Joan Grundy qualified as a dairying specialist before working for the Ministry of Agriculture, Fisheries and Food on experimental farms in Lancashire and Herefordshire. A longstanding member of the Vernacular Architecture Group and of the Historic Farm Buildings Group, she began photographing farm buildings west of the Pennines in the 1960s and has worked for many years in adult education, lecturing in vernacular architecture and local history topics. Having a strong interest in farm livestock, she is a founder member of the Rare Breeds Survival Trust. Her publications include papers on the relationship between climate and cattle housing; open fields and settlement patterns in Herefordshire; granaries in the county and the contribution of Hereford cattle to national beef supplies. Previous papers in the *Transactions* have examined population movements in 19th-century Herefordshire, and changes in the farm labour force in the 19th and 20th centuries.

An early 18th-century dovecote at Burghill

by FRANK PEXTON and JOHN McCANN

Frank Pexton, a former President of the Woolhope Club, died in September 2006. In 1998 he and John McCann examined this dovecote in the parish where he lived for nineteen years, and they wrote most of this paper together. It was left unfinished, but it has now been completed by John McCann. An octagonal dovecote dated 1717 by inscription is described, which has survived in exceptionally unaltered condition. This contribution is dedicated to the memory of Frank Pexton.

This large dovecote is of high quality, and has survived in exceptionally good order. It is situated 165 m. east of the parish church of St. Mary at Burghill (SO 481 444), and closely adjoins the road to Moreton-on-Lugg. It is 40 m. west of the associated house, which has had various names. In 1890 Alfred Watkins described it as Burghill Vicarage (The Old Manor House). In 1979 I. R. Stainburn called it The Old Manor House.[1] In 1717 it was known as 'The Lanes', and in an estate map of 1797 the plot was identified as Knapp's Orchard.[2] In the first edition Ordnance Survey map of 1885 it is shown as 'Manor House', but it is now called Burghill Grange. It is listed Grade II as having a 17th-century core but as largely dating from the 18th century. The dimensions in the following description are stated in the traditional English units in which the dovecote was built: 1 in. = 25.4 mm., 1 ft. = 12 ins. = 0.305 m.

The octagonal dovecote (Fig. 1) is mainly of red brick, 8½ ft. across each face and 22 ft. high to the eaves. The door is to the north-east; the only window faces south, and a recessed panel for a datestone faces south-east. The pyramidal roof is clad with hand-made red clay tiles, with an octagonal lantern. It is now hemmed in closely by young trees, but when it was in use it would have stood in open space—trees were not permitted to grow near working dovecotes because they provided concealment for sparrowhawks.[3]

The brickwork

A weathered brick plinth stands 8 ins. to 2 ft. 4 ins. above present ground level. The bricks are 9½ x 4¾ x 2¾ ins., laid in lime mortar in English bond up to the base of a recessed panel in each face, and above that in Flemish bond. Four courses rise 11¾ ins. In each face the panel is recessed by 5 ins., with a segmental arch above. Alternate red and blue headers form the arches over the door and recessed panels, and vertical lines of blue headers in alternate courses are formed near each angle and through the middle of each panel (Fig. 2).

The doorway and window

The door, facing the house, is 5 ft. 2 ins. high by 2 ft. 7 ins. wide, in the original jointed and pegged oak frame, which is moulded to a small rounded bead (Fig. 3), and rebated to open inwards. The ledged door is of tongued-and-grooved and beaded pine boards 6 x 1 in., and also appears to be original (Fig. 4). It has wrought iron strap hinges with *fleur-de-lis* terminals, and is hung on original iron pintles in the right jamb. The threshold is of sandstone. The window aperture is at mid-height, 2 ft. 1in. square, with a modern frame.

Figure 1. The dovecote at Burghill Grange, Burghill, from the north-west (Frank Pexton)

Figure 2. The roof and lantern, converted from the original louver. Note the decorative use of blue headers in the brickwork, the moulded cornice and the wooden dentils (Frank Pexton)

Figure 3. The brick arch and pegged oak door-frame (Frank Pexton).

Figure 4 (right). The door with *fleur-de-lis* strap hinges, and part of the re-used ladder (Frank Pexton).

The former datestone

The recess for a datestone is in the middle of the south-east panel. In 1890 Watkins recorded the inscription as:

E
I I
1717

Since then the stone has gone (or has been rendered over), and the date 1717 has been re-cut in cement render. The initials represented Latinized versions of James Exton and his wife (whose Christian name is unknown). He was a prominent landowner in the parish, and was mentioned in a church seating plan of 1703. A letter of 14 December 1719 from the churchwardens to the Bishop of Hereford refers to 'James Exton who professeth himself a Quaker.' In 1723 he was assessed for tithes at £15 0s. 0d., second only to the Lordship of Burlton, which was assessed at £22 0s. 0d. There was only one other property of comparable value in the parish, assessed at £10 10s. 0d. All the others were assessed at £1 10s. 0d. or less.[4] The Georgian style of the building remained in fashion for many decades, but the date is compatible with the use of blue bricks to embellish the elevations, typical of the early 18th century. From the middle of that century the Palladian movement effectively brought the use of surface pattern in fashionable buildings to an end.

The interior and nest-holes

Figure 5. The five upper tiers of nest-holes and the halved tie-beams which supported the upper bearing of the revolving ladder (John McCann)

Figure 6. Nest-holes in the present middle storey, showing the bonding course which forms a continuous alighting ledge (Frank Pexton)

The nest-holes are integrated with the external fabric, each tier occupying four courses, making a wall thickness of 2 ft. 1 ins. Each is 9 ins. high, L-shaped in plan, with a chamber 1 ft. 4 ins. wide (reduced slightly at the angles) by 11 ins. from front to back, and an entrance passage of full height 5–6 ins. wide (Fig. 5).

All the entrances in one tier are offset to the left, all those in the next tier are offset to the right. The floors of most nest-holes are of oak boards ¾ in. thick. Below each entrance a stretcher projects 1 in. to form an alighting step. Some tiers are slightly different (Fig. 6). Oak bonding boards 2 ins. thick are built into the brickwork above the sixth, tenth and fourteenth tiers, forming the floors of the nest-holes above and projecting one inch to form continuous alighting ledges.

There are 19 tiers of nest-holes, with 30–35 in a tier, making a total of 614 nest-holes now visible. The present ground floor of softwood is immediately below the alighting steps of the lowest visible tier of nest-holes. When a decayed wooden floor was taken up in 1999 part of another tier of nest-holes was seen.

The surface has been lime-washed in accordance with traditional practice; there are traces of older lime-wash inside the nest-holes. Two modern floors have been inserted, with traps for ladder access against the north-east wall.

The roof and louver

The timber structures of the roof and louver[5] are almost wholly original, of hand-sawn oak of high quality. Above the five-inch-thick wall-plates an octagonal 'ring-beam' of timbers 5½ x 4 ins. is halved and pegged at the angles. Angle ties 6 x 4 ins. are deeply notched across adjacent wall-plates, and short radial spur-ties are notched to them, on which are mounted the principal rafters, 5 x 7½ ins. Purlins 7 x 5 ins. are tenoned and pegged to the principal rafters at mid-height. The common rafters of 4 x 3 in. vertical section are set parallel, with two above and five below the purlin in each facet of the roof.

The former louver has been converted to a lantern by the insertion of a modern glazing bar in each facet, with panels of sheet glass and plywood. Watkins recorded it as having a 'lead-domed top.' It now has a modern tiled roof, but in other respects it remains as built.

Figure 7. The original structure of the roof and *louver* (John McCann)

Three iron staples are fixed to the soffit of a principal rafter, apparently to guide a rope to operate a former trap which closed the louver. A trap was used to restrict the pigeons to the dovecote when nearby fields were newly-seeded.[6] A similar feature has been re-constructed at the dovecote of Rousham House, Oxfordshire.

The former *potence* or revolving ladder

Some dovecotes retain a revolving structure which enabled the pigeon-keeper to search the nest-holes without descending to the ground to move his ladder. It comprises an oak axis (usually of octagonal section) bound with iron and pivoted at top and bottom, from which bracketed arms extend horizontally to support an inclined ladder (or in some cases two ladders). In the modern dovecote literature it is commonly called a *potence*, but it was known to contemporaries as a 'revolving ladder.' (The word *potence* has been used in English only since 1887, when R. S. Ferguson quoted a description in French by E. E. Viollet-le-Duc.[7] In French the word *potence* means the horizontal arm of a gallows, or by extension, the horizontal arm of this device, not the whole structure). The earliest reliable evidence of a revolving ladder in Britain is a description by Roger North in 1698, who was designing one for his new dovecote at Rougham, Norfolk.[8] In 1890 Watkins recorded that a *potence* was present 'to the ground.' Stainburn mentioned 'remains of *potence*' in 1979. Since then it has been dismantled, but the upper bearing remains *in situ*. It is a length of wrought iron 2 ft. long by 3 ins. wide secured by nails and square staples under the crossing of the tie-beams, thickened at the middle and penetrated by a hole 1¼ ins. in diameter (Fig. 8).

Figure 8. The upper bearing of the revolving ladder

Figure 9. The stone which held the lower bearing of the revolving ladder (both photographs by Frank Pexton).

A worked stone in the shape of a truncated pyramid 13 ins. square by 12 ins. high which evidently supported the lower bearing was found in a pile of rubble nearby (Fig. 9). It has a recess 3 ins. square and 1½ in. deep in the upper face. The iron insert is missing, but the absence of rotary abrasion confirms that there was one earlier. When the decayed floor was taken up in 1999 an area of loose earth large enough to contain this stone was found in the middle of the denser sub-soil. (At the octagonal brick dovecote of The Old Weir, Kenchester (SO 443 419) there is a similar stone still *in situ*, complete with its iron bearing).

An old pine ladder is now fixed vertically through the traps in the modern floors (Fig. 4). The chamfered uprights are 3 x 2 ins., with rungs 2 x 1½ ins. notched into them at an angle and fastened with hand-made nails. The angle shows that the ladder was designed to be inclined at 20° from the vertical, and evidently is re-used from the former revolving ladder. (It has never been exposed to the weather or splashed with paint as one would expect of a general-purpose ladder). The part which remains is 14 ft. 3 ins. long, extending from the ground to the second floor. Originally it would have been 18–20 ft. long.

Discussion

The contemporary term for this type of building was 'pigeon house.' The word 'dovecote' is used here because since the revival of interest which followed the publication of Cooke's *A Book of Dovecotes* it has become the accepted modern term.[9]

The doorway

The doorways of all early dovecotes were low, typically 4½ ft. high, so that the pigeon-keeper could block the aperture with his stooping body as he entered. The latest doorway of this size so far recorded is in a dovecote at Thornage Hall, Norfolk, dated 1729 by inscription. Later 18th-century doors were of normal domestic height to comply with the classical proportions in which contemporary buildings were designed. The doorway at Burghill Grange seems to be a compromise between the older functional height and the newer height determined by architectural considerations.

The nest-holes, alighting steps and alighting ledges

The nest-holes are generous in size. Elsewhere many nest-holes are only 6–7 ins. high, and substantially smaller in plan. The provision of a separate alighting step below each nest-hole is quite common in brick dovecotes in Herefordshire. Elsewhere continuous alighting ledges are more usual, in some dovecotes to every tier of nest-holes, in others one to every second, third or fourth tier. They were not essential; some dovecotes do not have them at all.[10] Whether to provide alighting ledges or steps, and if so how many, seems to have been purely a matter of opinion. Pigeon-keepers, like all livestock-keepers, evidently held different opinions about what was best for their birds.

The brickwork

The quality of the brickwork at Burghill is impressive. Only a highly skilled bricklayer could integrate brick nest-holes with the outer skin so as to form a stable structure, additionally complicated by the recessed panels, the change from English bond to Flemish bond, and the vertical lines picked out in blue headers. Many bricklayers did not even try. It is quite common to find that the outer walls of a dovecote were built first, and the brick nest-boxes were constructed later, without anything to tie the two structures together. This construction always develops faults eventually. The walls move with diurnal and seasonal changes of temperature and humidity, fragments of mortar fall into the gap between them, and then exert pressure on the outer skin. Often it is evident from old cracks in the brickwork and wrought iron bands round the building that this fault developed early in the life of the structure. At other dovecotes the bricklayer successfully integrated the structures but only at the cost of displaying an irregular bond externally. An example is the square brick dovecote at Old Barn Court, Bircher (SO 477 655). In other dovecotes nest-boxes were formed independently of chalk, clay or wood, making no contribution to the stability of the building.

The roof and louver

It is uncommon to find the original roof structure of a dovecote still present and in good order, and quite rare to find that the original louver survives. Most dovecotes had passed out of economic use by the middle of the 19th century.[11] Even where the original roof structure has survived most have been neglected for long periods, allowing leakage to decay the roof timbers. Here the amount of decay is negligible; there is some staining caused by minor leakage from the louver.

The unaltered condition of the building

Most dovecotes which have survived in good condition have done so because they were converted to secondary uses, the most common being animal housing, cider houses and granaries. These conversions always entailed enlarging the original entrance or cutting a new one, and in most cases the insertion of extra windows. In many dovecotes the louver, the most inaccessible part of the building, was allowed to deteriorate when it ceased to be necessary for pigeons, and eventually it was demolished. The aperture where it stood was then tiled over. All these alterations are common, but here there is no sign of secondary use, except the modern floors with joists harmlessly inserted in the nest-holes. Some small holes have been made in the brickwork, probably by scaffolders, and a shelf has been fitted high on the south-east face, with a recess on the inside formed by joining two nest-holes together. The purpose of this

alteration is not clear. Planning applications in 1994 to convert this Grade II listed building to residential use, involving extensive alterations and 'wrap-around' modern additions were successfully opposed by Frank Pexton, English Heritage and the Ancient Monuments Society.[12]

Status

Until 1619 only lords of manors and some parish priests were permitted by law to keep pigeons. In that year a decision in the case of Dewell *v.* Sanders brought about a re-interpretation of common law, and from that time any freeholder was entitled to build and use a dovecote.[13] Many freeholders did not have the means to build expensive dovecotes, and mostly their dovecotes were modest in size and appearance. Burghill Grange was not a manor, so the construction of this large and conspicuous dovecote can be seen as an assertion of status by a prosperous Quaker freeholder who did not hold a high position in the predominantly Anglican local society, but who had the wealth to build a dovecote of manorial size. (Most manorial dovecotes had between 300 and 1,000 nest-holes). The listed building description of Burghill Grange suggests that he greatly improved his house too.

Five dovecotes were recorded in the parish of Burghill in the period 1650–1750.[14] Octagonal brick dovecotes were common in Herefordshire in the 18th century. In 1890 Watkins recorded nineteen, of which fourteen survived to 1979 to be recorded by Stainburn. This one was larger and in more sophisticated architectural style than most.

The function of dovecotes

Many publications, including *A Book of Dovecotes* and Stainburn's survey of 1979, have stated erroneously that dovecotes were built to supply a source of fresh meat in winter.[15] On the contrary, household accounts of all periods from the 13th century to the 18th century record that pigeons were eaten only from Easter to November.[16] Domesticated pigeons (known to contemporaries as 'house doves') were derived from Blue Rock Doves, *Columba livia*, which breed several times from March to October. The young birds are fed by both parents with regurgitated liquid food (called 'pigeon's milk'), and at the age of four weeks they are almost as large as the parents, and are ready to fly. In nature the parent birds would then drive the young birds, called squabs, off the nest. In domestication the pigeon-keeper searched the dovecote for squabs and wrung the necks of those almost old enough to fledge. At that stage their flying muscles had never been used, so the meat was extremely tender, and was much appreciated as a delicacy. The mature birds were tough, and were not eaten at all—at least, not by the owners of the dovecotes. They were usually given away to servants.[17] Pigeon meat never constituted an essential item in the diet. It was a luxury food which only the wealthy and the prosperous could afford. As economic conditions changed in the 17th century, and as it became less profitable to produce cereals and animals, so the production of other commodities increased—a phenomenon which has been described by Joan Thirsk as 'alternative agriculture.'[18] Many dovecotes in Herefordshire were built as much to produce pigeons for sale as for domestic consumption. In these conditions James Exton's dovecote at Burghill, only 4 km. from Hereford, was ideally situated to supply this luxury trade.[19]

ACKNOWLEDGEMENTS

I wish to express my gratitude to Désirée Pexton for providing her late husband's notes and photographs, to Mr. and Mrs. H. Guill for their help and encouragement in recording this interesting building, and to Herefordshire Archive Services for other help. Photographers as indicated in the captions.

REFERENCES and NOTES

Editorial note: There is much more information about dovecotes on John McCann's website, www.mccannhistoricbuildings.co.uk.

[1] A. Watkins, 'Herefordshire Pigeon Houses', *Trans. Woolhope Natur. Fld. Club* 13 (1890), pp.19–20. I. R. Stainburn, *Dovecotes and Pigeon Lofts in Herefordshire*, Herefordshire County Council (1979), p.53.
[2] Unpublished documentary research by Frank Pexton.
[3] J. McCann, 'An Historical Enquiry into the Design and Use of Dovecotes', *Transactions of the Ancient Monuments Society* 35 (1991), pp.125–7.
[4] Unpublished documentary research by Frank Pexton.
[5] 'Louver', not 'louvre', is the correct term—see the full Oxford English Dictionary entry.
[6] J. McCann, 'Dovecotes and Pigeons in English Law', *Transactions of the Ancient Monuments Society* 44 (2000), p.40.
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[9] A. O. Cooke, *A Book of Dovecotes* (1920).
[10] McCann, 1991, *op. cit.*, p.142.
[11] McCann, 1991, *op. cit.*, pp. 96–7.
[12] Planning applications to South Herefordshire District Council SH 940354LA, SH 940353PF and SH 950352.
[13] McCann, 2000, *op. cit.*, pp.34–6.
[14] F. W. Pexton, 'Alternative Agriculture', *Trans. Woolhope Natur. Fld. Club*, XLVIII (1996) Part III, p. 452.
[15] Cooke, *op. cit.*, pp. 33–5. Stainburn, *op. cit.*, pp. 2, 5, 11.
[16] U. Robertson, 'Pigeons as a Source of Food in the 18th Century', *Review of Scottish Culture* 4 (1988), pp. 95–101.
[17] Robertson, *op. cit.*, pp.100–1.
[18] J. Thirsk, *Alternative Agriculture. A History from the Black Death to the present day* (1997).
[19] Pexton, *op. cit.*, pp. 449–52.

Paper received September 2007.

Some documents and episodes relating to the Godwin tile manufactories at Withington and Holmer

By MARGARET A. V. GILL

In the mid 19th century William Godwin founded the original tile works at Lugwardine. By the latter part of the century there were rival firms: Wm. Godwin & Son's Lugwardine Tile Works at Withington and Godwin & Hewitt's Victoria Tile Works at Holmer. Contemporary accounts and pictures of both factories survive as well as a few documents, among which is a 1912 sales catalogue of the Withington factory. The bankruptcy of William Henry Godwin, which was the cause of the sale, can be followed in newspaper reports. The history of the subsequent management of the firm is revealed in a bundle of documents preserved by one of its directors. Controversy surrounds the founding of the Holmer factory. Following the retirement of Henry Godwin, the Victoria Tile Works initially continued to expand but eventually went into liquidation. By the late 1920s the rival factories came under the same management, and the name of Godwin was dropped from the style of the firm.

INTRODUCTION

During the early years of the 19th century few decorated floor-tiles were made anywhere in Britain, but with the Gothic Revival movement came a desire to ornament churches with reproduction mediaeval tiles. In 1830 Samuel Wright patented a process for the production of encaustic tiles, which Herbert Minton of Stoke-on-Trent later perfected, having first manufactured tiles under licence and then acquired a half-share in the extended patent. The other half-share was purchased by Chamberlain & Co. of Worcester, who after a few years ceased tile manufacture and in 1850 sold their equipment to John Hornby Maw. In 1851 the patent on Wright's process expired, leaving the field open to wider competition including William Godwin of Lugwardine. When the Rev. Henry T. Hill recommended that chancel floors 'or at least around the Holy Table, might be laid with ornamental tiles (such as Minton's, Maw's or Godwin's),' he added a footnote that 'small country churches might be wholly paved with these tiles for a moderate sum, from Godwin's Manufactory.'[1]

For three-quarters of a century the name of Godwin was famous for the manufacture of ceramic tiles. According to later advertisements, the firm of Wm. Godwin of Lugwardine was founded in the year 1848. Earlier in his career, Leicestershire-born William Godwin (1813–1883) had been manager of a brickworks at Ledbury; when he commenced his own business at Lugwardine it was as a manufacturer of bricks, drainpipes and quarry tiles. Meanwhile, his younger half-brother found employment with Maw & Co. of Worcester, where he gained experience in the making of encaustic tiles. When Maw's transferred their premises to Benthall in 1852, Henry joined William and began his own experiments in the technique. The first encaustic tile was produced at the Lugwardine Brick & Tile Works in 1853, and from then onwards the business prospered and expanded (Figs. 1–4). Following the opening of the Hereford & Worcester railway line, William Godwin purchased a site about a mile away from the old brick works adjacent to Withington station in 1861 and built a second factory

specifically for the manufacture of encaustic and tesserae tiles.[2] By 1864 it was in full operation and in due course was producing inlaid tiles by both the plastic clay and the dust-pressed methods.[3]

Figure 1. Early Godwin tile with original design. Selected for illustration by the Rev. Edward L. Cutts in his essay on church furniture and decoration (a supplement to the *Clerical Journal* in December 1853) because 'it is not imitated from an ancient tile, but gives an idea of the characteristics of modern design.'

Figure 2. Nine-tile set of early Godwin 6 inch encaustic tiles: red and buff reproductions of mediaeval pattern. Examples laid in St. Michael's church Clyro in 1853

Figure 3. Sixteen-tile set of 4¼ inch tiles by Godwin & Son: red and buff reproductions of mediaeval pattern. The design was still in production when the floors of St. James's church Hereford were re-laid in 1902 following a devastating fire

Figure 4. Domestic 6 inch tile by Godwin & Son, with polychrome pattern in a variety of colour combinations. From a miscellaneous collection of builder's remnants laid in the organ-chamber of All Saints' church Glasbury-on-Wye in 1882

A few years before his death, William took his elder son into partnership and the firm became known as Wm. Godwin & Son. In 1883 William Henry Godwin (1841–1925) succeeded his

father as sole proprietor. He in turn took one of his sons Austin Francis Godwin into partnership in 1906, but six years later they went bankrupt and the factory was sold. Such was the firm's reputation and the respect held for Godwin, that under a succession of different managements the name 'Wm. Godwin & Son' was retained; it was not until after William Henry's death in 1925 and the purchase of the company by Herbert Sayer Thynne and Geoffrey Arthur Carlisle Thynne that the style was changed.

William's half-brother Henry Godwin (1828–1910) had joined the firm in 1852. He managed the manufacturing department, and the new Lugwardine Tile Works at Withington was constructed according to his designs. After William's death, he left his nephew's employ and entered partnership with William Hewitt in 1884, purchasing factory premises on the other side of Hereford and starting a rival manufactory: the Victoria Tile Works at Holmer.[4] Henry retired some twelve years later, but the firm continued to operate as Godwin & Hewitt. The early years of the 20th century were a difficult period for tile manufacturers and a liquidator was called in. The business was purchased by Herbert and Geoffrey Thynne of Bristol in 1909, who changed the name of the company first to Godwin & Thynne and eventually to H. & G. Thynne, when both former Godwin factories came under the same management.

LUGWARDINE TILE WORKS, WITHINGTON

Important to a study of the Withington factory (SO 565 423) is the detailed account published within three years of its completion, describing the buildings as well as the processes that took place within their walls: 'The manufactory itself forms a quadrangle, and is a handsome structure of red bricks, with dressings of blue Staffordshire bricks. A string course of chequered dark and straw coloured tiles, manufactured on the premises, runs across the entire front, which, with the name, also in tile-work, the lofty chimney stack, together with the exceedingly neat and pretty flower borders and green sward with which the whole building is surrounded, give it a very pleasing effect, especially when viewed from the railway.'[5]

The account is contained in a newspaper article, preserved in a cuttings book in Hereford Reference Library that was assembled in the late 1920s and incorporates both contemporary and earlier material. The undated cutting entitled 'Godwin's Encaustic Tile Works' was cannibalised from an older scrapbook, resulting in two lacunas of unknown length (perhaps only a few lines). Unfortunately it has not proved possible to trace the source, as it was published by neither the *Hereford Times* nor the *Hereford Journal*. Internal evidence referring to the establishment of the Lugwardine works 'some eighteen years since', the 'pretty flower borders' and the Paris Exhibition suggests that it was written mid-1867, and the apprehension that 'many of our readers may not be in a position to pay a visit to these works' points to a national paper. The cutting makes no mention of the designer of the new factory. However, from his obituaries we learn that it was built 'from Mr. Henry Godwin's designs, and under his personal supervision.'[6]

A bundle of documents in Herefordshire Record Office covering the period 1912–1919 includes several letterheads with an engraved view of the Lugwardine Tile Works (Fig. 5).[7] Apart from some extra chimneystacks, its external appearance probably differs little from when it was first built. Plans of the factory on the larger scale ordnance survey maps show that between 1886 and 1904 only minor alterations and additions were made (Fig. 6).

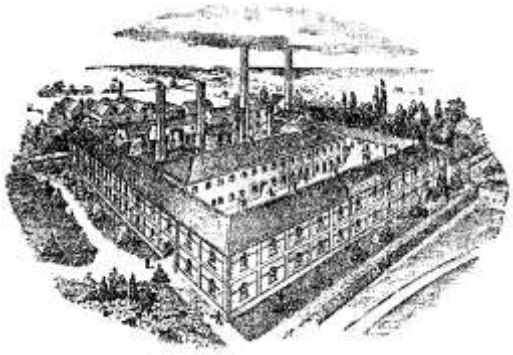

Figure 5. Vignette from the letterhead of William Godwin & Son on correspondence of 1915–6, showing a bird's-eye view of the Lugwardine Tile Works at Withington near Hereford

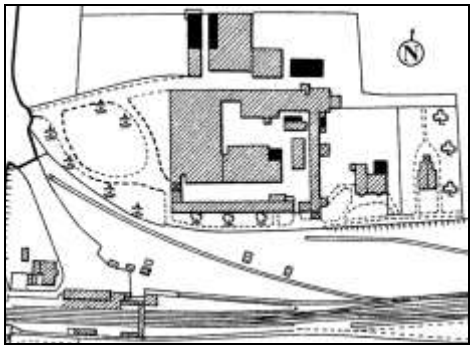

Figure 6. Detail from 1904 Ordnance survey map showing the Lugwardine Tile Works adjacent to Withington railway station, with additions to the factory since 1886 marked with solid shading

A more detailed plan with a key to the function of each room in the factory is contained in an auction catalogue dating from 1912 (Figs. 7–9).[8] The property is described as 'well adapted for almost any business, and is well worth the attention not only of those interested in the China and Clay Trades, but manufacturers generally seeking a modern well-arranged factory, having excellent railway and other facilities, offered for sale under very exceptional circumstances.' The purchase would include a Schofield horizontal engine, Galloway boiler, centrifugal pump and other fittings, and the purchaser could 'if desired, take at valuation the Trade Machinery, Stock-in-Trade, book Debts, and all the Effects appertaining to the business as a going concern.' The background to this proposed sale is well documented.

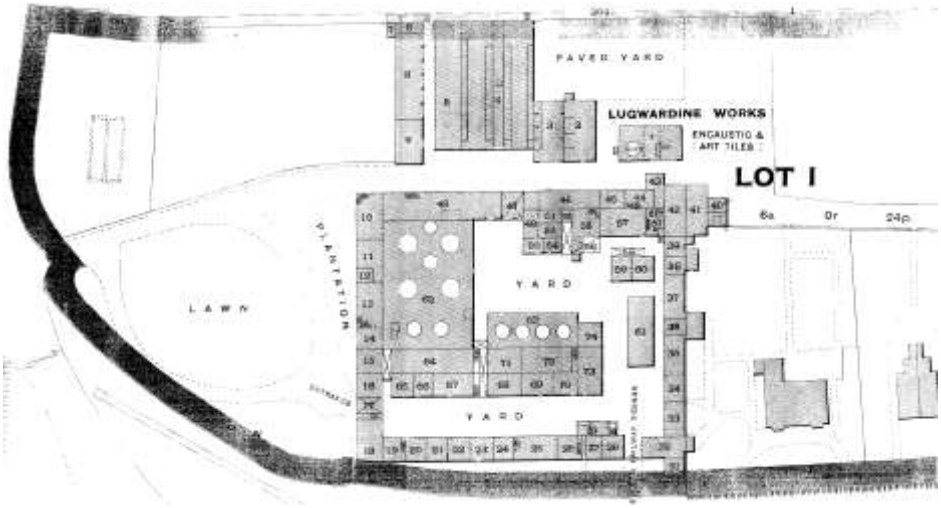

Figure 7. Auction catalogue of 1912: part of the plan showing the layout of the Lugwardine Tile Works

SCHEDULE AND MEASUREMENTS

OF THE

VARIOUS BUILDINGS AND ROOMS OF THE WORKS PORTION OF LOT 1.

No.	Ground Floor.	Sizes.	No.	First Floor.	Sizes.
		a. in. a. in.			a. in. a. in.
1	Clay Mill Shop	42 0×22 6			
2	Clay Stores	38 6×19 1			
3	Clay Washing House	38 6×22 0			
4	Clay Washing House	84 9×48 3	1		
5	Tile Warehouse	84 9×15 6	to	All One Storey Rooms	
6	Urinal	6 9×17 0	9		
7	W.C.	3 0× 3 0			
8	Packing Case Whouse	36 6×17 0			
9	Cowparage	29 3×17 0			
10	Stock Room	29 0×15 0	10		
11	ditto	19 2×15 0	11	Stock Room	58 6×15 0
12	ditto	8 10× 9 0	12		
13	ditto	29 0×15 0	13		
14	Glazing Shop	14 0×15 0	14	Stock Room	58 6×15 0
15	ditto	14 0×15 0	15		
16	Timekeeper's Office	15 0×15 0	16	Stock Room	15 0×15 0
17	Entrance	10 0×15 0	17	ditto	15 3×15 0
18	Tile making Shop	27 9×15 0	18	Manager's Office	27 9×15 0
19	Glazing Shop	13 0×15 3	19	Foreman's Office	13 0×15 3
20	ditto	13 2×15 3	20	ditto	13 2×15 3
21	Tile making Shop	14 1×15 3	21	Tile Painting Room	28 11×15 3
22	ditto	14 1×15 3	22		
23	ditto	14 1×15 3	23	Tile Making Room	28 11×15 3
24	ditto	14 1×15 3	24		
25	Clay Stores	29 0×15 3	25	Tile Drying Room	29 0×15 3
26	Office	12 3×15 3	26	Color Mixing Room	12 3×15 3
27	Stock Room	10 9×15 3	27	ditto	10 9×15 3
28	ditto	14 6×15 3	28	ditto	14 6×15 3
29	Stock Rooms	20 0× 9 4	29	Stock Rooms	20 0× 9 4
30	W.C.	7 9× 5 6	30		
31	Greenhouse	12 9× 9 6	31		
32	Stock Room	30 0×13 6			
33	Fire Brick Making Shop	24 6×13 9	32		
34	Sagger Making Room	15 0×13 9	to	One Storey Buildings	
35	Sagger Drying Room	25 0×13 9	37		
36	Firing Room	10 0×13 9			
37	Clay Drying House	19 6×13 9			
38	Clay Washing House	12 0×13 9	38	Clay Dust Stores	24 9×13 9
39	Dust Sifting Room	12 0×15 9	39		

SCHEDULE & MEASUREMENTS—(continued).

No.	Ground Floor.	Sizes.	No.	First Floor.	Sizes.
		a. in. a. in.			a. in. a. in.
40	Stable (2-stall)	14 7× 9 0			
41	Boiler House	33 6×13 9	40		
42	Engine Room	33 6×13 9	to	One Storey Rooms	
43	Pump Room and Oil Store		44		
44	Blacksmith's Shop	20 0×10 0			
45	Cement Stores	15 3×10 0	45	Dust Sifting Room	15 3×10 0
46	Dust Sifting Room	51 4×10 0	46	[part] ditto	41 3×10 0
47	Cart Shed	16 6×13 0	47	[& part 46 & 49] Stock	25 9×16 6
48	Packing Warehouse	78 8×16 6	48	Stock Room	78 8×16 6
49	Dust Sifting Room	18 2×10 0	49	[part] One Storey	
50	ditto	13 9×10 3	50	One Storey only	
51	Clay Box	13 0× 8 9	51		
52	ditto	15 0× 8 9	52	Mill Grinding Room	25 0×18 2
53	Waste Room	8 0× 6 6	53		
54	Dust Sifting Room	11 0×10 3	54	One Storey only	
55	Store Room	18 2×17 3	55	Mill Grinding Room	18 2×17 3
56	Covered Space, &c.	18 8×10 0	56	One Storey only	
57	Color Mixing Rooms (25 Mills)	31 3×18 2	57	Fitting Shop	31 3×18 2
57a	Clay Box	18 2×12 0	57a	Mill Grinding Room	18 2×12 0
57b	Stores		57b		
58	Open Space	22 0× 5 3			
59	Color Mixing Shop	12 0×15 3			
60	ditto	15 9×15 3	58		
61	Slabbing Shop	43 6×17 6	to	One Storey Buildings	
62	Kiln House, 8 Kilns and 2 Muffles	84 3×60 6	65		
63	Ditto, 4 Kilns	60 3×21 8			
64	Tile Drying Room	53 0×15 1½	64	Upper Portion	53 0×15 1½
65	Stock Room	15 0×15 1½	65	Draughtsmen's Office	26 9×15 1½
66	Women's Mess Room	11 0×15 1½	66		
67	Clay Drying Room	26 9×15 1½	67	Tile Making Room	26 9×15 1½
68	Tile Making Shop	21 6×15 1½	68	ditto and portion of passage	27 9×15 1½
69	ditto	21 6×15 1½	69	Show Room	38 3×15 1½
70	ditto	16 0×15 1½	70		
71	Tile Drying Room	21 6×15 1½	71	Stock Room	21 6×13 1½
72	Store Room (Angles)	55 3×15 1½	72	ditto	55 3×15 1½
73	Color Stores	51 0×17 1½	73	Slabbing Room	47 6×17 1½
74	ditto	15 9×17 1½	74		

NOTE.—All the above figures are Inside Measurements

FRONTAGES.

The Works portion of Lot 1 has a Frontage to the Railway Sidings of 74yds. 1ft. 6in.
And to the Entrance of 59yds. 2ft. 0in.

TOTAL AREA OF LOT 1. **6a. 0r. 24p.**

Figures 8 & 9. Auction catalogue of 1912, pp.4 & 5: schedule and measurements of the rooms in the Lugwardine Tile Works

When William Godwin the founder of Wm. Godwin (& Son) of Lugwardine died on 21 August 1883, stamp duty was paid on the gross value of his personal estate, which amounted to £23,858 11s. 0d. In his will he bequeathed 'all my personal estate not hereby otherwise disposed of left after payment of my funeral and testamentary expenses and debts and the annuities and legacies... unto my son the said William Henry Godwin.'[9] In addition to his personal estate there was real property, making the total capital value inherited approximately £40,000, less about £10,000 in legacies. Although described as 'Accountant' in the census returns of 1871 and 1881, it would appear that accountancy was not William Henry's *forte*. By spring 1912 Godwin's financial affairs had reached a crisis. Over the years he had disposed of practically all the real estate he had inherited; he had even sold his own house to his sister, from whom he now rented the property. With creditors closing in, it was decided to place the factory on the market.[10] On 11 June 1912 the Lugwardine Encaustic Enamelled and Art Tile Works were offered for sale by auction, together with the manager's residence, a pair of adjoining cottages and land. Despite 'liberal' instructions to the auctioneer, who 'felt perfectly satisfied that if there was anyone present who required the works, the amount of the reserve was such that they would have no difficulty in rising to the price,' no offer was made.[11]

Bankruptcy proceedings were initiated. At the first creditors' meeting, the Official Receiver observed that following the death of the founder of the business, William Henry Godwin had carried on as sole proprietor until 1906: 'At first he did well, profits averaging from £800 to £1,500 a year. Then came a slackness in the building trade, followed in 1904 by a drop in prices, owing to the breaking up of an Association of Manufacturers. The works were first mortgaged about 1900, and ultimately W. H. Godwin's houses and land at Lugwardine were also mortgaged. All has now been sold except the works and about two acres at Withington. The manager at the works (Mr. Thomas Pickerell), and also A. F. Godwin (W. H. Godwin's son), were taken into partnership on September 1st, 1906, and were given one-tenth and two-tenths respectively. Mr. Pickerell advanced the firm £300, of which £50 has been repaid. On March 31st, 1908, arrangements were made under which Mr. Pickerell retired in consideration of £1,000, which sum and the £300 has since then been treated as a debt...The partnership between W. H. Godwin and his son was continued. The immediate cause of the debtors filing their petition in bankruptcy was an execution against the firm on a judgment debt of £175 and costs... W. H. Godwin was probably worth over £50,000 on the death of his father. The profits...are merely estimates, as no proper profit and loss accounts were made out, stock never having been taken. The fact appears to be that for some years there has been a continuous loss in trading, which has been met (so as to enable the business to be carried on) by W. H. Godwin from time to time mortgaging his property. The present crisis was brought about by want of available funds, and this must have been foreseen some years ago.'[12]

When the adjourned examination was resumed, William Henry was asked by the Official Receiver to account for the loss of between £30,000 and £40,000 during his trading period.[13] Before listing payments and advances he had made to various named persons including a substantial amount to his deceased son, mysteriously the 'debtor wrote down a name and handed it up, and said that he had lent his name on several guarantees to the extent of over £10,000, which had been paid in sums of £1,500 to £3,000 from 1888 to 1903. Previous to that he had made small payments to the same individual.' He had no security and looked upon it as a bad debt. Asked why he kept no profit and loss account, he explained: 'ours is a very difficult business in which to take stock or to arrive at its value. To do so properly might involve a great amount of damage to the stock.' Nor could he say what the approximate profits were, but he

was ‘satisfied there was a certain amount, though they varied a good deal.’ Under further examination, he explained that prices had ‘dropped tremendously in the last twelve or fourteen years. An association of manufacturers existed at one time...to keep the prices up; but it broke up, and not only the prices of their goods went down but almost all their profits’; he was hoping ‘for better times and an improvement in trade, but he was not able to reduce expenses.’ Asked whether he was obliged to pay such high wages, he said that they ‘employed grown up men instead of children and kept them on as long as they could.’ He admitted that ‘improvements had been made in his kind of trade, but the goods were not improved. They were not so good as those produced in the old fashioned way, and his firm had to be satisfied with smaller profits. They produced real value and gave it; and having to compete against poorly made ware and poorly finished ware, he agreed that they suffered from making too good an article.’

Rumour of the retirement of Godwin and his son from business and consequent closure of the works had been prevalent for some time, causing consternation amongst the inhabitants of Withington and district who were dependent on the factory for their livelihood. Following the failure of the auction sale, an announcement was made to the effect that a small private company had been formed to take over the Lugwardine works.[14] This new company was said to include Thomas Pulling and George Henry Lloyd, employees of Messrs. Godwin & Thynne Ltd. at the Holmer Tileworks, as well as H. S. and J. A. C. Thynne, its managing directors (although in fact the latter do not seem to have been involved). Three months later a further announcement was made, reporting that a ‘new Company had been formed and has acquired not only the freehold premises, but also the valuable machinery and plant, the whole of the stock in trade and utensils.’ The company would continue to be known as William Godwin & Son, Lugwardine Tileworks Ltd. and would be entering into possession at the end of the week; it was hoped ‘before long to have the works again in full swing, and reinstate the old employees as soon as opportunity permits.’[15] Describing themselves as ‘sole owners’, Pulling and Lloyd had sold back to the company in October what they had purchased in July, both men remaining as directors, with Pulling acting as manager and Lloyd as accountant.[16] From a solicitor’s letter dated 1 September 1913, it is evident that there were problems with the management. Acting on behalf of other members of the board of directors, the solicitor writes of Pulling and Lloyd: ‘We have endeavoured to arrange terms to buy them out but they ask an exorbitant price for their interests in the concern. It will not be possible to run the factory to advantage when the Managers are in disagreement and the probability is that the business will suffer in such circumstances and a loss be sustained. Some solution will therefore have to be come to otherwise the proper course seems to us a voluntary liquidation leaving one party or the other to purchase the same from the liquidator and re-organise the business as they please.’ On 17 September he wrote to say that the matter had been arranged. Pulling and Lloyd were presumably bought out, leaving Charles Frankland Beakbane, Frank Thomas Carver and William Parlby as the board of directors. On 24 January 1918 they signed an agreement selling the company to Thomas Edward Davies, a prosperous farmer. Amongst the correspondence relating to the sale, a letter dated 18 January describes Davies as ‘a wealthy man but he is somewhat eccentric, and he evidently thought he had merely to sign the letter and start work, overlooking the fact that I had told him that the consent of the Board would have to be obtained before he could do so. Owing to the telephones being out of order I have been unable to get in touch with Lloyd and do not know exactly what happened at the works yesterday, but rather gather that Davies went out there, and he and Lloyd had a row.’[17]

By way of a postscript to Godwin's comments to the Official Receiver regarding his continuance of old fashioned methods of production to maintain the quality of the goods even though it meant smaller profits, a letter has survived written by a travelling sales representative to the new management on 1 July 1913. It lists complaints from specific customers, including one who 'owing to the bad quality of recent deliveries...had given orders for no more orders to be sent to us until our quality had got back to the old standard.' The letter concludes: 'During the past two or three months, no matter what district I have gone to, I have had continued complaints of the quality of our goods...and it is getting to be so serious a matter that unless we face it at once, and put the matter right as quickly as possible, we shall soon find our business gone...If once customers get the idea fixed in their minds that we are not as careful and do not send out as good quality as the old firm of G. &. S., and also not as good quality as our competitors, our business will decrease instead of increasing.' [18]

VICTORIA TILE WORKS, HOLMER

According to his obituaries Henry Godwin severed his connection with the Lugwardine works on the death of William, entering into partnership with William Hewitt and establishing the Victoria Tile Works at Holmer (SO 517 418) in 1884. It has been claimed that the obituaries give too late a date for the opening of the Victoria Tile Works and that Henry bought the factory that became the tile works from the Hereford and Wales Agricultural and Manure Company as early as 1876.[19] I can find no evidence for this. It is clear from William Godwin's will written in 1878 that Henry was then still in his employ; and during the five years preceding his death in 1883, he saw no reason to revise the terms of his will. In addition to legacies, William bequeathed to Henry and Eleazer annuities of twenty pounds payable half-yearly 'during such part of the term of ten years computed from the day of my decease as my said Brothers shall respectively live and continue in the employ of my said son William Henry Godwin, but if either or both of my said half brothers shall at any time cease to be in the employ of my said son the annuity herein before given to the one so ceasing to be in such employ shall absolutely determine.' In the 1881 census, Henry Godwin is recorded as living at Mayfield House, Withington (next to the tile factory) and is described as 'Managing Foreman at Tile Works', while his sons Frederick William and John Henry (living with him) and Arthur Edward (living nearby) are listed respectively as 'Draughtsman', 'Clerk' and 'Designer of Encaustic Tile pavements' at the works. In the contemporary account of William's funeral in 1883, Henry is described as half-brother of the deceased and 'of Withington.'[20]

Neither Henry nor his factory is listed in any commercial directory until 1885, those for 1879 and 1882–3 containing entries only for the Withington works; and significantly, *Kelly's Post Office Directory* for 1879 still includes the Herefordshire & South Wales Agricultural Manure & Cattle Food Company at Holmer. The earliest advertisements for the Victoria Tiles Works seem to be those that appeared simultaneously in the *Hereford Journal* and *Hereford Times* on 28 June 1884; only subsequent to this did advertisements of Wm. Godwin & Son carry the notice that they wished it to be distinctly understood 'that they have no connection whatever with any other firm using the name of GODWIN.' Of the two contemporary accounts of Godwin & Hewitt's Victoria Tile Works prior to Henry's retirement in 1896, neither even hints that he might have founded the Holmer factory in 1876. On the contrary, an article in *Hereford Illustrated* states that it was 'but eight years since their commencement of business here,'[21] while *Industries of Hereford & District* refers to the formation of the partnership in

1884 (Henry 'having been for thirty-one years previously sole manager of the manufacturing department for the late Mr. William Godwin, of Withington'), and to the purchase of manufacturing premises.[22] It seems that the obituaries were correct: Henry Godwin withdrew from the parent firm shortly after the death of his half-brother, and started the new business in 1884 at Holmer, where 'with his technical knowledge and experience, and inventive ideas, he was here still more successful, continually bringing out new styles and colours in tiles, and one of his characteristics was standard quality and thoroughness in every detail.'[23]

By 1884, Henry Godwin was a man of vast experience and expertise in the manufacture of tiles. But what of his partner? In *Industries of Hereford & District* the partners were described as 'gentlemen of thorough experience in the trade, and exercise a close personal supervision over all operations, to ensure that none but the soundest and best finished work is sent out'; but that was some years later. At the age of twenty-four what was William Hewitt able to contribute to the partnership? Hewitt is said to have been an employee at the Godwin factory,[24] but perhaps only for a few months. He was the elder son of Henry William Hewitt, a Hereford victualler and farmer, and at the time of the 1881 census he was working as a land surveyor in Swansea. When and why he returned to Hereford is uncertain—possibly it was following his father's illness and death in 1883.[25] It is conceivable that there was personal acquaintance between the Godwin and Hewitt families; the heads of both were popular and influential tradesmen, sharing an interest in charitable works. When the young William Hewitt returned to Hereford, Godwin may have offered his friend's son employment at the Withington works. Initially, Hewitt shared his mother's St. Owen Street house, she continuing to run the Dining and Refreshment Rooms in Commercial Street. William would have inherited from his father's estate; this, perhaps with assistance from his mother,[26] enabled him to invest with Henry Godwin in the purchase of the factory premises at Holmer, near to the family farm.

It is probable that both Godwin and Hewitt were familiar with the artificial manure factory. It was built from the designs and under the personal supervision of Thomas Flewett, its first manager, at about the same time as the Withington factory. Henry Godwin may have watched its construction and exchanged ideas with Flewett, who was a civil engineer. These premises later purchased by the partnership for their new tile works are described in *Littlebury's Directory and Gazetteer for 1868*, the 'extensive works' being situated 'contiguous to the Shrewsbury and Hereford Railway and Gloucester Canal, occupying an area of about an acre and a half of land...The general plan of the works is nearly square...The flues from the various furnaces, boilers, &c., all radiate to the centre of the works, where the smoke ascends a shaft upwards of 200 ft. high; this shaft, forming a graceful column, is seen for many miles round, and is a most pleasing feature in the landscape.'[27] This corresponds to the plan of the Victoria Tile Works as they appear on the ordnance survey map of 1886; externally it would seem that the old manure factory premises required little adaptation to make them operationable as a tile manufactory. However, to meet the increasing demands of the trade the premises were continually being added to; by 1892 the buildings with the clay beds occupied six acres of ground. The article in *Hereford Illustrated* gives a detailed description of the factory and the processes through from the initial cleansing of the clay to the final product.[28] On the accompanying illustration some of the original quadrangle of buildings with its lofty chimneystack can be discerned at the centre of the complex (Fig. 10).

When Henry Godwin retired from the business, it was still a flourishing concern. Indeed, the 1898 edition of *Hereford Illustrated* remarks that 'large as it is at the present time, it is still insufficient to meet the growing demands of the trade, and a large extension is contemplated'.[29]

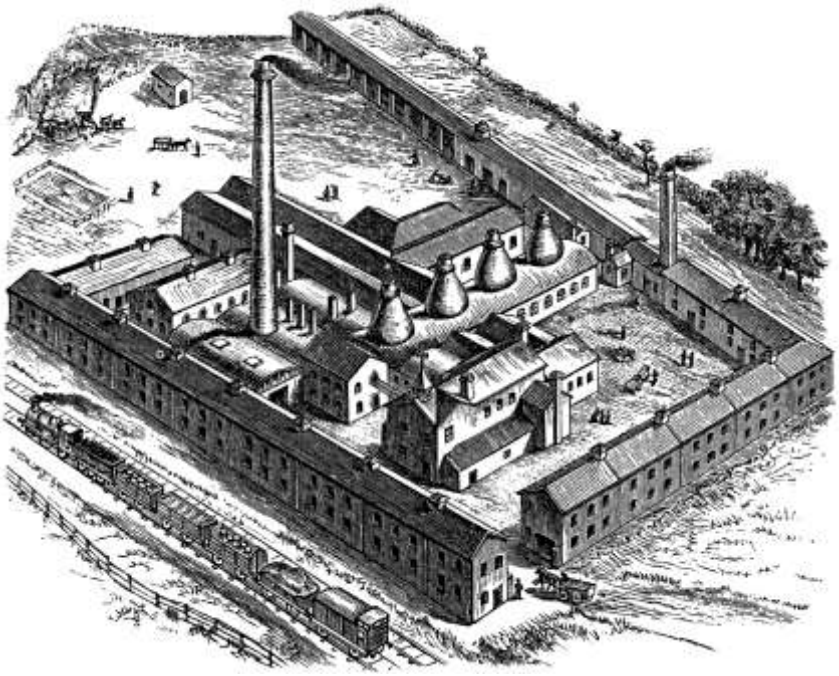

Figure 10. Engraving from *Hereford Illustrated* (1892), p.23, showing a bird's-eye view of the Victoria Tile Works at Holmer near Hereford

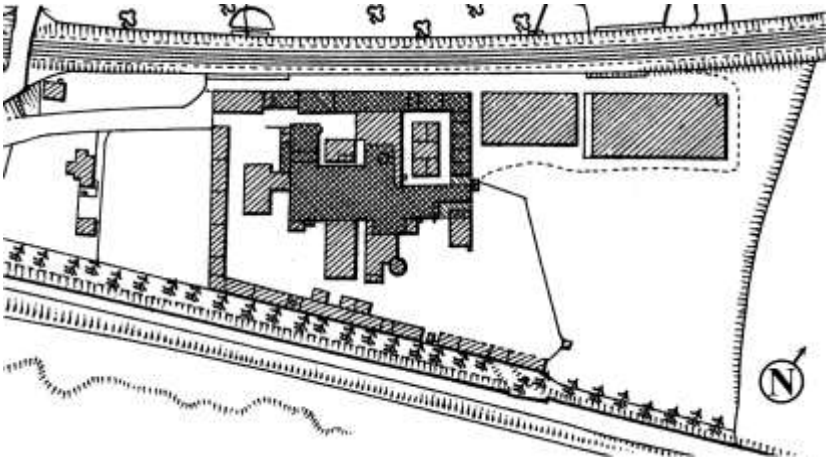

Figure 11. Detail from 1904 Ordnance survey map showing the Victoria Tile Works between the railway line and old canal at Holmer, with the area covered by the factory in 1886 shaded with cross-hatching

This large extension probably comprised the two buildings that appear on the ordnance survey map of 1904 to the northeast of the main block (Fig.11). But success was followed by a recession in the trade that was felt by both the rival Godwin tile manufactories, and Hewitt was eventually forced into liquidation. In May 1909, Messrs. H. & G. Thynne of Bristol purchased the business from the Receiver and formed a new company, trading under the name of Godwin & Thynne.[30]

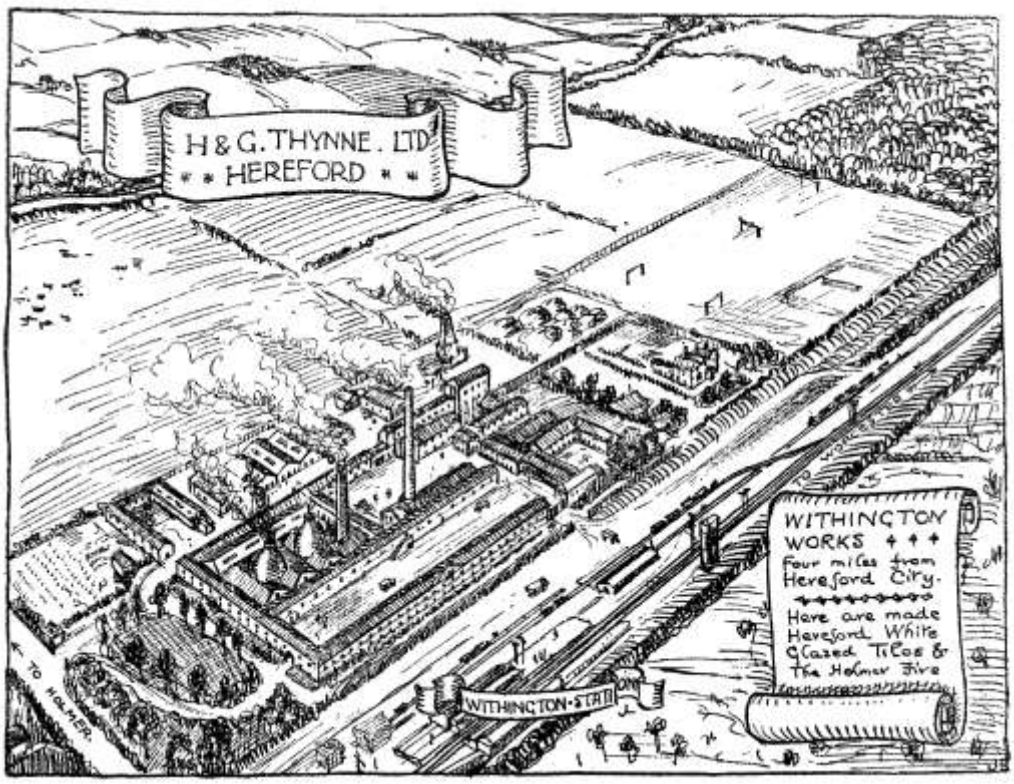

Figure 12. Endpaper inside back cover of H. & G. Thynne's Flanders Lustre Fireplaces (undated *c.* 1930), showing a bird's-eye view of the Withington Works

What happened to William Hewitt after the liquidation of Godwin & Hewitt? *Kelly's Directory* for 1909 (from information collected the previous year) still lists Hewitt as 'encaustic tile manufacturer' with a cross-reference to Godwin & Hewitt Ltd., but he had already given up 'The Grange' at Hampton Park and returned to St. Owen Street. After that there are no further entries in the commercial section, though he continues to be mentioned in the residential section of directories. With his experience of the trade, he may have continued work as an employee in one or other of the Godwin businesses. In 1913, the representative of Godwin & Son mentioned above, was a William Hewitt—in all probability this is the same man. In the autumn of 1914, he was suing the company.[31] A copy of the terms submitted to Hewitt's solicitor includes: '3. Mr.Hewitt to resume employment at salary of £3 a week and out of pocket travelling expenses. Commissions as before...4. Mr. Hewitt to choose his own ground

for travelling...7. £50 Compensation to be paid to Mr. Hewitt for wrongful dismissal and deprivation of Directorship. 8. In settlement of Mr. Hewitt's claim to Directorship, Mr. Hewitt to be appointed Director without additional Salary. 9. In event of reconstruction of Company, Mr. Hewitt to be guaranteed interest in the new Company of equivalent value.' The terms were refused; the outcome is unknown. Five years later, he was still living in Hereford, when his elderly mother died at his residence in St.Owen Street.[32]

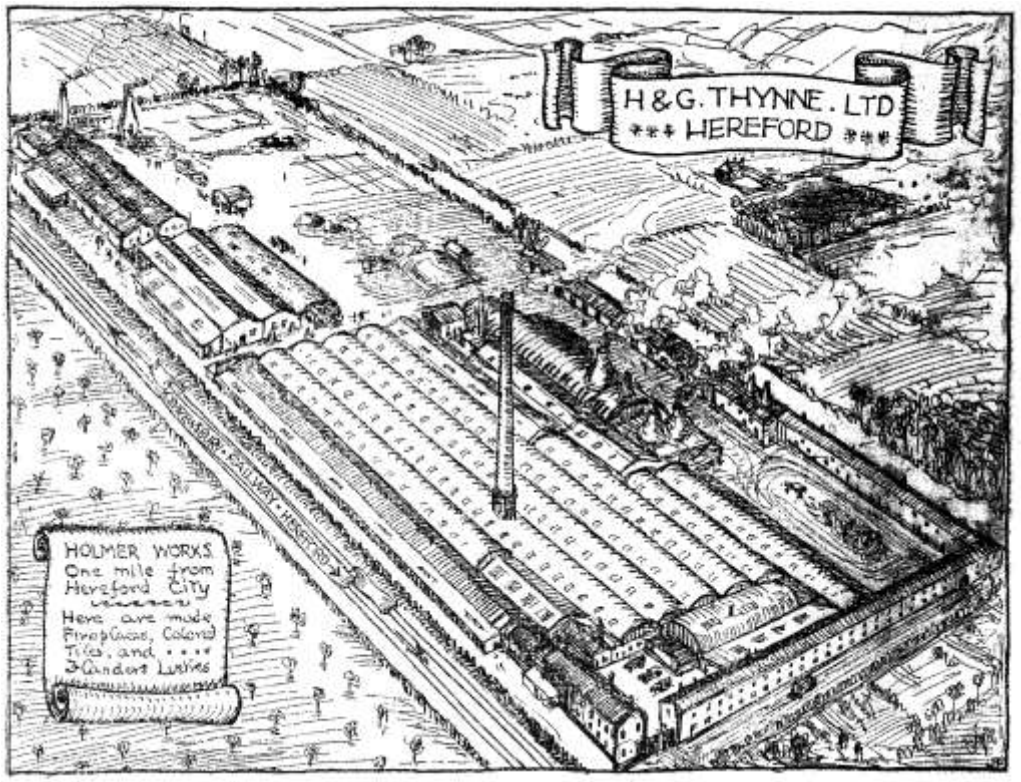

Figure 13. Endpaper inside front cover of H. & G. Thynne's Flanders Lustre Fireplaces (undated *c*. 1930), showing a bird's-eye view of the Holmer Works

When H. & G. Thynne acquired the second Godwin factory in the late 1920s, production was rationalised. Soon afterwards, an illustrated catalogue for their Flanders lustre fireplaces was published, the inside covers decorated with bird's-eye views of the two works (Figs. 12–13). At the Holmer works, while buildings around the perimeter are recognizable from the earlier engraving, the old chimneystack now rises from a bed of corrugated roofs. Today, if one visits the sites, sadly little remains of the once famous Victorian factories: only part of the south range of workshops at Withington (Whitestone Business Park), and at Holmer (Holmer Trading Estate) the row of workshops facing the canal, Hewitt's northeast extensions, and one of the smaller buildings in the central complex.

EXAMPLES OF TILES

Examples of Godwin tiles survive in many private houses and public buildings in Herefordshire, and are most readily seen in local churches such as the Cathedral (G), All Saints' (G & H), St. James's (G), St. Peter's (G) in Hereford, and both church and chapel at Lugwardine (G), the latter containing a particularly extensive range of patterns, where G = W. Godwin (& Son), G & H = Godwin & Hewitt. There are many examples of the tiles in the cellar of the New Inn, Bartestree. Hereford museum holds a collection of Godwin material.

For references to other locations see: Pearson, L.F., *A guide to British tile and architectural ceramic locations* (2005) and the website of the Tiles & Architectural Ceramic Society: www.tilesoc.org.uk/locations.

LUGWARDINE CHAPEL

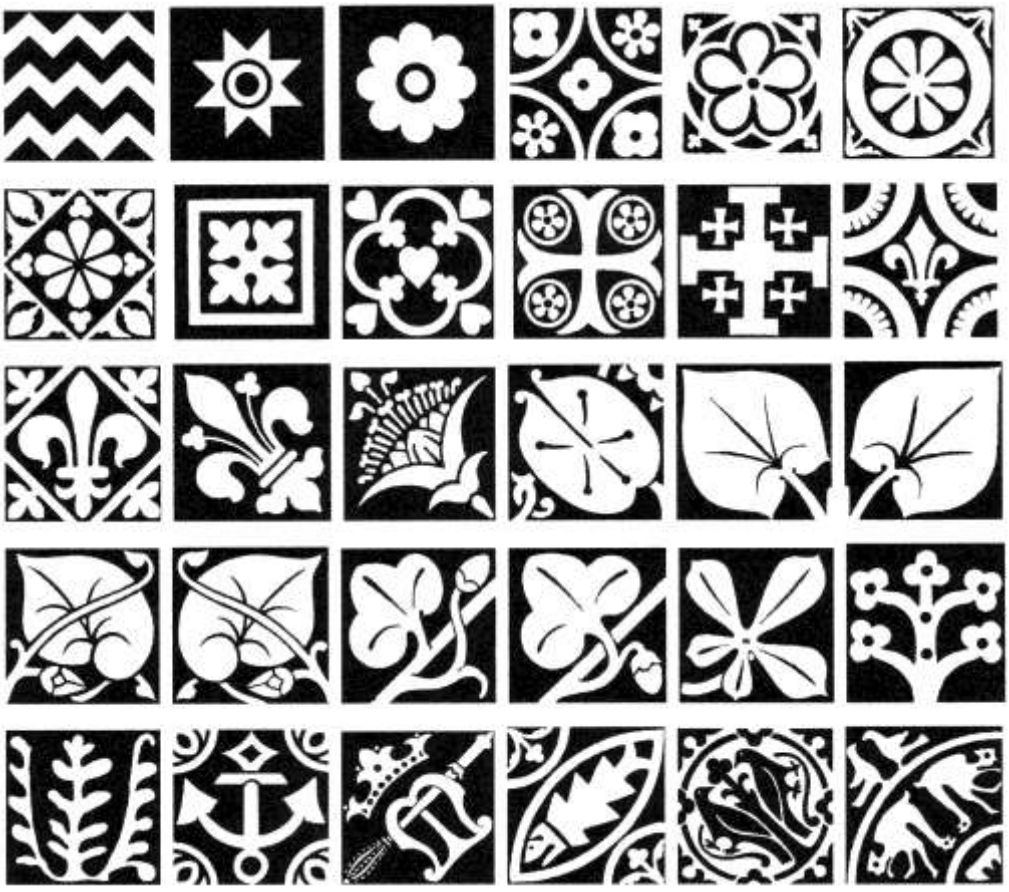

Figure 14. Selection of 4¼ inch two-colour tiles from Lugwardine chapel, laid in 1897 when the chapel was rebuilt following the destruction of the earlier mission room by an earthquake

Figure 15. Selection of 6 inch two-colour tiles from Lugwardine chapel laid in 1897

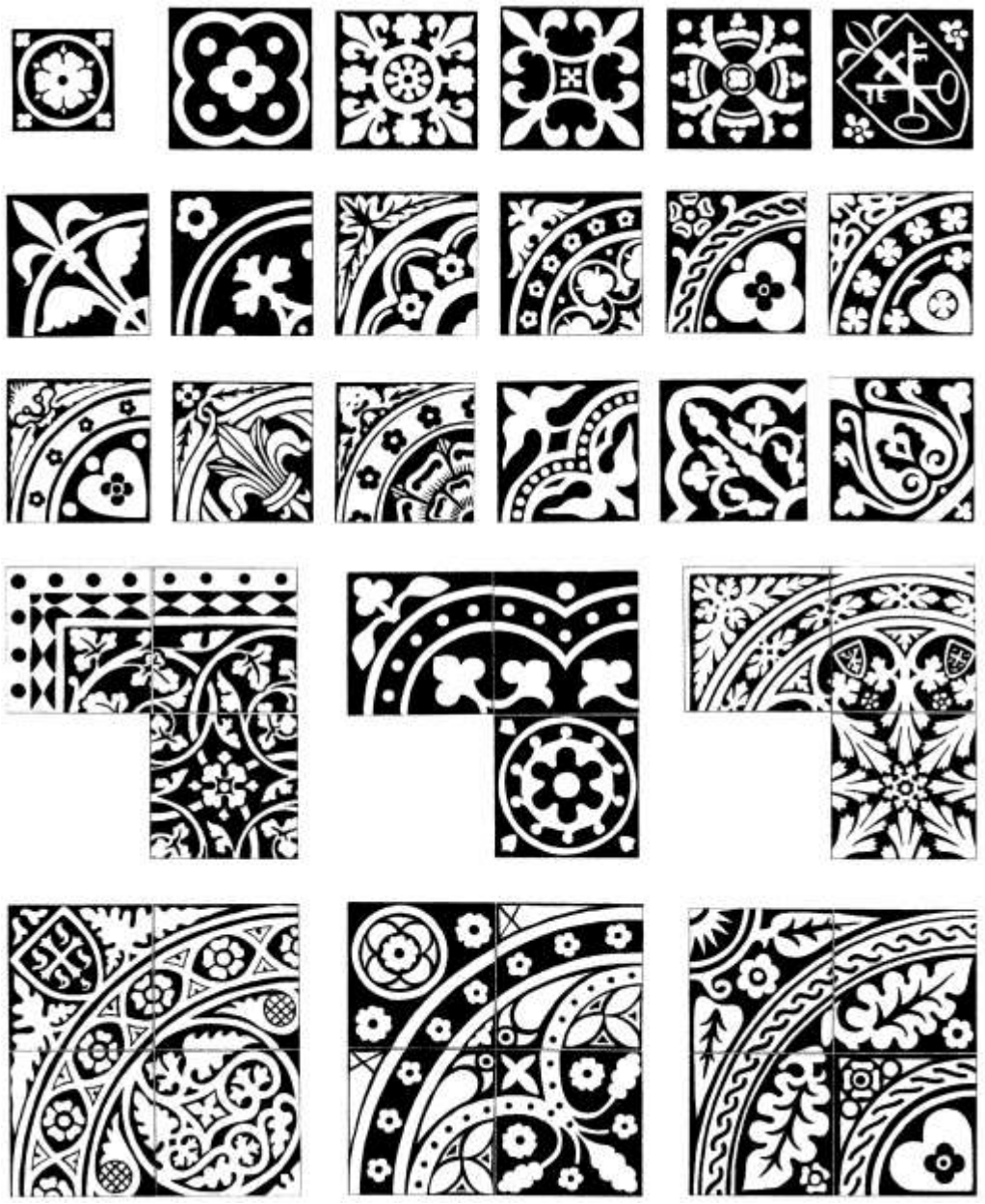

Figure 16. Selection of 4¼ inch red-and-buff tiles from St. Peter's church, Hereford laid in 1885 and 1905, some with the complete pattern on a single tile, others forming elements of four-, nine- or sixteen-tile sets

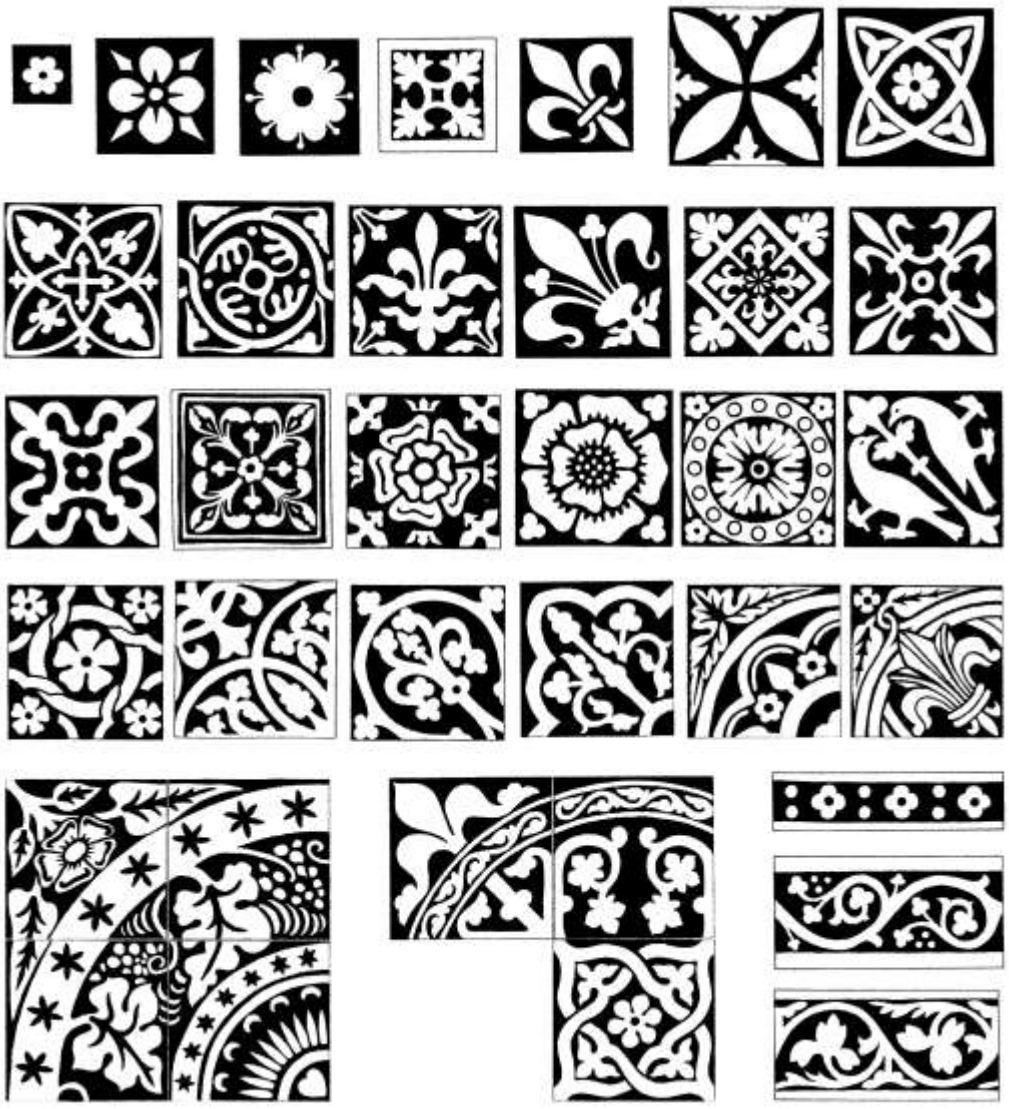

Figure 17. Selection of 1½, 3 and 4¼ inch square, and 6 x 1½ or x 3 inch rectangular red-and-buff tiles from St. James's church, Hereford laid in 1902; some with the complete pattern on a single tile, others forming elements of four-, nine- or sixteen-tile sets, or of continuous friezes

Figure 18. Lugwardine chapel, 8 ½ inch polychrome Godwin tile found in Hereford by Luke Hodges and donated to the chapel.

ACKNOWLEDGEMENTS

Figures 5 and 7 to 9 are reproduced from a letterhead and a copy of the Withington factory sale catalogue by kind permission of Herefordshire Archive Service. Illustrations of Godwin tiles have been drawn or photographed by the author with permission from the church or chapel authorities.

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Greene, B. M., 'The Godwins of Lugwardine', *Herefordshire Country Life*, III No. 8 (1981), pp.30–32; 'The Godwins of Lugwardine and the other Hereford tile makers', *Industrial Archaeological Review*, V No. 3 (1981), pp.241–252; 'The Godwins of Hereford', *JTACS*, I (1982), pp.8–16.

Lugwardine Historical Society, 'The Godwins and the tile works', in *Lugwardine in the nineteenth century* (1988), pp.63–68.

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[1] H. T. Hill, Thoughts on churches and churchyards: a tract (1856), pp.9–10.

[2] L. Jewitt, *The ceramic art of Great Britain*, II (1878), p.452. The date of closure of the original brick and tile works at Lugwardine is unknown. In 1876, William Godwin is described also as 'manufacturer of bricks and drain pipes &c. by patent machinery, Lugwardine and New Town Brick Works' (Littlebury's *Directory and Gazetteer of Herefordshire* 1876–7, p.490). After that date the brickworks do not appear in trade directories, although they are marked on the ordnance survey map of 1886.

[3] In 1840 Richard Prosser had invented a process using dust clay, which was applied to the production of plain geometric tiles; in 1863 inventions by Boulton and Worthington enabled inlaid tiles to be made by the dust-pressed process in up to seven different colours. After this, the plastic clay process tended to be used for making two-coloured encaustic tiles, while the majority of polychrome were produced by the dust-pressed process.
[4] Advertisements for the new firm appeared in the *Hereford Journal* and *Hereford Times* for the first time in the issues of 28 June 1884. That production of tiles had begun somewhat earlier is evident from the minute book for the restoration of St. Peter's church, Hereford (Herefordshire Record Office (HRO), AG71/3). At a meeting held on 22 May 1884 it was resolved 'that liberty be given to the contractor to obtain the encaustic tiles from Godwin of Lugwardine, or Godwin and Hewitt of Holmer.'
[5] For a summary of the contents of the cutting, see B. M. Greene, 'The Godwins of Hereford', *JTACS*, I (1982), pp.11–12; and for extracts detailing the manufacturing processes, see M. A. V. Gill, *A survey of ceramic tiles in the churches of Radnroshire* (2005), pp.189–193.
[6] *Hereford Journal* and *Hereford Times* 16 April 1910.
[7] HRO, BH28/2/15. This bundle of papers seems to have belonged to William Parlby, and relate to his period on the Board of Directors. It includes his Director's Salary Account Book for 1913–5, a copy of the 1912 auction catalogue, and correspondence.
[8] *Ibid*. auction catalogue of Alfred W. Dando & Co. with particulars, plans and conditions of sale of the Lugwardine Encaustic Enamelled and Art Tile Works at Withington on 11 June 1912.
[9] HRO, AA72/294: will of William Godwin, signed 22 March 1878 and proved 17 Oct. 1883.
[10] *Hereford Journal* 11 and 18 May 1912.
[11] *Hereford Times* 15 June 1912.
[12] *Hereford Journal* 13 July 1912 (shortened account in *Hereford Times*).
[13] *Id*. 17 August 1912.
[14] *Hereford Times* 13 July 1912.
[15] *Id*. 19 October 1912.
[16] HRO, BH28/2/15: copy of agreement dated 16 November, with sale effective from 10 October 1912.
[17] *Ibid*. correspondence. Lloyd later resigned and in 1919 founded Lloyd's Tile Co., Ltd. of Withington (Supplement to *Hereford Times* 15 October 1932, p.25).
[18] *Ibid*. letter from William Hewitt.
[19] *JTACS*, I (1982), pp.13 and 16. Others put the date at 1878, based on a statement in H. & G. Thynne's *Flanders Lustre Fireplaces* (undated *c*.1930), referring to Flanders lustres (first made in 1925) as 'the crowning achievement of a factory famous for fireplaces since 1878.' By the late 1920s both former Godwin factories were owned by H. & G. Thynne, the lustres being produced at the Holmer works. However, it was the Lugwardine Works at Withington that were famous first for their fireplaces; an advertisement in the *Hereford Times* 6 December 1879 refers to William Godwin as patentee and sole manufacturer of 'patent tile fenders.' In their earliest advertisements Godwin & Hewitt also list 'specialities in hearths, sides, &c. for fireplaces' among their productions; around 1890 they started advertising a 'new patent tile fender' of which they were the sole manufacturers (Jakeman & Carver, *Directory and Gazetteer of Herefordshire* for 1890). Henry Godwin may well have been the designer of both patent fenders.
[20] *Hereford Journal* 1 September 1883.
[21] *Hereford Illustrated* (1892), pp.23–24.
[22] *Industries of Herefordshire & District* (undated *c*.1895), p.12.
[23] *Hereford Times* 16 April 1910.
[24] *JTACS*, I (1982), p.13.
[25] *Hereford Times* 7 April 1883; died 29 March and was buried with military honours.
[26] *Id*. 2 February 1884; advertisement for auction at Crossway Farm, Holmer of animals and agricultural equipment under instructions from Mrs. Hewitt 'who is giving up the Farm.'
[27] Littlebury's *Postal and Commercial Directory and Gazetteer of the County of Hereford*. 1868 (1867); the description is repeated in the second edition of 1876–7.
[28] *Hereford Illustrated* (1892), pp.23–24.
[29] Edward J. Burrow, *Hereford Illustrated* (1898), p.34.
[30] *Hereford Times* 29 May 1909.
[31] HRO, BH28/2/15: copy of terms dated 28 October, and William Hewitt's refusal dated 9 November 1914.
[32] *Hereford Times* 6 September 1919.

Paper received February 2006.

Franklin, Barnes (The Crystal Rooms) No. 13 Bridge Street, Hereford

By JOHN van LAUN

Herefordians may know no. 13 Bridge Street as 'Franklin, Barnes' or the 'Crystal Rooms', but in either case it is likely that they will have some opinion concerning its architectural merit. Admirers of the style will be pleased that the Art Deco front of 1936 is to be retained during re-development, but others may feel that a modern design opportunity is being missed. Ironically, Cyril Barnes no doubt sided with the modernists when he instructed Bettington & Son, Architects and Surveyors of Castle Street, Hereford, to prepare drawings for a prestigious Bridge Street front. As well as the front, a brand-new building was planned which would extend from Bridge Street through into Gwynne Street and beyond into the 1880s Gwynne Street Warehouse— in itself a building of distinction. Seventy years later the process is being repeated.

INTRODUCTION

In the mid-1930s the architect Edward James Bettington was faced with a daunting task. For a period of more than 150 years a ramshackle collection of buildings had accumulated to cover the site. Starting with the Royal Oak in around 1778 with its accretion of stables at the rear, the addition of the 'Alhambra Music Hall and Palace of Amusement' followed in 1867.[1] Even though the Royal Oak had closed by 1879 the Alhambra remained in use until 1892. But already by then no. 13 had become the premises of Rogers & Co. Seed and Corn Merchants, founded in 1863.[2]

In 1888 the whole site was filled with an assortment of buildings which served the needs of Rogers & Co. in one way or another. By 1912 the firm and building had been taken over by Franklin, Barnes & Co., which adopted the Alhambra as a seed warehouse. Even so the old Alhambra, still intact, was proposed for renovation as a theatre as late as 1928. It was not until the mid-1930s that serious consideration was given to sorting out this motley collection of buildings.

THE DEVELOPMENT OF THE SITE AND ITS MORPHOLOGY

The 'Crystal Rooms' is here defined as the continuous building running through from no. 13 Bridge Street into Gwynne Street as far as the polychrome brick warehouse. The front, with its 'Vitrolite' cladding, rises over three storeys with a flat roof behind a stepped entablature. The rear is also of three storeys with a flat roof, but because of the change in levels lies at a lower level. The rear fronts mainly onto Gwynne Street on the south with a yard to the north. The yard was accessed by an underpass lying under the east end of the extension and adjacent to the polychrome brick warehouse.

Most of the development took place on a single parcel of land with static boundaries on three fronts: west (Bridge Street), east (the polychrome brick warehouse), north (no. 12 Bridge Street and the open yard which runs up to the Wesleyan Methodist chapel). The southern boundary was, over the years, more flexible. Apart from where it bordered Gwynne Street, here

to the south there were a number of changes associated with land taken up by small courts until the boundary was fixed before 1929. Franklin, Barnes thus inherited a site which runs on a west-to-east orientation on the front into one which tends to the northeast. From the building point of view there were thus the two problems of site plan and change in level to overcome if development was to take place as a single unit.

Adapting the existing buildings to work as an integrated complex was an impossibility. It was therefore decided to clear the area and make a completely fresh start. Bettington had to contend with an awkward site which twisted from west to north-east with a change in level of half a floor down to Gwynne Street. With the help of Archibald D. Dawney & Sons they therefore proposed a steel-framed structure with curtain walls. Steel-framing was not new, having been brought into popularity following the setting of regular standards for steel joists by the Engineering Standards Association in 1904. This culminated in the General Powers Act of 1909 (known as the Steel-Frame Act) which permitted the use of curtain walling in steel-framed buildings. Although only applicable to London it encouraged the use of steel-framing throughout the country. Thus by the 1930s it provided an obvious solution allowing for a lighter structure (and therefore considerable more inside space), the possibility of extending upwards, prefabrication, cheapness (by using thin curtain walls) and finally, a degree of fireproofing. It therefore comes as no surprise that Franklin, Barnes adopted steel-framing with thin curtain walls for no. 13 almost immediately after it was decided to demolish it.

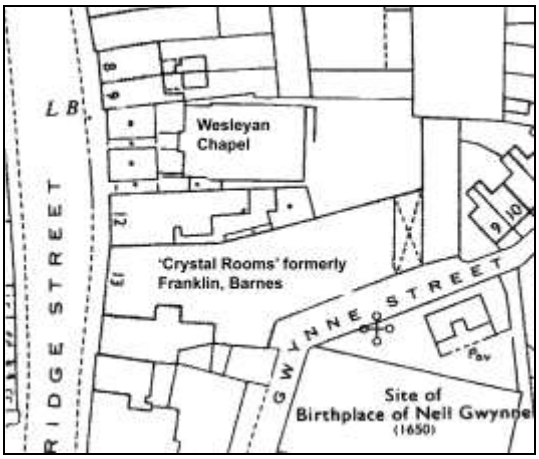

Figure 1. Map of site (1:2500)

Figure 2. Shopfront, 1929 Franklin, Barnes catalogue[3]

The decision on details for the front took rather longer. There were a few pedestrian attempts in which one can see the style evolving. The style finally chosen was more in the manner of the 'decorative modernist' branch of Art Deco as promoted by Rob Mallet-Stevens *c.*1925. Instead of relying on applied structural or decorative enhancements it uses Modernist compositional methods rendered decorative by the flamboyant use of colour. To achieve this, Franklin, Barnes used 'Vitrolite' cladding in green and primrose, the first use of that material after the Daily Express building in Fleet Street. Nevertheless, one can see obvious Art Deco decorative features such as the vents and the projecting sign.

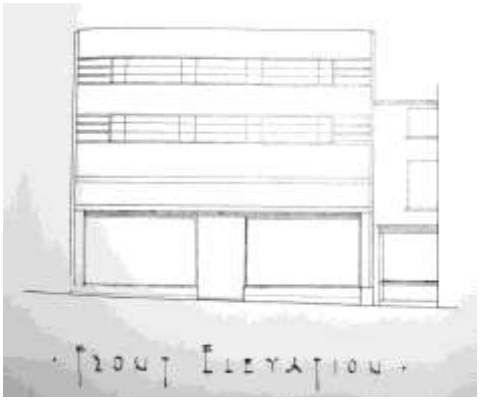

Figure 3. Early version of front elevation.[4] (Photo: Huw Sherlock)

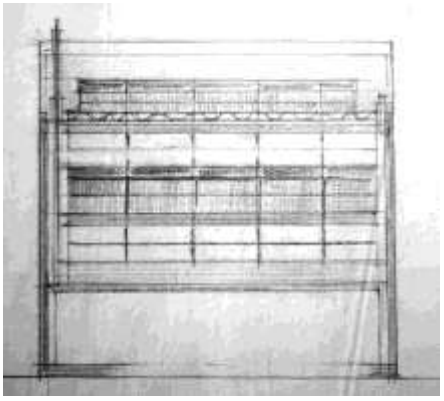

Figure 4. Another (polychrome) version of front elevation (Photo: Huw Sherlock)

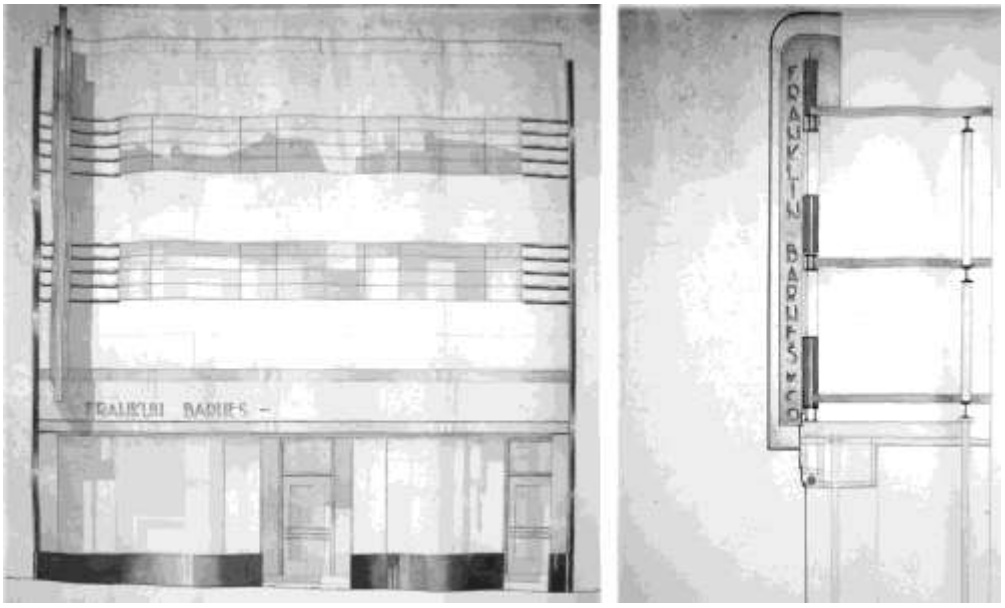

Figure 5. The architect's final elevation for the Art Deco front, and the projecting sign. (Photo: Huw Sherlock)

The steel-framed rear was of interest, and together with the polychrome brick warehouse forms part of the industrial history of the river fringe. The warehouse, although not of the same high standard, echoes the idea of the Welsh Back in Bristol. It has now been converted to housing.

Figure 6. Franklin, Barnes as built. There are slight changes to the design in Fig. 5 such as the stepped entablature and four (rather than five) stripes to highlight the windows. The gap in the Vitrolite cladding is where the sign was fixed (All survey photos: Will Lewis)

Figure 7. Art Deco vents in the ground dado on the front elevation

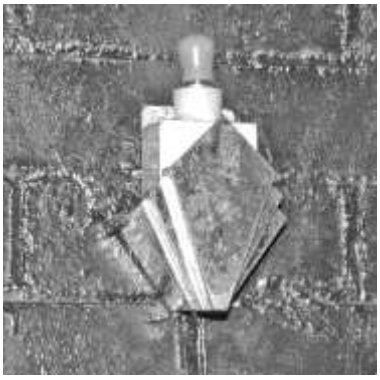

Figure 8. Re-used light fitting

The Bridge Street front has been retained but the 'decorative modernist' rear demolished to make way for steel-framed flats. In spite of some stylistic merit it is strange that when so much attention was given to the lavish front the rear was allowed to remain essentially utilitarian.

Within the Crystal Rooms there were fittings worthy of preservation (or possibly retention). There were the window catches (which might be salvaged and used elsewhere), the clock at the front, and the two 1930s electric motors and lift mechanism for which a suitable home could be found (possibly the Waterworks Museum at Broomy Hill).

There were also some interesting murals which were covered up latterly. They were signed by 'Frankham Gonella', and stylistically belong to pre-1936.[5] They may have come from the old Alhambra.

Figure 9. Jazz band

Figure 10. Flamenco dancers

Figure 11. Music Hall duo

Figure 12. Mural sequence

THE POLYCHROME BRICK WAREHOUSE AND BUILDING TO REAR

The warehouse is shown in another photograph from the front of the 1929 Franklin, Barnes catalogue. When the new Franklin, Barnes building was erected in 1936, it was built right up to the warehouse, and in consequence some of the windows in the warehouse had to be blocked, and they could be seen in the 1936 building.

The Franklin, Barnes building projected backwards between Gwynne St. and the Wesleyan chapel, both flanks with elegant windows and doors for goods handling. The roof was flat, with offices at the front and the lift house in the middle. The side towards the Wesleyan chapel (itself empty, and surveyed at the same time as the Crystal Rooms) was a jumble of small buildings.

Figure 13. View along Franklin, Barnes roof towards Bridge St. Wesleyan chapel on right

Figure 14. View along Franklin, Barnes roof towards the polychrome warehouse

Figure 15. Warehouse 1929

Figure 16. Blocked windows of warehouse

CONCLUSION

The particular merit of the building is the Art Deco front on Bridge Street and early use of 'Vitrolite' cladding. As an Art Deco design in Herefordshire it is a rarity and its design is well documented. For these reasons the front should be considered for listing.

ACKNOWLEDGEMENTS

The account above has been summarised from a 40-page report prepared by Archenfield Archaeology and John van Laun Associates Industrial Archaeologists for the County Archaeologist where the full report is deposited. This includes additional work on the adjacent Wesleyan Chapel by Daniel Lewis and Rob Williams. Only the added Gothic Revival façade of the Chapel is to be retained. My grateful thanks are due to Huw Sherlock, one of the co-authors, to Will Lewis for the survey photographs and to Herefordshire Archive Services for permission to publish the plans and sale catalogue.

REFERENCES

[1] See R. Shoesmith and J. C. Eisel, *The Pubs of Hereford City* (2004 edition), pp.99–102 for a full history of the site.
[2] *Ibid.*, p.102 for a photograph of the frontage when the Rogers family occupied the building.
[3] Herefordshire Record Office (HRO), BF54/Box 406.
[4] Figures 3, 4 and 5 from HRO, K21/files/798.
[5] A number of Gon(n)ella families appear in Britain in the second half of the 19th century, originating in Barga, Italy. They often worked as plaster figure modellers.

Paper received October 2006.

Violence and affray in Herefordshire during the early Tudor period (1485-1547)

By RYAN ROWBERRY

The traditional view of the Welsh Marches as being lawless lands inhabited by culturally degenerate people fits uneasily with the picture provided by archives concerning early Tudor Herefordshire. Analysis of legal records concerning violence in Herefordshire during the period 1485-1547 reveals fascinating snapshots of the county on several levels. Motives for violence in Herefordshire revolved around five general areas which often overlapped: land, money, honour, reputation and grudges. This study is a first attempt at exploring the subject of lawlessness in the Welsh borders.

INTRODUCTION

The 'Welsh Marches' was a patchwork of lordships forfeited to or confiscated by the Crown, and independent lordships where the king's writ did not run. By 1485 these lordships were bounded on the west by the Principality of Wales, on the north by the shire of Flint, and on the east by the border shires of Gloucestershire, Herefordshire, Shropshire and the Palatinate of Cheshire.[1] However, British historians have traditionally treated the Marches of Wales as a single unit.

Several reasons may be advanced for this fact. The first is a matter of simple convenience: grouping the Marcher lordships into a single unit allows historians to bypass the different customs, laws, and characteristics of numerous discrete jurisdictions that have shifted over time in order to focus on their common features.[2] Secondly, from the reign of Edward IV, the Crown began to strengthen governmental authority in the Marches by gradually empowering a council to administer justice. The Council in the Marches of Wales, although little more than a 'loosely organized commission, with the power of punishing crime' for the entirety of Henry VII's reign and most of Henry VIII's, had legal supervision over the Marches, the Principality and the English border shires.[3]

Historians have used disorder as a unifying factor for the Marches. In view of the independent jurisdictions of many lordships, it has been assumed that lawlessness was endemic. Elton, for example, claimed that the Welsh Marches under the early Tudors were in the grip of a 'primitive lawlessness which the rest of the country had long outgrown,'[4] while Mackie believed that criminality was rampant in the Marches until the vigorous Rowland Lee reduced them to order through English law.[5] Although neither of these scholars provides examples to substantiate their claims, they ignore the fact that the Crown, through escheat or confiscation, was itself lord of numerous Marcher lordships, hence some of the disorder in the Marches was directly the responsibility of the king.[6]

Because of their peculiar status, the Marcher lordships had the freedom to develop their own legal systems and hold their own courts. The only crime they were not allowed to try was that of high treason. Unfortunately, practically no records survive of these courts. Where scholars do substantiate their claims for lawlessness in the Marches during the period 1485–

1547 with contemporary documents, they are almost wholly reliant upon potentially biased sources. To support his view of disorder in the Marches, Rees cites a number of statutes designed to rein in the lawless Welsh along with letters that English officials of the Council in the Marches wrote to Wolsey and Cromwell lamenting the excessive criminality in the Marches.[7] Another popular contemporary source for lawlessness in the Marches is the copious correspondence between Bishop Rowland Lee, President of the Council in the Marches (1534-1543), and Thomas Cromwell.

However, correspondence from English officials to Cromwell is an unreliable indicator as to the state of criminality within the Marches and the border shires. Recent research on the career of Bishop Lee reveals that he was prone to embellishing the disorder of the Marches and border shires to suit personal aims.[8] In addition, Lee, who was described by a later member of the Council, William Gerard, as 'stowte of nature, readie witted, rough in speeche, not affable to anye of the walshrie,'[9] believed that the disorder in the Marches was more a function of Welsh cultural degeneracy than the myriad judicial divisions.[10] Lee's missives portray an idyllic perception of law-abiding towns and estates of lowland England which stood in stark contrast to a turbulent Welsh border region in which the inhabitants were given to criminality.[11] Letters from other members of the English elite in the Marches have also been revealed as extremely prejudiced in tone and content, with some scholars contending that Cromwell solicited for evidence of disorder to bolster support at Westminster for his governmental policies of centralization after the break with Rome.[12] Thus, to rely heavily on the letters of Bishop Lee or other English officials to Cromwell as literal, objective accounts for the state of order in the Marches is inadvisable.

Using statutes as evidence for disorder in the Marches is also fraught with difficulties. While statutes may be a guide to the attitude of Westminster officials towards the Welsh borderlands, their formulaic nature and English bias should caution historians from reading them too literally. The preamble to the 1536 'Bill Concerning Councils in Wales' (26 Henry VIII, c. 6), for example, reads:

> For asmoche as the people of Wales, and the marches of the same, not dreadinge the good and holsome lawes and statutes of this Realme have of longe tyme continued and p[er]severed yn perpetracion and commission of dyvers and manye folde thefts, murders, rebellions, wilfull burning of Houses and other scelerous Dedes and abhomynable malifactes to the highe displeasure of God, inquyetacion of the Kynges well disposed subjectes, and disturbance of the publicke weale; which malefactis and sclerous dedes be so roted and fyxed yn the same people, that they be not like to sease onlesse some sharpe coreccion and punyshmente for redresse and amputacion of the p[re]messis be provided accordinge to the demerits of the offendours.[13]

That crown officials deemed criminality to be 'so roted and fyxed yn the same people' that only severe punishments could correct them, reveals much about the racial prejudice with which lowland English officials viewed the Welsh.

The scarcity of actual records of lawlessness in the Marcher lordships has led to a different approach—that of examining such records in a sample border shire.

METHODOLOGY AND SOURCES

This article will focus on court records related to assault and homicide in Herefordshire during the period 1485-1547. County-based studies of crime provide the best perspective, as they allow concentration on a geographical area that is both larger than village studies (which may

be unrepresentative of larger trends in surrounding parishes) and smaller than regional studies, which may elide important local variations.

The county of Herefordshire has been chosen for two reasons. First, its people had extensive intercourse with the Marches through trade and family affiliations, and Herefordshire was administratively, culturally, and economically linked to both the Marches on the west and lowland England to the east.[14] As such, Herefordshire was a point of contact for many English and Welsh, and examining violence in this county will place disorder in the Welsh borderlands within firmer context. Secondly, although no assize records are extant for Herefordshire during this time period (or most English shires for that matter), local court documentation preserved in the Herefordshire Record Office and records from the central crown courts (Star Chamber, King's Bench, Chancery) allow for close examination of interpersonal violence on all social levels for this county during the period.

Despite several pitfalls surrounding early modern court records,[15] legal records are an invaluable source for the social climate of the past. Often court documents are the only remaining sources that can offer a picture of all classes in the early Tudor period.

The focus on assault and homicide documentation is also deliberate. Limiting this study to two categories of interpersonal violence allows us to examine specific occurrences of disorder without succumbing to the vague concept of 'lawlessness' that plagues much traditional history of the Welsh borderlands. Historians of early modern England generally agree that homicide was universally considered a serious crime and was likely to be reported and prosecuted, although its actual cause may remain obscure.[16] Cases documenting assault are more difficult to assess, as offences could vary in intensity and degree and were subject to contemporary notions about appropriate uses of physical force.[17]

It is difficult to be precise about how the incidence of violence changes over time, owing to the patchy survival of records. For instance, between 1500 and 1509, a total of 149 assaults and affrays were presented to the borough courts in Hereford. For the next decade (1510-1519), however, only 11 presentments are extant.[18] The reason for this apparent decline is, among other factors, a function of record survival. In fact, there are no decades in our period (1485-1547) in which all Hereford city court records survive.[19] If we add the problems of demography, the dark figure of unreported crime, the lack of assize records for Herefordshire, legal fictions, and the extensive use of arbitration or other informal methods of settlement rather than formal presentment to the incompleteness of Hereford court records, it is evident that any conclusions must be tentative indeed.[20] The same difficulties hold true for other parts of the county.

Rather than attempting a quantitative survey of assault and homicide cases in Herefordshire, this study will focus primarily on qualitative information that can be gleaned from legal records, although some numerical comparison can be made with other counties using counts of cases from the national archives.[21]

That is not to say that discursive elements of legal records can be taken at face value. Depositions and other narratives may not accurately reflect the voices of those involved, as the formulation of the set questions [interrogatories] to be put to witnesses restricts the answers they can give.[22] Even when testimony is accurately reported, exaggeration of the circumstances by all parties is to be expected.

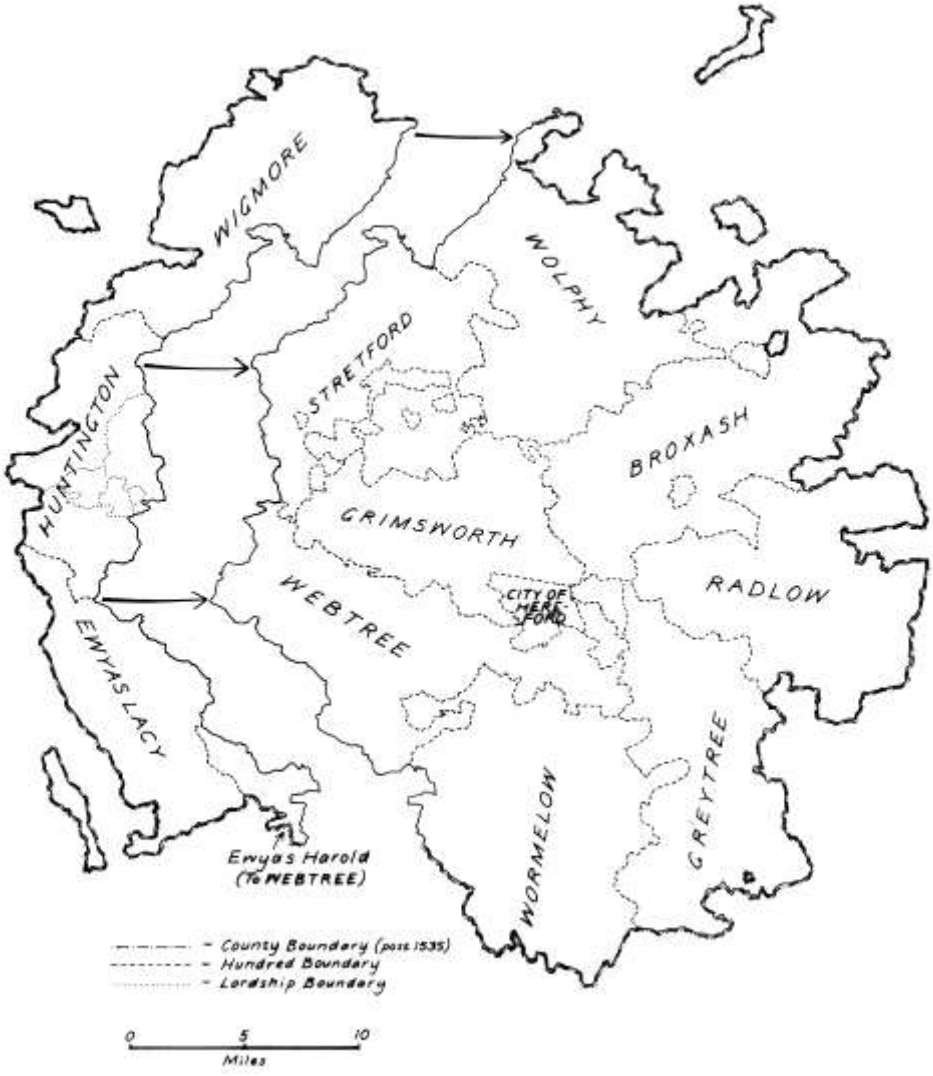

Figure 1. Map of Herefordshire showing the lands added to the county in 1535, © Geoff Gwatkin

COUNTY BACKGROUND

Before examining the sources, it is necessary to understand the background. Almost the entire county of Herefordshire fell under the ecclesiastical jurisdiction of the bishop of Hereford, with a small section in the south-west overseen by the diocese of St. David's in Wales.[23] Herefordshire was thought to have been a very conservative county, but records show that several people were punished for heresy during the early phase of Bishop Mayhew's episcopal leadership (1504-1516).[24]

It is noteworthy that for most of this period, Herefordshire was smaller geographically than the present-day county. It was not until 1535 that the lordships of Ewyas Lacy, Ewyas Harold, Clifford, Winforton, Eardisley, Huntington, Whitney, Wigmore, Lugharness and Stapleton were subsumed into Herefordshire, creating a roughly circular-shaped county of 40 miles by 34 miles.[25] The addition of these lands to Herefordshire's western borders increased the geographical size of the county by roughly 20% (Fig. 1).[26]

The population of Herefordshire during our period is also difficult to determine. Estimates drawn from a 1525 lay subsidy place the population of Hereford alone between 2,037 and 4,900, depending on what percentage listed figures were multiplied in order to account for people not included in the records.[27] Chantry certificate records from 1545, numbering communicants, point to a combined population for Herefordshire's major market towns, excluding Hereford and Ross, of around 7,900.[28] Further estimates for the rest of the county are lacking due to insufficient records.[29] All population estimates for Herefordshire in 1485-1547 point to a sparsely settled county, with its primary concentration of people and occupations centred on the city of Hereford.

The criminal justice system dealing with assault and homicide in Herefordshire, as in other counties, comprised various jurisdictions. In many communities outside the city of Hereford, cases of assault would be presented before a court leet, which required attendance of all male residents aged 12 and over and was presided over by the lord of the manor's steward or a deputy.[30]

More serious cases of assault would be referred to the hundred courts, Herefordshire county quarter sessions, or possibly the assizes. None of the records of these courts exists for Herefordshire in any volume for the period 1485–1547. While a comprehensive survey of the records for all courts associated with prosecuting violent offences in Herefordshire during our time period would be ideal, in actuality it is impossible. However, the records that do survive from several of these courts provide an adequate snapshot into violence for all social sectors of inhabitants of Herefordshire. Aside from prosecution in manor, hundred or county courts, serious assault cases might also be prosecuted at the Council in the Marches of Wales or the royal courts in Westminster. However the costs associated with travel to London, sustenance and lodging while waiting for the case to be heard, and officially regulated court expenditures effectively excluded many commoners.[31] Occasionally, however, some of Herefordshire's humbler inhabitants, like those in Eardisley in 1521, banded together and formed a common purse to assist with costs associated with prosecuting at Westminster.[32]

Assault cases within the liberties of Hereford were prosecuted according to myriad city charters, customs and jurisdictions that often overlapped. The liberties of Hereford encompassed approximately 16 square miles, including the parish of Holmer and the townships of Huntington and Tupsley (Fig. 2).[33]

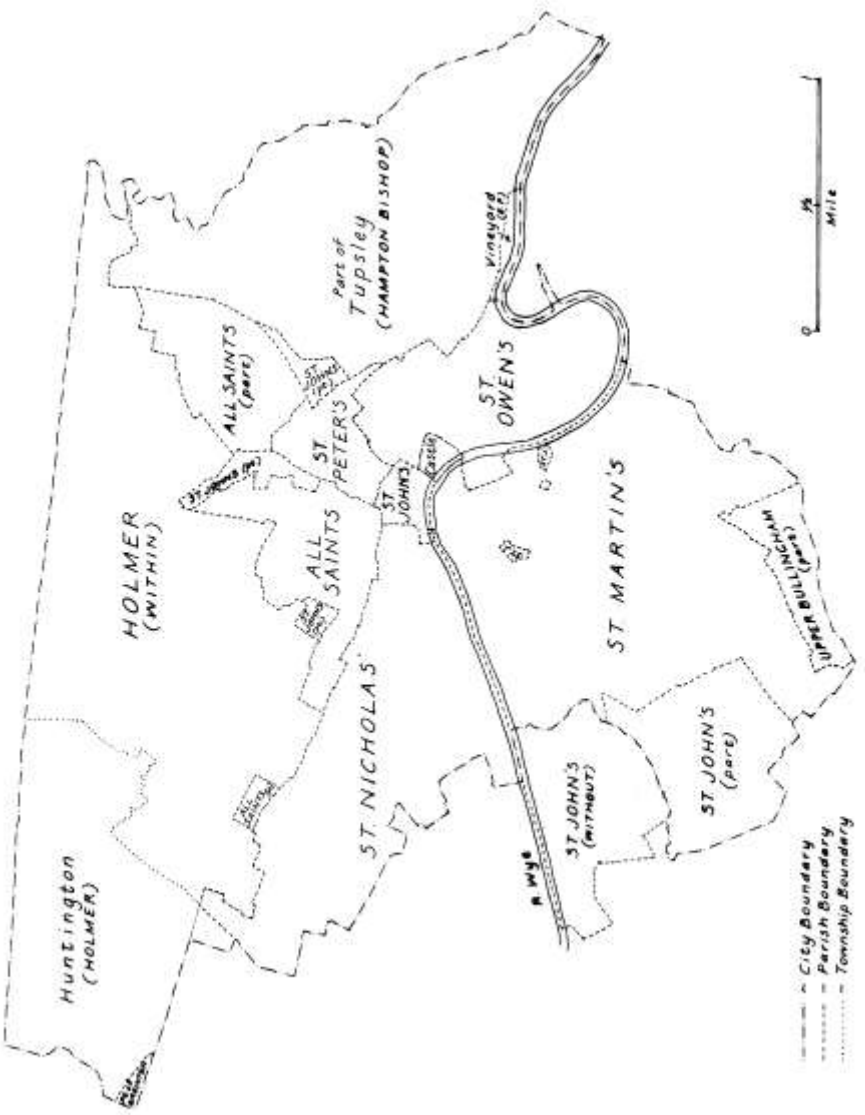

Figure 2. Map of the Liberties of Hereford in the early 16th century, derived from Price's 1802 survey . © G. Gwatkin

Assault cases were usually handled by the bi-annual Tourn Court, which dealt with the affairs of the five ward divisions within Hereford, and the bi-annual Law Day Court, which was a body composed of three inquests of jurors who were primarily responsible for regulating trade, granting freeman status, and enacting civic bye-laws.[34] During our period, the Mayor's Court of Hereford also heard assault cases, but only those concerning men of higher social standing who had been admitted as freemen of the city.[35]

Other cases of assault in Hereford fell under the jurisdiction of ecclesiastical officials. Assaults committed within the bishop's fee in Hereford or the fee of the Dean and Chapter of Hereford Cathedral would be heard before a court administered through their respective officials, and the bishop could imprison malefactors within his own prison. During the bishop's three-day fair from May 19 to 21—known as Ethelbert's fair—the judicial powers of the bishop and his officers extended over the rest of the city.[36] Hence, assaults committed anywhere in the city during Ethelbert's fair would be heard by a court comprised of the bishop's officers, and miscreants might be bundled off to the bishop's prison.[37] Assaults during regular markets held in Hereford would be presented before secular officials at the Court of Pie Powder overseen by the mayor or his appointed officials.[38]

Assault cases were also heard in the Hereford city quarter sessions, the right to hold which was granted to the citizens of Hereford by Richard II in 1399.[39] The charter of Richard II granted the mayor of Hereford 'the right to act as a justice of the peace for keeping the King's peace within the city as the justices of the county kept it for the shire.' Thus the mayor, along with other city JPs, could hear and determine cases of assault, but their jurisdiction did not extend to homicides.[40] In addition, the Hereford city quarter sessions had the right of gaol delivery granted by commission, and quarter sessions officials adjudicated on prisoners held for felony, excluding homicide.[41] Unfortunately, however, few Hereford gaol delivery records remain.[42] As in other parts of the shire, in Hereford, serious cases of assault could also be handled by the assizes, or could be prosecuted before judges in the Council in the Marches of Wales and the royal courts in Westminster.

Compared to the number of courts handling assault, far fewer were authorized to hear cases of homicide. Homicide cases were normally heard by the itinerant justices from Westminster during the assizes, and other homicide cases could be brought before judges in the Council in the Marches of Wales and King's Bench. Homicide cases usually came before Star Chamber in the guise of actions of riot or legal corruption in order to conform to the criteria of legal business eligible to be discussed by the King's Council.[43]

Unfortunately, no records of homicide cases heard before the Council in the Marches or assizes remain for Herefordshire during the early Tudor period, and indictments from the King's Bench for Herefordshire are formulaic, offering few discursive details.[44] Furthermore, no records from Herefordshire coroners, officials responsible for investigating unusual deaths, remain detailing homicide during our period.[45] Thus, we are forced to rely upon the homicide cases that occurred in the Star Chamber between 1485 and 1547. Admittedly, the homicide cases dealt with in this study offer a more extensive picture of elite attitudes towards violence than those of the more numerous commoners, but depositions of retainers of elite defendants may offer some insight into a commoner's perception of violence.

It is important to emphasize the fact that there were numerous courts within which inhabitants of early Tudor Herefordshire could bring a suit of assault, because overlapping jurisdictions offered complainants a multiplicity of strategic opportunities, though choices were more limited in cases of homicide. As Baker emphasizes, the criminal law at the time was

'governed by a combination of simple procedure and wide discretion.'[46] Such discretion allowed complainants tactical choices of whether to prosecute in a local court in which the jurors or officials might be intimate friends, or to take their case to a county venue, before the Council in the Marches, or one of several crown courts.

Sometimes local, county or regional courts were not particularly appealing to inhabitants of Herefordshire on account of anticipated bias or corruption. For instance, Robert Yonge complained in 1542 that his case could not be heard within the county because county officials who 'ar eyther kynn or allyed w[ith] all the gentilman w[ith]in the said counttey so labored and seduced the Juries that y[our] sayd subiect shewt and complaint could not be had,' and opted for trial before the Star Chamber.[47] Obtaining a fair and impartial trial in early modern England was difficult, and the aim of both complainant and defendant was to have the case heard before a court that was more favourably disposed toward their respective side.

The jurisdiction in which each case was heard is crucial to understanding information given in court narratives, as evidence was sometimes manufactured to suit legal requirements rather than actual occurrence. This is particularly true for suits brought to the Star Chamber, which was presided over by members of the King's Council.[48] The formal jurisdiction of the Star Chamber was to hear cases concerned with criminal misdemeanour (e.g. riot, perjury, forcible entry) and perversion of justice (e.g. corruption, maintenance, extortion).[49] However, several early Tudor inhabitants of Herefordshire used the Star Chamber as a venue to settle land disputes. These complainants employed a legal fiction, claiming that some sort of public disorder was committed *vi et armis*, in an attempt to influence the judges into believing that the case was within the scope of royal jurisdiction.[50] Thus, numerous Herefordshire cases in the Star Chamber deal more with land and titles than violence.[51] Even when actual physical violence can be proved, legal formalities and choice of court could influence the style and manner of evidence given.[52] With those caveats, let us turn to an analysis of assault in Herefordshire in 1485–1547.

ASSAULT IN HEREFORDSHIRE

A range of acts was encompassed within the legal category of assault during our time period, from a slap to being bludgeoned with weapons and left for dead. If an assault did not end in death, the law did not distinguish on the gravity of the attack, and it was classified as a misdemeanour.[53] Although the law at the time technically distinguished between assault, affray, and battery, in practice the distinctions between these acts collapsed.[54] For instance, Hereford court clerks used the terms 'assault,' 'affray' or 'assault and affray' interchangeably in their records.[55]

Within the city of Hereford during the period 1485-1547 all social classes and both genders committed assault. However, due to the formulaic nature of court rolls, bills and presentments within Hereford, we know very little about the context for many assault cases. A typical example is that of Thomas Davys and Robert Fyle who were both presented at a Hereford Law Day court in 1520 for 'affray and blode shede' upon each other.[56] Records from the Hereford city quarter sessions are similar, showing that Thomas Blys was presented 'for a fray on Hew Gedthe' in 1503.[57] No details or information about motives or reasons for the attacks are given in the majority of cases surviving in Hereford court rolls, and court rolls from Leominster, Abbey Dore and Yatton are just as skeletal.[58]

However, close analysis of the evidence suggests some important patterns. John Dwyer's statistical analysis of prosecuted offences in Hereford shows that violence in the city tended to occur between people of the same gender and similar economic standing.[59] In 75% of the surviving cases of female assault, the accused attacked another woman of like social and marital status, and out of 163 cases of male assault where social standing of both combatants could be determined, 122 men (75%) fought with others of like social and economic position.[60] The pattern breaks down with respect to the clergy. Churchmen were not exempt from pugilistic frays against their own, as two vicars choral of Hereford cathedral had to gain absolution for assaulting a fellow priest in 1510.[61] More often, however, clergy were the targets of attacks from secular inhabitants of Herefordshire.[62]

Patterns of punishment for assault in Hereford are also informative. Penalties for committing assault and other 'lesser crimes' in the early sixteenth century were not calculated to exclude offenders permanently but were designed to re-integrate malefactors into the wider community.[63] In moderating physical violence within Hereford, the court officials favoured pecuniary penalties proportional to the crime, a pattern which mirrors that of seventeenth-century Essex.[64] According to Dwyer, amercements for assaults and affrays varied according to a combination of factors (social standing, gender, ability to pay, and role in the fracas), with most offenders paying somewhere between 4d. to 10s.[65] For instance, local craftsmen David Griffiths and Thomas Lucas each received an 8d. fine for their brawl in 1502.[66] If only one party was found in default, and both parties in the fracas were of a similar social status, amercements rose considerably, from a minimum of 3s. 4d. to 6s. 8d., depending on the accused's financial resources.[67] For example, Roger Semondes, a freeman of Hereford, was found in default for a brawl against William Tromper, another freeman, in 1503. Semondes was fined 3s. 4d. whilst Tromper only had to pay 12d.[68]

For combatants living in excessively indigent circumstances, corporal punishment was substituted *in lieu* of a fine. Thus, when the court determined that Alice Walker, who attacked a certain Ellen in 1490, was too poor to amerce, her fine was commuted to a whipping,[69] suggesting a contemporary legal principle—that s/he who cannot pay with the purse must pay with the body. It is unknown where or how Walker's punishment was carried out, but contemporary records from London show that whippings could be held in a variety of venues (private or public) and with differences in severity.[70]

Dwyer also states that attacks in Hereford that crossed status or gender boundaries were heavily amerced by court officials.[71] For example, in 1509 the servants of John Tyler were assaulted by their master, John Tyler and his friend, Richard Gough. Both Tyler and Gough were of a higher socio-economic status than the servants and received stiff fines of 10 shillings each.[72] Cross-gender disputes also received higher fines. When John Dobson was presented for 'makyn of fray A pon Katryng Schalttyn and blde schedyn [blood shedding] A pon hyr' in 1509, he received a hefty 10s. fine for his actions.[73] Women in Hereford also attacked men, but fines levied on such female assailants, while much higher than if they had attacked another female, were lower than fines men received for assaulting women.[74] This distinction probably results from the fact that husbands were legally obligated to pay for the actions of their unruly wives, and that females were considered the frailer sex emotionally and physically and were thus not as able to restrain themselves as their male counterparts.[75]

Although narrative court records do not exist for many cases of assault in Hereford, the patterns of fines offer valuable insights into the attitudes of the city's elite towards violence. It is clear from the lower fines stipulated by the courts that violence committed between people

of the same gender and socio-economic status was deemed less reprehensible than violence which crossed either boundary. However, it is notable that fines for tampering with the city's water were far higher than even the most egregious inter-status assault, and that Hereford's citizens were far more likely to be fined for letting swine run loose than for fighting.[76] Thus, although Hereford court officials enforced a strict code on inter-status violence to reinforce political and economic control over Hereford's poorer citizens, regulatory offences involving water were deemed more important to preserving public well-being than was clamping down on violence, while stray animals took up most of the courts' time.

Where narrative court records regarding violence in Hereford survive, they are usually in the form of informations, which were allegations concerning all types of offences laid before magistrates in oral or written form by a single individual in order to initiate a criminal suit.[77] Such a procedure bypassed the normal presenting jury and was even encouraged by statute from the mid fifteenth century to combat the illicit granting of livery.[78] As informations were submitted by private citizens to more powerful members of the community, the evidence presented tends to reflect the 'informer' as a humble, law-abiding citizen, while casting a shadow of suspicion and guilt over the person 'informed' of.

William Hunt, a yeoman, appeared before Mayor George Honour and others of his council on 6 June 1514. Hunt testified that, among other outlandish statements, Phillip Morgan had 'seid to the persons in the kyng[es] geyle of the shere and also of the seid Citie "Be mery ye shalbe shortely all delyvered so that ye that be here for murther."'[79] Morgan is simultaneously portrayed as a usurper of the Hereford city council's jurisdiction over gaol delivery and justice, and as one who flouts the civic position and status of Hereford's elite. Finally, by ascribing an actual piece of inflammatory dialogue to Morgan, Hunt portrayed Morgan as an immediate threat to public security. A second example of the same technique can be found in an information from 1520 laid by seven prisoners from Byster's Gate gaol: Harry Felpote, John Bedowe, Thomas a Powell, John Duythe, Morris Morgan, Humphrey Hollande and Morris Semssone.[80] The fact that these men are incarcerated within Byster's Gate informs us that none of them was a freeman of the city, as freemen were entitled to imprisonment within the Boothall, the old Town Hall converted to a freeman's prison in 1490.[81] Thus, this information is a window into the attitudes of some of the lower classes of Hereford. Through their narrative these seven prisoners simultaneously informed and pressured the mayor to act on the seditious words and potential violent actions of a fellow prisoner, Hugh Detlare. Felpote and the others blackened Detlare's character by testifying that Detlare wanted to impeach the Mayor of 'hy tressone and of mordere and of extrorsyone.'[82] Such slanderous charges against the mayor alone might well excite his attention, but the prisoners also claimed that Detlare planned to 'a vantage the kynge by yow maystore Meyere and the maystors of thys Cettey to C [100] ponde and more' and that Detlare 'thynke to undo all the Cettey w[ith] hys sottoll lawe and falssete.'[83]

Furthermore, near the end of their information, the prisoners ascribed murderous intent to Detlare, which, if fulfilled, would reflect negatively on the mayor's social reputation. The prisoners claimed that their lives were in jeopardy and they needed protection:

> 'for we do not stonde In sauegarde of owr lyff for he ys redy to kyll wone or othere yn the howse evry daye for he care not for to kyll wone syynge that a wolde honge hym selffe twysse and therefore we wyll desire yow maysto[r] meyere yn the reuerrense of gode to locke a pone yt for ther wos neu[er] a wone that dyde Go[n] w[ith]yn the warde w[ith] owt he haue I feythe w[ith] them or theye wente owt.'[84]

Aside from the words of the narrative itself, the information laid by the Byster's Gate prisoners affords several other glimpses into early Tudor Hereford. In terms of authorship, it is unclear whether one of the inmates actually penned the information, as Hereford had several clerks and city constables of the peace, whose duty it was to assist in filing criminal complaints and one of whom may have acted as scribe.[85] However, the simple fact that even prisoners could lay an information to the mayor suggests that members of all social classes in Hereford were familiar with contemporary legal procedures and could use them to suit their aims.[86] On the other hand, that several prisoners were fearful of being slain by a fellow inmate informs us that the Hereford city gaol did not afford prisoners much protection from each other. Byster's Gate gaol, like other early Tudor prisons, appears to have been a draughty, dark, unsanitary place where prisoners co-habited within one or more stone cells with some restraints or shackles.[87] Such cramped, unsanitary living conditions may do much to explain the deaths of Robert Farneshyll, Henry Belle and James Whitney, three inmates of Byster's Gate, who died of consumption on 12 July 1540.[88]

Court records for assault committed outside the city of Hereford demonstrate that many interpersonal disputes in early modern England are better described as inter-household disputes.[89] Assaults outside of Hereford happened for several reasons, one of the most common being a dispute over land and the resources upon it. For instance, in 1528 the Bishop of Hereford, Charles Bothe, accused William Rudhale's men of attacking his servants in Bishop's Upton and carrying off cut timber from 100 'greate okes.'[90] Rudhale responded that his servants had not attacked the bishop's men but had rightfully gathered wood from land under his charge. He claimed that his servants had collected wood from oaks that were 'blowen down by a grete tompeste [tempest] of wind' and that it was the bishop's men who had harassed his tenants.[91] Other inter-household assaults during our period that arose from land disputes occurred in Sutton (1519) and Huntington (1538).[92]

Land was also a factor in a case of domestic violence laid before the Council in the Marches of Wales. In 1514, Agnes Baker, a widow of Bodenham, leased her lands and chattels to her son, Harry, with the agreement that he would oversee the husbandry and allow her to live off the surplus. Soon after the lease was finalized, Agnes claimed that Harry turned her out of her house and 'sore bete and hurte y[our] said oratrice, his naturall modre' insomuch that she lay in bed 'the space of V [five] wekes.'[93] She claimed that Harry also looted her property of animals and goods with the intent to sell them for profit, listing each animal or item taken with its attendant price. In his defence, Harry claimed that he was lawfully seised of the land and its chattels, and that his mother's bill was 'ffeyned of malis by the malicious counsel of on Davyd Baker', his kinsman, in order to 'put hym to vexacon and troble.'[94] It is clear that competition for land and resources could be keen even between different households within a particular family.

Debt was another cause of inter-household dispute in Herefordshire. For instance on 22 October 1526, Thomas Byrton the younger and James Howes of Much Cowarne were sent by Thomas Byrton the elder to collect unpaid rent money from William Downe who lived in Stoke Bliss. Downe assembled a defence force consisting of family, friends and servants and assaulted Byrton's two messengers in the highway using 'bowes arowes billies & sperys.' Thomas Byrton the younger was shot twice, one arrow 'did strike into the knene' and 'an nother arowe did strike into the body & brake oon of hys ribb[es].' Howes appears to have avoided any serious injury aside from a thrashing.[95]

Although Thomas Byrton the younger and James Howes were the injured parties, Thomas Byrton the elder, the head of house, filed and prosecuted the case, because he was the head of the household.[96] Sometimes violence between persons in Herefordshire evolved into long-standing inter-household disputes like that between the household of John Llan and that of Gryffyn Jones which periodically erupted in violence.[97]

Other household disputes in Herefordshire during our time period arise from different issues than debts or grudges. Some began with a perceived lack of proper social deference, like when Sir Thomas Cornwall, a knight, beat Richard Palmer and his wife with a 'white staff' within the parish church of Little Hereford on 7 September 1536 for refusing to acknowledge his higher social standing.[98] Some were part of kidnapping and extortion schemes, as members of the Herford household beat Thomas ap Harry and kidnapped his grandson and heir, William, to hold him for ransom.[99] And still others were part and parcel of cattle theft operations, as Thomas ap Rees discovered while driving his oxen from Preston to Hereford in 1531.[100] To add insult to injury, even though Thomas ap Rees was the victim in this affair, he claims that the incident has injured his 'gudd name and ffame' and hurt his business, as cattle merchants would no longer purchase his animals.[101]

Gauging the severity of violence in Herefordshire assault cases is difficult. Weapons in early Tudor Herefordshire, as in the rest of the country, were ubiquitous. Each person had access to instruments that could be used as weapons in an attack, from small, hand-held knives to bills used in farming to bows and arrows. Given that court clerks in Hereford tended to record cases of armed assaults, like Roger Draper's shooting of the mayor with two arrows in 1492, it may seem surprising that the overwhelming majority of presentments for assault in Hereford say nothing of weapons being used in quarrels.[102] In the absence of information, we must conclude either that the combatants within the city used no weapons at all, or that any injuries inflicted with weapons were so insignificant that they escaped mention in court rolls. Either way the conclusion is the same: Hereford's citizens used restraint while fighting.

Court narratives describing assaults outside of Hereford also reveal assailants acted with restraint. For instance, although Thomas Langston and his party were armed with swords, daggers and bills, they chose to beat Thomas Lynton rather than wound him with their weapons.[103] Moreover, while Sir Thomas Cornwall was armed with a sword, dagger and staff, he decided to beat the Palmers with his staff, demonstrating that Cornwall intended to punish rather than annihilate his targets.[104] Testimony from John Gomond confirms this, as the 10 men who assaulted him were armed with 'swords, bucklers, bows, arowes, staves and billys' between them, but they merely threw him from his land without wielding their weapons.[105]

HOMICIDE IN HEREFORDSHIRE

Homicide, like assault, encompassed a range of acts. Homicide committed with malice aforethought was considered murder, whereas unplanned homicide was deemed manslaughter.[106] In early Tudor England there was a three-fold classification of homicides which governed sentencing. For those involving premeditated malicious killing, the punishment was death and forfeiture of goods to the crown; for a homicide that was a first offence involving no malice aforethought, forfeiture of goods and chattels was common and for accidental or excusable killing, such as self-defence, pardons were meted out.[107] Pardons for homicide were usually specific grants of clemency from the sovereign to the accused, and Tudor monarchs used these tools of mercy with increasing sophistication to portray themselves

as benevolent rulers.[108] The central issue in obtaining a pardon for homicide was the intent of the accused, but judging the extent of premeditated malice in homicide cases was difficult, as opposing parties in homicide cases crafted their narratives to conform to one of the three distinctions the law held regarding homicide.

An excellent example is the case of Houssemann v. Abington brought before the Star Chamber in 1529.[109] In his bill of complaint, William Housseman claimed that his brother, Roger Houssemann, was killed by John Abington, son of Richard Abington of Brockhampton, with whom Roger was in service. William states that John 'wylfully and of malice p[re]tensed schott att hym w[ith] an arrowe and strok hym in the throtte by reason of which strok he dyed.' On the other hand, John Abington portrayed Roger's death as an accident. He stated that Roger had a bow and arrow in his hands while chasing Richard Abington's sheep out of a fallow field in Brockhampton. While running, Roger fell 'by misfortune upon the ende of the same arrowe and then and ther stroke hym self into the throyte with the same arrowe upon wiche stroke he incontyn[en]t dyed.'[110] From the extant records of this case, it is impossible to determine whether the death of Roger Housseman was accidental or not, but it is clear that both parties possessed knowledge, or garnered advice, concerning the legal distinctions of homicide and framed their narratives to achieve certain aims.

Homicides in Herefordshire happened for a variety of reasons, one of which was that an assault which was not necessarily intended to be lethal ended in the death of one of the combatants. For instance, Simon Holder and Lewis Goodman, a labourer from Sugwas, had physically quarrelled several times during the autumn of 1512. In October, Goodman attacked Holder with a ploughstaff, beating him so severely that he later perished from his injuries. The judges concluded that Goodman had acted with premeditated malice, and he was sentenced to death.[111] The facts that Goodman and Holder had a previous violent history, and that bludgeoning someone to death with a staff was likely to have entailed repeated blows, probably influenced the judges' decision. Another instance of an assault ending in a homicide happened in 1533, albeit with different results for the accused. Richard ap Richard, a tailor, slew Hugh Taylor with a sword during a fight in Oldford [unidentified]. Unlike Goodman, ap Richard was judged to have acted in self-defence without malicious intent and was pardoned.[112]

Another homicide case in Herefordshire stemmed from a kidnapping scheme gone awry. Thomas Barkley claimed that, acting under the direction of Thomas Somner, Henry Basset and Richard Crykham, both labourers from Ross, assaulted and kidnapped his father, William Barkley, on 23 August 1542. Barkley was spirited to Seyston castle [unidentified], where he was imprisoned in the castle dungeon under the 'costadye of one Rychard Baker keeper of the seid Castell of Seyston.' These men were awaiting a ransom for their prisoner when, on 19 December, William Barkley, due to 'herd and extreme Imprysonment then and there unto hym mynystryd dyed.'[113] Barkley claimed that his reason for bringing the suit before the Star Chamber was that, due to the circumstances surrounding his father's death, he was unable to use the common law to indict Somner and the others for homicide.[114] Realizing that the common law did not allow an action for homicides where the death occurred from apparently natural causes in prison (cold, hunger and disease),[115] Barkley, of his own volition, or with the aid of advice, opted to prosecute his case before a royal court that allowed for some redress.

Disputes over land and hunting rights in Herefordshire also ended in homicide. The case of Ameas *v*. Vernon (1524) reveals the context of one such dispute in northern Herefordshire.[116] During Easter Week 1523 a hunting party led by Thomas Vernon quarrelled with Thomas, William and Peter Ameas, under-keepers of the king's chase at Mocktree. The Ameas brothers

claimed that Vernon's party had been hunting on the king's land; whereas Vernon claimed that they hunted on land belonging to his kinsman. Heated words were exchanged, and Vernon assaulted Peter Ameas, breaking his bow over his head. Furthermore, John Baghe, servant to Vernon, deposed that the under-keepers threatened to shoot him 'through both sydes' if he was to ever return to their lands.[117] For this skirmish, Vernon was bound over by the Ameas brothers to 'be of good abering againste y[our] seid [the king's] dere and game fromthensforth' before the Council in the Marches of Wales.[118]

Over a year later, in December 1524, another hunting party led by Vernon wrangled with the Ameas brothers. According to John Ameas, keeper of the king's chase at Mocktree, his sons (Peter, Thomas and William) apprehended two servants of Thomas Vernon who poached deer from the king's land. Hearing some commotion, Vernon and the rest of his party rushed to the scene, and a tense situation ensued. Both parties nocked arrows, and another of Vernon's servants, Robert Ludlowe, had his bow fully 'drawen to the hed.' Fearing for his life, William Ameas shot Ludlowe with an arrow, killing him. [119] Thus, John Ameas's bill showed his son acting in self-defence, bolstering his plea for a royal pardon.

Vernon's version of Ludlowe's death is different. He claimed that the under-keepers illegally hunted deer on his land, located near the king's chase, and that he and his party hunted on land in which he had 'frie warrenne.' Furthermore, Vernon alleged that there was no stand-off between the two parties. Rather, he purported that Peter Ameas crept up on Robert Ludlowe and shot him in the back with 'p[re]pensed malice' with an arrow having a 'forkyd hed.'[120] To emphasise Ameas's murderous intent in his narrative, Vernon claimed that Ameas slew Robert Ludlowe in a secretive fashion and with a particularly lethal weapon.

Compared to records for male homicide in Herefordshire, documentation detailing women's involvement is sparse. Only one piece of evidence remains that definitively shows a female participant in homicide. In 1509 Elizabethe Selke was presented at the Hereford Tourn for assisting an unnamed servant of Phellep Kerme to drown Anne ap Pregyn. Apparently, Selke smote Pregyn from 'Wy bryge ynto [the] Wy' after which ap Pregyn drowned.[121] The reasons for the fray are unclear, and it is also unknown whether Pregyn drowned because she was unconscious from Selke's blows, or if she simply could not swim and was swept away by the swift current. However, a curious fact is that Selke was arraigned before the Hereford Tourn rather than the assizes. Selke's accessory role in the homicide appears to have been deemed accidental and unpremeditated by Hereford jurors, and rather than have her tried for life and limb, they punished her with a fine of 3s. 4d.[122] Selke's case highlights the amount of discretion early Tudor Hereford jurors wielded in deciding which jurisdiction to use when punishing violent crime.

Jurisdiction was also a significant factor for clergy who committed homicide, as, for most of our period, pleading benefit of clergy allowed these men to evade the punishment of secular law.[123] Clerics, like John Mores, a priest who killed one of his parishioners during a brawl in 1515, were apprehended and incarcerated by secular officials.[124] After pleading benefit of clergy imprisoned clerics were reclaimed by the bishop of Hereford and transferred to one of his several prisons within the county,[125] where, following penance, they were often allowed to return to their duties.[126] In turn, the crown formally pardoned the Bishop for his lax supervision over these malefactors.[127]

CONCLUSION

Analysis of legal records concerning violence in Herefordshire during the period 1485-1547 reveals fascinating snapshots of the county on several levels. First, it is apparent that all social classes within Herefordshire, including clergy, committed violence. However, this did not mean that violence within the county was indiscriminate or was considered the greatest social problem.

Motives for violence in Herefordshire revolved around five general areas which often overlapped: land, money, honour, reputation and grudges. These same motivations are present for different areas of England in later periods, suggesting that inhabitants of early Tudor Herefordshire were not dissimilar from people in the rest of England.[128] In addition, legal records show that attacks in Herefordshire were generally calculated to gain a certain end, sometimes justifiably in the defendant's mind, rather than assaulting someone for the sake of violence itself. When combatants in Herefordshire did assail one another, both parties displayed marked restraint in wielding weapons that might have caused serious injury.[129] Punishments for violence in Herefordshire, similar to those in seventeenth-century Essex, were usually pecuniary in nature and levied proportional to the social status of the offender and seriousness of offence.[130] Herefordshire officials also employed corporal and shaming punishments as alternatives to fines for indigent offenders and to educate the populous concerning acceptable behaviour.

Narrative sources also reveal that lethal and non-lethal violence outside of Hereford was often not interpersonal at all but rather inter-household. Assault or homicide often stemmed from competition between two households for land or resources. Moreover, even in cases where the patriarch of the family was not personally involved in the dispute, he was still responsible for defending the lives of those in his household along with its reputation in the legal arena. Thus, violence committed by one member of a household enveloped other members in the dispute. Such findings of inter-household dispute in Herefordshire parallel research into violence in early modern Cheshire.[131]

Inhabitants of early Tudor Herefordshire also exhibited a high level of legal consciousness. Although there were myriad jurisdictions in Herefordshire, inhabitants of Herefordshire, particularly the clergy, displayed impressive knowledge of how to manipulate them to their advantage. Moreover, discretion wielded by local jurors in deciding in which jurisdiction to prosecute a case reveals intimate local knowledge of wrongdoing, calculated decisions on how to proceed, and similarities with the legal discretion used by jurors in Kent in later periods.[132]

In sum, the traditional view of the Welsh Marches and the border shire counties as being lawless lands inhabited by culturally degenerate people fits uneasily with the picture provided by archives concerning early Tudor Herefordshire. Violence in Herefordshire was influenced by relationships, economic considerations, reputation and honour, factors which shaped violence in many areas of England. Before any solid conclusions can be made concerning violence in the Marches as a whole, more research is needed; this study is merely a beginning.

ACKNOWLEDGEMENTS

First, I wish to thank Dr. Martin Ingram for his incisive comments, penetrating questions, and general guidance. Secondly, the staff of the Herefordshire Record Office, particularly Ms. Sue Hubbard, who provided assistance by directing me to the appropriate primary and secondary

sources held in that repository. One of these secondary sources, the Ph.D. dissertation of John Dwyer dealing with social regulation in Hereford from 1470-1610, deserves special mention. Dwyer's excellent distillation of early modern Hereford's primary legal documents was an invaluable source for this article, and other researchers interested in Hereford during this period will be richly rewarded by thoroughly examining Dwyer's work. Thirdly, the staff of The National Archives deserves praise for handling my extensive requests for documents and providing them in timely fashion. Fourthly, I owe a great debt to one of my relatives in Herefordshire, Polly Rubery, who opened up her home, head and heart to me during my repeated research trips to the county.

ABBREVIATION AND CONVENTIONS

Place of publication of all books is London, unless otherwise specified. Original spelling of personal names in the records has been retained.

C	Court of Chancery
CPR	*Calendar of the Patent Rolls Preserved in the Public Record Office*
HRO	Herefordshire Record Office
JBAA	*Journal of the British Archaeological Association*
KB	Court of King's Bench
LPFD	*Letters and Papers, Foreign and Domestic*
TNA	The National Archives, Kew, London
STAC	Court of Star Chamber
TWNFC	*Transactions of the Woolhope Naturalists' Field Club*
WHR	*Welsh History Review*

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[15] J. A. Sharpe, *Crime in Early Modern England* (1999), ch. 1-3; J. S. Cockburn, 'Early-modern Assize Records as Historical Evidence,' *Journal of the Society of Archivists* 5 (1975), pp.215-231; S. D. Amussen, 'Punishment, Discipline, and Power: The Social Meanings of Violence in Early Modern England,' *Journal of British Studies* 34 (1995), pp.32-34; M. Gaskill, 'Reporting Murder: Fiction in the Archives in Early Modern England,' *Social History* 23 (1998), pp.1-30; J. S. Cockburn, 'Patterns of Violence in English Society: Homicide in Kent 1560-1985,' *Past and Present* 130 (1991), pp.70-79, 88.

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[17] For instance, the common law accepted that a husband in early modern England could physically discipline his wife. See R. Houlbrooke, *The English Family 1450-1700* (1984), p.117; Amussen (1995), *op. cit.* in note 15, pp.13-4; For legitimate uses of non-lethal violence by the crown see Amussen (1995), *op. cit.* in note 15, pp.7-12.

[18] J. P. Dwyer, ' "As Wee May Live in Peace and Quiettnes": Regulation in the Age of Reformation: Hereford, 1470-1610' (Colorado Univ. Ph.D. dissertation) (2001), table A 2.2, p.474.

[19] For those decades where more consistent runs exist, often only one of the two annual sittings is extant, and in those sittings that have survived, not all returns for each Hereford ward are present. Thus, even for well-documented decades we are left with records for approximately half of all prosecuted crime in Hereford during those ten years. See HRO, BG 11/5 (Hereford city Quarter Sessions 1475-1557); HRO, BG 11/4 (Hereford Tourn 1441-1558); HRO, BG 11/3 (Hereford Law Day 1478-1557); HRO, BG 11/2 (Hereford Mayor's Court 1435-1532).

[20] Sharpe (1999), *op. cit.* in note 15, ch. 3; Cockburn (1991), *op. cit.* in note 15, pp.70-106; L. Smith, 'Disputes and Settlements in Medieval Wales: The Role of Arbitration,' *English Historical Review* 146 (1991), pp.. 835-860; Gaskill (1998), *op. cit.* in note 15, pp.1-30.

[21] Records survive from 82 different murder cases heard before the Star Chamber between 1485-1547. Of these, 3 cases originated in Herefordshire. The other 79 murder cases originated in the following counties (listed in descending order): 10 from Cheshire; 8 from Shropshire; 6 each from Middlesex, Glamorgan, and Yorkshire; 4 from Staffordshire; 3 each from Norfolk, Essex, Carmarthenshire, Lincolnshire, and Cornwall; 2 each from Gloucestershire and Derbyshire; and 1 each from Durham, Warwickshire, Dorset, Denbighshire, Suffolk, Huntingdonshire, Devonshire, Merionethshire, Kent, Oxfordshire, Flintshire, Hampshire, Northamptonshire, and Somersetshire. The remaining 6 cases originated in unspecified counties.
See TNA online catalogue at http://www.nationalarchives.gov.uk/catalogue/search.asp. Word or Phrase: 'murder,' Year Range: 1485-1547, Deparment or Series Code: STAC.

Unsurprisingly, extant records for assault cases heard in the Star Chamber during the reigns of Henry VII and Henry VIII far outnumber those for murder. 839 different cases of assault were heard during the period 1485-1547. Of these, 12 cases originated in Herefordshire. The other 827 cases originated in the following counties (listed in descending order): 88 from Cornwall; 54 from Yorkshire; 53 from Staffordshire; 50 from Lincolnshire; 48 from Devonshire; 43 from Middlesex; 35 from Somersetshire; 30 from Cheshire; 29 from Nottinghamshire; 28 from Norfolk; 26 from Gloucestershire; 25 from Shropshire; 24 each from Kent and Suffolk; 21 each from Derbyshire and Wiltshire; 19 from Essex; 17 from Oxfordshire; 16 each from Warwickshire and Leicestershire; 15 from Hampshire; 14 from Dorset; 13 each from Surrey and Cambridgeshire; 10 each from Northamptonshire and Sussex; 9 from Berkshire; 8 from Buckinghamshire; 7 each from Worcestershire and Hertfordshire; 6 each from Huntingdonshire and Cumberland; 5 from Monmouthshire; 4 each from Denbighshire, Bedfordshire, Westmorland, and Glamorgan; 3 each from Rutland, Lancashire, and Radnorshire; 2 each from Northumberland and Angelsey; 1 each from Pembrokeshire, Carmarthenshire, Merionethshire, and Jersey. The remaining 25 assault cases originated in unspecified counties. See TNA online catlaogue at http://www.nationalarchives.gov.uk/catalogue/search.asp. Word or Phrase: 'assault,' Year Range: 1485-1547, Department or Series Code: STAC.

[22] M. Gaskill, *Crime and Mentalities in Early Modern England* (2000), p.24; J. A. Guy, *The Court of Star Chamber and its Records to the Reign of Elizabeth I* (1985), p.29.

[23] *The Phillimore Atlas and Index of Parish Registers*, ed. C. R. Humphery-Smith (1995), map 15.

[24] *Registrum Ricardi Mayew, Episcopi Herefordensis. A. D. 1504-1516*, ed. A. T. Bannister (1921), pp.65-7, 109-110.

[25] The lordships of Wigmore, Stapleton, and Lugharness became the hundred of Wigmore. The lordship of Ewyas Lacy became the hundred of Ewyas Lacy, and the lordship of Ewyas Harold was grafted into the hundred of Webtree. The lordships of Huntingdon, Clifford, Whitney, Eardisley, and Winforton became the hundred of Huntingdon. See J. Duncumb, *Collections towards the History and Antiquities of the County of Hereford*, vol. i, reprinted (1996), p.100.

[26] This percentage was calculated using the acreage figures for the hundreds of Herefordshire found in *The National Gazetteer of Great Britain and Ireland* (1868), as transcribed by C. Hinson in 2003. This document is available at:

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[29] Wrigley and Schofield's work offers little insight into Herefordshire's population during our time period as only six parish registers out of 222 are included and no trends appear evident. See E. A. Wrigley & R. S. Schofield, *The Population History of England 1541-1871* (1981), p.41. The recent publication of M. A. Faraday, ed., *Herefordshire taxes in the reign of Henry VIII*, WNFC 2005, allows a comparison of townships within the county.
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[38] Jancey (1989), *op. cit.* in note 34, p.31.
[39] *Ibid.*, pp.20, 31.
[40] *Ibid.*
[41] Morgan (1942), *op. cit.* in note 34, p.31; Jancey (1989), *op. cit.* in note 34, p.31.
[42] HRO, BG 11/8 (Hereford Gaol Delivery Sessions 1509-1542).
[43] Guy (1985), *op. cit.* in note 22, pp.52-3. See for example, TNA, STAC 2/17/288, *op. cit.* note 32.
[44] For example King's Bench Easter term files for Herefordshire in 1516 contain four indictments, all of which contain formulaic descriptions of violent acts (e.g. *magna riota et routa*) but little else beyond names of the accused and victim along with place and date of the offense. Cockburn has shown that even these meagre details may often be inaccurate. See TNA, KB 9/36 (King's Bench 31 March 1516); Cockburn (1975), *op. cit.* in note 15, pp.215-231.
[45] Coroner's records remain only for three men who succumbed to gaol fever, a man who drowned, another man who perished in a ploughing accident, and a man who 'fell backwards off a mowe of oats and broke his neck after playfully jumping on Sybil Carlesse in Edward Wilbrame's barn' on 6 August 1540. See HRO, BG 11/7 (Hereford Coroner's Records 1509-1576, *ff*1-5).
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[84] *Ibid.*
[85] Dwyer (2001), *op. cit.* in note 18, p.69.
[86] There is evidence that citizens of Hereford were acutely aware of the legal rights, customs and privileges from the 13th century. See Black and Hills, 'The Hereford Municipal Records and the Customs of Hereford', p.481.
[87] R. F. Hunnisett, *The Medieval Coroner* (1961), p.36; Morgan, 'Local Government in Hereford', *op. cit.* in note 34, p.51; Dwyer (2001) *op. cit.* in note 18, p.34.
[88] HRO, BG 11/7 (*f*3).
[89] Walker, *op. cit.* in note 52, *Crime, Gender and Social Order*, pp.9-13.
[90] TNA, STAC 2/30/144 (Star Chamber Proceedings, Henry VIII, Bothe v. Rudhale, 1528).
[91] *Ibid.*
[92] TNA, STAC 2/35/56 (Star Chamber Proceedings, Henry VIII, Lynton v. Langston *et al*., 1519); TNA, STAC 2/35/71 (Star Chamber Proceedings, Henry VIII, Llan v. Jones, 1538).
[93] HRO, BG 11/29 (Correspondence with Council in the Marches 1512-1529, 1514).
[94] *Ibid.*
[95] TNA, STAC 2/7/222.
[96] *Ibid.*
[97] TNA, STAC 2/35/71; For another example of an extended inter-household dispute see TNA, STAC 2/23/31 (Star Chamber Proceedings, Henry VIII, Watkyns v. Croft, 1547).

[98] TNA, STAC 2/29/52 (Star Chamber Proceedings, Henry VIII, Palmer v. Cornwall, 1536).
[99] TNA, STAC 2/30/45 (Star Chamber Proceedings, Henry VIII, ap Harry v. Herford *et* al., undated); TNA, STAC 2/20/305 (Star Chamber Proceedings, Henry VIII, Aberhale v. ap Guillim, 1526).
[100] TNA, STAC 2/27/78 (Star Chamber Proceedings, Henry VIII, ap Rees v. Taylor *et al*., 1531).
[101] *Ibid.*
[102] HRO, BG 11/17/2 (*fol.*28).
[103] TNA, STAC 2/35/56 (Star Chamber Proceedings, Henry VIII, Lynton v. Langston *et al*., 1520).
[104] TNA, STAC 2/29/52.
[105] TNA, STAC 2/16/172.
[106] Walker, *Crime, Gender and Social Order*, *op. cit.* in note 52,p.115.
[107] Baker, *Introduction to English Legal History*, *op. cit.* in note 46, p.530. For an example of a pardon granted for self-defense, see *CPR: Henry VII 1485-1509*, vol. i (1914), p.340.
[108] For an in-depth discussion of general and specific pardons see K. J. Kesselring, *Mercy and Authority in the Tudor State* (Cambridge, 2003), ch. 3.
[109] TNA, STAC 2/19/168 (Star Chamber Proceedings, Henry VIII, Housseman v. Abington, 1529).
[110] *Ibid.*
[111] TNA, C 260/60/29 (Chancery Proceedings, Henry VIII, Hereford Gaol Delivery, 1512).
[112] TNA, C 260/159/48 (Chancery Proceedings, Henry VIII, Hereford Gaol Delivery, 1533); For another example see TNA, C 260/102/43 (Chancery Proceedings, Henry VIII, Hereford Gaol Delivery, 1531).
[113] TNA, STAC 2/3/10 (Star Chamber Proceedings, Henry VIII, Barkley v. Somner *et al*.,1542).
[114] *Ibid.*
[115] Hunnisett, *Medieval Coroner*, *op. cit.* in note 87, p.36; see also Baker, *Oxford History of the Laws of England*, *op. cit.* in note 32, p.512.
[116] TNA, STAC 2/1/156 (Star Chamber Proceedings, Henry VIII, Ameas v. Vernon, 1524).
[117] TNA, STAC 2/1/157 (Star Chamber Proceedings, Henry VIII, Ameas v. Vernon, 1524).
[118] TNA, STAC 2/1/154 (Star Chamber Proceedings, Henry VIII, Ameas v. Vernon, 1524).
[119] *Ibid.*
[120] TNA, STAC 2/1/155 (Star Chamber Proceedings, Henry VIII, Ameas v. Vernon, 1524).
[121] HRO, BG 11/4 (1509).
[122] *Ibid.*
[123] In 1512, parliamentary statute temporarily suspended benefit of clergy in cases of murder, and another statute in 1536 enacted that clerks should be tried as laymen, effectively removed benefit of clergy from ecclesiastical governance. See Baker, *Oxford History of the Laws of England*, *op. cit.* in note 32, pp.537-540.
[124] *Registrum Ricardi Mayew*, pp.218-220.
[125] The Bishop of Hereford had at least three prisons in Herefordshire: one in Bromyard, another in Hereford, and a third at Ross. See P. Williams, *Bromyard: Minster, Manor and Town*, privately published 1987, pp.13-4; Phillips, *Hereford:The City and its People*, *op. cit.* in note 36, pp.83-5; K. Brookes, *Historical Aspects of Ross* (Hereford, 2000), *op. cit.* in note 36, pp.111-6.
[126] *Registrum Ricardi Mayew*, *pp.*218-220; *Registrum Caroli Bothe*, pp.271-3; Sometimes clergy convicted of homicide in Herefordshire were not even forced to obtain absolution before continuing their ministrations. See *Registrum Caroli Bothe*, pp.126-7, 241.
[127] *Registrum Thome Myllyng*, pp.iv, 151-3; *CPR, Henry VII 1485-1509*, vol. ii (1916), p.154.
[128] Sharpe, *Crime in Seventeenth-Century England*, *op. cit.* in note 16, p.122; A. Macfarlane, *Justice and the Mare's Ale* (1981), p.187; Walker, *Crime, Gender and Social Order*, *op. cit.* in note 52, pp.33-4.
[129] Macfarlane, *Justice and the Mare's Ale*, *op. cit.* in note 129, pp.186; Walker, *Crime, Gender and Social Order*, *op. cit.* in note 52, p.29.
[130] Sharpe, *Crime in Seventeenth-Century England*, *op. cit.* in note 16, pp.118-9.
[131] Walker, *Crime, Gender and Social Order*, *op. cit.* in note 52, pp.9-13.
[132] Cockburn, '*Patterns of Violence in English Society*', *op. cit.* in note 15, pp.93-98.

Paper received November 2005

Herefordshire farmsteads in their agrarian context

By JOAN E. GRUNDY

The survival of traditional farm buildings is seriously threatened, as structural and technological changes over the last half century mean that adaptation to continuing farming use is no longer possible. The paper outlines factors affecting the development and change of farmsteads from the late 16th to the 20th century and considers the reasons for continuity of site. Four contrasting building types—the barn, sheepcot, hop kiln and Dutch barn—are then examined, showing how adaptability, specialisation, and agrarian change influenced the evolution and survival of different functional units within the farmstead as a whole.[1]

Traditional farm buildings and their future are major concerns of farmers and landowners, and also of planners, environmentalists and agricultural historians.

Over the last 20 years the rate of redundancy and conversion has gathered pace, due partly to agricultural change, but also to demand for additional housing in the countryside. In 1997 the house and outbuildings accounted for 27% of the value of a farm; by the second half of 2002 this had increased to 52%. Residential conversion is not appropriate to every type of farm building, nor to every location; there is therefore an urgent need to find economic uses for these buildings, most of which are in private ownership.

WHY TRADITIONAL FARM BUILDINGS ARE IMPORTANT

1. Farm buildings are one of the more important means by which we recognise local identity and regional differences, that is, where we are in the country. Their building materials reflect regional geology, (which is related to landscape) and their functions reflect regional specialisation of enterprises (which is related to soil type and climate), e.g. livestock, cereals, hops, poultry, cider and horticultural crops. Their landscape value confers significant economic advantage—60% or more of tourism employment is generated by landscape quality.

2. In the same way that hedgerows, fields, and plough ridges are fossilised evidence of former farming systems, traditional farm buildings preserve evidence of agricultural change, and of the evolution of settlement patterns. Farm buildings, particularly large monastic or estate barns, have long been studied mainly as architecture, or as examples of constructional techniques. They are also eloquent testimony to former farming activities, often providing significant evidence not otherwise available of, for example, the day-to-day routines of stockmen, obsolete methods of crop production, storage and processing, and the life and work of farming families. The effects of changes such as enclosure, of technological innovation, and of the changing balance of land use and of farming enterprises may also be reflected in the buildings.

Landscape value and regional distinctiveness may have more immediate appeal to the general public, and may be the way to gain access to an equitable share of conservation funding, but perhaps evidence of former farming activities and of settlement patterns may prove to be their more permanent legacy.

Figure 1. Farm buildings at Black Hall, Kings Pyon in 1973, now demolished. A farmstead of wide date range, using a variety of building materials. Timbers from the 4-bay cruck barn (extreme right) had a felling date range of 1440-1476 (*Vernacular Architecture*, 31, p.115.). The lean-to on the left of the porch housed an engine for driving barn machinery. The Dutch barn (extreme left) is *c*.1912

3. Such evidence as farm buildings provide is fast disappearing due to the dramatic agrarian changes of the last 50 years, which place farm buildings under severe threat. A study of redundant farm buildings, undertaken in 1985, revealed that all the modern buildings were in current use, but 10% of traditional ones were not used. If buildings used for 'general storage' are included, nearly 25% were unused.[2] There are many reasons why buildings fall into disuse.[3]

a) **Obsolescence.**

- they no longer have a function: the threshing bay for flail threshing, stabling for farm horses; abandoned enterprises such as cider or hops—these lead to the loss of individual buildings;
- farm amalgamations centralise operations on one holding—and entire farmsteads no longer have a purpose;

b) **Specialisation.** Adaptation in response to changing circumstances is no longer an option, due to:

- the need for specialised buildings;
- the need for higher standards of temperature control, ventilation, animal welfare, hygiene, health and safety;
- mechanical handling of materials, especially bulk handling, which requires tractor and machinery access to buildings. Restrictions such as low eaves height and low lofts are common, but most restricting are narrow doorways, nearly half of which are difficult

to enlarge due to the construction or style of the building. The largest doorways noted in the 1985 study averaged 2 m. wide and 2.4 m. high. At that time, a tractor required a doorway 2.5 m. square; a combine harvester a 4 m. square doorway.[4]

c) **Inappropriate siting.** Because a farmstead is an integrated working unit, the bigger new building needs to be where the old one stands, thus the upgrading of facilities is impeded. In combination with the fact that the farmhouse usually adjoins the yard, continuity of activity on the same site tends to be perpetuated, which works against the survival of early buildings.

d) **The unpredictable.** In some countries acts of terrorism and natural disasters take their toll. In the UK, farm buildings suffered severely from the clean-up after the outbreak of foot and mouth disease in 2001. In many areas, wooden fittings were removed and burned, cobbled floors and causeways concreted over, and rubble or clay walled buildings demolished, as they could not withstand power washing. In Herefordshire, archaeologists were able to recommended misting and fumigation to protect timber framed buildings from disinfectant damage. [5]

The present paper provides a framework for investigating farmsteads, with the aim of interpreting and understanding the development of the county's stock of farm buildings. Illustrative examples are drawn mainly from the mixed farming region of the Vale of Hereford and from the eastern fruit and hop growing area. The study of surviving buildings, and of documents and maps, can illuminate the evolution of a farmstead, but uneven quality and quantity of evidence and its haphazard survival over time provide only a fragmentary picture. Documentary evidence also has a bias towards the landlord's viewpoint, and earlier records in particular relate to crown and ecclesiastical estates. The survival of standing evidence tends to favour larger farms and larger estates, and the more recent buildings of durable materials. There is also differential survival of building types, due in part to the timing of changes in the balance of farming enterprises.

PART I. DEVELOPMENT OF THE FARMSTEAD AS A WHOLE[6]

It is necessary to study the farmstead as a whole in order to understand how the buildings functioned as the fixed equipment of the farming business. Factors influencing the updating and renewal of farmsteads include the landholding infrastructure within which the buildings exist, their physical setting, the specialities of local farming and the way that farmers and landowners reacted to changing political and economic circumstances.

The late 16th to mid 17th centuries: the legacy of the medieval period

The organisation of farmland influenced the numbers and types of buildings required. Over much of the county the landholding system was inherited from the medieval period, farmland being organised as the manor farm and its satellite holdings. Surviving documentary descriptions tend to be of single farms of some importance, but some manorial surveys list the buildings of the demesne (the home farm) and of the tenants' holdings. Today, of course, we can see only surviving buildings, not the holding as it was at the time of the survey—there may be remnants of the earlier farmstead, or there may be nothing. In 1985 the average number of traditional buildings (of all periods) recorded on mixed farms was 4.42, and on arable farms 2.75.[7]

Estate surveys of the late 16th and mid 17th centuries have been located for three Herefordshire manors (Table 1). These documents offer a number of advantages: firstly, they are dated; secondly, they provide a list of building types and functions, using the terminology of the time; and thirdly, they make a distinction between farms of different size and status, thereby providing clues to the interpretation of other documents.

The three demesne farms, of between 174 and 228 acres, each have the status symbol of a dovecot, and up to eight buildings of different functions.[8] Details of the buildings at Monksbury Court, Yarkhill, are given in Fig. 2 (p. 79). The total acreage of the 32 tenanted farms is vague—possibly 15 to 48 acres. However, the arable land is carefully documented—in Ullingswick as both yardlands and acres.[9] These small farms have two to three buildings; all have a barn and half have cattle housing. The customs of the manor allowed tenants to take stone and timber from their holdings for their own use.[10]

Comparing data for the two dates, there is a tentative possibility of more livestock housing and fodder storage by the mid 17th century, but it must not be forgotten that a barn may silently include animal housing. The single malt house is located on the only farm growing hops, and there is evidence of cider making by tenants.

Manor & Date:	***Acton Beauchamp 1594***		***Monkhide & Ullingswick 1649***	
	Demesne	Tenants	Demesne	Tenants
No. of holdings with:				
barn	1	13	2	17
stable	1	2	2	6
ox-, cow-, beast- house	1	1	2	9
sheepcot			1	6
dovehouse, pigeon house	1		2	
wainhouse			1	1
must mill house				2
granary			1	
malt house			1	
hay house				1
yard, court, backside			2	1
curtilage	1	14		
Total no. of holdings:	**1**	**15**	**2**	**17**

Table 1. Farm buildings with named functions on three manors, late 16th to mid 17th centuries[11]

Note that: 1. the two sets of records are not comparable and are tabulated separately and 2. ‘curtilage’ appears to be different from ‘yard, court, backside’ which can imply cattle yards.

Glebe terriers, which are schedules of the property of the parish church, also cast light on the buildings of holdings of varying size. Although the detail varies from county to county and from parish to parish, these documents record the buildings, land and tithes of a rectory or vicarage. In Herefordshire, glebe terriers have almost countywide coverage, most are dated, and about 70% of those studied describe the farm buildings of the glebe holding in varying detail. Tables 2 and 3 analyse evidence from the late 16th century to 1640.[12]

No. of named buildings per farmstead	*0*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*10*	*Total*
No of holdings	4	20	13	18	6	4	1	1	2	1	70

Table 2. Glebe terriers before 1640: number of buildings per farmstead

	number	***% of total records***
Records which name:		
barn	64	91
stable	26	37
beast- cattle- cow- ox- house, shippen	20	29
sheep -cote -cott -house -pinne	14	20
swine	3	
poultry housing	1	
dove-, pigeon- house	12	17
wainhouse	3	
dairy	2	
must mill	1	
host [oast] house, kiln	2	
poultry sheere [lean-to]	3	
outhouses, edifices & buildings	15	21
fold, yard, backside	21	30
Total number of records:	70	

Table 3. Glebe terriers before 1640: farm buildings with named function

Seventy percent of records named no more than three building types. Almost all have a barn, and almost a third have a barn only (which may incorporate animal housing). Nine farms had two barns; two farms had three. Compared with the estate records in Table 1, glebe holdings reflected the parson's status with a higher proportion of stables and pigeon houses. There was also a greater range of specialised buildings, especially on larger holdings, whilst foldyards boosted cattle accommodation on smaller farms.

Clearly, the majority of glebe holdings had similar types and numbers of farm buildings to farms on the manorial estates (see Table 1), but many glebe terriers provide much fuller details. For example, there is a clear hierarchy of materials, tiles (probably stone) being used to roof the more important or expensive buildings, and thatch on lesser ones. There are important clues about the size and layout of individual buildings and the farmstead as a whole (Table 4).

Bacton	no date	Tythinge barne, 3 bayes with a little sheere [lean-to] adioyninge to the barne
Dyndor	no date	barne, sheepcot, fold lying together
Kings Pyon	1607	little barn 2 bayes with beaste house at S end, sheepe coate two bayes, fould
Kington	1607	stable lying on the backside, thatched Barn of three roames [bays]
Winforton	1614	one fayre tyled Barne five bayes one beasthouse thatched, fold belonging to the said barn and beasthouse and a litle cort
Whitbourne[13]	1615	a kitchin with a kilne and two ovens in it… a little sheyre at W end thereof for poultrye… a milke house… a barne of five bayes, with a stable at the east end. an oxe house of three baies, with twoo stalles at the ende to tye cattell and a place betweene for the fodder. a wayne house
Ledbury	1616	stable 1 baye or roome; deye house, 2 bayes or roomes, pigeon house with wayne house, 2 barnes 7 bayes or roomes, 1 oxhouse 2 bayes or roomes with a fold
Hereford St. Martin	1617	barn, 6 bayes or Roomes with fould adoiyninge
Canon Pyon	1617 (1709 copy)	a Stable clad with tyle, A Barne three roomes, One other roome for cattle, Two roomes for sheep, One roome for swine, all covered with straw

Table 4. Glebe terriers before 1640: buildings, materials and layout of farmsteads

Other estate records may provide additional insights. In particular, the accounts of St. Katherine's Hospital, Ledbury describe adding a lean-to oxhouse to the barn, and the use of earth-fast posts for a new wain house.[14]

1585 'making a range in thoxe howse'

1586 [September/October] 'squaringe the tymber to the make a newe oxe howse at the north end of the barne'; 'Carpenter for xiij dayes woorke in making a newe sheere at the Northend of the barne to tye thoxen in'; 'Carpenter v dayes worke aboute the Shere aforesaid' 'hinges and hookes to the newe shere.'

1588 [Jan] 'the Tyler, and his man for three dayes tyling over the Barne' In February, stone tiles are specified.

1589 erecting a new wayne howse: 'digginge pittes or hoolles to sett the postes of the said wayne howse in'; nail on laths; 'vij thrave of Strawe to cover the said waine howse'; thatching.

Examination of estate records and glebe terriers gives valuable insights into Herefordshire farm buildings of the late 16th and early 17th centuries. They indicate the types of buildings most farmers required, and how many there were on both large and small holdings. There are clues about farmstead layout, and about farm livestock and their housing. Estate maps of the time are a good source of farmstead plans in the 17th and 18th centuries and, because of the continuity of site resulting from regular upgrading, renewal and replacement, may recall an even earlier layout.[15]

The 18th century: reorganisation and restructuring of land and farms

The disruption and insecurity caused by the Civil War in the mid 17th century created the climate for change. Exiled gentry absorbed innovative continental ideas, especially relating to cattle and cider fruit, and impoverished families who had supported the wrong side during the war were forced to sell their land. The sequestering and subsequent restoration of royal and ecclesiastical estates created an uncertain and volatile land market, but demonstrated the opportunities presented by post-war reconstruction. Herefordshire was attractive to outside investors as archaic leases offered opportunities to reorganise land, maximise rental income and create a gentleman's estate.

The infrastructure of a large holding associated with a group of smaller ones remained influential. There is evidence of survival of copyhold and life leases until the mid to late 18th century, and even into the 19th century where remnants of the open field system lingered. However, landlords increasingly favoured leasehold tenure during the mid to late 18th century. New landlords in particular set about restructuring and modernising their estates as old forms of lease came up for renewal.

A greater survival rate of documents and maps during the 18th century allows more insight into the activities of the larger estates, but over the county as a whole there was an uneven distribution of activity, with advancement in some sectors of farming or on certain estates, and stagnation in others. The Moccas estate is a well-documented example, whose owner from 1771, Sir George Cornewall, had banking interests in London and a sugar plantation in Grenada in the West Indies. The Herefordshire estate was consolidated by exchanges and amalgamations as well as by buying fragmented parcels of land from other landowners, and its size increased from 3875 acres in 1772 to 7000 acres in 1818. In addition, farm holdings were rationalised, creating three farms of more than 500 acres and reducing the number of smallholdings (Table 5).[16]

Date:	***1772***		***1815***	
Acres	***no. of holdings***	***%***	***no. of holdings***	***%***
500+	0		3	11
300-499	3	12	0	
200-299	2	8	8	30
100-199	4	16	9	33
50-99	3	12	3	11
20-49	8	32	2	7.5
10-19	5	20	2	7.5
Total	**25**	**100**	**27**	**100**

Table 5. Moccas estate, size of tenanted holdings. Source: see note [17]

Similarly, as the Bredenbury Estate was being enlarged between 1777 and 1831, internal fences were realigned, fields were amalgamated, and cottages and buildings pulled down.[18] Having rationalised holdings, landowners wished to attract progressive tenants, and farm

buildings became of greater concern. Some clues to their thinking survive in the reports of Guy's Hospital Trustees, in 1729, before the purchase of this estate of almost 10,000 acres, and afterwards in 1754. Dilapidation and excessive numbers of buildings were noted, and the Trustees had clear ideas about the need for reorganisation of farms, and the need for fewer and better buildings.

1729 'As to the Farms the Buildings are abundant and far beyond what we ever saw in any Countrey.' (The Hospital owned land in Essex and Lincolnshire also.) 'It is to be noted that the Buildings on the farms about Ross are tho' bad, not quite so numerous, as those about Hereford and the Farmers tend pretty much to Ricks and Stacks which about Hereford they seem to know nothing of, save at Bunshill Farm, but even where they have gott into Stacking the Tennants seem Tenacious of their Buildings...'

On the larger farms, there were too many buildings for current farming needs, and ricks could replace unnecessary barns; the numerous small farms and tenements resulted in duplication of similar buildings on uneconomic holdings. Not only did they intend to consolidate holdings, the buildings were to be rationalised and updated, where possible with more durable materials, in particular, stone, which could be quarried on site.

1754 'The houses and Outhouses on the several farms are for the most part very numerous and old, Many of the houses have been Gentlemens Seats, and consequently are too large for the general run of Husbandmen who in this Country are not the most wealthy…it will still require further consultation and fresh estimates what particular buildings may be reduced or taken away – what repaired – and what must be pulled down and entirely rebuilt.' Another recommendation was to amalgamate the land of two holdings, or to add other land in the parish, 'that the quantity of buildings may be lessened', and again: '...the buildings are so many, that we think it sho[d] have other lands laid to it...'

Regarding construction, '...there are stone quarries on most of the farms, wch afford the best materials for building for little more than the trouble of digging and haling, so that it will deserve particular attention when any buildings are to be erected or repaired that they be used in the covering as well as in the walls and foundations and for pillars to support Cartlodges & other outhouses, by wch means the first expence will be less, the timber will be preserved for other uses & the buildings themselves rendered more durable.'

There was careful control of expenditure according to the perceived needs. For example, at Lyde Arundel, a complete model farm and farmhouse were constructed shortly before 1805, whereas at Lower Lyde improvement sufficed. Here, rather than a completely fresh start, a stone barn was added to an existing timber framed one, thereby doubling the crop storage capacity.[19]

Other estates provide evidence of dilapidation and refurbishment during the latter part of the 18th century. At Moccas, a new brick farmstead was erected in 1783–4, to service the 330-acre home farm, which by 1815 had expanded to 625 acres.[20] Completely new layouts were uncommon in the county before the mid 19th century, however. More usual was the example provided by the Brockhampton Estate, Bromyard. Extensive estate improvements from the 1760s incorporated not only the addition to existing holdings, of stone-built wainhouses and pigsties, but also large ranges of cattle yards, shelters, and granaries (Figures 2 and 3).[21]

Farm Buildings at Monksbury Court, Yarkhill, 1649 - 2005

William Devereux gave a hide of land (Manor of Monkhide) to Gloucester Abbey between 1113 and 1120.[22] The estate was forfeited and sold during the Commonwealth in 1649 and returned to the Dean and Chapter in 1665.

1649.
Two great barns, built of timber both of them containing ten bays of building, one granary containing two bays of building with two chambers over the same, one oxhouse, and one cowhouse containing eight bays of building, one stable, containing two bays of building, one waynehouse, one pigeon house, one fair garden, one orchard and two yards. All which contain two acres.[23]

1778.
Several of the Buildings belonging to this farm have of late been taken down and now there is not near sufficient to manage the Farm, therefore more Barns and Stables ought to be built instead of what were pulled down.[25]

1790.
...a barn with 5 bays and pigcotes all brick built and tiled in good repair. A dove house timber built and tiled in bad repair, another barn with 5 bays timber built and thatched in bad repair. A range of oxhouses with 4 large bays timber built and thatched in very indifferent repair, a wainhouse for 4 waggons timber built and thatched a shed for cattle timber built and tiled both of which are in good repair. A hopkiln and drying rooms now turned into a stable another stable in size for 6 horses both in bad repair.[27]

1910.
Iron French barn. Brick & Tile cart shed. Brick, stone & tile barn. Root house, hackney stable. Brick & tile Barn. Chaff cutting floor. Stable. Fatting Pens. 4 open sheds & fold yards. Cowhouse, Calf house. Bull pen. Brick & Tile cart horse stables. 4 loose boxes. Chaff house. Pigscots. Traphouse. Fowlhouse. Cider house. Coalshed. Granary. 5 Hop kilns all in good repair. 214 acres.[24]

2001.
Sale by auction. Monksbury Court, house and 24 acres. Outbuildings: Attached Traditional 2 Storey Range and Hop Kilns Garage and Storage Building.[26]

2005.
Sale by auction. Residence and 2.5 acres. Spacious main residence....Superb suite of self-contained offices laid out on two floors and featuring 6 OFFICES (four of which are circular); cloakrooms; outstanding conference room formed from cruck barn with vaulted ceiling and exposed beams...Garage. Outhouses. Barn.[28]

Figure 2. Farm buildings at Monksbury Court, Yarkhill, 1649-2005

Figure 3. Monksbury Court, Yarkhill in 2000. The brick barn, built between 1778 and 1790, incorporated a stable with loft above. The far gable has raised brick detailing, and the tie beams are re-used cruck blades. Now in residential use

In parallel with the retention of older buildings which were versatile and adaptable, there was also the retention of older practices which continued to have a valuable role. These relate particularly to coppice industries. Temporary and short-life buildings remained in use.

The shortage of winter housing for young stock was covered by the use of an orchard as a foldyard for warmth and shelter, sometimes with a hovel or 'shade'— probably more to keep feed dry than to shelter the cattle! (Fig. 4). Fittings in foldyards were simple: rows of feeding cribs were made by driving stakes into the ground and weaving along 'watlings or withies...in a basket-like manner.'[29] These could be renewed annually if necessary. Wattle ceilings were common (and still survive) in outbuildings such as cider houses.

The 19th century: innovation and specialisation

Following the prosperity of the Napoleonic war period, when cereals were the most profitable enterprise, farming faced a challenging future during the 19th century. The opportunity to feed the fast-growing urbanised population, now readily accessible by the extending rail network, was threatened by increasing globalisation. The produce of Britain's colonies, and that of other countries with a better climate and lower costs of production, was targeted specifically at Britain's manufacturing population, steam transport again being a key factor. Removal of price

protection by the repeal of the Corn Laws meant that cereal growers were the first to be affected; by the later decades of the 19th-century imports of meat and dairy products affected the livestock sector also. As the century progressed, landowners and farmers became increasingly market oriented, and particularly interested in cost-cutting and economies of scale, i.e. larger farms, larger farmsteads with labour-saving layouts; mechanisation; new materials and industrial building methods.

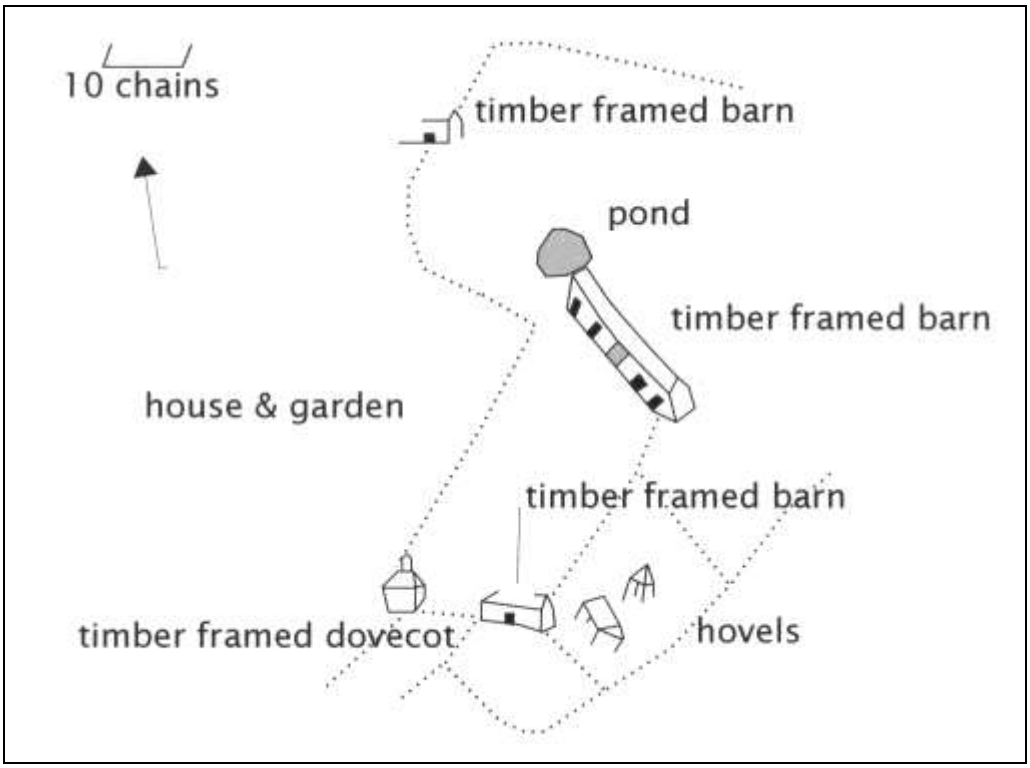


Figure 4. Manor of Brockbury, Colwall, estate plan, 1758. A vignette shows the barns and dovecot to be timber framed. The hovels in the orchard may be Dutch barns or sheepcots, perhaps intended as short-life buildings. Traced from a photograph[30]

By the late 19th century, the landlord and tenant system, where responsibility for provision of capital is divided, was well established. The landlord provided the land and buildings and the tenant the stock and working capital. In Herefordshire, at least in the late 19th century, estates were relatively small compared with some other lowland counties (Table 6).

Many landowning families on these small estates were linked by marriage and, perhaps as a consequence, were progressive and alert to new opportunities. In the Bromyard area in the 1850s, for example, three brothers and a sister owned the estates of Saltmarsh, Bredenbury, Buckenhill and Clater.[31] The farm buildings on these estates are standing evidence of investment in upgrading and modernising to a high standard for the time.

Class of owner	*Size of estate (acres)*	*Hereford %*	*Cheshire %*	*Lincs. %*	*England & Wales %*
Peers & great landowners	at least 3000 *	37	53	42	43
Squires & greater yeomen	between 300 & 3000	34	21	25	28
Lesser yeomen	between 100 & 300	15	9	13	13
Small proprietors	1 to 100	10	13	14	12
Public Bodies**		4	4	6	4
Total number of landowners		4646	6029	16,729	26,9722
Owners of 10,000 acres or more		2	6	17	309
Total acres		**505,259**	**597,554**	**1,603,719**	**32,888,202**

Table 6. Landownership in three English historic counties, 1873

* all peers, regardless of acreage owned.
** estates of the Crown, religious and educational establishments etc., regardless of acreage owned.
Source: calculated from summary tables in Bateman, John, *The great landowners of Great Britain and Ireland.* (4th ed. 1883), excluding cottagers whose holdings were under 1 acre, and waste.

Small landlords and much land trafficking mean that many 19th-century sale particulars survive, and many more reliable estate maps. Combined with evidence from tithe maps and from large scale OS plans, it is clear that the number of buildings and the size of the farmstead increased dramatically between *c*.1830 and 1880, with some farms showing further growth up to 1904. One reason for the boost in investment in buildings was the availability of loans from land improvement companies for capital investment in agriculture. Offered from 1849 to offset Corn Law repeal, these loans were taken up enthusiastically by Herefordshire landowners. Between 1863 and 1874 the Hampton Court estate borrowed £27,451 to be repaid over 25 years; the money was spent on drainage, cottages and farm buildings.[32] The Berrington and Garnstone estates also obtained loans for farm buildings, Stoke Edith (for cottages & water supply), and Guy's Hospital and Pateshall (for drainage).

Land improvement loans provided a new boost to the building of model farmsteads, and it is possible that Lord Bateman's well-known Uphampton Farm, Shobdon (largely destroyed by fire in the 1950s) was a beneficiary of the scheme. It was fully described and illustrated by J. Bailey Denton in *The farm homesteads of England*, published in 1863. As engineer to the General Land Drainage and Improvement Company, Denton was closely involved in new projects financed by the company's loans. It is likely that the Prince Consort's Flemish Farm, Windsor, where in 1855 he founded the Royal herd of pedigree Herefords, influenced the project. Here, the old farm buildings were not considered worthy of these high-caste cattle and a new farmstead, in brick rather than timber, was completed in 1858. Lord Bateman was a lord-in-waiting to Queen Victoria in 1858-9, often accompanying the royal household on functions and visits.[33]

Uphampton Farm was completed in 1861, an impressive layout in stone and Welsh slate, with yards and stalls housing 100 cattle and stabling for 15 farm and estate horses. A tramway was laid out in the stackyard; the ricks were built on low trolleys which moved by gravity to a

shed housing a threshing machine driven by a 12-horsepower steam engine. After threshing, the grain was cleaned and dressed and conveyed either to the granaries or to a bagging machine. The straw was chopped for litter before being conveyed to a loft above the cattle stalls and convenient to the open yards. Other barn machinery driven by the steam engine included root pulpers, an apple-mill and cider-press, grinding and rolling mills, a cake-breaker and a chaff-cutter.[34]

The elaborate and expensive farmstead was not widely copied in the county, or the fixed steam engine, but the use of barn machinery for feed preparation became very common (see Part II). In the latter part of the 19th century, the increasing importance of pedigree Hereford cattle brought about a change in the emphasis of livestock enterprises, requiring particular attention to cattle housing, feed storage and preparation. Feeding houses coupled with pulping houses, mixing rooms and with chaff-cutting floors are frequent by the end of the century.

The break-up of large estates in the first half of the 20th century resulted in a higher proportion of owner-occupation. At the turn of 19th to the 20th century, 86% of agricultural land in the Vale of Hereford was rented; in 2005, the proportion (for the whole county) was 21%.[35] Increasing mechanisation during the early 20th century, and the replacement of draught horses by tractors led to further technological innovation.

PART II. FOUR CHARACTERISTIC FARM BUILDING TYPES

Part II aims to explore the theme of **continuity and change** by looking in more detail at four farm building types characteristic of the county's farmsteads. Examining their evolution aids understanding of the factors influencing development and change within the farmstead as a whole, and how different sectors of the farming business responded to particular influences. There may be time lags in the diffusion and take-up of innovation, some related to the practices of estates with land spread over several counties, others due to local factors or to political decisions. Some building types have the advantage of flexibility of function whilst others are highly specialised; regional specialisms have their strengths as well as their weaknesses.

The barn

The barn is widespread over the whole of Great Britain, spanning a lengthy time-scale; it is the standard building on farms of all sizes, remaining in use from the 15th to the 21st centuries. Its original use was for the storage and threshing of cereals, and in Herefordshire the barn still fulfilled its original purpose well into the 19th century. The lofty and spacious interior of the building means that, on most farms, it has remained adaptable, and therefore useful, until the present day. Expensive to build and therefore long-lasting, the barn is the oldest building on many holdings. Herefordshire has standing examples spanning a wide date range, one of the earliest being a barn at Weston Court, Pembridge, where a crown strut and blade of the cruck frame has a felling date of 1470-1501 (Figure 5).[36]

Herefordshire is not a county of large barns. The Statutory Lists (which tend to feature the older and more striking examples) report several of seven bays and a few of eight. Most barns, however, were of three bays, with larger ones of up to five or six. The Great Barn at Hellens has six bays; the size of the Great Barn of Leominster Priory, fired by a comet in 1594 and taking 15 days to burn out, is unknown.[37] A survey of the Manor of Marden in 1649 gives the actual measurements of two barns, probably of four and two bays respectively.[38] In Peripole Close '…on which (as is reported) the Manor House did formerly stand But for many yeares

hath been demolished. There is a Barne yett standing containing in length two and fifty feet in breadth fourteen feete and in Heighth fifteen feet…' In the Sigerne was '…that Barne standinge thereon Conteineinge in leingth twenty seaven feete, in breadth thirteene feete, in heighth Fifteene Feete of [?Assize] more or less...'

To expand storage, barns were extended by the addition of one or two extra bays or by adding a second barn; this procedure could be repeated, resulting in a long range of ten or more bays.[39] This was particularly successful with timber framing, as the barns were easily combined by knocking out gable framing and working the two buildings as one, but there are also examples of brick or stone barns adjoining timber framed ones, as at Lower Lyde (see earlier).

Figure 5. Barn at Weston Court, Pembridge in 2003. Part of the gable framing of the cruck barn has been removed to allow access to a late 17th/early 18th century addition, at one time used as a cowhouse with loft above. During the 19th century two further additions were made, one a stable. The extensive range of mainly timber framed barns and shelter sheds at Weston Court is now being converted to residential use

Despite the increasing use of brick and stone from the 17th century onwards, structural timber continued in use well into the 19th century, but there were changes in the method of use. For example, the earlier square panel framing was replaced by tall, narrow framing clad with weatherboard. Where the cleft oak infilling had become decayed, weatherboard was used to completely cover the timber-framed walls; this weatherproofed many thousands of farm buildings, thereby ensuring their survival. Timber from old barns was reused as the framework for weatherboard cladding, and in the roof trusses of brick or stone barns (see Fig. 3). The moving of timber-framed barns to new sites was still being practiced in the early 19th century. The Hampton Court estate regularly did this; in 1820 a barn was moved about three-quarters of

a mile from Newton Court Farm to Marlbrook.[40] Other examples are the two Bodenham tithe barns, moved from a site by the church between 1813 and 1823; one was moved a similar distance to Bunhill Field, a former open arable field, and the other to nearby Bodenham Court Farm.[41] As there was ready availability of coppice and hop pole timber in the county, particularly after hop wirework became widespread after the 1860s, long timbers of relatively light scantling continued in use as weatherboard framing, as raking shores within barns and granaries, and for pole barns.

Although a threshing machine was manufactured in the county as early as 1761,[42] refurbishing barn floors for flail-threshing was still thought worthwhile well into the 19th century. There were new threshing floors on a farm at Tupsley in 1805, and the Hampton Court estate installed new plank floors at Marsh Court in 1820, as it was 'impossible to thrash grain upon it'.[43] However, threshing and feed preparation machinery came into more common use as the 19th century progressed, usually being housed in the barn. The presence of horse engine houses attached to these barns can often be confirmed on tithe maps—semi-circular, octagonal or square buildings (Fig. 6). Later in the century, cast-iron 'farmers wheels' became common; these could stand out in the open and were cheap enough to be purchased by tenants.

Figure 6. Hill End, Weston Beggard in 1992. The horse engine house is attached to the long wall of the barn. Now in residential use

Despite the example of Uphampton Farm, Shobdon, steam power was not popular in the county. Coal was expensive to transport, and horse-power was readily available on farms with less elaborate requirements than those of a gentleman's model farm. Water power was quite widely used for feed processing as well as for threshing, but its use was often limited by an

unreliable water supply.[44] The water wheel may be sited alongside the barn, but at Court of Noke, Pembridge, there is a dedicated mill building; this was also the case at Castle Farm, Eardisley, where a 16 ft. diameter undershot water wheel powered a chaff-cutter and root-pulper.

As Uphampton Farm, Shobdon, demonstrates, when the threshing machine was in the barn, the ricks moved to the machine. But when steam powered threshing machines began to travel from farm to farm, it became more convenient to thresh in the rickyard, and many barns became devoted to feed preparation. In the 20th century, stationary petrol or oil engines were used to drive barn machinery. On the Eardisley Estate in 1918, for example, sale particulars specify that petrol engines and machinery for chaff-cutting and root-pulping belong to the tenants and are not included in the sale (see Fig 1).[45] From the mid 20th century, with the adoption of the combine harvester, which both cuts and threshes the crop in the field, the barn gained a new purpose, as its spacious, lofty interior could house grain bins, grain drying facilities and feed milling and mixing machinery.

The sheepcot

Sheepcots were widely distributed over the south of England in the medieval period but had largely fallen into disuse by the mid 17th century.[46] In Herefordshire, however, sheepcots remained a feature of many farmsteads until the early decades of the 19th century, and one was recorded as late as 1910.

In 1796, William Marshall noted that 'cotting' was a 'striking peculiarity' of the management of Ryeland sheep in the county, and listed the advantages. It kept the wool finer (a commodity for which Herefordshire had long been noted),[47] the dung was of great value, and it prevented rot (liver fluke) by keeping the sheep off the pastures until the dew had dried off.[48] The last two points seem most relevant to the persistence of sheepcots in the county.

Before the days of artificial fertilisers, high quality manure was essential to ensure good crop yields. In 1606–7, the act for enclosing 'Lande Meadow and Pasture' around Marden noted that seven parishes bordering the floodplain meadows of the River Lugg, 'doe differ in the maner of their Husbandrie from many partes of the saide Countie and other Counties… the Inhabitants doe make the Tillage…more fertile by raisinge of Compost in howsinge all their Cattell of all sortes, espiallye all their Sheepe throughoute the whole yeare and not by any other meanes.'[49] Tables 1 and 2 show that during the first half of the 17th century about a third of farms had a purpose-built sheepcot, and a number of references have been noted for the 18th century (see below for the sheepcot at Bower Farm, Holme Lacy in 1708). The Brockhampton Estate purchased 269 loads of sheep dung in November 1799, probably for autumn manuring of hops, a notably greedy crop.[50] When, in the 1840s, importations of Peruvian guano became available, it became widely used, at least by Worcestershire hop growers. It is likely that guano, and the artificial nitrogenous fertilisers available in the later 19th century, were found to be less laborious in use, and were therefore cheaper manures.[51]

The siting of some earlier sheepcots close to common meadows and pastures suggests that their persistence may be connected with the utilisation of flood plain grazings. Naturally, the sheep would have to be taken off when the floods were out, necessitating somewhere else to hold them at a season when pasture was in short supply. Probably more important was the control of liver fluke, formerly a cause of severe illness and death among sheep grazing on low-lying pastures. (Sheep become infected by eating wet grass laden with the tiny freshwater snail *Limnaea truncatula* which is host to the fluke *Fasciola hepatica*.) As the early dew dries

off the blades of grass, the snail moves lower into the sward where it is less likely to be eaten by the sheep, and keeping them off the pasture overnight gives some measure of control. In 1793 the Rev. John Lodge reported that sheep were kept in cots at night, summer and winter;[52] the whole-year housing referred to in 1606–7, therefore, will mean overnight only. The role of sheepcots in the control of liver fluke is supported by the fact that some early-19th-century records of sheepcots relate to farms with grazing rights on flood plains. In 1805, for example, a Tupsley farm had a 'Sheep's Cot' and a right of common on Cappermarsh and Lugg Meadow, and in 1807 an un-named farm at Holmer, with a sheepcot, had 'unlimited Right of Common for Cattle, Horses and Sheep, in those rich meadows called Lug Meadows…'[53] Many other parishes had less extensive low-lying pastures where sheepcots are known to have been sited, and some of these later became small farms–named 'Sheepcots.'[54]

Excavations and medieval records from the Cotswolds and elsewhere describe demesne sheepcots as being long, low buildings, 8 to 18 bays long (6-8m. wide and 23-65m. long). As the gables were about 3.7m. high, there was space for a hayloft. Fittings included pens, stalls and suspended feed racks. A very few descriptive accounts of Herefordshire sheepcots have so far come to light. One example of 1708 refers to a sheepcot roofed with tiles at Bower Farm, Holme Lacy. Its dimensions were 'ten square and 80 feet at 8s per square', costing £4 3s. 6d.; '4 disson of crests for ye sheeps cot' cost 12s.[55] Another record, in 1910, describes a 'Timber and iron sheeps Cot & loft over.'[56]

A possible surviving sheepcot is the incomplete building shown in Figure 7, of which almost six bays survive, the east end being truncated by a later building in which the wallplates are embedded. It appears to be a double-sided shelter shed, but the present mangers and racks are later insertions, so the original internal layout is obscure. The loft floor is of hazel wattle, but the building was re-roofed in the 19th century. It is 7.9 m. wide; five bays are 10.8 m. long (the bays vary slightly in length).

Figure 7. A possible sheepcot in the Leadon valley in 1985. There is a loading door in the gable of the loft. The broad ceiling joists which carry the wattle floor of the loft are laid flat

The hop kiln

Hop kilns service a crop formerly grown more widely but now highly localised in two regions —predominantly in the West Midlands and also in the South East. A new crop in the 15th century, hops became more widespread from the late 18th century onwards, when the expanding acreage made specialised drying facilities increasingly important. Hop kilns demonstrate extremely well the frequent upgrading and adaptation necessitated by the constant innovation and technological advance which characterised the crop in the late 19th and 20th centuries.

Malt kilns and hop kilns alike rely on rising warm air to dry the crop, which is spread over a perforated or slatted floor above. Small-scale drying, however, required no special building. The hop cones were simply spread out on an upper floor of the house, preferably one with a fire in the room below, and turned daily for two to three weeks, when they would be dry enough to sweep into a pile for curing. Recorded in the earliest text on hop-growing, published in 1574, the practice remained in use in Herefordshire during the 19th century. Treading or pocketing holes, used for packing the dried hops, have been recorded in farmhouse ceilings in the county. It is clear that malt kilns were also used for hop drying, and evidence for 16th- and 17th-century malt houses and kilns appears in Tables 1 and 2. Lower Court, Ullingswick, was in 1649 the only farm in the manor growing hops; there was a malt kiln over the detached kitchen, but no hop kiln.[57] Charcoal braziers may also have been used to fire early kilns.

Describing hop production in Herefordshire in 1793, the Rev. John Lodge said that some farmers had six or eight kilns, 'of a construction similar to that of malt kilns'. He described the 'old kilns' as 'being built with a flue or chimney from eight to twelve feet high, at the top of which is, what is commonly called, a *brick-lanthern*, to distribute the heat in a regular manner to every part of the kilns.' [58] These were probably similar to medieval lantern chimneys with ventilation slits around the chimney cap, sometimes used in kitchens.[59] Lodge went on to state that Kentish kilns had been 'lately introduced' to the county, 'which open immediately from the fireplace like very large hopper, by which means their surface can be extended to a dozen feet square…' The hopper acted as a funnel, directing the heat of the fire to the slatted floor above. This type of furnace could readily be installed in an existing building. In 1805, sale particulars for Brockmanton Hall Farm, Pudleston, included 'Six excellent Kentish Hop-kilns, newly erected at a very considerable expense.'[60]

Also in 1805, plans were published of the outbuildings and farmhouse 'recently finished' at Lyde Arundel, showing a pair of 10 feet square kilns adjoining a room housing a cider mill and press.[61] These kilns have since been adapted to other use so the firing arrangements are unknown. This is the first representation of a purpose-built combined cider house and hop kiln, a building type unique to the West Midlands hop-growing district, the only region in the U.K. where both hops and cider fruit are grown. Both enterprises require buildings for short-term seasonal use at different times of the year. The expansion of cider production in the 18th century clearly assisted the re-equipping of hop farms by providing a building with space and seasonal availability.

This combination became the standardised plan for hop-drying facilities, being frequently contrived by adding one or more kilns to an existing cider mill house, normally at the gable. Doorways were broken through on each floor, at ground level for stoking the furnaces and on the upper floor for loading and unloading the kilns. Kilns were also contrived in the unused wings of farmhouses, especially where upper floors were used as granaries.

Another Kentish innovation was the circular kiln or roundel: a dated roundel of 1815 survives in that county.[62] In Herefordshire, where the adaptation of existing buildings was common, round kilns were a relatively short-lived vogue. They seem not to appear earlier than *c*.1840,[63] and to be outmoded by the early 1880s.[64]

Figure 8. Brook Farm, Little Marcle in 2002. The round hop kilns are stone, with brick dressings, and the conical roofs are of brickwork, weatherproofed with pitch. The rectangular kiln with louvred ridge was 'modern' in 1916; a building was mapped on this site in 1904. Now in residential use

Honeycomb brick furnaces or open fires with spark guards continued in use into the mid 20th century. In the Bromyard locality are surviving examples of brick fireplaces and hoppers of lath and plaster or, more expensively, of arched brickwork.[65]

The development of twin kilns linked under one roof can be closely dated from plans for new, purpose-built kilns and hop-rooms on the Garnons Estate. A plan of 1882 for The Marsh, Bridge Sollers, illustrates a pair of square kilns with individual cones; a similar plan of 1883 for Byford Court Farm shows two square kilns under one linked roof, but each one with an individual cowl.[66] The roof interior has two tall pyramidal roofs lined with boards to prevent condensation; externally, Welsh slates provide combined cover for both kilns.

Banks of six or more kilns alongside a three-storey building, noted in Kent from the late 18th century, and found in Worcestershire's Teme valley in the late 19th century, are uncommon in Herefordshire. Traditionally, access to the drying floor of the kiln was via the cooling room only, which entailed carrying green hops into the kiln while the previous batch of dried hops lay on the cooling floor. In the three-storey building, green hops were hoisted to the top floor for loading into the kiln, below (avoiding any possibility of mixing green and dried hops) was the cooling floor, and the firing floor was at ground level.[67] In Herefordshire, where most farms had fewer kilns, the green stage was preferred—an external slatted-floor staging

with a loading door in the outer wall of the kiln. Here, green hops could await drying with less risk of heating, and any mixing of green and dried hops was avoided. During the 20th century, green stages were added to the outer walls of earlier kilns, and new loading doorways were cut through, giving access to the drying floor of the kiln.

Figure 9. Brookhouse Farm, Moreton on Lugg in 2005. The twin hop kilns of brick, attached to a stone cider house, were present in 1904 but the greenstage is later. Now in residential use

Figure 10. Hop kilns at St. Donat's Farm, Burghill in 2001

Hop growers were constantly seeking improved drying efficiency—maintaining constant temperature, fuel economy, and avoiding contamination with combustion fumes. From the late

Figure 11. Hop kiln at Eastwood Farm, Tarrington in 1973. The inserted top fan was belt-driven by a stationary engine. Now in residential use

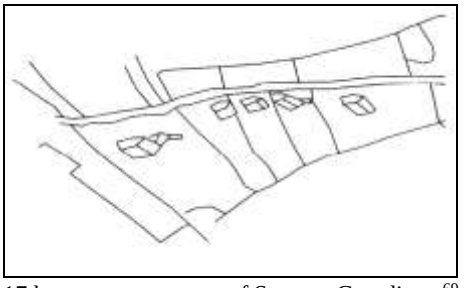
19th century to the middle of the 20th century, when the pace of innovation made expensive, permanent new-build a recipe for obsolescence, hundreds of kilns were adapted, either by farm labour or by specialist hop equipment installers. Extra kilns were added alongside existing ones and there is much evidence of short-term insertion and removal of kilns into barns and granaries. This sometimes entailed the replacement of existing of floorboards by a slatted drying floor at a higher level and the subsequent reinstatement of a boarded floor at the original floor level.

The introduction of forced draught by means of fans driven by steam or stationary engines, or (later) by electricity achieved more efficient venting of moist air, and lofty kilns with swinging cowls were no longer necessary. (Although in 1833 John Read of Horsmonden, Kent published plans for a new form of circular kiln with enclosed stoves/furnaces and stovepipe venting, the latter aimed at eliminating contamination with combustion fumes, neither of these features was widespread until the 20th century.[68]) The pyramidal roofs became lower, with round or square louvred caps, fans were installed and greenstages added.

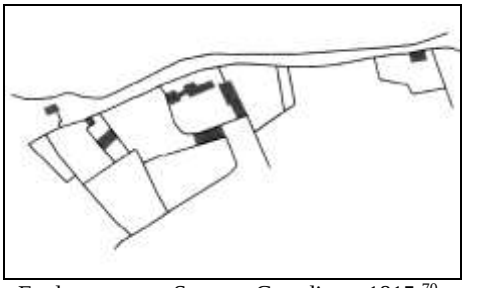
The square or rectangular kiln with full-length louvred ridge was developed at the end of the 19th century and became very popular in the early decades of the 20th century. Many were entirely new buildings, provided from the start with a circular hole in the gable for a top fan (see Figures 8 and 12).

As with barns, Herefordshire hop kilns tend to be small in scale, with periodic additions culminating in a succession of kilns of different styles, sizes and dates. During these phases of technological modernisation, Herefordshire's lack of enthusiasm for round kilns was a distinct advantage. Square or rectangular kilns could be upgraded by the installation of roller hairs and conversion to two-tier drying, manually operated at first, later by electricity. Most kilns continued in use until they became too small or were unsuitable for adaptation and were eventually replaced by entirely new structures equipped with the latest technology. However, the high cost of modern facilities tends to accelerate the decline of hop growing as growers whose buildings, machinery or equipment becomes run down or outdated may decide to abandon the crop rather than repair or re-equip.

Upgrading of Farm Buildings in the 19th and 20th centuries at Town's End, Stretton Grandison



17th-century map, part of Stretton Grandison.[69]



Enclosure map, Stretton Grandison, 1815.[70]

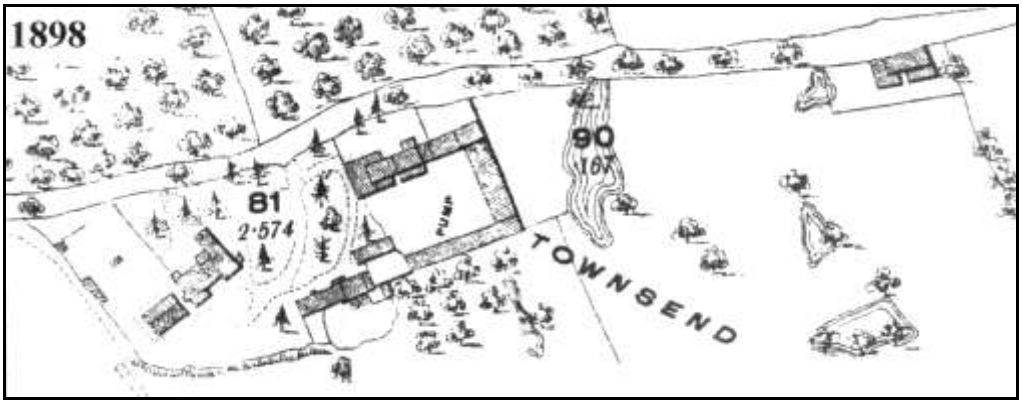
1898. 167 acres.

Tie-up stalls for Twenty Cattle, extensive Cattle Sheds, Cow Houses and Folds, French Barn, 75 ft. long, recently erected, large Two-bay Barn, Six Horse Cart Stable and Waggon House, Three Stall Nag Stable and Coach House, Two 16 ft. Hop Kilns with large Drying Rooms Attached. Cider House and Cider Mill, Piggeries, Fowl Houses, Dog Kennels &c.[71]

1910.

Description of Buildings[72]	*Condition*	*Remarks*
Open Cattle Shed	Old Poor	Stone & tile
Hop Picker Huts	Good	Wooden
4 Bay Barn & Stable	Old Poor	Wood & tile
French Hay Barn	Good	Wood & iron
Open Cow house Root House & Yard	Good	Stone Brick & tile
ditto & ditto	Old Fair	Brick stone wood & tile
2 Open Cattle Sheds & yard	Old Fair	Brick & tile
3 Kilns, Granary, Stable & Cider Mill	Good	Brick & Slate
Stable & Trap House	Good	Brick & Slate
Cart Stable	Old Fair	Brick & tile
Barn 2 Bays	Old Poor	Stone Wood Brick & Tile
Open Cattle Shed	Old Poor	Wood & Tile

Figure 12a. Town's End, Stretton Grandison. Upgrading of farm buildings in the 19th and 20th centuries



Sales Particulars, 1898[73]

1945. 167 acres, 32 acres hops.

A splendid block of MODERN HOP DRYING BUILDINGS, lighted by Electricity and comprising:
2 large Hop Rooms with concrete floors below, 4 kilns (2 of which have 'Redi' Automatic Stokers), 2 'Joyce' Heaters, 2 'Shew' Heaters, 4 fans, Switchboard, Thermometers, Dynamo, 3 long lengths of Shafting with Pulleys, also an extra Fan for cooling Hop Room, an Electric Fan for cooling Hops and 2 Hop Baggers, also a very substantial covered Loading Stage with slatted floor.

FARM BUILDINGS including:
modernised Cow House (24 ties) with range and drinking bowls, Loose box with range and drinking bowl, 2 small Cowhouses with 8 drinking bowls. Calves' Cot, Roothouse, Dairy, with 2 water tanks, large Open Shed with range and 2 Foldyards, 5-bay French Barn and covered Driving Way to main buildings, 4-bay French Barn, Piggeries, Corn and Roothouses with Cutting Loft, 2 Open Sheds with Yard, Tractor House, Loose Box, 2 Enclosed Sheds and an Enclosed Barn with 3 Bays and Driving Way, Cart Stable and Gear Room with Loft, 2 Loose Boxes, 2 Implement Sheds, and Paraffin and Petrol Sheds.

A short distance away is BRINSOP BARN: an Enclosed Barn with 3 bays and driving way and concrete floor, 2 small Enclosed Shed and an Open Cattle Shed with concrete floor, also a number of partitions for converting Buildings into Hop Pickers' sleeping quarters.
To be taken at valuation: Hop Wirework...4 Kiln Hairs (one of which is a rolling hair)...Creosote Tank...[74]

2002. OF INTEREST TO BUILDER AND DEVELOPERS
An excellent residential re-development opportunity comprising an extensive range of redundant farm buildings with the benefit of planning consent to create:
FOUR INDIVIDUAL HOMES OF CHARACTER.[75]

Figure 12b. Town's End, Stretton Grandison. Upgrading of farm buildings in the 19th and 20th centuries

The Dutch barn

A building type with a history going back at least as far as the 17th century, the Dutch barn had to await the revolutionary new building materials and methods of the late 19th century before reaching its full potential. Particularly popular from the 1880s to the 1920s, buildings utilising the basic plan and construction are still the most versatile structures to be built on farms today.

Figure 13. The most common type of Herefordshire Dutch barn construction; the extended eaves date it after 1912

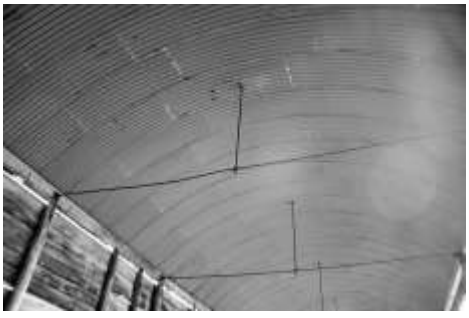


Figure 14. An unusual Dutch barn. The round timber posts may be estate-grown; the wallplates are squared timber. An iron hook links the tops of the posts to the iron tie rods

Figure 15. Dutch barn by Perkins & Bellamy of Ross

The term 'Dutch barn' was in use in the 1690s, to describe a 'helm', a general purpose building, standing on pillars, with storage or animal housing below and a loft above.[76] It was widely known by the end of the 18th century, and in 1805 a Dutch barn was described in Herefordshire as being a temporary shelter for hay cocks, 'until leisure is found to rick and to thatch it', implying that the hay cocks would be re-stacked on another site. In North Wales, more permanent structures standing on slate-slab pillars can be dated to 1828 and 1845.[77]

In Herefordshire, the alternative term 'French barn' became widely adopted for this type of building, defined by the *Hereford Times* in 1881: 'It is perhaps well known that these French Barns consist simply of corrugated iron roofs on wood or iron pillars…'[78]

The popularity of Dutch barns received a boost in the second half of the 19th century when livestock numbers increased and there was an urgent need for increased fodder storage. This was especially true in Herefordshire where high-value pedigree cattle became an important enterprise on many farms.

Extremely versatile, Dutch barns were used interchangeably for hay, sheaves or straw, and although extra ricks could be seen as an alternative to new buildings, these required the annual expence of thatching. Quick and easy steam transport brought newer building materials such as cast and wrought iron, steel, and imported timber into general use.

Industrial building methods—prefabrication and unit assembly (from two to eleven bays are recorded in the county)—simplified and cheapened assembly, thus widening the appeal of these capacious and versatile buildings. Many were tenants' fixtures and are noted as such in sale particulars. In 1885 it was specified that '…The Tenants of The Grove and the Court of Noke have certain claims in respect of the French Barns on their Farms…'; and in 1919 a two-bay French barn at Sidnall, Pencombe, was claimed by the tenant. [79]

At least three Herefordshire iron foundries specialised in manufacturing and supplying Dutch barns: Alexander & Duncan of Leominster; Bellow & Son, also of Leominster; and Perkins & Bellamy of Ross on Wye. Founded in 1870, Perkins & Bellamy produced barns which had hollow, cast iron pillars, and a roof with iron tie rods and struts under curved corrugated sheets. The maker's name was embossed into one of the pillars, some of which also acted as downspouts.[80] In their French barns, exhibited at Leominster in 1881, both Alexander & Duncan and Bellow & Son used timber posts, tie beams and wall plates with iron king rods and struts, again with curved corrugated iron roof sheets.[81] The makers name plates on the gable identify the buildings of both firms.

By 1912, Alexander & Duncan were offering steel stanchions, wrought iron spandrels or 'angle brackets', timber (red deal) tie beams and wall plates; iron king rods and struts. After 1912, extended eaves were available, the curved corrugated sheets giving greater protection against driving rain and snow. Clearly, a few French barns have pitched roofs: in sale particulars of 1918 a pantile roof is specified and in 1919 and 1941 slate; the dates of construction are not known.[82] Although Alexander & Duncan said 'we strongly recommend wood beams, especially on exposed sites', they also offered complete steel framing, i.e. steel roof trusses and wall plates. This may have been in response to competition from foundries based outside the district, which by 1901 were certainly advertising extensively in farming almanacs and yearbooks.[83]

CONCLUSION. THE THEME OF CONTINUITY AND CHANGE

Farm buildings tell us that farming has never been static. Surviving buildings and documentary evidence tell us of periodic up-grading and renewal of farmsteads. Successive agrarian revolutions led only rarely to a complete clearance and rebuild (with the special exception of a new farm on a new site, for example, after enclosure of open fields). The shifting balance of adaptation, renewal and replacement results in a continuing programme of updating and retooling on the same site, spanning several centuries. There may be almost complete replacement over time; or the most expensive buildings, such as the barn, may survive through several modernisation phases. Evidence from Herefordshire farmsteads reveals widely differing experiences—some farmsteads have buildings surviving, and in recent use, from *c.*1500 to the1970s, whilst others may retain almost nothing which pre-dates 1950.

In counties like Herefordshire, which are outside reasonable commuting distance from major urban centres, in 2007, whole ranges of buildings lie completely unused and abandoned, as adaptation to modern farming use is no longer an option. The survival of old buildings with little updating invites conversion to alternative uses; successive retooling aids survival as a viable farm business. Figures 16a and 16b demonstrate how recent changes help to inform the changes of the past. Piecemeal renewal clearly tends to preserve functional relationships between buildings, despite the drastic changes, preserving continuity of the site and fossilising the alignment of earlier buildings.

Rosemaund, Felton: A Herefordshire farmstead in 1950.....

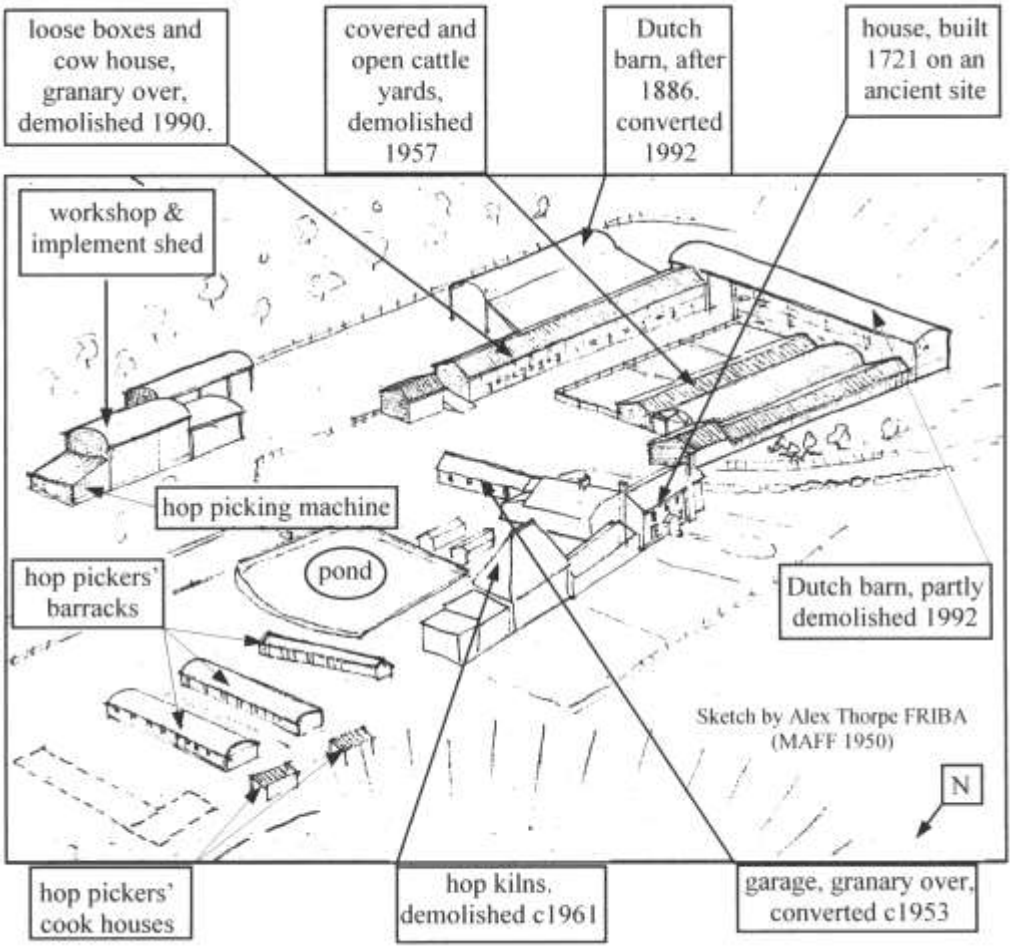


Figure 16a. Rosemaund, Felton, 176 hectares (435 acres). The site has been occupied since the 14th century, and is named on Saxton's Herefordshire map of 1577 (plate 2). The house dates from 1721, and replaces an earlier house on the site. The holding is not shown on the tithe map; the 1887 25in. OS map shows the layout of the farmstead to be substantially the same as in 1950, with only the workshop, implement shed and hop-pickers' accommodation added since then. Old photographs and oral evidence indicate that, in 1950, no more than two buildings pre-dated the late 19th century. This suggests either regular cycles of renewal, or that less permanent structures were customary in earlier periods.

.....and in 2006

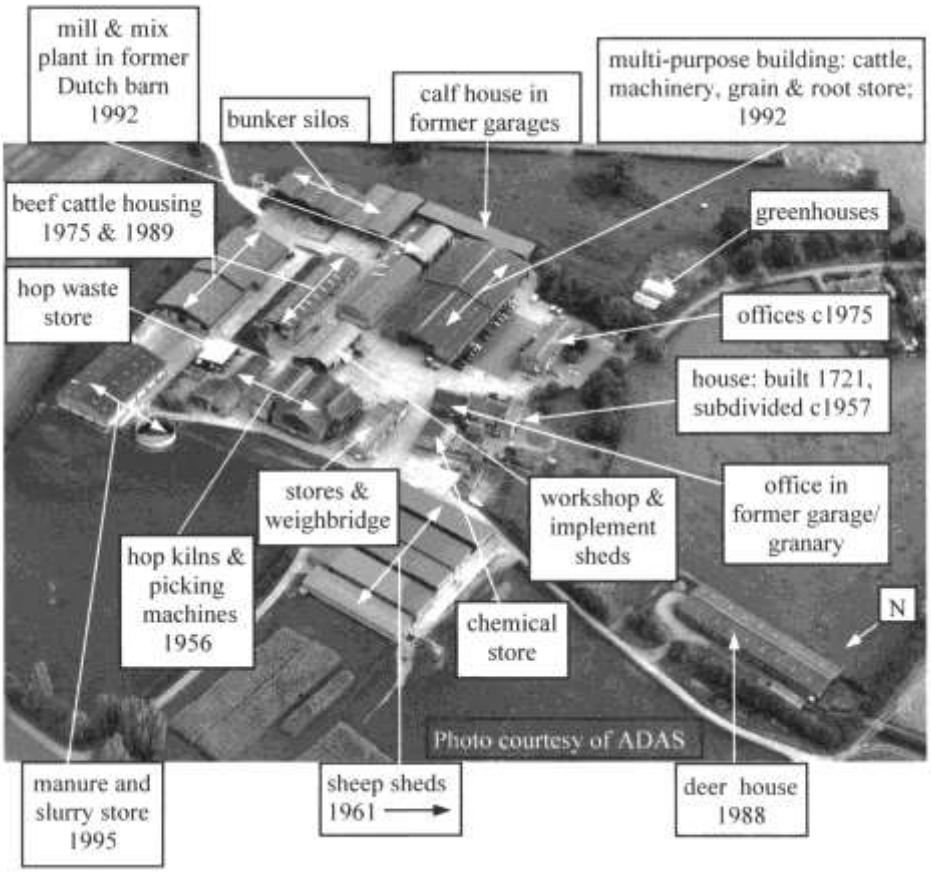


Figure 16b. The farmstead has been almost completely renewed in the last half-century. Of those buildings present in 1950, only two iron-framed Dutch barns, both converted to new uses, are standing in 2006 (and the house and the adjoining garage/granary conversion). The earlier buildings were intended for a specific purpose and are so named. The most recent one is a general purpose, or multi-functional building. It has large doors, is clear span (no piers or columns to impede mechanised handling), and is also well ventilated for livestock housing. Renewal and adaptation was carried out piecemeal, not as a planned operation, covering and extending the original site, and took place as needs changed, e.g.:

i) larger scale of operations (cattle housing, bunker silos, grain storage and handling facilities)
ii) more mechanisation (machinery sheds, workshop)
iii) obsolescence (hop kilns)
iv) technological change (grain storage and handling facilities, chemical store)
v) new enterprises / diversification (deer housing)
vi) innovation in existing enterprises (sheep housing, indoor beef)
vii) animal welfare (cattle and sheep housing)
viii) pollution control (manure and slurry store)

NOTES and REFERENCES

1 foot = 0.305 metres; 1 acre = 0.404 hectares

[1] This paper is developed from the writer's presentation to the Historic Farm Buildings Group Conference held in Herefordshire in September 2005. The theme of the conference was the development and change of farmsteads in Herefordshire and combined lecture sessions with visits to farmsteads in the county. The Group inspected traditional, often redundant, farm buildings, and was also able to view an up-to-date hop picking and drying set-up in operation.
[2] J. B. Hill, *Redundant farm buildings in England and Wales: Pilot Study*. (MAFF Farm Buildings Group; Land and Water Service May 1985), p.2. The study covered 90 farmsteads north of the Severn/Wash line.
[3] Explored in detail, including policy matters, in Peter Gaskell and Stephen Owen, *Historic farm buildings: constructing the evidence base.* (University of Gloucestershire 2005), pp.20-39.
[4] *Loc. cit.* in note 2, pp.12-15.
[5] Peter Messenger, 'Lessons to be learned: the impact of the Foot and Mouth outbreak,' *Jour. Historic Farm Buildings Group*, 16, (2002), pp.1-8. For Herefordshire, personal communication from Tim Hoverd, Herefordshire Archaeology.
[6] Owing to the increasing pace of barn and farmstead conversions, farmers and landowners do not welcome publicity for their disused buildings. To respect this wish for privacy, some sites are therefore not identified by precise address or location.
[7] *Loc. cit.* in note 2, p.9.
[8] Manorial prerogative (i.e. restricting the building of a dovecote to the lord of the manor or the owner of a rectory) ended in 1619. John McCann, 'Dovecotes and pigeons in English law,' *Trans. Ancient Monuments Soc*, 14, (2000), pp.25-50.
[9] For example, a half yardland is 21 acres; a nook 7 acres; two half yardlands and a nook total 46 acres.
[10] Gloucestershire Record Office (hereafter GlosRO), D1740 E1 *f*.100.
[11] Acton Beauchamp: Herefordshire Record Office (hereafter HRO), BS75, estate survey; Monkhide and Ullingswick; GlosRO, D1740 E1 f.23 and f.100, Parliamentary Surveys, 18th century copies.
[12] Based on 111 terriers examined to date, of which 79 (71%) have details of farm buildings. As none is dated between 1640-1661, it was decided to focus attention on 70 undated and 1586-1640 terriers. The handwriting suggests that undated ones are likely to be late 16th to early 17th century. These 70 documents represent 43 parishes from the deaneries of Hereford, Frome, Ross, Weobley and Weston. Several parishes have 2, 3 or 4 terriers of different dates; others have copies of earlier ones, which sometimes give additional information. The data are therefore derived from totals of documents, **not** of holdings. Sincere thanks are due to the late Marjorie Hallam of Graffham, Sussex for transcribing many of these documents, to the authors whose parish histories reprint glebe terriers, and to the unknown historians who have deposited transcripts in the Herefordshire Record Office.
[13] Phyllis Williams, *Whitbourne, A Bishop's Manor*, (Hamish Park, Whitbourne 1979), p.170.
[14] F. C. Morgan, (transcribed by) and A. J. Winnington-Ingram, (notes by), 'The accounts of St. Katherine's Hospital, Ledbury, 1584-1595,' *Trans. Woolhope Natur. Fld. Club*, XXXIV (1953), pp.88-132.
[15] Brian Smith, *Herefordshire maps 1577 to 1800*, (Logaston Press, Herefordshire 2004), catalogues these and illustrates several examples.
[16] Susanne Seymour, Charles Watkins and Stephen Daniels, 'Sir George Cornewall: management, improvement and landscaping, 1771-1819' in Paul T. Harding and Tom Wall, (eds.), *Moccas: an English deer park*, (English Nature n.d. *c.*2000), pp.49-61.
[17] Susanne Seymour, Stephen Daniels and Charles Watkins, 'Estate and empire: Sir George Cornewall's management of Moccas, Herefordshire and La Taste, Grenada, 1771-1819.' *Journal of Historical Geography*, 24, (1998) pp.313-351; abbreviated from TABLE 1, p.322.
[18] Jennifer Weale, *A history of Bredenbury and its landed estate*, (Bromyard and District Local History Society 1997) pp.67-71.
[19] Lyde Arundel is planned in John Duncumb, *General view of the agriculture of the County of Hereford*, (1805) pp. 28-31. Lower Lyde: author's records.
[20] *Loc. cit.* in note 17, p. 323. See also Susanna Wade Martins, *The English model farm. Building the agricultural ideal, 1700-1914*, (Windgather Press, Macclesfield 2002), p.214.
[21] Michael Hill, *Historic Farm Buildings. Brockhampton Estate, Herefordshire. An evaluation for the National Trust*, (3 March 2003). Also author's records.
[22] Bruce Coplestone-Crow, *Herefordshire Place Names*, 1989, p.215.
[23] GlosRO, D1740 E1 (18th century copy).
[24] TNA, IR58/38659.
[25] GlosRO, D936/E/217.

[26] www.hamiltonscs.co.uk, accessed 2 Nov 2001.
[27] GlosRO, D936/E/217.
[28] *Hereford Times*, 22 Oct 2005.
[29] John Clark, *General view of the agriculture of the County of Hereford*, (1794), p.25.
[30] HRO, AT51.
[31] Phyllis Williams, *Bromyard: Minster, manor and town*, (Privately published 1987), p.97.
[32] A. D. M. Phillips, 'Rebuilding rural England: farm building provision, 1850-1900', Baker, A. R. H. (ed.) *Home and colonial: essays on landscape, Ireland, environment and empire in celebration of Robin Butlin's contribution to historical geography* (Historical Geography Research Series, 39, 2004), pp.39-51; E. L. Jones, The evolution of High Farming, 1815-65, with special reference to Herefordshire. (Unpublished thesis, Oxford, 1962) Chap. XII, p.31.
[33] Ivor Pfuell, *A history of Shobdon*, (Privately published, 1994) pp.86, 96-100.
[34] J. Bailey Denton, *The farm homesteads of England*, (1863), pp.57-9, 92-4.
[35] For 1900: Guy M. Robinson, 'Agricultural depression, 1870-1900,' *Trans. Woolhope Natur. Fld. Club*, XLII (1978), pp.259-278. For 2005: Defra, June Agricultural Census.
[36] Nigel Nayling, 'Tree-ring dates from the University of Wales Lampeter Dendrochronology Laboratory', *Vernacular Architecture*, 31, p.116.
[37] Joe & Caroline Hillaby, *Leominster Minster, Priory and Borough c.660-1539.* (Logaston Press, Herefordshire 2006), pp.55, 124.
It is important to be aware of the older practice of totalling ALL bays when describing more than one building, noting the expression 'both of them', not 'each of them'. Examples from glebe terriers are: Ledbury 1616 '2 barns 7 bays'; Putley 1706 'barns stable beasthouse containing in the whole 5 bays of building'. A more recent practice is to describe the building by its storage bays and threshing floor, for example, a three-bay barn would be '2 bays and floor'.
[38] TNA, E317/Herefordshire/19, Parliamentary Survey, Manor of Marden.
[39] See, for example, two adjoining five-bay barns at New Weston Farm, Bredwardine: English Heritage *Images of England*, No. 153627.
[40] HRO, E41/5
[41] Anthea Brian, *A brief history of the houses in the parish of Bodenham, Herefordshire in the township of Bodenham Devereux*, (Logaston Press, Herefordshire 2004), pp.7, 30, 51.
[42] *Loc. cit.* in note 32, p.65.
[43] *Hereford Journal*, 9 Oct 1805; HRO E41/5.
[44] Inett Homes, 'Industrial archaeology, 1973.' *Trans. Woolhope Natur. Fld. Club, XLI* (1973) pp.135-6; *Id*., 'Industrial archaeology, 1974', *Loc. cit., XLI* (1974), pp. 271-2.
[45] Hereford Library, Local Coll., Hopton Coll. 12.
[46] Chris Dyer, 'Sheepcotes: evidence for medieval sheep farming' in *Med. Archaeol.* 39, (1995), pp.136-166; Derek Hurst, *Sheep in the Cotswolds. The medieval wool trade*, (Stroud, Glos. 2005), pp.45-6, 101-2.
[47] E. L. Jones, 'Hereford cattle and Ryeland sheep: economic aspects of breed changes 1780-1870,' *Trans. Woolhope Natur. Fld. Club*, XXXVIII (1964), pp.36-48.
[48] William Marshall, *Rural economy of Gloucestershire*, vol. II, (1796), pp.200-201.
[49] *Statutes of the Realm*, vol. IV pt II, MDCCCXIX pp.1149-1151.
[50] Hereford Library, Local Coll., MSS Coll. LC647.
[51] Robert Charles Gaut, *A history of Worcestershire agriculture and rural evolution* (1939), p.291.
[52] Rev. John Lodge, *Introductory sketches towards a topographical history of the County of Hereford*, (Kington 1793), p.16.
[53] *Hereford Journal*, 7 Jan 1807, p.2.
[54] An example is 'Sheepcott' in Ullingswick, probably close to the site of a 'sheepcott in a croft' described in 1649. Also noted in Gloucestershire by the 17th century, *loc. cit.* in note 46, Dyer, p. 161.
[55] Hereford Library, Local Coll., MSS Coll., Scudamore Papers, *Farm accounts of Holm Lacy*, 1708-9.
[56] TNA, IR58/38526, in Ashperton parish.
[57] *Loc. cit*. in note 11; Gwen Jones and John Bell, *Oasthouses in Kent and Sussex. Their History and Development*, (Phillimore 1992), p.17.
[58] *Loc. cit*. in note 52. Peter Walker, Broad Green, Worcestershire has drawn my attention to surviving examples of this type of kiln in that county. William Thomas Pomeroy, *General view of the agriculture of the county of Worcester*, (1794), p.57.
[59] Margaret Wood, *The English medieval house*, (1965), p.283 and plate XLIV. Illustrates examples at Bredon, Glos. and at Grosmont and Skenfrith, Monmouthshire. Some were used over kitchens.
[60] *Hereford Journal*, no. 1842, 9 Oct 1805, p.1.

[61] John Duncumb, *General view of the agriculture of the county of Hereford*, (1805). See also Muriel Tonkin, 'Mr. Guy's Hospital and its Herefordshire estates' *Trans. Woolhope Natur. Fld. Club, XLIII* (1979) pp.91-116.
[62] A. Cronk, 'Oasts in Kent and East Sussex, ' *Archaeologia Cantiana*, 95 (1979) p. 245.
[63] Of the standing round kilns so far investigated, none was recorded on tithe maps. (It is important to check only standing buildings, to avoid confusion with horse engine houses, also often of semi-circular form.) A very few round kilns have brick cones rather than the normal rafters and slates. Three examples are known in the county: Brook Farm, Little Marcle; The Farm, Brockhampton; and Little Cowarne Court (see *A pocketful of hops*, (Bromyard and District Local History Society 1988), pp. 90-91; revised edition 2007 pp.92-3).
[64] HRO, W69/III/298, Plans of round (undated) and square (1882) hop kilns.
[65] Examples planned and illustrated in: *A pocketful of hops*, (Bromyard and District Local History Society 1988) pp.88-91; revised edition 2007.
[66] HRO, W69/III/298 (Marsh Farm, Bridge Sollers) and W69/III/302 (Byford Court Farm).
[67] Robin Walton and Ivan Walton, *Kentish oasts 16th–20th Century: their history, construction and equipment*, (Christine Swift, Egerton, Kent 1998); *loc. cit.* in note 57, Jones and Bell, pp.48-9.
[68] *Loc. cit.* in note 57, Jones and Bell, p.36.
[69] HRO, W76/55.
[70] HRO, Q/R1/52.
[71] Sales Particulars, Hereford Library Local Collection, Hopton Coll., Sale Cat. 34.
[72] TNA, IR 58/38658.
[73] Hereford Library Local Collection, Hopton Coll., Sale Cat. 34.
[74] Sale Particulars HRO, M5/30A/31.
[75] Sale Particulars, *Hereford Times*, 23 May 2002.
[76] Quoted in Malcolm Airs, 'Hovels or helms: some further evidence from the seventeenth century,' *Vernacular Architecture*, 14, (1983) pp.50-51. Also Nigel Harvey, 'Helms, vernacular and industrial,' *Jour. Historic Farm Buildings Group*, 11 (1997), pp.55-58.
[77] Eurwyn Wiliam, *The historical farm buildings of Wales*, (Edinburgh 1986), p.114.
[78] Ann Malpas, *French barns Cambridge rolls and Register grates. Ironmongery from the Lion Works.* (Leominster History Study Group 1999). pp. 84-6. This study first drew wider attention to the term 'French barn', still in current use in the county. The first occurrence so far noted appears in sale particulars of 1871; 'skeleton barn' was used for an open-sided barn at Knapp Farm, Pixley, in 1853, plan and drawings in: W. Fisher Hobbs, 'On covered homestalls,' *Jour. Royal Agric. Soc of England*, 14 (1853), pp.325-335. See also note 81 below.
[79] 1885 Staunton Court Estate sale particulars; 1919 Hampton Court Estate sale particulars.
[80] W. H. Smith & Co. Ltd., Whitchurch, Shropshire, manufactured a similar type before 1884, with their name on the hollow cast iron pillars which also functioned as down spouts, and an iron roof truss. Madge Moran and Joan Burton, *Dearnford Hall, Whitchurch, Shropshire*, (Logaston Press, Herefordshire 2003), pp.22 and 35-6.
[81] Arthur Bailey Denton (Jun), 'On the comparative cheapness and advantages of iron and wood in the construction of roofs for farm-buildings,' *Jour. Royal Agricultural Society of England*, Ser. 2, Vol 2, (1866), pp.116-139, illustrates two pitched roofs which use iron tie rods and struts in conjunction with timber rafters and purlins (fig. 15, described as 'much adopted…in France' and fig. 24, 'recommended by Colonel Emy, the French engineer'). Philip D. Tuckett, 'On the comparative cheapness and advantages of iron and wood in the construction of roofs for farm-buildings,' *Jour. Royal Agricultural Society of England*, Ser. 2, vol. 2, (1866), pp. 140-148, describes an inexpensive roof of curved corrugated iron sheets with wrought iron tie and suspension rods.
[82] Hereford Library, Local Coll., Sale particulars: 1918, LC SC; 1919: private coll.; 1941: HRO M5/30B/5.
[83] e.g. Brierly Hill ironworks in *Livestock Journal Almanac*, (1901); also their catalogue of 1904 at HRO BC10/9.

Paper received February 2007

Reports of Sectional Recorders

Archaeology, 2006

By R. SHOESMITH

In this Report I have included a section for each of the archaeological groups working in Herefordshire that have provided the Woolhope Club with information. This year only a few organisations responded, despite several reminders. This may well be due to pressure of work arising from tight tendering procedures, but it does become apparent that many excavations and watching briefs do not end up as published reports, but just gather dust in unit files and are eventually deposited as bundles of plans, site notebooks and boxes of finds in the local museum as I have recently discovered.

The following reports are mainly of small 'evaluation' excavations and of 'walk over' site visits. These are the basis on which modern archaeology—a total understanding of the landscape, past and present—is based. Each archaeological organisation is recorded separately and in each 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. Duplication is regretted, but in some cases it is the only solution. In each section I have indexed each report by city, town or parish and site name with a six-figure grid reference where appropriate. Many 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, some details being available on the internet. 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 of work in the county during 2006.

GROUP AND UNIT REPORTS

HEREFORD CATHEDRAL

The 1993 New Library Building excavation

The project being undertaken by Worcestershire Archaeology Service has been somewhat delayed. This need not necessarily be a bad thing as they are looking for grant aid in several different directions that will improve the information and quality of the final report. Various strands are being followed and several offers of help will make the final report something of which we can all be proud. No final date for the report has been suggested; it would seem that the longer it takes, the more interesting and complete it will be. The pottery, which has been mislaid for several years, has now been found and will provide considerable aid with the dating of the various features. It now looks as though the project will continue well into 2008.

The Lady Chapel

The work on the Lady Chapel and the Audley Chapel is now complete and it is strongly recommended that a full report on the internal and external work that has been undertaken over the last five or six years should be produced as soon as grant aid is available. It should incorporate sections from all the various specialists that were involved in the project.

The Close Project – The Stratascan survey

The Stratascan survey of the Close, the Lady Arbour and the area in front of the Vicars' Choral College took place in 2006. The site work, which started in early March and lasted for some six weeks, was followed by a period of consolidation of the evidence and the preparation of the report, which finally arrived on 22 May.

The aim of the survey was to locate any anomalies that may be of archaeological significance and the identification of as many underground utilities as possible prior to the proposed regeneration and redevelopment of the Close.

The techniques used included gradiometry (the changes in the magnetic field resulting from differing features in the soil); resistance (the variation in soils and objects within soils to conduct an electric current); radiodetection (both active – by generating a signal, and passive – a signal that occurs naturally on a buried conductor); and radar (which is dependent on 'echoes' from buried features through a variety of surfaces and which can provide information about the depth of the features). Even with all these methods, a 'hands-on' application is always essential. In this case it meant lifting all possible manhole, drain and service covers, examining and plotting the visible pipes, photographing the results, and adding the information to that previously obtained by the various survey methods. Information was also provided by the Cathedral Library about known services, whilst I co-ordinated information from within the cathedral and from previous archaeological excavations and watching briefs.

The geophysical survey has been successful in locating a number of features of possible archaeological origin. The resistivity survey has identified a number of discrete areas of high resistance that may relate to structural debris or ground disturbance also of possible archaeological origin. The gradiometry survey was of limited success due to the high levels of magnetic disturbances associated with an urban site. However areas of magnetic debris and discrete positive anomalies may relate to areas of archaeological activity, with a number of anomalies comparable to those identified within the resistivity and radar surveys. The radar survey has been successful in identifying a large number of services, confirming documented structural remains and identifying further potential remains of archaeological origin. The continuation of the Saxon road found under the New Library building can be seen within the radar and gradiometry data and the possible extents of the mass graves have been identified within the radar and resistivity surveys.

It can be assumed from documentary and archaeological records that the Cathedral Close has a high concentration of burials. In an area of frequent ground disturbance and later landscaping activities, the identification of individual burials is very difficult. However, a small number of discrete anomalies have been identified across the survey area that may well represent individual burials within an area of graveyard activity.

The results have been processed in a variety of ways and are presented not just to show the survey information, but also to interpret it as far as this is possible. The report is very comprehensive and provides an immense amount of new information. However, limited

excavation work will be needed to establish the nature of services established during the survey but otherwise unidentified. It is also proposed to lift the central stone in the Lady Arbour to check on the drainage in that area.

Tower Pinnacle Repairs
The repair work to the pinnacles is now complete. A regular photographic survey together with examples of the metalwork used to tie the various stones together has been kept. An illustrated report on the whole project is in the course of production.

Conservation Plan
A Conservation Plan for the Close has long been needed and eventually funds were obtained. It is perhaps worth noting that an alternative definition of 'conservation' is used in this case to mean 'managing change in order to hand on what we value to future generations.' It does not mean 'preservation' or 'stopping change.' It was suggested that the aim of a cathedral Conservation Plan might be 'to reconcile the necessary life of the community and the significance of the place' and this was the aim that was followed. The Conservation Plan was completed just before Christmas as was a Gazetteer of the Close. Both are important parts of the submission for grant aid for the Close project.

Lightning Conductor
A trench had to be dug in the north-eastern corner of the Lady Arbour for a new earth strip associated with the lightning conductor on the south side of the tower. I monitored the work and produced a short report. There was no archaeological damage.

ARCHAEOLOGICAL INVESTIGATIONS LTD.

BROMYARD, No.3 Little Hereford Street (SO 654 546)
No archaeological features of early or significant date were present within the excavated areas of the site, the only feature encountered being a stone-lined land drain. The revetment wall which holds back the made ground and allows for the outlet of the drain does not appear on the 1844 tithe map, it appears for the first time on the 1887 Ordnance Survey map. It seems likely from the map evidence that the made ground, the land drain and the revetment wall were probably all incorporated into the site between 1844 and 1887 (Rouse, D., Hereford Archaeological Series, henceforth HAS, 711).

CREDENHILL, Barn at Magna Castra Farm (SO 443 428)
The project was initiated in response to a retrospective planning application submitted to Herefordshire Council. The application related to the construction of a covered cattle yard and agricultural storage building. Herefordshire Archaeology was seriously concerned about the invasive nature of the works and structures involved, particularly given the close proximity of Kenchester Roman town. The archaeological work took the form of archaeological excavation and recording, as well as a survey of the new agricultural building. Two trenches were excavated. The evaluation produced thirteen very small and abraded Roman pot sherds, probably all Severn Valley ware, as well as five small pieces of Roman brick or tile and three small pieces of modern glazed pottery. All the finds came from Trench 2, which was closest to the development site (Rouse, D., HAS 698).

HEREFORD, Berrows House, Bath Street (SO 514 401)
The project arose in response to plans to develop a tarmac area to the south of the existing building. A single 10 m. by 1.6 m. trench was excavated which picked up the location of a former NW-SE aligned boundary ditch containing late post-medieval to modern finds. No finds or features of earlier date were present in the excavated area (Rouse, D., HAS 705).

HEREFORD, The Cattle Market, Edgar Street Grid (SO 509 403)
An archaeological evaluation was carried out to assist in decisions relating to redevelopment of the site. Little archaeological evidence pre-dating the site's use as the cattle market was found over most of its extent. However, important evidence came from a single prehistoric feature located towards the north edge of the site. Pottery finds, carbonised wood, soil samples and burnt stones were collected from the feature, which, based on a study of the pottery, dates from the Late Neolithic or early Bronze Age and is potentially Beaker Period *c*.2,500 BC. Further analysis of the materials will take place as part of later stages of the work on the site (Mayes, S. and Rouse, D., HAS 736).

HEREFORD, High Street refurbishment (SO 510 400)
The intermittent survival of archaeological deposits was identified between existing services. The pipes inserted during work by Welsh Water and Transco were visible in the southern part of the trench.

Previous watching briefs had demonstrated that small sections of archaeological deposits had survived disturbances by existing services. The watching brief on the drainage trenches demonstrated survival in one part of the trench of road or market surfaces, possibly of medieval date. These surfaces survived in only a limited area and extended into the trench for *c*.0.2 m. (Crooks, K., HAS 700).

HEREFORD, Police Station, Bath Street (SO 513 404)
Excavation revealed the remains of two 19th-century cellars, one belonging to the end terrace of Delacy Street. Both the original buildings appear on the 1887 map of the area and are roughly contemporary (Rees, C., HAS 712).

HEREFORD, ECA Unit, Stonebow Road (SO 515 403)
Herefordshire Primary Care Trust received planning permission to build an extension to the Stonebow (ECA) Unit on the site at Stonebow Road. No archaeological features pre-dating the post medieval/modern period were present within the excavated areas of the site. Made ground containing medieval pottery and architectural moulded stone, post-medieval and modern finds overlaid a truncated medieval deposit containing medieval painted glass.
The most recent archaeological feature encountered on the site was a robbed wall trench, the wall footing probably related to buildings shown on the 1858 map (Rouse, D., HAS 717).

HEREFORD, 5a St. Owen Street (SO 512 399)
No archaeological features of early or significant date were present within the evaluation trench. The only features encountered were a post-medieval pit containing masonry from a possible medieval building, and a post-medieval cobbled surface. Substantial post-medieval deposits were present, both cut by and underlying the features (Rouse, D., HAS 713).

HEREFORD, Whitecross Monument (SO 493 407)
Archaeological recording and monitoring of repair works was carried out on the monument after it had been damaged by a car crashing into it. The main aims were to record the monument during the dismantling operation and monitor repairs and reinstatement. Nineteenth-century pottery was found in fill material below the pedestal base, there was also a variety of post-medieval/modern cement/mortar types present indicating earlier repairs to the monument steps (Mayes, S. and Rouse, D., HAS 729).

KENDERCHURCH, Pontrilas Sawmill (SO 404 285)
Archaeological Investigations Limited was commissioned by The Green Renewable Energy Company to carry out an archaeological assessment of the impact of proposals to construct a renewable energy plant and associated fuel storage areas within and immediately adjacent to the existing property of Pontrilas Timber and Builders Merchants Ltd., Kenderchurch. This study has revealed limited information on the archaeological potential of the site and the potential impact of the proposed development. However, aerial photographs suggest activity within the curtilage of the timber yard. Unfortunately this activity cannot be dated on the basis of available evidence. It must be stated that the absence of existing information for the archaeology on the Site does not necessarily indicate a lack either of past activity or of surviving evidence for that activity. The proximity of a parish church, and of an area potentially rich in natural resources which would have proved attractive to prehistoric humans, make this an area with potential for archaeological deposits, although their likely state of preservation is impossible to estimate in the current state of knowledge. This study has provided insufficient data to state that the area of the proposed development does not have the potential to contain significant archaeological deposits. Further archaeological investigation work (such as a programme of targeted evaluation trenches) may be necessary to identify the presence or absence, location and quality of surviving significant archaeological deposits. This would allow a design or scheme of works to be drafted which mitigates the impact of the development upon archaeological deposits (Oakey, N., HAS 707).

LONGTOWN, Land adjacent to Longtown Primary School (SO 320 293)
The extent to which archaeological remains had been preserved on the site had previously been established through archaeological evaluation by Marches Archaeology and a gradiometer and resistivity survey carried out in 1984 by English Heritage. The evaluation by Marches Archaeology demonstrated some degree of disturbance from allotment digging as well as part of the structural remains of a medieval building associated with fragmentary floor surfaces. The occupation was dated to the 13th-14th centuries with a gap in the pottery record until the 16th century, indicating possible abandonment of the site. The parts of the site further back from the road had been quarry-pitted. The results of the geophysical survey were inconclusive. The recent excavation of the site (covering an area of 160 m.^{2}) produced only one sherd of medieval pottery probably of Hereford fabric A7B, dating from the 13th to 15th centuries. The majority of the finds were post-medieval or modern. No finds or features of earlier date were present within the excavated areas (Rouse, D. and Mayes, S., HAS 688).

MARDEN, Marden Court Farm (SO 513 471)
A programme of archaeological monitoring and trial trenching was undertaken at Marden Court Farm. As a result of the work, a medieval earthwork was recorded with evidence that the

site had been fortified. The proposed development lies within an area of archaeological earthworks which, given their proximity to Marden Church, are considered to be at least medieval in date.

Two trenches were excavated. Within the trench nearest the river a man-made bank of pale yellow gravel was uncovered, which utilised and increased the natural slope down to the river. Cut into and running parallel with the edge of this earthwork was a linear ditch and two rows of postholes. Although the fill contained very little in the way of finds to help date the feature it seems likely that the ditch is of similar date to the gravel bank due to their corresponding alignments.

The trench excavated within the earthwork did not contain any archaeological features, but did produce several pieces of 13th-14th century pottery indicating that medieval activity was taking place near by (Porter, S., HAS 703).

PETERCHURCH, Baptist Chapel (SO 344 390)
A brick chapel of the Particular Baptists dating from 1879 with a toilet block added in the 20th century was recorded prior to demolition. Most of the furnishings had been removed (e.g. pulpit, seating), but a tiled, internal immersion font was well-preserved. Subsequent monitoring of groundworks for the foundations and services associated with the new development found no archaeological deposits (Mayes, S., HAS 735).

No features of archaeological importance were found during the following excavations and watching briefs:

EARDISLEY, Castle House (SO 311 491), Crooks, K. and Ward, B., *Archaeological monitoring of drainage hole,* HAS 696.
EARDISLEY, St. Mary Magdalene Church (SO 313 491), Craddock-Bennett, L., *Archaeological Watching Brief,* HAS 740.
HEREFORD, Mill Court, Ledbury Road (SO 519 399), Ward, B. and Oakey, N., *Archaeological Watching Brief,* HAS 697.
HEREFORD, 9-13 St. Owen Street (512 309), Rees, C. *Archaeological Trenching,* HAS 723.
HEREFORD, St. Martin's Allotments (SO 507 394), Rees, C. and Rouse, D., *Archaeological Watching Brief,* HAS 719.
KILPECK, Site of 'Acorns' (SO 446 304), Rouse, D., *Archaeological Watching Brief,* HAS 714.
LYONSHALL, Land adjoining Littlebrook Cottage (SO 338 554). Rouse, D.. *Archaeological Watching Brief,* HAS 689.
PEMBRIDGE, Leen Farm (SO 384 593), Craddock-Bennett, L., *Archaeological Watching Brief,* HAS 708.
PUDLESTON, Ford Abbey (SO 565 258,. Rees, C., *Archaeological Watching Brief.* HAS 734.

ARCHENFIELD ARCHAEOLOGY

WYE VALLEY – Landscape Origins of the Wye Valley Project
Archenfield Archaeology, in cooperation with the River Wye Preservation Trust, carried out the second year of this part of the LEADER+ Herefordshire Rivers Project.

This community project has used a number of tools to investigate and interpret the landscape of the parishes of the Wye Valley between Mordiford and Wilton: Holme Lacy, Fownhope, Bolstone, Ballingham, Brockhampton, King's Caple, Hentland, Sellack, How Caple, Foy, Brampton Abbotts and Bridstow.

The use of cartographic regression calibrated maps going back to the 17th century and a series of overlays is demonstrating changes of boundary and land-use from that time. Previously unused information from the 19th-century tithe maps has been entered into a database and linked to GIS data. The project had a large documentary element, and a group of volunteers also studied original material dating from the 13th century onwards. It had been some time since any member of the group had been given Latin prep!

An opportunity was taken to record the survival of old buildings in the area. Each building recorded by the Royal Commission on Historic Monuments was re-visited, and if possible photographed. The base data were the original notes and photographs of the RCHM inspectors held by the National Monuments Record in Swindon.

Some parishes were searched for hollow-ways, a project element initiated by the late David Bick, and these too are being added to the data-set.

Other groups and individuals examined material concerned with the barge traffic on the Wye before the arrival of railways, while the Hereford-to-Ross railway, itself a major landscape feature, was also studied. Oral history was a particularly rich source of information about more recent changes to the area.

Most of the existing aerial photographs were used, and new photographs were taken. A number of new archaeological sites were found and some old ones re-interpreted—a possible promontory fort at Hole-in-the-Wall has been seen to be a pair of ring-ditches.

The study area is partly in Archenfield and landscape analysis is being used to compare the English with the Welsh settlement patterns. By and large, the old Archenfield areas are lacking in nucleated settlements and their churches tend to be isolated.

A small number of individual farms were examined in some detail. Walk-over surveys and building analyses were carried out and a record made of the changing nature of these farms —there are many more horses and far fewer cattle and sheep than there were fifty years ago.

Earthwork surveys were carried out, both by plane table and alidade near Hentland church and by EDM at a moated site in Fownhope parish, and a geophysical survey of the eastern half of Capler Camp hill-fort in Brockhampton discovered a circular structure. This was the only such structure in the area and looked very much like a large Iron Age round-house.

Field-walking produced a large number of finds of all periods, helping to interpret the crop-mark material in the aerial photographs. In particular, the amount of Romano-British material has increased the number of known sites of that period.

Specific questions were addressed by targeting resources. A Roman road had long been postulated leading east to west across the King's Caple peninsula. The excavation of a metalled surface on this route, at Red Rail ford near Hoarwithy, demonstrated this to be post-medieval.

A larger fieldwork project was carried out in a field near Gillow manor in Hentland parish. Of all the sites revealed by the aerial photograph study, this was the most intriguing, consisting of two adjacent enclosure features. With the cooperation of the farmer the group walked the field and recovered artefacts which included a Mesolithic microlith and a Romano-British brooch. The concentrations of finds were plotted, and the field was then sown with peas while the project volunteers carried on with other parts of the project.

In August, after the harvest, the area of the crop-marks was geophysically surveyed and, using this information, trenches were machine-excavated across parts of the site. A six-week excavation demonstrated that the larger enclosure was a Romano-British settlement with finds dating from the later 1st/earlier 2nd centuries AD. Like other sites of the period, this appeared to be an agricultural settlement carrying out metal-working as a cottage industry.

Within the smaller enclosure a compacted layer of clay and stone sealed an area of burning and large quantities of smashed medieval pottery. This lay on a layer of dark material, clearly re-deposited from elsewhere. With post-holes below this layer, the stratigraphy took on more complexity than had been anticipated. Analysis of the material from this excavation will continue and more fieldwork is planned.

The first phase of the project will appear in a monograph to be published by Logaston Press. Information on this project can be found at www.wyevalleyhistory.net.

HEREFORD, Hop Pole, Commercial Road (SO 514 402) [HSM 43482]

An evaluation excavation near the line of what has been assumed to be at the rear of 11th/12th century burgages discovered a number of features, including pits and ditches which contained pottery dating from the medieval period and horncores and smithing groups that possibly indicate industrial activity. The medieval features were covered by a 1.50 m. thick layer of well-mixed garden soil that remained relatively undisturbed until the late post-medieval period when the site was re-utilized. Several rubbish pits recorded in the evaluation probably date from this period.

HEREFORD, Catherine Street (SO 513 403) [HSM 44148]

A monitoring exercise was carried out during construction work on a site at 43 Catherine Street, which is presumed to be the rear of a row of burgage plots facing the ones which included the Hop Pole site on Commercial Road. Despite the limited scope of the work, a series of medieval ditches and pits were uncovered, and there is some indication that the ditches, if fully exposed in an open area excavation, may show evidence of an earlier road alignment. The earliest pottery recovered was a late Saxon Stamford-ware sherd, with the dominant fabric type being B1 Malvernian cooking pots. It would appear that the main period that this site was in occupation was between the 12th and early 13th centuries. This is further evidence of the good preservation of features relating to the early development of post-conquest suburbs of the medieval city.

NETWORK ARCHAEOLOGY LTD.

Brecon to Tirley Gas Pipeline

Archaeological investigations undertaken by Network Archaeology Ltd. in the Herefordshire section of the gas pipeline currently being built by Murphy Pipelines Ltd. for National Grid has recorded the following key sites:

Plot 250 (SO 305 421)

This site, initially identified by geophysical survey and later confirmed by trench evaluation, was proven by open-area excavation to comprise a series of Iron Age or Romano-British field boundary ditches and associated pits.

Plot 270 (SO 333 396)
This site, initially identified by geophysical survey and later confirmed by trench evaluation, was proven by open-area excavation to comprise a broad palaeo-channel containing preserved wood and Roman pottery and a pit alignment of probable prehistoric date. A series of boreholes will be used to undertake a palaeo-environmental assessment of the palaeo-channel, as it could not be safely investigated.

Plot 271 (SO 333 395)
This site, initially identified by geophysical survey and later confirmed by trench evaluation, was proven by open-area excavation to be a Romano-British double-ditched enclosure. The enclosure contained a series of pits, ditches/gullies, a metalled surface and a horse burial but no structural remains were found.

Plot 331 (SO 411 352)
This site, initially identified by geophysical survey, was later confirmed by trench evaluation and found to have a significant metalworking component. Evidence of Romano-British settlement, in the form of discarded pottery and animal bone and a ring-gulley belonging to a possible domestic structure, was found by open-area excavation but no further evidence of metal-working was found. The bulk of the postulated settlement is thought to lie outside of the working width of the pipeline.

Plot 400 (SO 506 261)
This site, identified during the watching brief, comprised two phases of activity: a series of prehistoric pits, and a Romano-British enclosure containing a number of small pits and gullies which produced a large quantity of pottery.

Plot 430 (SO 559 251)
This site, initially identified by field-walking and geophysical survey and later confirmed by trench evaluation, was proven by open-area excavation to comprise three spatially-distinct foci of activity. At the base of a hill was a Romano-British enclosure with associated pits and gullies, including what appeared to be a stone wall established along the course of one of its boundary ditches. On the slope of the hill were Romano-British boundary ditches and pits. At the crest of the hill were the remains of two Romano-British furnaces and associated pits and gullies.

Plot 454 (SO 599 275)
This site, initially identified by desk-based assessment, earthwork survey and geophysical survey, and later confirmed by trench evaluation, was proven by open-area excavation to comprise a multi-phase enclosure apparently spanning the Iron Age to late Roman periods. A number of pits and ditches were excavated, and a small number of putative cremations were discovered.

Plot 464 (SO 622 276)
This site, identified during the watching brief, comprised a number of Iron Age/Romano-British pits and postholes, the configuration of some of which were indicative of settlement structures.

HEREFORDSHIRE ARCHAEOLOGY

Staff of the county archaeological service for Herefordshire continued and completed a number of projects in 2006. These projects received grant aid from a number of partner organisations, including English Heritage, the National Trust, the Forestry Commission, DEFRA, Caring for God's Acre groups and the Woodland Trust. Among the principal projects concerned were the Herefordshire Commons Survey Project, and a further community project focusing on Garway Common which began in late 2005 and continued throughout 2006. The Heritage Upton Bishop Local Heritage Project was also completed in 2006.

Other field projects undertaken in 2006 included the small scale research excavation of an out-work associated with Kilpeck Castle, the continuation of a community survey project in the Olchon Valley and a community project linked to the post-medieval settlement of Crafta Webb. The Lugg Valley Landscape Change and Archaeology project (part of the Herefordshire Rivers LEADER+ project), with exploratory investigations of Neolithic and later prehistoric sites, was not fully completed during 2006 and will be therefore be included among the entries for 2007. Further projects begun in 2006 are being completed in 2007. Among these latter are the Lower Lugg Valley Aggregates Levy assessment study, the Herefordshire Aerial Survey project, and projects associated with the new urban archaeology programme including the Hereford Urban Archaeological Database study. These will be reported upon in 2007 entries.

AYMESTREY, Yatton Common Survey (SO 439 667), [HSM 43703]

As part of a 'Community Commons' partnership project with Herefordshire Nature Trust, a walk-over survey of Yatton Common was undertaken. The locations of earthwork features considered to be of archaeological significance were recorded using a hand-held Global Positioning System (GPS).

The earliest evidence identified during the survey was earthworks associated with the western outer defences of Croft Ambrey Hill Fort. Included were a series of cultivation terraces upon the west-facing slope of the common which, if not associated with Iron Age farming, are medieval in date. During the post-medieval period small areas of the common were taken in to the surrounding field system. This is most evident within the western portion of the common. Much of the common is covered by a complex network of hollow-ways that cross east-west through the common linking the lands of the Croft Estate with the valley approach to Wigmore. A number of these route-ways are associated with quarries, and seem to date from the post-medieval period (Atkinson C.D., Herefordshire Archaeological Reports (henceforth HAR) 209).

BREDWARDINE, The Crafta Webb Project (SO 317 443), [HSM 44274]

This was a community project, co-ordinated by the Rural Media Company, in which a series of eight days were allocated to study the archaeology in and around a 'squatter settlement' dating from the late 1800s. A number of workshops were designed in order to engage with and involve the local community. These comprised a walkover survey of the immediate environs of the settlement, the recording of features using a hand-held GPS and record sheets, the production of a detailed plan of the settlement site drawn to a scale of 1:250. A geophysical survey using a resistivity meter was also carried out on site. The results of this fieldwork are being used by the community group in the production of a short documentary alongside a docu-drama about the settlement of Crafta Webb (Atkinson C.D., forthcoming).

COMMUNITY COMMONS PROJECT: OTHER SURVEYS

BRIMFIELD, Brimfield Common (SO 516 669), [HSM 43239]
The survey identified a number of features dating from the post-medieval period. The primary features recorded appear to relate to the drainage of some of the more marshy areas. The drainage of the common would have allowed for additional, seasonal pasture. The footings of a small rectangular building were also recorded. The form of this structure would suggest a field barn or cart shed rather than a domestic building (Atkinson C.D., HAR 207).

BRIMFIELD, Wyson Common (SO 509 267), [HSM 43229]
The earliest feature identified during the walkover survey was the parish boundary forming the western boundary of the common. The large scale of the boundary bank and its associated double ditch may indicate medieval origins. A series of shallow scoops or delves recorded within the south of the common relate to small-scale clay extraction during the medieval period. Drainage channels over much of the common illustrate repeated attempts to regulate and/or control the wetter areas of the common (Atkinson C.D., HAR 208).

CLIFFORD, Merbach Common (SO 304 448), [HSM 43589]
The survey identified a number of features dating from the post-medieval period. The primary features recorded appear to relate to the parish boundary which follows the southern and eastern edges of the common. Most of the features recorded within the western part of the common appear most likely to be of post-medieval date. These comprised earthworks mostly relating to a small settlement and features relating to relatively large-scale stone quarrying. This industry was also in evidence in the form of pits extending over much of the southern and eastern areas of the common (Atkinson C.D., HAR 213).

CRASWALL/MICHAELCHURCH ESCLEY, Cefn Hill Common (SO 271 387), [HSM 43405]
The apparently earliest feature identified during the survey comprised a circular enclosure approximately 120 m. in diameter, close to the southern edge of the common. This feature was cut by a series of later field banks and the common boundary itself on its western side. Within the enclosure a circular mound was noted and a flint ‘burin’ recovered from spoil from a small rabbit burrow. It is possible that the enclosure and mound form parts of a ceremonial or funerary monument dating from the late Neolithic or early Bronze Age. A further cairn and one possible cairn further north at a higher elevation upon the crest of the Cefn Hill ridge are likely to be small funerary monuments of Bronze Age date.

The eastern precinct boundary of the Grandmontine priory of Craswall was recorded along the top of the break of slope on the western side of the common. The foundations of a substantial rectangular stone-founded structure were noted standing within an enclosure attached to the eastern side of the precinct boundary. The well-preserved earthworks of a post-medieval farmstead and associated field system were also recorded close to the north-western corner of the common.

During the post-medieval period large scale, shallow, quarrying took place, particularly along the eastern side of the ridge within the south-eastern portion of the common. The result was the creation of an extended series of pits and spoil heaps located close to or on the crest of the ridge, linked by a system of hollow-ways (Atkinson C.D., HAR 211).

EYE, MORTON & ASHTON, Eye churchyard survey (SO 496 637), [HSM 43653]
A topographic survey of the churchyard of the parish church of St. Peter and St. Paul's, Eye, was undertaken in partnership with the Eye Churchyard 'Caring for God's Acre' Project of the Diocese of Hereford. The aims of the survey were to produce an accurate plan of the churchyard, and to investigate topographic features and their relationship to the archaeology and geology of the churchyard and its environs.

The survey revealed a series of earthworks that can be related to the existing documentary evidence to produce a detailed chronology for the expansion of the churchyard from the 12th through to the 20th century. A clear but subtly changing relationship between Eye Manor and the churchyard can be established. As the churchyard expanded south within the late 1800s it acquired lands from the manor. The earthworks recorded are the remains of the southern churchyard boundary following extensions within the 19th and 20th centuries. The topographical evidence would suggest that any settlement associated with Eye church would have been ideally situated north of the churchyard. A scale plan of the churchyard was produced as part of a community project (Atkinson C.D., HAR 204).

FOWNHOPE, Haugh Wood South, woodland survey (SO 590 360), [HSM 44561]
The survey of Haugh Wood South formed part of a series of such studies that have been conducted in partnership with the Forestry Commission. A rapid site identification survey was carried out in the wood concerned, using a hand-held GPS to record the location of the features that were recognised as having archaeological significance.

Earthwork features were recorded within the wood that represented the intensive use of the woodland resource in the late medieval and post-medieval periods. These included saw pits, charcoal burning platforms, quarries and woodland management boundaries. A roughly rectangular bank and ditched earthwork enclosure was recorded, located on a south-facing plateau. Within the interior of the enclosure a number of platforms were recorded. Access into the enclosure appears to have been from the north at a point where the plateau naturally narrows. The location and form of this enclosure suggests a late prehistoric or Romano-British date (Atkinson C.D., HAR 206).

GARWAY, Garway Common survey (SO 437 249), [HSM 43843]
As part of the 'Community Commons' project, a walk-over survey of Garway Common was undertaken.

The relationships between elements of a field system and other boundary features and a previously documented, rectangular, banked and ditched enclosure were recorded close to the south-eastern corner of the common. Initial findings suggest that the enclosure pre-dates all of the other features within its close environs. Elements relating to both medieval and post-medieval field systems appear to run up to, and in some cases over, parts of the enclosure. A boundary bank also runs over the western bank and ditch of the monument. A previously unrecorded annexe to the enclosure was noted on its eastern side.

A second, smaller earthwork was recorded close to the south-western corner of the common. This comprised a roughly rectangular enclosure with a series of level platforms within it. A complex series of field lynchets of uncertain date cover the western and northern slopes of the common. These appear to overlay an earlier complex of small, rectangular fields. The southern and western slopes of the common contain a large number of quarries ranging from shallow delves to large areas of industrial-scale quarrying. Associated with these sites are

platforms constructed to support a structure or simply for storage. The survey also recorded a cottage site built as an attempt to claim land from the common. The construction of this removed what was previously a section of a field boundary now marking the edge of the common. The remains of a World War II radio tracking station, barrack block and generator block were recorded as a series of foundations and wall stubs (Atkinson C.D., HAR 212).

GARWAY, The Garway Common Project (SO 437 249), [HSM 43212]

Throughout 2006 Herefordshire Archaeology has been working in partnership with members of a community project funded by the Local Heritage Initiative programme. This project was designed to provide information concerning the historical development of Garway Common and included the recording of oral history, an environmental survey and the archaeological survey and investigation of sites within the present boundary of the common.

A key aim of the project was to involve the local community in a series of events and activities exploring the rich heritage of the common and the human impact on the landscape. In addition to a programme of aerial photography, the common was also recorded by LIDAR. This remote survey process using airborne radar not only provides the exact location of earthwork features but also shows many to a greater level of detail than possible using aerial photography alone. This is particularly useful given the types of vegetation cover present on Garway Common. Three sites were closely surveyed and sample investigated during the course of the project.

The two enclosures recorded during the walkover survey (HAR 212), were recorded in detail by plane table and total station survey equipment. The field systems within the near environs of the enclosure close to the south-eastern corner of the common were also subject to detailed survey. The rectangular enclosure close to the south-eastern corner of the common was then subjected to geophysical survey using both magnetometry and resistivity techniques. These results then informed the placing of three trenches excavated within the enclosure and its annexe. The excavations revealed that the enclosure was in use during the Iron Age and appears to have been abandoned prior to the Romano-British period. A small assemblage of pottery recovered from the ditch terminal flanking the entrance to the enclosure indicated that it was used at least in part for domestic purposes. A former foundation trench found in association with a worn stone spread inside the enclosure indicated the presence of a circular or possibly oval building (Atkinson C.D., HAR 214).

KILPECK, Kilpeck Castle (SO 445 305), [HSM 43487].

As an initial exercise forming part of a planned larger project, exploratory investigative work was undertaken in a ploughed-out circular enclosure to the north of Kilpeck Castle [HSM 17].

Prior to excavation, an area was examined by geophysical survey over the western portion of the enclosure to the north of the castle. This feature survived as an earthwork into the first half of the 20th century but has subsequently been ploughed out. The resistivity survey picked up the bank and ditch of the enclosure but did not record any internal features. A magnetometer survey picked up the bank and ditch but also a strong anomaly close to the centre of the enclosure.

On the basis of these results three trenches were excavated by hand. Two trenches were located over the enclosure bank and ditch in order to record its construction and phases of infill, whilst the third trench was opened in the centre of the enclosure in order to investigate the magnetic anomaly recorded during the geophysical survey.

A quantity of fence wire and other modern material was recorded within the trench located close to the centre of the enclosure. It would appear that the slighting of the earthwork in the mid 20th century has removed much of the archaeologically significant deposits within the enclosure. The two trenches across the bank and ditch produced a large assemblage of pottery of both medieval and post-medieval date.

It would appear that the enclosure was constructed as a northern bailey for the castle and probably fell into disuse during the mid 14th century. The enclosure was re-used during the first half of the 17th century, resulting in the re-modelling of the western defences and the re-cutting of the ditch on the north-eastern side of the enclosure, presumably as part of a Civil War re-fortification (Cotton, J. & Hoverd, T., HAR 201).

LLANVEYNOE, Olchon Valley Survey (SO 278 392), [HSM 44560]

2006 saw the completion of the third of a five or six season community project looking at the historical development of the upper Olchon Valley. During the first season of work early in 2004 a series of upland enclosures and their associated settlements were surveyed. Whilst almost certainly containing post-medieval elements, at least two phases of enclosure appear to be of considerably earlier date. The second season's work in 2005 concentrated on the survey of an extensive ruined farmstead and its associated holding at 'Abbey Fields'. The field-name evidence together with the location of the holding and the unusually large size of the group of buildings suggest that it may have been one of the priory farms owned by Llanthony Priory.

The 2006 season saw the beginning of a detailed survey of land holdings. All boundaries, earthworks and ruined buildings were recorded by hand-held GPS and were described in detail. It rapidly became apparent that the scale and method of construction of field boundaries changed through time, and although of considerable complexity a basic phasing could be put together. Evidence for small-scale medieval and post-medieval intensive arable cultivation was recorded in the form of ridge and furrow. Features relating to small-scale industrial processes were also recorded, such as saw pits, quarrying and the production of lime. A series of leats and dams were also recorded which appear to direct water out of natural water-courses to a possible mill site (Hoverd, T., forthcoming).

MICHAELCHURCH ESCLEY, Vagar Common Survey (SO 289 390), [HSM 43364]

As part of the 'Community Commons' project, a walk over survey of Vagar Common was undertaken. The majority of features recorded comprised areas of quarrying. Concentrations of quarries were recorded along the northern ridge of the common and on its western side. A series of three boundary banks which appear to pre-date the quarrying were recorded close to the southern end of the common (Atkinson C.D., HAR 210).

ROSS-ON-WYE, Ross Town; An Archaeological Appraisal (SO 599 242), [HSM 44559]

A new archaeological survey or 'profile' of Ross has recently been completed, the first since the rapid town-by-town assessments of the mid 1990s by the Central Marches Historic Towns Survey, the pilot project for the English Heritage Extensive Urban Survey programme. The Ross profile, which will form a template for the other market towns, includes a deposit model, integrated with a topographical survey to locate the terraces dug into the town-centre gradients, a town-plan analysis based on the earliest maps, and a characterisation of the present townscape based around a 'date of buildings survey' to show how the historic town centre has developed. Surprises during the work include a (possibly) suspiciously high incidence of

Roman artefacts from town-centre evaluations and chance finds, and the realisation that, being built virtually on top of quarries, building in stone in Ross appears to have remained cheaper than brick even into the late 18th century. The profile concludes with an agenda for future research—a long one, given that so little is known of the origins, early life and subsequent decline of the medieval town (Baker, N., HAR 225).

UPTON BISHOP, Heritage Upton Bishop Project (SO 650 272), [HSM 43476-8]

Throughout 2005 and into the middle of 2006, Herefordshire Archaeology has been working in partnership with members of a community project funded by the Local Heritage Initiative programme. This project was designed to provide information concerning the origins and significance of a fragment of carving incorporated into Upton Bishop church and also to look at the development of the now shrunken settlement of Upton. It included the recording of oral history, the archaeological survey of the parish and the more detailed investigation of sites within the environs of Upton Bishop.

The carving comprises the whole of the upper part of a niche, and a very small part of an adjoining niche, let into the front of a stone block (Fig. 1). Within the niche is carved a figure in a robe, and with the right hand raised, with the palm facing outwards. Only the upper part of the figure comprising head, shoulders, and upper torso is present. The only part of the adjoining niche features the fingers of a left hand raised, also with the palm facing outwards. The carving is something of an enigma in that stylistically it is Roman or at least Romanesque. There is no record of an early church on the site, but Ariconium is not far away.

Initial archaeological work comprised a walk-over survey of fields and woodland on land where access was granted or by using the extensive network of public footpaths. Sites and features were recorded using hand-held GPS equipment and transcribed onto a modern GIS base map. These included substantial areas of medieval ridge and furrow, headlands and lynchets which indicated that, with the exception of the scarp slope, most, (if not all), the area surveyed had, at least during the earlier part of the high medieval period, been under intensive arable cultivation. This included areas that are presently and have historically been under woodland. Such an intensively-used environment would suggest a large local population.

Although not necessarily Roman in date, the stone remains important because it contributes to a view that the late Saxon community at Upton Bishop had a high status, otherwise only hinted at in the meagre documentary record. The stone is also important in the history of art in England, because it hints at the continuing influence of traditions deriving from the Classical world on Anglo-Saxon art in the region. In this way, the sculpture contributes to making Upton Bishop unique historically. However, the stone forms part of a story echoed in many parishes. Intensive farming settlement developed in Iron Age and Romano-British times. There was a major shift in settlement location that followed the arrival of the Saxons. The community around the church continued to thrive beyond the Normans. A further shift occurred during the later medieval period, with people moving away from the church and locating around the cross-roads.

Excavations to the west of the church revealed part of the early medieval village. Whilst medieval pottery was recovered from all four trenches, only one trench contained any recognisable archaeological features. Here, the stone foundations of two walls dating from the early 12th century were apparent, each being 0.2 m. thick and very roughly built. Within the built fabric of one of the walls were the re-used fragments of a fired clay loom weight dating from the late 7th to early 10th century.

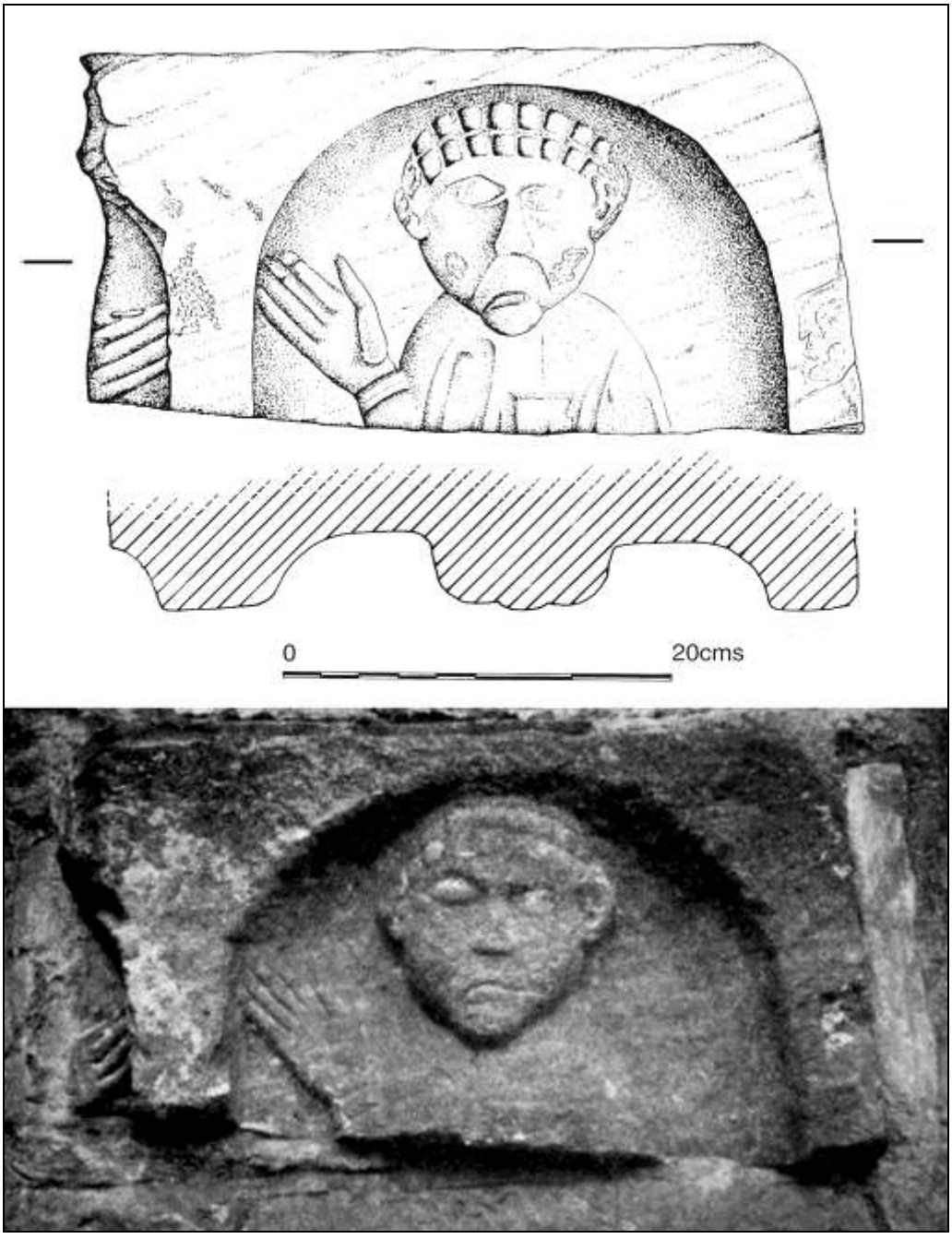


Figure 1. Carving embedded in the wall of Upton Bishop church (drawing © Herefordshire Archaeology; Photo: RCHM)

Excavations to the north of the church revealed a series of crushed stone surfaces and small stub walls containing considerable quantities of medieval pottery and glazed roof tile. These appear to have been constructed using material from an earlier, high status building and formed a series of yards or workshops, in and around which intensive metal-working and smelting had taken place. The ceramic evidence would suggest the existence of a high status building (possibly the manor house) on the site during the 13th to 15th centuries. This was slighted, and all the large stone removed from the site leaving the debris that appears to have been spread over substantial areas to form hard-standing making a series of working floors for intensive iron smelting in the 16th and 17th centuries.

The new evidence gained from walk-over surveys and excavations within the close environs of the church supports the idea that the sculpture most likely adorned a late Saxon church built in stone. This suggests that the settlement around the church began in the mid-to-late Saxon period, perhaps around 800 AD. Study of the area by the parish church has provided new information about the extent of the settlement around the church in the medieval period. Meanwhile, study of the wider parish landscape has provided information for a reconstruction of the organisation of the landscape in the period *c*.1200-1400 (Ray, K., (Ed) HAR 200) (Ray, K., *Enigma In Stone: Archaeology at Upton Bishop*. Herefordshire Community Archaeology Series 1).

WHITNEY, LITTLE MERTHYR

A comment has been received from member Jenny Harrison about an entry in the Archaeological Report in the 2002 *Transactions*, concerning a possible early church site in Whitney-on-Wye at SO 284 471.

> 'I would just like to mention in relation to the comments on the report of the possible early church site in Whitney that Little Merthyr is almost certainly a corruption of an earlier descriptive Welsh name for this location. The search for a saint and/or his chapel has sent many people on a wild goose chase in the vicinity. In the 16th century the area is referred to as Liete Merddu—nowadays '*llethr merddwr*'—which translates variously as 'slope' (or even 'steep slope') of stagnant dirty water or mud (*viz*. french '*merde*') i.e. 'the steep muddy slope.'
>
> This is an accurate physical description of the site, a steep slope immediately below the outcrop known as the Knap, where a substantial spring coming from the the top of the scarp joins the Millhalf brook. It is renowned as being probably the muddiest lane in Brilley, to be avoided at all costs if you have recently cleaned your car or your horse.'

Buildings, 2006

By J. W. TONKIN

This year the Old Buildings Group had talks on Buildings Plans and Construction – A Sum Up. In the notes below information in the R.C.H.M. Inventory has not been repeated though in some cases the two need to be read together.

HEREFORD

14 CHURCH STREET, HEREFORD. SO 498 397 R.C.H.M. 107. HSM 20109

This house on the east side of Church Street is probably better known as 'The Cobbler's Shop', which it was until quite recently.

It is basically a timber-framed house, but like many houses in the city has been much altered, and occupies a narrow plot with a path running alongside it on the side of the burgage plot to a garden and yard. It has a cellar, two storeys and attics with a tiled roof.

Much of the building probably dates from the early 17th century, but there is timber in two trusses in the central section, jettied over the path, which has been given a felling date of 1595.[1] Later alterations include a heavy, ovolo-moulded bressumer at the rear which almost certainly dates from the later 17th century, certainly post-Restoration and more likely from the last twenty years or so of the century.

There is a lot of sandstone work in the walls and especially the stacks which run the full height and have fairly recent brick chimneys which almost certainly replace 17th-century diagonal examples. The cellar walls are of sandstone.

The attic purlins have a two-inch chamfer only and these timbers probably replaced an earlier roof in the later 19th century.

There is a lot of late 19th/early 20th century flooring. Some of the floor-boards being quite wide, about a foot or just over, not the usual six to eight inches which is quite common in the early twentieth century.

Thus here we have a building which dates back some 500 years, but has been much added to and altered having no doubt had a series of comparatively wealthy owners.

BISHOPSTONE

STONEHOUSE (NEW INN) BISHOPSTONE. SO 420 431 Tithe No. 110

This house lies on the north side of the old Roman road leading westwards from Kenchester (*Magnis*) just above the 300-foot contour looking down over the basin of the River Wye. It is two storeys high of local sandstone rubble in front and the rear is timber-framed, three panels high with a diagonal brace at the right-hand corner of the top panel in the main block.

It is not mentioned in the R.C.H.M. Vol. III (1934), the terminal date of which is 1715, but on close examination of the roof trusses it appears that it should be. These are of the tie-and-collar-beam type with two trenched side purlins, but no ridge purlin.

On the eastern truss there are no struts between the tie and collar except for an unpegged support which is situated just east of the now empty trench for the lower purlin.

The room to the east of this has a longitudinal beam with a stop at the west end and along the north wall the stairs go up to the upper floor from where can be seen the roof trusses.

The main truss appears to date from *c.*1600 with three vertical struts from the tie to the collar, but four pegs in the tie-beam at the foot of the central strut, two in the western and three in the eastern. This truss was raised *c.*1750, with an extra collar just above the lower purlin and an additional principal rafter leading into the principal just above the upper purlin and at about the same height as the single-pegged V-strut which fits into the collar above the central strut leading from it.

At the western end of the building is a modern room and east of that the kitchen between two timber-framed walls, a fireplace across the north-east corner and a doorway at the southern end. This room has a modern ceiling.

Thus here we have a building which was the New Inn *c.*1590, is three timber-framed panels high with a bread oven on the north. The two chimneys are comparatively modern and it seems probable that they would originally have been diagonally set in the typical fashion of the late 16th/early 17th century.

It seems to have been part of the Foxley Estate from 1705 and when sold in 1920 had four acres with it.

HUMBER

RISBURY GATE HOUSE, HUMBER. SO 554 549 R.C.H.M.6 Tithe No.274

The house is on the unclassified road which runs south from the A46 Leominster-Bromyard road to the A417, from Drum Cross to Saffrons Cross just above the 400-foot contour in the valley of the Humber Brook.

It is of local stone with walls about 2 ft. 3 ins. thick and appears to date from the 17th century.

On the ground floor in the lounge there are five transverse beams not moulded or chamfered and probably dating from the 19th-century restoration. Any surviving 17th-century work would have probably have been chamfered as is the lintel of the fireplace which has 4-inch slightly hollow moulded chamfers, typical of the period *c.*1600. The window in the south wall has a niche or possibly a cupboard which has been closed up or filled in.

The room above has transverse beams two with a 1-inch chamfer and the central one with a 2-inch chamfer. The western beam has Wern Hir stops, i.e. a stepped run-off stop and the eastern has simple run-off stops. The window in the south wall is like the one in the room below while in the north wall is what appears to be a blocked window but it could be a long niche or recess. In the east wall is a narrow similar opening.

The remainder of the building with a kitchen/dining room on the north side is entered by a door way in the north gable. There is a door which is probably original and has moulded battens.

Thus here we have a house with the typical late 16th century/early 17th century wall thickness and although it has been much altered still has some evidence of its late-Tudor/early-Stuart origins.

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 to look at their houses and outbuildings.

[1] I. Tyers, English Heritage Ancient Monuments Report 17/96, *The Tree Ring Analysis of six secular buildings from the City of Hereford*, pp.7-8, 26-7, 34. R. K. Morriss, City of Hereford Archaeology Unit, unpublished report (1992).

Natural History, 2006

By BERYL HARDING

During the winter there are no field meetings. Several members have been very involved in two projects during 2005 which are still continuing this year. The first is the 'Veteran Tree Survey' within the Herefordshire parishes of the Wye Valley A.O.N.B. and the second project started when the Earth Heritage Trust invited members of the Section to record the plants and animals in the quarry, its ponds and the surrounding woodland at Whitman's Quarry in Storridge, near Malvern, during 2005 which is also continuing. Further details are given at the end of this report.

6 April A visit was made to the Herefordshire Biological Records Centre (HBRC) by kind invitation of the present Manager, Steve Roe. In 1999 Herefordshire Council identified a need for such a centre to conform with the requirements of the national Biological Action Plan and also to advise within the Development Plan for the county. A full-time Manager was employed from 2001-2003 and Steve was appointed as a replacement in 2003, leaving his work within the Herefordshire Nature Trust. In addition, the Council employs a part-time biodiversity ecologist and one development ecologist connected with planning who both make use of the data within the Centre.

Many authorities do not have a BRC within the national scheme. Some have various societies so the information gained can be slightly inaccessible and not necessarily related to a county centre. Also formats and databases can be variable with a potential for duplication and consequent wasted effort. Other nearby BRCs have variable funding e.g. those of Staffordshire and Worcestershire are hosted by their Wildlife Trusts, Brecon is independent and Bristol is a limited company but they, like Herefordshire, feed into the National Biodiversity Centre.

The HBRC is housed by Herefordshire Council in the Town Hall with free office space and English Nature helps to fund it with a 70% grant per annum. Apart from one full-time Manager and a part-time Officer all other work is done by volunteers, whether by submission of records from within the field, or their validation before collation into the database. These volunteers must have the skill required to record correctly and accurately. The important questions are - 'How rare is the species?' and 'In what habitat is it found?' both of which depends upon recorder expertise but further validation at the Centre is essential. Within the county there are various recording groups feeding details into the Centre such as the Herefordshire Action for Mammals, the Herefordshire Amphibian and Reptile Team, the Herefordshire Ornithological Club, the Herefordshire Botanical Society, the Fungus and Bryophyte groups and the Ledbury Naturalists. There is also involvement with recording projects like the Community Action Plan, the Ponds and Newts Project, the Butterfly Conservation Society and the Community Commons Scheme. These are mainly geared to particular species and can present difficulties for the Organiser to sort out and co-ordinate with their grid references. In addition, biological references given in the Woolhope Transactions from 1852 to the present have been fed into the HBRC as part of the Heritage Lottery funded project called 'Accessing the Woolhope Transactions' now completed.

The aim of the HBRC is to inform as well as to record, and due to the high input of volunteer labour at the Centre (giving the equivalent of 7 days/week) it is able to inform people involved with the Countryside Stewardship Schemes and D.E.F.R.A. by giving species lists and distribution maps when required. Most of this information is given out on payment of a small fee. It has also recently produced 'The Dragonflies of Herefordshire' by Peter Garner with a county atlas for each species; there is also a forthcoming edition of an 'Amphibian Atlas for Herefordshire.' Over 160 commercial and planning requests were dealt with during 2005/6 with the addition of over 2,500 new records from development reports via the planning process; also to date some 260,643 collated species have been processed. Nevertheless, there were (at the time of our visit) some 18,000 paper records still to be processed and some 40,000 species of fungi (i.e. the entire database for the county) awaiting conversion into electronic record format. So there is a great need for even more volunteers.

To date, two annual meetings have been held by the HBRC Manager so that all individual recorders and those within the groups can meet and talk together, thus ensuring that liaison occurs across the boundaries of each group and their various disciplines.

16 May A survey of three churchyards was carried out.

The Church of St. James, Cradley, is in a sheltered site within the village. To the south along the entrance side is a low, mortared stone wall, to the west a higher wall with trees and to the east is a wire fence with trees but a poor hedge. At the north side it slopes to the new churchyard with a good hedge of privet and hawthorn beyond.

The older gravestones have been moved to the perimeter on the south side and are mostly of sandstone with moderately good lichen growth but the new churchyard contains mostly polished granite memorials with no lichens.

The grass to the south was closely mowed at the time of the visit, but the north side was still uncut in May and herb-rich with fifty-eight species of herbaceous plants and three species of grasses. There is a mixture of trees and shrubs ranging from ornamental species of gingko, snowberry and cherry with four *Cupressus* to the larger trees of ash, horse chestnut, Douglas fir, birch and sycamore plus four English yew, one of which was large and hollow. Spindle shrubs had also been planted. Nest boxes had been erected and the butterflies seen were speckled wood and orange tip.

The Church of St. Andrew, Evesbatch with its wooden steeple was next visited. It lies in a hamlet adjacent to a large house and surrounded by sheltered, rolling countryside with many orchards. To the south the grass had been mowed but not too closely so it had a blue haze from the abundant growth and flowering of bugle, or *Ajuga*.

The boundary to the east consists of large trees, mostly C*upressus*, to the west is a mortared stonewall, to the north a fence of iron railing with no plants and to the south a mortared wall on a raised bank along the roadside with a well-managed hedge of elm, elder and hazel. A few gravestones remain *in situ*, of both granite and sandstone with the lichen growth on the latter being rather poor. There were several compost heaps tucked away and much of the turf area was herb-rich giving a total of eight species of grasses and forty-four herbaceous plants with ornamental trees of cherry, *Cupressus* and buddleia plus Scots pine, sweet chestnut and English yew. There was a nest of house-martins in the porch so our picnic became a hurried affair to allow the parental feeding to continue above undisturbed.

The Church of St. Mary the Virgin, Bishops Frome, was visited finally, also situated in rolling countryside within a village and the river Frome nearby to the east. The boundaries are all marked by low mortared stone walls except to the south which had a mixed hedge beside a garden. Some gravestones are still *in situ* with the sandstone ones very mossy and having a fair amount of lichen cover. Much of the turf was herb-rich with fifty-seven species of herbaceous plants, five of grasses and ten species of trees and shrubs, with a lot of C*upressus* alternating with laburnum. A cuckoo was calling but as the rain became heavier we were pleased to have concluded and set off for a well-earned cream tea.

14 June A green lane study was carried out along Holbach Lane in the parish of Bodenham aligning east-west from near Crozen to near Vennwood (G.R. 576 489 to 545 448) a distance of nearly three kilometres. Owing to its length, stretches of 100 m. were recorded with intermittent lengths of 100 m. unrecorded (not the usual 30 m. stretches). These unrecorded sections had little in them recorded elsewhere apart from some hairy St. John's wort.

The parish boundary is along the southern side so the lane has been used for many centuries. Today, it is a public bridle path and acts as a farmer's access road to some of the bordering fields which are used for both grazing and arable crop production. The lane is level with a drainage ditch to the south in places and it is adjacent to a rise to the north of Cheat Hill. It is not sunken despite the many years of use and has open access at each end. Apart from these, which have a hard core base for some 100 m., the remainder of the lane is clay and can become rutted in the areas used by tractors - however, it is not over-used by these or by horses.

The average width of the lane is 5-7 m., but it does not appear to have been cleared of herbaceous cover for some two to three years consequently the summer growth narrows it to 2 m. in places with a predominance of grasses, nettles, brambles, hogweed, cow parsley and rough chervil encroaching towards the centre. Despite the continual use by horses, plantains manage to survive and cover much of the central ground.

The hedges are continuous with evidence of some intermittent laying in the past. Some stretches to the south have little or low tree growth while others are very high predominantly of oak and ash. To the north most of the hedgerow contains such trees and also one or two large field maple plus a crack willow. The lower hedge growth consists mainly of blackthorn, hawthorn, thickets of elm which have suckered, hazel, elder, dogwood and wild rose, also occasional thickets of holly. There is an abundance of wild plum or bullace, the latter tending to produce damsons or greengages instead of plums, bullace also has spiny twigs (but with the tall intervening vegetation it was not always possible to distinguish between them), climbing cleavers or goosegrass, bindweed and black bryony were quite rampant. Some parts of the northern hedge form small triangles of woodland providing little oases for wildlife.

Fourteen species of trees were recorded and nine species of grass with sixty-one species of herbaceous plants, including a few hemlock and some meadow sweet in a damper patch. The western end of the lane had more species floristically. Bracken and the male fern, or *Dryopteris* also occurred. Fourteen species of birds were either seen or heard including swallows, whitethroat, linnet and yellowhammer—a bird less frequently heard nowadays. Bumble bees were busy and several speckled wood butterflies were flying. A badger sett was noted on the north side.

4 July Further churchyard plant recording surveys were made at Letton, Whitney and Winforton.

The *Church of St. John the Baptist at Letton.* The church is well-known for its Norman south doorway with zigzag decoration up the jambs, a decorated lintel of red sandstone and undecorated tympanum over—also for its Norman west doorway with a tufa tympanum and a tufa frieze. There is further tufa herringbone masonry on the north side

The church is situated on lowland, part of the Wye valley flood plain, in a small village by a farmyard and a very large red brick house dated 1847. The boundaries consist mainly of low stone walls, partly mortared. To the east it has a brick top to the wall, half of the west boundary changes to a tall brick wall, also on the north side. To the south is a well-clipped yew hedge adjacent to a garden. The gravestones are mostly still *in situ* and mostly of sandstone with good lichen cover.

The grass is managed as a hay meadow and was being cut that day, most of it is herb-rich with thirty-five species of herbaceous plants recorded plus hart's tongue fern, nine of grasses. Four species of trees include English yew. Ornamental C*upressus*, acacia and rose had been planted. Two species of butterfly were about and swallows were nesting in the porch. A notice showed that the church was part of the scheme 'Caring for God's Acre.'

The *Church of St. Michael at Winforton* has a west tower with a timber-framed upper part of the 16th century. It is also situated in the Wye valley flood plain in a sheltered village of medium size within a shady churchyard. To the east its boundary consists of a an ivy-covered retaining stone wall with a large holly and to the north is a high stone wall flanking a garden. There is no west boundary *per se* as the other two meet at a point and to the south is well-maintained hedge with three large yews in the corner. The gravestones are still *in situ* and mostly of sandstone but the lichen cover is rather sparse.

The grass management is such that it is cut early so giving good summer flowering. The Cat's Ear (which was abundant) flowers from the end of May so it was obviously cut before then. Consequently, the turf was herb-rich with forty-three species of herbaceous plants plus the polypody fern species and eleven species of grasses, one of which was remote sedge which is normally found in boggy ground which the churchyard was not! The trees included holly and elder also many large English yews, quite few of which could be classed as veteran trees. Meadow brown butterflies were abundant also hover flies. Jackdaws, buzzards, chaffinches, blackbirds and greenfinches were heard calling.

The *Church of St. Peter & Paul at Whitney* is also in the Wye valley flood plain and most of the church was rebuilt in 1740 after flooding by the Wye, re-using many of the old materials. It lies in a lowland village by a farmyard and adjacent to the old railway line from Hereford to Hay. All four boundaries consist of drystone walls—that to the east recently repaired while the northern and western walls await repair and have plants growing in and on them. To the south is a drystone wall and a mixed hedge. The gravestones may be *in situ* still but are arranged in rows so some may have been moved in the past. They are predominantly of sandstone and some of table-top design,. The lichen cover is medium to good. The paths are of tarmac (unlike the other two churches which were mostly of grass) but a feature was the many small patches of orange lichen growth on them (*Xanthoria sp.*)

The grass management consisted of regular close mowing, nevertheless the turf was moderately herb-rich with thirty-four species of herbaceous plants plus male ferns, eight species of grass and six of trees, including yew and Scots pine with ornamental plantings of

copper *Prunus* and *Skimmia*. By now the afternoon was very hot and numerous meadow brown butterflies were on the wing also bumble bees. The birds seemed to have taken to the shade with little song or calling. There had been a lot of ant activity in the past but most of their mounds had been flattened by intent and mowing.

Of the 200 churchyards within the county we have not quite reached the 100 mark so there is work for many years to come!

19 September. This was to have been a visit to the apple orchards at Berrington Hall but had to be cancelled as several members could not meet on that date.

[Detailed lists of the plants recorded for green lanes and churchyards are kept within the records of the Section and not printed in the Transactions.]

The Veteran Tree Survey .

Only a few parishes now remain to be completed within the Wye Valley AONB project, after which volunteers will continue under the Native Woodland Regeneration Project by collecting data within other parts of the county. Then it is hoped that, with the Woodland Trust Ancient Tree Hunt Project starting in July, further surveys will be made working towards a final map of such trees throughout the UK and putting these on to a website. This is a project will continue for many more years.

Whitman's Hill Quarry & Woodland

From the surveys carried out for the last two years the following report summarises the habitats so far. As the quarry consists of Silurian limestone the plants within it are at least lime-tolerant and many are lime-loving *calcicoles.*

Those growing on the quarry floor have to cope with many difficulties. The soil is thin giving little room for root spread, or for earthworms and other invertebrates which help in soil aeration and improvement. The plants lack shade which, coupled with poor water absorption, so they have to cope with very arid summer conditions—especially in the drought conditions of the past two years. Consequently, the majority are annuals, puny in growth, relying on rapid flowering and seed dispersal for their survival. These are predominantly:- marjoram, evening primrose, teasel, St. John's wort (*perforata*), mullein, two species of willowherb, heath speedwell, centaury, woodsage, ragwort, self heal, yellow wort, scarlet pimpernel, tormentil, coltsfoot, greater plantain, creeping thistle and wild basil. Many of these are thick leaved to cope with the dry conditions, or seed prolifically like the blue fleabane and the dandelions. Also present is a lot of ploughman's spikenard and, of course, brambles The wild strawberry however seems to thrive in its surroundings and the many tiny fruits gleam rosily from the quarry sides. Such perennials as traveller's joy and buddleia are also puny and the tree seedlings present, predominantly of ash, silver birch and hazel, have the same difficulties so attaining little height or girth. Only after many years, with the gradual build-up of future soil and invertebrate action, will conditions improve allowing further growth and plant succession. Those trying to grow on the slopes have to contend with the same difficulties plus rainwater run-off removing the thin soil. Sixteen invertebrate species have been found to date.

The mostly shallow ponds are alkaline with a bottom of limy mud and with negligible plant growth apart from some curled pondweed *(Potamegeton crispus)* in the western pond and stonewort in several others. As the name implies, this feels gritty to the touch as it is encrusted

with carbonate of lime. Lacking much plant life it would seem that the pond food-chains must be based on bacterial decay of in-blown leaf litter from the surrounding woodland. The reflective surface of the water attracts flying insects such as water beetles and dragonflies and many damsel and dragonflies have been seen visiting the water, however their visits will be short-lived with few plants to sustain the basis for a food-chain or for egg-laying. Newts have been seen in one pond. One observer during a visit in late May in 2005 saw many of the Great Crested species in particular behaving in a strange way rising to the surface and falling back again in circles. There seemed no obvious explanation for this behaviour unless such tiny invertebrate food available was moving in layers in relation to temperature changes.

The surrounding Whitman's woodland is predominantly an ash-oak wood with a hazel understorey, some sycamore and both species of chestnut. It is well established with the trees providing holes and niches for invertebrates and birds in which to breed and over-winter. It has been coppiced in the past leaving large coppice stools and the presence of yew, spindle and service trees are indicators of ancient woodland. Archaeological surveys have revealed traces of evidence of hollow ways, house-building platforms, areas of ridge and furrow, field lynchets and charcoal burning platforms in other woodlands on the same ridge including Whitman's. There is an abundance of woodland flowers carpeting the floor in spring and honeysuckle grows up some of the trees.

Peregrines return annually to the quarry but needed to move their 'nest' this year due to the collapse of their normal shelf—they again successfully raised a brood. Twenty-five species of other birds have been noted during our visits. The nest boxes were placed on oak and ash trees near the edges of the woodland and the results were encouraging. Of the twelve boxes two nests were abandoned after egg-laying and two predated by squirrel, the nuthatch had 80% success and most of the tits had 90+% success rates in fledging. Unfortunately, one tree creeper was found to have built a nest in a cleft in the bark of a tree only 10-12 inches from the ground which was too easily predated. One dormouse had been seen near the recently-erected dormouse boxes and as the habitat is suitable we hope that they will avail themselves of these.

Over 40 plant species were recorded in the quarry during 2005/6 but during late summer of this year the quarry floor and slopes were bulldozed to make the geological exposures clearer and to make the site safer for visitors and school parties. This resulted in a scraped surface with bunds constructed to prevent any accidents near the ponds—consequently all plant life has been removed except on the upper steep slopes! However, our project will still continue with monitoring for several more years as it will be interesting to see which plants will regenerate first and at what rate. Also as a result of clearing the quarry sides it became apparent that amid the limestone rocks were several zones of bentonite (solidified volcanic ash) from ancient volcanic activity. These softer layers are easier for plants to re-colonise as they are more nutrient-rich and will hold water more efficiently.

Mammals, 2006

By BERYL HARDING

Further to the article in the 1998 issue of the Transactions when the writer reported an estimated 70% population loss of the water vole from our waterside habitats in the U.K., more reassuring news for a possible recovery has emerged this year.

Over the last sixty years they have disappeared from almost 90% of the sites occupied in the U.K. due to habitat destruction and degradation, population fragmentation, pollution, indiscriminate poisoning and devastating predation by the American mink, so they are now a priority species for protection and conservation in the U.K. Biodiversity Action Plan with the target of recovering their pre-1970s range by the year 2010.

During the summer of 2005 the Herefordshire Water Vole Project trained twenty-five volunteers to survey the county thoroughly for any remaining water vole populations, following up sites previously recorded as well as other likely situations. Over twenty-one water bodies were surveyed but unhappily no new sites were found—mostly due to lack of suitable habitats. Those most possible are often subject to trampling by livestock, or are very overgrown or wooded: if suitable then mink appear to be preventing colonisation.

It seems that in some parts of the country vole populations are 'hanging on' in safer but unexpected wetland habitats away from mink-infested rivers and brooks. In Scotland's Abernethy Forest subterranean populations have been found at the heads of narrow burns at higher altitudes than expected (up to 900 m.) where some of the water flows underground. Also in Somerset they have been found in estuaries, previously unheard of as brackish water sites are normally avoided.

The water vole is the biggest U.K. vole at 12-20 cm. long and weighing some 200-320 gm. Often incorrectly called the 'water rat' it is quite different in appearance with a rounded body covered in rich, silky, well water-proofed dark fur, a short face with a rounded muzzle and a fur-covered tail (unlike a rat). The ears have a flap of skin within to prevent water entry. They swim high in the water and dive well using their tail as a rudder but do not have webbed feet like an otter. When disturbed at the bank they dive with a loud splash to alert other voles, which can helpfully draw our attention to their presence. This also tends to set up a cloud of mud on the streambed which functions as a smokescreen enabling an individual to make an escape into an underground bankside tunnel entrance. The opening is just above water level and is distinguishable by a 'lawn' of cropped grass around the hole.

They are herbivorous, feeding on lush aerial stems and leaves of waterside plants. From remains found in surveys some 227 plant species can form part of their diet (taken over a wide range of habitats). The best and preferred sites show a highly layered bank-side vegetation with tall grasses and stands of willow-herb, loosestrife, meadow sweet and nettles often fringed with thick stands of rushes, sedges or reed which also give added protection. During winter they do not hibernate but can go into a torpid state if the weather is very cold. They store food in their extended tunnel systems and eat roots and bark of willow or sallow, also the rhizomes, bulbs and roots of herbaceous plants. They have been known to climb up to 2.5 m. to strip the bark and eat young leaves of low-growing willow, elder and hawthorn.

Consequently, for their population revival it will be necessary to provide these ideal habitat conditions whenever possible by clearing overgrown trees, fencing off bank sides from

livestock trampling and providing corridors of plant cover for population movement and dispersal, as well as coping with the mink problem. Water voles usually prefer slow-moving water (despite the Abernethy discovery!) with a low chance of flooding and a stepped bank type consisting of clay or earth into which they can burrow to create tunnels and nest chambers, as well as abundant vegetation cover.

In 2003 DEFRA launched a £1.1 million river restoration project for the river Monnow and its tributaries, led by The Game Conservancy Trust (as one of its many conservation projects in Britain) also supported by the Environment Agency plus other societies with fishing interests. The project was one of the largest river restoration projects in the country and won the co-operation of more than fifty-six landowners and farmers sited along the river banks. More than 30 km. of tree coppicing and bank side fencing had been completed by 2004 with a total of 60 km. completed this year. Although primarily geared to enhancement of the river for fish stocks, which has proved successful especially for brown trout, it also provided the ideal conditions required by water voles. The Rural Development Service has funded the Monnow Project from the outset with £80,000 additional funding from DEFRA for a water vole reintroduction programme.

Before that could be successfully carried out an as near to total reduction of mink numbers has been necessary and the first wild animal welfare award has been given to Dr. Jonathan Reynolds of The Game Conservancy Trust for an innovative low-tech mink raft which allows the predators to be trapped without harming other species. The raft is essentially a mink detector to guide trapping efforts by having a tunnel on the small raft houses leading to a pad of moist clay and sand upon which visiting animals leave a foot print. Once mink are detected a trap is placed in the tunnel which catches the mink and the raft is returned to monitoring mode for further recording. (It also is helpful in recording any nearby water vole foot prints.) These mink rafts are now being used by Wildlife Trusts and conservation bodies in other parts of the country.

Given the right conditions water voles breed very well in captivity, producing five litters each year with three to seven young, and much has been learned about successful releasing techniques, so once the mink were removed some 300+ captive-bred water voles, in fifty separate colonies of sibling groups, were released this summer along 50 km. of river bank. This took place mostly along the Dore tributary of the river Monnow. However, this is the first time self-supporting populations have been released on such a large scale so obviously continual monitoring will be necessary to check on their future well-being and mink rafts will continue to be used.

By September 60% of the mink population had returned but with further trapping this was reduced to 10%. If this is continued at regular intervals and with the traps put most densely at the mouth of each tributary it is hoped that in two year’s time the river system could be cleared of mink. The scheme is now being employed in other parts of the county and the wider country once riverside enhancement is carried out. So perhaps some of the U.K. Biodiversity target for water vole return will be achieved.

Ornithology, 2006

By BERYL HARDING

January was a cold, dry month continuing the little rainfall (approximately 230 mm.) of the previous three months. Becoming colder later in the month, January was recorded as the coldest since 1940 and continued into a dry February and March with the north-easterly air flow. Many blackbirds and starlings came over from Europe where it was colder still—on 17 January Moscow registered -40°C with Siberia -60°C. Siskins also arrived plus large flocks of 250-500 fieldfares and redwing (some 1,500 were noted at Stockingfield in February) both making use of the fallen orchard fruits and garden feeding generally became frenetic. A snow bunting was seen at Bradnor Hill in the late autumn and a great northern diver at Brockhall Gravel Pits in November and December. Other unusual sightings in January and February included a whooper swan, a pair of Egyptian geese, hawfinches, white wagtails and a long-eared owl both at Dilwyn and a snow bunting in Hereford this time, also a little egret—although these are becoming less rare now with a British population perhaps some 4,000 birds.

The recent run of comparatively milder winters has helped the tiny goldcrest. During cold spells they can sometimes take up residence in suburban gardens, especially in the much maligned *Leylandii* hedges which give good cover and shelter. Our resident population is boosted by numbers from Europe and observers for the British Trust for Ornithology (BTO) recorded a massive influx along the east coast of over 3,000 individuals arriving in January. Their leg rings showed that some had flown in from Norway, Sweden and Lithuania and some of this influx reached Herefordshire.

Spain and Portugal, the first landfall for many, was also reported cold but despite unfavourable cold northerly winds, reports came in of early migrants arriving at the beginning of March to the east of the country. April was brighter but still marked by these cold winds—one felt that there had not been much a spring so far and, on the whole, the spring migration was rather low key as most of the common arrivals were late. Swallows were first sighted at Canon Pyon on 1 April, house martins at Criftin Ford Bridge on 7 April, pied flycatchers on 22 April and swifts at Ross-on-Wye on 25 April. An osprey was noted in April making use of their favoured Wye corridor *en route* for the north.

Long-tailed tits split from their winter flocks to make twosomes in spring and with the gentlest of contact calls search for nesting sites among the dense branches of a thorny bush. The nest is made from four ingredients each mixed at a different time starting with moss and cobwebs, the latter for strengthening and to fix the moss into a base, which when completed can take the beginning of a dome made of lichen for camouflage. This is then lined with more moss to build up the sides and roof and finally lined with feathers for warmth for the eggs and chicks. It has been calculated that each nest can contain up to 2,000 feathers which takes time as these have to be collected—even from the corpses of other birds! The final dome has the entrance to one side and is several times larger than the birds themselves.

The Herefordshire Nestbox Recording Scheme

The results for last the last nine years are as follows: (No recording in 2001 due to foot and mouth disease)

	2006	**2005**	**2004**	**2003**	**2002**	**2001**	**2000**	**1999**	**1998**
Sites recorded	30	27	29	23	16	-	24	28	28
Boxes available	983	825	766	824	567	-	842	833	954
Boxes used	578	510	467	431	282	-	423	475	591
Percentage used	**58.7**	**61.8**	**60.9**	**52.3**	**49.7**	**-**	**50.2**	**57.0**	**61.9**

Comparative annual success rate in fledging for the various species

	2006	**2005**	**2004**
Pied flycatcher	96.7% on 16 sites	62.3% on 14 sites	71.4% on 14 sites
Blue tit	90.5% on 30 sites	57.8% on 27 sites	78.4% on 24 sites
Great tit	85.5% on 30 sites	66% on 27 sites	68.7% on 21 sites
Marsh tit	100% on 4 sites	98.2% on 2 sites	100% on 1 site
Coal tit	-	92.8% on 3 sites	100% on 1 site
Nuthatch	87% on 9 sites	80.8% on 6 sites	78.7% on 6 sites
Redstart	100% on 2 sites	100% on 2 sites	None
Wren	50% on 1 site	84.2% on 4 sites	78% on 3 sites
Tree creeper	100% on 1 site	-	-

Pied Flycatcher only Results

2000	24 sites	140 nests	669 eggs	494 fledged	73.8% success
2002	13 sites	96 nests	685 eggs	263 fledged	38.4% success
2003	14 sites	209 nests	708 eggs	376 fledged	53.1% success
2004	14 sites	89 nests	620 eggs	443 fledged	71.4% success
2005	14 sites	85 nests	574 eggs	423 fledged	62.3% success
2006	16 sites	88 nests	520 eggs	503 fledged	96.7% success

With the colder winter and spring the nesting season was between 7-20 days later than usual. Some nest-building was under way by the beginning of April then activity seemed to be suspended with egg-laying finally completed by the end of the month.

There were reports of higher than usual numbers of infertile eggs, probably due to the cold of early May—some birds sat but did not stay and the cold wet weather in mid-May coincided with hatchlings needing both brooding and feeding which cannot be achieved successfully. So, in addition to chilled eggs there were also dead hatchlings and nests abandoned. Unfortunately, we do not know how many parents attempted second broods elsewhere. Some did take advantage of the late summer warmth in September and October and even in November (the warmest since 1993) to raise late broods.

Overall, there seemed to be a lower nestbox take-up that for the last two years. Comments varied about the success of pied flycatcher results. One male was recorded with a missing right foot! All were ringed on every site. The tit species gave good results overall although there seemed to be fewer great tits. Our thanks go again to the recorders for their work.

There have been two long-term studies carried out in relation to this nestbox recording in the past and although these were a few years ago they were initiated by volunteers. As such they proved productive and informative and the Nature Trust can worthily take much of the credit.

The Retrapping Adults for Survival (RAS) Scheme of the B.T.O.

The Nestbox project was launched by Dr. Walker and others in 1962 with the aim of providing nestboxes for hole-nesting species, particularly the pied flycatcher. In the late 19th century this was thought to be holding territories in Monmouth, and north-west Herefordshire with a large gap in between, but in 1940 a colony was found in the south of the county at Moccas Park, nesting in natural holes.

The details of box occupancy by pied flycatchers have been recorded for many years on three sites in particular *viz*:- Moccas Park with 70 boxes by Alan Marchant, Shobdon Hill Wood with 40 boxes by David Boddington and Mary Knoll with 100 boxes by Peter Gardner (Chris Mead reported on this site from 1969 to 1986). The results at these three Herefordshire sites from 1968 gives the longest available time-series recording in the U.K. which did not begin to have national population monitoring until 1994!

In addition to this, invertebrate studies were also carried out by volunteers at Shobdon and Moccas which involved the capture and identification of fleas in nestboxes. This study lasted from 1974 to 1983 with a maximum number of fleas being over 5,000 in a double-brooded coal tit nestbox. The project was led from Edinburgh by Dr. Geoffrey Harper with the results published in the international *Journal of Animal Ecology*.

June was warm and sunny but with low rainfall so plants were beginning to find conditions difficult. July was nationally the hottest on record and the driest for seven years - with the 19 July the hottest day on record with Evesham recording 37°C and Worcester 33°C. All of this made the finding of food harder for nesting and other birds. Through July the drought continued so the slightly lower temperature and small amount of rainfall at the end of the month came as a relief. September and October continued warm and slightly wetter.

Many garden birds ‘wind down’ their breeding season by July but house sparrows can raise up to three broods a year. The nests are often ‘rough and ready’ affairs within roof crevices and they have to battle constantly to prevent them falling apart as each brood departs. Green leaves are often used for repair which may have chemical properties to keep parasites away. The eggs in one brood seldom belong to one male but despite their frantic breeding schedule they all remain sociable throughout the year and engage in multiple dust-bathing sessions although looking dishevelled for much of the summer.

2005 was a great year for barn owls as a result of the large quantity of vole prey available so most birds successfully raised their complete broods and many also raising a second brood. Having been in decline for most of the 20th century this was a welcome change. Would 2006 continue the trend? Cold, wet winters are bad for these birds as the prey numbers decrease so the owls do not get into good breeding condition. With global warming will wetter winters become the norm? Records from the B.T.O. show that there are *c.*4,000 pairs nesting in the U.K. Large numbers are ringed each year but of these 45% become road casualties. A group from the Hereford Ornithological Club (H.O.C.) are providing suitable nestboxes and siting them as far as possible from busy roads to try and offset this death rate. 2006, however, did not

prove to be a good year with the low numbers of prey. This also applied to tawny owls with many not even bothering to breed.

The European Commission has announced that LIFE Nature funds will be available to help safeguard the globally threatened white-headed duck by eradicating North American ruddy ducks from the U.K. These were introduced to wildfowl collections but escaped and began to breed spreading to Europe and hybridising with the white-headed posing a threat to the survival of the latter. Mention of this was made in the *Transactions* about 2-3 years ago but DEFRA has now confirmed that it will start an eradication programme this winter. It is sad when such measures are necessary but problems caused by invasive, non-native species need such drastic measures.

Ravens continue to spread across several parts of the county ranging in group sizes of three to fifteen. In September a mixed flock of 290 rooks and jackdaws was seen at Buckton Ridge with one unfortunate white albino rook being mobbed by the other corvids. A completely white single blackbird was also seen in July at Pipe and Lyde—happily being tolerated for the time being. Corncrakes have not been heard in the country for about ten years or more. Unfortunately one was found dead in Bagwyllydiart in September; nevertheless this shows that they have returned somewhere in the county.

In 2005 and 2006 we became aware that bird or avian flu could spread west and could perhaps be transmitted to humans. As a result of discussions between relevant government agencies and the B.T.O., R.S.P.B. and Wildlife Trusts the conclusions would seem that the chances of bird flu H5N1 being carried into the country by migrating birds is low and more likely to be transmitted via illegally imported poultry, or by the wild bird pet trade. Where humans have been affected it was the result of very close contact with infected poultry. An ongoing surveillance programme is continuing on behalf of DEFRA.

During the summer of 2006 reports of another disease caused by the *Trichomonas* parasite had been noted in the finch species—formerly it was known in doves and game birds. It does not pose a threat to the health of humans, or cats and dogs. During the year the incidence of the disease seems to have increased with the birds showing signs of general illness, lethargy and fluffed-up plumage, they may also have difficulty in breathing or swallowing. Finches are seen with wet matted plumage around the face and beak and neck swelling can occur. The general malaise can lead to lack of preening so some finches have been seen with large ticks around the face. It seems that the transmission could be via regurgitated food in the breeding season or in contaminated water. Good hygiene practice by people is necessary to reduce infection with regular cleansing of feeders, bird baths and feeding surfaces. It is unfortunate that finches have been struck with this illness in addition to that caused by a fungal infection of the foot which causes a growth and affects perching.

With the continuing mild autumn many summer migrants remained well beyond their normal departure date. October and November were recorded as the mildest in Europe for 200 years In early December the spring repertoire of thrushes was heard! Vast amounts of ripe nuts, berries and hedge fruits provided an attraction to the incoming flocks of redwing from Scandinavia and other birds. Garden feeders were abandoned as birds preferred the rich fruit harvest of the countryside. As for the last two years, the thousands of starlings continued their spectacular roosting flights at Portway so providing one of the largest displays in the county. The year closed with December finally becoming colder and wetter.

Weather Statistics, 2006

By E. H. WARD

Month	*Max. temp. shade ºC*	*Min. temp. shade ºC*	*Nights frost air/ground*	*Rainfall mm.*	*Days with rainfall*	*Max. rainfall in one day mm.*
January	11.0	-3.0	7 7	13.8	12	3.1 (10th)
February	11.5	-4.0	7 6	38.2	12	8.0 (11th)
March	16.0	-4.0	8 5	72.0	17	10.0 (24th)
April	19.5	-2.0	2 0	38.1	12	6.5 (21st)
May	25.0	6.0		105.5	18	18.5 (29th)
June	29.5	9.0		19.8	8	5.0 (26th)
July	35.0	11.5		32.8	8	8.5 (6th)
August	28.5	9.0		93.0	15	30.0 (17th)
September	26.0	8.0		49.7	9	14.8 (14th)
October	19.5	3.0	0 1	110.2	19	42.5 (*)
November	13.5	-3.0	3 0	81.3	21	15.0 (24th)
December	12.0	-2.0	2 0	101.8	21	17.5 (2nd)

Note. * Accumulation of rain 1st to 5th October.

Highest temperature:	35.0ºC	19th July
Lowest temperature:	-4.0ºC	9th February, 3rd March
Total rainfall for year:	758.6 mm.	
Days with rainfall:	172	
Nights with frost:	27 air, 19 ground	

Recorded by E. H. Ward at Woodpeckers, Much Marcle.

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